

VILLAGE OF KILLARNEY ROADSIDE DRAINAGE – PHASE 1
Municipality of Killarney

TENDER DOCUMENTS

1. The Municipality of Killarney (Municipality) hereby invites qualified, experienced contractors to submit tenders for the construction of the above-referenced project.

Tenders will be received until:

Monday, November 17, 2025 at 2:00 pm

And will be received in the following method:

2. All tenders must be submitted in-person to the Municipal Office located at 32 Commissioner Street in Killarney. Sealed Tenders shall be marked with the name of the project and addressed to Candy Beauvais, Clerk-Treasurer.

The Selected Tenderer may be considered for award at the next Council meeting.

3. Tender Deposit: A Tender deposit equal to **10% of bid price** is required as Tender security. The Tender deposit shall be in the form of a certified cheque, digital bid bond or scanned paper bid bond, payable to the Municipality. If a scanned copy of the certified cheque or paper bid bond is submitted, the original copy may be required to follow within 48 hours of the Tender Closing Time and Date.

If a digital Bid Bond or scanned paper Bid Bond is submitted, an Agreement to Bond must be completed and submitted as part of the Tender Submission (as described in Section 100.4 Contract Security). If the Bid Bond and Agreement to Bond are submitted in digital format, access and authentication information must be provided as part of the Tender Submission.

The Bid Bond shall be issued by a Bonding Company acceptable to the Municipality and licensed to carry on business in Ontario. The Bid Bond must be irrevocable and remain open for bid acceptance for at least **SIXTY (60)** days from the date of bid opening.

4. Contract Security: If the Selected Tenderer used a certified cheque as their Tender Deposit, the certified cheque will be retained as Contract Security until issuance of the Certificate of Completion. All other certified cheques submitted as Tender Deposits will be returned after award of the contract.

If the Selected Tenderer submitted an **Agreement to Bond** with their tender (digital Agreement to Bond or scanned paper Agreement to Bond), prior to Form of Agreement execution, the Selected Tenderer shall submit the following required bonds:

- A **Performance Bond** for the due completion of the Work in accordance with the terms and conditions of the Contract, the bond shall be in an amount equal to **50%** of the Total Contract Price (excluding HST), including a 1-year Maintenance Period from date of Substantial Performance, in the form of FORM 32, Performance Bond under Section 85.1 of the Construction Act.; and;
- A **Labour and Material Payment Bond**, the Bond shall be in an amount equal to **50%** of the Total Contract Price (excluding HST) in the form of FORM 31, Labour and Material Payment Bond under Section 85.1 of the Construction Act.

The Bonds received from the Selected Tenderer shall remain in force throughout the duration of the Contract including the guarantee, warranty or maintenance period of the Contract and/or until the Contract is deemed complete by the Owner.

5. Tender Documents: The Tender Documents consists of the following:

- 100 Instructions to Tenderers
- 101 Schedule of Tender Prices
- 102 Form of Tender
- 103 Form of Agreement
- 200 General Conditions
- 300 Special Provisions
- 400 Standard Specifications
- 500 Drawings 2, 3, 5, 6, 19, 20, 28, 29, 30, 34, 39 (of 39) dated July 14, 2025

Upon award of the contract, the Tender Documents shall form the Contract Documents.

6. Deliverables: The Contractor shall supply all labour, equipment and materials to complete the works as shown on the Drawings and as listed in the Schedule of Tender Prices.
7. Pricing: Tenderers shall complete and submit Section 101 - Schedule of Tender Prices, electronically. The Schedule of Tender Prices is required for the evaluation of Tenders received, preparation of progress payment certificates, any adjustments necessary to the Contract made under Sections 400.7 and 400.8 of the Standard Specifications for Construction
8. Tender Submission Errors: A discrepancy or mathematical error in the Schedule of Tender Prices may be corrected by the Municipality with the Total Tender Price corrected accordingly.

If a Tenderer has omitted a price for an item in the Schedule of Tender Prices, it shall be assumed that the Tenderer has allowed for this item elsewhere in the Schedule of Tender Prices. Unless agreed to by the Municipality, no increase shall be made in the Total Tender Price on account of such omission.

9. Tender Omissions/Objections/Interpretations: If a Tenderer finds discrepancies in, or omissions from the Tender Documents, or if there is doubt as to their meaning, they shall notify the Engineer and an addendum may be issued to provide correction or clarification.

If a Tenderer objects to the materials, methods, or design specified, they shall notify the Engineer, in writing, stating their reason for objection and they may submit an alternative. In such an event, the Engineer may choose to issue an addendum.

Neither the Municipality nor Engineer will make oral interpretations of the content of the Tender Documents.

Any questions are to be directed, in writing, to **Louis Desjardins, P. Eng. (Project Engineer)**
See Section 100.17 for contact information.

10. Contingencies: A lump sum amount for contingencies was provided in Section 101 - Schedule of Tender Prices. Contingency item shall not be expended without the authorization of the Engineer and any part not expended shall be deducted from the final contract price.

11. Deletions: The Municipality reserves the right to delete individual items from the Contract.

12. Taxes: Tenderers shall **not** include HST on pricing items provided in Section 101 - Schedule of Tender Prices.

The Contractor shall pay all applicable taxes, Harmonized Sales Tax (HST), for labour, equipment and materials supplied. The Municipality will include 13% HST on all payments to the Contractor. If the Contractor is entitled to any exemptions, the Municipality will supply the necessary Certificates.

13. Evaluation: Tenders will be evaluated based on the Total amount of the Tender and the relevant experience of the Tenderer with similar work. The Engineer may request information from the Tenderer documenting prior relevant experience (if a Proof of Ability & Experience Form is not already included in the Tender Documents). The lowest of any Tender will not necessarily be accepted.

14. Schedule Constraints: As per the Letter of Advice received from Fisheries and Oceans Canada (DFO) no in water work is to occur between the window of **May 1st to July 15th**. Other work may occur within this window as long as fish and fish habitat are not impacted.

15. Submission Requirements: The following documents must be completed and submitted with the Tender as specified in Section 100.1 above:

- 15.1 A Tender Deposit in compliance with Section 100.3 above
- 15.2 Agreement to Bond in compliance with Section 100.4 above (if applicable)
- 15.3 Section 101 - SCHEDULE OF TENDER PRICES
- 15.4 Tenderer Schedule Form
- 15.5 Proof of Ability & Reference Form
- 15.6 List of Proposed Subcontractors, if any.

Tenders which are incomplete, conditional, illegible, or obscure or that contain additions not called for, reservations, deletions, alterations, mathematical errors, or irregularities of any kind, may be rejected as informal. The Municipality reserves the right to waive informalities at its discretion.

16. Pre-Conditions of Agreement: Upon notice of Contract Award by the Municipality, the Selected Tenderer shall provide the following documentation prior to the commencement of work:

- 16.1 Clearance Certificate from the Workplace Safety and Insurance Board (WSIB)
- 16.2 Insurance Documents in compliance with Section 200.18 **(\$5,000,000 commercial general liability as required by the Municipality of Killarney)**.
- 16.3 The Municipality of Killarney must be named as an additional insured.
- 16.4 Contract Security as per Section 100.4 above.

16. Form of Agreement: The Municipality and the Selected Tenderer shall enter into a formal agreement as per the sample Section 103 FORM OF AGREEMENT attached. If the Selected Tenderer fails to execute the Agreement or satisfy any Pre-Conditions of Agreement (as per Section 16 above) within 15 days of notice of award, the Municipality may, without incurring any liability, proceed to award to another Tenderer and pursue all other remedies available to the Municipality.

17. Questions: Further information is available through the Project Engineer:

Louis Desjardins, P. Eng. (Project Engineer)

K. Smart Associates Limited
(705) 222-6175, Ext. 263
ldesjardins@ksmart.ca

VILLAGE OF KILLARNEY ROADSIDE DRAINAGE – PHASE 1**Municipality of Killarney**

This schedule must be completed and attached to the Form of Tender when submitting a Tender.

PHASE 1					
Item	Description	Unit	Quantity	Unit Price (\$)	Cost (\$)
1	Install erosion and sediment control measures (straw bale check dam - OPSD 219.180)	l.s.	1		
2	Ditch bottom cleanout. 0.5m bottom, 2:1 side slope. Haul away spoils. Seed disturbed areas.	m	815		
3	Construct swale 0.5m bottom, 5:1 side slope	m	80		
4	Remove and reset existing driveway culvert to proposed grade line. Install approximately 2m ² of rip rap at both ends. Reinstall driveway to original condition or better.	ea	17		
5	Install new 6m long, 300mm diameter CSP culvert. Reinstall driveway to original condition or better.	ea	3		
6	Install new 9m long, 300mm diameter CSP culvert. Reinstall driveway to original condition or better.	ea	2		
7	Remove and replace existing 450mm diameter CSP pipe with 450mm diameter pipe to proposed grade line. Does not include cost of pipe. Municipality will provide the proposed pipe.	m	97		
8	Install 500mm diameter Polylok catch basin with grate or approved equivalent and connect to 450mm diameter HDPE pipe using 150mm diameter HDPE with Tee or Inserta Tee.	ea	3		
9	Install concrete junction box and connect 450mm diameter HDPE to the north and south.	l.s.	1		
8	Lump Sum Contingency	l.s.	1	10,500	10,500
Total Phase 1:					

Name of Company: _____

Address: _____

Signing Authority: _____

Print Name

Signature

Signature: _____

Phone Number(s): _____

E-Mail: _____

Date: _____

Note: Transfer Total Tender Price to Section 102 FORM OF TENDER

TO: The Mayor and Council, Municipality of Killarney**RE: CONSTRUCTION OF: Village of Killarney Roadside Drainage – Phase 1**

1. The Tenderer agrees, having carefully examined the plans, specifications and location of the work and understanding all conditions, and hereby offers to enter into a contract to construct the said work for the said Municipality, complete and ready for use in accordance with the plan, profiles and specifications attached which form the basis of the proposal for the following price.

**Total Labour, Equipment and Materials
including Contingencies**

\$ _____

Total must agree with the Total Tender Price in Section 101 - Schedule of Tender Prices.

2. Proof of Ability

List a minimum of (3) comparable projects to demonstrate relevant experience.

Project Name	Owner	Year	Project Total	Reference
				Name: Phone:
				Name: Phone:
				Name: Phone:

3. List of Proposed Subcontractors

If no subcontractors are proposed, write "N/A" in the table below.

Work	Subcontractor Name

4. To assist the Engineer and Owners with scheduling, The Tenderer shall complete the following:

a) Work is anticipated to begin _____.

b) Work will be completed on or before _____.

c) We carry liability insurance in the amount of \$ _____ with the
_____ Company.

d) Our Workers' Compensation Board Account Number is _____ and we guarantee to the Township that all premiums for this account have been paid. We agree to provide, prior to Tender acceptance and at any time if and when requested, a Workers' Compensation Board Certificate.

e) Our H.S.T. Registration Number is _____.

5. Confirm receipt of Addenda (if any) as follows:

I acknowledge receipt of Addendum No(s): _____.

Note: If no addenda were issued, leave this section blank.

6. The Contractor acknowledges the completion and enclosure of the following documents with this formal tender submission:

- ☐ The Tenderer encloses a Tender Deposit in the amount of \$_____, and an Agreement to Bond (if applicable).
- ☐ The Tenderer encloses all pages of 101 SCHEDULE OF TENDER PRICES complete with all unit prices and total costs and company information/signature filled out (hard copy submission only).
- ☐ The Tenderer encloses all pages (2) of this completed FORM OF TENDER.

7. The Tenderer agrees that if this Tender is accepted, the signature below and the Tender Deposit/Contract Security enclosed is the Tenderer's undertaking to commence and complete the specified work as per the Tender Documents.

8. The Contractor agrees that liquidated damages in the amount of \$ N/A will be charged for each day after the completion date indicated that the Work remains unfinished, unless the completion date is extended by the Engineer.

9. Failure to fully complete this Form of Tender and enclose the above-referenced documents may result in the Tender being rejected by the Municipality.

OFFERED ON BEHALF OF THE TENDERER

Name _____

Company _____

Signature _____

Address _____

Date _____

Email _____

(Seal)

Office Phone _____

Mobile Phone _____

RE: CONSTRUCTION OF: VILLAGE OF KILLARNEY ROADSIDE DRAINAGE – PHASE 1

THIS AGREEMENT made in TRIPLICATE this _____ DAY OF _____, 2025.

BETWEEN:

(hereinafter called the "Municipality")

- and –

(hereinafter called the "Contractor")

WITNESSETH that in consideration of the mutual covenants, conditions, and agreements contained herein, the parties hereto and hereby agree as follows:

ARTICLE 1

The articles of this Agreement here with documents listed below constitute the documents of the "Contract" and shall be read together establishing the Contract as fully and completely, to all the stipulations described herein. The Contract Documents are listed as follows:

- 100 Instructions to Tenderers
- 101 Schedule of Tender Prices
- 102 Form of Tender
- 103 Form of Agreement
- 200 General Conditions
- 300 Special Provisions
- 400 Standard Specifications
- 500 Drawings 2, 3, 5, 6, 19, 20, 28, 29, 30, 34, 39 (of 39) dated July 14, 2025

Addenda Issued during Tendering (if any)

ARTICLE 2

The Contractor undertakes and agrees:

- (A) To supply all the materials, labor and equipment necessary to perform all the work in accordance with this Contract.
- (B) To make every reasonable effort to commence and complete the work to the dates as outlined by the Contractor in the FORM OF TENDER.
- (C) That liquidated damages in the amount of \$ N/A will be charged for each day after the completion date indicated that the Work remains unfinished, unless the completion date is extended by the Engineer.

ARTICLE 3

The Municipality undertakes and agrees:

- (A) To pay the Contractor in current funds for the performance of the Contract subject to additions and deductions as provided in the Contract Documents.
- (B) To make payments on account thereof by invoices submitted from the Contractor in accordance with the Contract Documents. Invoices will be paid net 30 days.

ARTICLE 4

If and whenever either party hereto desires to give notice to the other concerning any matters related to this contract, or and general concerns or communication arising on site, such notice/communication shall be written in email format addressed to:

The Contractor: _____

The Municipality: _____

ARTICLE 5

This agreement shall ensure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of this day and year set out above.

THE CONTRACTOR	THE MUNICIPALITY OF KILLARNEY
Signed:	Signed:
Position Held:	Position Held:
Witness:	Witness:
(Seal)	(Seal)

VILLAGE OF KILLARNEY ROADSIDE DRAINAGE – PHASE 1

Municipality of Killarney

SPECIFICATIONS

200) GENERAL CONDITIONS
See attached Section 200

300) SPECIAL PROVISIONS

400) STANDARD SPECIFICATIONS
See attached Section 400

500) DRAWINGS
See Drawings 2, 3, 5, 6, 19, 20, 28, 29, 30, 34, 39 (of 39) dated July 14, 2025

The following drawings apply to the construction of the Village of Killarney Roadside Drainage – Phase 1:

- Title Page – Key Plan/List of Drawings
- Drawings 2, 3, 5, 6, 19, 20 – Plan and Profiles
- Drawings 28, 29, 30, 34 – Cross Sections
- Drawing 39 – Standard Details

GENERAL CONDITIONS**TABLE OF CONTENTS**

200.1	SCOPE	1
200.2	ORDER OF PRECEDENCE	1
200.3	MUNICIPALITY	1
200.4	TENDERS AND CONTRACT SECURITY	1
200.5	EXAMINATION OF SITE, PLANS AND SPECIFICATIONS	1
200.6	COMMENCEMENT AND COMPLETION OF WORK	1
200.7	NOTICE FOR RESUMPTION OF WORK	2
200.8	PERMITS, NOTICES, LAWS AND RULES.....	2
200.9	HEALTH AND SAFETY	2
200.10	LIMITATIONS OF OPERATIONS	2
200.11	SUPERVISION	2
200.12	CHARACTER AND EMPLOYMENT OF WORKERS.....	3
200.13	SUB-CONTRACTORS	3
200.14	PAYMENT.....	3
200.15	TERMINATION OF CONTRACT BY THE MUNICIPALITY.....	3
200.16	LIQUIDATED DAMAGES.....	4
200.17	CONTRACTOR'S LIABILITY	4
200.18	LIABILITY INSURANCE.....	5
200.19	LOSSES DUE TO ACTS OF NATURE, ETC.....	5

200 GENERAL CONDITIONS**200.1 SCOPE**

The work to be done under this contract consists of supplying all labour, equipment and materials to construct the drainage work as outlined in the Instructions to Tenderers, the Form of Tender and Agreement, the Schedule of Tender Prices, the Drawings, the General Conditions, Special Provisions and the Standard Specifications.

200.2 ORDER OF PRECEDENCE

In case of any inconsistency or conflict between the drawings and specifications, the following order of precedence shall apply: Addenda, Form of Tender and Agreement, Schedule of Tender Prices, Special Provisions, Contract Drawings, Standard Specifications, General Conditions.

200.3 MUNICIPALITY

Municipality refers to a municipal corporation in the Province of Ontario. Where reference to Township, County, Region, Town, City or Owner appears it shall be deemed to be the same as the word Municipality. Where reference to owner appears in the specifications it is usually in reference to the owner of the property on which the drain is being constructed.

200.4 TENDERS AND CONTRACT SECURITY

Tenders are to be submitted for the complete works or a portion thereof, as instructed by the Municipality. The Schedule of Tender Prices must be completed and provided with the Contractor's tender.

A Tender Deposit in the form of a certified cheque, bank draft, bonding, or other security acceptable to the Municipality must accompany each tender as a guarantee of good faith. The Tender Deposit shall name the Municipality as the payee. Refer to the Instructions to Tenderers for additional Tender Deposit information and Contract Security requirements.

200.5 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Prior to the submission of the Tender, the Tenderer must examine the premises and site to compare them with the Drawings and Specifications in order to be satisfied with the existing conditions and the extent of the work to be done. If site examination requires entry onto privately owned lands, the Tenderer shall contact the Drainage Superintendent at least one week prior to the tender closing date to arrange site examination with the Drainage Superintendent.

The Tenderer must ensure that the meaning and intent of the drawings, estimated quantities and specifications is clearly understood before submission of the Tender. No allowances shall be made on behalf of the Contractor by reason of any error made in the preparation of the tender submission.

Any estimates of quantities shown or indicated on the drawings or elsewhere in the tender/contract document are provided for the convenience of the Tenderer. The Tenderer shall check the estimate of quantities for accuracy. Any use made of the estimated quantities by the Tenderer in calculating the tendered amounts is done at the Tenderer's risk.

200.6 COMMENCEMENT AND COMPLETION OF WORK

The work must commence immediately after the Tenderer is notified of the contract award or at a later date, where specified in the tender/contract document. If weather and ground conditions are unsuitable,

work may be started at a later date from either of the above two dates if such delay is approved by the Engineer.

Refer to Standard Specifications 400.2, 400.10, 400.18, 400.19 for notification requirements related to the *PRE-CONSTRUCTION MEETING, BENCHMARKS AND LAYOUT, WORKING IN ROAD ALLOWANCES, LANEWAYS AND ACCESS CROSSINGS*.

The work must proceed in such manner as to ensure its completion at the earliest possible date consistent with first class workmanship and within the time limit set out in the tender/contract document. Failure to commence or complete the work as set out in the tender/contract document may result in a forfeiture of all or part of the Contract Security if the Engineer determines that damages have been sustained by the Municipality or any landowner because of the non-commencement or non-completion of the contract as awarded and that the failure to meet the specified dates has been the fault of the Contractor.

200.7 NOTICE FOR RESUMPTION OF WORK

If the Contractor leaves the job site for a period of time after initiation of work, a minimum of 2 working days advance notice shall be given to the Engineer and the Municipality before returning to the job site to resume work. If any work is resumed without the advance notice, the Contractor shall be fully responsible for all such work undertaken prior to said notification and shall make good any works or materials judged to be inadequate.

200.8 PERMITS, NOTICES, LAWS AND RULES

The Contractor shall apply and pay for all necessary permits or licenses required for the execution of the work. This shall not include the obtaining of permanent easements or rights or servitude. The Contractor shall give all necessary notices and pay all fees required by the law and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public's health and safety and if the specifications and drawings are at variance therewith, any resulting additional expense incurred by the Contractor shall constitute an addition to the contract price.

200.9 HEALTH AND SAFETY

Contractor must comply with the *Occupational Health and Safety Act (OHSA)* and the associated *Regulations for Construction Projects*, including, but not limited to the requirements related to hazardous materials, physical agents and designated substances. Contractor must also follow any site-specific safety and training requirements of the Municipality, agencies, utility companies or other authorities.

Communication about site-specific hazards and safety requirements shall occur at the pre-construction meeting. If no pre-construction meeting is conducted, Contractor will communicate site-specific hazards and safety requirements before beginning work.

Contractor shall immediately report any workplace incidents, near misses, injuries and occupational illnesses to the Engineer.

200.10 LIMITATIONS OF OPERATIONS

Except for such work as may be required by the Engineer to maintain the works in a safe and satisfactory condition, the Contractor shall not carry out operations under the contract on Sundays or Statutory Holidays without permission in writing from the Engineer. The Engineer may direct in writing to the Contractor to cease or limit operations under the contract on any day or days if the operations are of such a nature, or if the work is so located, or if the traffic is of such a volume, that the Engineer deems it necessary or expedient to do so.

200.11 SUPERVISION

The Contractor shall provide constant supervision of the construction work and shall keep a competent foreman in charge at the site.

200.12 CHARACTER AND EMPLOYMENT OF WORKERS

The Contractor shall employ only orderly, competent and skillful workers to do the work and shall give preference to available qualified residents in the area of the contract. Whenever the Engineer informs the Contractor in writing that any workers are, in the opinion of the Engineer, disorderly, incompetent, or breaking the law, such workers shall be discharged from the job site and shall not again be employed on the job site without the written consent of the Engineer.

200.13 SUB-CONTRACTORS

If the Municipality so directs, the Contractor shall not sublet the whole or any part of this contract without the approval of the Engineer.

200.14 PAYMENT

Progress payments equal to the value of the work completed to date, less applicable holdbacks, will be made to the Contractor monthly or at the completion of the work. The Contractor may be required to provide a Proper Invoice for the progress payment amount. In accordance with the *Construction Act, R.S.O. 1990*, sixty (60) days after certification of substantial performance, the 10% Statutory Holdback will be released. Warranty Holdback of 3% of the contract value, unless specified otherwise in the tender/contract documents, may be reserved by the Municipality for one year after certification of substantial performance.

Holdbacks may be increased by the Municipality if, in the written opinion of the Engineer, particular conditions of the contract require such greater holdback.

After certification of substantial performance, the Warranty Holdback may be used by the Municipality to correct defects from faulty construction and/or materials, provided that notice shall first be given by the Engineer in writing to the Contractor stating that the Contractor has seven (7) days to remedy the defect in construction and/or materials.

Where alterations to the work are authorized by the Engineer, the Engineer's evaluation of payment for such changes shall consider the tendered price for similar work item(s). See Specification 400.7 – *Alterations to Work*.

200.15 TERMINATION OF CONTRACT BY THE MUNICIPALITY

Termination of the contract by the Municipality may be considered if the Contractor:

1. should be adjudged bankrupt or make a general assignment for the benefit of creditors or if a receiver should be appointed on account of insolvency;
2. should refuse or fail to supply enough properly skilled workmen or proper materials after having received seven (7) days' notice in writing from the Engineer to supply such additional workmen or materials in order to commence or complete the works;
3. should fail to make prompt payment to sub-contractors or suppliers for labour or materials.
4. should persistently disregard laws, ordinances, or instructions from the Engineer, or otherwise be guilty of a substantial violation of the provisions of the contract;

then the Municipality, upon Certificate of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, give written notice to the Contractor to terminate the employment of the Contractor and take possession of the premises, and of all materials, tools and appliances thereon, and may finish the work by whatever method the Municipality may deem expedient,

but without undue delay or expense. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price will exceed the expense of finishing the work including compensation to the Engineer for additional services and including other damages of every name and nature, such excess shall be paid to the Contractor. If such expense will exceed such unpaid balance including the Contract Security, the Contractor shall pay the difference to the Municipality. The expense incurred by the Municipality, as herein provided, shall be certified by the Engineer. If the contract is terminated by the Municipality due to the Contractor's failure to properly commence the works, the Contractor shall forfeit the Contract Security and furthermore shall pay to the Municipality an amount to cover the increased costs, if any, associated with a new tender for the contract being terminated.

If any unpaid balance and the Contract Security do not equal the monies owed by the Contractor upon the termination of the contract, the Municipality may also charge such expenses against any money which is or may thereafter be due to the Contractor from the Municipality.

200.16 LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that if all the work called for under the Contract is not finished or complete within the period of time as set forth in the tender/contract document, damage will be sustained by the Municipality. It is understood by the parties that it will be impracticable and extremely difficult to ascertain and determine the actual damage which the Municipality will sustain in the event of and by reason of such delay. The parties hereto agree that the Contractor will pay to the Municipality a sum as set out in the tender/contract documents for liquidated damages for each and every calendar day delay, including Saturdays, Sundays and Statutory Holidays, spent finishing the work in excess of the number of working days prescribed. It is agreed that the liquidated damages amount is an estimate of the actual damage to the Municipality which will accrue during the period in excess of the prescribed number of working days.

The Municipality may deduct any amount due under this section from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this section are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Municipality.

The Contractor shall not be assessed with liquidated damages for any delay caused by acts of nature, or of the Public Enemy, Acts of the Province or of any Foreign State, Fire, Flood, Epidemics, Quarantine Restrictions, Embargoes or any delays of Sub-Contractors due to such causes.

If the time available for the completion of the work is increased or decreased by reason of alterations or changes made under the provisions of the Contract, the number of working days shall be increased or decreased as determined by the Engineer.

If the tender/contract document does not show an amount for Liquidated Damages then Liquidated Damages do not apply for this contract.

200.17 CONTRACTOR'S LIABILITY

The Contractor and all workers, agents or any party under the Contractor's control, including Sub-Contractors, shall use due care that no person or property is injured and that no rights are infringed during the construction work outlined in the contract. The Contractor shall be solely responsible for all damages by whomsoever claimable in respect of any injury to persons or to lands, buildings, structures, fences, livestock, trees, crops, roadways, ditches, drains and watercourses, whether natural or artificial, or property of whatever description and in respect of any infringement of any right, privilege or easement wherever occasioned in the carrying on of the work or any part thereof, or by any neglect, misfeasance or non-feasance on the Contractor's part or on the part of any workers, agents or parties under the Contractor's control including Sub-Contractors, and shall bear the full cost thereof. The Contractor shall be fully responsible to make such temporary provisions as may be necessary to ensure the avoidance of any such damage, injury or infringement and to prevent the interruption of or danger or menace to the

traffic in any railway or any public or private road entrance or sidewalk and to secure to all persons and corporations the uninterrupted enjoyment of all their rights, in and during the performance of the work. The Contractor shall indemnify and save harmless the Municipality and the Engineer from and against all claims, demands, losses, costs, damages, actions, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by, or attributed to any such damage, injury or infringement.

Wherever any work is of such an extent and nature that it must necessarily be confined to particular areas of a roadway, a working area, or private property, the Contractor shall use reasonable care not to damage or deface the remaining portions of the property, and if any damage is occasioned as a result of the Contractor's operations, it shall be rectified by and at the expense of the Contractor, to the satisfaction of the Engineer. Notwithstanding the indemnity provisions contained in this section, where in the opinion of the Engineer the Contractor has failed to rectify any damage, injury or infringement or has failed to adequately compensate any person for any damage, injury or infringement for which the Contractor is responsible under the contract, the Engineer, following notice in writing to the Contractor of an intention so to do, may withhold payment of any monies due the Contractor under this or any other contract until the Contractor has rectified such damage, injury or infringement or has paid adequate compensation for such damage, injury or infringement, provided however, that the Municipality will not withhold such monies where in the opinion of the Engineer there are reasonable grounds upon which the Contractor denies liability for such damage, injury or infringement and the Contractor has given the claimant a reasonable time in which to establish the validity of the claim, and provided further that the amount withheld under this section shall not exceed the amount of such claims against the Contractor.

Where the Contractor uses privately owned lands for material disposal, the Contractor shall comply with applicable laws and provide the Engineer with a release signed by or on behalf of the owner of each material disposal area used by the Contractor. If the said release is not obtained, then sufficient monies will be withheld from the Contractor except, however, where the owner's signature is withheld solely on the basis of damage, injury, or infringement it will be dealt with as provided elsewhere in this subsection.

Nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the country, province or locality in which the work is being done. Neither the Certificate of Substantial Performance nor final payment thereunder, nor any provision in the Contract Document shall relieve the Contractor from this liability.

200.18 LIABILITY INSURANCE

The Contractor shall take out and keep in force until the end of the warranty period for the entire work, a comprehensive policy of public liability and property damage insurance providing insurance coverage of at least \$3,000,000 for each and every accident, exclusive of interest and cost, against loss or damage resulting from bodily injury to or death of one or more persons and loss of or damage to property and such policy shall name the Municipality, K. Smart Associates Limited, and such additional parties as may be required by the Municipality or K. Smart Associates Limited, as additional insured thereunder and shall protect all named parties against all claims for all damage or injury including death to any person or persons and for damage to any property of the Municipality or any other public or private property resulting from or arising out of any act or omission on part of the Contractor or any of his servants or agents during the execution of the Contract.

200.19 LOSSES DUE TO ACTS OF NATURE, ETC.

All damage, loss, expense and delay incurred or experienced by the Contractor in the prosecution of the work, by reason of unanticipated difficulties, bad weather, strikes, wars, acts of nature, or other mischances, shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.

300**SPECIAL PROVISIONS****300 SPECIES AT RISK****300.1 General**

A desktop analysis was conducted to assess the likelihood of species presence in and around the Killarney area. The NHIC make-a-map returned 3 species that are classified threatened or endangered. The results are shown below:

Species	SARO Status
Lake Sturgeon (Great Lakes – Upper St. Lawrence River Population)	Endangered
Massasauga (Great Lakes/St. Lawrence population)	Endangered
Blanding's Turtles	Threatened

If **any** of the above species is encountered during construction, the contractor **must** stop all work in the immediate area and notify the Engineer.

Lake Sturgeon

No in-water work between May 1 and July 15. Contractor should work in dry conditions whenever possible. Sediment and erosion control measures must be in place before work can begin to avoid the transport of sediment downstream.

Massasauga

Work area to be visually inspected by the Contractor before work and during construction. If encountered, work must stop immediately, and the Engineer needs to be notified.



Photo from: COSEWIC Assessment and Status Report (2012)

Blanding's Turtles**GENERAL MITIGATION MEASURES IN POTENTIAL HABITAT FOR BLANDING'S TURTLE**

Pre-Construction Considerations

- 1) Provide 7 days advance notice to the Ministry of Environment, Conservation and Parks (MECP)
- 2) All persons entering the work area should be informed about Species at Risk turtles and proper steps to take upon encountering a Species at Risk turtle.
- 3) Typical overwintering habitat includes permanent bogs, fens, marshes, ponds, channels or other habitats with free (unfrozen) shallow water.¹
- 4) Blanding's Turtle nests are created in open habitats with low vegetation cover and high sun exposure such as in forest clearings, meadows, shorelines, beaches, rock outcrops, cornfields, gravel roads, road shoulders, ploughed fields, gardens, powerline rights-of-ways, yards and abandoned railroad beds.¹
- 5) Any clearing of vegetation or site alteration in areas that are not permanently flooded should not be performed during the Turtle active period (from April to September 15).
 - a. If work is to be performed during Turtle active season, April to September 15, reptile exclusion fencing may be required to prevent access to the work area by Turtles.
 - b. Exclusion fencing guidance is given in the Species at Risk Branch Best Practices Technical Note *Reptile and Amphibian Exclusion Fencing, Version 1.1*, July 2013, by the Ministry of Natural Resources and Forestry.
- 6) Fencing or other construction materials with mesh netting should be avoided.

During Construction

- 1) Minimize disturbance of habitat adjacent to the working area. If clearing is required, cleared areas should be re-vegetated.
- 2) All equipment will be maintained and free of fluid leaks to prevent degradation of potential habitat by contamination
- 3) Regular checks should be made during the work for the presence of Blanding's Turtles.
- 4) If a Blanding's Turtle is found during work, MECP shall be contacted immediately.
- 5) If so instructed by MECP, the individual may be gently moved to adjacent habitat without harm (to the turtle or the worker) using a shovel or stick and bucket. Alternatively, the turtle can be firmly grasped at the sides of the shell, using both hands. This offers a secure grip in the event that an individual is moving about in an attempt to free itself. It is recommended to handle turtles with clean hands (free of insect repellent, antibacterial hand sanitizer, sunscreen etc.) and to wash your hands after handling the animals. Turtles are known carriers of zoonotic pathogens (e.g. *Salmonella* spp., *Aeromonas*, *Edwardsiella tarda*, *Campylobacter* spp.). Transmission can occur through contaminated water or through direct contact with the turtle, and transmission can occur orally, dermally, or through skin lacerations.
- 6) If so instructed by MECP, the individual shall be held in a safe place until they are taken into MECP custody.



Example of holding a Blanding's Turtle with two hands (photo: Toronto Zoo).

REFERENCE

1. *General Habitat Description for the Blanding's Turtle*, Ministry of Natural Resources and Forestry.

TABLE OF CONTENTS

400.1	ABBREVIATIONS	1
400.2	PRE-CONSTRUCTION MEETING	1
400.3	COLD WEATHER	1
400.4	WORKING AREA.....	1
400.5	PROPERTY BARS AND MONUMENTS	1
400.6	ACCESS TO PROPERTIES ADJOINING THE WORK	1
400.7	ALTERATIONS TO WORK	2
400.8	ERRORS AND UNUSUAL CONDITIONS.....	2
400.9	TESTS	2
400.10	BENCHMARKS AND LAYOUT	2
400.11	INSPECTION OF UNDERGROUND WORK	2
400.12	FINAL INSPECTION	3
400.13	WARRANTY	3
400.14	RIPRAP.....	3
400.15	GEOTEXTILE	3
400.16	BACKFILL	3
400.17	NOTIFICATION OF ROAD AUTHORITIES, UTILITIES AND RAILROADS.....	3
400.18	WORKING IN ROAD ALLOWANCES.....	4
400.19	LANEWAYS, DRIVEWAYS, ENTRANCES AND ACCESS CROSSINGS	5
400.20	LOCATIONS OF EXISTING UTILITIES	5
400.21	EXISTING CROSSING CLEANOUT	6
400.22	FENCES	6
400.23	BEDROCK REMOVAL	6
400.24	SURFACE RESTORATION	7
400.25	EROSION AND SEDIMENT CONTROL	7
400.26	POLLUTION.....	8
400.27	SPECIES AT RISK	8
400.28	SITE CLEANUP	8

400 STANDARD SPECIFICATIONS**400.1 ABBREVIATIONS**

- i) MTO means the Ministry of Transportation of Ontario
- ii) ASTM means the American Society for Testing Materials
- iii) CSA means the Canadian Standard Association
- iv) OPSD means Ontario Provincial Standard Drawings
- v) OPSS means Ontario Provincial Standard Specifications
- vi) DFO means Fisheries and Oceans Canada
- vii) MNRF means Ministry of Natural Resources and Forestry
- viii) MECP means Ministry of Environment, Conservation and Parks

400.2 PRE-CONSTRUCTION MEETING

The Contractor shall arrange a pre-construction meeting with the Engineer and Municipality to commencement of construction. The Contractor shall provide at least ten working days advance notice of the pre-construction meeting. Construction shall not commence less than five working days after the pre-construction meeting to allow time for layout, if needed.

The cost to coordinate and attend the pre-construction meeting, including any follow-up meetings, is considered incidental and shall be included in the price of other tender items.

400.3 COLD WEATHER

When working in cold weather is approved by the Engineer, the Contractor shall provide suitable means for heating, protection of the work, and snow and ice removal. All work completed in cold weather conditions shall be to the satisfaction of the Engineer and any additional cost to remedy unsatisfactory work, or to protect the work, shall be borne by the Contractor. All backfilling shall occur as soon as possible to avoid backfilling with ground containing frozen particles. The Contractor will assume all responsibility for damages to any tile drains and for settlements or bank failure that may result from work in cold weather.

400.4 WORKING AREA

Unless otherwise specified on the Drawings, the working area is defined as follows:

- Where any part of the work is on a road allowance, the road allowance shall be the working area.
- If any part of the work is close to a property line, then the property line shall be one of the limits of the working area.

400.5 PROPERTY BARS AND MONUMENTS

All property bars and monuments shall be protected. If a property bar or monument is shown on the Drawings with a note "**to be protected**", or similar, and is damaged by the Contractor, the damaged bar(s) shall be reinstated by an Ontario Land Surveyor at the Contractor's expense.

400.6 ACCESS TO PROPERTIES ADJOINING THE WORK

The Contractor shall provide at all times and at no additional cost, access to private properties adjoining the work, unless otherwise authorized by the Engineer. Where interruptions to access have been authorized by the Engineer, a minimum of 48 hours written notice shall be given by the Contractor to the affected landowners and such interruptions shall be arranged to minimize interference to those affected.

400.7 ALTERATIONS TO WORK

Design changes determined by the Engineer (alteration, additions, and deletions) shall be implemented by the Contractor without delay and shall in no way render the contract void.

In every such case, the contract amount shall be increased or decreased as required according to a fair evaluation of the work completed. Where such design changes involve additional work similar to items in the contract, the price for additional work shall be determined after consideration is given to the tendered price for similar items.

Additional work desired by the landowner(s), which is not part of the works in the contract, may be arranged with the Contractor provided the cost of the work is paid by the landowner(s) and the Engineer reviews the additional work in advance.

400.8 ERRORS AND UNUSUAL CONDITIONS

The Contractor shall notify the Engineer immediately of any “*errors or unusual conditions*” which may be found. Any attempt by the Contractor to correct an “*error*” without notice to the Engineer is at the Contractor's risk and expense. The Engineer shall determine necessary steps to correct errors or address unusual conditions. The contract amount shall be adjusted through a fair evaluation of documentation for the work added, deleted, or adjusted.

400.9 TESTS

The Engineer reserves the right to subject any materials to a competent testing laboratory for compliance with applicable Provincial and/or Municipal standards. If any materials supplied by the Contractor fail to meet the applicable standards, the Contractor shall bear full responsibility to remove all rejectable materials and replace with acceptable materials.

400.10 BENCHMARKS AND LAYOUT

The Contractor will layout the location of the proposed work unless otherwise provided in the Contract.

It is the Contractor's responsibility to confirm the location and elevation of benchmarks and layout stakes prior to construction and notify the Engineer immediately of any discrepancies.

The Contractor shall be liable for the cost of replacing any benchmarks or layout stakes destroyed during construction. The Contractor shall also be liable for the cost of additional layout if the Contractor's schedule delay requires replacement of original layout stakes.

400.11 INSPECTION OF UNDERGROUND WORK

The Contractor shall not cover up any work without providing the Engineer two working days notice and opportunity for carrying out an inspection.

If inspection does not occur as the work proceeds, inspection points shall be provided, with no additional payment, at the following locations: 50m intervals, tile connections, grade changes, junction boxes, fittings and pipe diameter/material transitions. If no inspection points are provided, the Engineer reserves the right to require the Contractor to expose the buried work for inspection purposes.

No additional payment will be made if the Engineer requires additional inspection points or exposure of covered work in other locations.

400.12 FINAL INSPECTION

Final inspection by the Engineer will occur after receiving written notice from the Contractor that work is complete. All the work included in the contract shall, at the time of final inspection, be completed to the dimensions and cross-sections shown on the Drawings.

The cost of attending the final inspection meeting including any follow-up meetings, is considered incidental and shall be included in price of other tender items.

400.13 WARRANTY

There shall be a one-year warranty period on all completed work. The warranty period will commence on the date of the certificate of substantial performance.

When directed by the Engineer, the Contractor shall repair and make good any deficiencies in the work that may appear during the warranty period.

Before final acceptance by the Municipality and release of Warranty Holdback, the Contractor shall complete all work as directed by the Engineer, remove all debris and surplus materials, and leave the work neat and presentable.

400.14 RIPRAP

All riprap is to be placed on a geotextile underlay, unless directed otherwise in the Drawings. Geotextile material shall be as specified in Specification 400.15 - *GEOTEXTILE*, with the upstream edge of the geotextile keyed down 300mm below the bottom of riprap. The riprap is to be graded heavy angular stone (quarry stone is recommended) and shall meet gradation requirements for R-50 riprap per OPSS.MUNI 1004 Table 8 (averaging in size from 210mm to 305mm) and is to be placed at 300mm thickness, unless otherwise specified. Smaller particles may be included to fill voids. The finished top of riprap shall be at design cross-section, at design elevation or flush with existing ground.

400.15 GEOTEXTILE

Geotextile to be non-woven fabric that is rot proof, non-biodegradable, chemically resistant to acidic and alkaline soils and is dimensionally stable under different hydraulic conditions (Terrafix 360R or equal). Alternative geotextile materials shall be submitted to the Engineer prior to construction. The primary function of geotextile is to act as a highly permeable, non-clogging barrier between different materials. The Contractor shall follow the manufacturer's recommendations for cutting, installation and precautions necessary to avoid damage to the geotextile.

400.16 BACKFILL

Where sufficient clean on-site material is not available, the Contractor shall import material for backfill. Any imported material shall be approved by the Engineer in advance of supply & placement. Imported material shall be free of deleterious material and shall satisfy the requirements of O. Reg. 406/19 for use in the location proposed. If requested by the Engineer, the Contractor shall provide test results at no additional cost to demonstrate conformance with project requirements. If non-conforming materials are rejected by the Engineer, they shall be removed at no additional cost.

If the work is being performed during winter months, frozen material shall not be used as backfill under roads or any other areas where settlement could negatively affect the surface above the work area.

400.17 NOTIFICATION OF ROAD AUTHORITIES, UTILITIES AND RAILROADS

The Contractor shall notify any Road Authority, Utility, or Railroad at least two working days in advance regarding work to be performed on their property or affecting their infrastructure. Where a Road Authority,

Utility or Railroad has specific notification requirements, those requirements shall apply. The notice will be in writing and is exclusive of Saturdays, Sundays and Holidays. The Contractor is responsible to determine, understand and comply with the requirements of all authorities that may place restrictions upon the performance of the work, including without limitation, MTO, local utilities and railway authorities. In submitting the tender, the Contractor represents that they have made all necessary inquiries to all authorities, as required, to carry out the proposed work.

400.18 WORKING IN ROAD ALLOWANCES

400.18.1 General

Work within public road allowances shall be done in accordance with the Ontario Traffic Manual Book 7, latest edition and the requirements of the Road Authority.

400.18.2 Maintenance of Traffic

Unless directed otherwise on the drawings or in the specifications, the Contractor shall keep roads open to traffic at all times. The Contractor shall provide suitable warning signs and/or flagging per OTM Book 7 requirements to the satisfaction of the Road Authority and the Engineer. Where specified in the Contract or when requested by the Engineer, the Contractor shall provide a Traffic Control Plan to the satisfaction of the Road Authority and the Engineer at no additional cost.

If road closure is required, the Contractor shall submit a Detour Plan for approval by the Road Authority and Engineer. The Contractor shall provide all signage for the detour route per OTM Book 7 and undertake all notifications required for the road closure in consultation with the Municipality.

400.18.3 Road Crossings

If no specific detail is provided for road crossings on the drawings or in the specifications the following shall apply:

General/Pre-Construction Phase

- A Road Authority will supply no labour, equipment, or materials for the construction of the road crossing.
- The Contractor shall not commence road crossing work until any required permits have been obtained.
- The Contractor shall notify the Road Authority, per the Road Authority's notification requirements, in advance of any construction in the road allowance. If the Road Authority has no notification requirements, at least 3 working days written notice shall be given.
- At least 2 working days prior to starting road crossing work, the Contractor shall confirm with the Municipality that EMS, OPP and Fire Department have been properly notified of any detours or road closures.

Construction Phase

- Exact location of the crossing shall be verified with the Road Authority and the Engineer.
- Pipe bedding shall be a minimum 150mm depth of Granular A, shaped for the pipe and compacted to 98% SPMDD.
- Pipe cover shall be Granular B, compacted to 98% SPMDD and extend 300mm above the top of the pipe.
- Trench shall be backfilled with acceptable native material for the base width of the road base. Trench backfill material shall be placed in lifts not exceeding 300mm in depth and shall be thoroughly compacted to 95% SPMDD. Trench backfill (subgrade) shall be inspected and approved by the Engineer prior to the placement of road base granular material.
- Road base granular material shall be placed in lifts not exceeding 300mm in depth and shall be compacted to 100% SPMDD. Unless otherwise specified, road base shall consist of minimum 450mm of Granular B and minimum 150mm of Granular A.
- Any surplus excavated material within the road allowance shall be disposed of per the Road Authority's requirements.
- The Contractor shall restore the road surface to the satisfaction of the Engineer and Road Authority requirements.

Warranty Phase

- The Contractor shall be responsible for correcting any backfill settlement during construction and during the warranty period. Upon approval of the Road Authority, surplus gravel shall be stockpiled near gravel road crossings to provide backfill for future trench settlement.
- If any road crossing is not left in a safe manner at the end of the working day, barricades and warning signs shall be erected to guarantee the safety of the travelling public per OTM Book 7 requirements.
- If the Engineer deems a road surface to have been damaged by the Contractor, either across or along the road, the Engineer may direct the Contractor to restore the road surface to existing or better condition, at no additional cost.
- All road crossings shall meet the final approval of the Road Authority at the end of the warranty period.

400.19 LANEWAYS, DRIVEWAYS, ENTRANCES AND ACCESS CROSSINGS

If no specific detail is provided for laneways and access crossings on the Drawings or in the Specifications the following shall apply:

General/Pre-Construction Phase

- The Contractor shall notify the landowner(s) at least 1 working day prior to impacting laneway access.

Construction Phase

- Pipe shall be on suitable, undisturbed, native material. If native material is deemed unsuitable by the Engineer, pipe shall be placed on 300mm depth of 19mm clear stone, wrapped in geotextile.
- Pipe bedding, cover and trench backfill shall be suitable native material placed in lifts not exceeding 300mm in depth and shall be thoroughly compacted to 95% SPMDD.
- Top 450mm of laneway backfill shall consist of minimum 300mm depth of Granular B and minimum 150mm depth of Granular A, compacted to 98% SPMDD, and shall be placed in lifts not exceeding 300mm in depth.
- Where pipe cover is minimal, laneway backfill may consist of minimum 300mm depth of Granular A, compacted to 98% SPMDD, subject to approval by the Engineer.
- Unless otherwise specified, the Contractor shall restore the laneway surface and dimensions to existing conditions, to the satisfaction of the Engineer.

Warranty Period Phase

- The Contractor shall be responsible for correcting any backfill settlement during construction and warranty period.

400.20 LOCATIONS OF EXISTING UTILITIES

The position of pole lines, conduits, watermains, sewers and other underground and overhead utilities are not necessarily shown on the Contract Drawings, and, where shown, the accuracy of the position of such utilities and structures is not guaranteed. Before starting work, the Contractor shall have all public and private utilities located.

Upon the request of the Utility owner or the Engineer, utilities shall be exposed to confirm there are no utility conflicts and adequate clearance is provided between existing utilities and the proposed work. In the case of utility conflict(s) or inadequate clearance(s), the Contractor shall notify the Engineer immediately. The Engineer may change the proposed design in accordance with Specification 400.7 - **ALTERATIONS TO WORK.**

Unless otherwise provided in the tender, the cost of exposing utilities, including the use of hydrovac methods, shall be included in the price of other tender items. Additional payment will be allowed for relocation of utilities if conflicts are encountered.

The Contractor is responsible for protecting all located and exposed utilities from damage during construction. The Contractor shall assume liability for damage caused to all properly located utilities.

400.21 EXISTING CROSSING CLEANOUT

Where the Special Provisions require an existing crossing to be cleaned, the Contractor shall provide a bottom width and depth that provides capacity equivalent to the capacity of the channel on either side. Excavated materials shall be hauled away unless adjacent landowners give permission for leveling. Care shall be taken to ensure that existing abutments or any portion of the structure are not damaged or undercut. The method of removing the material is to be pre-approved by the Engineer.

400.22 FENCES

If the Contractor is responsible to remove and install fences, the following shall apply:

- All fences removed by a Contractor are to be re-erected in as good a condition as existing materials permit.
- All fences shall be properly stretched and fastened. Where directed by the Engineer, additional steel posts shall be placed to adequately support a fence upon re-erection.
- Where possible, the Contractor shall take down an existing fence at the nearest anchor post and roll the fence back rather than cutting the fence and attempting to patch it.
- Where fence materials are in such poor condition that re-erection is not possible, the Contractor shall replace the fence using equivalent materials. Such fence material shall be approved by the Engineer and the landowner. Where the Engineer approves new fence material, additional payment will be provided.

The installation of all fences shall be done to the satisfaction of the Engineer and the landowner.

400.23 BEDROCK REMOVAL

400.23.1 General

This section applies to bedrock and boulders that are greater than one-half cubic meter in size and that require blasting or hoe-ram removal. Bedrock or boulders that can be removed with an excavator bucket are not considered bedrock removal for the purposes of this section.

400.23.2 Blasting Requirements

All blasting shall be performed by a competent, qualified blaster in accordance with OPSS 120. Blasting mats are required. A pre-blast survey meeting the requirements of OPSS 120 must be completed for any structure within 200m of any blasting. The cost for pre-blast survey shall be included in the tender price for bedrock removal.

400.23.3 Typical Sections and Pay Limits

For tile drains and road culverts, bedrock shall be removed to 150mm below the proposed grade shown on the profile so that pipes are not in direct contact with bedrock. The width of bedrock removal shall be 1m minimum or the diameter of the pipe plus 600mm.

For open drains, bedrock removal shall match the proposed grade and bottom width shown on the Drawings. Side slopes shall be vertical or sloped outward. Side slopes shall be free of loose bedrock when excavation is completed.

Payment for the quantity of bedrock removed will be based on the typical sections described in these specifications and confirmed by field measurements. There will be no payment for overbreak.

400.23.4 Disposal of Bedrock

Excavated bedrock shall be piled at the edge of the working area at locations designated by the landowner. The cost to pile excavated bedrock shall be included in the tender price for bedrock removal. If the Special Provisions or the landowner require excavated bedrock to be hauled away, additional payment will be considered.

Where approved by the Engineer, excavated bedrock may be used in place of imported riprap in compliance with Specification 400.14 - RIPRAP.

400.24 SURFACE RESTORATION

400.24.1 General

The Contractor shall be responsible for re-seeding as necessary for uniform catch during warranty period.

Areas that remain grassed after construction may not need to be seeded, unless directed otherwise by the Engineer.

400.24.2 Seeding

All disturbed ditch banks, berms and other grassed areas are to be seeded in a reasonable amount of time following end of construction phase.

The following seed mixture shall be applied at 60kg/ha using a mechanical (cyclone) spreader:

- 35% Creeping Red Fescue
- 25% Birdsfoot Trefoil
- 25% Kentucky Bluegrass
- 10% Cover Crop (Oats, Rye, Barley, Wheat)
- 5% White Clover

Provide temporary cover for late fall planting by adding an additional 10 kg/ha of rye or winter wheat.

400.24.3 Hydroseeding

Where hydroseeding is specified, disturbed areas will be restored by the uniform application of a standard roadside mix, fertilizer, mulch and water at a rate of 2,000 kg/ha and be in accordance with OPSS 804.

400.24.4 Lawns

Unless specified otherwise, lawn areas shall be seeded with Canada No. 1 lawn grass mixture applied at 300 kg/ha using a mechanical (cyclone) spreader on 100mm of topsoil. Fertilizer shall be 5:20:20 or 10:10:10 applied at 300 kg/ha. Seed and fertilizer shall be applied together. Contractor shall arrange for watering with landowners.

400.24.5 Sod

Where sod is specified, sod is to be commercial grade turfgrass nursery sod, Kentucky Bluegrass placed on 150mm of topsoil. Fertilizer shall be 5-20-20 applied at 10kg/ha. Place sod in accordance with supplier instructions. The Contractor is responsible for saturating the sod with water on the day of sod placement. Subsequent watering is the responsibility of the landowner.

400.25 EROSION AND SEDIMENT CONTROL

400.25.1 General

The Contractor shall install sediment control features at the downstream limits of the project and at other locations as shown on the drawings or as directed by the Engineer.

Sediment control features shall be installed prior to any excavation taking place upstream of that location. The Contractor shall maintain all sediment control features throughout construction and the warranty period.

Sediment that accumulates during construction shall be removed and levelled as required by the Contractor.

400.25.2 Silt Fence and Straw Bale Barrier

Silt fence shall be in accordance with OPSS 805.07.02.02 and OPSD 219.110 (light-duty).

Straw bale barrier shall be in accordance with OPSD 219.100 (light-duty).

400.26 POLLUTION

The Contractor shall keep their equipment in good repair. The Contractor or any landowner shall not spill or cause to flow any polluted material into the working area that is not acceptable to the MECP. The local MECP office and the Engineer shall be contacted if a polluted material enters the working area. The Contractor shall refill or repair equipment away from open water. If the Contractor causes a spill, the Contractor is responsible to clean-up the spill in accordance with MECP clean-up protocols.

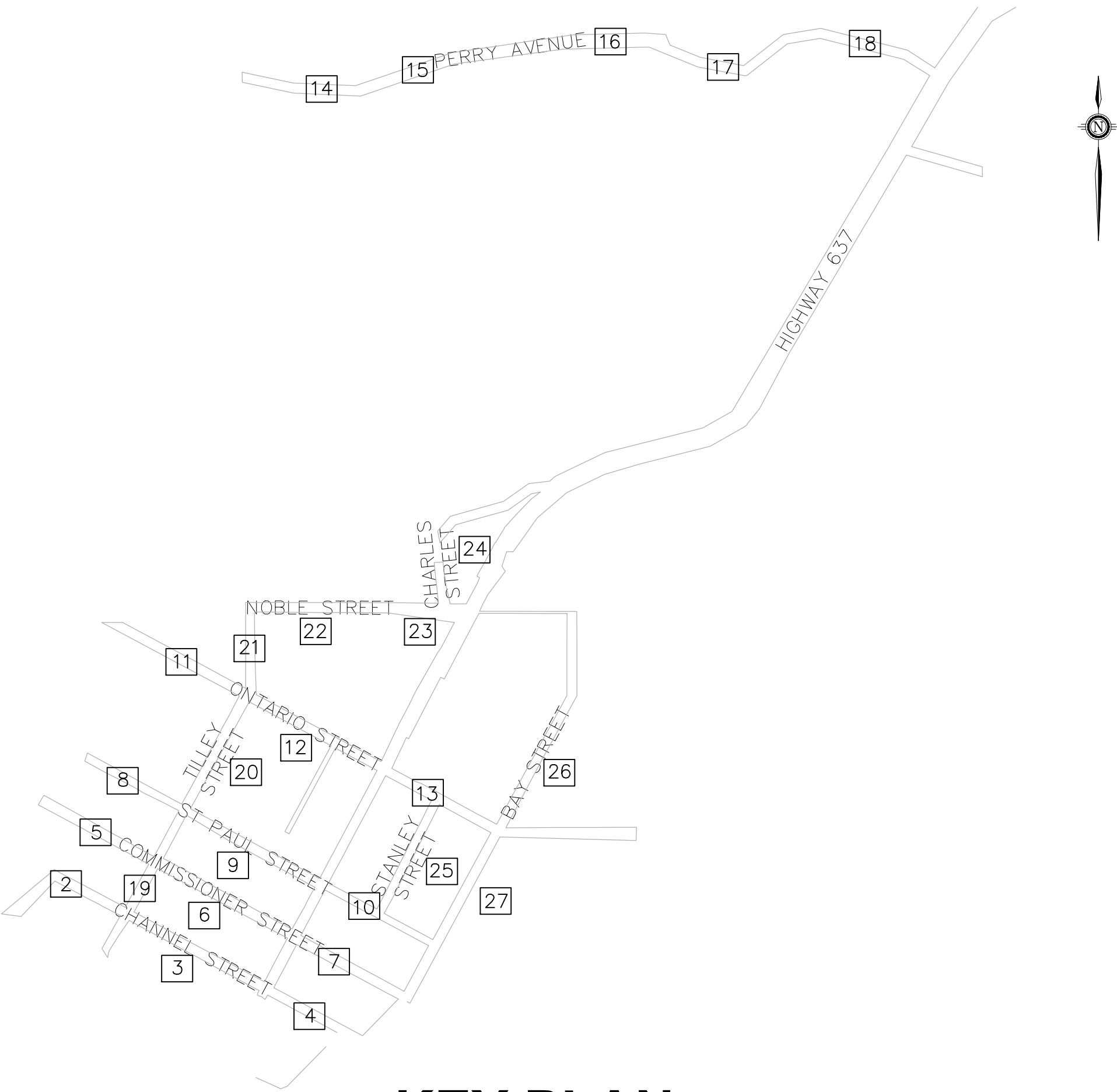
400.27 SPECIES AT RISK

If a Contractor encounters a known Species at Risk designated by the MECP, MNRF or DFO, the Contractor shall notify the Engineer immediately and follow applicable authority's guidelines for work around the species.

400.28 SITE CLEANUP

The Contractor shall remove all surplus materials from the job site at the end of the project prior to demobilization. The Contractor shall locate the disposal site for all materials to be disposed of. Disposal of materials shall comply with applicable regulations. Unless specified otherwise, the cost to dispose of all surplus materials shall be included in the price of other tender items.

KILLARNEY VILLAGE DRAINAGE STUDY



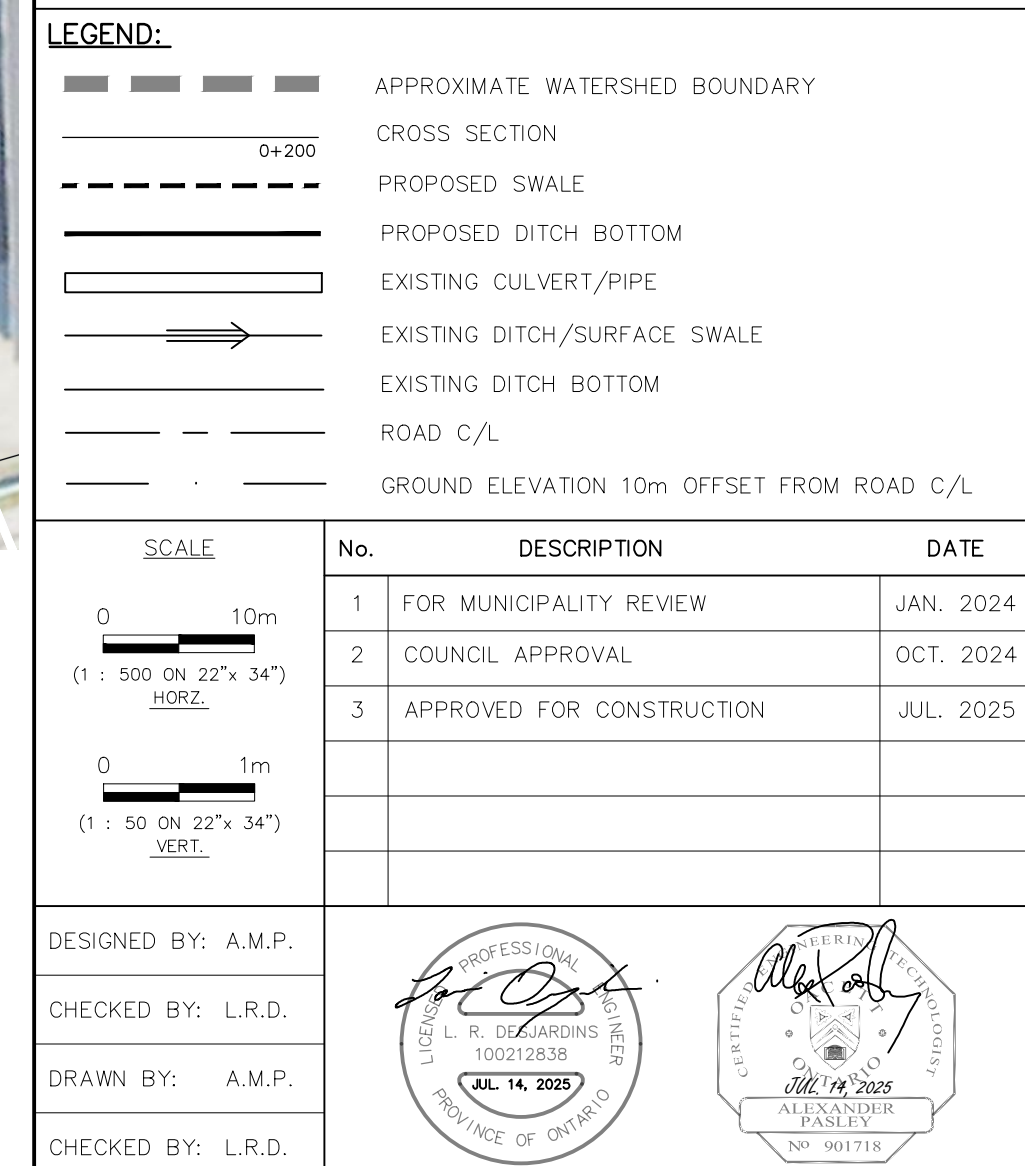
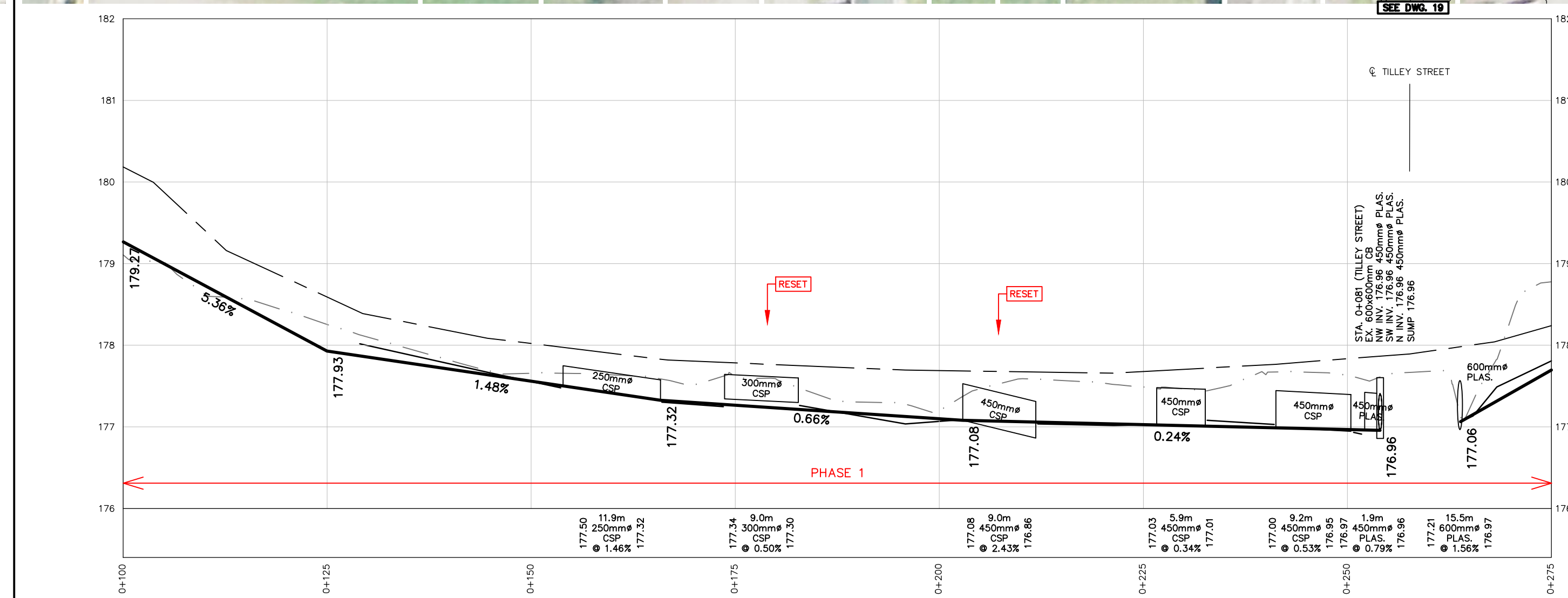
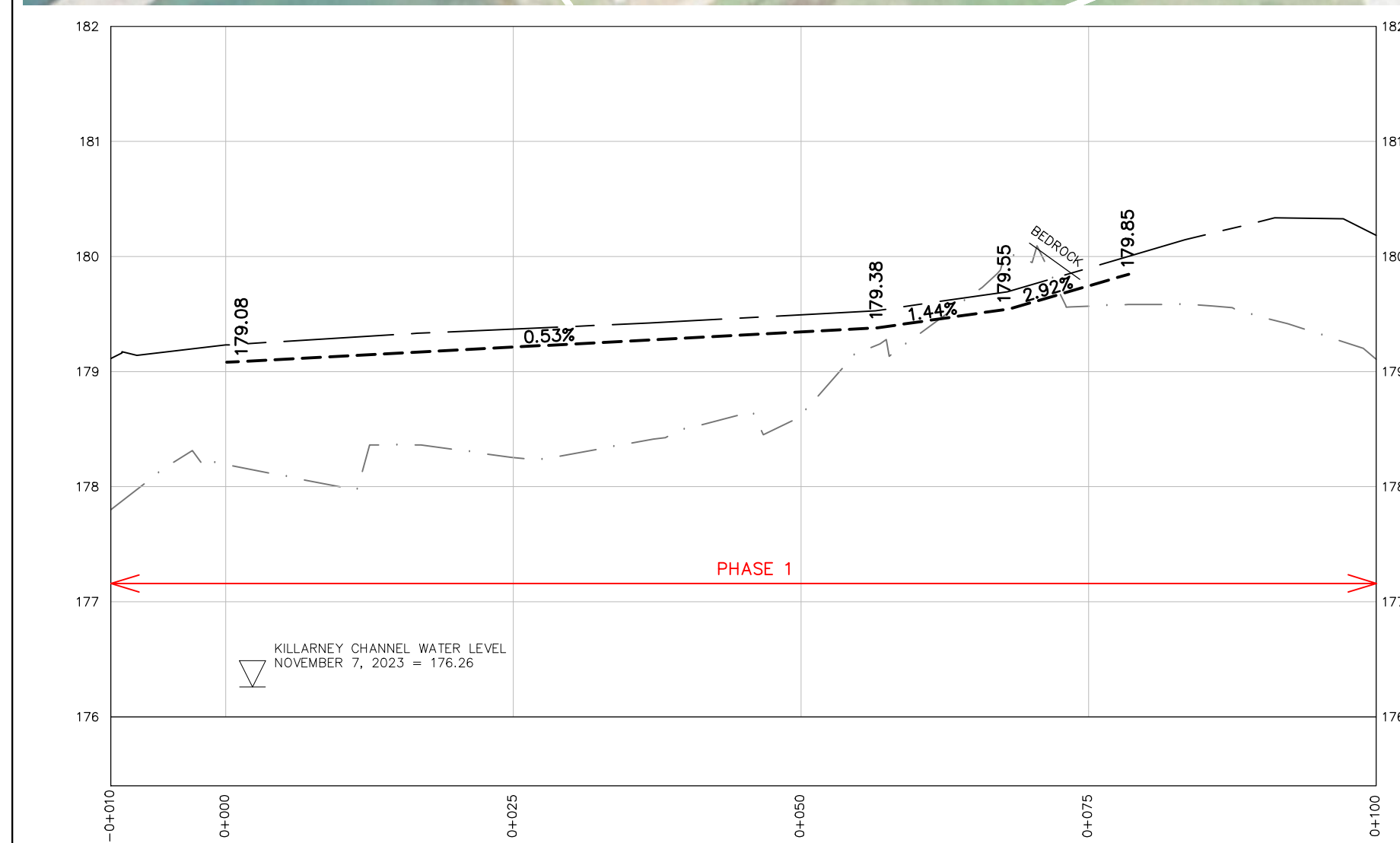
KEY PLAN
NOT TO SCALE

LIST OF DRAWINGS

1.	OVERALL PLAN
2.	CHANNEL STREET 0+000 TO 0+275
3.	CHANNEL STREET 0+275 TO 0+550
4.	CHANNEL STREET 0+550 TO 0+766
5.	COMMISSIONER STREET 0+000 TO 0+275
6.	COMMISSIONER STREET 0+275 TO 0+560
7.	COMMISSIONER STREET 0+560 TO 0+821
8.	ST. PAUL STREET 0+000 TO 0+275
9.	ST. PAUL STREET 0+275 TO 0+550
10.	ST. PAUL STREET 0+550 TO 0+821
11.	ONTARIO STREET (WEST) 0+000 TO 0+250
12.	ONTARIO STREET (WEST/SOUTH) 0+250 TO 0+529
13.	ONTARIO STREET (EAST) 0+300
14.	PERRY AVENUE 0+000 TO 0+300
15.	PERRY AVENUE 0+300 TO 0+600
16.	PERRY AVENUE 0+600 TO 0+900
17.	PERRY AVENUE 0+900 TO 1+200
18.	PERRY AVENUE 1+200 TO 1+500
19.	TILLEY STREET 0+000 TO 0+300
20.	TILLEY STREET 0+300 TO 0+600
21.	NOBLE STREET 0+000 TO 0+200
22.	NOBLE STREET 0+200 TO 0+450
23.	NOBLE STREET 0+450 TO 0+627
24.	CHARLES STREET 0+000 TO 0+150
25.	STANLEY STREET 0+000 TO 0+275
26.	BAY STREET 0+000 TO 0+315
27.	BAY STREET UNOPENED ROAD ALLOWANCE 0+000 TO 0+200
28.	CROSS SECTIONS (1)
29.	CROSS SECTIONS (2)
30.	CROSS SECTIONS (3)
31.	CROSS SECTIONS (4)
32.	CROSS SECTIONS (5)
33.	CROSS SECTIONS (6)
34.	CROSS SECTIONS (7)
35.	CROSS SECTIONS (8)
36.	CROSS SECTIONS (9)
37.	CROSS SECTIONS (10)
38.	CROSS SECTIONS (11)
39.	STANDARD DETAILS & GENERAL NOTES



K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
SUDBURY KITCHENER




KILLARNEY VILLAGE DRAINAGE STUDY

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

CHANNEL STREET

STATION 0+000 TO 0+275



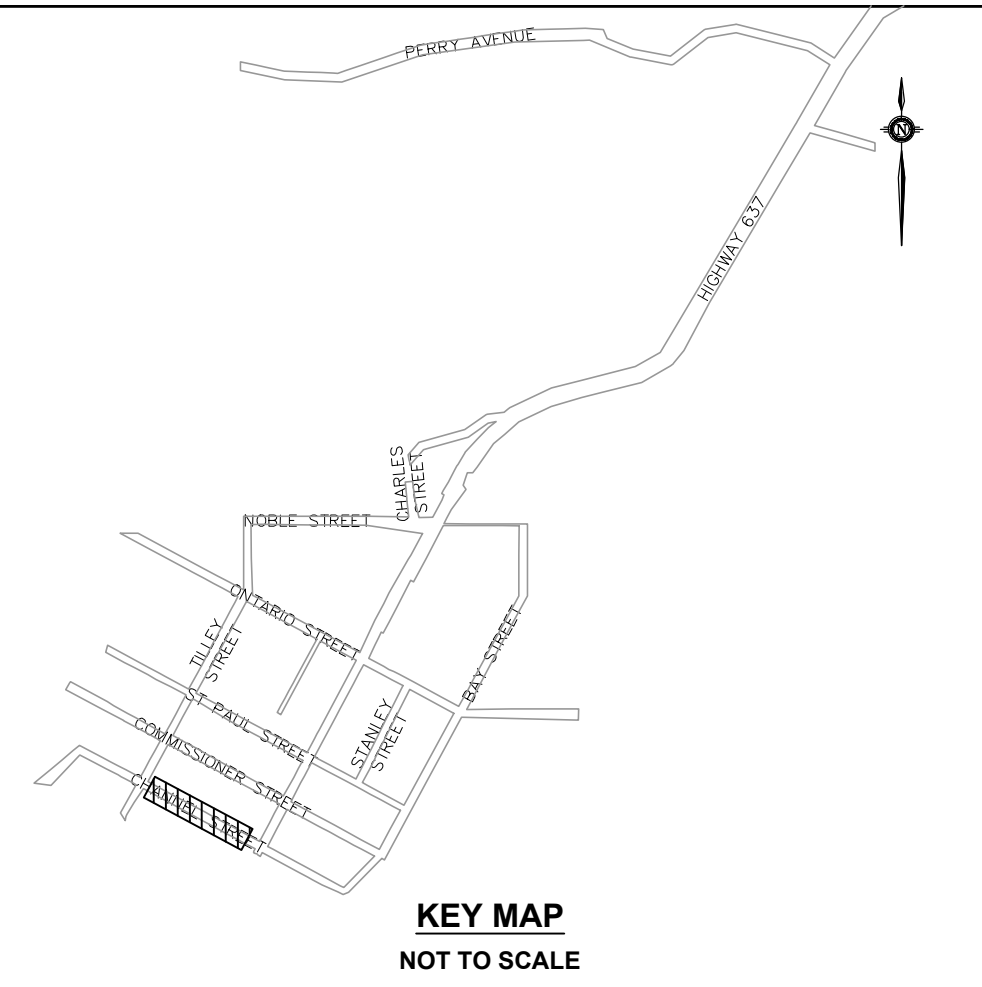
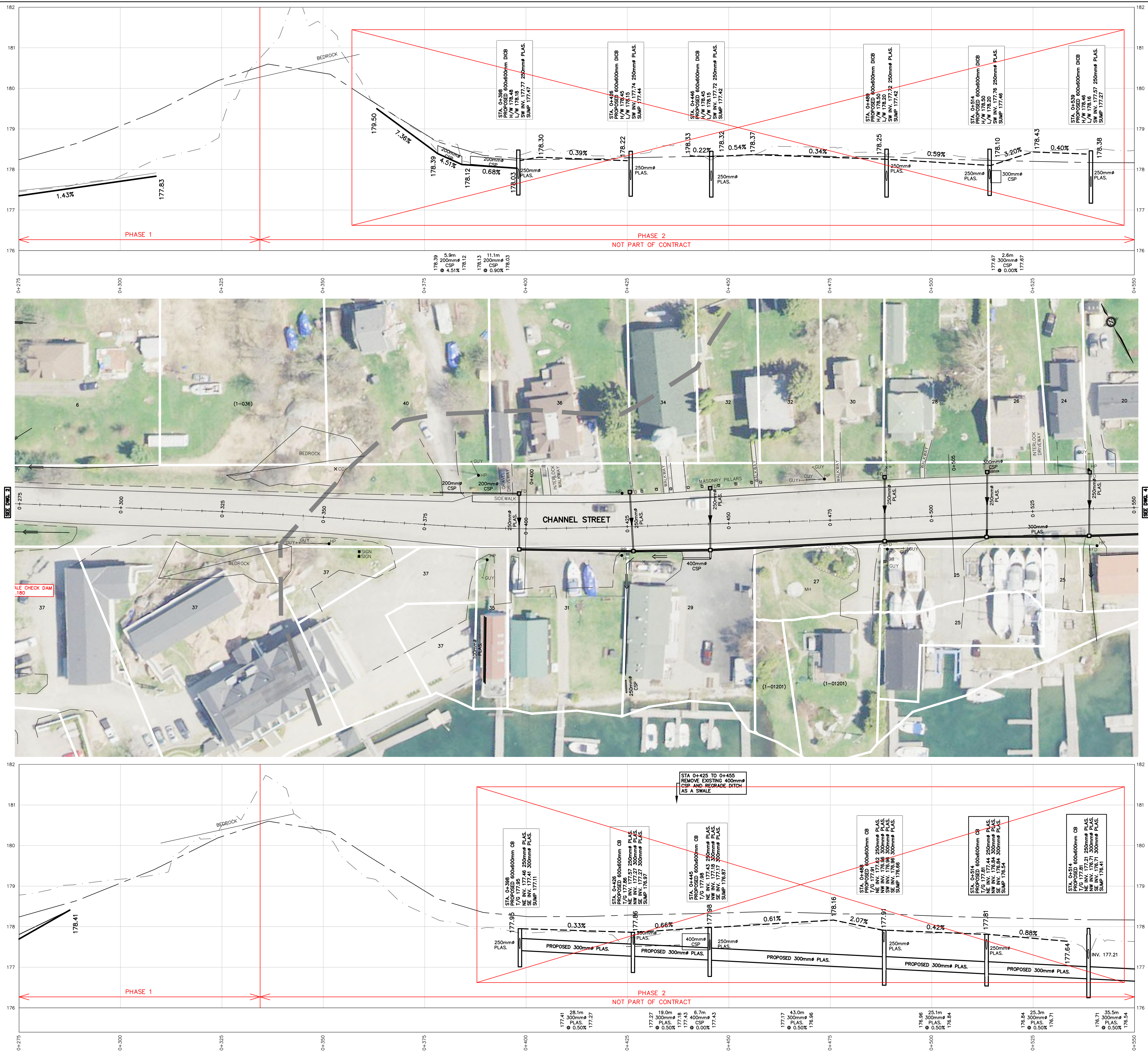
K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

SUDBURY

JOB NUMBER: 23-088

DRAWING

2 OF 39



- NOTES:**
- ELEVATIONS OF EXISTING FEATURES ARE SHOWN PER K. SMART SURVEY COMPLETED NOVEMBER & DECEMBER 2023.
 - DRAWINGS HAVE BEEN PREPARED FOR THE MUNICIPALITY OF KILLARNEY TO REVIEW EXISTING DRAINAGE CONDITIONS.
 - PROPOSED GRADE LINES ARE SHOWN IN BOLD ON THIS DRAWING.

BENCHMARKS:

APPROVED FOR
CONSTRUCTION
JULY 14, 2025

- LEGEND:**
- APPROXIMATE WATERSHED BOUNDARY
 - CROSS SECTION
 - PROPOSED SWALE
 - PROPOSED DITCH BOTTOM
 - EXISTING CULVERT/PIPE
 - EXISTING DITCH/SURFACE SWALE
 - EXISTING DITCH BOTTOM
 - ROAD C/L
 - GROUND ELEVATION 10m OFFSET FROM ROAD C/L

SCALE	No.	DESCRIPTION	DATE
0 10m (1 : 500 ON 22" x 34") HORIZ.	1	FOR MUNICIPALITY REVIEW	JAN. 2024
0 1m (1 : 50 ON 22" x 34") VERT.	2	COUNCIL APPROVAL	OCT. 2024
	3	APPROVED FOR CONSTRUCTION	JUL. 2025
DESIGNED BY: A.M.P.			
CHECKED BY: L.R.D.			
DRAWN BY: A.M.P.			
CHECKED BY: L.R.D.			

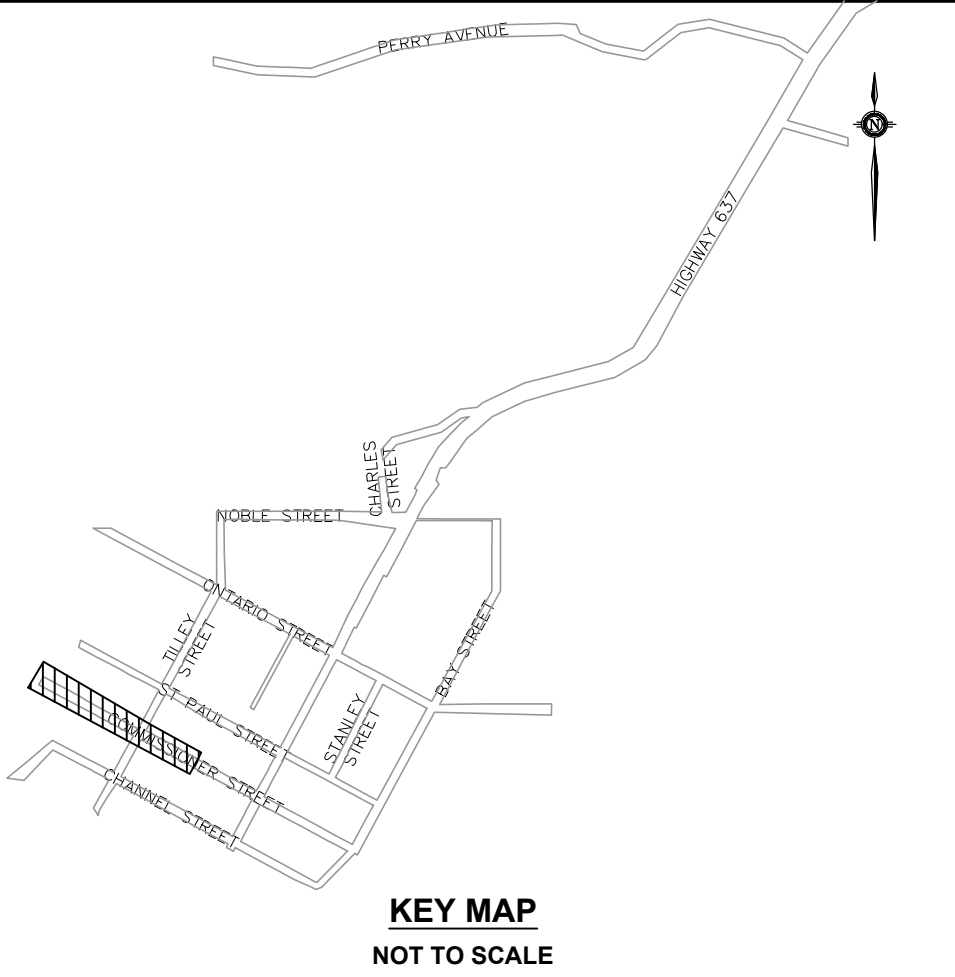
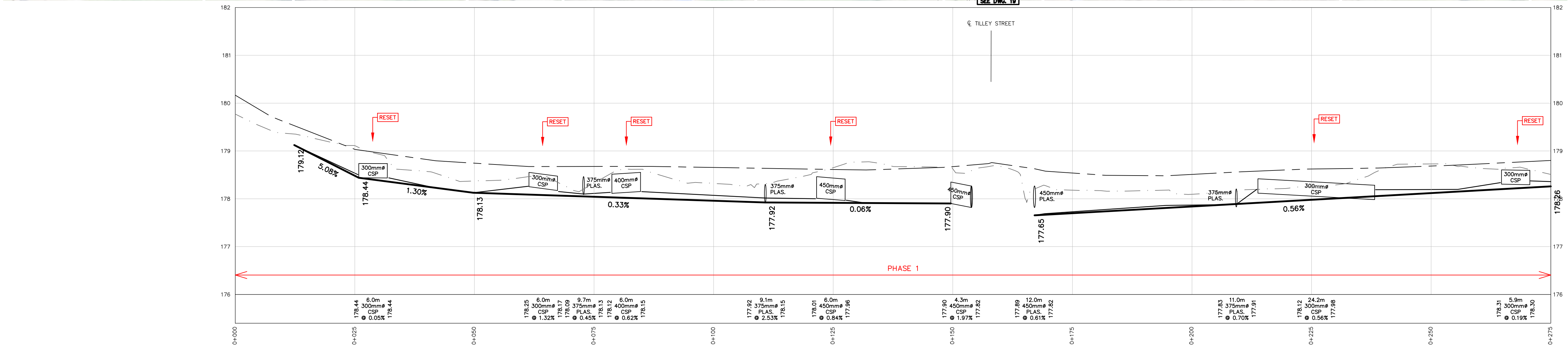
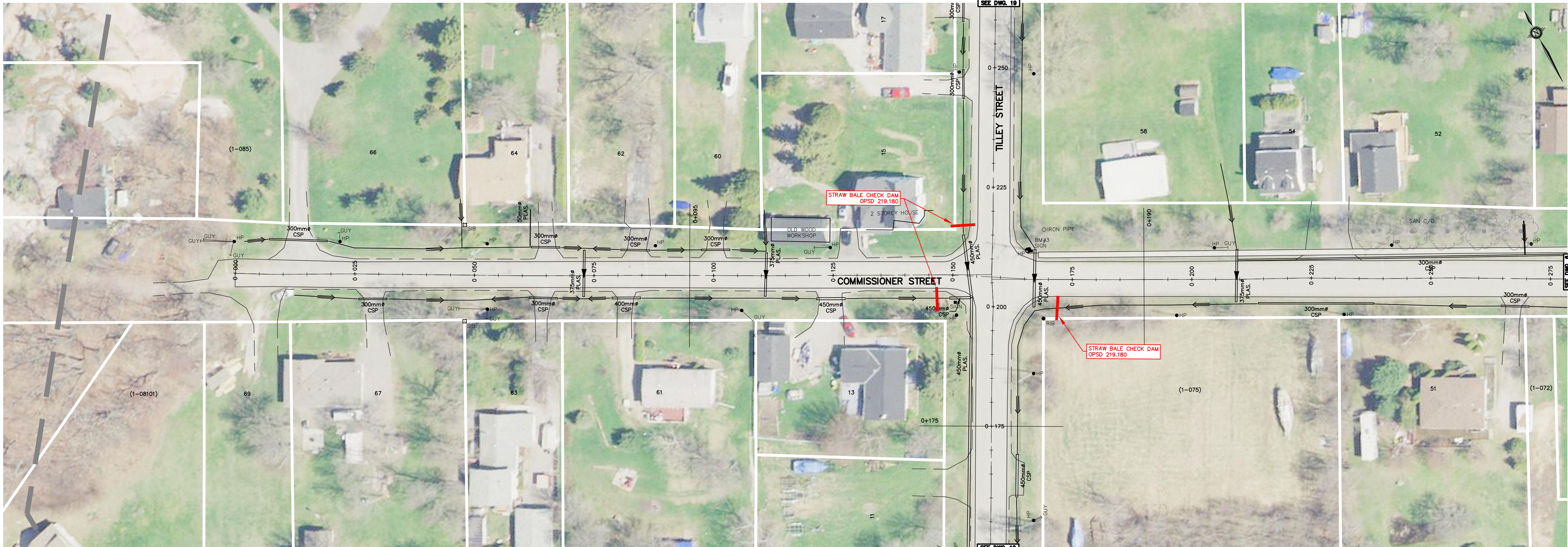
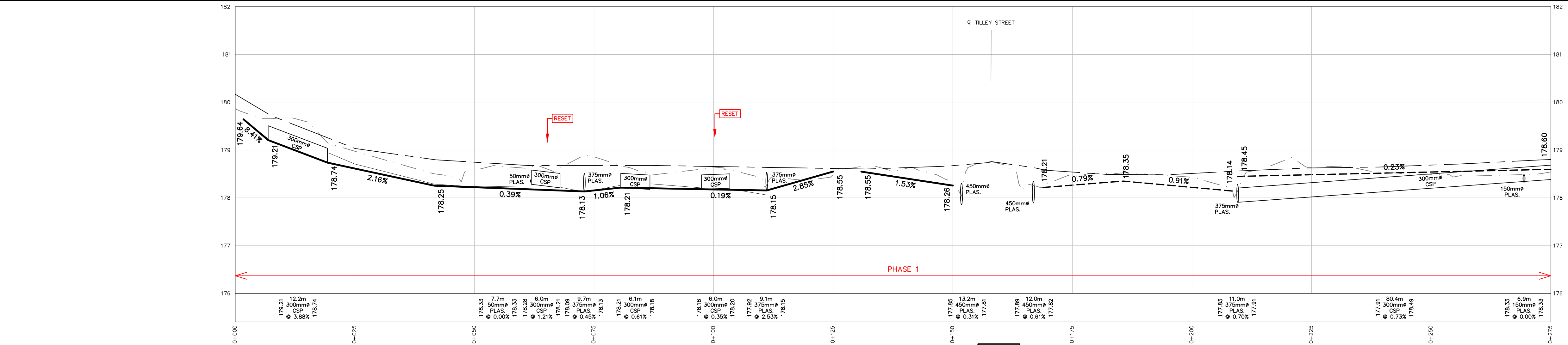
KILLARNEY VILLAGE DRAINAGE STUDY

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

CHANNEL STREET
STATION 0+275 TO 0+550

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

JOB NUMBER: 23-088
DRAWING
3 OF 39



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BENCHMARKS:

BM#3
SPIKE IN SOUTHWEST FACE HYDRO POLE C42A2D AT NORTHEAST CORNER
TILLEY STREET AND COMMISSIONER STREET
ELEV. 178.911

HORIZONTAL DATUM CGVD 28/78
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

APPROVED FOR
CONSTRUCTION

JULY 14, 2025

- LEGEND:**
- APPROXIMATE WATERSHED BOUNDARY
 - CROSS SECTION
 - PROPOSED SWALE
 - PROPOSED DITCH BOTTOM
 - EXISTING CULVERT/PIPE
 - EXISTING DITCH/SURFACE SWALE
 - EXISTING DITCH BOTTOM
 - ROAD C/L
 - GROUND ELEVATION 10m OFFSET FROM ROAD C/L

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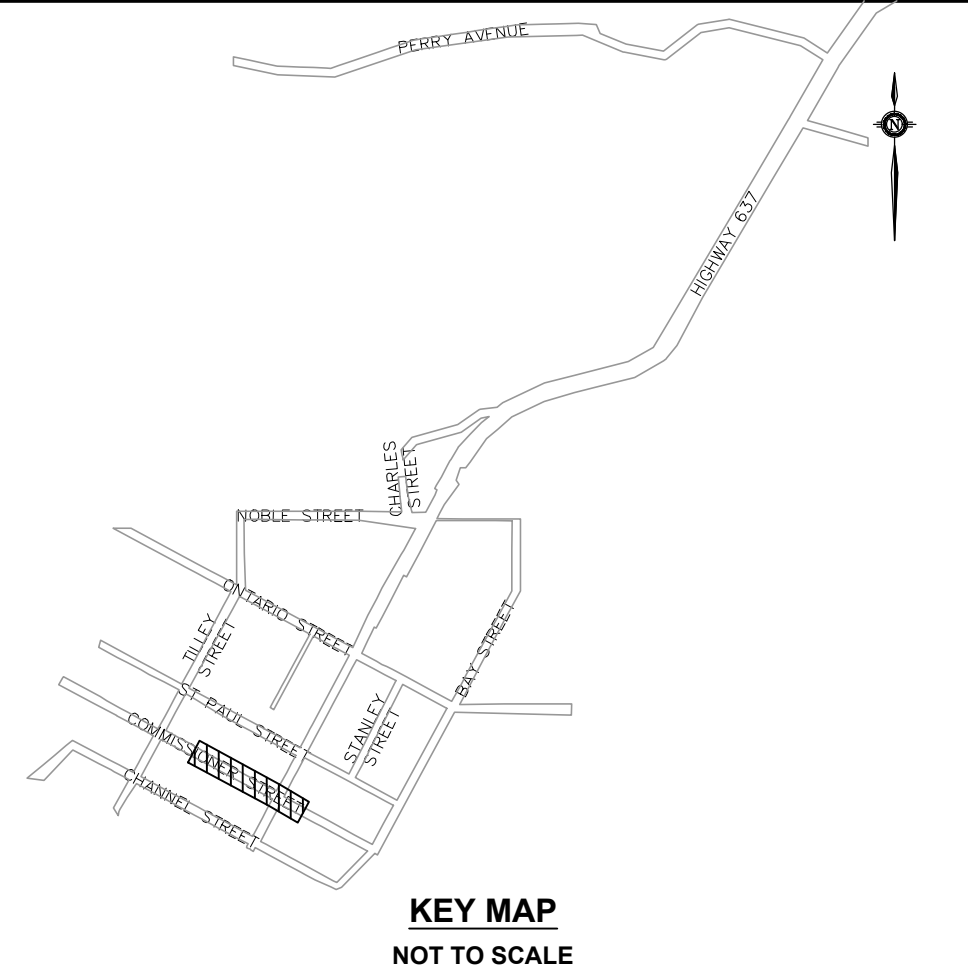
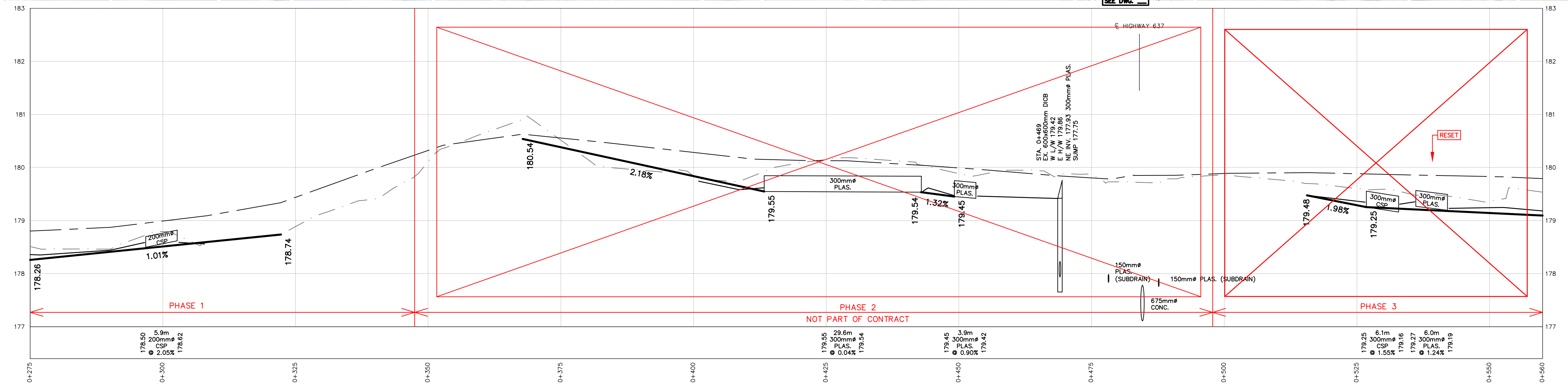
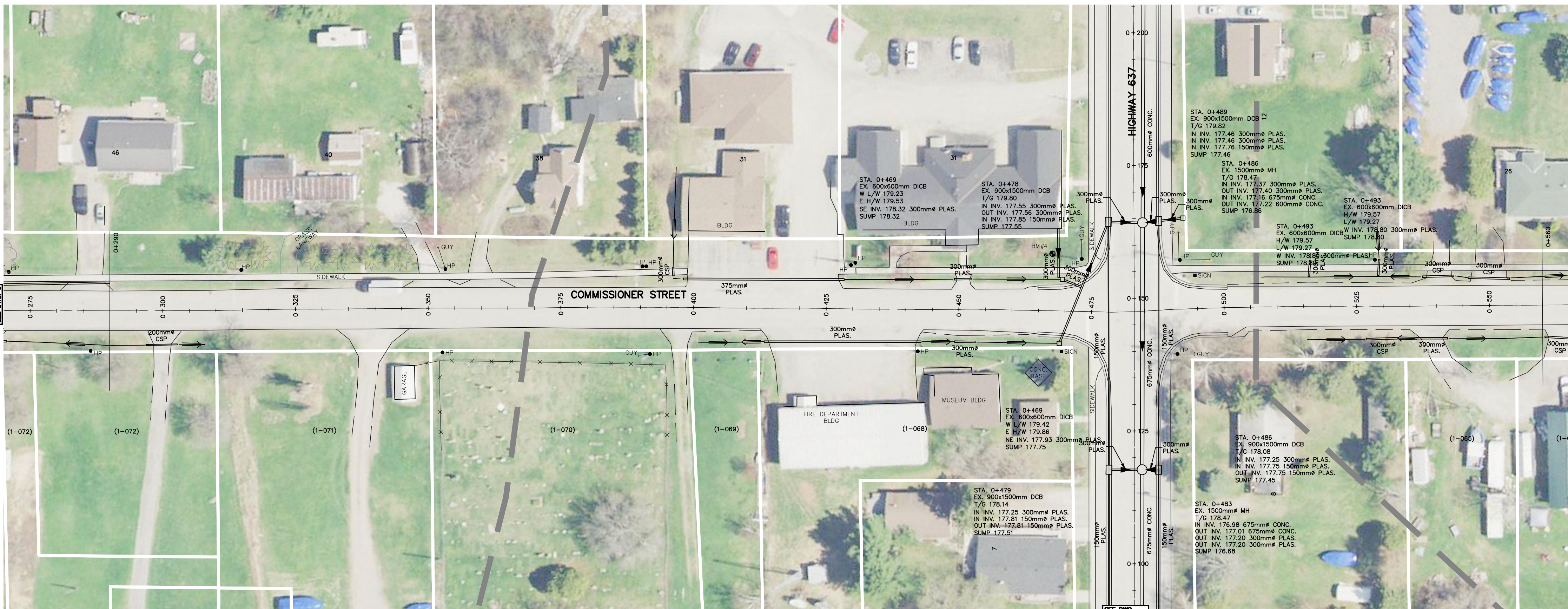
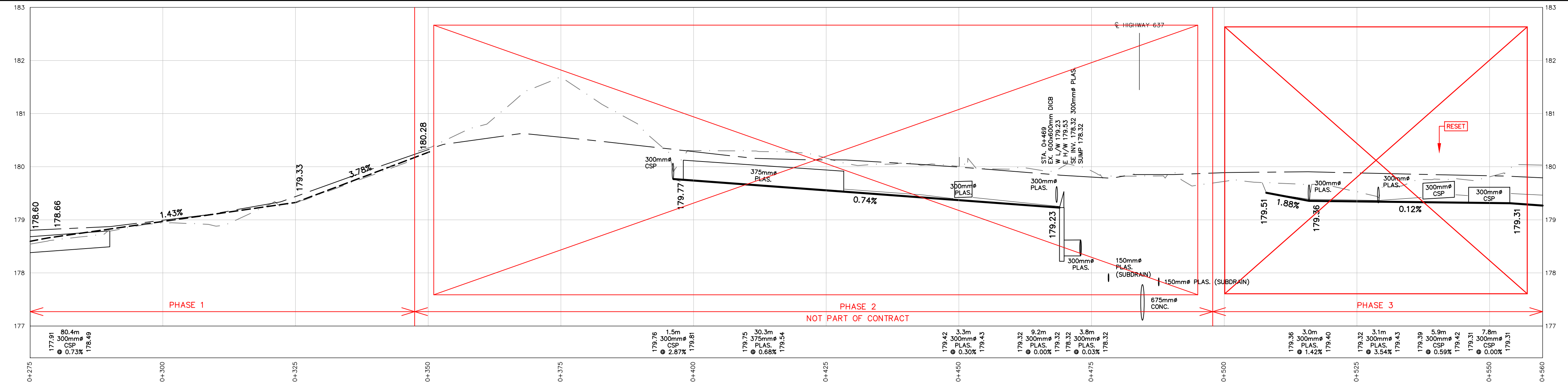
**KILLARNEY VILLAGE
DRAINAGE STUDY**

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

COMMISSIONER STREET
STATION 0+000 TO 0+275

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

JOB NUMBER: 23-088
DRAWING
5 OF 39



- NOTES:**
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 - DRAWINGS HAVE BEEN PREPARED FOR THE MUNICIPALITY OF KILLARNEY TO REVIEW EXISTING DRAINAGE CONDITIONS.
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BENCHMARKS:

BM#4
TOP SPINDLE EAST FIRE HYDRANT NORTHWEST CORNER COMMISSIONER AND HWY 637
ELEV. 180.837

HORIZONTAL DATUM CGVD 28/78
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

APPROVED FOR
CONSTRUCTION

JULY 14, 2025

- LEGEND:**
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 - CROSS SECTION
 - PROPOSED SWALE
 - PROPOSED DITCH BOTTOM
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 - ROAD C/L
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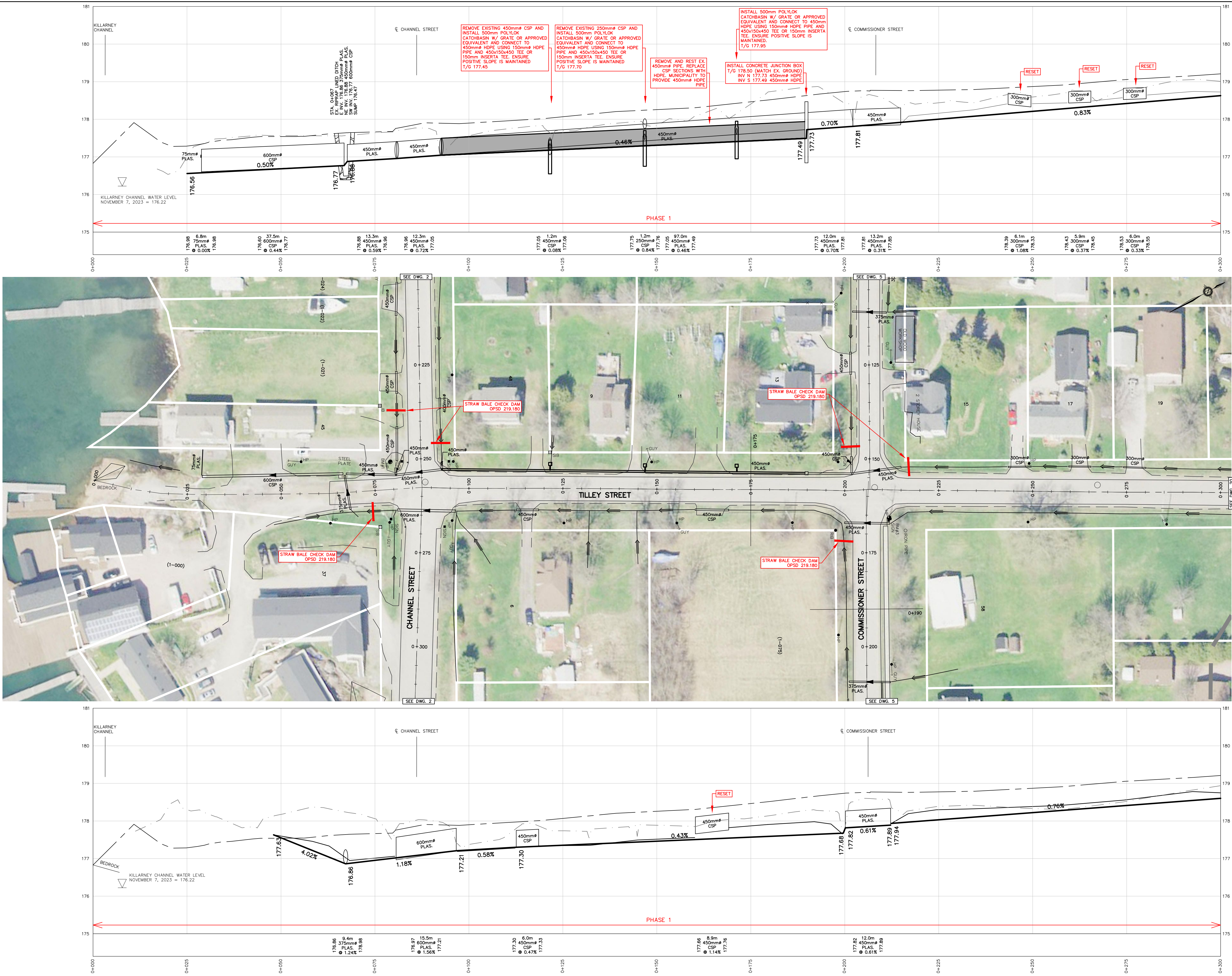
**KILLARNEY VILLAGE
DRAINAGE STUDY**

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

COMMISSIONER STREET
STATION 0+275 TO 0+560

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

JOB NUMBER: 23-088
DRAWING
6 OF 39



KEY MAP
NOT TO SCALE

NOTES:

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BENCHMARKS:

BM#1
SPIKE IN NORTHEAST FACE HYDRO POLE AT HOUSE #41, SW CORNER CHANNEL STREET AND TILLEY STREET
ELEV. 177.805

BM#3
SPIKE IN SOUTHWEST FACE HYDRO POLE C4ZA20 AT NORTHEAST CORNER TILLEY STREET AND COMMISSIONER STREET
ELEV. 178.911

HORIZONTAL DATUM CGVD 28:78
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

APPROVED FOR CONSTRUCTION
JULY 14, 2025

LEGEND:

- APPROXIMATE WATERSHED BOUNDARY
- CROSS SECTION
- PROPOSED SWALE
- PROPOSED DITCH BOTTOM
- EXISTING CULVERT/PIPE
- EXISTING DITCH/SURFACE SWALE
- EXISTING DITCH BOTTOM
- ROAD C/L
- GROUND ELEVATION 10m OFFSET FROM ROAD C/L

SCALE

0 10m
(1 : 500 ON 22"x 34")
HORZ.

0 1m
(1 : 50 ON 22"x 34")
VERT.

No.	DESCRIPTION	DATE
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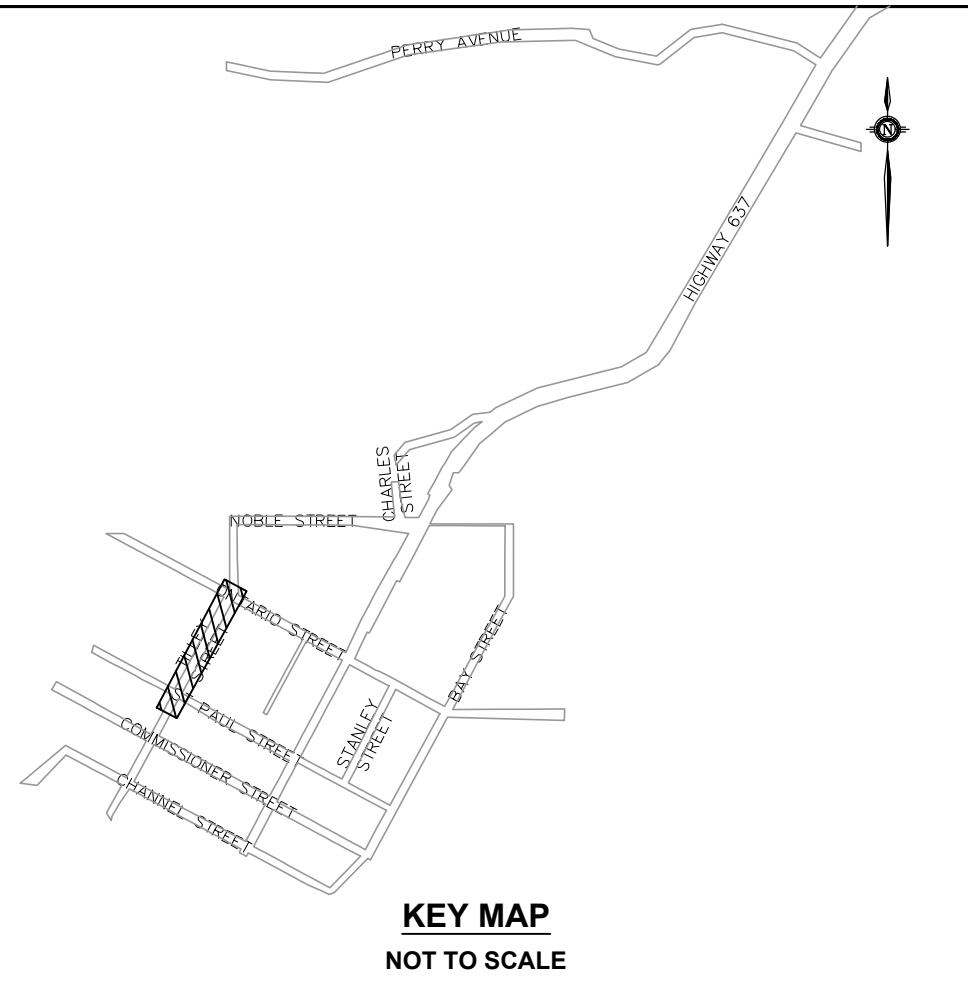
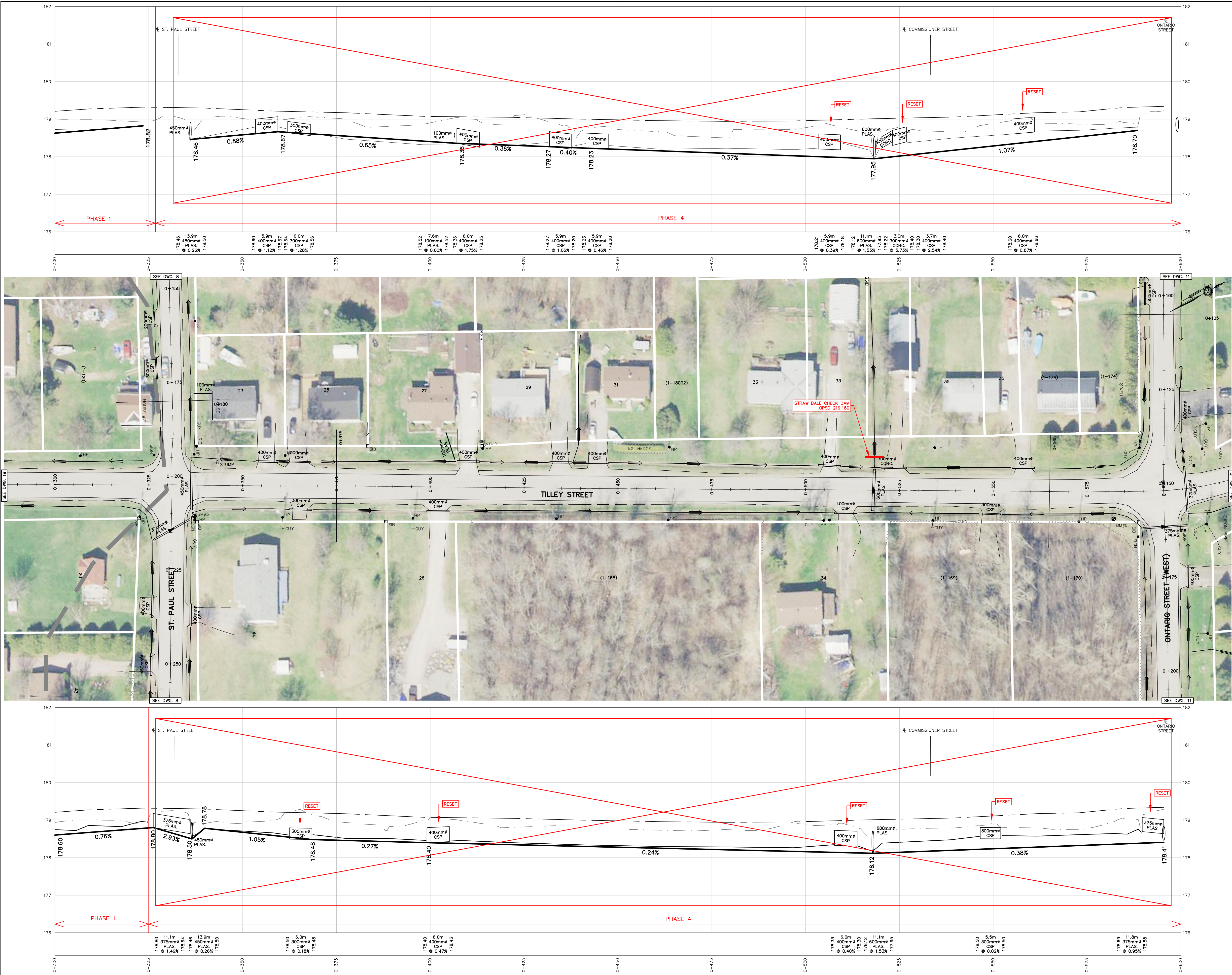
KILLARNEY VILLAGE DRAINAGE STUDY

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

TILLEY STREET
STATION 0+000 TO 0+300

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

JOB NUMBER: 23-088
DRAWING
19 OF 39



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BENCHMARKS:

BM#5
SPIKE IN SOUTHWEST FACE HYDRO POLE AT NORTHEAST CORNER TILLEY STREET AND ST. PAUL STREET
ELEV. 179.271

BM#8
TOP SPINDLE FIRE HYDRANT SOUTHEAST CORNER TILLEY STREET AND ONTARIO STREET
ELEV. 179.914

HORIZONTAL DATUM CGVD 28:78
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

APPROVED FOR
CONSTRUCTION

JULY 14, 2025

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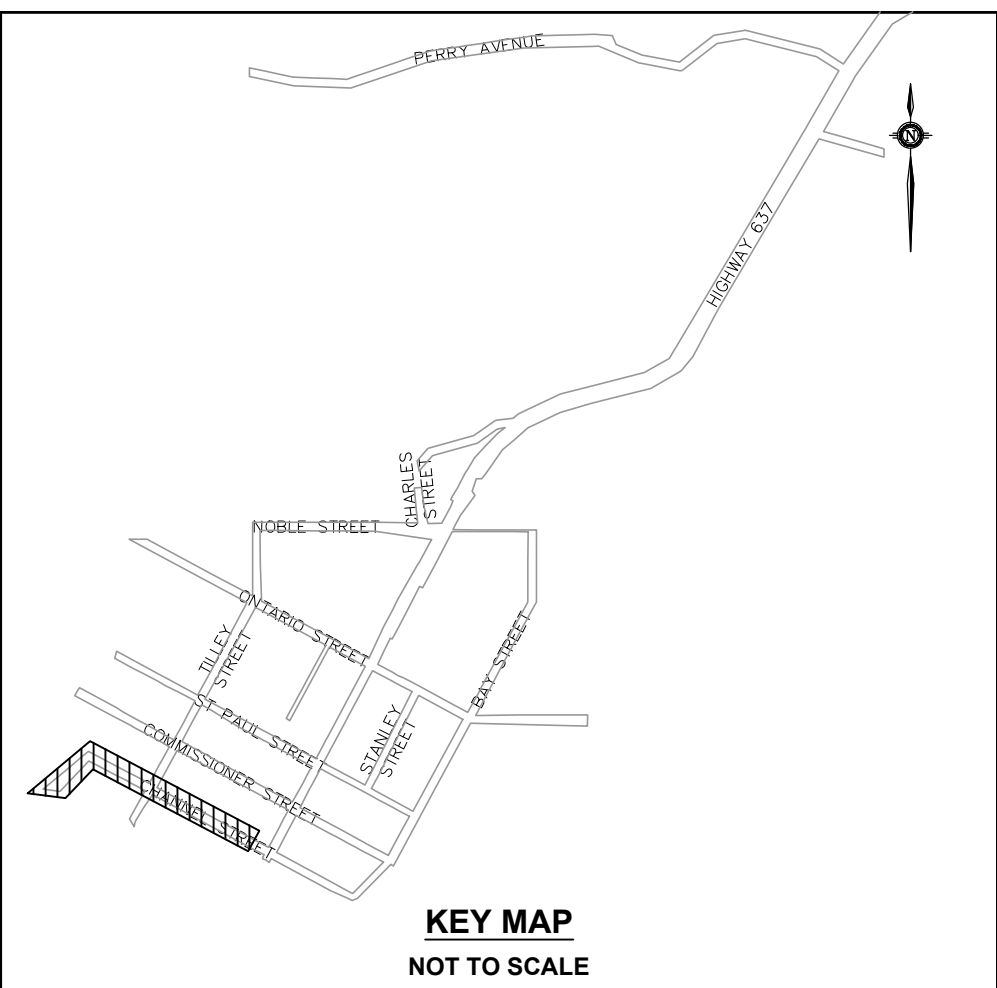
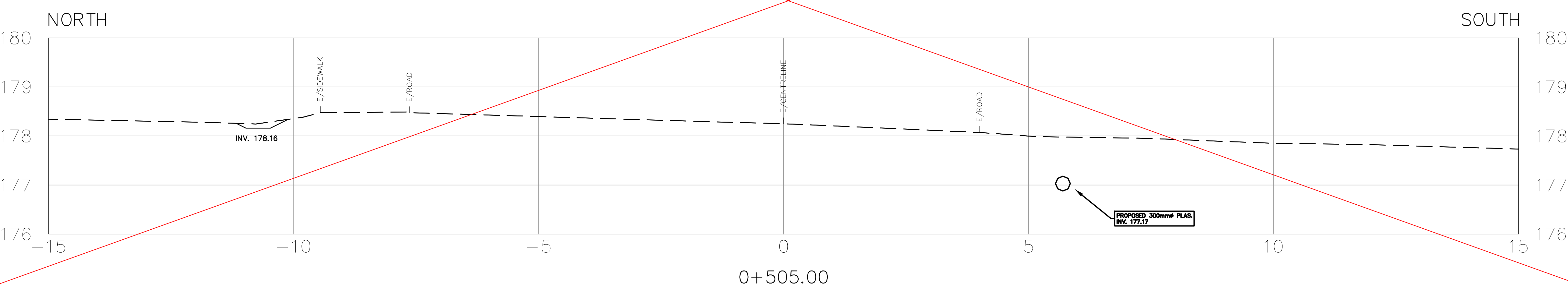
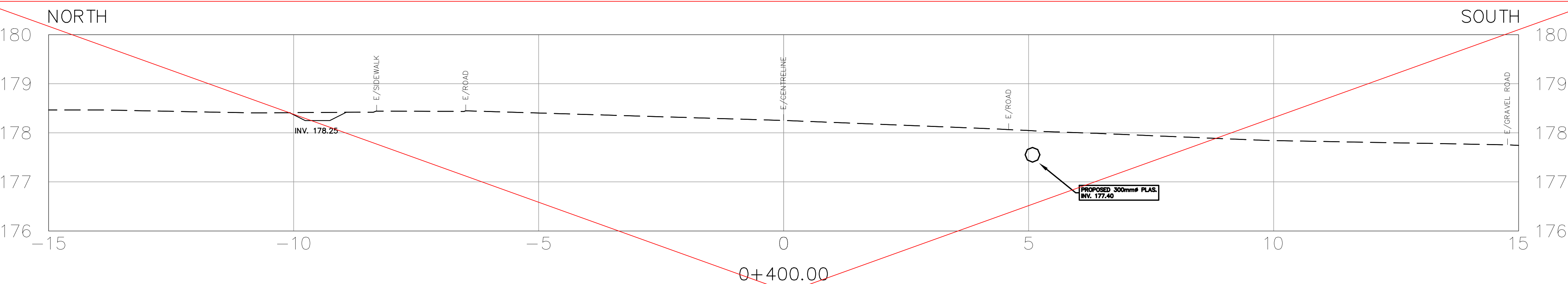
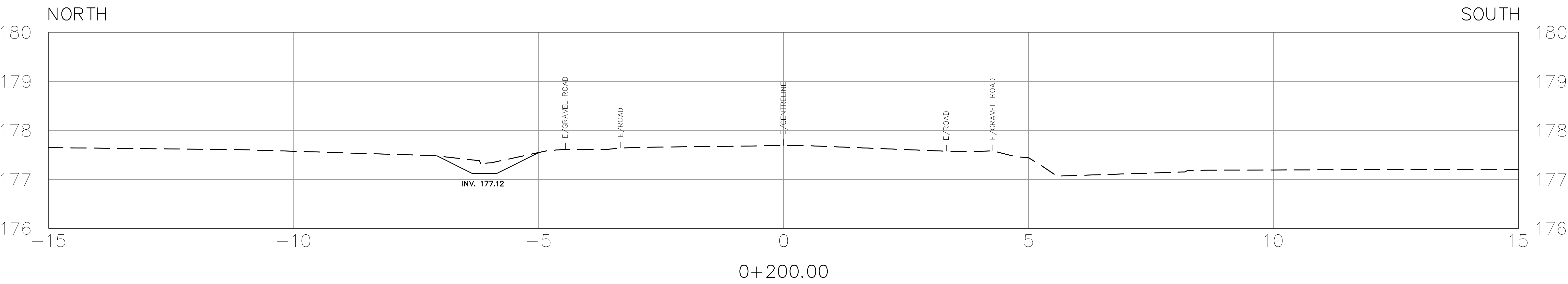
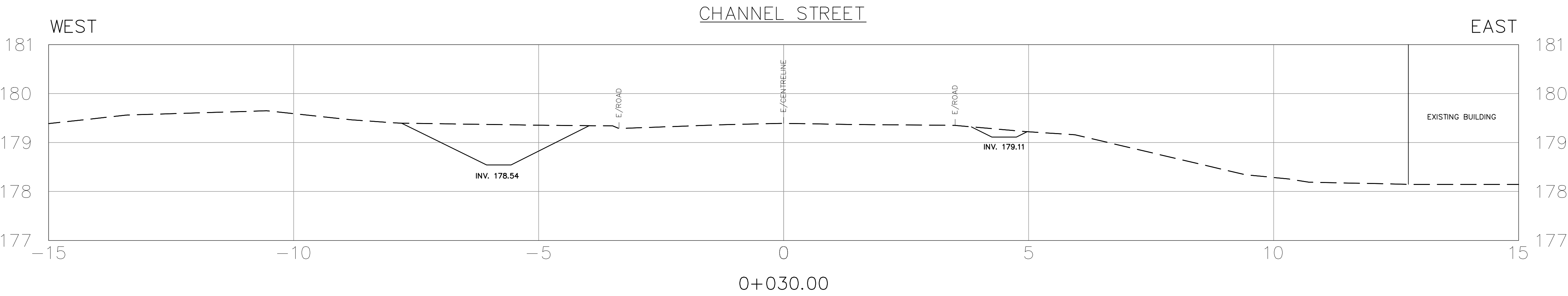
**KILLARNEY VILLAGE
DRAINAGE STUDY**

DISTRICT OF MANITOULIN MUNICIPALITY OF KILLARNEY

TILLEY STREET
STATION 0+300 TO 0+600

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER

JOB NUMBER: 23-088
DRAWING: 20 OF 39



NOTES:

1. ELEVATIONS OF EXISTING FEATURES ARE SHOWN PER K. SMART SURVEY COMPLETED NOVEMBER & DECEMBER 2023.

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DITCH CROSS SECTIONS
TYPICAL DITCH CROSS SECTION IS 0.5m BOTTOM, 2:1 SIDE SLOPES.

APPROVED FOR
CONSTRUCTION

JULY 14, 2025

SCALE	No.	DESCRIPTION	DATE
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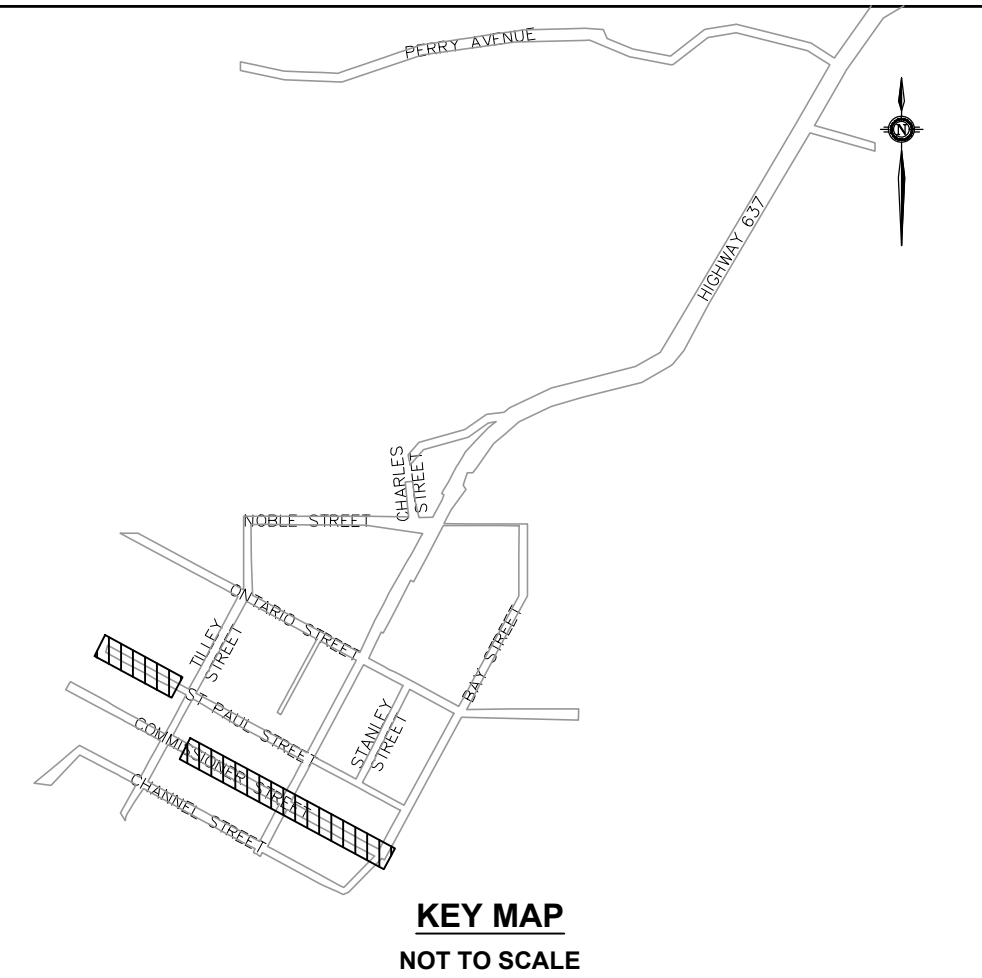
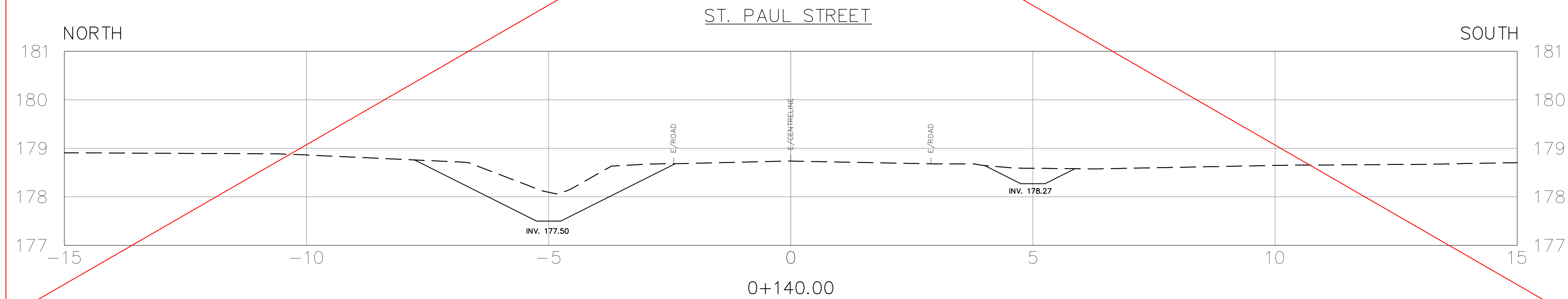
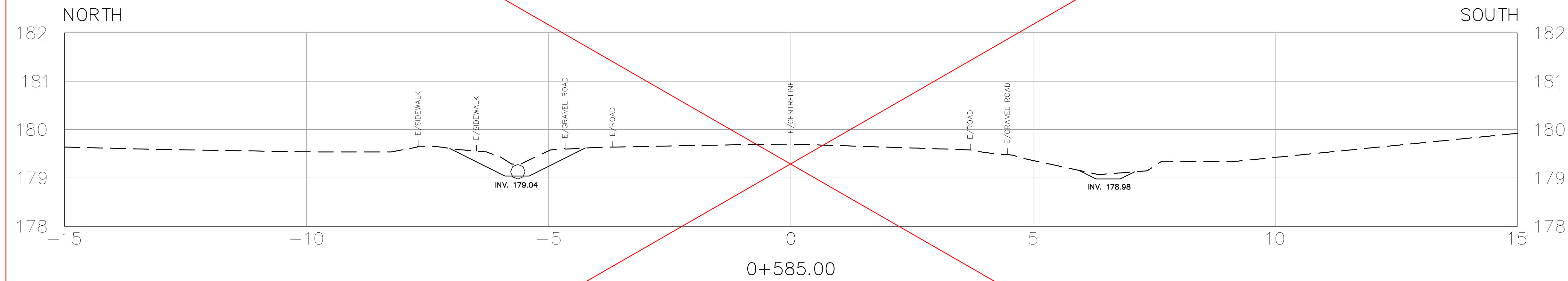
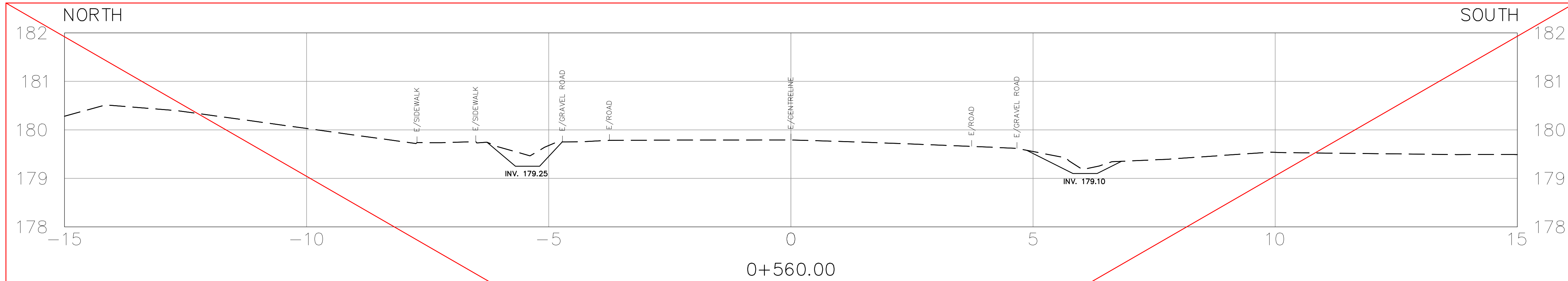
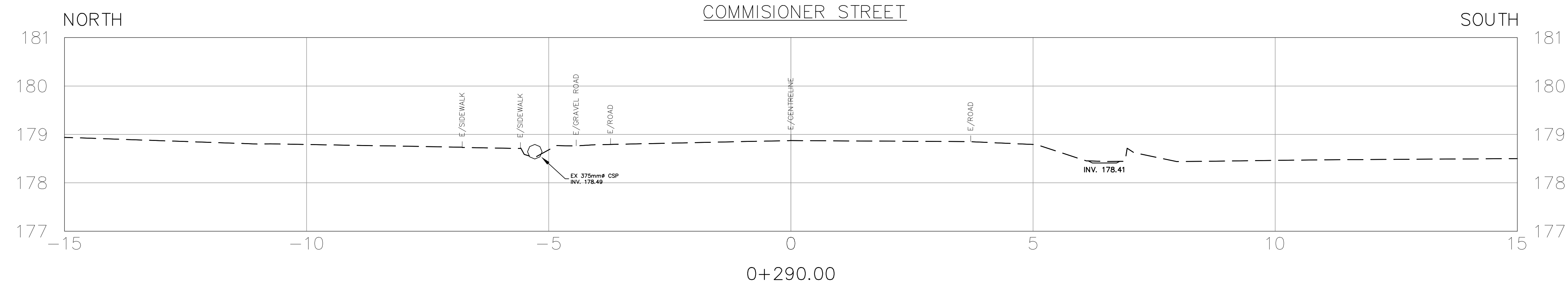
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CHECKED BY: L.R.D.		
DRAWN BY: A.M.P.		
CHECKED BY: L.R.D.		

**KILLARNEY VILLAGE
DRAINAGE STUDY**

DISTRICT OF SUDBURY MUNICIPALITY OF KILLARNEY

**CHANNEL STREET
CROSS SECTIONS**

	K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	JOB NUMBER: 23-088
		DRAWING 28 OF 39



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TYPICAL DITCH CROSS SECTION IS 0.5m BOTTOM, 2:1 SIDE SLOPES.

APPROVED FOR
CONSTRUCTION

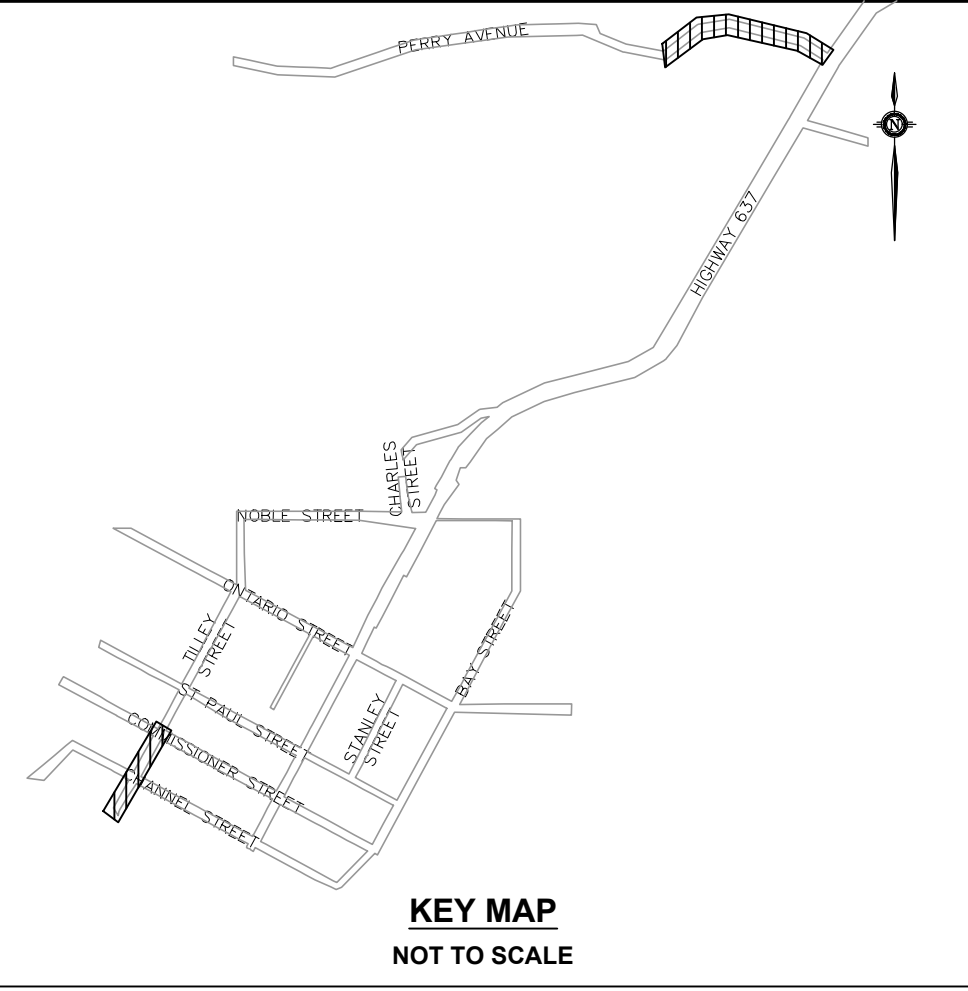
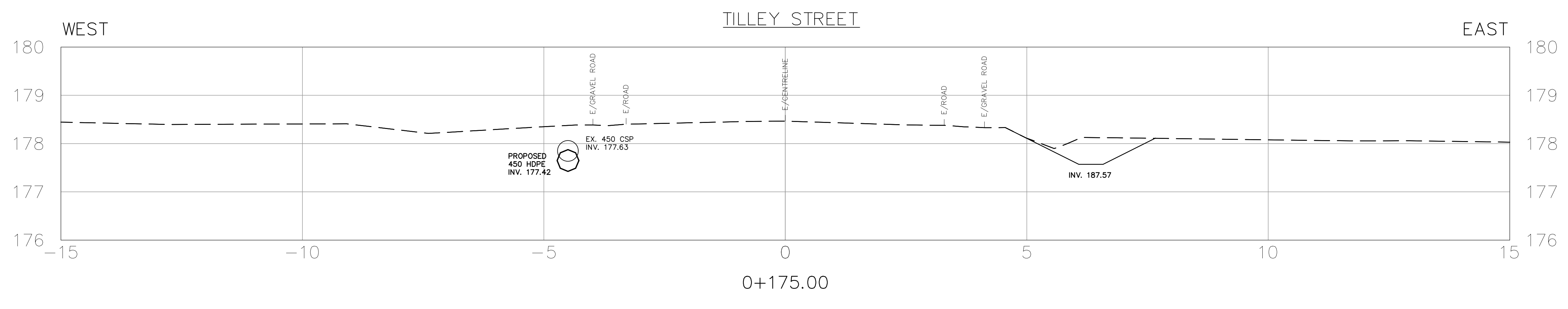
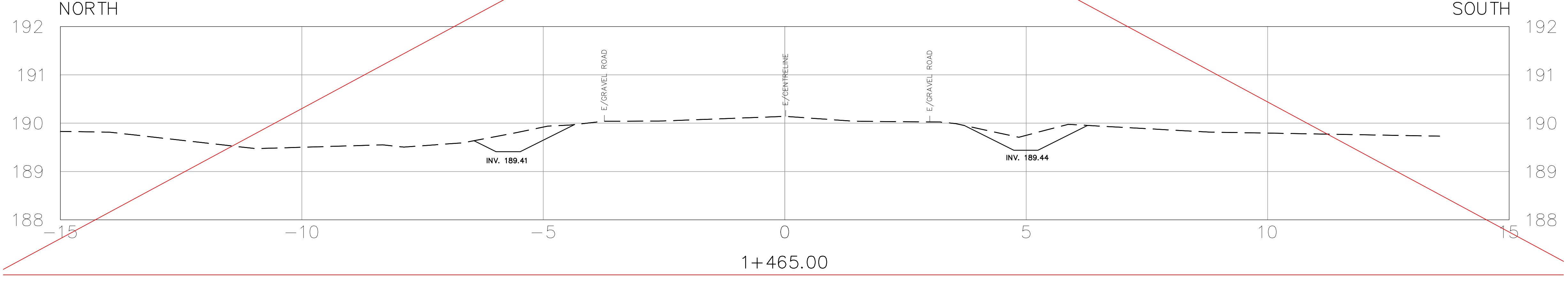
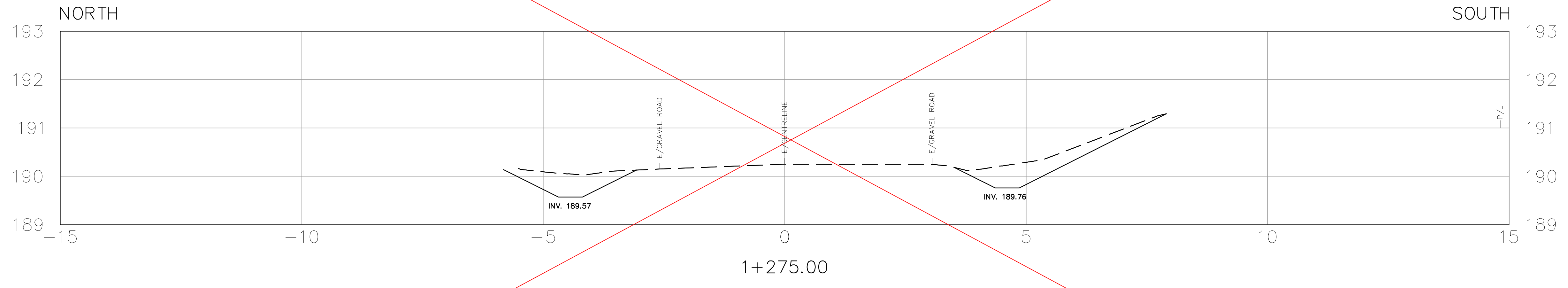
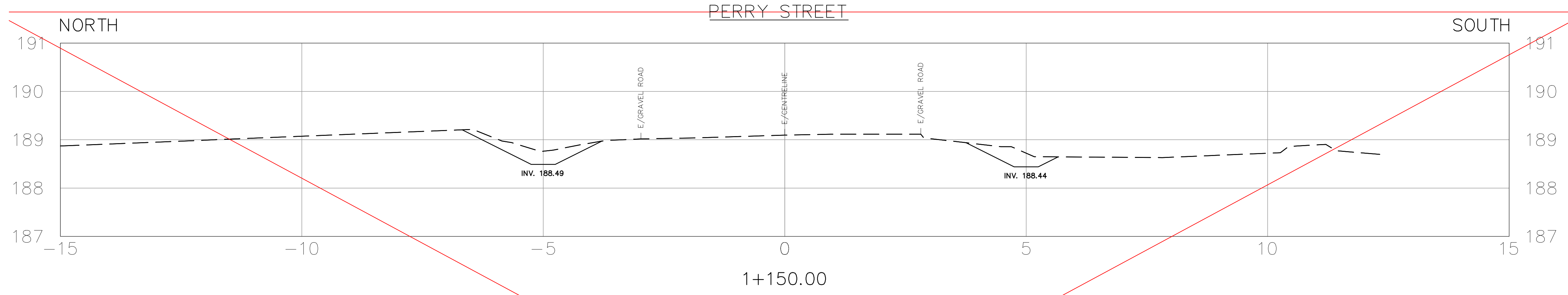
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**KILLARNEY VILLAGE
DRAINAGE STUDY**
DISTRICT OF SUDBURY MUNICIPALITY OF KILLARNEY
COMMISSIONER STREET & ST. PAUL STREET
CROSS SECTION

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

JOB NUMBER: **23-088**
DRAWING
30 OF 39



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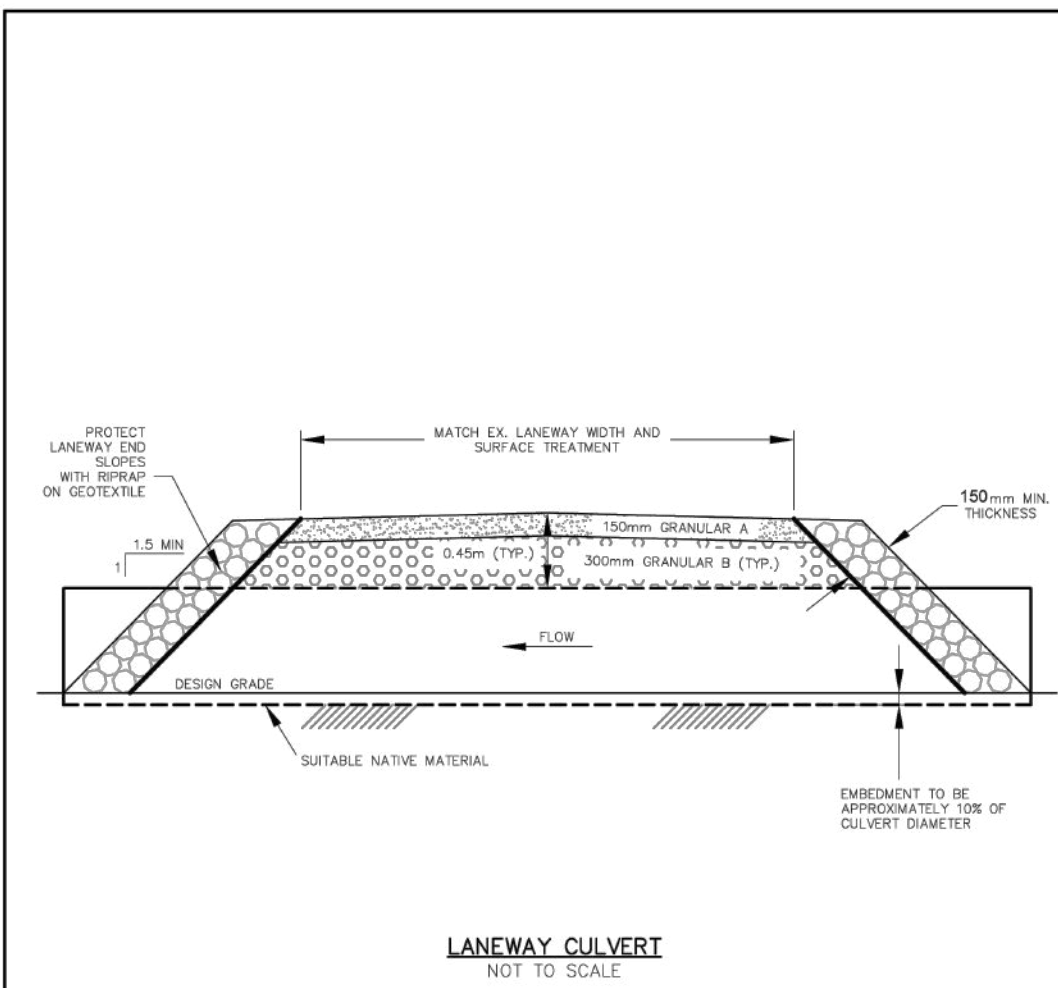
**KILLARNEY VILLAGE
DRAINAGE STUDY**

DISTRICT OF SUDBURY MUNICIPALITY OF KILLARNEY

PERRY STREET & TILLEY STREET
CROSS SECTION

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
SUDBURY KITCHENER

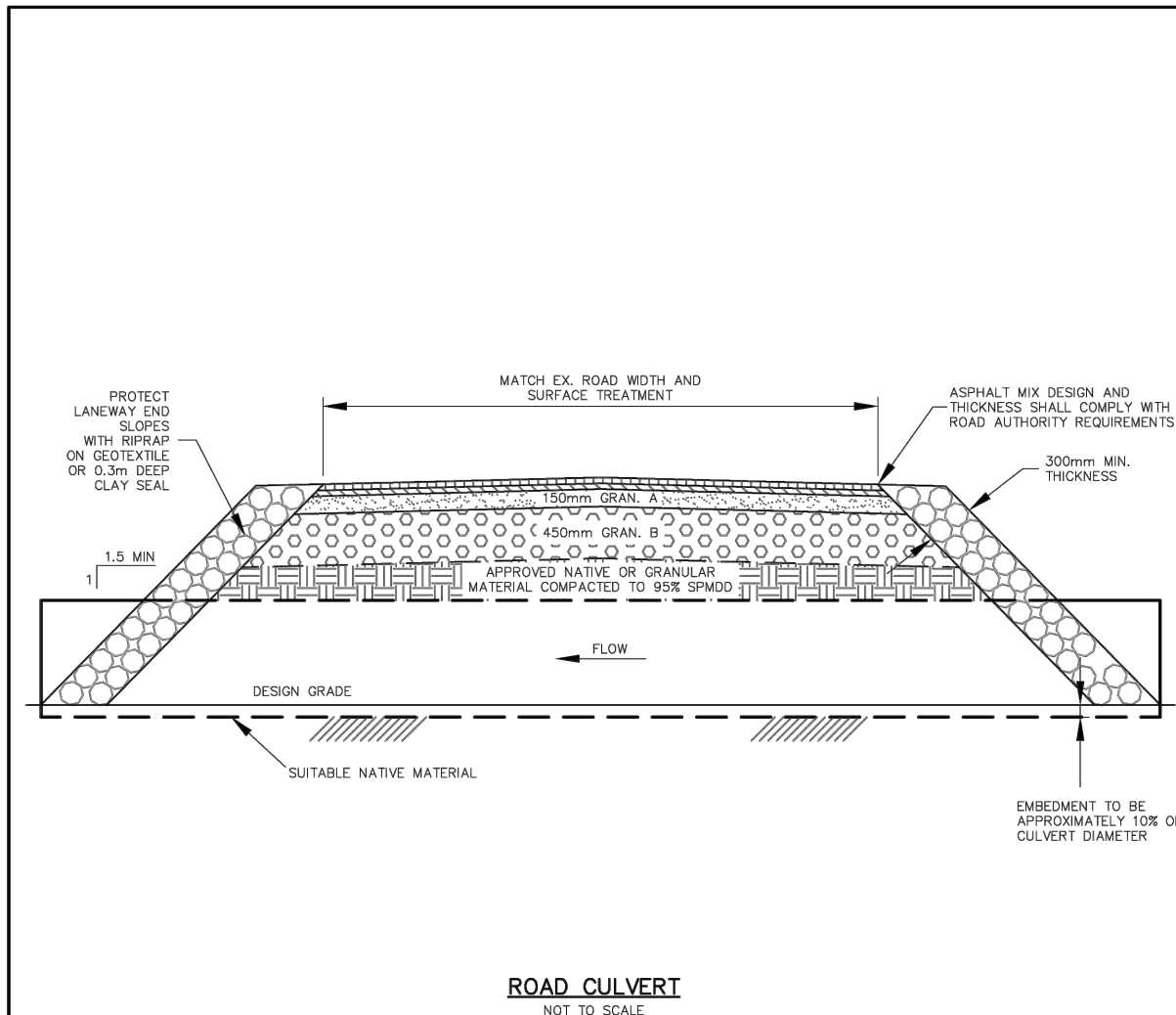
JOB NUMBER: 23-088
DRAWING: 34 OF 39



- NOTES:
1. GRANULAR MATERIAL TO BE COMPACTED TO 98% SPND WITH A MECHANICAL VIBRATORY COMPACTOR.
 2. END SLOPE GEOTEXTILE TO BE FITTED AROUND THE FULL CIRCUMFERENCE OF PIPE.
 3. NO ROCKS GREATER THAN 100mm DIAMETER SHALL BE USED FOR BACKFILL.
 4. IF NATIVE SURFACE IS UNSTABLE, INSTALL CULVERT ON 300mm THICKNESS OF 19mm CLEAR STONE WRAPPED IN GEOTEXTILE.
 5. MINIMUM PIPE COVER MAY BE 300mm SUBJECT TO APPROVAL OF ENGINEER.

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

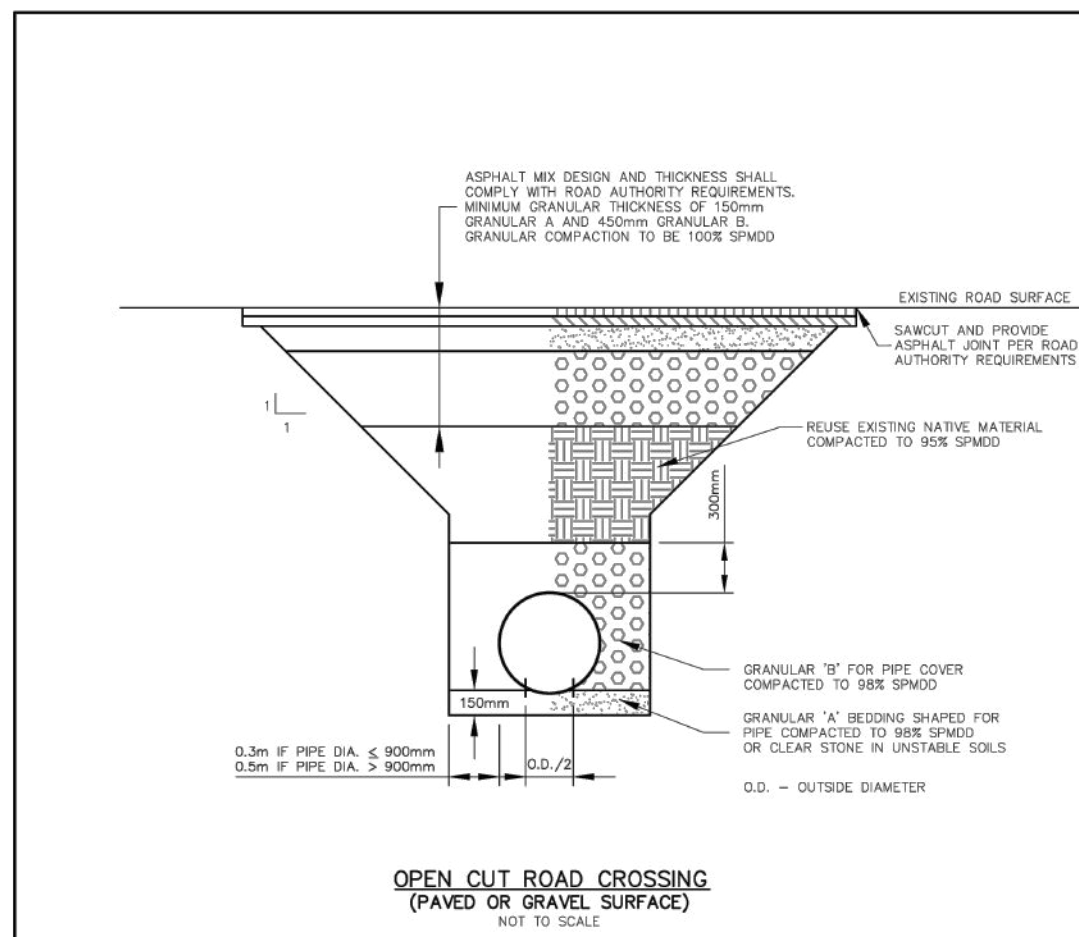
DETAIL
DRAWING NO.
SD-11



- NOTES:
1. GRANULAR MATERIAL TO BE COMPACTED TO 100% SPND WITH A MECHANICAL VIBRATORY COMPACTOR.
 2. END SLOPE GEOTEXTILE TO BE FITTED AROUND THE FULL CIRCUMFERENCE OF PIPE.
 3. NO ROCKS GREATER THAN 100mm DIAMETER SHALL BE USED FOR BACKFILL.
 4. IF NATIVE SURFACE IS UNSTABLE, INSTALL CULVERT ON 300mm THICKNESS OF 19mm CLEAR STONE WRAPPED IN GEOTEXTILE.
 5. ASPHALT SHALL COMPLY WITH APPLICABLE OPSD MATERIAL SPECIFICATIONS.
 6. IN INITIAL CONSTRUCTION SEASON ALL LITE OF ASPHALT SHALL BE PLACED IF CONDITIONS ARE SUITABLE. IF CONDITIONS ARE POOR, TEMPORARY ASPHALT MAY BE REQUIRED UNTIL FOLLOWING CONSTRUCTION YEAR.

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

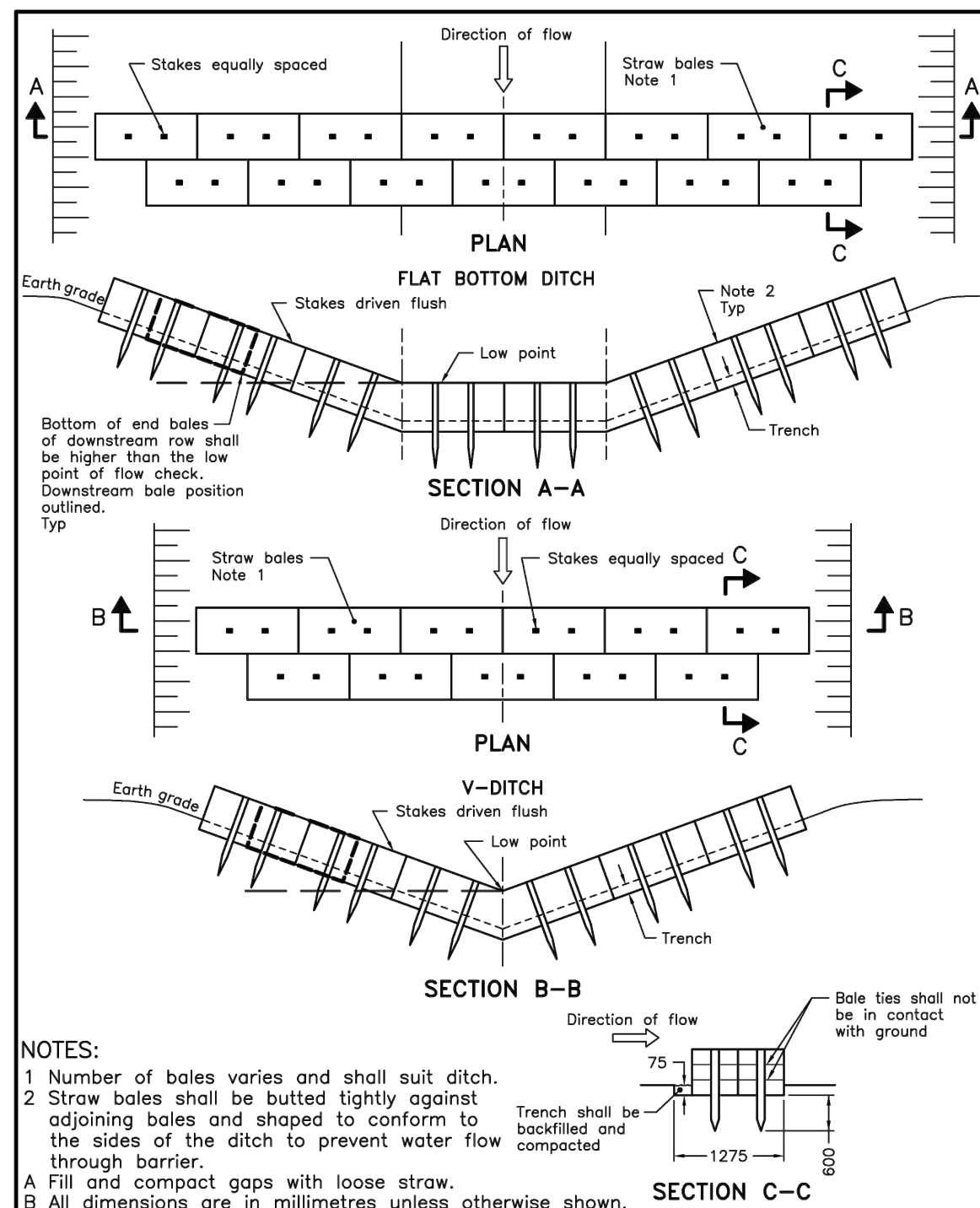
DETAIL
DRAWING NO.
SD-12



- NOTES:
1. BACKFILL AND COMPACTION REQUIREMENTS ALSO APPLY BEYOND THE SHOULDER AT A 1:1 SLOPE DOWN TO THE BOTTOM OF TRENCH EXCAVATION.
 2. NEW FROST TAPER NOT REQUIRED UNLESS REQUESTED AT TIME OF CONSTRUCTION. BLEND INTO EXISTING TAPERS. IF REQUIRED, TAPERS TO BE IN ACCORDANCE WITH OPSD NOTES AND ADDITIONAL PAYMENT WILL BE ALLOWED.
 3. ALL SURPLUS EXCAVATED MATERIAL TO BE HAULLED AWAY.
 4. ASPHALT SHALL COMPLY WITH APPLICABLE OPSD MATERIAL SPECIFICATIONS.
 5. IN INITIAL CONSTRUCTION SEASON ALL LITE OF ASPHALT SHALL BE PLACED IF CONDITIONS ARE SUITABLE. IF CONDITIONS ARE POOR, TEMPORARY ASPHALT MAY BE REQUIRED UNTIL FOLLOWING CONSTRUCTION YEAR.

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

DETAIL
DRAWING NO.
SD-13



- NOTES:
1. Number of bales varies and shall suit ditch.
 2. Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.
 - A. Fill and compact gaps with loose straw.
 - B. All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING

Nov 2021 Rev 3

STRAW BALE FLOW CHECK DAM

OPSD 219.180

GENERAL NOTES AND SPECIFICATIONS

GENERAL

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CHECK AND VERIFY ALL EXISTING CONDITIONS, LOCATIONS AND ELEVATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. ALL WORK MUST MEET THE LOCAL MUNICIPALITY'S CONSTRUCTION STANDARDS AND APPROVED BY THE ROAD SUPERINTENDENT.
3. DITCHING EQUIPMENT SHALL BE WORKING FROM THE SHOULDER OF THE ROAD. IF EQUIPMENT MUST BE ON THE ROAD, RUBBER MATS OR EQUIVALENT ARE TO BE USED UNDER EXCAVATOR AS TO NOT DAMAGE ROAD SURFACE.
4. NO CHANGES ARE TO BE MADE UNLESS APPROVED BY THE DESIGN ENGINEER.
5. CONTRACTOR TO GIVE A MINIMUM OF 5 WORKING DAYS NOTIFICATION TO THE MUNICIPALITY AND THE ENGINEER BEFORE WORK CAN COMMENCE.
6. ONLY "APPROVED FOR CONSTRUCTION DRAWINGS" DATED JUNE 19, 2025 ARE TO BE USED FOR CONSTRUCTION. LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. DFO'S LETTER OF RECOMMENDATION MUST BE ALWAYS KEPT ON-SITE. A COPY OF THE LETTER WILL BE PROVIDED TO THE CONTRACTOR.
8. CONTRACTOR IS RESPONSIBLE TO OBTAIN LOCATES, PERMITS AND LICENSES BEFORE ANY EXCAVATION WORK CAN BEGIN.
9. CONTRACTOR RESPONSIBLE FOR HAULING SPOILS. ARRANGEMENTS CAN BE MADE WITH THE MUNICIPALITY FOR SPOIL HAULING LOCATION. EXCESS SOIL REGULATIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE ALWAYS ADHERED TO.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC AND SAFETY MEASURES DURING CONSTRUCTION INCLUDING THE SUPPLY, INSTALL AND REMOVAL OF ANY TRAFFIC CONTROL MEASURES. TRAFFIC CONTROL MEASURES SHALL CONFORM TO THE STANDARDS OF THE LOCAL MUNICIPALITY.
11. IF, FOR UNFORESEEN REASONS, THE CONTRACTOR MUST ENCROACH ON PRIVATE LAND TO UNDERTAKE ANY WORK, HE/SHE MUST OBTAIN WRITTEN PERMISSION FROM THE PROPERTY OWNER AND COPIES SHALL BE SENT TO THE MUNICIPALITY AND ENGINEER PRIOR TO ANY WORK BEING PERFORMED.

EROSION AND SEDIMENT CONTROL

1. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ALL EROSION AND CONTROL MEASURES SHOWN ON THE "APPROVED FOR CONSTRUCTION" DRAWINGS DATED JUNE 19, 2025.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF WORK AND MUST BE REGULARLY INSPECTED AND KEPT IN GOOD STANDING ORDER.
3. LIGHT DUTY STRAW BALE CHECK DAM MUST BE ACCORDING TO OPSD 219.180.
4. LIGHT DUTY SILT FENCE MUST BE ACCORDING TO OPSD 219.110.
5. MODIFICATIONS TO THE EROSION AND SEDIMENT MEASURES CAN OCCUR DURING CONSTRUCTION. K. SMART IS TO APPROVE ANY CHANGES TO EROSION AND SEDIMENT CONTROL PLAN BEFORE CHANGES ARE MADE.
6. DURING CONSTRUCTION PHASE, ALL CATCH BASINS AND DITCH INLET CATCH BASINS MUST BE PROTECTED WITH FILTER CLOTH UNDER GRATE. FILTER CLOTH TO BE REMOVED AT THE END OF CONSTRUCTION.
7. AT A MINIMUM, ALL DISTURBED AREAS MUST BE SEEDED AT THE END OF CONSTRUCTION OF EACH PHASE.

GRADE CONTROL

1. CONTRACTOR IS RESPONSIBLE FOR GRADE CONTROL. PROPOSED GRADES AND ELEVATIONS ARE SHOWN ON APPROVED FOR CONSTRUCTION DRAWINGS.
2. APPROVAL BY THE DESIGN ENGINEER MUST BE OBTAINED BEFORE GRADES OR ELEVATIONS ARE MODIFIED.

LANEWAYS, DRIVEWAYS, ENTRANCES AND ACCESS CROSSINGS

1. CULVERT RESETS AND NEW INSTALLATIONS MUST CONFORM TO STANDARD SPECIFICATION 400.18 AND DETAIL DRAWING SD-11.
2. END TREATMENT FOR EXISTING CULVERTS TO BE APPROXIMATELY 2m² OF 150mm MINUS RIP RAP ON GEOTEXTILE. RIP RAP SHALL BE KEYED INTO THE BANK.

ROAD CROSSINGS

1. CULVERT RESETS FOR ROAD CROSSINGS MUST CONFORM TO STANDARD SPECIFICATION 400.18.3, DETAIL DRAWING SD-12 AND DETAIL DRAWING SD-13.

SPECIES AT RISK

1. REFER TO SECTION 300 - SPECIAL PROVISIONS

DITCH CROSS SECTIONS

TYPICAL DITCH CROSS SECTION IS 0.5m BOTTOM, 2:1 SIDE SLOPES.

CULVERTS

CULVERTS THAT ARE DEEMED AT END-OF-SERVICE LIFE WILL NEED TO BE REPLACED. CONTRACTOR WILL NEED APPROVAL FROM THE PUBLIC WORKS MANAGER BEFORE CULVERT CAN BE REPLACED.

ALSO REFER TO:

200 - GENERAL CONDITIONS

300 - SPECIAL PROVISIONS

400 - STANDARD SPECIFICATIONS

APPROVED FOR
CONSTRUCTION

JULY 14, 2025

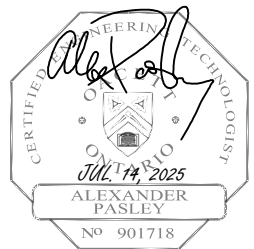
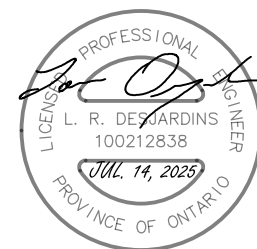
No.	DESCRIPTION	DATE
1	FOR MUNICIPALITY REVIEW	JAN. 2024
2	COUNCIL APPROVAL	OCT. 2024
3	APPROVED FOR CONSTRUCTION	JUL. 2025

DESIGNED BY: A.M.P.

CHECKED BY: L.R.D.

DRAWN BY: A.M.P.

CHECKED BY: L.R.D.



KILLARNEY VILLAGE DRAINAGE STUDY

DISTRICT OF MANITOULIN

MUNICIPALITY OF KILLARNEY

STANDARD DETAILS & GENERAL NOTES

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY

JOB NUMBER: 23-088

DRAWING

39 OF 39