**Graham Reeder**
Direct +1 416 369 7322
graham.reeder@ca.gowlingwlg.com
File no. G10060929

July 29, 2025

*Via Email (enviropermissions@ontario.ca)*

Director, Ministry of the Environment, Conservation and Parks
Client Services and Permissions Branch
135 St Clair Ave West
1st Floor
Toronto, ON
M4V 1P5
Canada

Dear Director:

**Re: *Environmental Compliance Approval (air)* Fidelity Group ERO Number 025-0670 Ministry Reference Number 9778-DFZK2E.**

---

On behalf of the Cramahe Resident Advocate Association ("**CRAA**"), we are responding to a notice of proposal under the Environmental Registry of Ontario. The proposal is by Fidelity Property Group Inc. ("**Fidelity**") for an Environmental Compliance Approval (Air) ("**ECA**") to establish and operate a hot mix asphalt plant at Lot 20, Concession 3, in the Township of Cramahe in Northumberland County, Ontario.

The CRAA objects to any approval of this proposal, both because it is legally deficient and because it is premature at this time.

- The first problem is the lack of proper disclosure. The Environmental Registry of Ontario ("**ERO**") posting under the *Environmental Bill of Rights, 1993* ("**EBR**") fails to provide the application from Fidelity that provides the basis for this proposal. It is contrary to the purposes of the EBR to fail to provide core information to allow our client, other residents and the public to participate in the making of this designated "environmentally significant decision". One example of the implications of this problem is the proposal's failure to conform to the recently provincially approved

2024 Official Plan of the Township of Cramahe ("**Township**").[1] Nor has Fidelity made any application to amend this Official Plan.

- Second, this proposal is not consistent with the 2024 Provincial Planning Policy ("**PPS**").[2] Again, absent a copy of the Fidelity application, it is not clear what Fidelity said about consistency with the PPS; however, it is your positive obligation as Director to ensure consistency with the PPS under section 3(5) of the *Planning Act.*[3] In particular, the PPS demands priority to the avoidance of adverse effects. No available information suggests how Fidelity's proposal addresses this priority.

- Third, this proposal conflicts with the provincial requirement under the *Aggregate Resources Act*[4] ("**ARA**") to rehabilitate aggregate extraction sites when a site ceases to be used for aggregate extraction. This site ceased to be used for aggregate extraction, at the latest, in 2022. Review of the existing ARA site plans make no provision for this proposal as part of site rehabilitation. Absent an approved amendment to these site plans by another Ministry, you have no basis to issue a conflicting approval.

In further support of CRAA's concern with lack of disclosure by your ERO posting, it is notable that Township residents as well as the Mayor and Council have raised serious concerns about this proposed use and sought additional information which Fidelity has chosen to ignore. These issues are discussed in turn below.

**(1) There is no lawful basis to fail to post Fidelity's application form and supporting documents on the ERO and thereby attempt to mask serious legal failings with this application**

The fundamental purpose of the ERO is to replace a local, paper-driven process with an electronic process to provide access to the relevant documents that support proposals like this to make "environmentally significant decisions."[5]

The key document for any decision by you or your Ministry is the completed ECA Application Form. Review of this form requires proponents to indicate whether Official Plan designation supports the proposed activity. The form submitted by Fidelity in this case fails to note that the Official Plan does not. As the ERO posting provides no electronic access to this document or any supporting document, no member of the public in this rural community has convenient access to how you and the Ministry could possibly justify approving this

[1] Official Plan of the Township of Cramahe, March 2024 Office Consolidation.
[2] Provincial Planning Statement, 2024, Approved by the Lieutenant Governor In Council, Order in Council No. 1099/2024 [*PPS*].
[3] *Planning Act*, R.S.O. 1990, c. P.13.
[4] *Aggregate Resources Act*, R.S.O. 1990, c. A.8.
[5] *Environmental Bill of Rights, 1993*, S.O. 1993, c. 28, s. 2(3)(a).

proposal.

Review of your Ministry application form shows that applicants must address conformity with the applicable official plan, in this case the Township Official Plan. The Official Plan of the Township of Cramahe ("**Township Official Plan**"), as approved by the Minister as of March 2024, section 5.11.1, restricts the "permitted" use of an approved gravel pit as an asphalt plant in several ways, as follows:

> *5.11.1 Permitted Uses*
>
> *Permitted uses shall include sand and gravel pits and quarries licensed under the Aggregate Resources Act. In addition, associated operations such as … asphalt batch plants may be permitted provided these associated operations will be compatible with other uses permitted by this plan, and will in no way hamper the rehabilitation of these areas for other land uses.*

A permanent asphalt plant is not a permitted use. Use to accommodate an asphalt batch plant (ie. a temporary, portable plant) is only a permitted use if it is associated with the operation of a gravel extraction pit. In this case, Fidelity's pit is no longer operational. There are thus no aggregate extraction activities on site. Fidelity seeks to establish this permanent asphalt plant at this location to service gravel pits on other sites in the area. This is not an "associated" operation, as required by the Official Plan.

Telephone Road is also classified as a "local road" in the Township Official Plan. Local roads are not designed for large truck volumes. According to a traffic review prepared for the CRAA by K. Stephen Cohrs, P.Eng., and attached to this letter as Appendix 1, all raw materials for processing at the proposed asphalt plant will need to be brought to the site by truck, requiring up to 12 heavy trucks per minute along a single lane roadway, which is designed for a maximum of three trucks per minute, and not designed for heavy trucks at all.

**(2) Provincial Law and Policy Requires Compatible Land Use and No Adverse Effects**

The PPS is issued under Section 3 of the *Planning Act*, and most recently came into effect on October 20, 2024. It replaced the 2020 PPS. Section 3(5) of the *Planning Act* requires that all decisions affecting planning matters, including by a minister of the Crown and a ministry, board, commission or agency of the government, shall be consistent with the PPS. Ministers and Directors at the MECP are both bound by this legal requirement.

Policy 3.5.1 of the PPS addresses Land Use Compatibility. It requires that:

> *Major facilities* and *sensitive land uses* shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential *adverse effects* from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in

> accordance with provincial guidelines, standards and procedures. [italics indicate defined terms]

The Ontario Land Tribunal has acknowledged that permanent asphalt plants are "major facilities" as defined in the PPS.[6] Sensitive land uses include residences. The lands surrounding this area are, and are intended by the Cramahe Official Plan to be, agricultural, including livestock and residences, which are sensitive land uses. Eighteen residences, five farms, and a water conservation area are located within 1000 metres of the proposed site. At least one residence is located only 66 feet from the site.

The purpose of this policy is to ensure that major facilities and sensitive land uses are kept separate from one another in order to avoid adverse effects on residents and to protect industry. This purpose cannot be achieved and will be entirely frustrated by this proposal.

The PPS is to be read in its entirety with the relevant policies applied to each development proposal. When more than one policy is relevant, planning authorities are to consider all relevant policies to understand how they work together. When applying the PPS it is important to consider the specific language of the policies. Each policy provides direction on how it is to be implemented, how it is situated within the broader PPS, and how it relates to other policies.

The proposal seeks to have a Director at your Ministry issue an ECA to Fidelity under the *Environmental Protection Act* without first ensuring that the proposal for a permanent asphalt plant is allowed on the site.[7] This would be inconsistent with policy 3.5.1.1 of the PPS and its requirement that major facilities such as the proposed permanent asphalt plant is "planned and developed" to avoid adverse effects.

The PPS provides no exemption from municipal requirements for permanent asphalt plants. The PPS only provides an exemption from municipal official plans, rezoning, and development permits under the *Planning Act* for portable asphalt plants.[8]

Attached to this letter as Appendix 2 is a report of environmental concerns prepared for the CRAA by Jim Cunningham, an experienced municipal environmental officer, that raises issues about the environmental impacts of this proposal on groundwater, from hazardous materials stored on site, and issues related to light, noise, odour, and air quality pollution. The PPS sets out tests related to these issues that Fidelity must show consistency with.

---

[6] *R.W. Tomlinson Limited v Greater Napanee (Town)*, 2023 CanLII 123200 at paras 43-44; PPS, s. 8.

[7] According to the application form for this ECA, Fidelity was required to confirm that the proposal is a permitted use. Fidelity cannot address this MECP requirement.

[8] 2024 PPS, s. 4.5.5.1: *Wayside pits and quarries*, *portable asphalt plants* and *portable concrete plants* used on public authority contracts shall be permitted, without the need for an official plan amendment, rezoning, or development permit under the *Planning Act* in all areas, except those areas of existing development or particular environmental sensitivity which have been determined to be incompatible with extraction and associated activities.

.

Fidelity has made no attempt to do so and there has been no review of the proposed permanent asphalt plant for consistency with the PPS.

**(3) Allowing a new permanent asphalt plant on this site would prevent the required rehabilitation of this former aggregate extraction site**

Finally, Fidelity has not purported to propose a rehabilitation plan for the Property. The permitting of a permanent asphalt plant on the Property makes proper rehabilitation of the former gravel pit site impossible because it proposes a permanent industrial use of the site.

The ARA and the PPS both require final rehabilitation of a pit after it is no longer in use for extraction.[9] These requirements specifically recognize that the use of land for extraction is permitted because it is temporary. Fidelity proposes to exploit its permission for this temporary land use and introduce a permanent industrial use without considering impacts to nearby residents and land uses. The rehabilitation plans on this site cannot have contemplated rehabilitation to a different and permanent industrial use when the ARA license was issued. We are not aware of any application to amend the ARA license to permit an amendment to the rehabilitation plan. This is contrary to provincial law and policy and cannot be permitted.

Further, there may have been excessive extraction of gravel from the site below the water table, a violation of Fidelity's approved site plan and permitting. Extensive on-site flooding can now be seen on the site, including on Google Maps. If Fidelity has extracted below the water table and violated its permitting, this would be grounds for the revocation of its license by the Minister.[10]

**(4) This proposal lacks community support**

CRAA has prepared a petition, now signed by over 400 Township residents, who are opposed to the proposal. The Cramahe Township Mayor and Council adopted a resolution dated February 18, 2025, refusing their support for this proposal, pending receipt from Fidelity of information required to answer the concerns of Council and the community. That requested information has not been provided in the ensuing months. At the public meeting held by Council at which that resolution was passed, not one local resident voiced support for the proposal. Despite the importance of this proposal to the residents of Cramahe Township, Fidelity has not made its application materials to the Director or any underlying studies accessible to the public.

In light of these serious issues, we ask that, at a minimum, you ensure the Fidelity application and supporting materials are posted and extend the time for providing comment to ensure time and opportunity to review and comment on this proposal.

[9] *Aggregate Resources Act*, s. 48(1); PPS, s. 4.5.3.
[10] *Aggregate Resources Act*, s. 20(1).

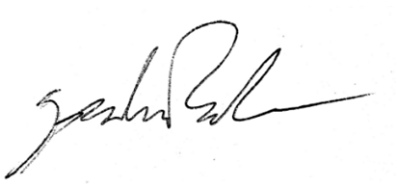
For this reason and other reasons set out in this letter, we submit that it is premature to decide on Fidelity's application for an ECA (Air) for a permanent asphalt plant at 13945 Telephone Road in Cramahe Township.

More fundamentally, should you or the Ministry proceed to entertain the proposal despite these serious informational deficiencies, we submit the proposal must be dismissed on its merits, due to the legal deficiencies and adverse effects identified in this letter at the attachments.

We would be pleased to respond to any questions or issues you or others at the Ministry may have with the serious concerns set out in this letter.

Sincerely,

Gowling WLG (Canada) LLP



Graham Reeder

Encls.

cc: Mandy Martin mmartin@cramahe.ca
Sherry Hamilton shamilton@cramahe.ca
Ed VanEgmond EVanegmond@cramahe.ca
Sandra Arthur sarthur@cramahe.ca
Joel Schriver jschriver@cramahe.ca
clerk@cramahe.ca
Phil Tunley, Director, Cramahe Resident Advocate Association phil@tunleylaw.ca

Cramahe Resident Advocate Association
71 Dundas St West
Trenton Ontario
K8V 3P4
Website: thecraa.ca



# TRAFFIC ESTIMATE REVIEW

An application to Cramahe Council has been made to increase operations of the Fidelity Pit located on Part Lot 19 Concession 3, 13945 Telephone Rd. Cramahe Township to 24/7 and ultimately the placement of a Permanent Asphalt Plant on-site.

Although Council has requested one, Fidelity has not provided a traffic study or any such related information. This estimate is a professional effort to inform both Council and the public.

## AN ASPHALT PLANT WILL HAVE A SIGNIFIGANT IMPACT ON TRUCK TRAFFIC and NOISE

Significant increase in truck traffic will be a result of placement of an Asphalt Plant at the location.

Herein is a traffic estimate developed by a Professional Engineer, under the guidance of an experienced Sr. Civil Engineer, Chief Estimator, and confirmed using public asphalt calculating tools.

## SUMMARY

For each kilometre of highway paved, at **least 82 truck trips** are required **and** up to a **maximum of 326** truck trips. These trips could increase due to project specifics. This figure includes delivery of raw materials in plus asphalt delivery out to site.

For a 401 MTO project that requires asphalt delivery, each km of **single lane** highway paved requires **40 to 160 asphalt truck trips during the night time.**

**In an 8 hour shift,** that equates from **1 trip every 12 minutes up to 1 trip every 3 minutes, during the night shift.**

To put this into broader perspective, to deliver raw materials to the asphalt plant and then deliver asphalt to the site to pave the 401, East AND West lanes, from **Cobourg to Brighton, would require at least 5.970 trips up to 23.660 trips travelling down Telephone Road over the contract period**.

See Exhibit 1 and Exhibit 2 for calculation details.

## CONCLUSION

Asphalt and raw materials would move via Telephone Road which is of tar and chip construction and not designed to handle the excessive weight and traffic volume, and the significant hills to navigate. Furthermore, Telephone Road is not identified as an established truck haul route for asphalt in the Northumberland County Official Plan, approved as of November 23, 2016. See Exhibit 3.

Cramahe Resident Advocate Association
71 Dundas St West
Trenton Ontario
K8V 3P4
Website: thecraa.ca

By permitting an Asphalt Plant, the ensuing truck traffic would:

- **Damage Local Roads**: Increased heavy truck traffic will cause extensive damage to local roads, leading to costly repairs.
    - The fees paid by Fidelity are unlikely to cover the damage which will be substantial.
    - **Put a Tax Burden on Cramahe Residents**: The uncovered costs of maintaining and repairing roads will likely fall on local taxpayers if no agreement is in place with Fidelity to maintain the road, over and above the levy paid.
- **Contravene the Northumberland County Official Plan** as Telephone Road is not identified as an established truck haul route**.**
- **Increase Noise Pollution**:
    - This pit is located in a quiet rural area. The operation of dump-trucks, generates high levels of noise from traffic, back-up alarms and slamming of tail gates, and the plant is planned to run 24/7.
    - Incessant, loud banging of dump-truck tail-gates is intolerable for neighboring residents.
    - Trucks will need to shift gears going up the steep hills, and use engine braking going down those hills.
    - An MTO Contract on the 401 would require night-time travel by trucks. A further 401 widening contract would result in continued, daily excessive, long-term night-time traffic noise resulting in Sleep Disturbance leading to insomnia, fatigue, and increased stress.
    - Chronic exposure to noise is proven to lead to hearing loss, increased stress levels, and cardiovascular problems.
- **Increase the Risk of Serious Accidents**: The combination of heavy trucks, school buses, local traffic and challenging terrain raises the likelihood of serious vehicular accidents, including hazardous spills, over a wide area between the 401 exits at Brighton and Colborne.
- **Restrict Homeowners' Access to Roads**: Heavy traffic will impede or restrict access to roads for local homeowners.
- **Increase Environmental Consequences of Bitumen Spills**: Any bitumen spill could have a severe environmental impact, particularly given that the access roads are close to a protected water zone and to numerous dwellings served only by well water.

CRAA
KEEP LITTLE LAKE CLEAN!

**Cramahe Resident Advocate Association**
**71 Dundas St West**
**Trenton Ontario**
**K8V 3P4**
**Website: thecraa.ca**



# EXHIBIT 1. TRUCK TRAFFIC ESTIMATE METHOD and CALCULATIONS

## ASSUMPTIONS

- Anecdotally the property is exhausted of gravel deposits, so ALL RAW MATERIALS will need to be trucked in and stored on-site.
- Asphalt composition to estimate mix of trucks to tankers was gravel 93% and bitumen 7%
- Capacity of Dump/Asphalt Truck (3 axles) 25 tonnes
- Capacity of Bitumen Tanker 18 tonnes
- Minimum road spec: 4M wide by 50mm thick
- Maximum road spec: 4M wide by 200 mm thick
- Calculations done per 1 km (1000 M)
- Weight in metric tonnes (2,200 pounds)

## ASPHALT VOLUME CALCULATION

To calculate volume of Asphalt required, an experienced industry source was contacted. The formula he provided and was verified was:

Volume of asphalt X .0025*

length(M) x width(M) x depth(mm) x 0.0025 = total (tonnes)

*The factor 0.0025 is based on an approximate density of 2.5 tonnes per cubic metre. There are variables that can affect the density depending on the asphalt mix to be used but this is a reasonable approximation.
Tonnage of asphalt estimated was calculated per kilometre for Minimum Road spec and a Maximum Road spec.

## TRIPS CALCULATION

Trips were estimated based on.

A) INCOMING Gravel & Bitumen Trucks bringing Raw materials
B) OUTGOING EMPTY Gravel & Bitumen trucks returning to source
C) INCOMING EMPTY asphalt transport trucks
D) OUTGOING asphalt transport trucks required to pave the road.

## SUMMARY OF CALCULATION RESULTS FOR SINGLE LANE PAVING

| | MIN ROAD SPEC ( 1 LANE) | MAX ROAD SPEC (1 LANE) |
|---|---|---|
| RAW MATERIALS REQUIRED PER KM (TONNES) | 500 | 2000 |
| RAW MATERIALS TRUCK LOADS DELIVERED TO PIT PER KM (TRIPS) | 21 | 83 |
| EMPTY TRUCKS LEAVE PIT PER KM (TRIPS) | 21 | 83 |
| ASPHALT TRUCKS LEAVING /RETURNING EMPTY TO PIT (TRIPS) | 40 | 160 |

**Cramahe Resident Advocate Association**
**71 Dundas St West**
**Trenton Ontario**
**K8V 3P4**
**Website: thecraa.ca**

| | | |
|---|---|---|
| TOTAL TRIPS TO SITE REQUIRED PER KILOMETRE OF HIGHWAY | 82 | 326 |
| TRIPS PER 8 HOUR NIGHT SHIFT PER KM (1 LANE 401) | 5 | 20 |
| TRIPS PER MINUTE 8 HOUR NIGHT SHIFT PER KM (1 LANE 401) | ***12*** | ***3*** |
| Minimum 4M wide by 50mm thick . Maximum 4M wide by 200 mm thick | | |

CRAA
KEEP LITTLE LAKE CLEAN!

Cramahe Resident Advocate Association
71 Dundas St West
Trenton Ontario
K8V 3P4
Website: thecraa.ca



# EXHIBIT 2. TRUCK TRAFFIC ESTIMATE SAMPLE CALCULATIONS FOR 2-LANE 401 WIDENING PROJECT

## EXAMPLE CALCULATION USING MINIMUM ROAD SPEC (50 mm asphalt)

**Estimated Tonnage Based on Minimum Specifications**

For a 1 km section of a single-lane highway, with:

- Lane width: 4 meters
- Average thickness: 50 mm

**Calculation**:

1000m(1km)×4m(width)×50mm(depth)×0.0025=500 tonnes of Hot Mix Asphalt required For single lane of the 401 project:

**Truck Capacity Assumptions**

- Tri-axle dump trucks: 22–25 tonnes per load (use 25 tonnes for calculations)
- Trailers: 38–42 tonnes per load
- Bitumen tankers: Typically, 20–40 tonnes (used 18 tonnes per tanker due to road limit of 10 tonnes/axle; 36 tonnes may also be allowable)

---

**Truck Trips for Raw Material Delivery**

Materials must be trucked in:

- Gravel (93% of mix): 465 tonnes÷25 tonnes/truck=19
- Bitumen (7% of mix): 35 tonnes÷18 tonnes/tanker=2

**Return Trips for Empty Trucks**

Since trucks return empty, additional trips must be accounted for:

- Empty gravel trucks returning: 19 trips
- Empty bitumen tankers returning: 2 trips

---

CRAA
KEEP LITTLE LAKE CLEAN!

**Cramahe Resident Advocate Association**
**71 Dundas St West**
**Trenton Ontario**
**K8V 3P4**
**Website: thecraa.ca**

**Truck Trips for Hot Asphalt Mix Delivery**

- Asphalt required for single lane: 500 tonnes÷25 tonnes/load=20 trips OUT per km
- Empty asphalt trucks returning: 20 trips

---

**Total Truck Trips per km (Single Lane)**

Raw material deliveries+empty return trips+hot asphalt deliveries+empty asphalt truck returns (19+2)+(19+2)+20+20=82 truck/tanker movements per km

For every 1 km of minimum spec, single lane highway expansion (one direction only), a total of 82 truck/tanker trips are required.

For every 1 km of minimum spec, single lane highway expansion (East and West bound directions), a total of 164 truck/tanker trips are required.

---

**Total Truck Trips Required to Pave 401 from Cobourg to Grafton**

- Truck Trips per km (East and West bound directions): 164 truck/tanker trips per km
- Distance from Cobourg to Grafton: 12.4 km
- Number of Lanes: 2
- Total Truck Trips Req'd for Minimum Road Spec: 164(Truck Trips per km) X 12.4(Distance from Cobourg to Grafton)=2,033 trips
- Total Truck Trips Req'd for Maximum Road Spec: 326(Truck Trips per km) X 12.4(Distance from Cobourg to Grafton)=8,086 trips

---

**SUMMARY OF RESULTS OF TOTAL TRUCK TRIPS REQUIRED TO PAVE 401 2 LANES EAST & WEST**

| TRIPS FOR AN EXAMPLE PROJECT TOTAL TRIPS (TWO LANES) | MIN RD. SPEC. 2 LANES | MAX RD. SPEC. 2 LANES |
|---|---|---|
| Cobourg to Grafton 12.4 km | 2034 | 8060 |
| Grafton to Colborne 11 km | 1804 | 7150 |
| Colborne to Brighton 13 km | 2132 | 8450 |
| Brighton to Trenton 16.5 km | 2706 | 10725 |
| **TOTAL TRIPS FOR AN EXAMPLE PROJECT COBOURG TO BRIGHTON** | 5,970 | 23,660 |

Cramahe Resident Advocate Association
71 Dundas St West
Trenton Ontario
K8V 3P4
Website: thecraa.ca

**A MINIMUM OF 5,970 TRUCK TRIPS** of asphalt and raw materials (gravel, bitumen etc.) for 50mm pavement will travel Telephone Road in order to pave East and West bound lanes of 401 from Cobourg to Brighton; and

**A MAXIMUM OF 23,660 TRUCK TRIPS** of asphalt and raw materials (gravel, bitumen etc.) for 200mm pavement will travel Telephone Road in order to pave East and West bound lanes of 401 from Cobourg to Brighton.

## ACKNOWLEDGEMENTS

This review, a summary of which was presented to the special meeting of Cramahe Council on February 18, 2025, has been developed in conjunction with and reviewed by an experienced Sr. Civil Engineer, Chief Estimator.

Cramahe Resident Advocate Association
71 Dundas St West
Trenton Ontario
K8V 3P4
Website: thecraa.ca

# EXHIBIT 3 - ANALYSIS OF TELEPHONE ROAD AND ROAD WEAR WITH PROPOSED ASPHALT PLANT

## 1. Executive Summary

The proposed development of an asphalt plant at 13945 Telephone Road, Cramahe Township, poses severe risks to municipal infrastructure, public safety, environmental quality, and fiscal sustainability. This report outlines the direct and indirect impacts expected from a dramatic increase in heavy truck traffic on a local road not designed to handle such volumes.

## 2. Existing Road Conditions

**Designation:** Telephone Road is classified as a "local road" in Cramahe Township's Official Plan. It is not intended for high truck volumes.

**Construction:**

- Surface-treated, not paved to withstand industrial traffic.
- Includes steep gradients (e.g., 40 m elevation gain at a 10% grade near Chapman and Trottman Roads.
- Road is currently in disrepair with minimal shoulders and inconsistent ditching.

## 3. Engineering Evidence of Road Wear

**AASHTO Data:**

- A 10-ton axle load causes **17.5 times** more damage than a 5-ton axle load.

**Tatham Engineering Road Needs Study (2023):**

- States, "Local Roads (such as Telephone Road) are not designed for high truck volumes and degrade much faster under increased traffic loads."
- Recommends:
    - Maximum 400 vehicles/day for new roads
    - Degraded service at 1,000 vehicles/day

**Current Traffic Volume:**

- Previously Studied: 425 vehicles/day (with low truck traffic)
- **Updated (May 6–12, 2025 Traffic Study by Rodger Dingman):**

- Total: 4,682 vehicles/week (669 vehicles/day)
- This exceeds recommended maximum by **1.7 times**

**4. Projected Traffic Impact from Asphalt Plant**

**CRAA Estimates:**

- Truck trips per km (based on asphalt depth):
    - 82 for 50 mm
    - Up to 326 for 200 mm

**Asphalt Application Example:**

- 2 km of Highway 401 paving requires 320 truckloads
- Day and night operations expected
- Nighttime: One truck passes every **45 seconds** near rural homes

**Tatham Engineering Warning:** "Increasing truck traffic will cause rapid structural failure."

**5. Fiscal Impact**

- No revenue generated from the depleted gravel pit
- Long-term maintenance and repair costs fall on local taxpayers
- Estimated costs in the **millions**

**6. Public and Environmental Safety**

**Road Safety:**

- Narrow shoulders and poor conditions increase risk for:
    - Pedestrians
    - Cyclists
    - School buses
    - Horseback riders

**Emergency Services:**

- Congestion during Highway 401 detours poses risks to ambulance, fire, and police response times
- Township may face liability for accidents caused by poor road conditions

**Environmental Concerns:**

- Potential for **groundwater contamination** due to local soil composition
- Continuous **noise pollution** from tailgate slams, alarms, and heavy equipment
- **Light pollution** from site and vehicle operations disrupts rural night environment

**7. Economic Risk to Residents**

- Decline in property values
- Reduced MPAC assessments lead to a smaller municipal tax base
- Personal financial loss to residents in the form of equity devaluation

**8. Conclusion**

The introduction of an asphalt plant on Telephone Road represents a clear conflict with the area's infrastructure capabilities, environmental integrity, and the well-being of Cramahe residents. Immediate steps should be taken to halt the development or implement extensive mitigation strategies and corporate accountability measures.

**Recommendations:**

- Denial of zoning or permitting for the asphalt plant
- Road upgrades paid for by the developer, not taxpayers
- Mandatory traffic mitigation plans and groundwater protection systems

**Sources & References**


- American Association of State Highway and Transportation Officials (AASHTO)
- Federal Highway Administration (FHWA) Research on Pavement Deterioration American Association of State Highway and Transportation Officials
- U.S. Dept. of Transportation, FHWA (1997). Federal Highway Cost Allocation Study.
- Ontario Min. of Transportation (2013). Pavement Design and Rehabilitation Manual.
- National Research Council of Canada (2018). Effect of Heavy Vehicles on Pavement Damage.
- Tatham Engineering (2023). Northumberland County Road Needs Study.
- Tatham Engineering (2023). Cramahe Road Needs Study.

- Northumberland County Official Plan (2016).
- Canada Topographical Maps, 2025
- CRAA Traffic Assessment Study March 2025

**The Fourth Power Law (AASHTO)**

- Pavement damage increases with the fourth power of axle load. Not 1:1
- A 15 ton axle load causes significantly more damage than a 9 ton axle load, even though the difference is only 3 tons.
- Trucks damage roads more than cars when the roads are under-designed for the amount of truck traffic that is using them
- Doubling heavy truck traffic can cause up to 16 times more road wear.

Sources: AASHTO (1993) - American Association of State Highway and Transportation Officials Guide for Design of Pavement Structures.

National Academy of Sciences (1979), Transportation Research Board

**FHWA Research on Pavement Deterioration**

- Studies confirm road wear is exponential, not linear.
- A single fully loaded truck can cause as much wear as 5,000–10,000 passenger vehicles.

Source: U.S. DOT FHWA (1997) - Federal Highway Cost Allocation Study.

**Ontario MTO Pavement Design Guidelines**

- Roads are designed for an expected lifespan based on single-axle truck loads.
- Doubling truck volumes drastically shortens road life.
- Resurfacing or full reconstruction much sooner than planned

Source: Ontario Min. of Transport. (2013) - Pavement Design and Rehabilitation Manual.

**NRCC Study on Rural Road Deterioration**

- Surface-treated roads fail much faster under heavy trucks.
- A road expected to last 20 years may fail in just 5–10 years.

**Cramahe Resident Advocate Association**
**71 Dundas St West**
**Trenton Ontario**
**K8V 3P4**
**Website: thecraa.ca**

Source: National Research Council of Canada (2018) - The Effect of Heavy Vehicles on Pavement Damage.

K. Stephen Cohrs, Professional Engineer (retired)

Member of the CRAA

14656 County Rd. 21, Cramahe, Ontario K0K 1S0

Phone: 613 438 5854

Email: stephen@cohrs.ca

# Environmental Concerns Regarding the Proposed Asphalt Plant at 13945 Telephone Road, Cramahe Township

The proposed installation of an asphalt plant at 13945 Telephone Road raises several significant environmental concerns, particularly regarding groundwater contamination, noise, light pollution, and odour. These concerns are especially critical given the site's unique geology and proximity to residential wells and municipal water sources.

### 1. Groundwater Contamination Risk

The primary environmental concern is the potential for hazardous spills within the pit and the subsequent migration of contaminants into the surrounding groundwater. A review of over 50 residential well reports from properties around the proposed site reveals no consistent substrate barrier that could reliably prevent the spread of contaminants.

In plain terms, if a hazardous material were to spill within the pit, it could percolate through the porous earth—comprised of varying layers of sand, gravel, and clay—and contaminate groundwater used by nearby households. Unlike some industrial sites, this area lacks a consistent impermeable clay layer that might otherwise isolate contaminants. The data, drawn from Ontario's Ministry of Natural Resources (MNR) well records, shows that area wells range in depth from 15 to 250 feet, many of which are dug or drilled directly into this inconsistent substrate.

This concern is not hypothetical. If the risk were negligible, why do many other gravel pits in Southern Ontario with active or former asphalt plants have groundwater monitoring wells in place?

Topographical and aerial imagery from the MNR indicate that the southern edge of the proposed site is level with a nearby pond, which drains naturally into Little Lake via a stream. Any spilled hazardous liquid at the pit could follow this direct conduit, entering the pond, the stream, and ultimately Little Lake. This would jeopardize the water quality for local residents and cottagers who rely on the lake for drinking water and recreation.

It is also notable that the pit's elevation and substrate are consistent with that of Colborne's municipal wells, located less than a mile away.

### 2. Hazardous Materials Stored On-Site

Routine operation of an asphalt plant involves the use and storage of hazardous and flammable substances, including:

- **Diesel fuel** – for generators, trucks, and excavation equipment.
- **Organic solvents** – to clean equipment coated with bitumen, oil, and fuel residues.
- **Motor oils and lubricants** – for maintaining equipment and engines.

- **Gasoline** – for smaller generators and vehicles.

These materials pose both fire and contamination hazards. In the event of a fire, using water to extinguish it can worsen the situation by spreading diluted contaminants into the groundwater. For example, a single dump truck may carry between 150–300 litres of diesel fuel. A spill of this size would visibly affect local surface water and wetlands, creating a petroleum sheen in the swamp south of the pit and potentially carrying contaminants via the creek into Little Lake.

**3. Light Pollution ("White Noise" Illumination)**

The plant's lighting system will include high-mounted industrial floodlights to ensure adequate visibility during operations. These lights will extend far beyond the pit itself, casting intrusive illumination into surrounding properties. Combined with the constant movement of vehicles on-site and on access roads, residents will be subjected to multi-directional lighting disruptions, especially during nighttime hours.

**4. Noise Pollution from Operations and Traffic**

The noise generated by the asphalt plant will include the continuous operation of motors, blowers, and heaters, audible to nearby homes. A particularly disruptive noise comes from the unloading of trucks—each tailgate slamming against the dump box produces a sound louder than a shotgun blast. If an estimated 200 trucks per day deliver materials over a 24-hour period, that equates to one loud tailgate slam every 7 minutes.

Additional noise from heavy diesel trucks accelerating uphill and braking downhill on rural roads will be relentless. The suggestion that these vehicles will consistently adhere to speed limits and noise mitigation protocols is unrealistic. The cumulative effect will be an unbearable soundscape for local residents.

**5. Odour Emissions**

Another concern voiced by residents living near existing asphalt plants is the pervasive odour. The smell of petroleum products during operation is constant and often unbearable. Depending on wind direction, these odours can spread to surrounding neighbourhoods, making it unpleasant—or even impossible—for residents to enjoy outdoor spaces, open their windows, or host gatherings.

**Final Thoughts: Groundwater Protection Is Non-Negotiable**

The potential for groundwater contamination at this site is both real and significant. The soil and substrate in this area—sand, gravel, and mixed clays—are porous and variable, allowing contaminants to spread in unpredictable directions and over great distances. Importantly, the Source Water Protection Zone for the Town of Colborne's drinking water system lies less than one mile from the proposed site.

Having worked with water resources for over 30 years, I can say with confidence that the **best way to protect groundwater is to prevent hazardous materials from being introduced into vulnerable environments in the first place**. Despite the best efforts in training, containment, and emergency preparedness, spills happen—and once they do, the damage is often permanent.

We must learn from the mistakes of past approvals, such as the installation of asphalt plants on the Oak Ridges Moraine. Cramahe Township cannot afford to make the same error.

Jim Cunningham

from Committee Of the Whole presentation, May 13, 2025

**Education:** Water Resources Engineering and Technology – Sault College

**Work background and experience:**

31 years in the Water, Wastewater and Industrial Waste Sections including 27 in monitoring for dumping of pollutants into the natural environment including: Illegal discharges of toxic pollutants, monitoring and clean-up of contaminated sites.

***Reference Documents***

M**onitoring wells in gravel pits** along the oak ridges moraine.

Knowledge of asphalt plants and cement plants being located within these locations.

ORMGP Monitoring Sites - Oak Ridges Moraine Groundwater Program

**Well Report Data:** Ontario Ministry of Natural Resources Well Reports. Review of 49 area reports

https://www.ontario.ca *› page › map-well-records*

**Tailgate slamming noise:**

www.adc.org Noise: One of the barriers to Implementing Off-Hours Deliveries In Urban Areas. (117 dBs)