



uniongas

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April 1, 2011

BY RESS & Courier

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Walli:

**Re: Union Gas Limited
London Reinforcement Project
Board File # EB-2010-0381**

Further to the Board's letter dated March 16th, 2011, please find attached two copies of Union's responses to the Board's interrogatories.

Sincerely,

Mary Jane Patrick
Regulatory Analyst, Regulatory Projects
:mjp
Encl.

cc: Neil McKay, Manager Facilities Applications
Zora Crnojacki, Project Advisor
All Intervenors

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

1. Ref: Union Application – Project Summary, page 4 of 11

On page 4 of the project summary, Union has indicated that the proposed pipeline will travel southward on Wonderland Road North to tie into existing facilities at Fanshawe Park Road. Did Union consider other alternative routes to meet its expansion objectives? If “Yes”, please provide details of the alternative routes considered.

Response:

Yes, both alternatives to and alternative routes were reviewed for the Project:

Alternatives to the Project

Union evaluated a number of alternatives before determining the preferred option. Those alternatives were included in Schedule 8 of the pre-filed evidence. Those options included installing a different diameter pipeline, constructing a new connection to the Dawn-Trafalgar system, constructing a new lateral from London North Gate Transmission Station, constructing a new lateral from the London West Transmission Line, joining two previously independent distribution systems, installing compression and obtaining supply from nearby non-Union pipelines.

After reviewing all the alternatives, Union determined that the preferred option was to build a new NPS 8 3450 kPa pipeline from the existing Forest Hensall Goderich system. This pipeline would travel south to tie into the existing NPS 10 420 kPa steel pipeline on the north side of Fanshawe Park Road. This was selected as the optimum design as it made use of existing facilities and provided a source of gas into a major main in the 420 kPa network. This major main is in the vicinity of the area that has unacceptable pressures on a design day as indicted in Schedule 4. This reinforcement will enable Union to connect all forecasted loads, maintain the minimum delivery pressure in the London distribution system as well as assist the upstream transmission system to meet downstream demands.

Alternative Routes/Mean

The consideration of alternative routes involved a review of the land use features in the study area having regard for the proposed facilities. Union has previously obtained OEB approval on a number of projects for the placement of comparable pipelines within road allowances therefore the precedent of utilizing municipal road allowances has been established.

Alternative routes are shown in the Environmental Assessment report (Figure 2; Preliminary Preferred Route) found at Schedule 18 of the pre-filed evidence.

Alternative Routes included:

- Union initially considered and discounted the use of cross country private easement for the proposed pipeline due to the potential impacts and disruption to private property, agricultural land and other environmental features.
- Route 2 provided opportunity to utilize Highway 4 prior to entering the Community of Arva and access Wonderland Road via Eight Mile Road within road allowance for the entire route.
- The preferred route, namely the Wonderland Road alternative (alternative 1) provided opportunity to utilize road allowances for the entire length and was the shortest most direct route between Ten Mile Road and Fanshawe Park Road.

Additional details concerning the alternative routes are outlined in the Environmental Assessment report (section 5.2; Identification of Alternative Routes).

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2. Ref: Union Application – Project Summary, page 3 of 11

Union has provided a schedule showing the projected growth in customers from 2011 to 2017. Please answer the following questions with respect to Schedule 3.

- a) What areas does the forecast include (City of London, County of Middlesex)?
- b) Please provide the actual numbers corresponding to Schedule 3 for the years 2007 to 2010.

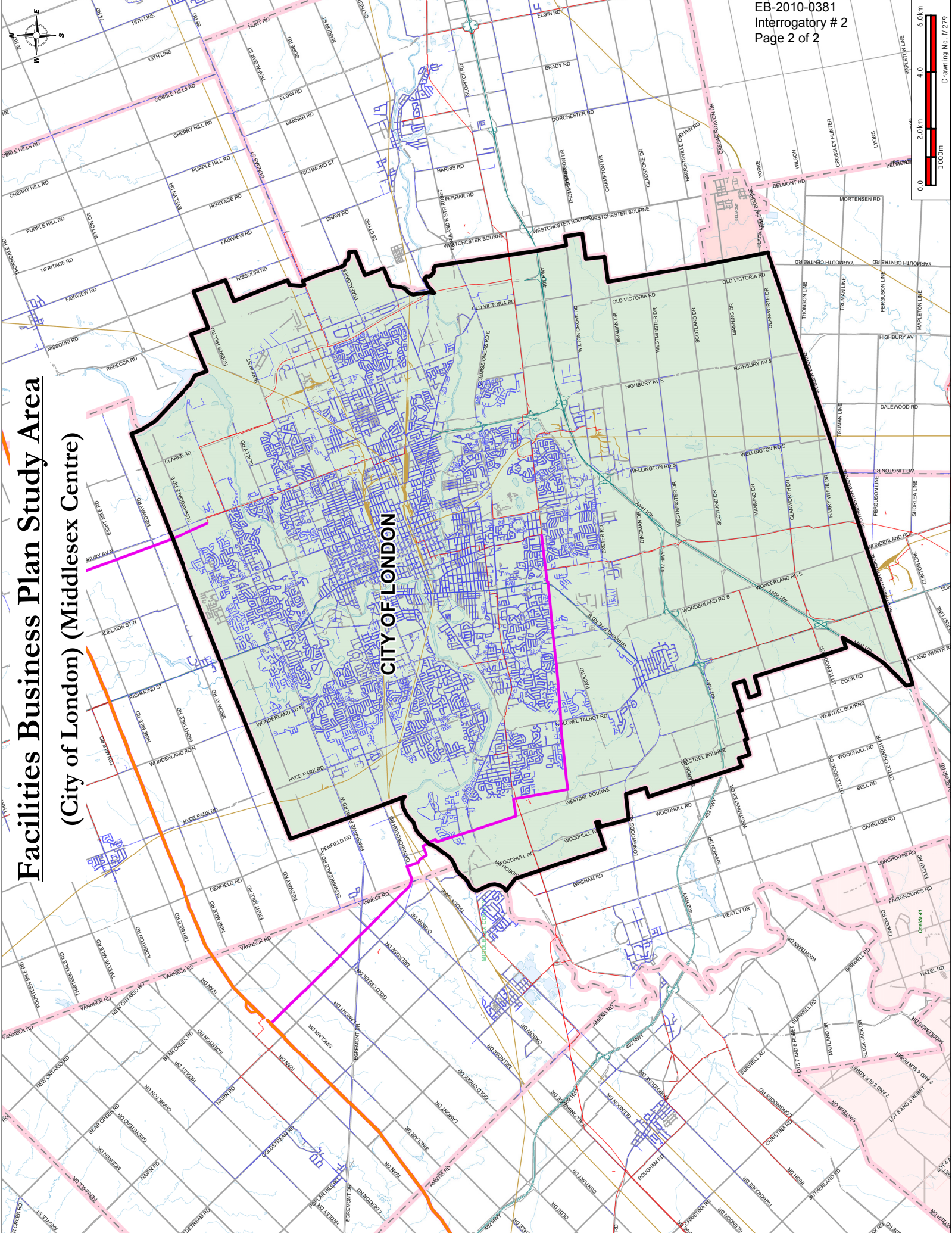
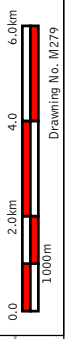
Response:

- a) The area highlighted in green on the attached map shows the area included in the Forecast.
- b) The attachments for 2007-2010 can be found in the table below:

	2007	2008	2009	2010
Existing Res	212	276	243	297
New Res	1,636	1316	978	1446
Multi-Family	466	420	211	75
Total Residential	2314	2012	1432	1818
Commercial	182	158	126	134
Industrial	1	1	3	2
Total Com/Ind	183	159	129	136
Total	2497	2171	1561	1954

The table indicates that the actual attachments for 2008-2010 were greater than the Forecast.

Facilities Business Plan Study Area (City of London) (Middlesex Centre)



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3. Ref: Environmental Report by Azimuth Environmental Consulting Inc.

On page 8 of the report, Section 3.4.2 indicates that consultation with the City of London on the alternatives resulted in staff identifying a concern with the addition of new gas pipelines in the Fanshawe Park/Wonderland Road area due to the amount of existing infrastructure present and the planned widening of Wonderland Road.

- a) When Union came to know of the issues (future road widening and amount of existing infrastructure) from the City, did it try to explore other alternatives routes? Please provide a detailed response.
- b) Please explain why Union decided to build the pipeline along the proposed route when it was known that the road will be widened in the near future?
- c) Is it possible for Union to move the proposed route further away from the road such that it would not significantly impact the future widening of the road? Please provide a detailed response.
- d) What is the status of discussion with the City regarding the timing and location of the proposed pipeline in relation to the planned road widening?
- e) What is Union's position in case it is unable to resolve the outstanding issues with the City of London and County of Middlesex and the parties oppose the construction of the pipeline along the proposed route?

Response:

- a) – e)

During preparation of the Environmental Report and subsequent discussions and correspondence with the City of London and Middlesex County, Union was informed that the section of Wonderland Road, through which the proposed pipeline is to be constructed, would be widened in the near future. The exact timing and detailed design plans have not yet been finalized.

During the development of the Environmental Report, Azimuth Environmental Consultants (Azimuth) developed a study area in the Highway 4/ Wonderland Road area. Azimuth and Union reviewed alternative routes within this study area and determined that there was no need to consider cross county alternatives, as the road allowances in the study area represented viable pipeline locations. The Project Team determined that the Wonderland Road corridor was the preferred route for the pipeline.

In both the Environmental Report (Executive Summary page 3) and the Pre Filed Evidence (Paragraph 56) the eventual widening of the road allowance for Wonderland Road is considered. In both of these documents it is identified that Union will work with the municipalities to resolve any possible conflicts associated with the future Wonderland Road widening and construction. Union has discussed this matter and has met formally with the City of London and Middlesex County on three occasions to discuss their

respective future plans for Wonderland Road. There have also been informal discussions and meetings between Union and the municipalities to discuss Wonderland Road.

The City of London has obtained an eight metre strip of land adjacent to Wonderland Road in a number of locations between Fanshawe Park Road and Sunningdale Road. Union understands that both municipalities plan to continue obtaining additional land to expand the road allowance by eight meters on each side of the road.

Based upon discussions with the City of London and the County of Middlesex, in order to minimize future conflicts when Wonderland Road is reconstructed, Union developed a construction plan that includes approaching landowners on Wonderland Road in an attempt to acquire an easement adjacent to the current limits of Wonderland Road to construct the pipeline. This easement would eventually form part of Wonderland Road. This plan is consistent with the provisions of the Environmental Report which identified the preferred route of the pipeline to be within the road allowance area (page 3). This plan identifies that the pipeline would be constructed on the east side of Wonderland Road from Ten Mile Road, to the Forest City Bible Church. From the Church south to Fanshawe Park Road the pipe would be constructed on the west side of Wonderland Road.

Union has met with the landowners along Wonderland Road to explain the issues associated with the proposed pipeline construction and future road widening and construction. Union is attempting to obtain easements from these landowners for an eight metre strip of land adjacent to the existing road allowance. Union will offer to these landowners the form of easement found at Schedule 15 of the Union's Evidence. To date Union has obtained the necessary land rights to four properties.

In locations where landowners do not choose to grant Union an easement for the pipeline, Union would construct the pipeline within the existing road allowance as is permitted under the franchise agreements Union has with both the City of London and County of Middlesex. When Wonderland Road is re constructed, Union will work with the Municipalities to resolve any conflicts.

Azimuth reviewed the Wonderland Road corridor as part of the environmental report and did not identify any significant environmental issues. Azimuth has specifically looked at the easement area Union is proposing to obtain and has determined that the mitigation measures outlined in the Environmental Report (Schedule 16 of the Union's Evidence) are appropriate for construction of the proposed pipeline within this easement.

By working with the City of London, the County of Middlesex and the landowners along Wonderland Road, Union has developed a construction plan that has the potential for the proposed pipeline to be constructed within and near the edge of the proposed expanded road allowance, thereby minimizing future conflicts.

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4. Ref: Environmental Report by Azimuth Environmental Consulting Inc.

What will be the impact of the proposed pipeline on watermain, drains and sewers? How does Union propose to deal with any adverse impacts on the affected watermain, drains and sewers?

Response:

There will be no adverse impacts to existing watermain, drains, and sewers.

Union will work with other utilities having underground facilities along the proposed running line to identify potential conflicts during the construction planning stages. These conflicts will be mitigated by requesting other utilities provide "as-built" drawings showing the location of their facilities. Where crossing of other utilities in private easements are encountered, Union will work with those utilities to acquire any necessary permits to cross said easements with the proposed pipeline.

Where crossings of other utilities will be made, Union will locate the utilities via hand-digging, probing, or high pressure water vacuuming.

Crossings of closed drains such as drainage tile will be made using trenchless or open trench techniques. Where locations of closed drains are provided, closed drain elevations will be verified by digging or probing prior to initiating pipeline installation in the area. Should open trench installation be the construction method of choice, a section of the closed drain will be removed to facilitate installation of the pipeline. Following pipeline installation, any closed drains will be replaced to match the undisturbed portion of the drain as per our standard construction practice.

Where crossings of open drains will be made, Union will use either trenchless or open trench techniques as independent situations dictate. During trenchless installations, open drains will remain unaffected as the pipeline will be placed beneath the drainage conduit without disturbing the open drain. During open trench installations, Union will employ a "dam and pump" approach to divert drainage flows around the area of construction, as per our standard construction practice. Upon installation, the open drain and adjacent areas will be restored to match original conditions.

Union will consult with and obtain applicable permits from the local Authority(s) to ensure compliance with all crossing requirements along the proposed running line.