City of Port Colborne
Court of Revision Addendum

Date:	Thursday, September 18, 2025
Time:	6:00 pm
Location:	Council Chambers, 3rd Floor, City Hall 66 Charlotte Street, Port Colborne

Pages

*5. Presentation by Drainage Engineer *1*

7. Verbal or Late Appeals

*7.1 Greenburg International - Multiple Roll Numbers

*7.2 Greenburg International - Appeal 2 - Multiple Roll Numbers

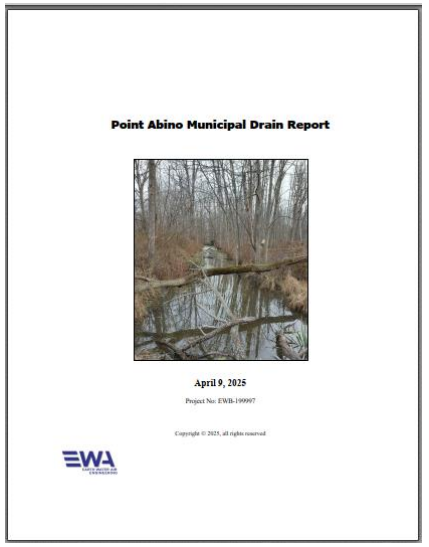
Point Abino Drain
Court of Revision

September 18, 2025 @ 18:30

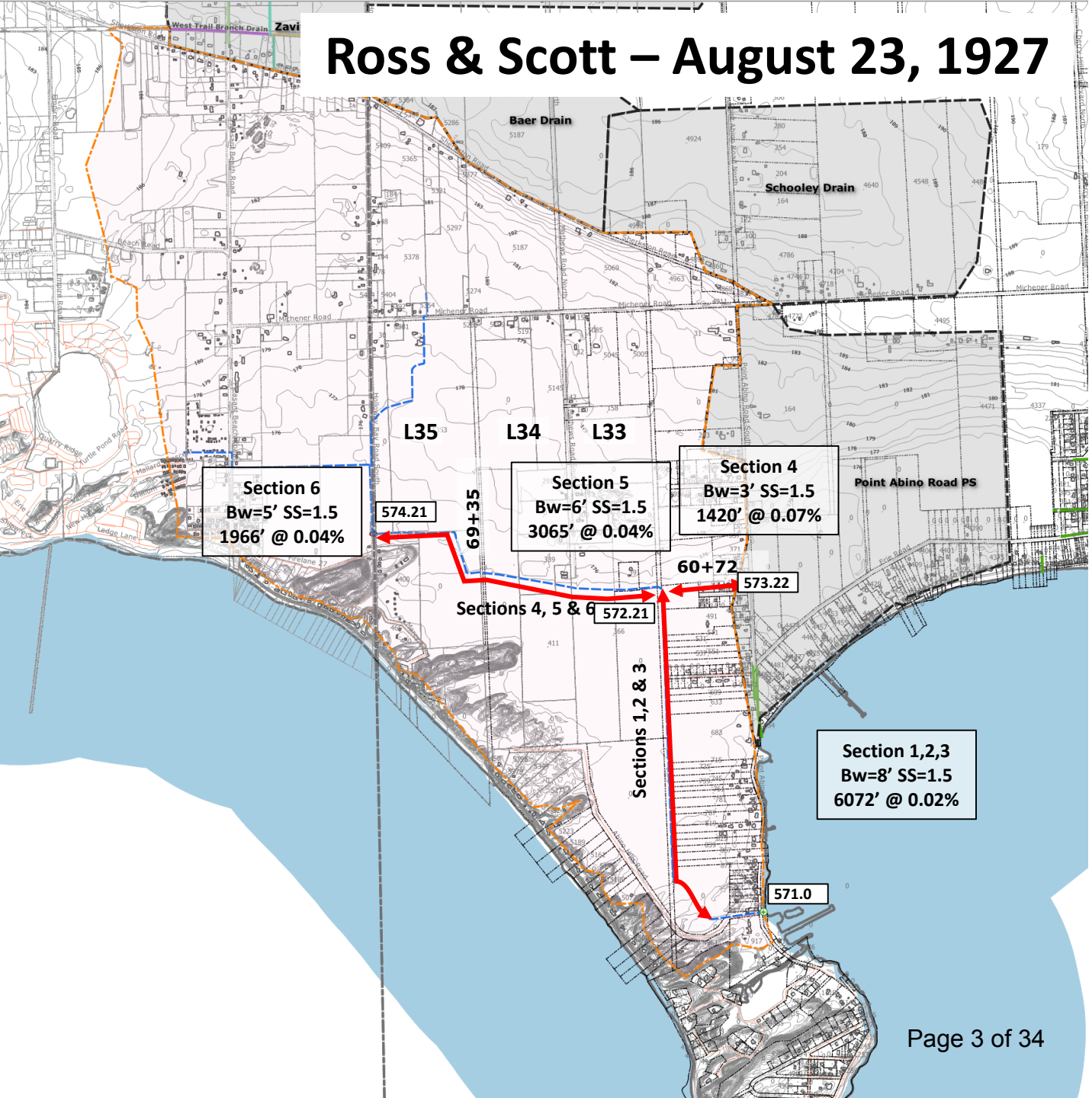
Agenda

- A short review of the Drain.
- Drain Improvements
- Assessment Schedule
  - Allowances and Assessment of Costs

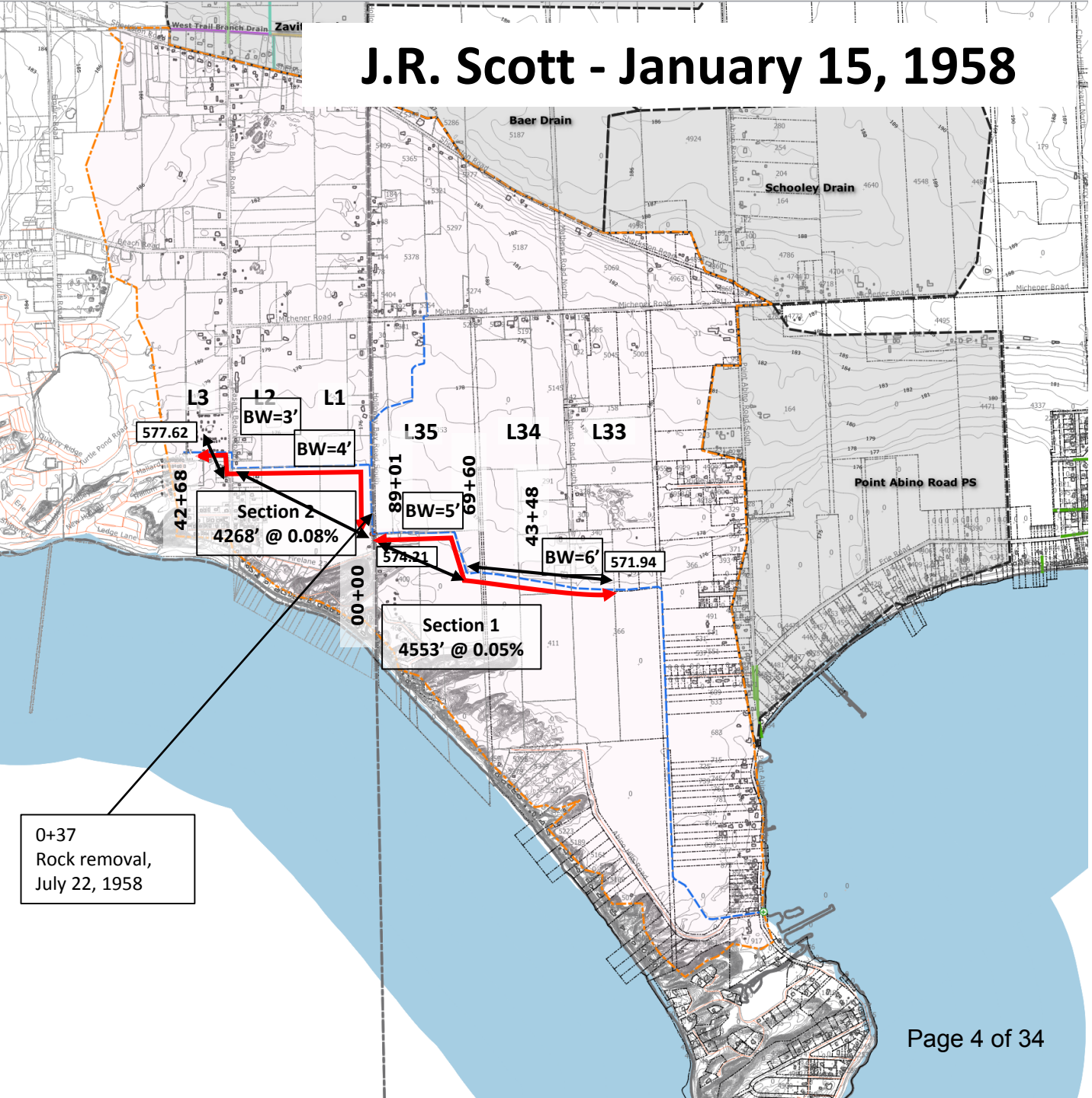
Point Abino Drain Report IFR100
April 9, 2025



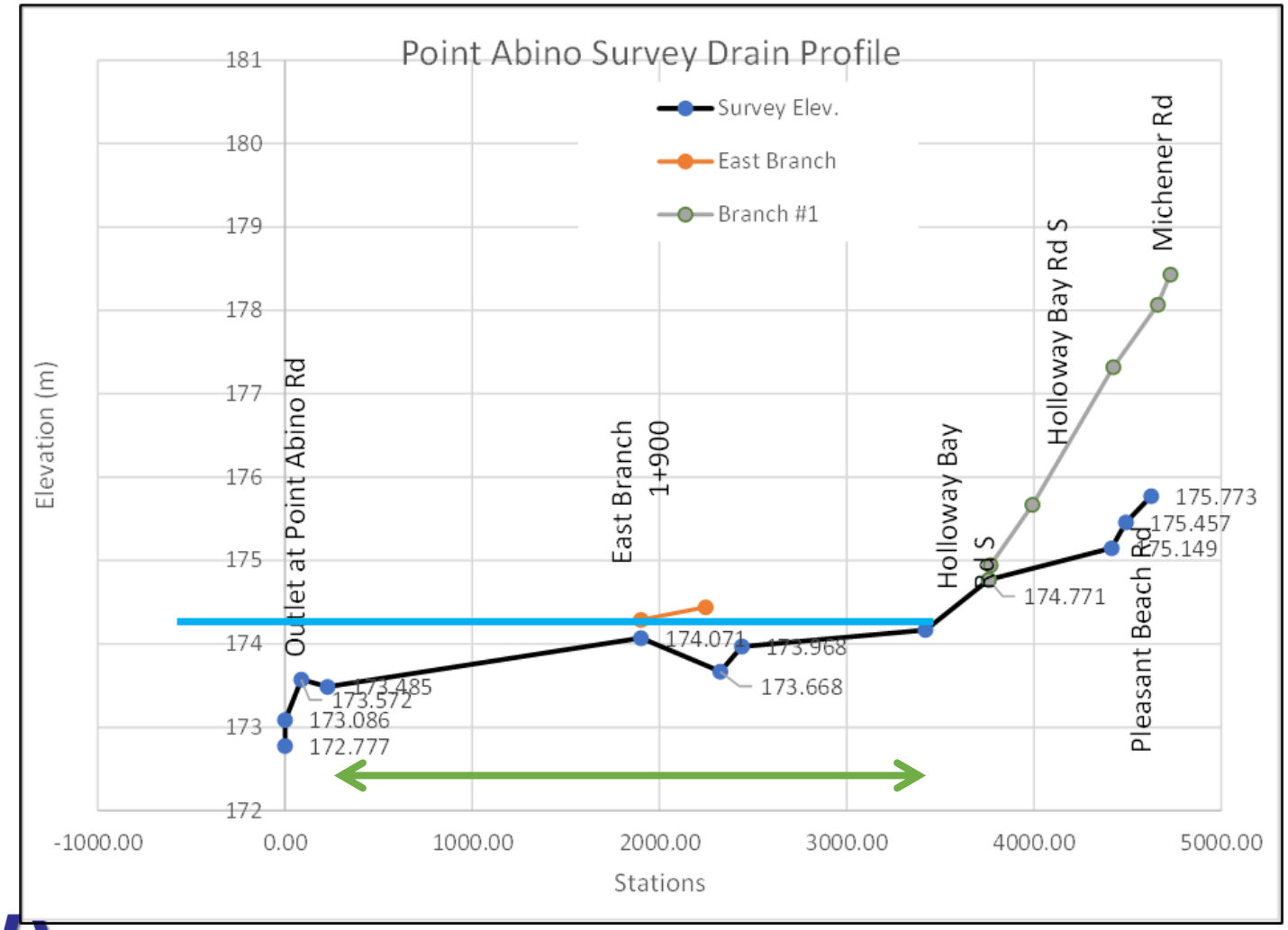
Ross & Scott – August 23, 1927

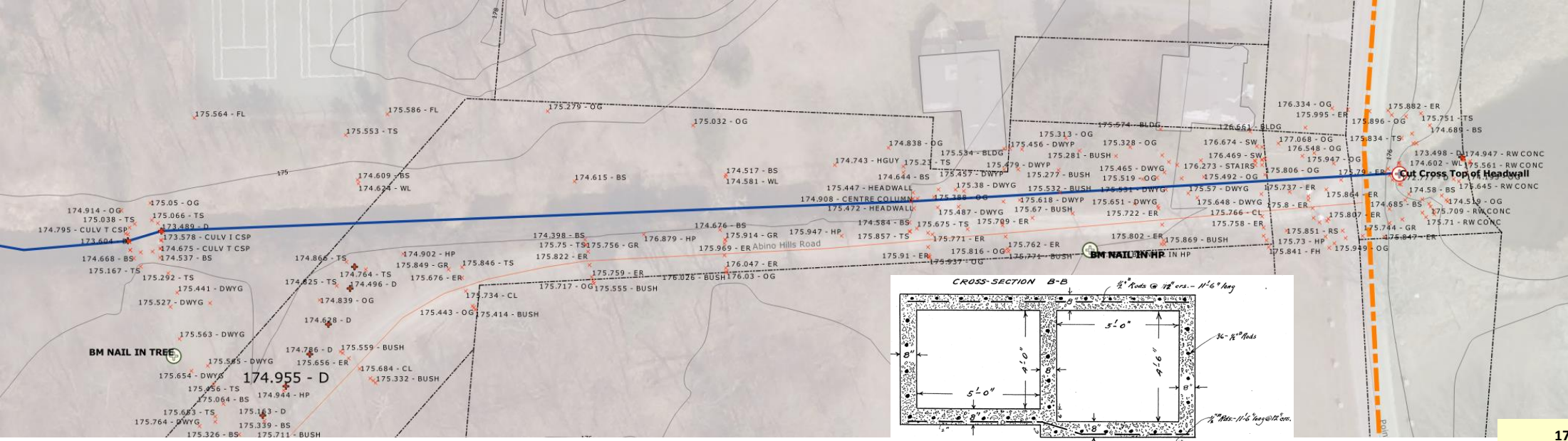


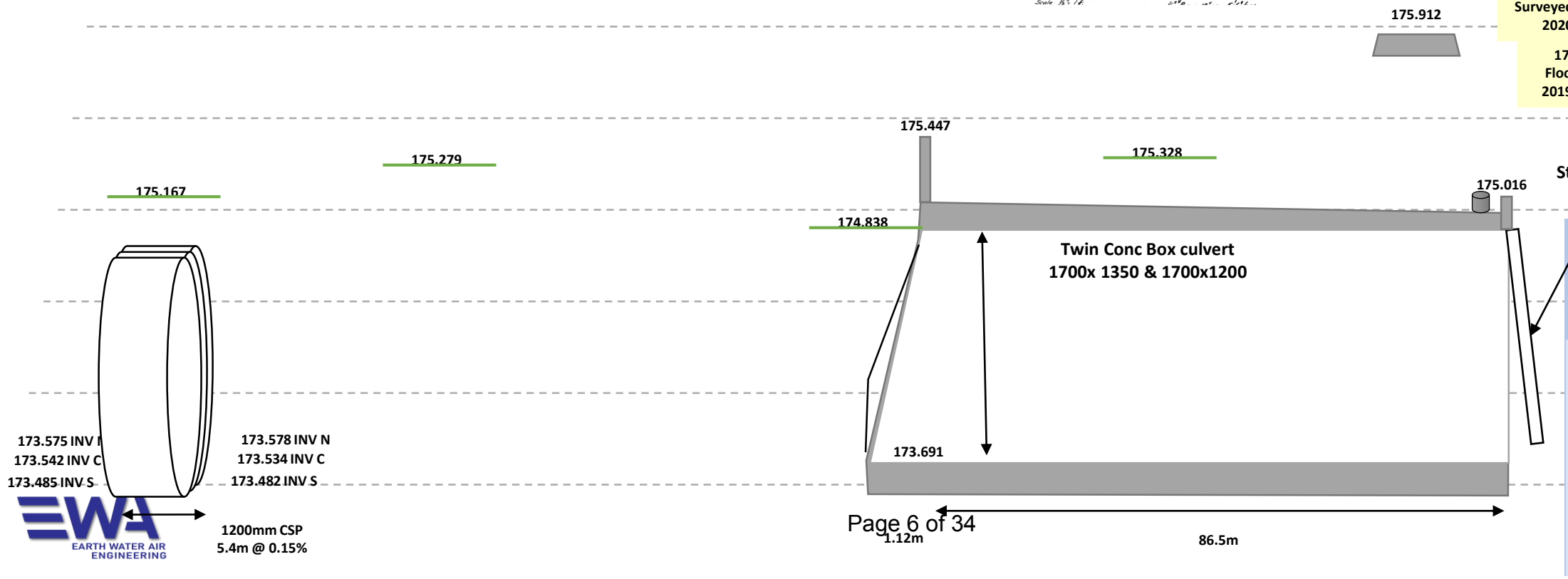
J.R. Scott - January 15, 1958



Drain Profile and Branch Drains







EARTH WATER AIR ENGINEERING

2021 – Outlet Inspection Results

- Retaining Walls on East Side
  - undermining and voids up to 1.2m in depth.
- North Cell
  - Medium to severe scour, scaling.
  - Areas of cracking, spalling and deterioration
  - Voids in sidewalls, north sidewall has large void
  - Multiple holes through centre wall.
  - Cracking around CSP
- South Cell
  - Medium to severe scour, scaling.
  - Spall (.08m high, 0.12m deep with exposed rebar)
- Overall, North Cell is in poor condition and the South Cell is in fair to poor condition.

Recommendation:

- Replace structure within 1 to 5 years.
- Monitor roadway for settlement and sinkholes until structure is replaced.

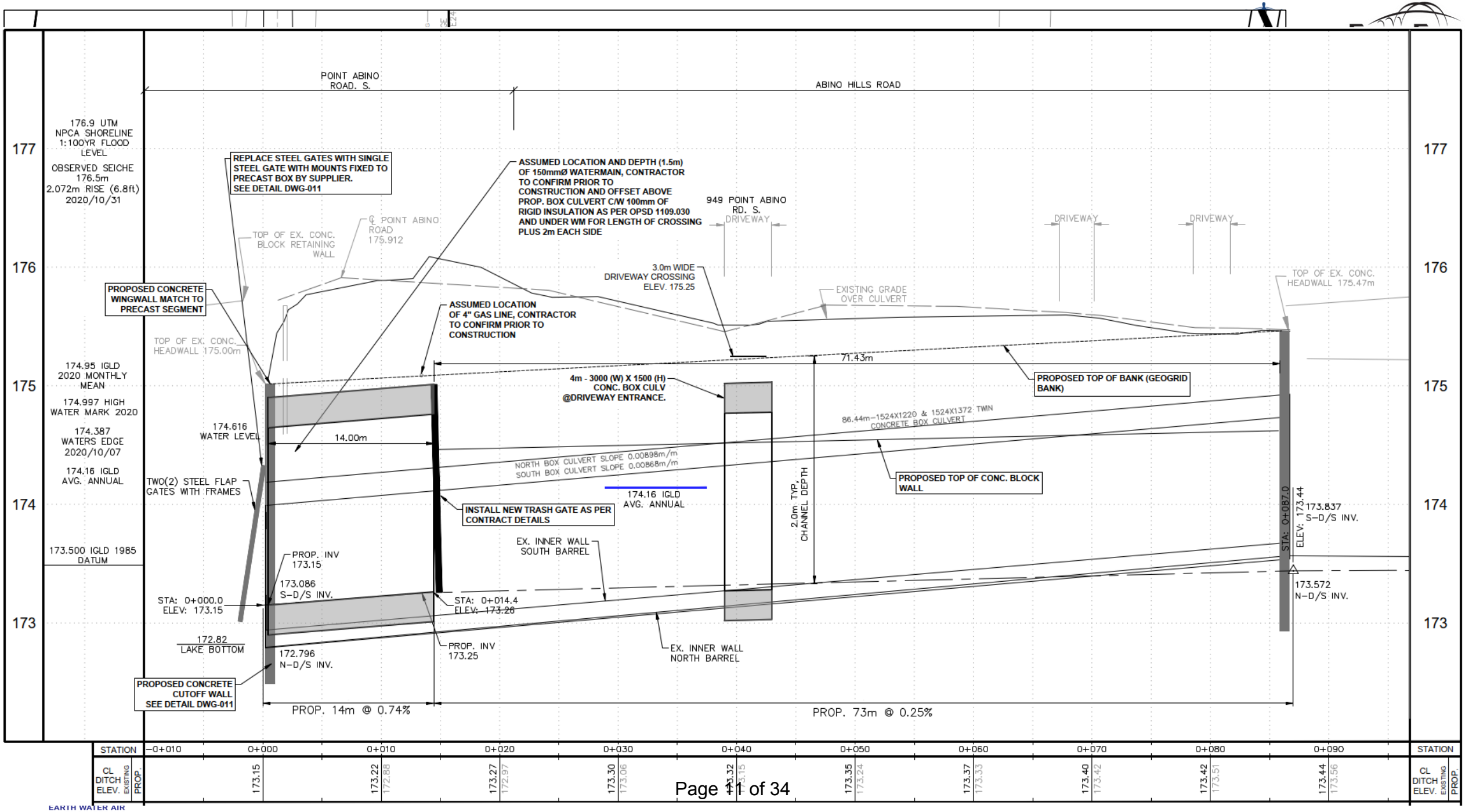
Improvement Opportunities

Design Options and Analysis

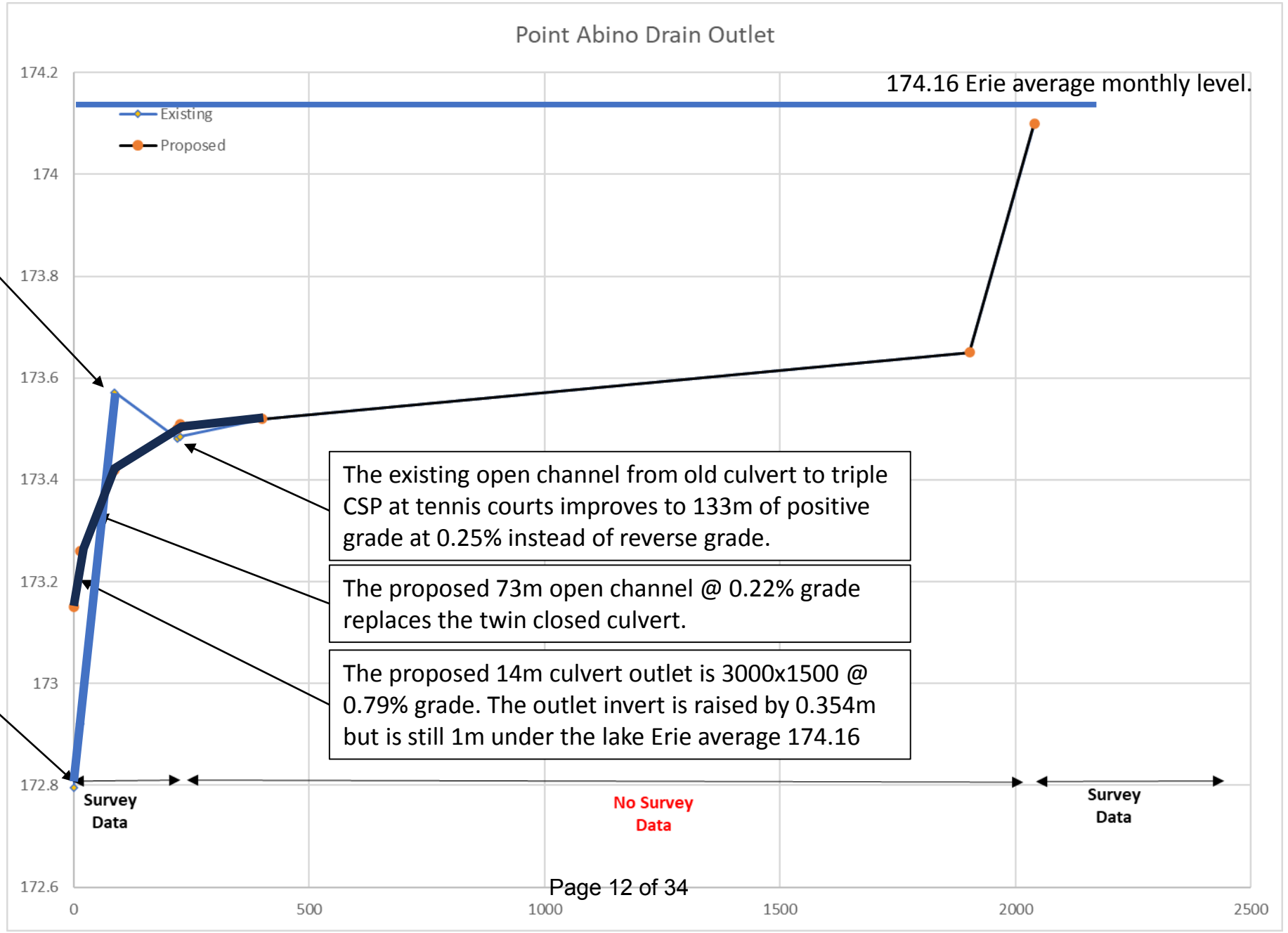
Point Abino Design Issues

1. Abandon East Branch stub?
2. Main - Design Grade review above STA 3+450 and culvert improvement
3. Branch #1 – Design Grade review and culvert improvement
4. Point Abino Rd Culvert Replacement,
    1. Increase capacity for gravity flow.
5. Increase flood capacity flow & natural storage volumes in the lower reach
6. Increase outlet capacity with culvert replacement.

Design Improvements



EARTH WATER AIR ENGINEERING



The existing lower invert to the twin culverts is higher than the inverts of the triple culverts at the tennis courts.

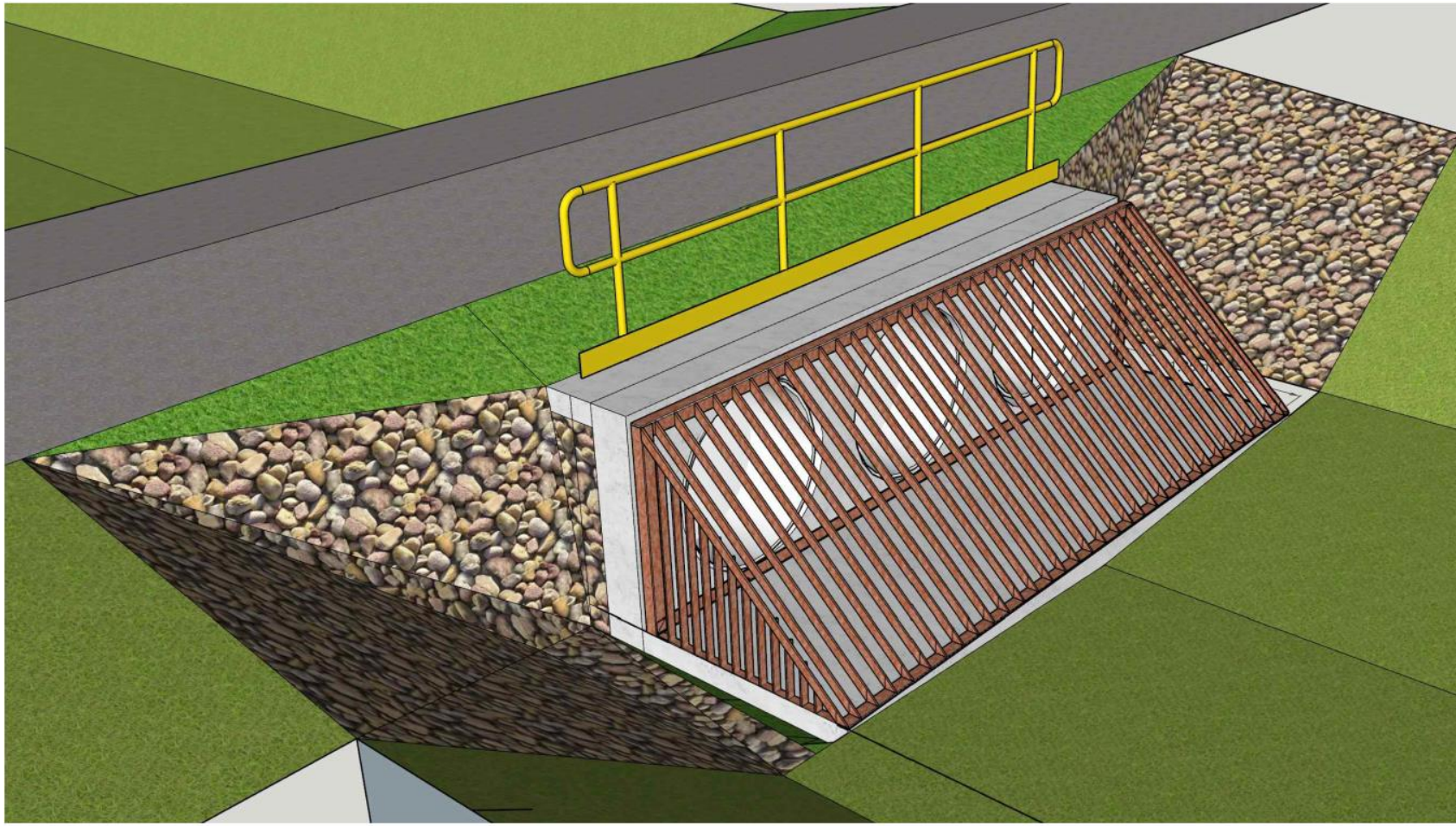
The existing lower invert outlet for the twin culverts is 1.36m lower than the average Lake Erie elevation of 174.16.

The existing open channel from old culvert to triple CSP at tennis courts improves to 133m of positive grade at 0.25% instead of reverse grade.

The proposed 73m open channel @ 0.22% grade replaces the twin closed culvert.

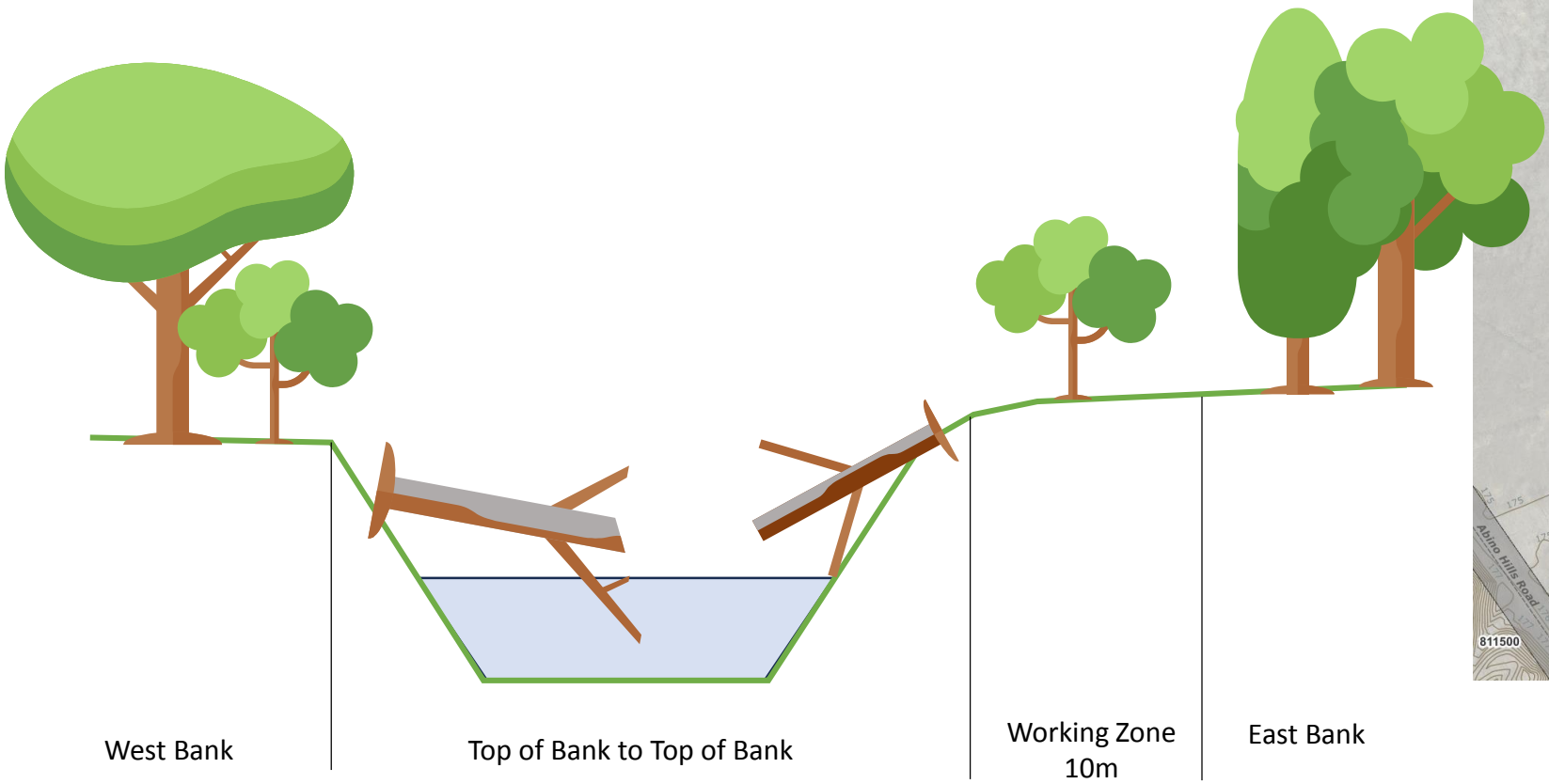
The proposed 14m culvert outlet is 3000x1500 @ 0.79% grade. The outlet invert is raised by 0.354m but is still 1m under the lake Erie average 174.16

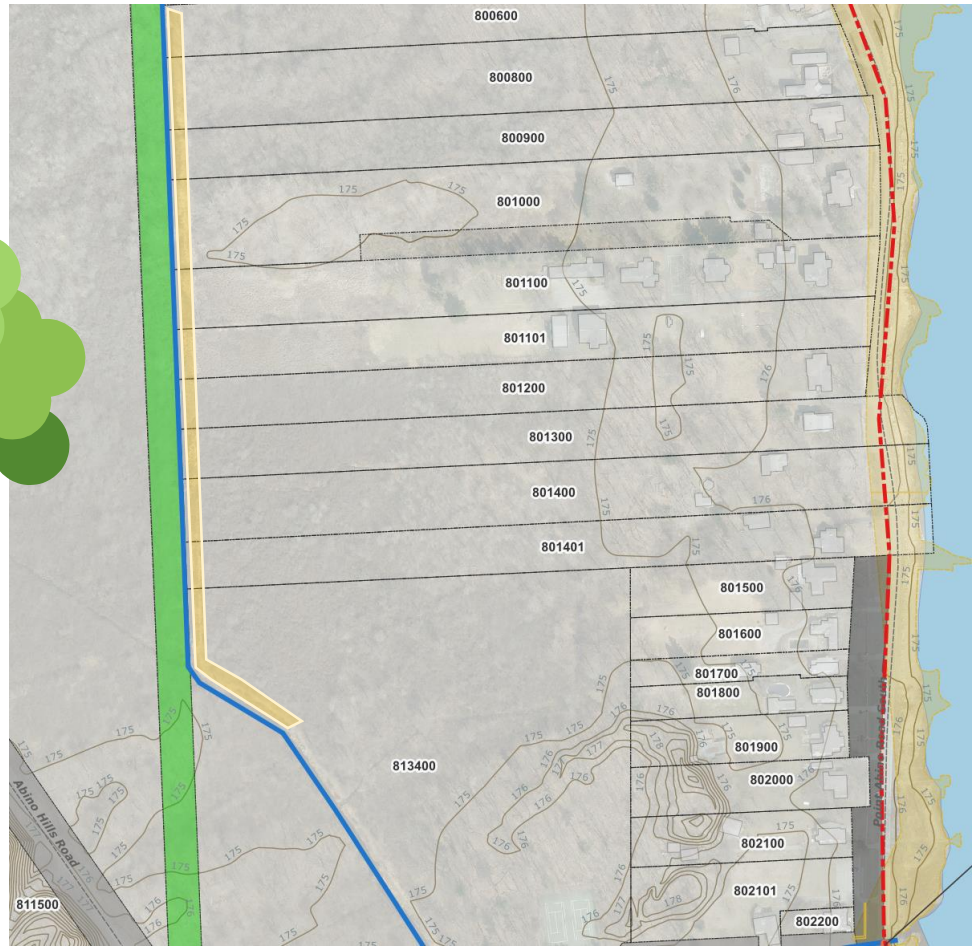
Triple culvert replacement



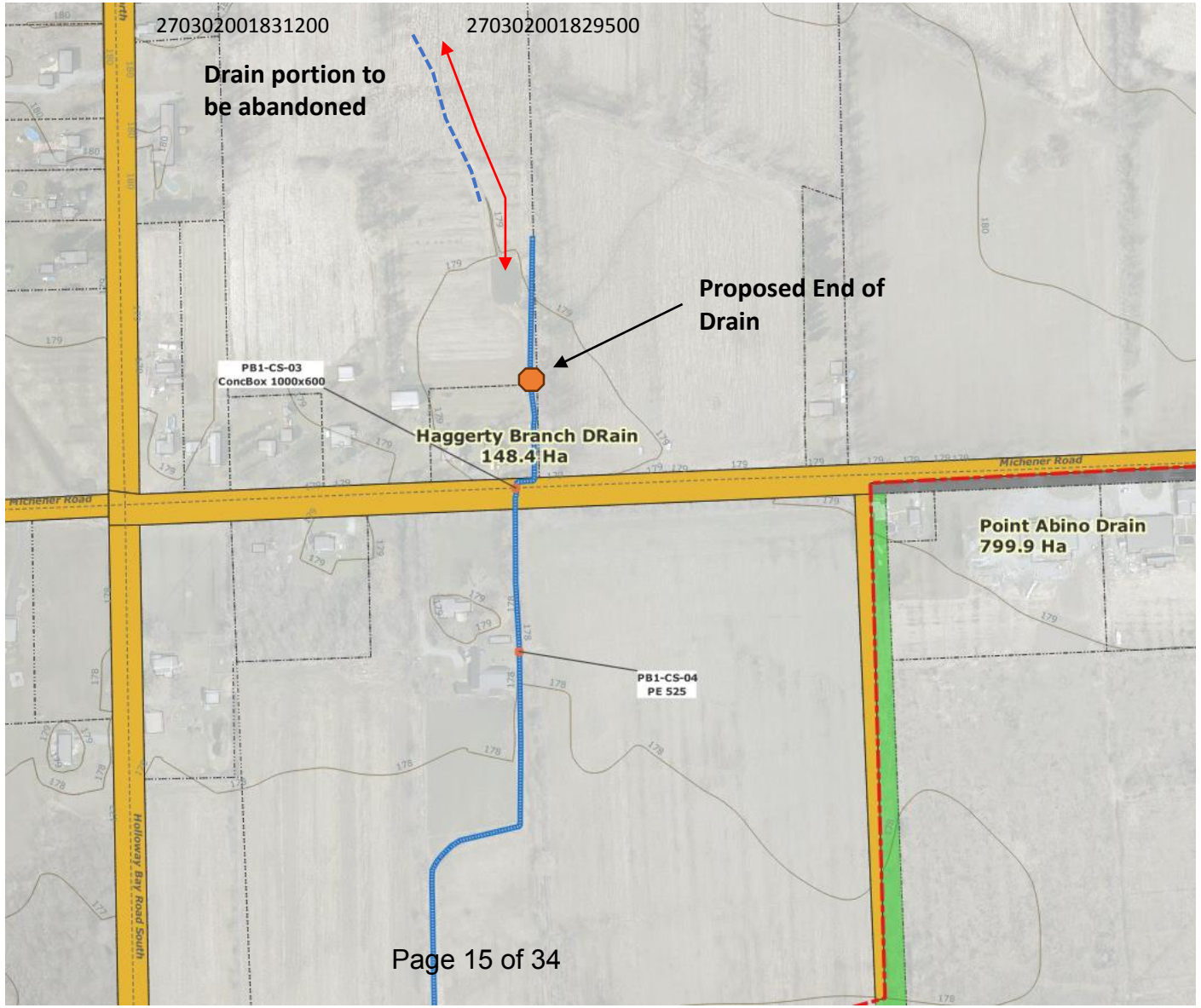
CULVERT CROSSING CS-04
DETAIL A - PERSPECTIVE VIEW
SCALE: N.T.S.

Channel Improvements





Branch No 1: Proposed Changes



Total Cost of Construction

Eligible Administration Costs

- Total - ENGINEERING
  $175,334.89
- Interim Financing Allowance
  $30,276.49
- Applicable Taxes
  $6953.40
- **Total Administration Cost**
  $212,564.78

Construction Estimate

- **Construction Management costs** **$151,000.**
- **Haggerty Branch Improvements** **$27,615.**
- **East Branch Channel Improvements** **$14,302**
- **Outlet Improvements**
  - **Point Abino Rd Culvert replacement** **$877,230.**
  - **Point Abino Gate Improvements** **$102,700.**
  - **Point Abino Conversion to Open Channel** **$684.430.**
- **Drain Maintenance – CofPC** **$26,090.**
- **Drain Maintenance – TofFE** **$152,500.**
- **Contingency** **$305,387.**

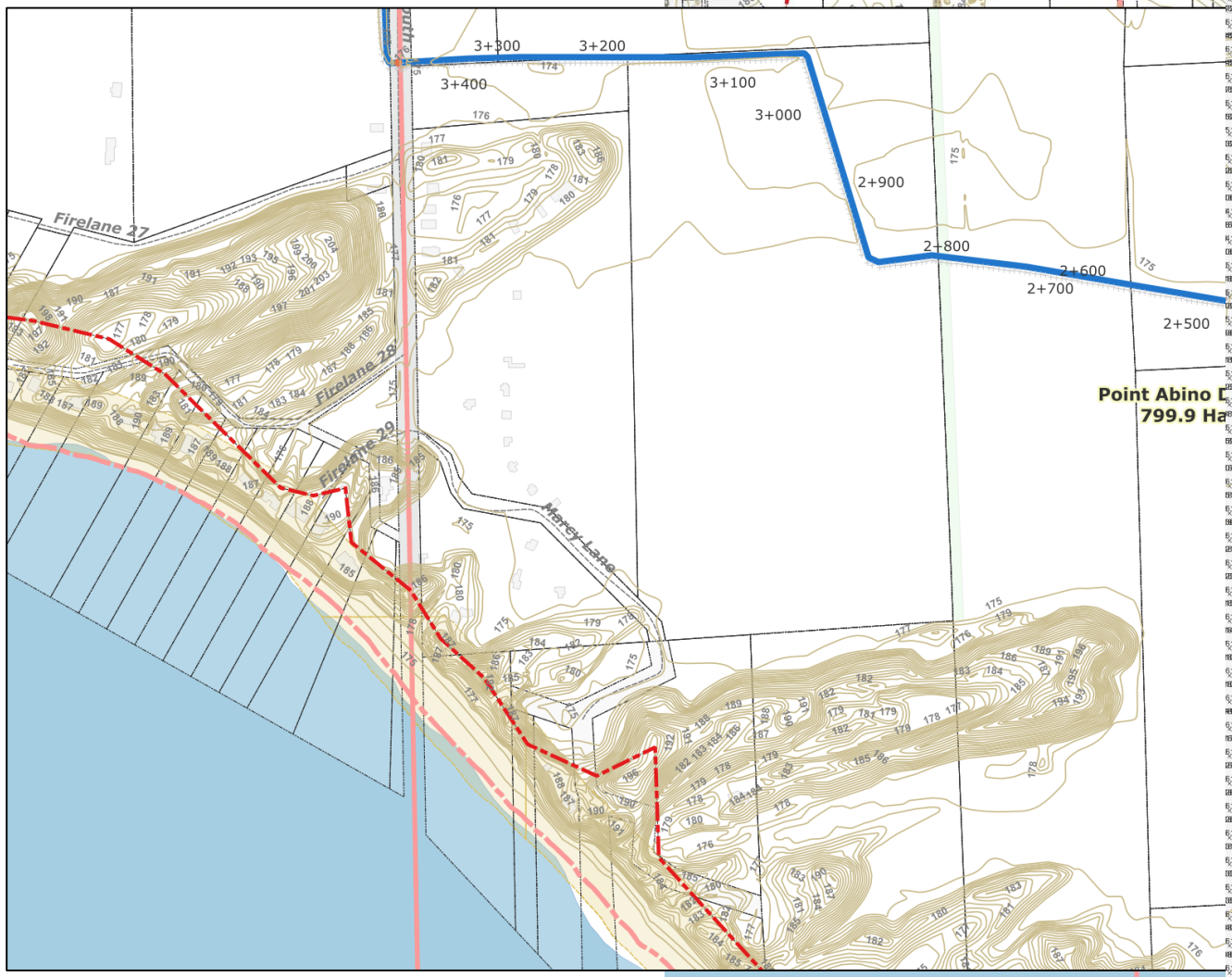
Total Construction $2,341,304.

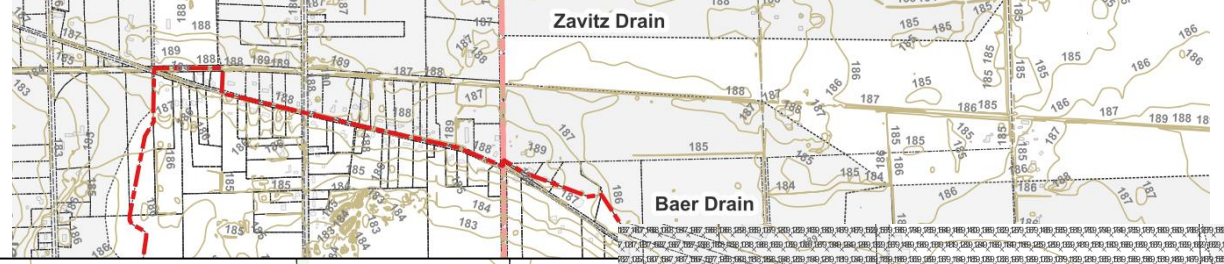
- **Drain Allowances: Haggerty Branch** **$1,339.**

- **Total Project** **$2,555,208.**

Project Assessment

Boundary Determination





PORT COLBORNE

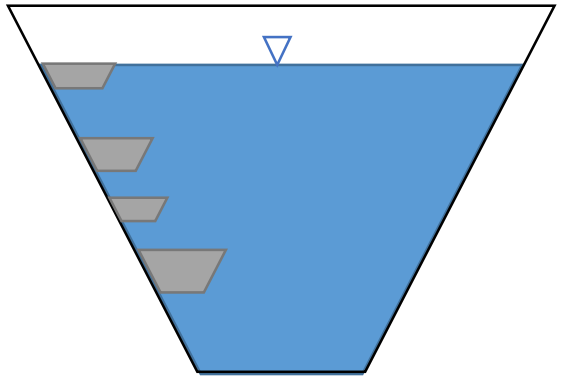
FORT ERIE

EARTH WATER AIR ENGINEERING

Section 23 assessment

- Property #1:
  - 25 Ha
  - Predominately Clay soil, Farm, C=30
- Property #2
  - 0.22 Ha
  - Residential, C=25
- Property #3
  - 22.2 Ha
  - Unused Farm, C=30

- Peak Flow is apportioned to each contributing property and roads.



- QRF = A (ha)* C * I (mm)
- QRF Ratio = QRF P#1 / QRF Total

Haggerty Branch Assessment

- Section 22: Land Value Benefit

  $0
- Section 23: Outlet Benefit / Liability

  $60,164.51
- Section 24: Private Land Special Benefit

  $8,228.44
- Section 26: Road Benefit / Liability

  $0

Total Assessed **$68,392.95**

- Section 24: Special Benefit
  - 271104000102800
    D B M E Inc
  - Pro-rated for culvert replacement at 50% of the estimated cost.
    - DESIGN Q = 1.713CMS
    - REPLACE WITH CSP 1050MM DIA. 6M (L) @0.24% OR APPROVED EQUIVALENT
    - CROSSING ELEV. 176.53

East Branch Assessment

- Section 22: Land Value Benefit $2,171.50
- Section 23: Outlet Benefit / Liability $16,583.58
- Section 24: Private Land Special Benefit $0.00
- Section 26: Road Benefit / Liability $0.00

Total Assessed $18,755.08

- Section 22: Land improvement, abutting benefit.
  - 270302001815300
    ASIP HOLDINGS INC
    214m riparian benefit $588.50
  - 270302001815400
    1254345 ONTARIO INC
    153m riparian benefit $153.00
  - 270302001822710
    FIJAVZ BORIS
    520m riparian benefit $1,430.00

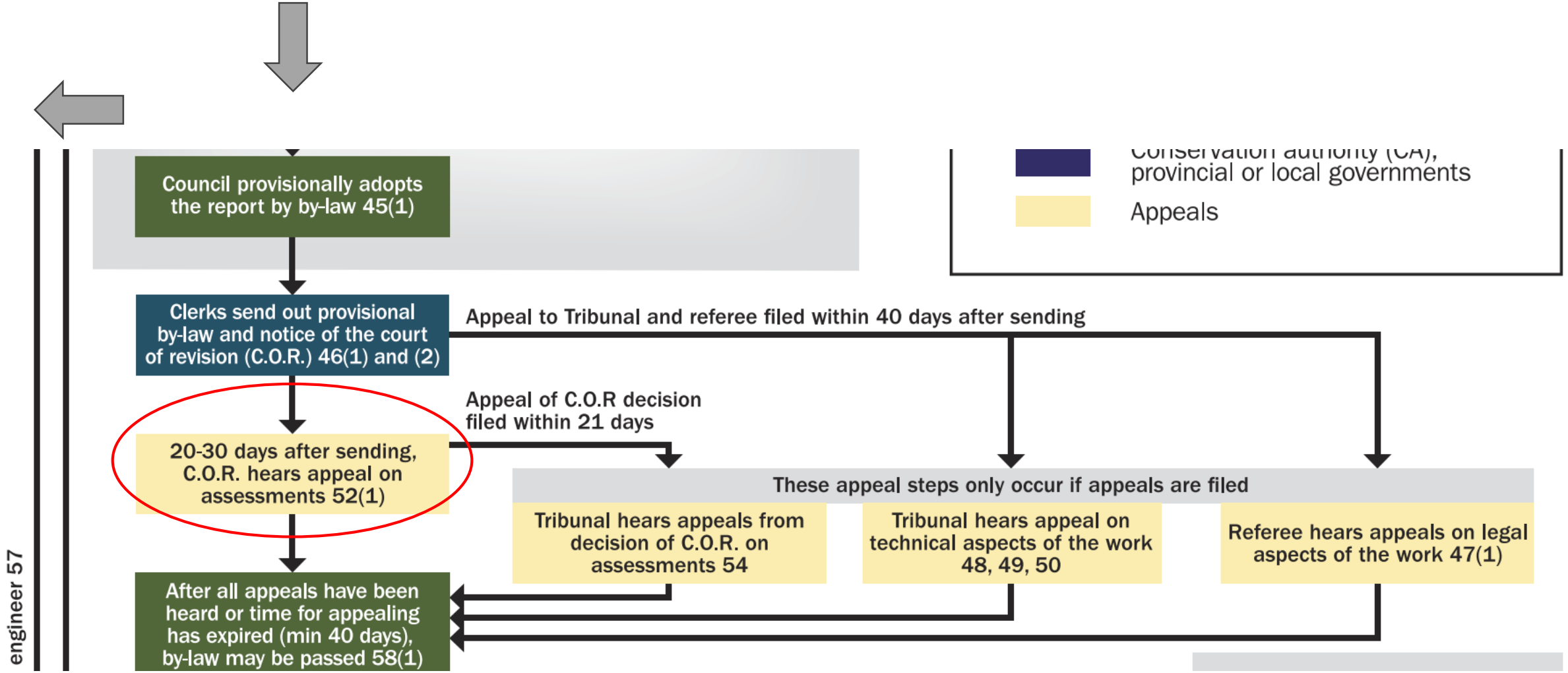
Point Abino Drain Assessment

- Section 22: Land Value Benefit
  $0
- Section 23: Outlet Benefit / Liability
  $1,258,366.23
- Section 24: Private Land Special Benefit
  $36,021.05
- Section 26: Road Benefit / Liability
  - Town of Fort Erie $1,156,446.74
  - Utilities – Enbridge $17,226.00

  $1,173,672.74

Total Assessed **$2,468,060.03**

- Section 24: Special Benefit
  - Andreacchi Franchina
    27110400010850 0
    Replace PAM-CS-10 culvert
    pro-rated at 50% $5,638.00
  - MATHEWSON CHRISTOPHER
    270302001802200
    New culvert for access lane
    prorated at 12% $15,725.46
  - 270302001813400
    Tennis Court Access Lane
    triple culvert replacement
    prorated at 12% $14,657.59


conservation authority (CA), provincial or local governments
Appeals
Council provisionally adopts the report by by-law 45(1)
Clerks send out provisional by-law and notice of the court of revision (C.O.R.) 46(1) and (2)
Appeal to Tribunal and referee filed within 40 days after sending
Appeal of C.O.R decision filed within 21 days
20-30 days after sending, C.O.R. hears appeal on assessments 52(1)
These appeal steps only occur if appeals are filed
Tribunal hears appeals from decision of C.O.R. on assessments 54
Tribunal hears appeal on technical aspects of the work 48, 49, 50
Referee hears appeals on legal aspects of the work 47(1)
After all appeals have been heard or time for appealing has expired (min 40 days), by-law may be passed 58(1)
engineer 57

Thank you

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Troy Davidson, Drainage Superintendent
Town of Fort Erie
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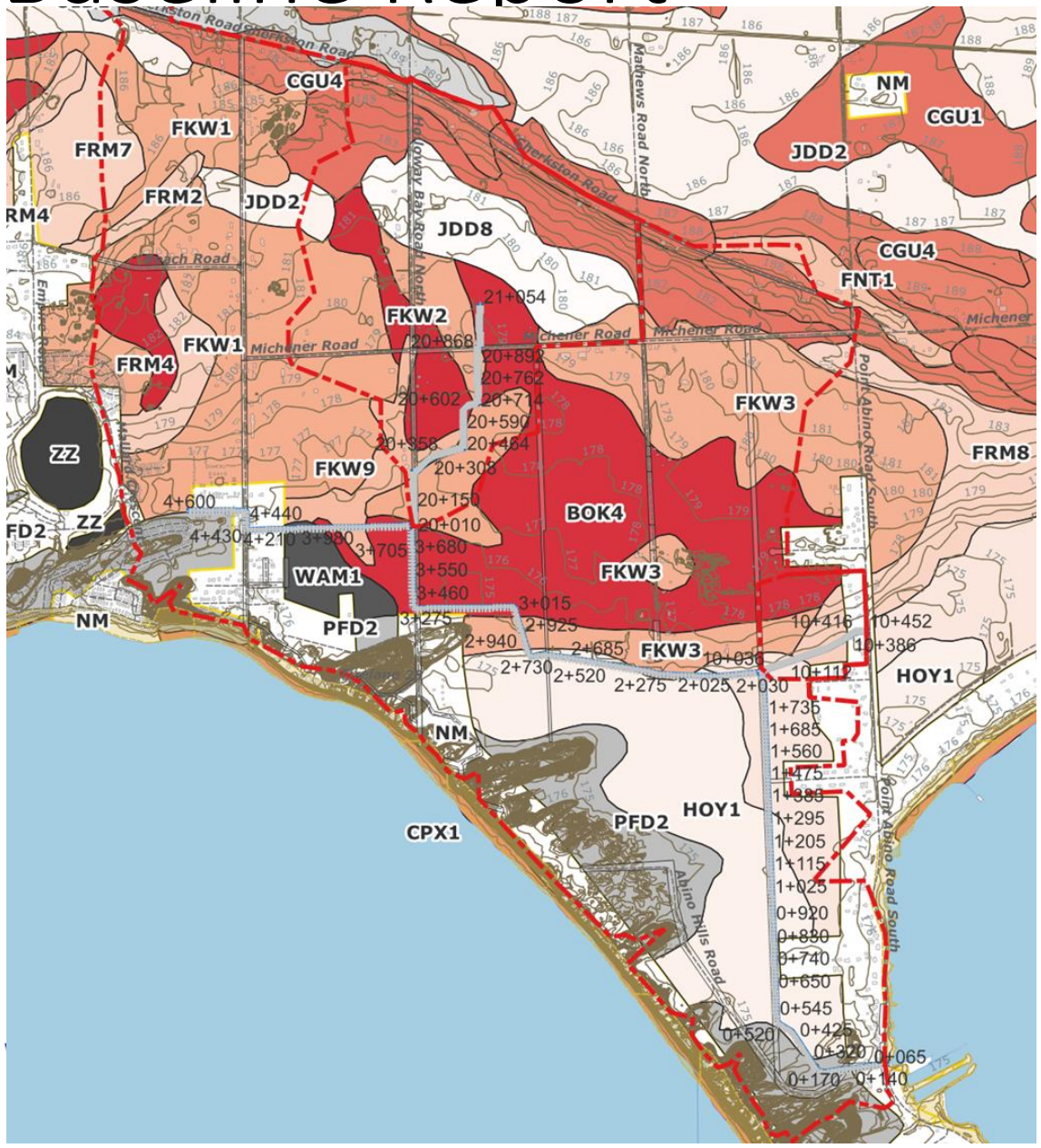
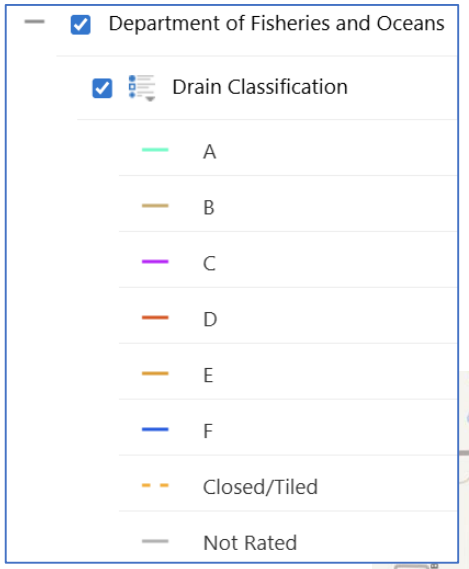
Baseline Report



- The Point Abino Drain serves an area of 792 hectares
- Main Drain is 4690m in length
  - Watershed average fall (slope) is given 0.26% or 2.6m per 1000m
  - Drain average fall (slope) is given as 0.14% or 1.4m per 1000m
- The Point Abino Drain is a split slope watershed,
  - upper portion relatively high slope
  - very low slope in the lower half of the drain.
- Control Gate Sill elevations;
  - North side is 172.796
  - South side is 173.086
  - Lake Bottom is 172.82

Environment

- Significant wetland features exist within the Drain and catchment.
- DFO rated stream assessment as ‘F’ Intermittent. No sensitive species.
  - Point Abino west of Holloway Bay Rd
  - Haggerty Branch
- DFO ‘C’ rating
  - Point Abino Drain (TofFE)
  - Permanent, Spring, No sensitive fish species present
- DFO ‘E’ rating
  - Point Abino Drain North South portion (TofFE)
  - permanent flow, Spring, sensitive fish species present.

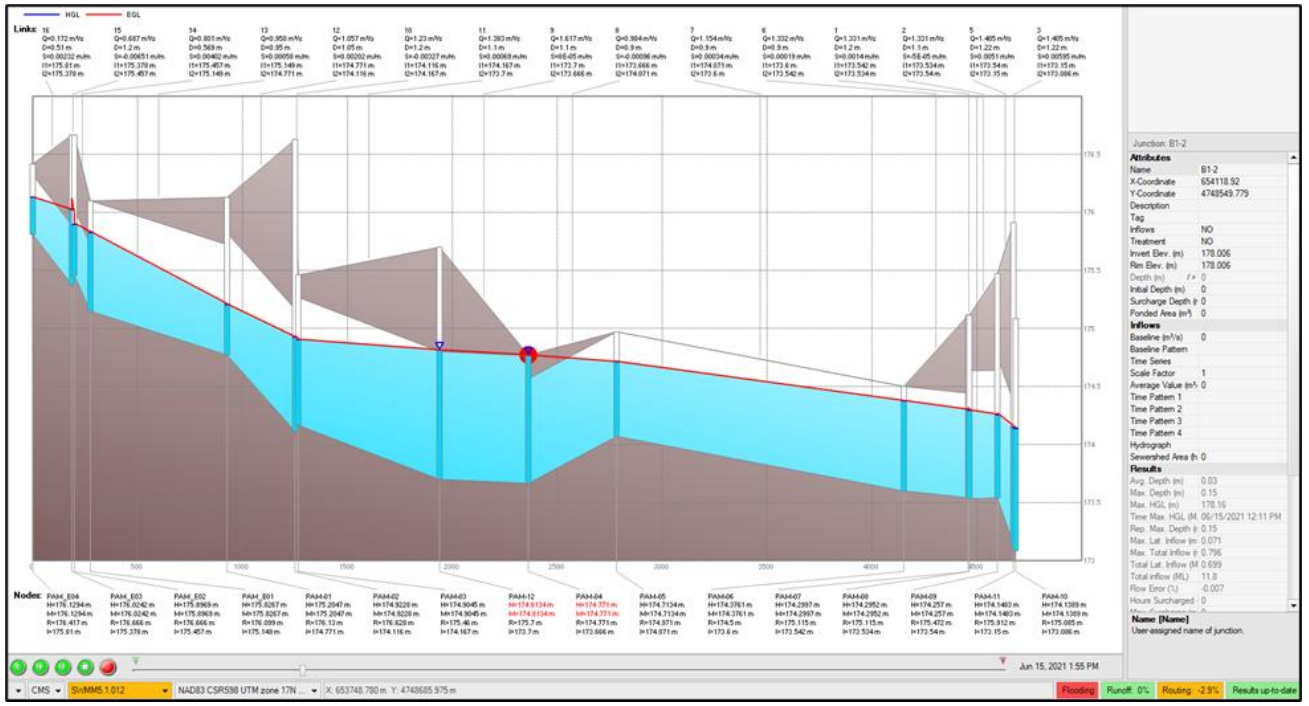


Farms


Zavitz Drain
Sherkston Road
Baer Drain
Mathews Road North
Point Abino Road North
Schooley Drain
Holloway Bay Road North
Pleasant Beach Road
Beach Road
Haggerty Branch Drain
148.4 Ha
Michener Road
Point Abino Drain
799.9 Ha
Point Abino Road South
Oriole Lane
Point Abino Road PS
PAM East Branch Drain
16.8 Ha
Mallard Crescent
Trillium
Firelane 27
Firelane 28
Marcy Lane
Bay Woods
Abino Hills Road
Point Abino Road South

Hydrologic and Hydraulic Model results

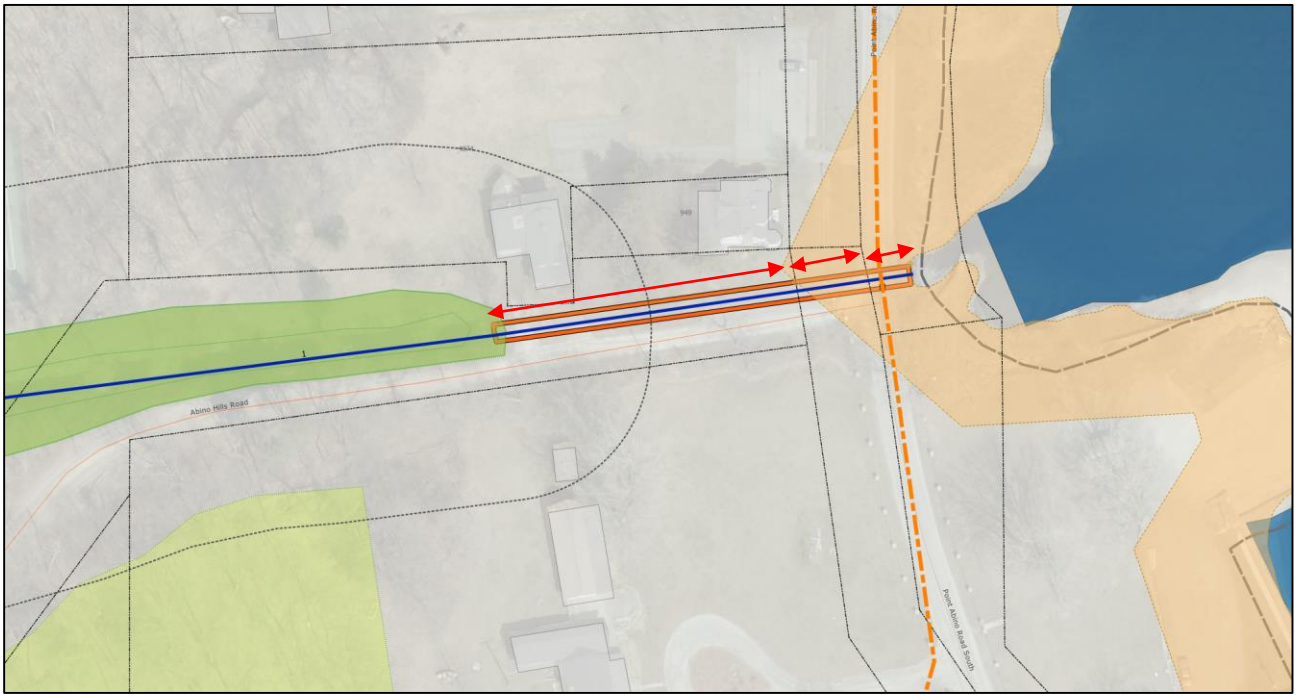
- ½ the upper portion of the drain has a positive slope and works to design.
- The lower ½ is compromised by a lack of slope to achieve flow to the outlet, when the outlet is open.
- The entire lower reach is heavily influenced by the lake elevation.



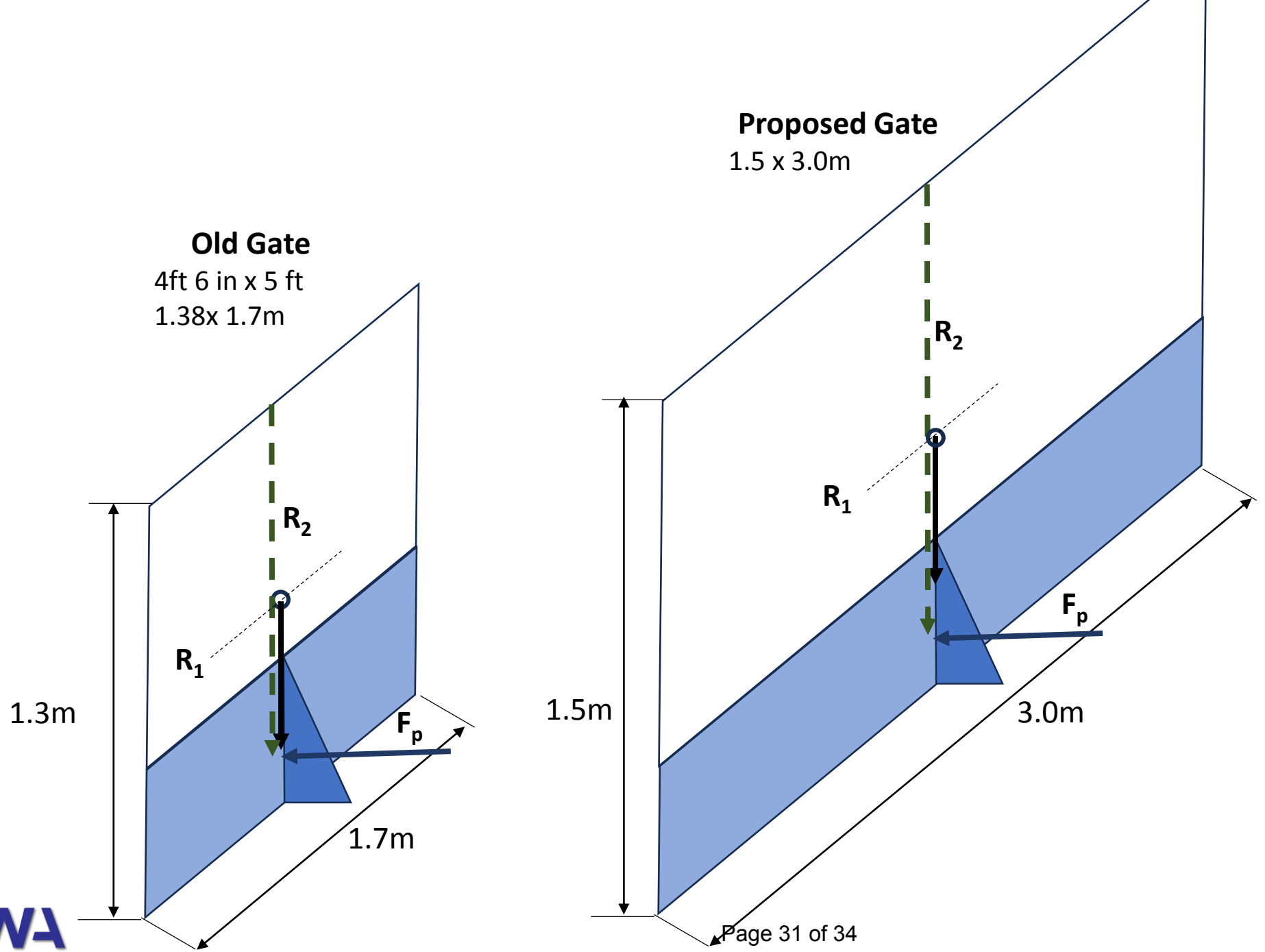
Point Abino Outlet Project Stats

- Project Components;
  - 14m - 3000x1500 Precast culvert (6 2m segments + 1 special outlet segment),
  - 4m – 3000x1500 Precast culvert (lane crossing),
  - existing concrete box removal,
  - remove gates and weld together with new gate with frame mounted on precast box. Install new entrance grate on west side of culvert.
  - 90+m of guard rail along south channel bank between Drain and Point Abino Hills Rd. Existing brick pedestals are impacted, and the road alignment is shifted to the south by 2m.
  - Convert existing 73m of closed twin culvert to open channel.

Point Abino Road Culvert Replacement



- Existing length
  - 9.0m – Shoreline & Roadway
  - 14.8m – Road allowance?
  - 62.9m – Private Land access
- Roadway replacement as single pre-cast culvert only.
- Two private access culverts
  - One private access culvert requested.


Old Gate
4ft 6 in x 5 ft
1.38x 1.7m
R2
R1
Fp
1.3m
1.7m
Proposed Gate
1.5 x 3.0m
R2
R1
Fp
1.5m
3.0m

Assessment Principles

Allowances

- All land has the same valuation; $ 22,000 per hectare ($10,000 /acre)
- Land Taken for Drainage (Section 29)
  - Drain Top Width (Design)
- Land for Work Zones (Section 29)
  - Value is apportioned based on frequency of maintenance. (1 every 20 years)
- Damages (Section 30)
  - Only paid on crop damages or commercial impacts
  - No payment with restoration
  - No payment on trees removed for drainage. 2 trees for 1 replacement program to enhance tree canopy.

Assessment Principles – Conversion

Allowances – cont.

- Section 31 – compensate owners for private drains incorporated into a municipal drain.
  - Branch Drains that are providing an outlet for Right of Way and upland drainage.
  - Private Drains to remain not included for compensation.
  - Valuation is based on construction cost to create today.
  - Value is adjusted to reflect drain condition and any improvements that are required.

Assessment Principles – 2

Benefits

- Section 22 – Land improvement, Abutting Benefit
  - Benefit of open channel vs closed conduit
- Section 23 – Outlet Liability, Outlet Benefit
  - Method of assessment is based on Equivalent Area Runoff Factor, (QRF) using basics of the Rational Method for proportional assessment.
  - Adjusted for Stormwater Management Features (SWMF)
- Section 24 – Special Benefit
  - 50% of culvert cost of construction, ratio based on portion of flow.
- Section 26 – Roads, Utilities
  - Assessment for contribution to drainage costs.