

Is this Property Line Accurate?



**A story of a challenge you didn't know you had
and a guideline you didn't know you needed**

Agenda

PART 1 **Property Lines, Legal Lines, Street Lines and everything in between**

Where do we see this data?

Accuracy

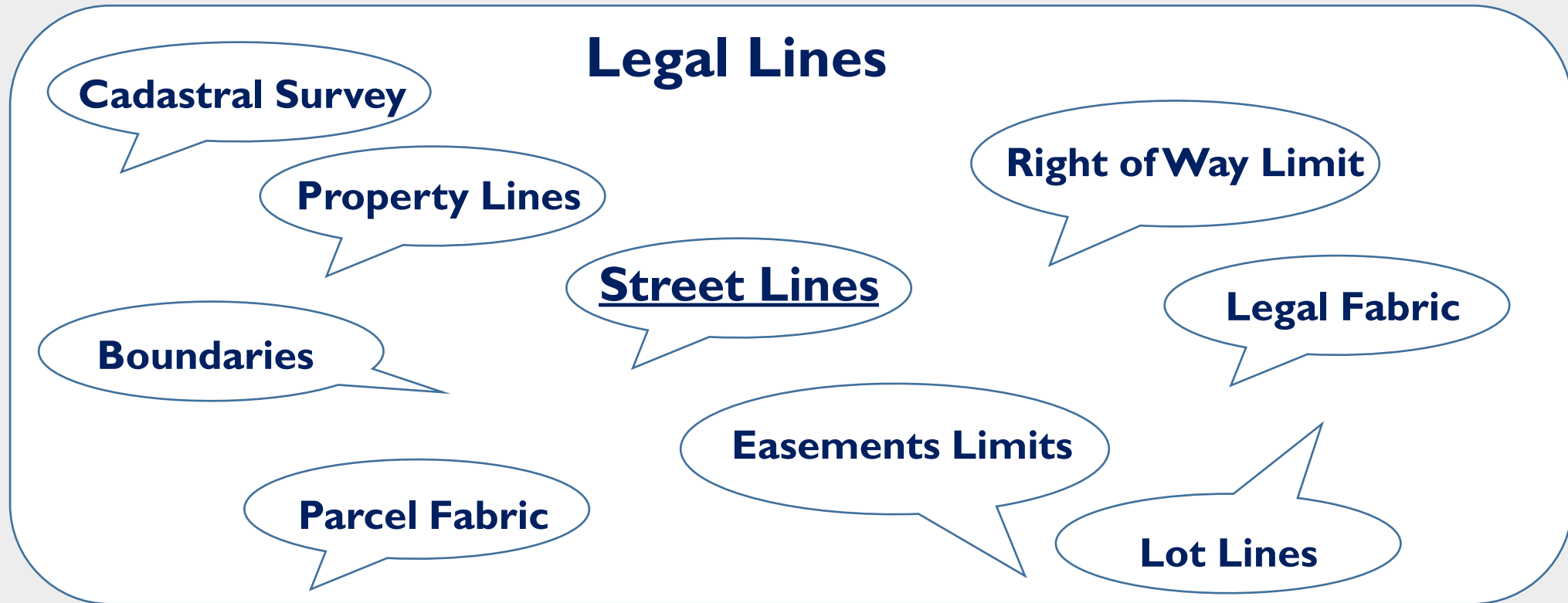
Where do issues stem from?

Legal Lines, Legal Surveys, and role of an Ontario Land Surveyor

PART 2 **Case Studies**

PART 3 **Risk Mitigation Guideline**

Property Lines, Legal Lines, Street Lines ...



Side Bar

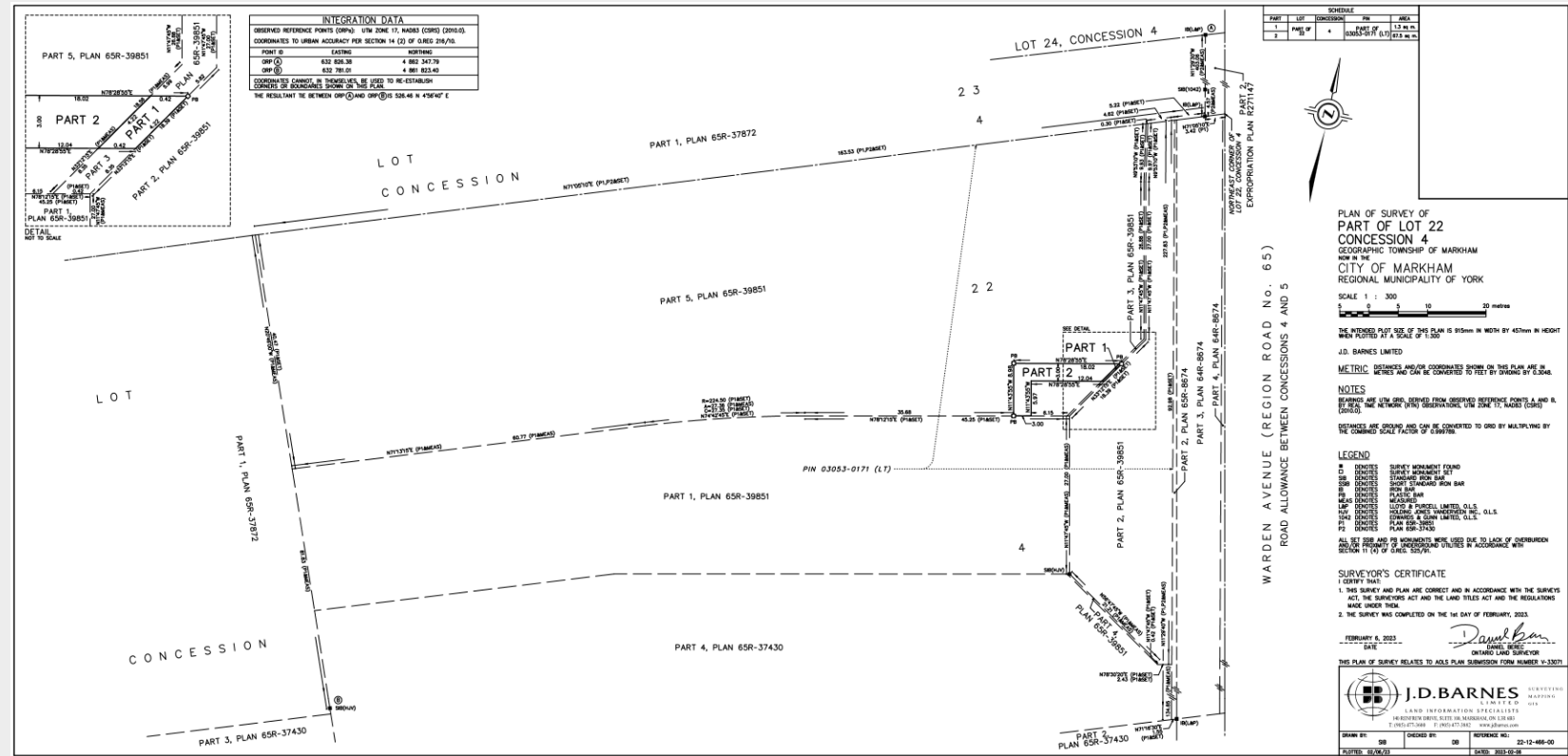
**Franchise Agreements allow for asset installation within
Municipal Right-of-Way (dedicated public highways)**

**Strips of land owned by municipality along roads which are not
dedicated as public highway are not considered municipal ROW**

Installing plant on private lands is bad

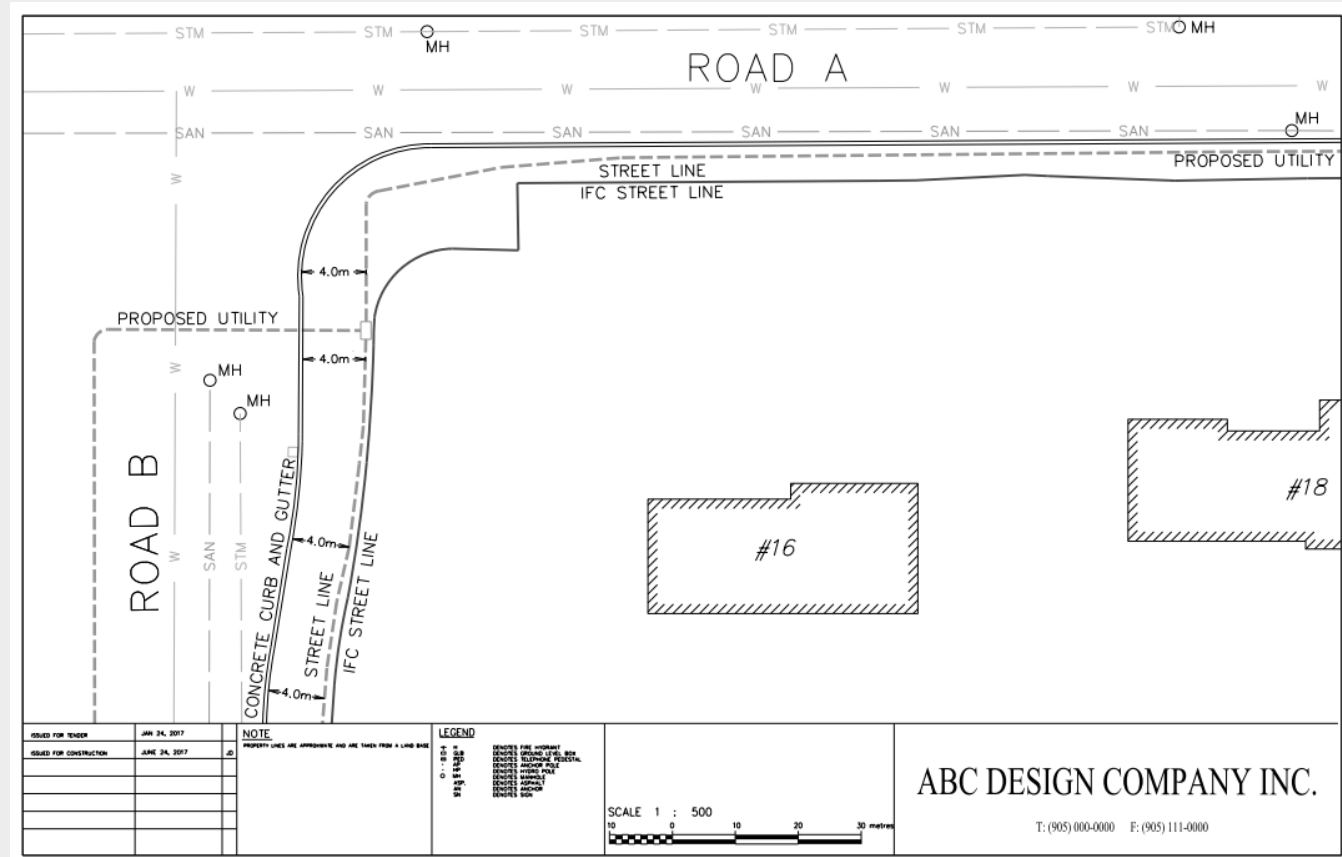
Legal Lines – Where do we see them?

Survey Plans



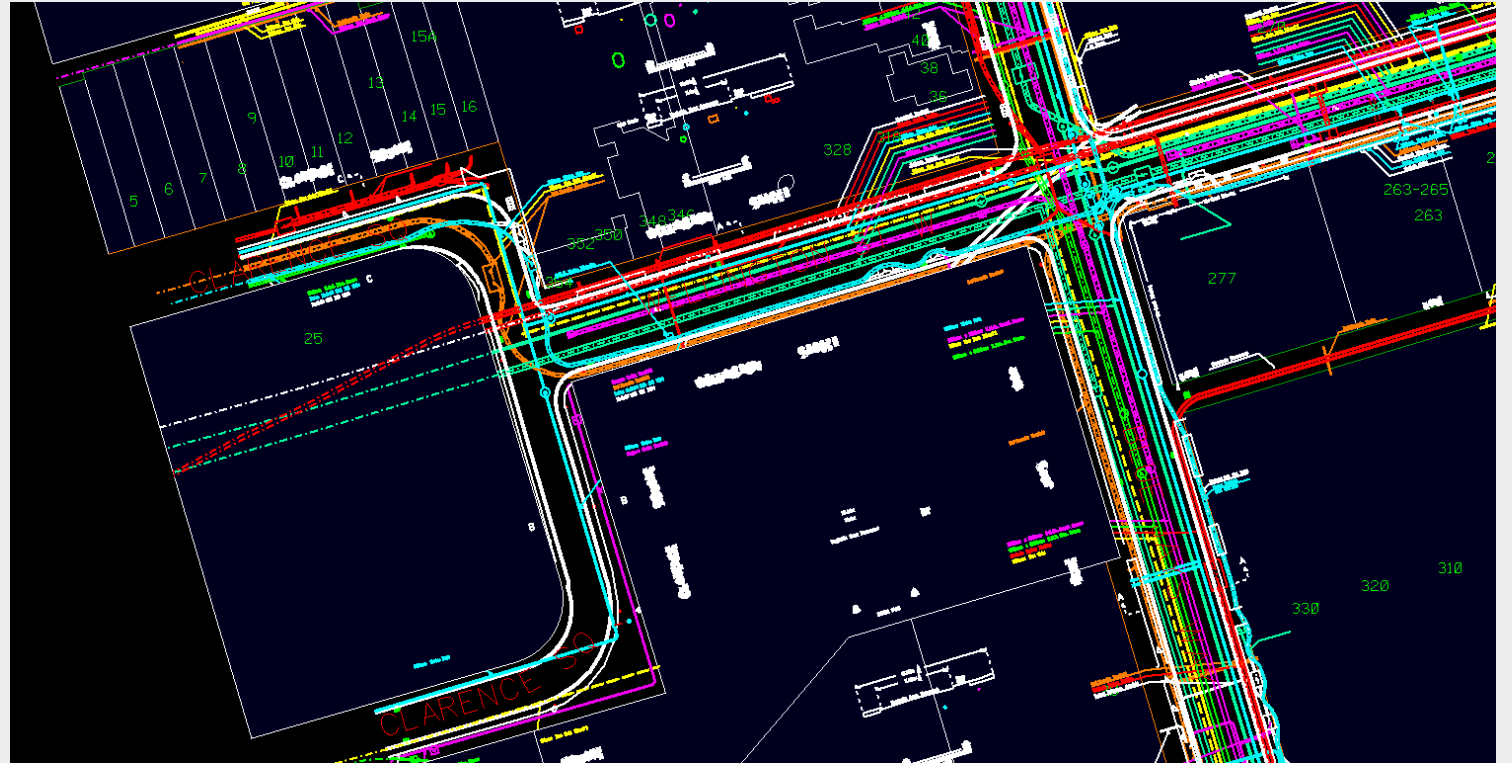
Legal Lines – Where do we see them?

OTC/IFC Drawings



Legal Lines – Where do we see them?

Municipal Base Plans
& PUCC Drawings



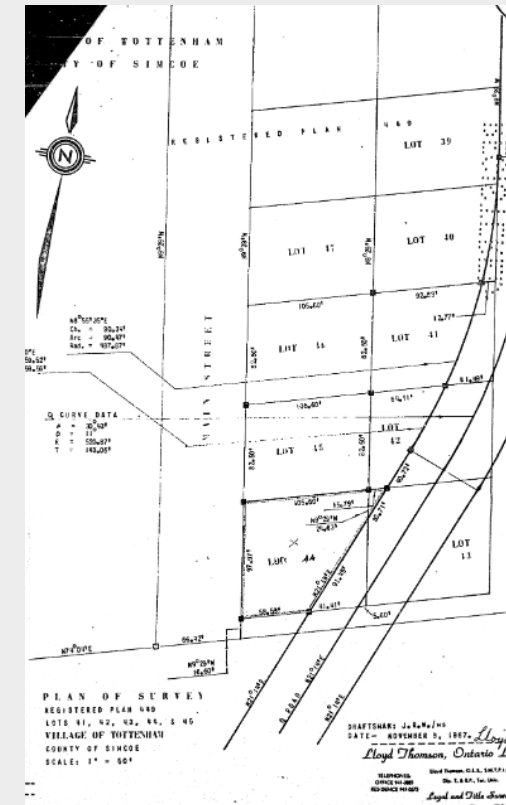
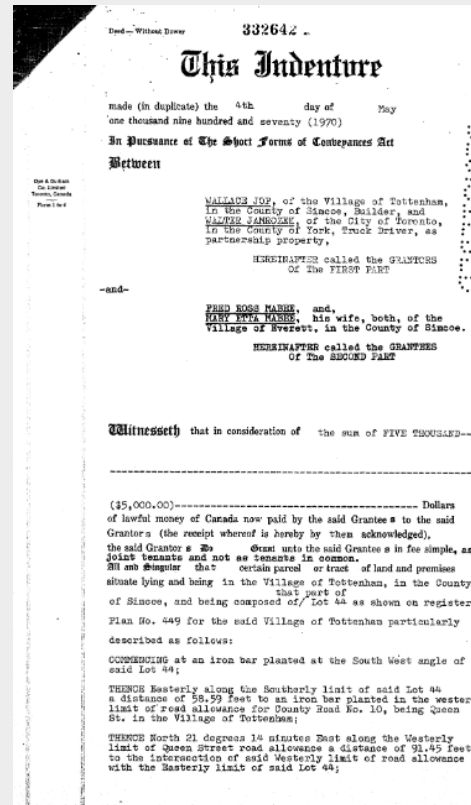
Legal Lines – Where do we see them?

GIS Platforms



Legal Lines – Where do we see them?

OLD Deeds and Documents



Legal Lines – Where do we see them?

Staked/Marked
in the field



Legal Lines – Where do we see them?

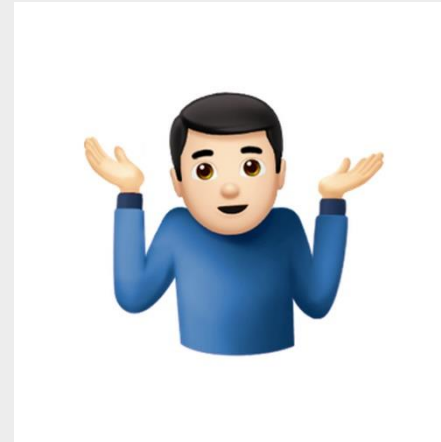
Anywhere else???

Accuracy?

Depends on the source

Some data may be accurate

Some data may be off by meters



Lack of confidence in accuracy stems from...

Passage of time - outdated data

Differences in Coordinate Systems

Compilation blunders

Misunderstanding and misuse of data

Lack of confidence in accuracy stems from...

Outdated Data

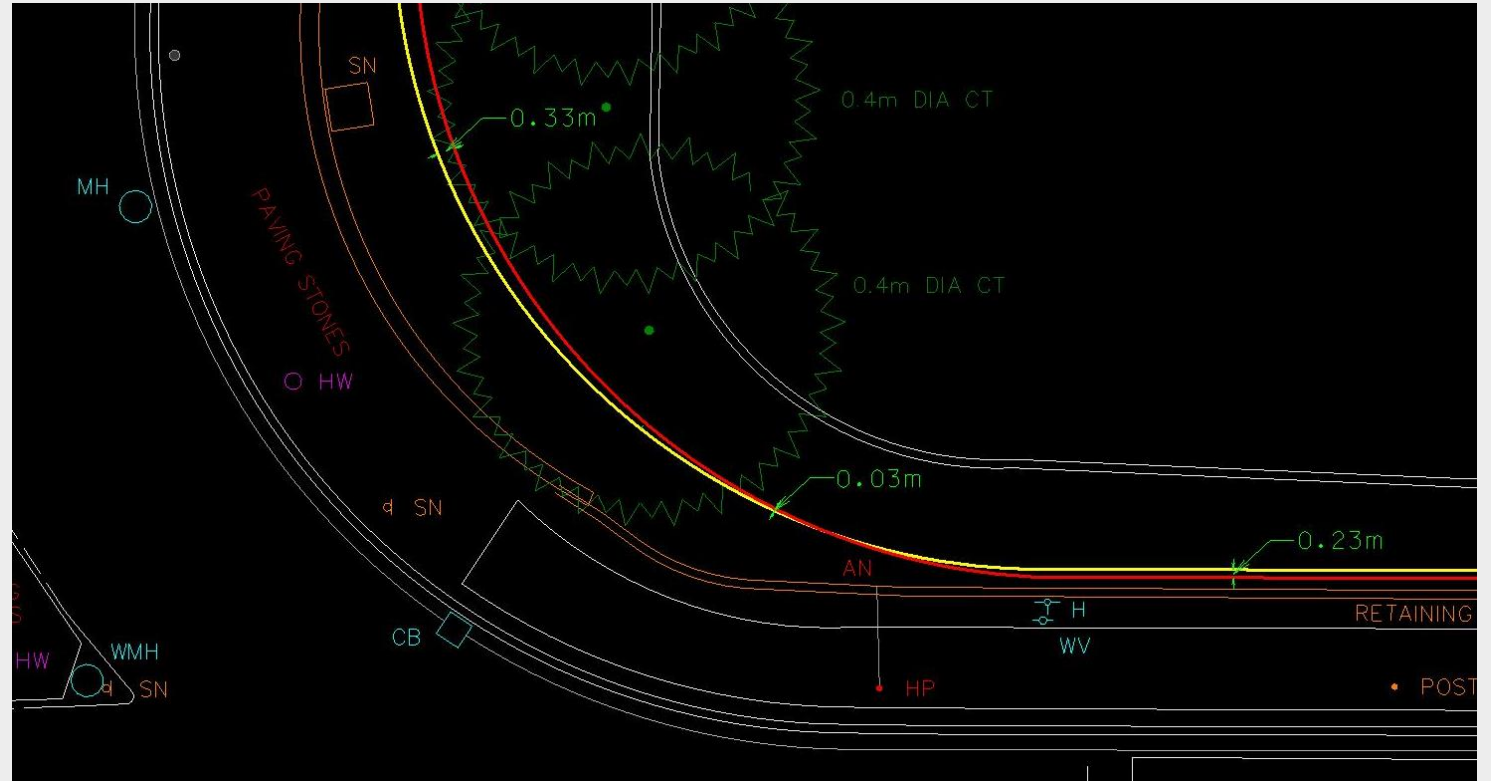
- Severances
 - Widenings
 - Transfers
- Etc.



Lack of confidence in accuracy stems from...

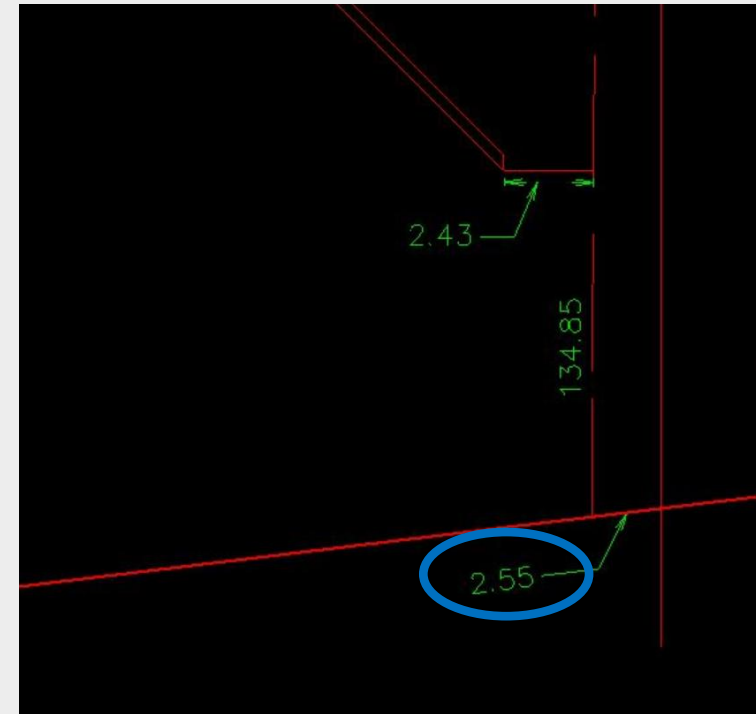
Coordinate Systems

- UTM vs MTM
- UTM NAD 83 – Orig (Red)
vs
UTM NAD 83 – CSRS (Yellow)



Lack of confidence in accuracy stems from...

Compilation Blunders



Lack of confidence in accuracy stems from...

Misunderstanding and misuse of data

- **Property information within Municipal Base Plans is not a legal survey**
- **Extracts of property information from GIS platforms is not a legal survey**
- **Ontario Parcel:**

Terms of Use

Ontario Parcel geometry represents an index of property locations, not a legal representation of property boundaries.

Ontario Parcel is an indication that a boundary may be in the general area.

The data should not be used for legal purposes. The data should not be used to define boundaries on the ground or be relied on to calculate areas of properties (unless for crude estimates) or depths or frontages of lots. The data is not a substitute for a legal survey and should not be used for applications that require accurate positional data.

Legal Lines, Legal Surveys and Ontario Land Surveyors

The Law

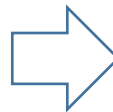
According to Ontario law, only surveys made by licensed Ontario Land Surveyors are legal.

S.2. Surveys Act - Validity of Surveys – No Survey of land for the purpose of defining, locating, or describing any line, boundary or corner of a parcel of land is valid unless made by a surveyor or under the personal supervision of a surveyor.

The Process

Research

- Land Registry Office
- Ministry of Natural Resources
- Archives of Ontario



Field Work

Locate and accurately record the position of survey monuments, fences, natural limits etc.



Calculation and OLS Decision

- Consider the relationship between field evidence and documentary evidence
- Apply boundary law principles to make a decision on the location of the boundary

Case Studies



The following stories are true and based on actual events.

Out of respect for the parties involved, all places and names have been changed.

For the benefit of the industry, the rest will be told exactly as it occurred.

Case Study #1: The Old Document

Utility company was required to build a structure near the vicinity of their buried utility

The buried utility spanned across private property

Utility company had a registered easement over said private property

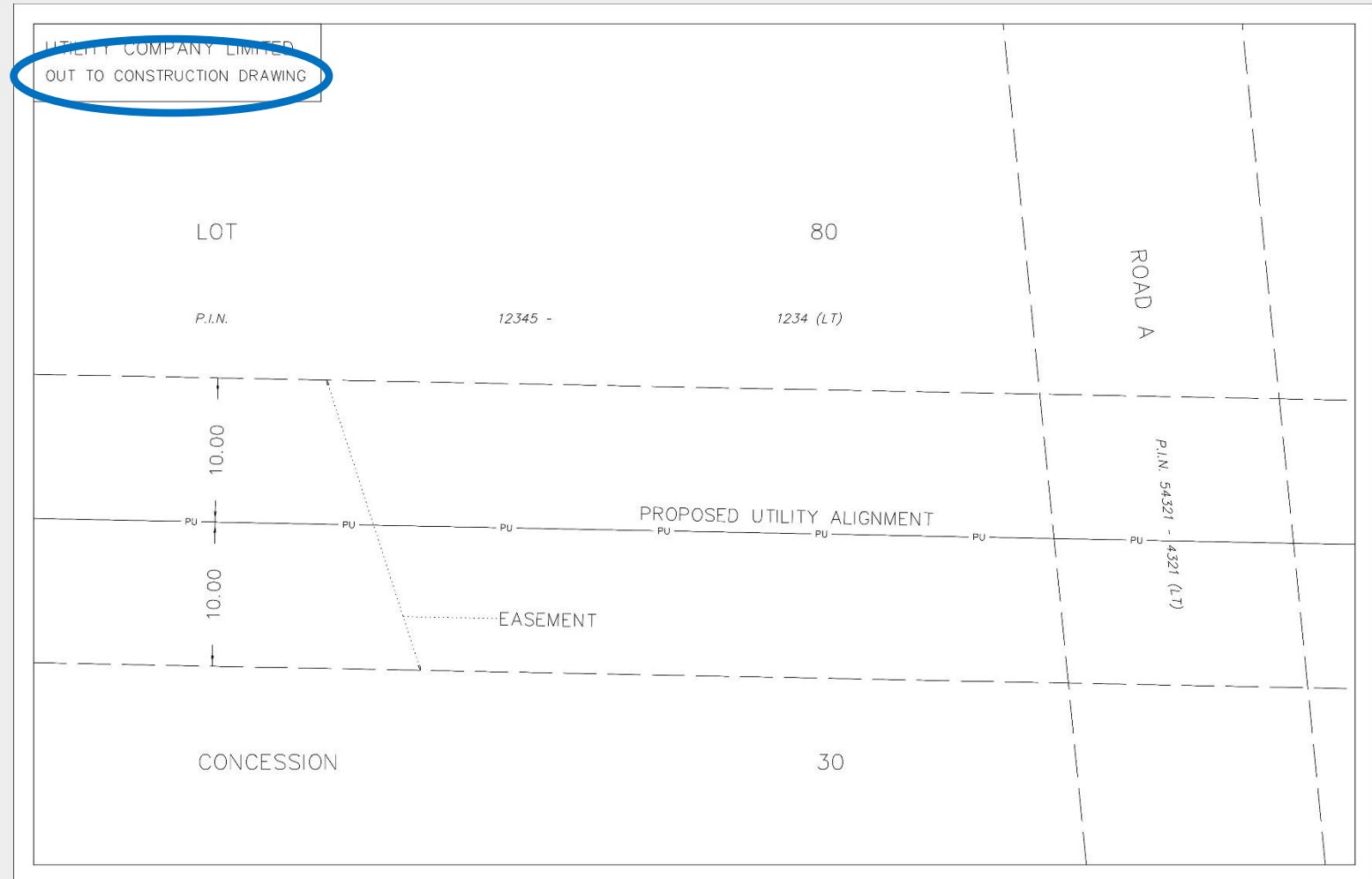
Utility company found an old document showing the easement limits with respect to the buried utility

...

Case Study #1: The Old Document

Old document was from 1950's and was
not an accurate as-laid

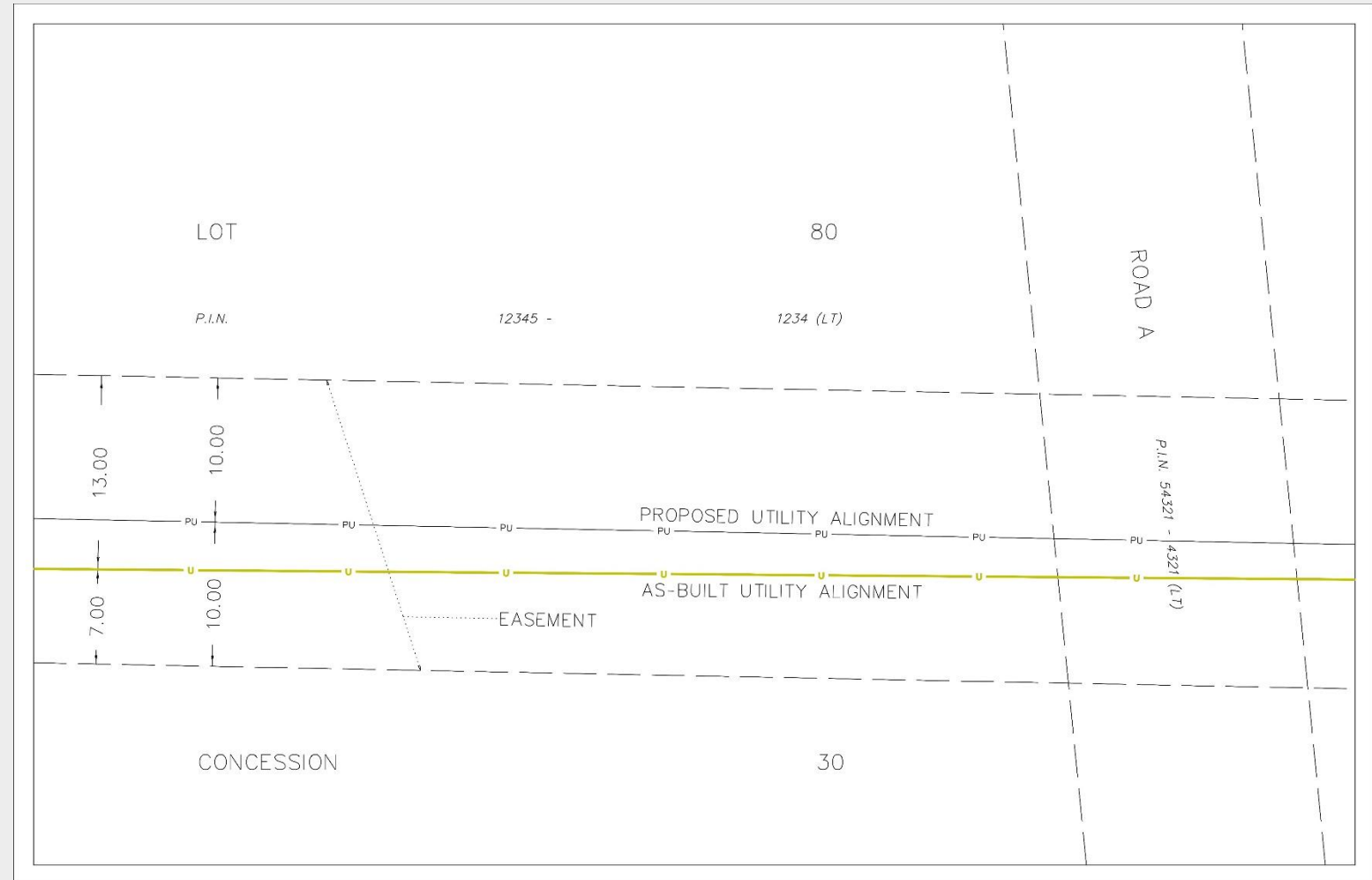
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Case Study #1: The Old Document

Actual utility was installed off the proposed alignment – not centered on the easement

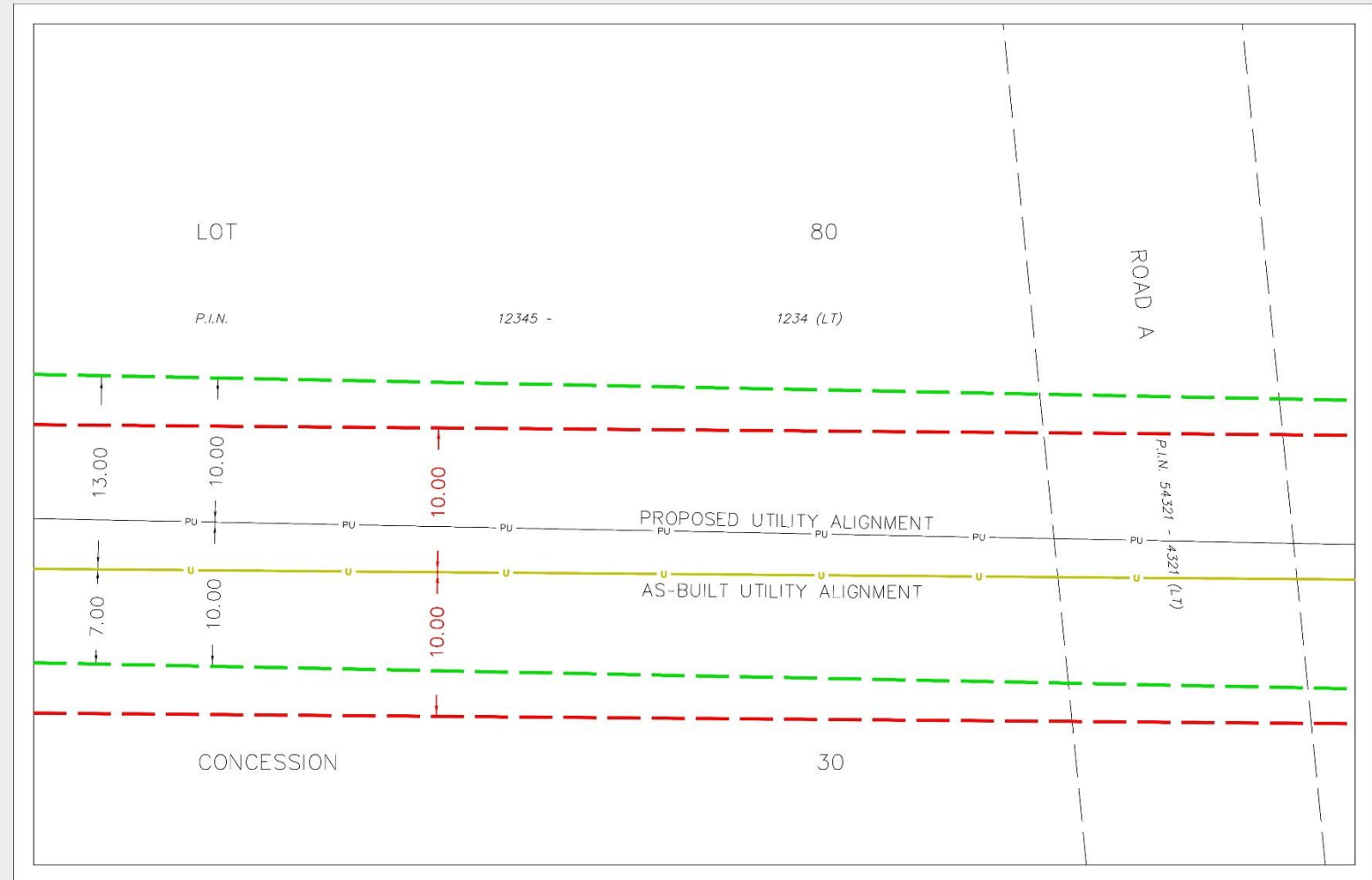
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Case Study #1: The Old Document

Easement limits were determined based on
the utility location and the old document,
not on legal surveys and documents

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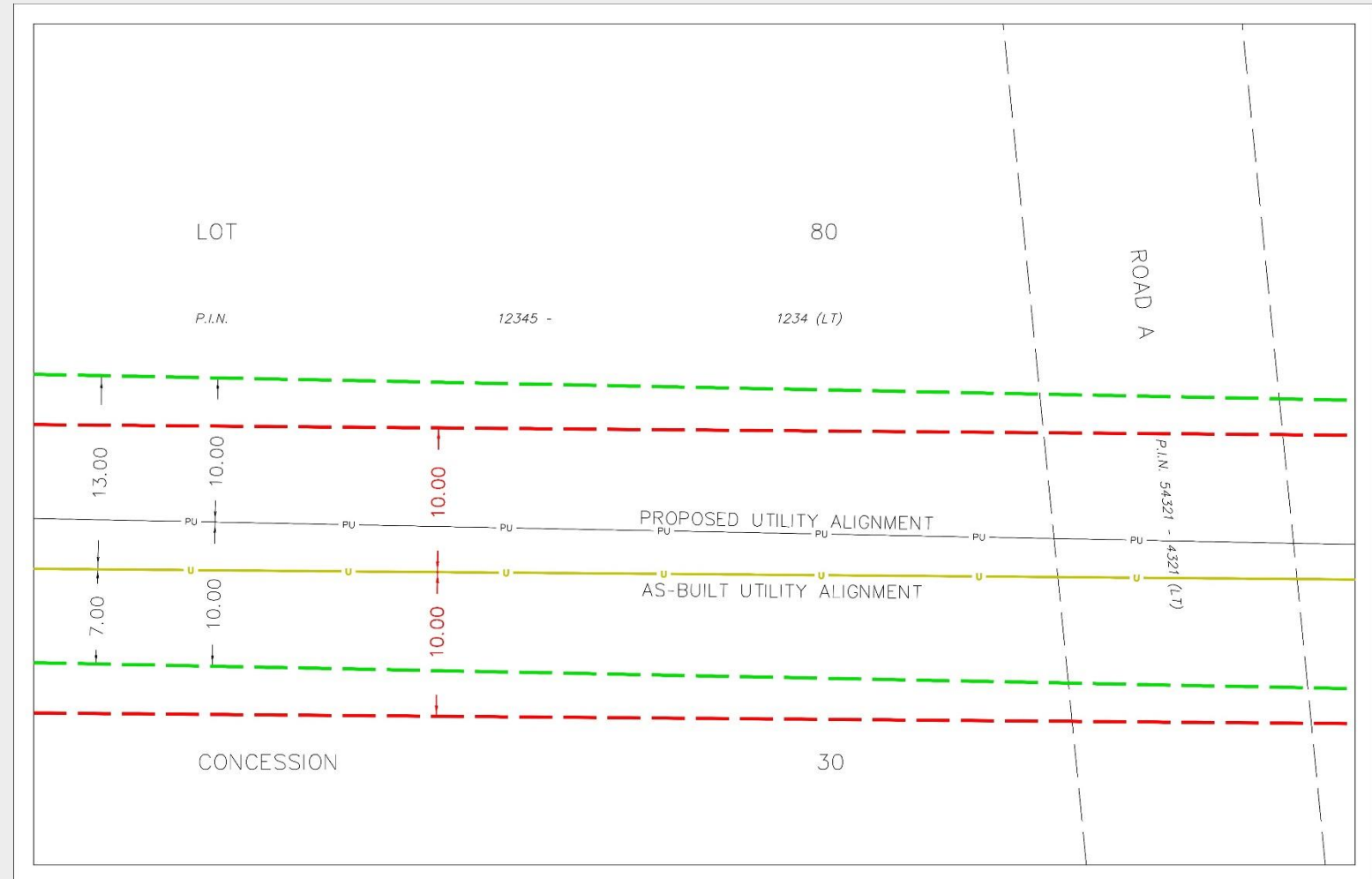


Case Study #1: The Old Document

Structure was designed on private property

Construction company did not employ a
surveyor to mark the appropriate
easement limits and the structure was build
per the design

...

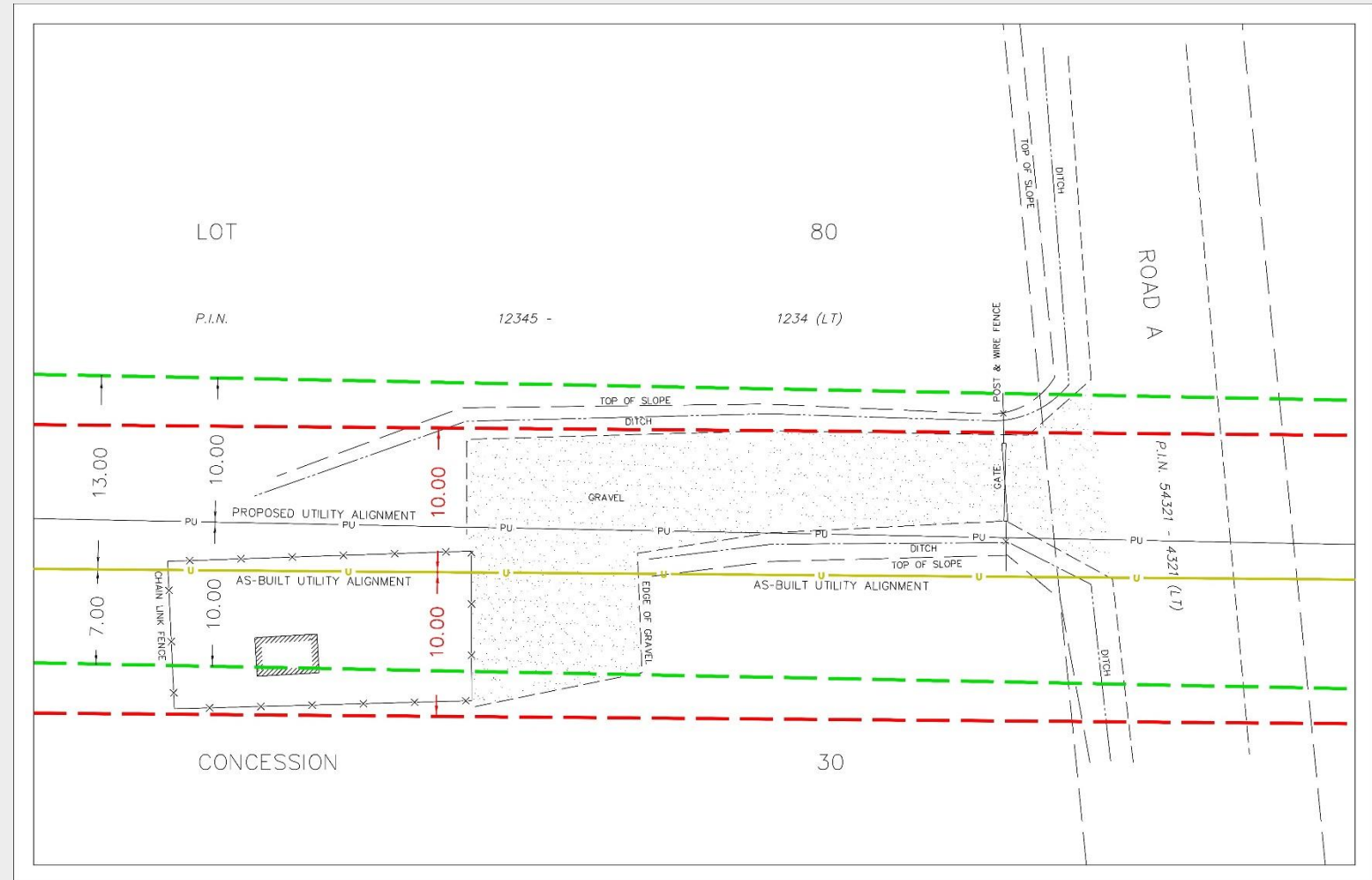


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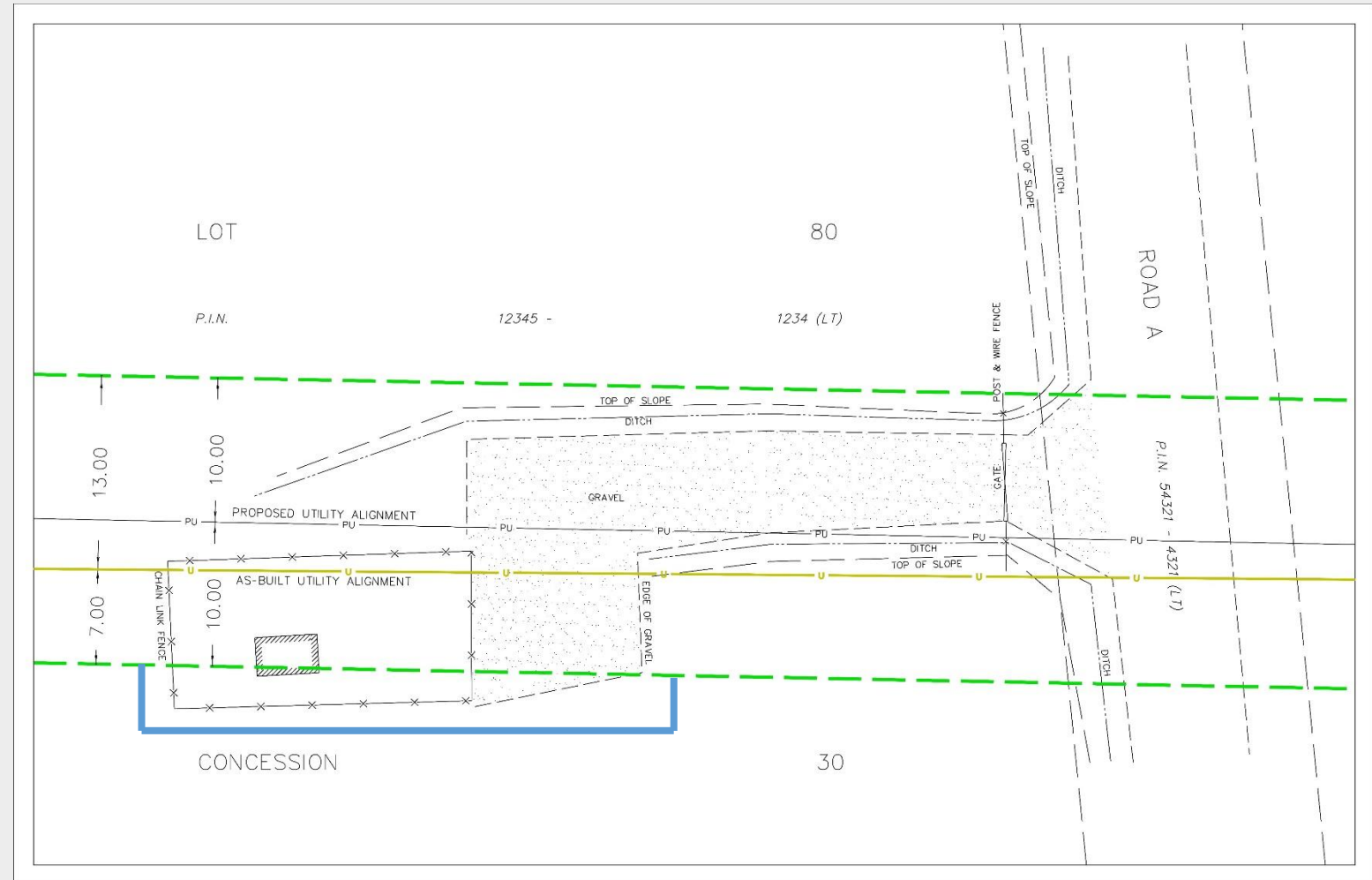
...



Case Study #1: The Old Document

A Reference Plan was prepared to capture the assets outside of the existing easement. An additional easement was negotiated and acquired from the land owner

...



Case Study #1: The Old Document

Damages

\$\$\$

New easement?
Investigation (~\$10K)

Personal

Damaged professional reputation of all parties involved
Strained professional relationship between parties

Public

Utility Company's image
Damage to private real estate and real title

Case Study #2: Data Misunderstood

Utility company contracted a consultant to design a network extension to service additional clients

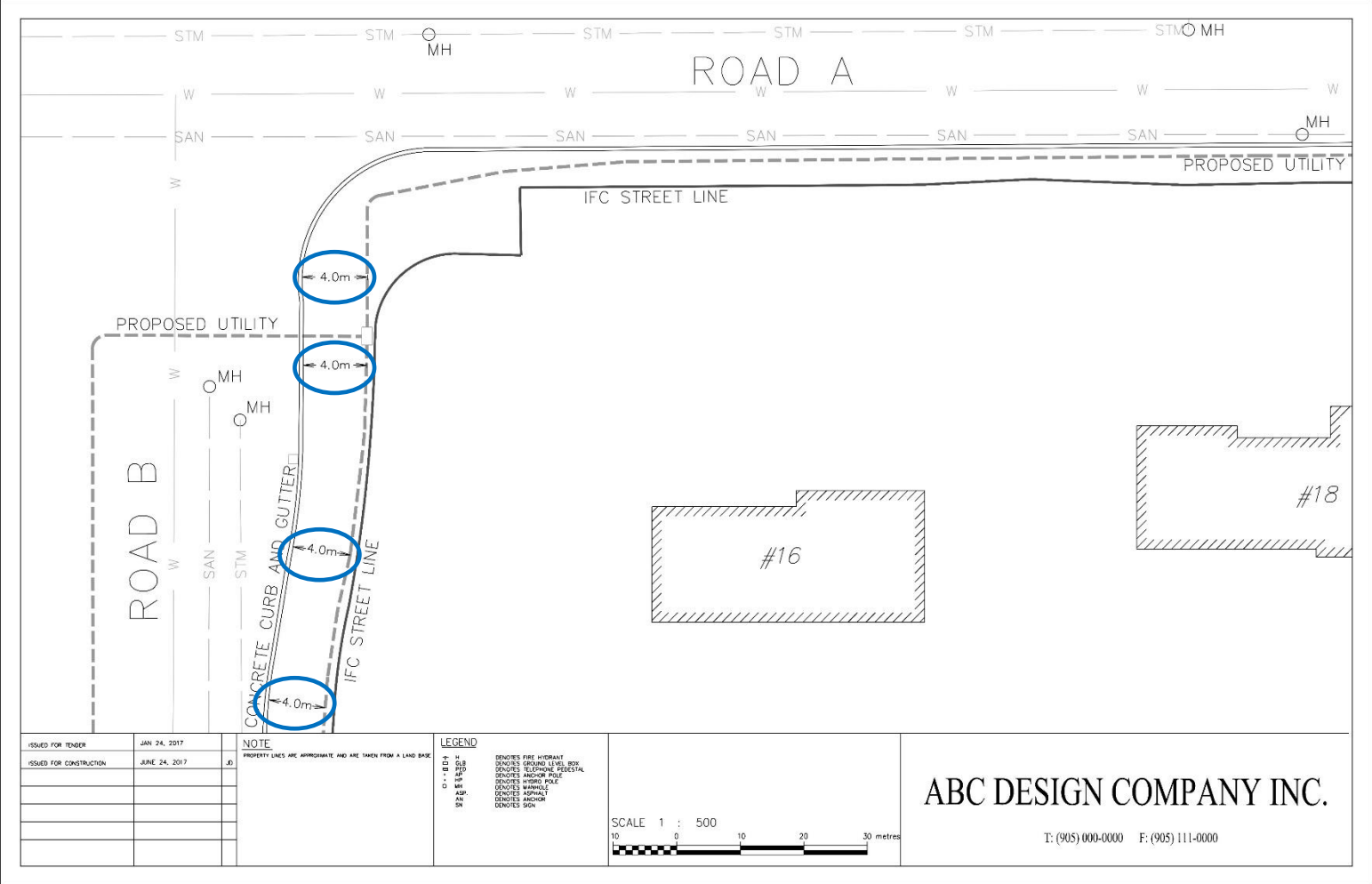
Design consultant used a municipal base plan to complete their work

Municipal consent was granted with no issues

Utility company contracted a construction group to execute the construction

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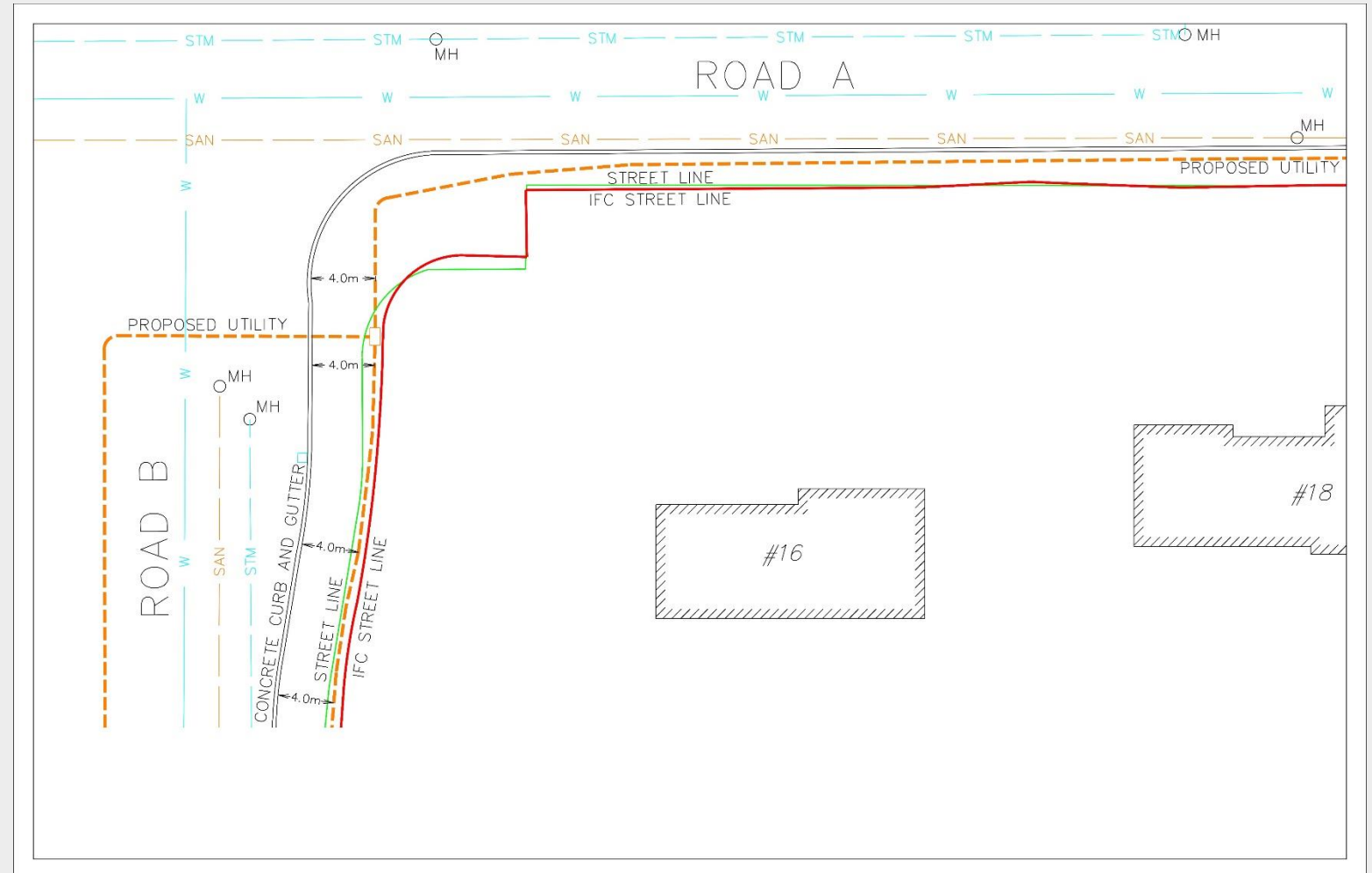
Adjacent land owner questioned the location
...



Case Study #2: Data Misunderstood

A Survey Firm – following the legal survey process
- confirmed that the structures were indeed
installed on private property

...



Case Study #2: Data Misunderstood

Damages

\$\$\$

Line and structure relocation (\$10k-20k)

Private property restoration (\$1k)

Investigation (~\$2K)

Lost revenue

Personal

Professional Reputation of all parties

involved

Strained professional relationship

between parties

Public

Utility Company's image

Damage to private property

Potential Future Damages

Asset Damage

Safety

Case Study #3: Nobody Likes Change

Utility company was looking to expand their network

During the planning process the local municipality informed the company that a street widening is planned along their proposed route

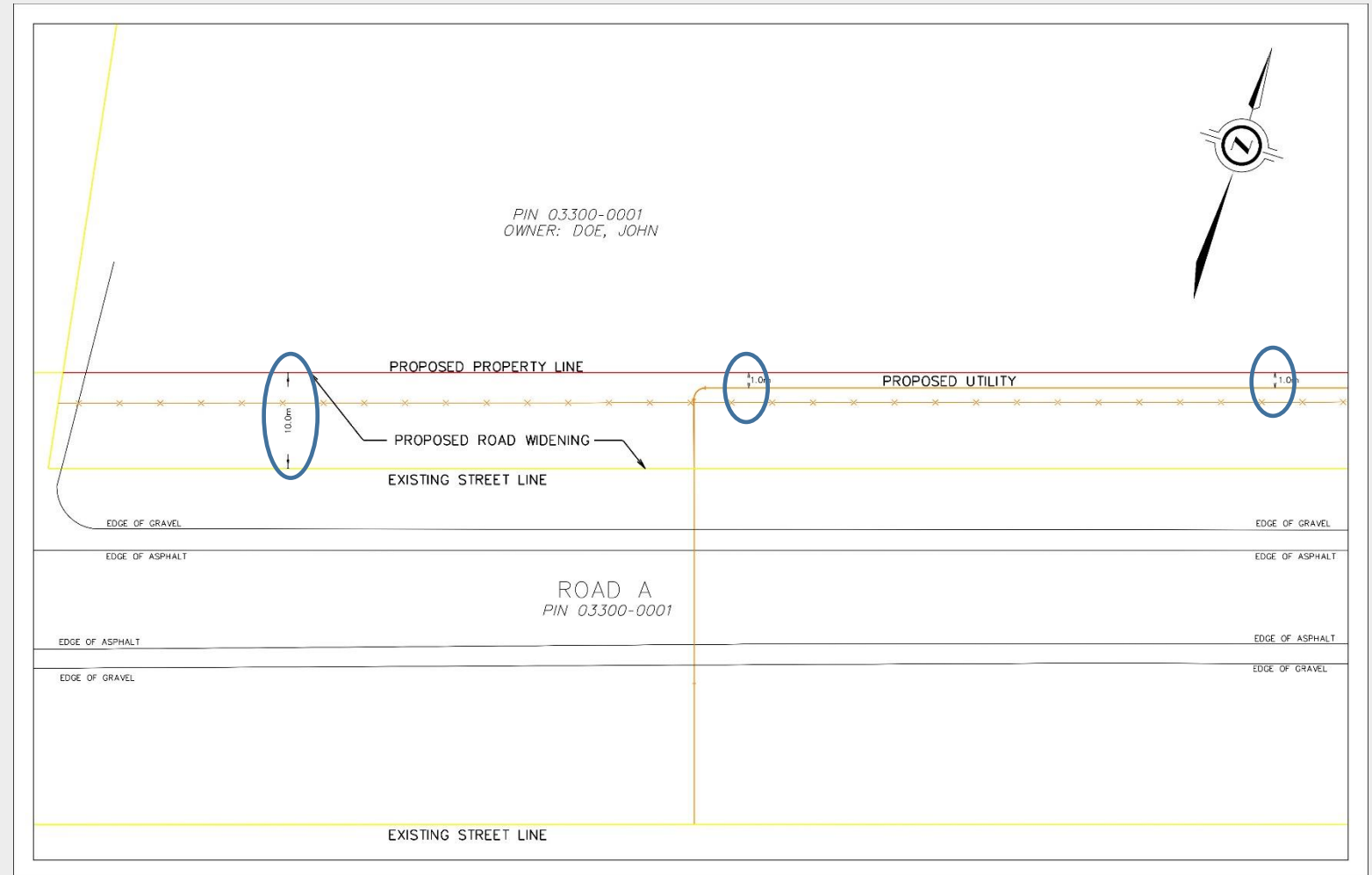
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Case Study #3: Nobody Likes Change

The future road widening was 10m wide

Utility planners were instructed to maintain a 1m offset from the new widened limit

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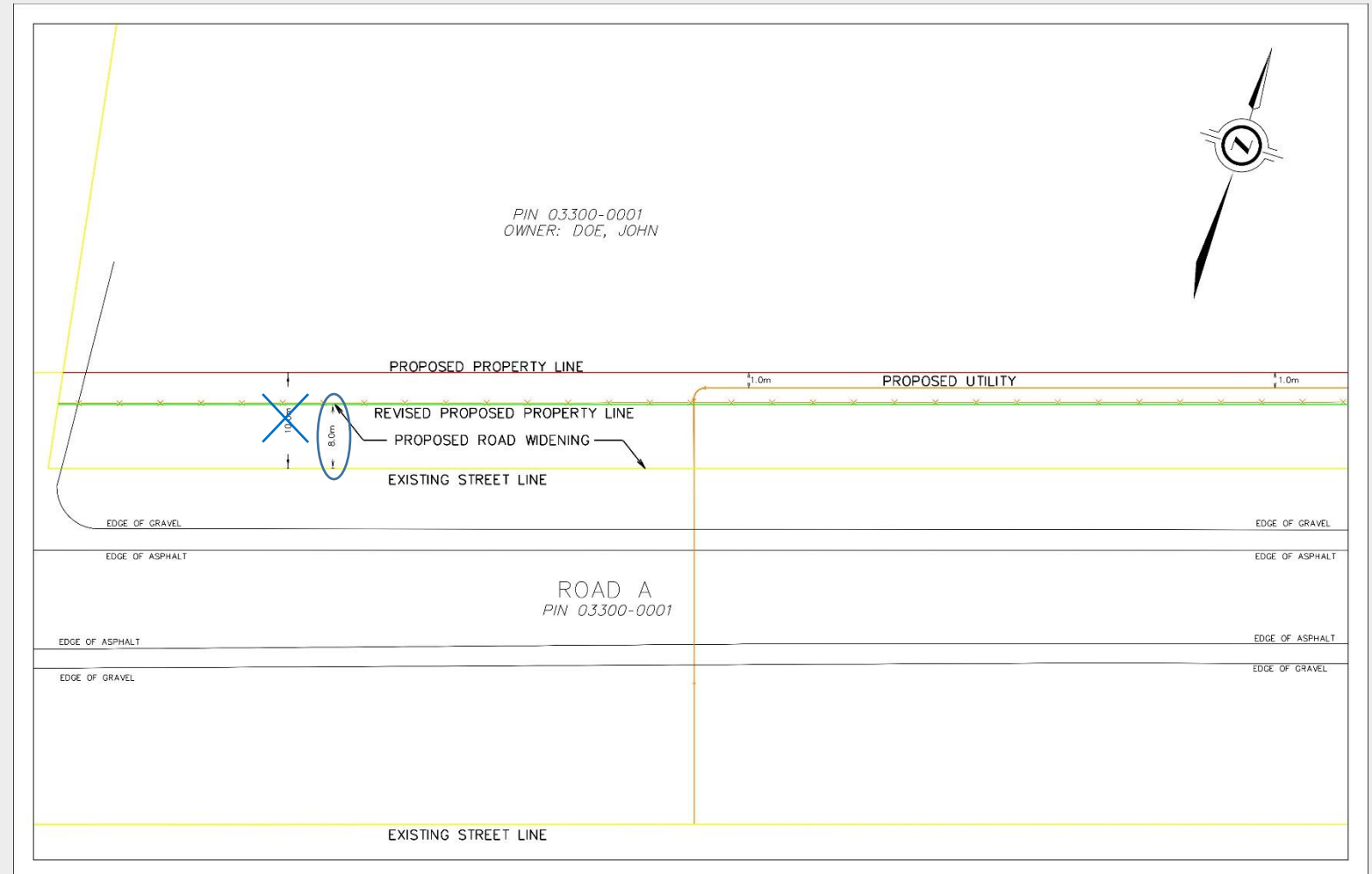


Case Study #3: Nobody Likes Change

Sometime before construction the Municipality
changed their minds on the widening limits - 8m
instead of 10m

The plans however, were never updated and
subsequently issued for construction

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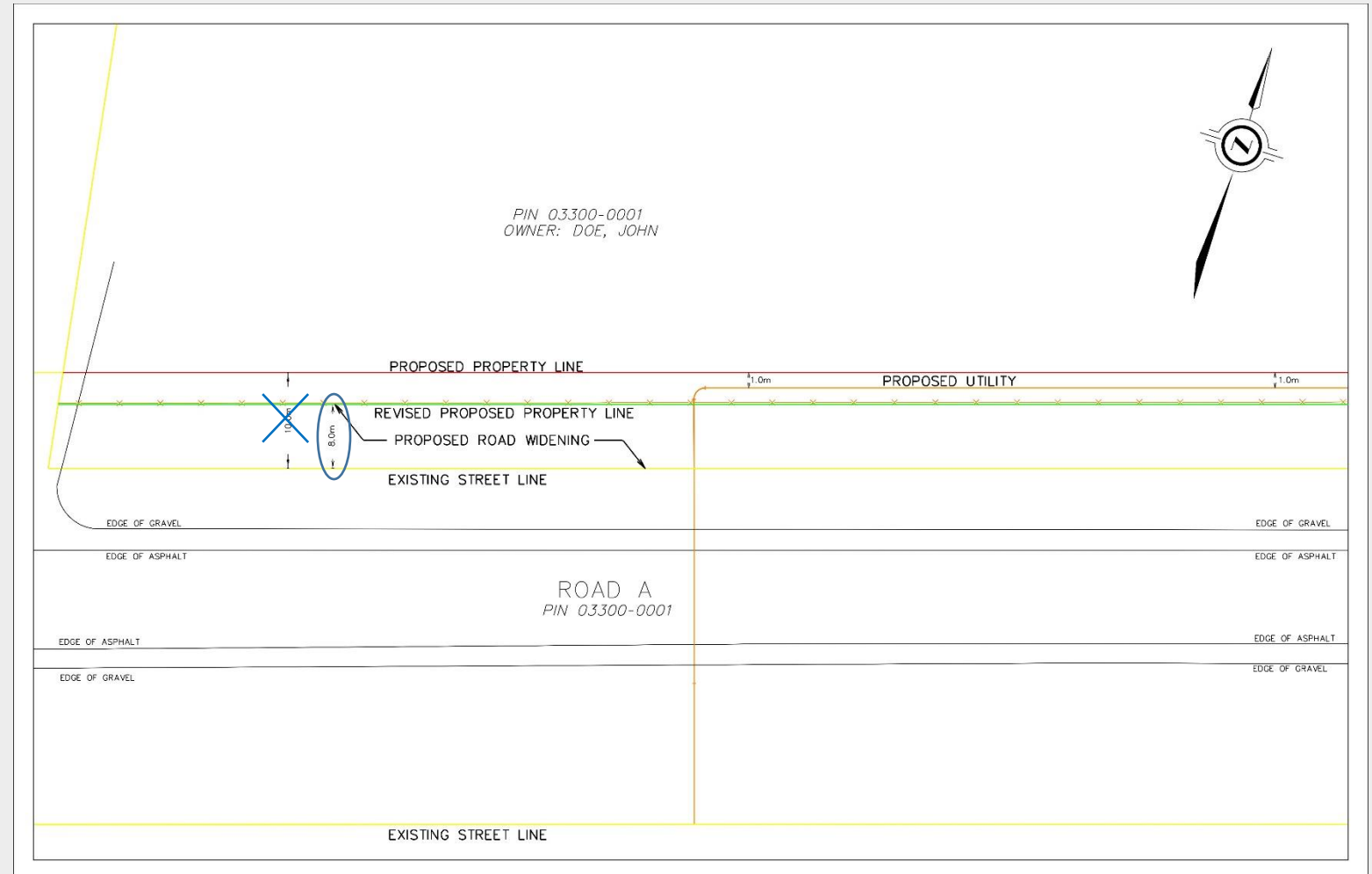


Case Study #3: Nobody Likes Change

The construction company contracted to execute the installation hired a Survey Firm to mark out the proposed widening limits.

Survey Firm conducted a title search, found the misaligned information, and staked the appropriate limit

A quick redline and a field change eliminated the potentially expensive error.

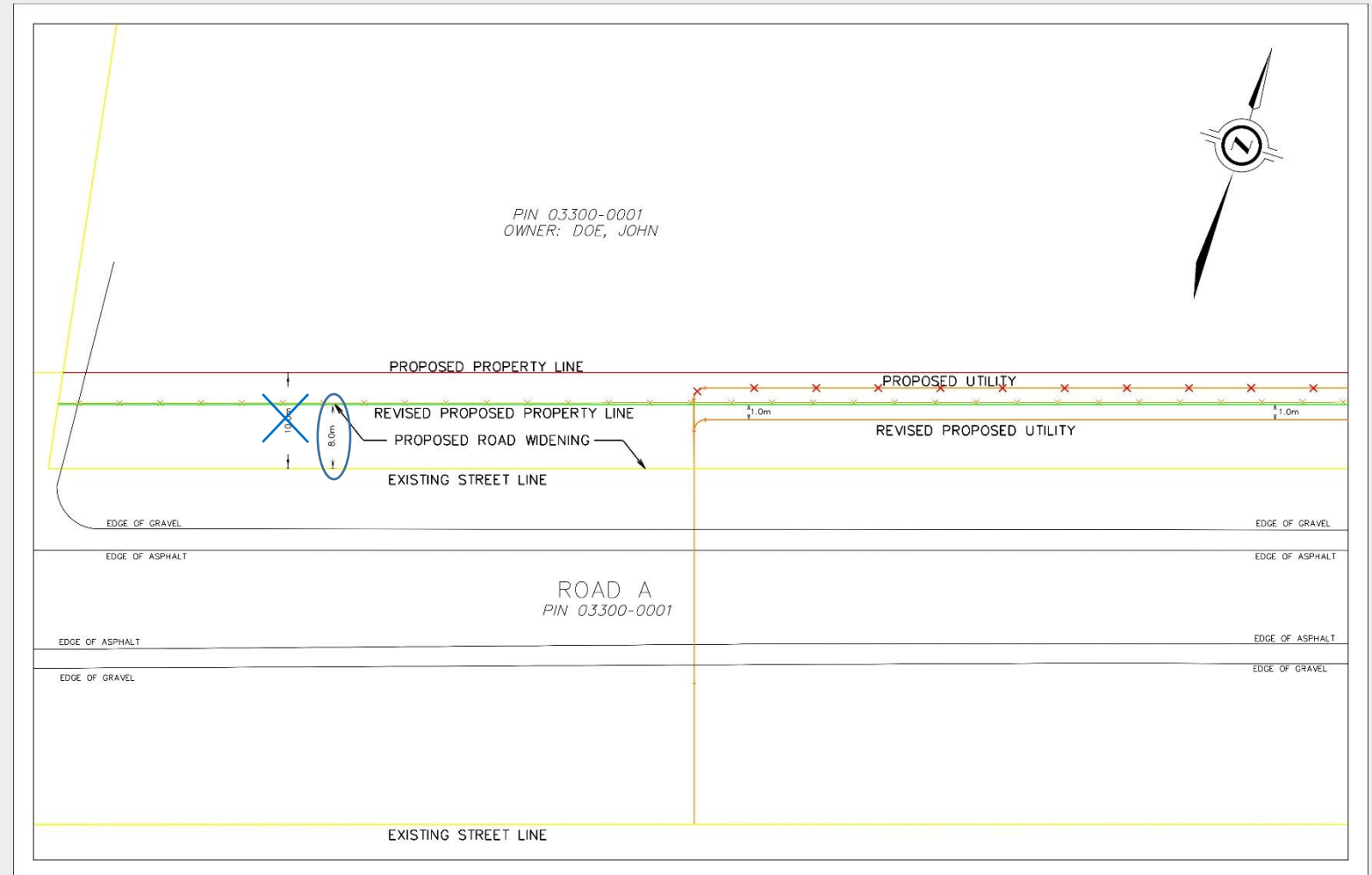


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Case Study #3: Nobody Likes Change

Damages



for the
construction company !!!

Risk Mitigation Guideline



Foolproof approach for all

Risk Mitigation Guideline

- I. Understand the merits/demerits of different Property Data sets
 - a) Information Prepared by an Ontario Land Surveyor – accurate data based on title search, field investigation and professional judgement
 - b) Other dataset (data from a previous project, old documents, GIS download etc) – quality may be unknown and requires a review before it can be confidently used
 - c) Ontario Parcel – intended to be used as index, it is not a survey
2. Know the accuracy of Property Data your project will need
 - a) Will the design venture near property lines?
 - b) Will property lines be used as a work parameter? I.e. design/installation will follow a standard offset of from property line or street line

If the answer to the above is 'Yes' then the project will need accurate data. If the answer is 'No', the project can maybe use less accurate data.

Risk Mitigation Guideline

3. Ask yourself: who will source the Property Data? The Project Owner or The Contractor?
 - a) If Project Owner then:
 - Owners should ensure they choose a source which will meet their needs and make sure the potential contractors understand the quality of the data they will be working with
 - Contractors should query the owner on the accuracy of the data during the RFP process
 - b) If Contractor then:
 - Owners should be clear on their expectations of the contractor. If accurate data is required the following RFP text can be considered: *“Winning contractor is responsible for providing accurate Property/Legal/Survey Data for completion of work.”*
 - Contractors should query the owner on the accuracy of the data during the RFP process
- * if confirmation of property data is expected of the contractor, contractor needs to carry the appropriate costs in their bids

It is crucial that the Project Owner and Contractor are on the same page.

Risk Mitigation Guideline

4. If necessary, keep everyone informed by utilizing appropriate warnings and disclaimers on the face of the plans.

“The property lines shown hereon are approximate and must be field verified prior to start of construction”

5. Understand that Property Data can change over the course of the project. Ensure that all stakeholders understand this and encourage that the data is reviewed at major project milestones and - at the very least - prior to start of construction.

6. Construction Companies - **You are the last line of defence!!!!**

Carry costs of an Ontario Land Surveyor in your bid if you will be working near property lines

*** This should be encouraged by project owners ***

7. When in doubt, consult a Licensed Ontario Land Surveyor.

QUESTION AND ANSWER

Please fill out your survey!

Open the **Attendee Hub App**,
tap on **Agenda** and then tap on

Is This Property Line Accurate?

and complete the survey for this session.

OR

**If you are unable to download the app, a paper
survey is available.**