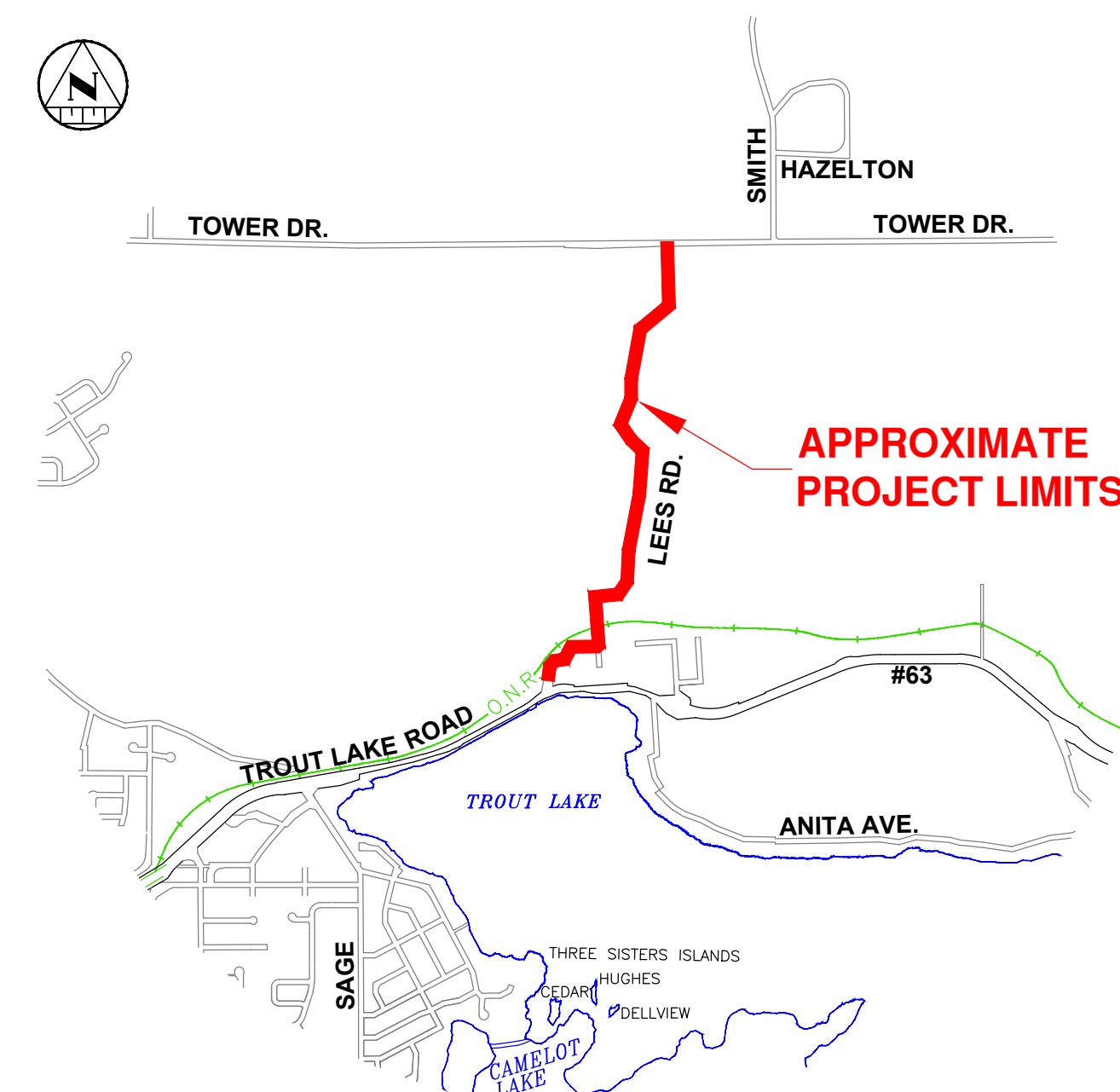


THE CORPORATION OF THE CITY OF NORTH BAY LEES ROAD REHABILITATION

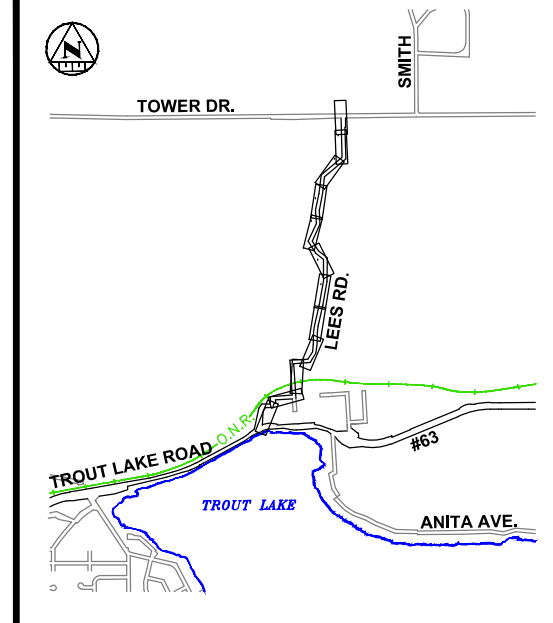
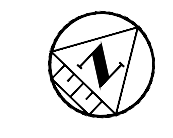
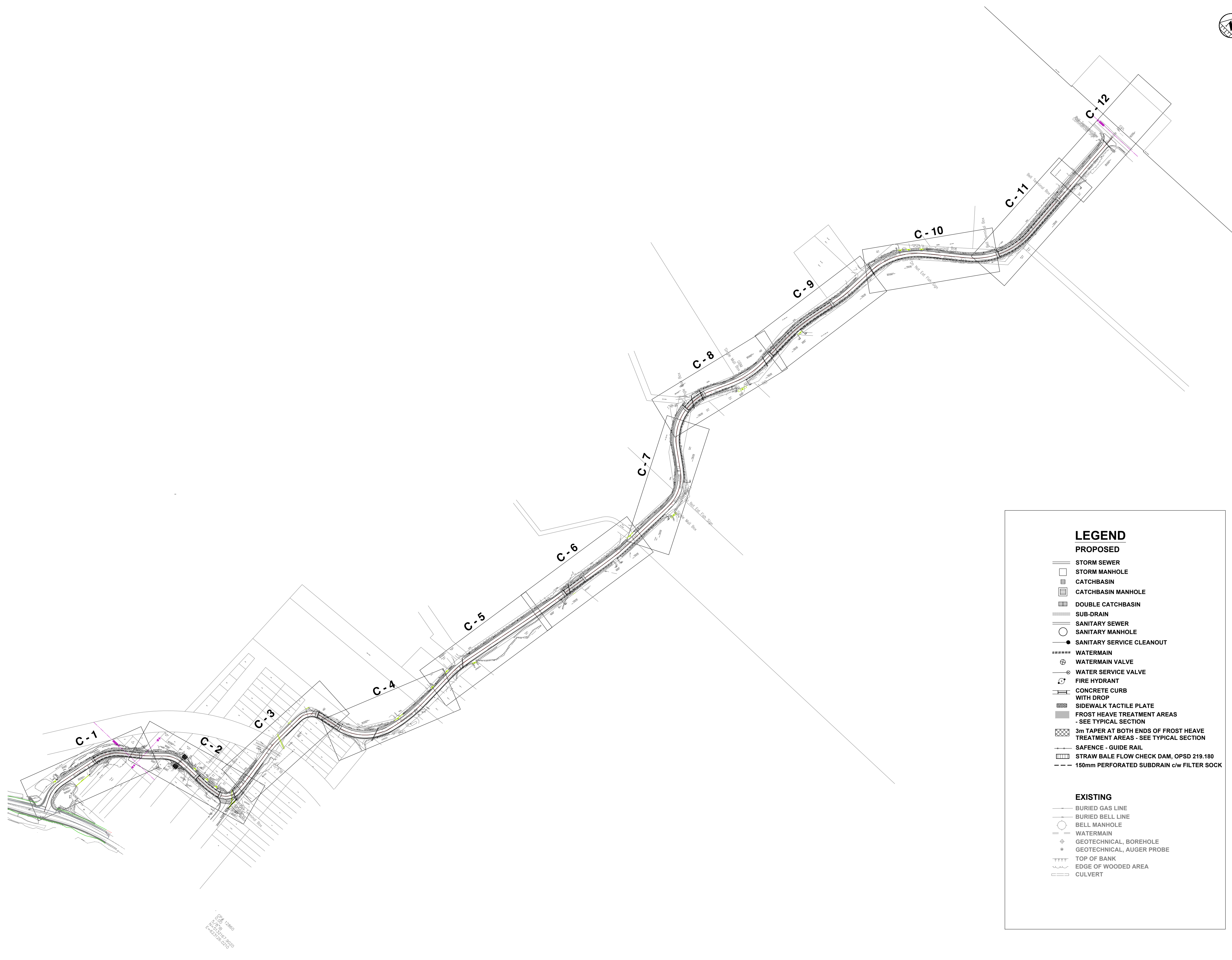
TENDER 2022-71



KEY PLAN
1:25,000

LIST OF DRAWINGS:

SHEET No.	DWG No.	DESCRIPTION
1		TITLE PAGE
2	GP-1	GENERAL PLAN
3	C-1	LEES ROAD PLAN/PROFILE 0+000 to 0+180
4	C-2	LEES ROAD PLAN/PROFILE 0+180 to 0+350
5	C-3	LEES ROAD PLAN/PROFILE 0+350 to 0+520
6	C-4	LEES ROAD PLAN/PROFILE 0+520 to 0+700
7	C-5	LEES ROAD PLAN/PROFILE 0+700 to 0+880
8	C-6	LEES ROAD PLAN/PROFILE 0+880 to 1+060
9	C-7	LEES ROAD PLAN/PROFILE 1+060 to 1+240
10	C-8	LEES ROAD PLAN/PROFILE 1+240 to 1+420
11	C-9	LEES ROAD PLAN/PROFILE 1+420 to 1+600
12	C-10	LEES ROAD PLAN/PROFILE 1+600 to 1+780
13	C-11	LEES ROAD PLAN/PROFILE 1+780 to 1+950
14	C-12	LEES ROAD PLAN/PROFILE 1+950 to 2+028.240
15	S-1	TYPICAL SECTIONS
16	D-1	CONSTRUCTION DETAILS 1
17	D-2	CONSTRUCTION DETAILS 2



KEY PLAN

NOTES

1. THE UTILITIES INFORMATION CONTAINED ON THIS DRAWING MAY BE BASED UPON DATA PROVIDED BY OTHERS AND MAY NOT HAVE BEEN VERIFIED BY EITHER AS-CONSTRUCTED DRAWINGS OR AN ONTARIO LAND SURVEYOR. THE CITY OF NORTH BAY CANNOT ACCEPT RESPONSIBILITY FOR ERRORS OR OMISSIONS ON ANY INFORMATION SHOWN HEREIN. FIELD VERIFICATION, LAND SURVEYS OR EXCAVATION (WITH CITY APPROVALS) MAY BE REQUIRED TO DETERMINE ACTUAL LOCATION OF ANY AND ALL UTILITIES OR PROPERTY LINES.
2. THE UNDERLYING PARCEL FABRIC REPRESENTS APPROXIMATE MEASUREMENTS ONLY AND SHOULD BE VERIFIED BY AN O.L.S.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GW.C	ISSUED FOR TENDER



LEGEND

PROPOSED

- STORM SEWER
- STORM MANHOLE
- ▣ CATCHBASIN
- ▤ CATCHBASIN MANHOLE
- ▥ DOUBLE CATCHBASIN
- SUB-DRAIN
- SANITARY SEWER
- SANITARY MANHOLE
- SANITARY SERVICE CLEANOUT
- ===== WATERMAIN
- ⊕ WATERMAIN VALVE
- ⊖ WATER SERVICE VALVE
- ⊗ FIRE HYDRANT
- CONCRETE CURB WITH DROP
- ▨ SIDEWALK TACTILE PLATE
- ▩ FROST HEAVE TREATMENT AREAS - SEE TYPICAL SECTION
- ▧ 3m TAPER AT BOTH ENDS OF FROST HEAVE TREATMENT AREAS - SEE TYPICAL SECTION
- SAFENCE - GUIDE RAIL
- ▨ STRAW BALE FLOW CHECK DAM, OPSD 219.180
- 150mm PERFORATED SUBDRAIN c/w FILTER SOCK

EXISTING

- BURIED GAS LINE
- BURIED BELL LINE
- BELL MANHOLE
- WATERMAIN
- ⊕ GEOTECHNICAL, BOREHOLE
- ⊖ GEOTECHNICAL, AUGER PROBE
- TTTT TOP OF BANK
- ~~~~ EDGE OF WOODED AREA
- ▭ CULVERT

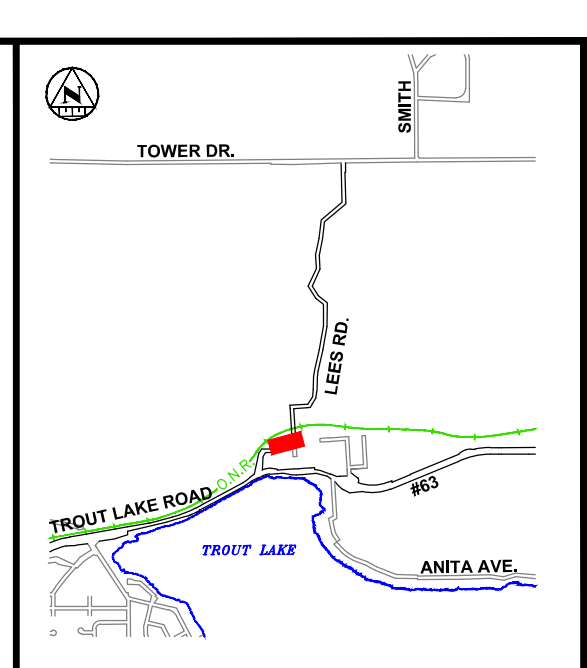
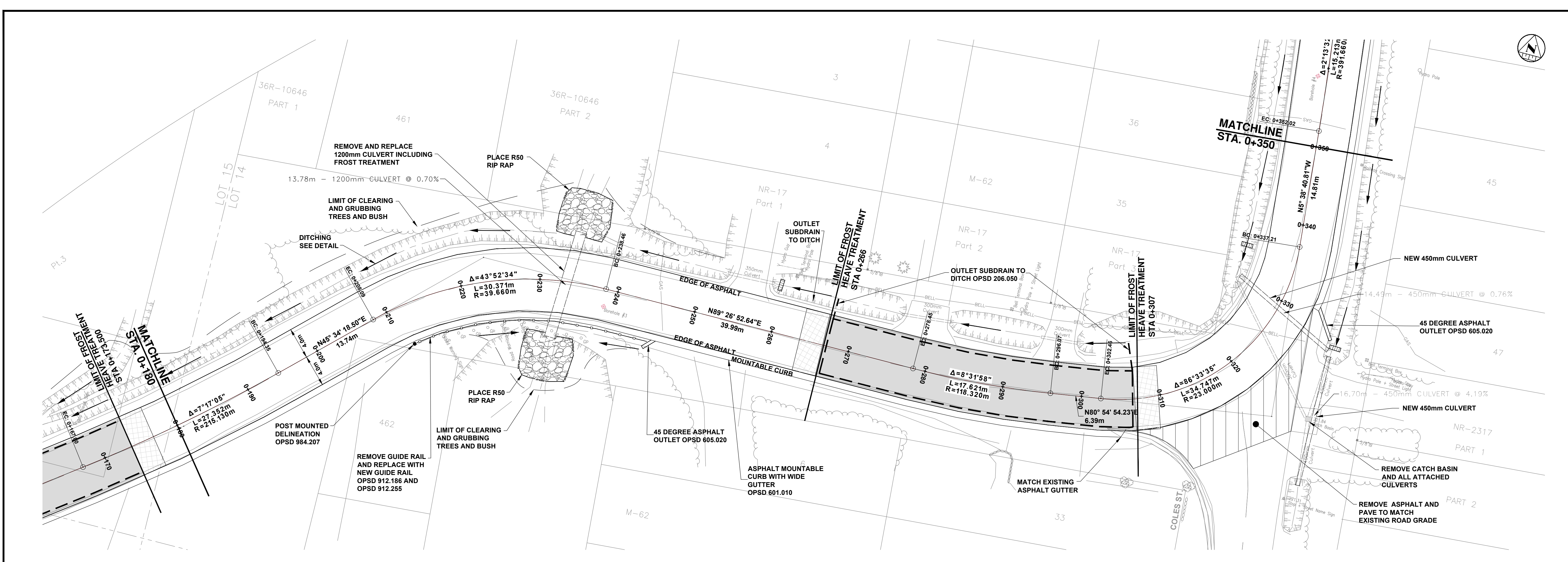


LEES ROAD REHABILITATION

GENERAL PLAN

LEES ROAD

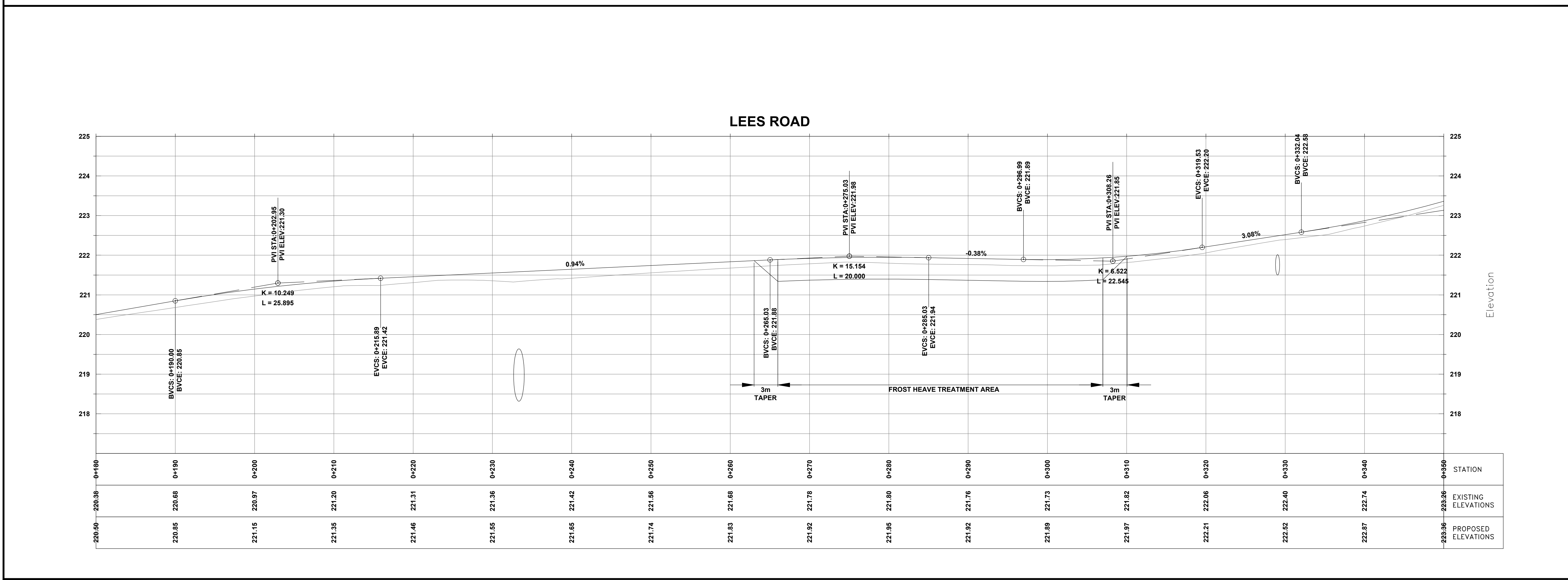
Designer:	G.W.C.	Checked by:	G.Mc.
Date:	05/30/2022	Approved by:	A.L.
Scale:	1 : 2,500		
Drawing Number:	GP-1	Drawing Set:	2 of 17



- NOTES**
- THE UTILITIES INFORMATION CONTAINED ON THIS DRAWING MAY BE BASED UPON DATA PROVIDED BY OTHERS AND MAY NOT HAVE BEEN VERIFIED BY EITHER AS-CONSTRUCTED DRAWINGS OR AN ONTARIO LAND SURVEYOR. THE CITY OF NORTH BAY CANNOT ACCEPT RESPONSIBILITY FOR ERRORS OR OMISSIONS ON ANY INFORMATION SHOWN HEREIN. FIELD VERIFICATION, LAND SURVEYS OR EXCAVATION (WITH CITY APPROVALS) MAY BE REQUIRED TO DETERMINE ACTUAL LOCATION OF ANY AND ALL UTILITIES OR PROPERTY LINES.
 - THE UNDERLYING PARCEL FABRIC REPRESENTS APPROXIMATE MEASUREMENTS ONLY AND SHOULD BE VERIFIED BY AN O.L.S.
 - REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER



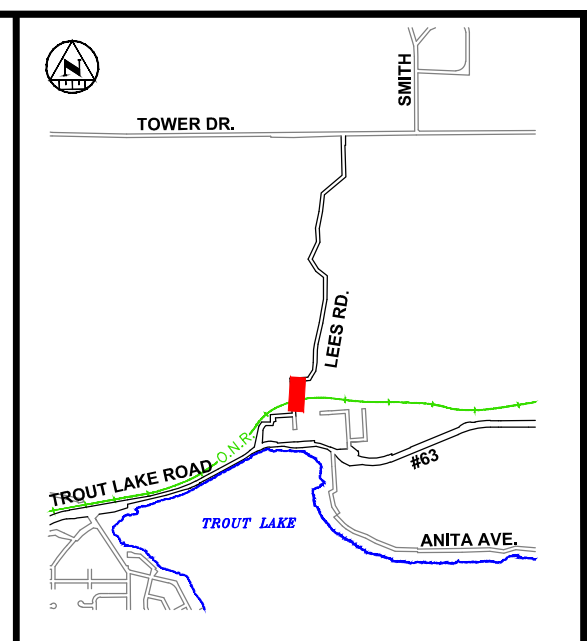
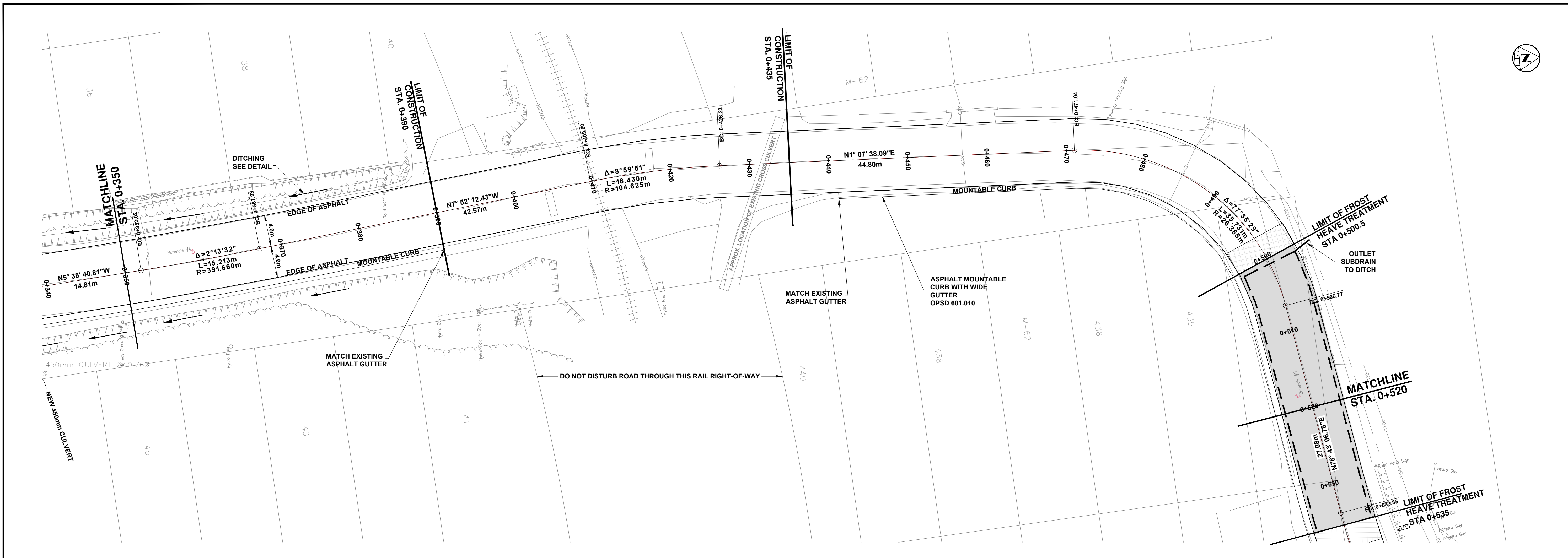
Professional Engineer
Limited Licensee
 Name: G. W. C. G. W. C.
 Number: 88022811
 Category: CIVIL
 The licensee is subject to the limitations as stated in the schedule.
 Association of Professional Engineers of Ontario



LEES ROAD REHABILITATION

NEW CONSTRUCTION
LEES ROAD PLAN & PROFILE
 Sta. 0+180 to Sta. 0+350

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	Drawing Set: C-2 4 of 17



KEY PLAN

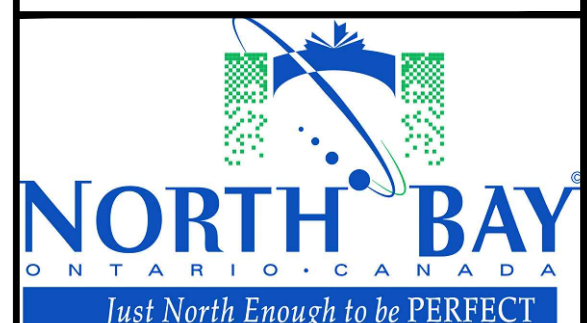
NOTES

1. THE UTILITIES INFORMATION CONTAINED ON THIS DRAWING MAY BE BASED UPON DATA PROVIDED BY OTHERS AND MAY NOT HAVE BEEN VERIFIED BY EITHER AS-CO-STRUCTURED DRAWINGS OR AN ONTARIO LAND SURVEYOR. THE CITY OF NORTH BAY CANNOT ACCEPT RESPONSIBILITY FOR ERRORS OR OMISSIONS ON ANY INFORMATION SHOWN HEREIN. FIELD VERIFICATION, LAND SURVEYS OR EXCAVATION (WITH CITY APPROVALS) MAY BE REQUIRED TO DETERMINE ACTUAL LOCATION OF ANY AND ALL UTILITIES OR PROPERTY LINES.
2. THE UNDERLYING PARCEL FABRIC REPRESENTS APPROXIMATE MEASUREMENTS ONLY AND SHOULD BE VERIFIED BY AN O.L.S.
3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWG	ISSUED FOR TENDER

Professional Engineers Limited Licensee
 Name: G. J. MCCORMACK
 Number: 50022011
 Category: CIVIL (Construction/Infrastructure)
 Licensee
 This license is subject to the by-laws as stated in the by-laws.
 Associate of Professional Engineers of Ontario

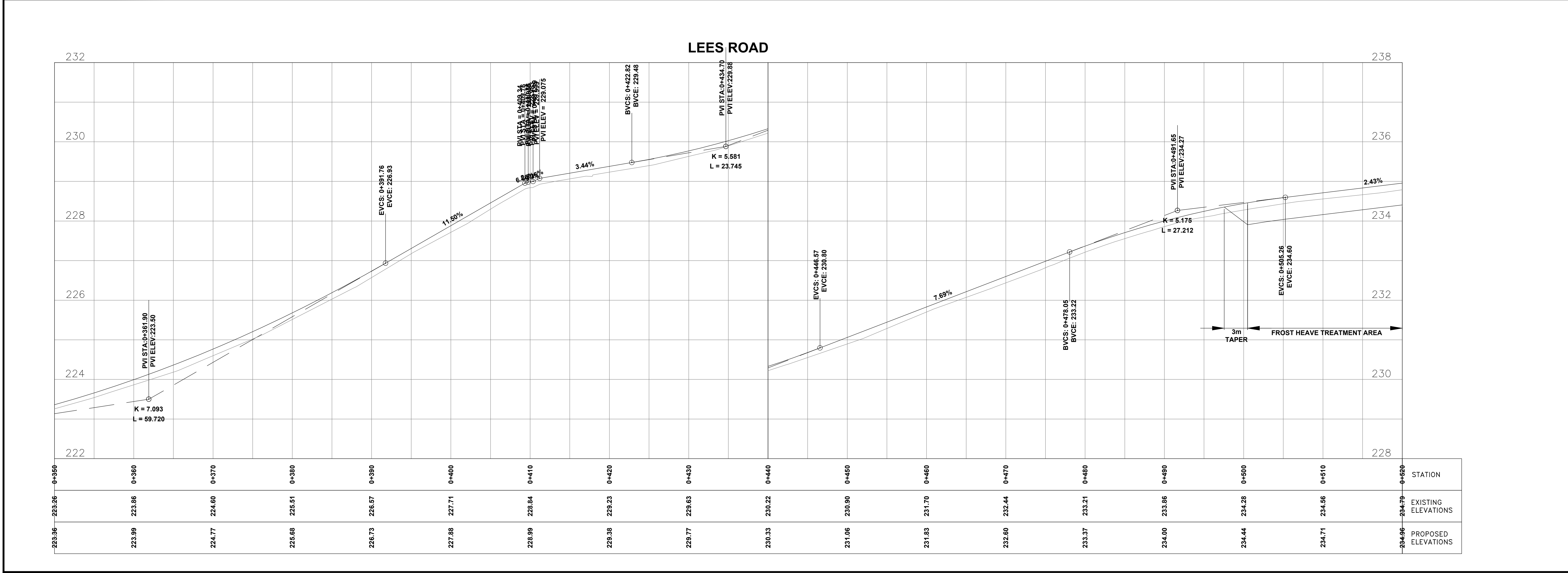


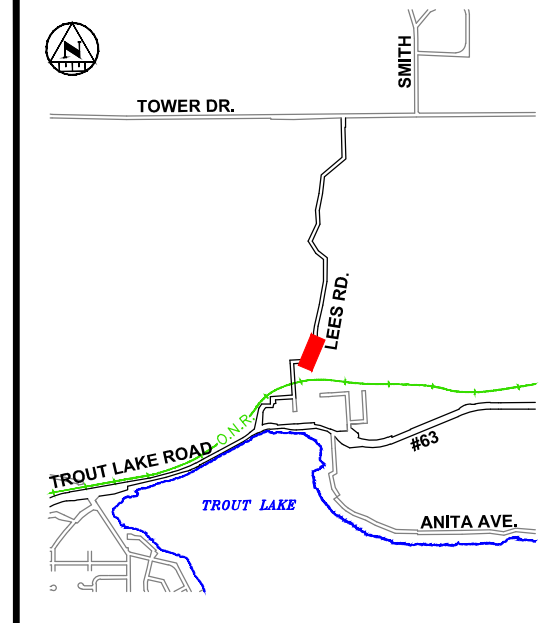
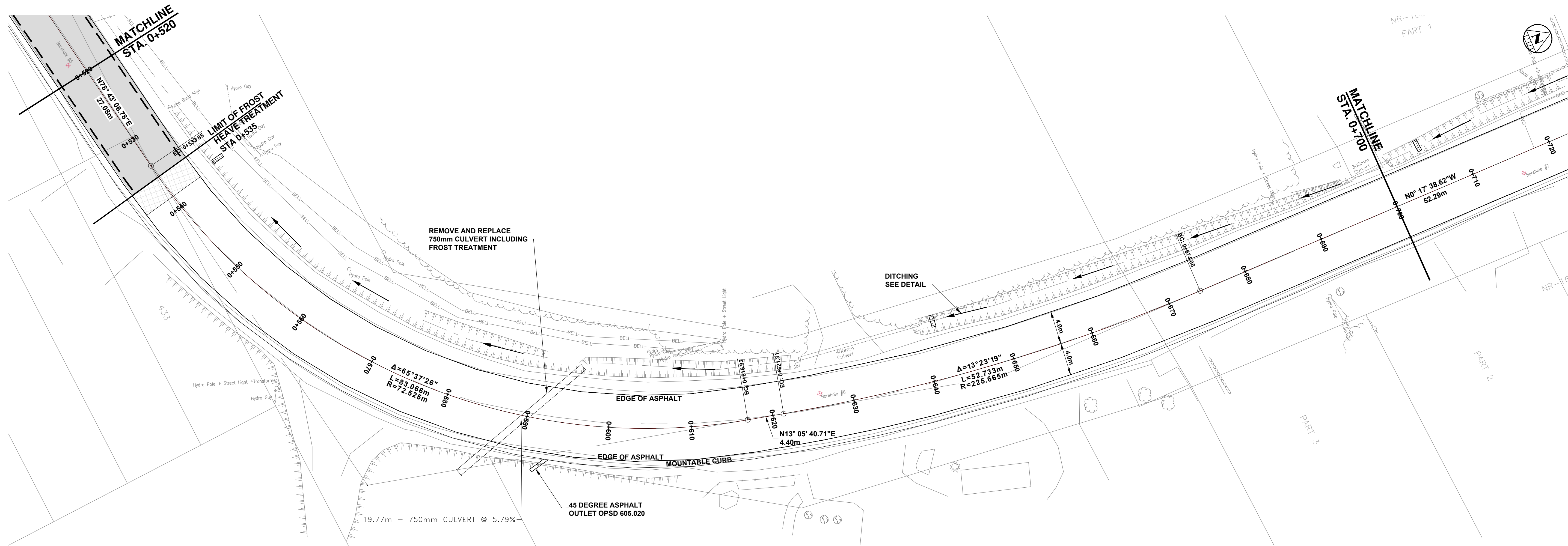
LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 0+350 to Sta. 0+520

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	
Drawing Number: C-3	Drawing Set: 5 of 17





KEY PLAN

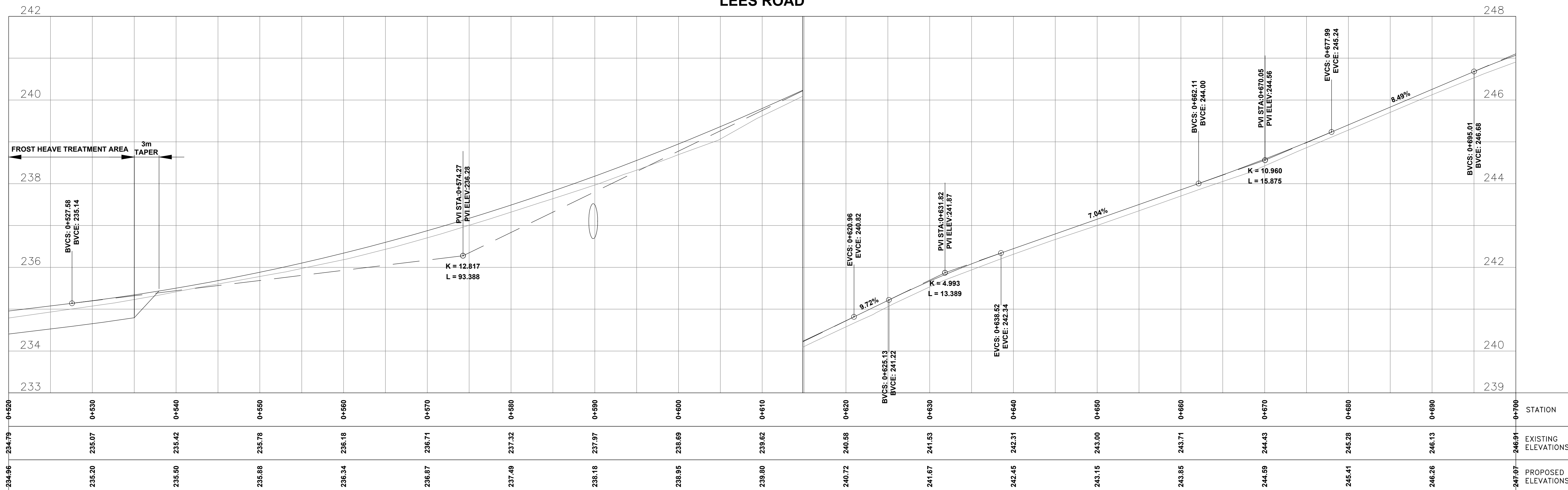
NOTES

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3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GW.C	ISSUED FOR TENDER

LEES ROAD



Professional Engineer
Limited Licensee
 Name: G.J. MCCORMACK
 Number: 192913001
 Category: CIVIL, ROAD/STORMWATER/SEWER
 Licensee
 This license is subject to the rules and regulations of the Ontario Association of Professional Engineers of Ontario.



LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE

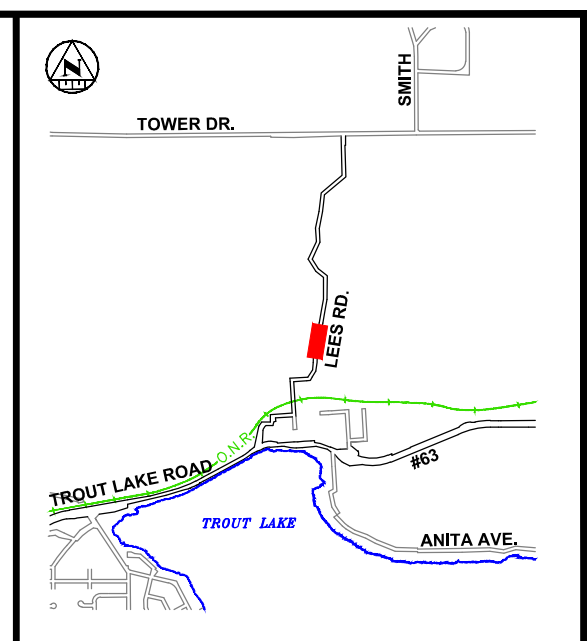
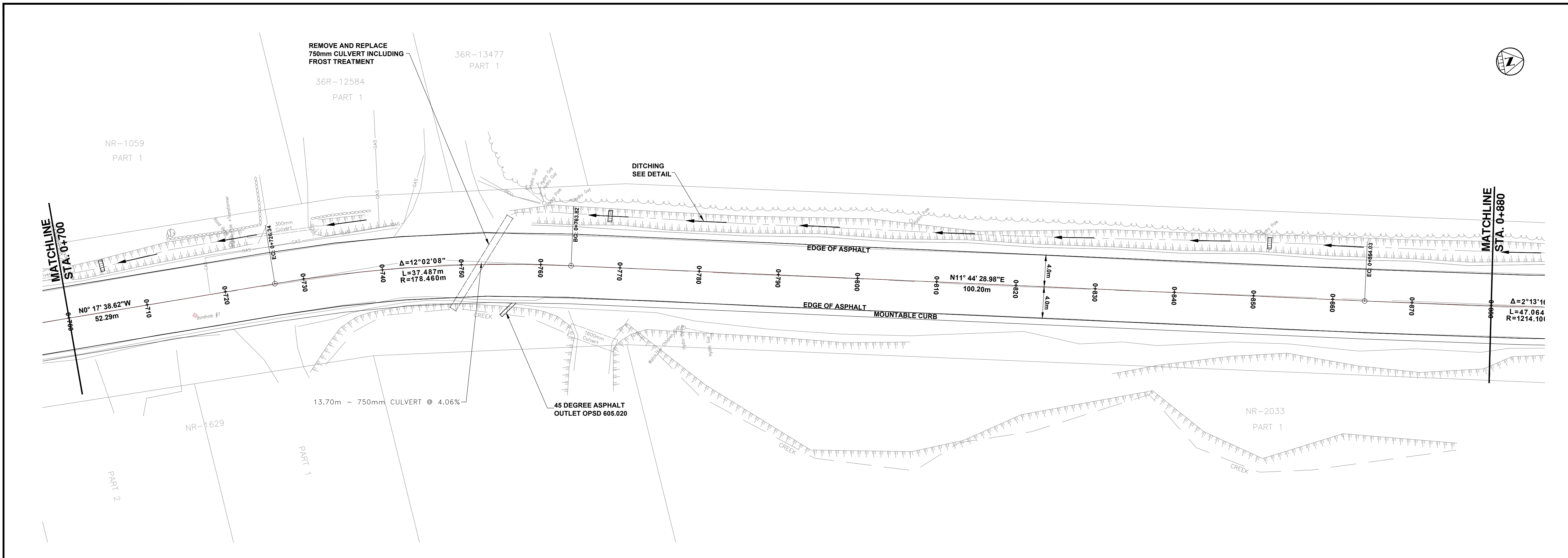
Sta. 0+520 to Sta. 0+700

Designer: **G.W.C.** Checked by: **G.Mc.**

Date: **07/04/2022** Approved by: **A.L.**

Scale: **1:250**
1:500

Drawing Number: **C-4** Drawing Set: **6 of 17**



KEY PLAN

NOTES

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3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Professional Engineer
Limited Licensee
 Name: G. JACCOB
 Number: 107120994
 Category: CIVIL (Roads/Highways/Structures)
 Licensee: G. JACCOB, 107120994, 08/01/2018
 On the certificate
 Province of Professional Engineers of Ontario

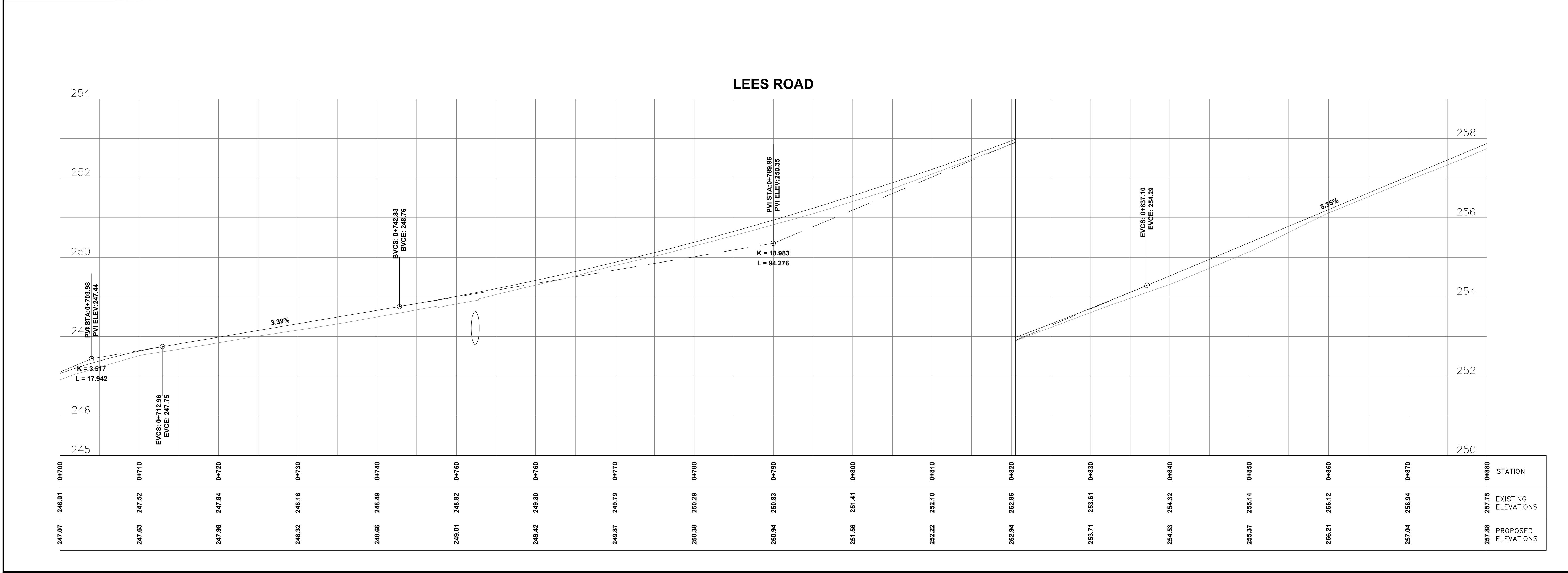


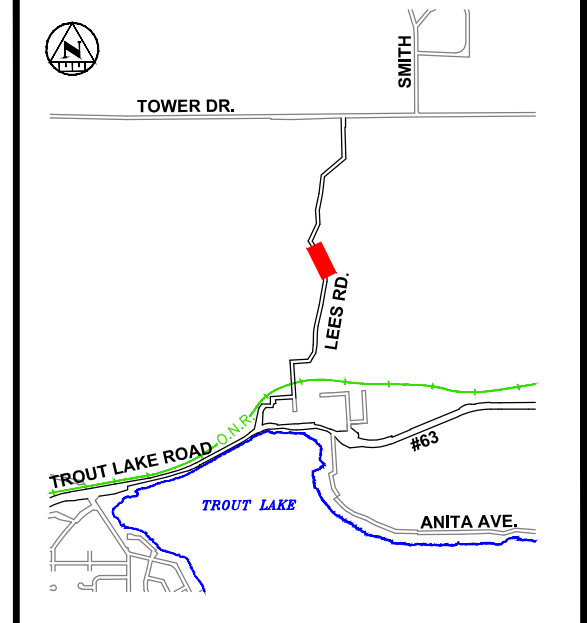
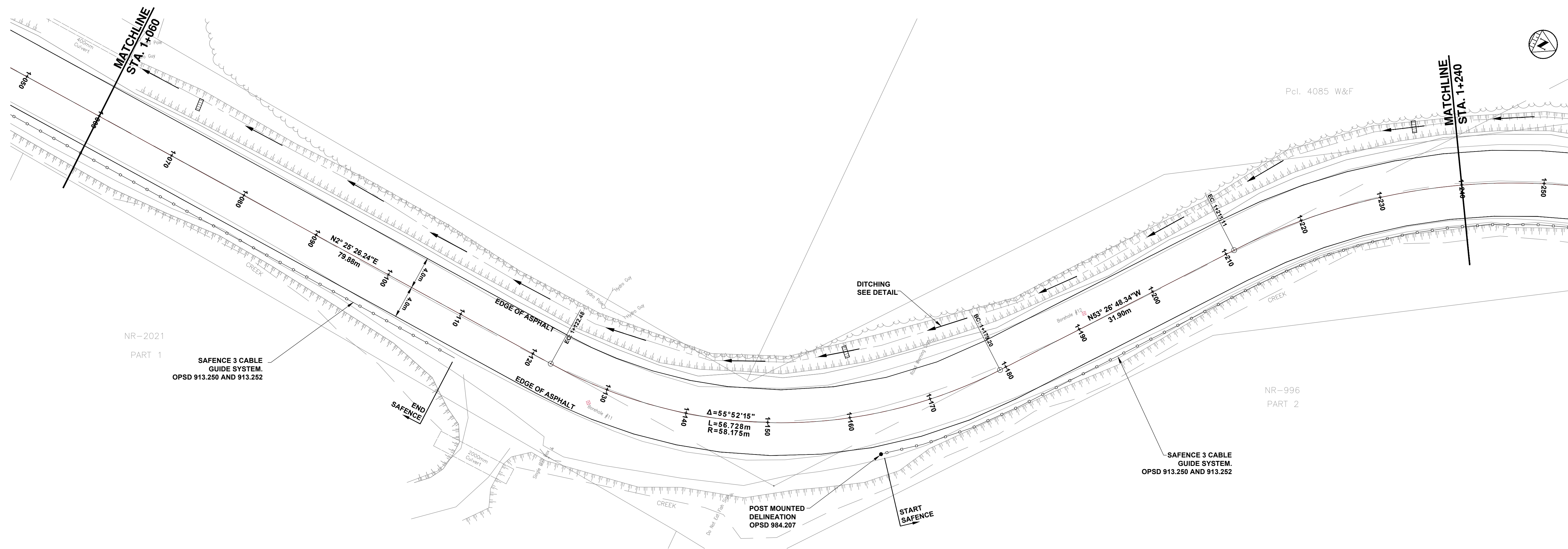
LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 0+700 to Sta. 0+880

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	
Drawing Number: C-5	Drawing Set: 7 of 17





KEY PLAN

NOTES

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3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Professional Engineer
 Limited Licensee
 Name: G. J. MCCANN
 License: 9002291
 Category: CIVIL - Road/General/Infrastructure
 This license is subject to the sanctions as detailed in the schedule.
 Association of Professional Engineers of Ontario



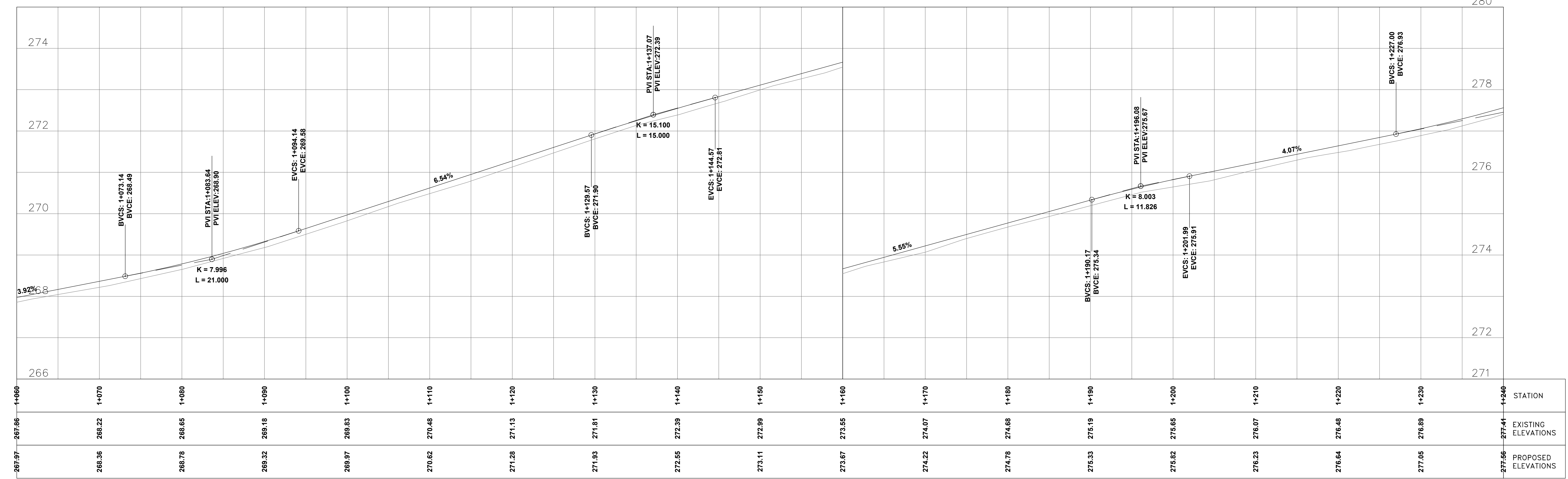
LEES ROAD REHABILITATION

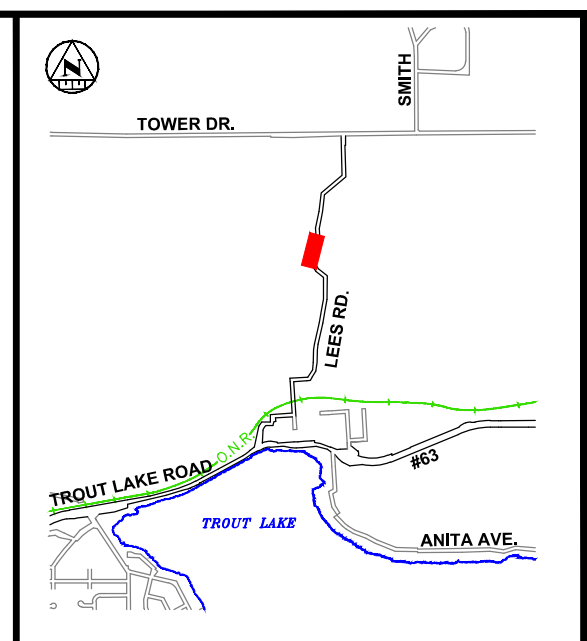
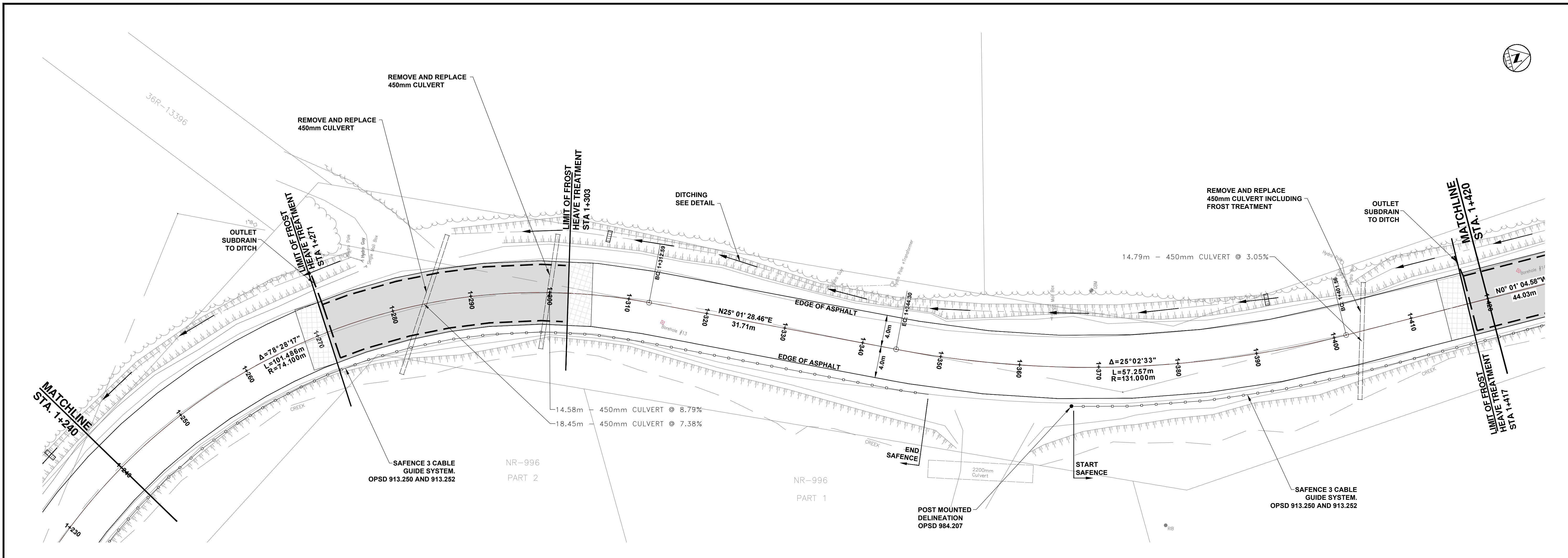
NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 1+060 to Sta. 1+240

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	
Drawing Number: C-7	Drawing Set: 9 of 17

LEES ROAD

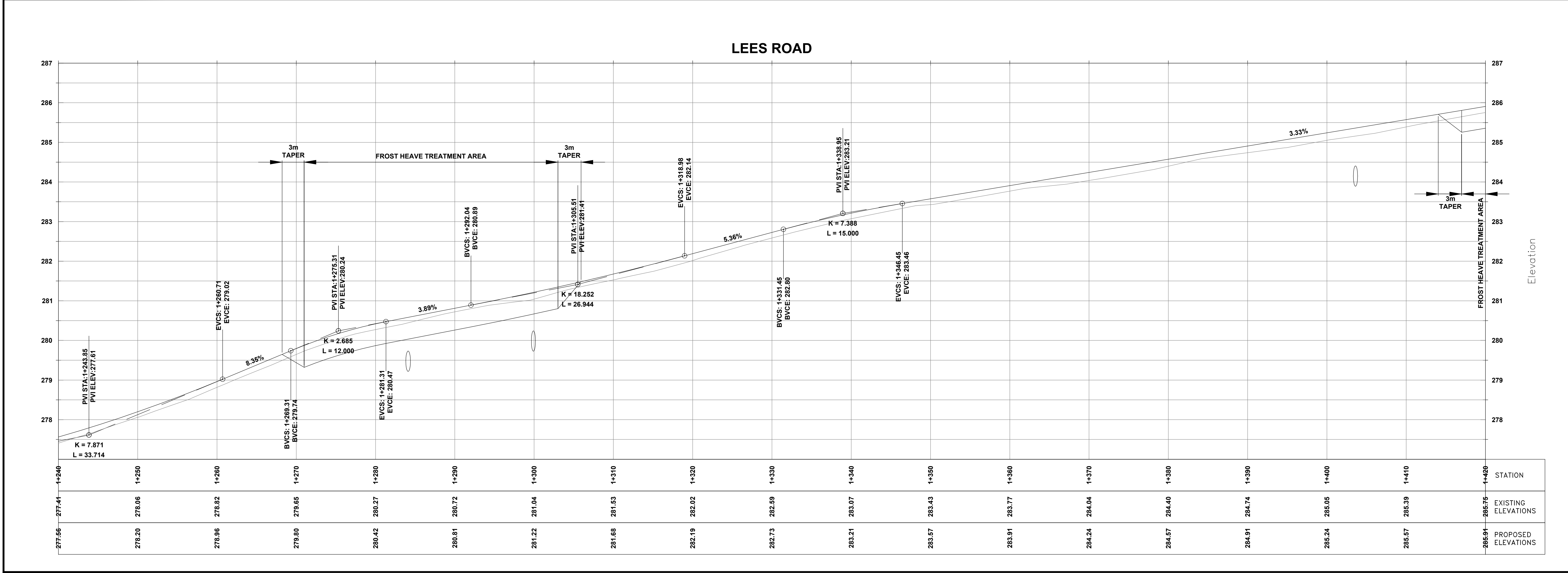




- KEY PLAN**
- NOTES**
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 3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER



Professional Engineer
Limited Licensee
 Name: G.J. MCCOY
 Number: 10012021
 Category: CIVIL - Road/Transportation
 Licensee's Signature: *G.J. McCoy*
 The licensee is subject to the sanctions as stated in the regulations.
 Associate or Professional Engineer of Ontario



LEES ROAD REHABILITATION

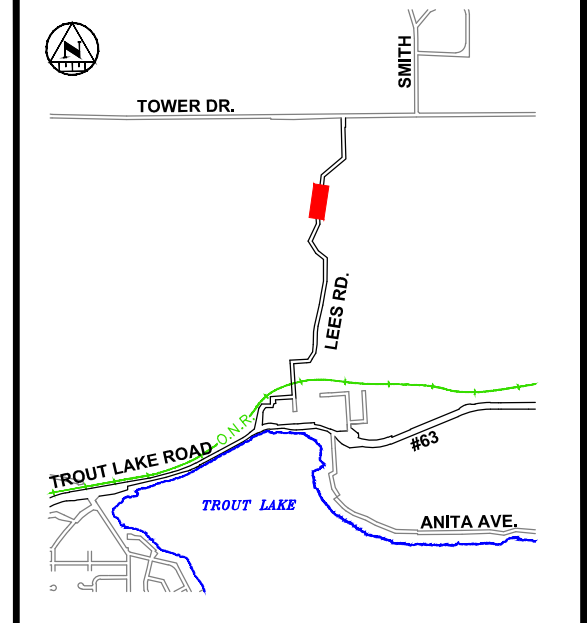
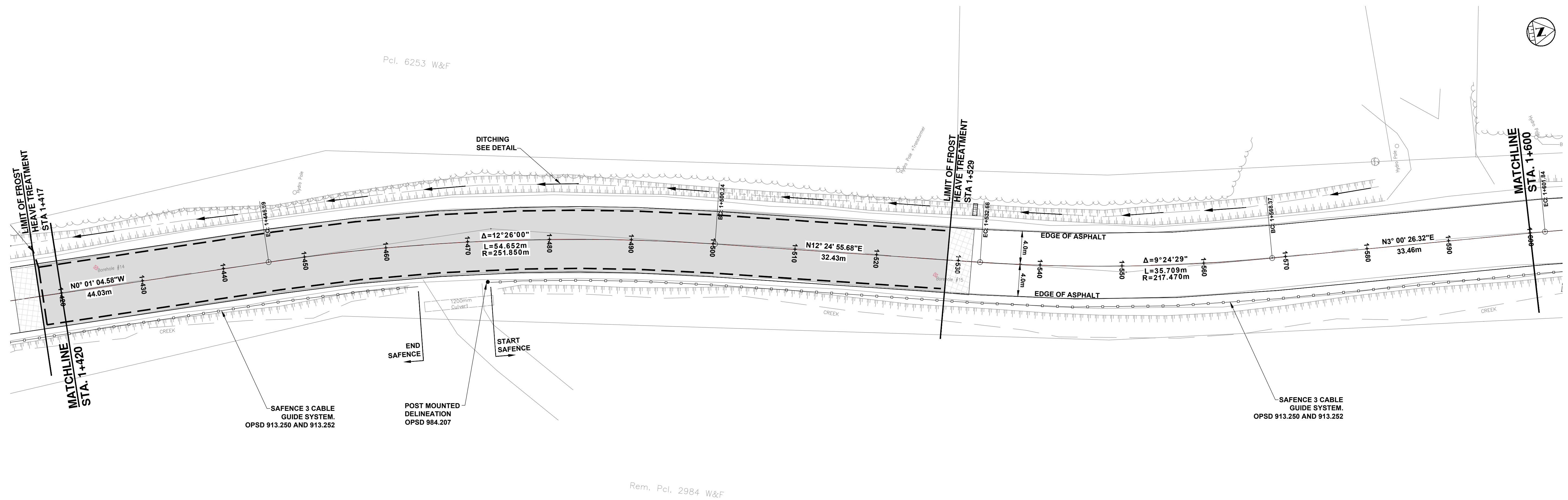
NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 1+240 to Sta. 1+420

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.

Scale:
 1:250
 1:50

Drawing Number: **C-8** Drawing Set: **10 of 17**



KEY PLAN

NOTES

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3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWG	ISSUED FOR TENDER

Professional Engineers Limited Licensee
 Name: G. J. MCCORMACK
 Number: 98102209
 Category: CIVIL - Road/Highway/Transportation
 Licensee is subject to the limitations as stated on the license.
 Association of Professional Engineers of Ontario

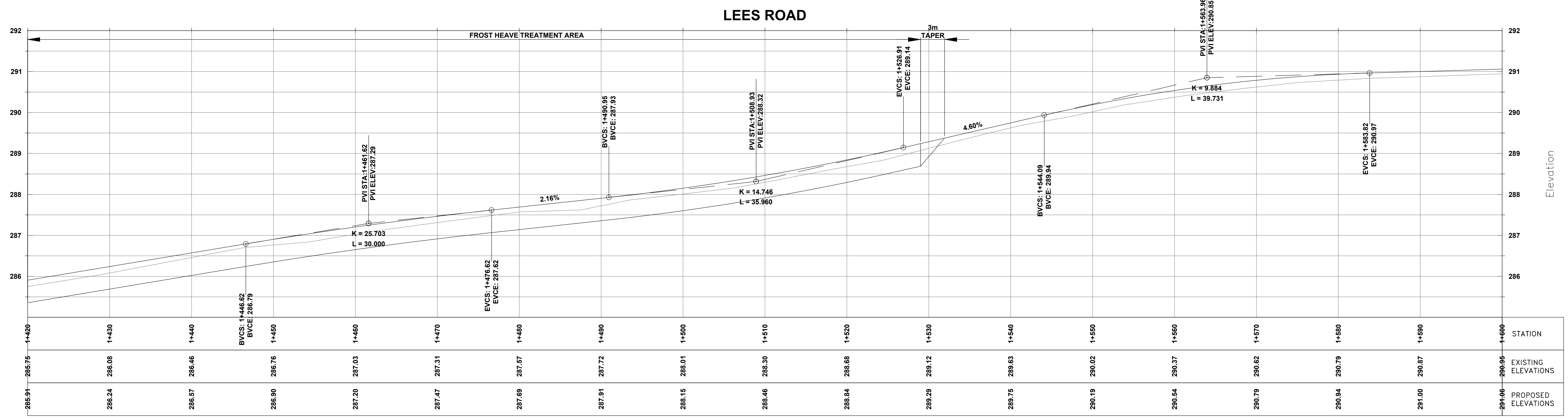


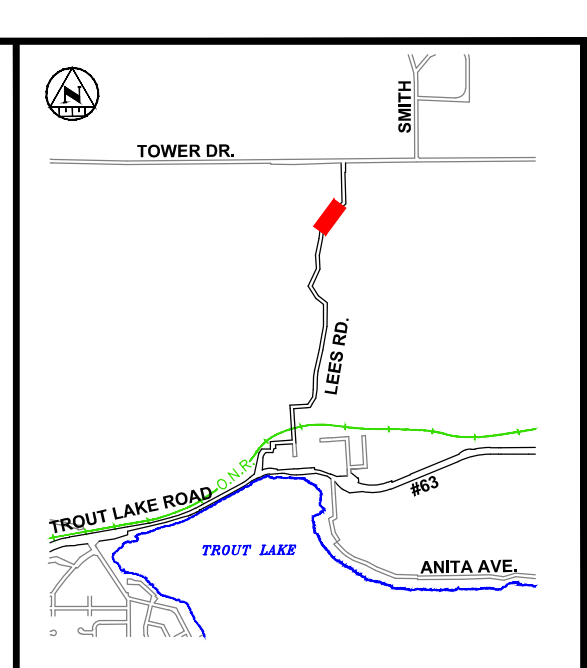
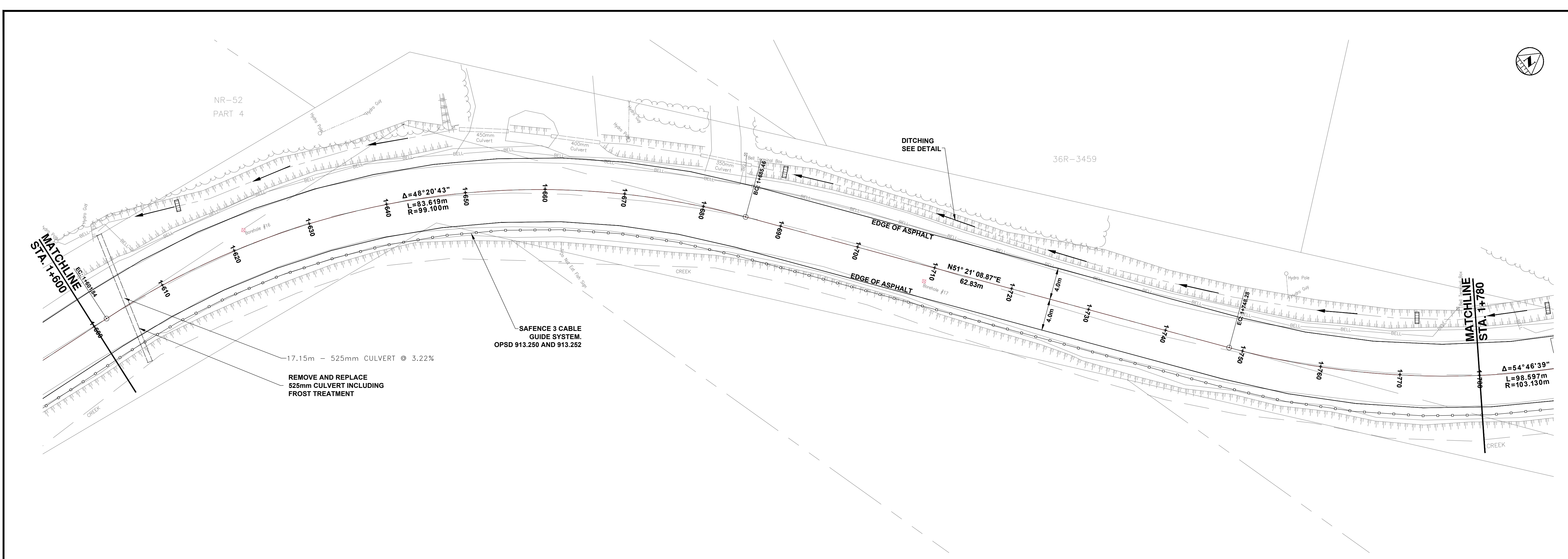
LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 1+420 to Sta. 1+600

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	
Drawing Number: C-9	Drawing Set: 11 of 17





KEY PLAN

NOTES

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3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Professional Engineer
Limited Licensee
 Name: G. MCCLELLAN
 Number: 8002291
 Category: CIVIL (Roads/Highways/Structures)
 Licensee
 The licensee is subject to the sanctions as stated in the schedule
 Association of Professional Engineers of Ontario

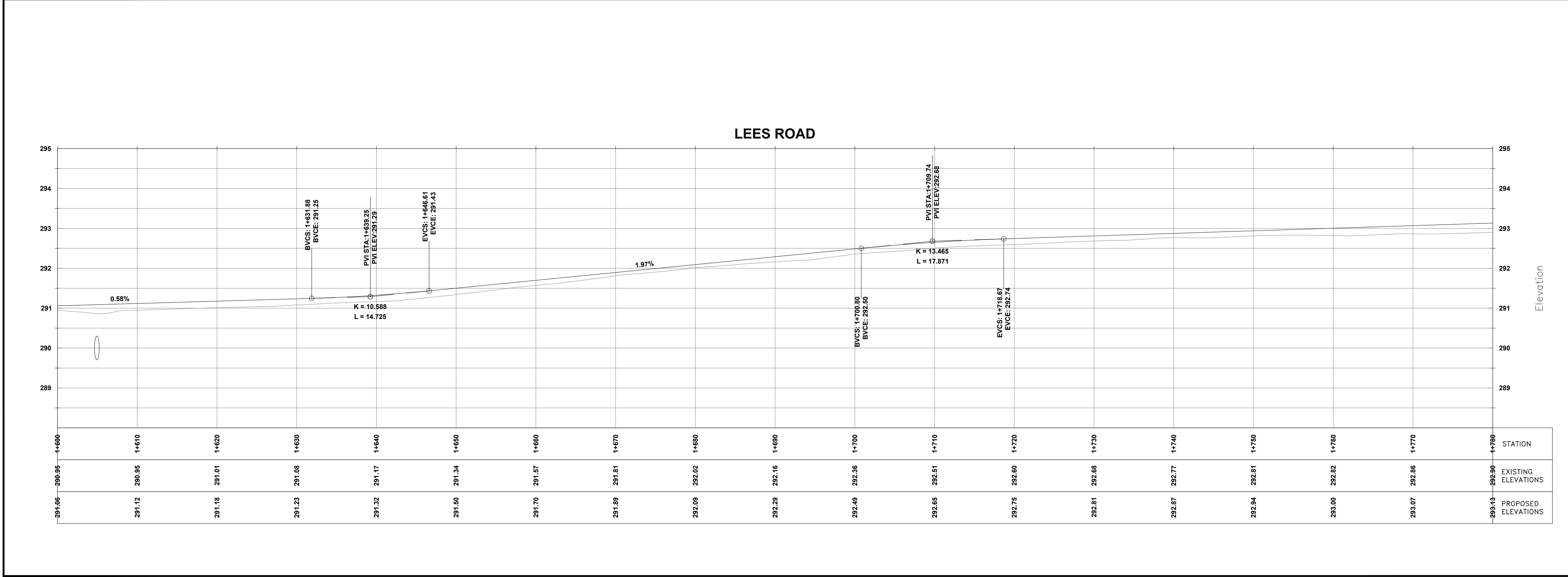


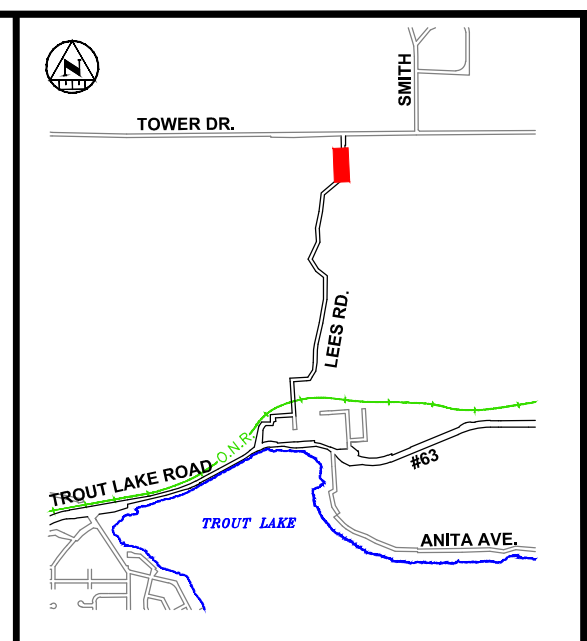
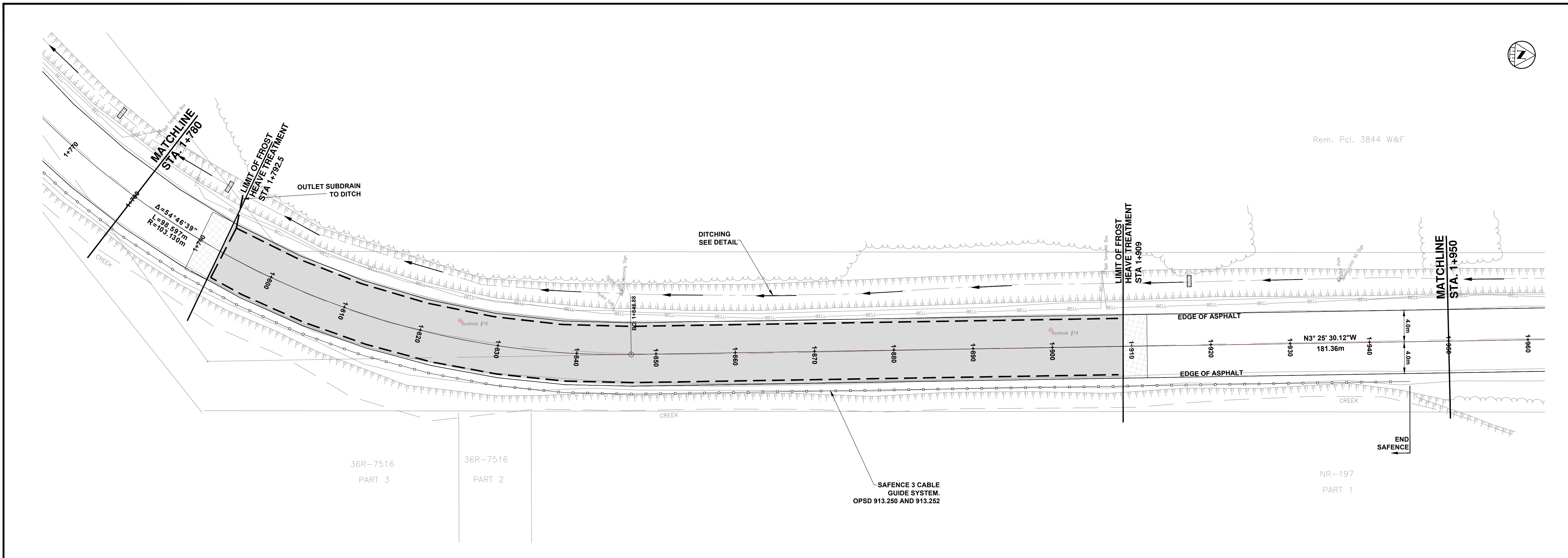
LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 1+600 to Sta. 1+780

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: 1:250 1:50	
Drawing Number: C-10	Drawing Set: 12 of 17





KEY PLAN

NOTES

1. THE UTILITIES INFORMATION CONTAINED ON THIS DRAWING MAY BE BASED UPON DATA PROVIDED BY OTHERS AND MAY NOT HAVE BEEN VERIFIED BY EITHER AS-CO-STRUCTURED DRAWINGS OR AN ONTARIO LAND SURVEYOR. THE CITY OF NORTH BAY CANNOT ACCEPT RESPONSIBILITY FOR ERRORS OR OMISSIONS ON ANY INFORMATION SHOWN HEREIN. FIELD VERIFICATION, LAND SURVEYS OR EXCAVATION (WITH CITY APPROVALS) MAY BE REQUIRED TO DETERMINE ACTUAL LOCATION OF ANY AND ALL UTILITIES OR PROPERTY LINES.
2. THE UNDERLYING PARCEL FABRIC REPRESENTS APPROXIMATE MEASUREMENTS ONLY AND SHOULD BE VERIFIED BY AN O.L.S.
3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Professional Engineer
Limited Licensee
 Name: G. W. C. G.W.C.
 Number: 18102021
 Category: CIVIL - Road/Highway/Transportation
 Licensee
 This license is subject to the limitations set out in the schedule
 Association of Professional Engineers of Ontario

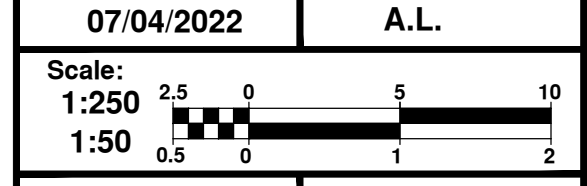


LEES ROAD REHABILITATION

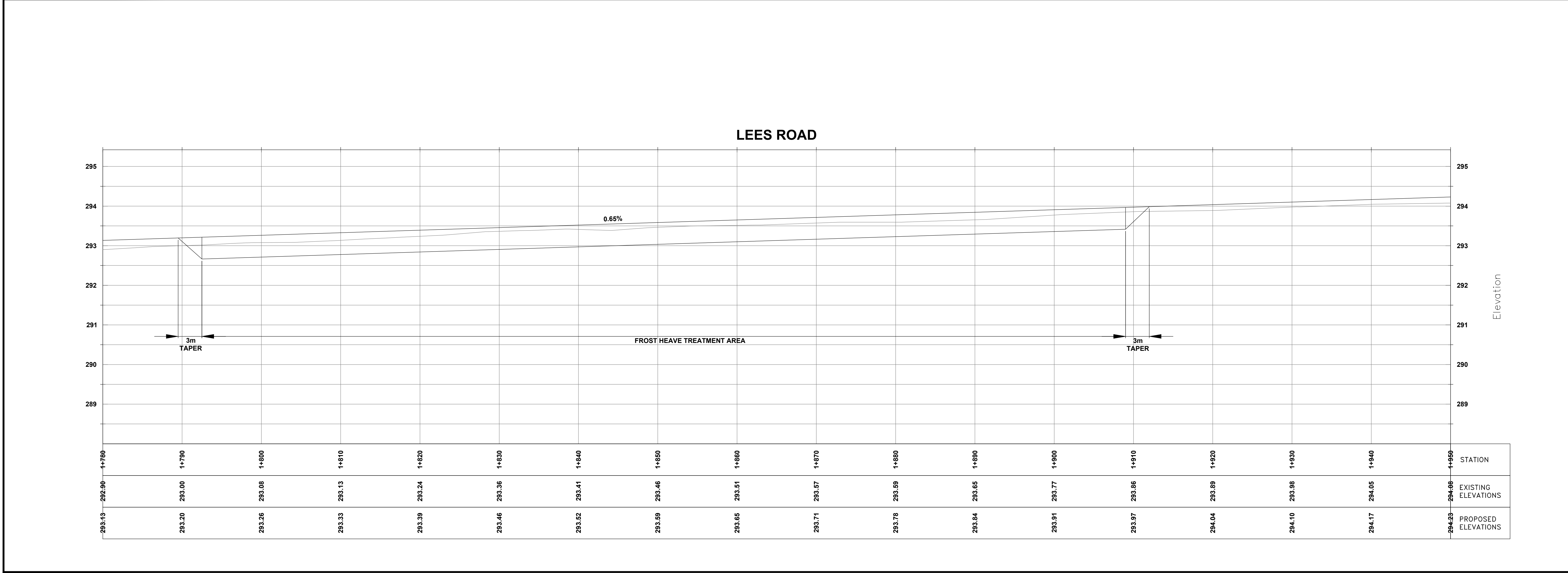
NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE
 Sta. 1+780 to Sta. 1+950

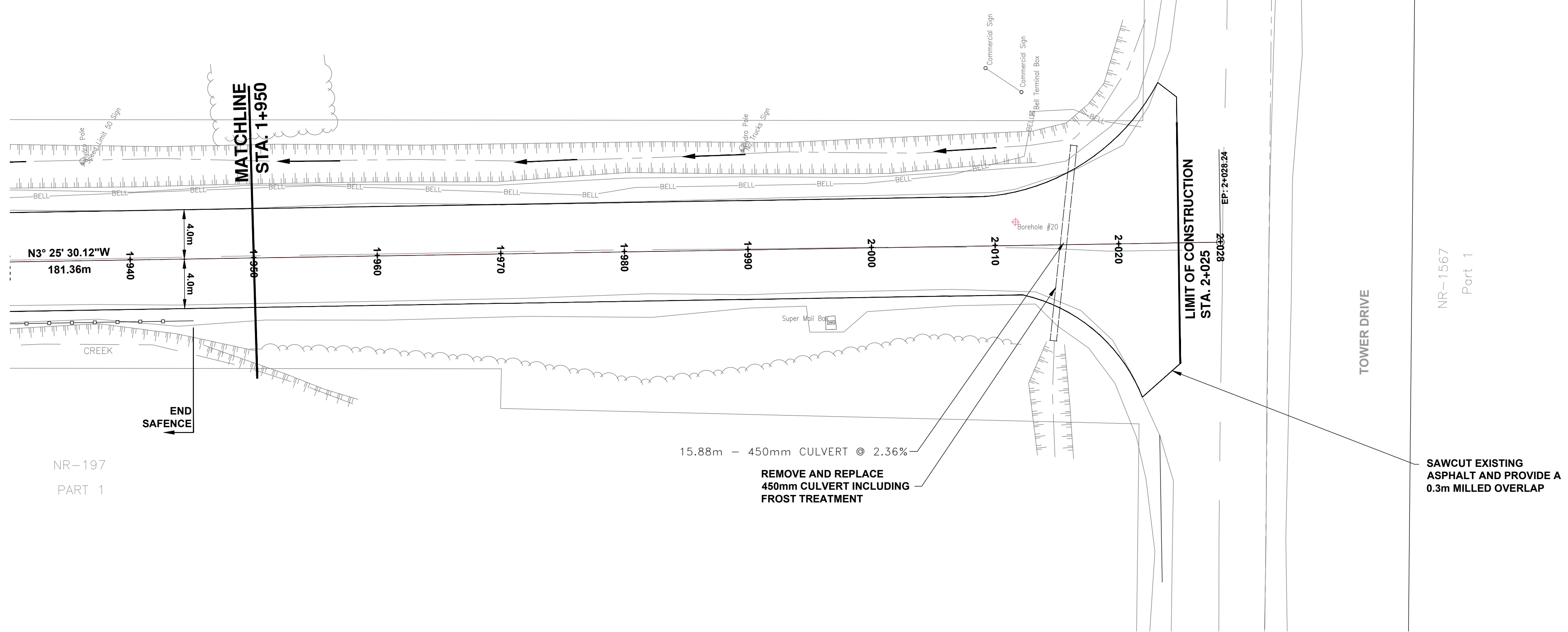
Designer: **G.W.C.** Checked by: **G.Mc.**
 Date: **07/04/2022** Approved by: **A.L.**



Drawing Number: **C-11** Drawing Set: **13 of 17**



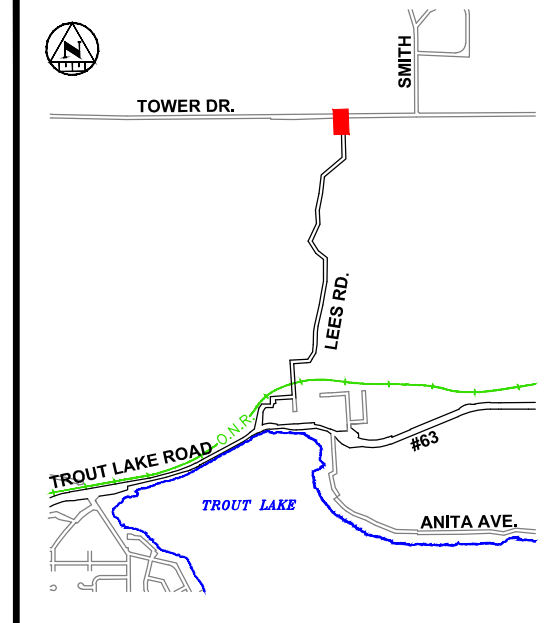
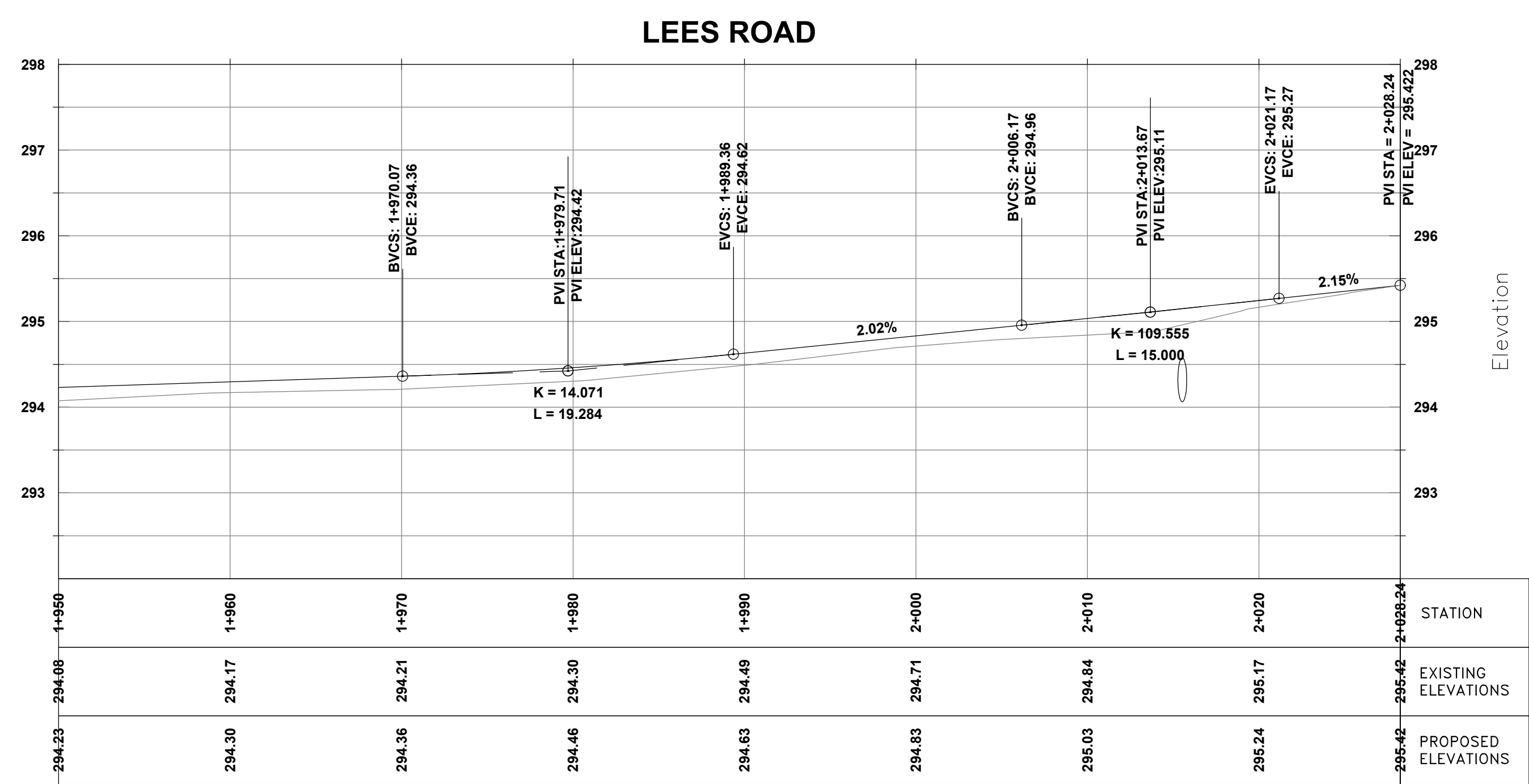
Rem. Pcl. 3844 W&F



NR-197
PART 1

15.88m - 450mm CULVERT @ 2.36%
REMOVE AND REPLACE
450mm CULVERT INCLUDING
FROST TREATMENT

SAWCUT EXISTING
ASPHALT AND PROVIDE A
0.3m MILLED OVERLAP



KEY PLAN

NOTES

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2. THE UNDERLYING PARCEL FABRIC REPRESENTS APPROXIMATE MEASUREMENTS ONLY AND SHOULD BE VERIFIED BY AN O.L.S.
3. REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Limited Licensee
Name: G. J. ANDREONE
Number: 9010201
Category: CIVIL, Road/Transportation
Licenses
This license is subject to the limitations set out in the schedule
Association of Professional Engineers of Ontario



LEES ROAD REHABILITATION

NEW CONSTRUCTION

LEES ROAD PLAN & PROFILE

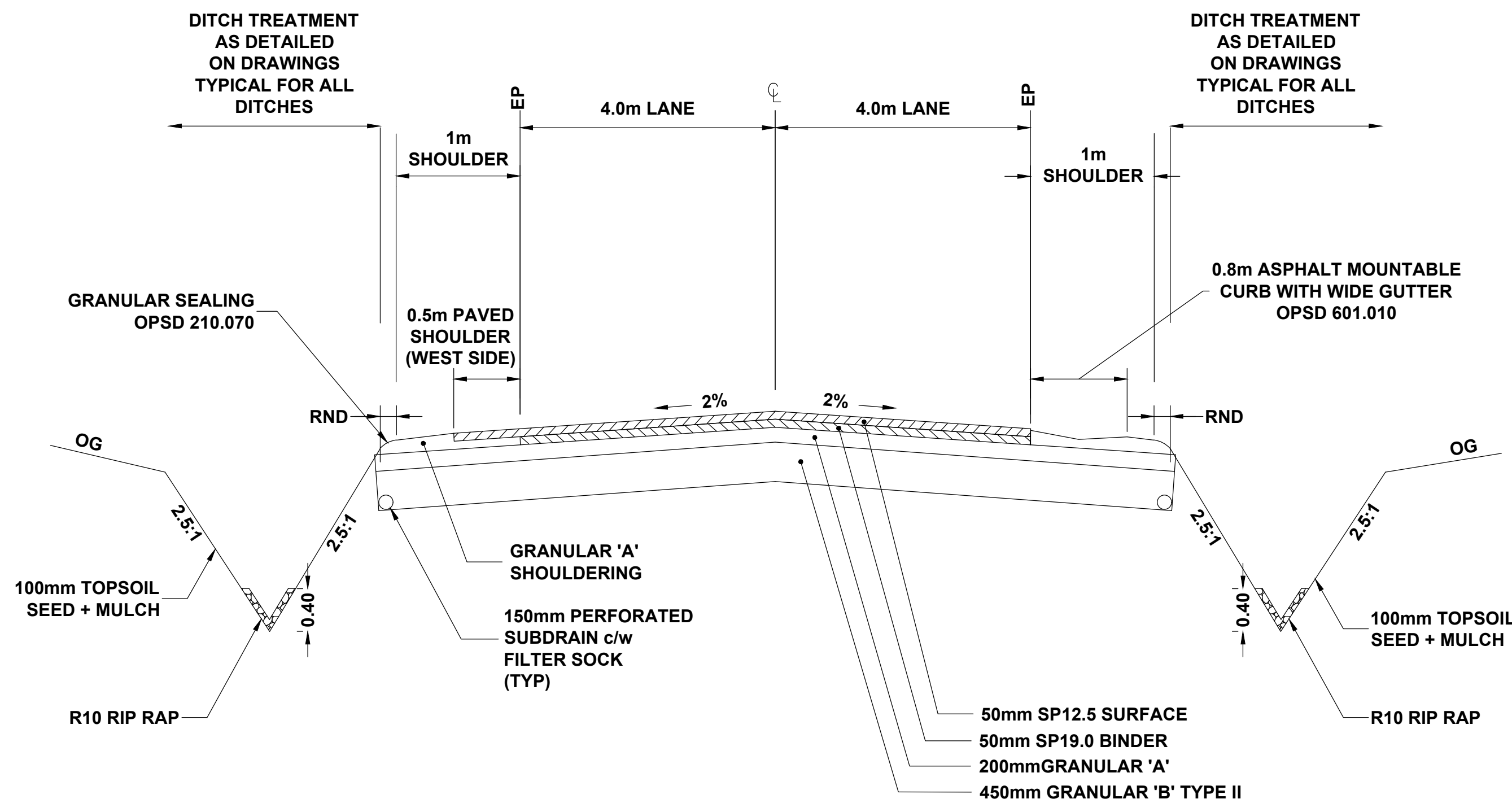
Sta. 1+950 to Sta. 2+028.24

Designer: **G.W.C.** Checked by: **G.Mc.**

Date: **07/04/2022** Approved by: **A.L.**

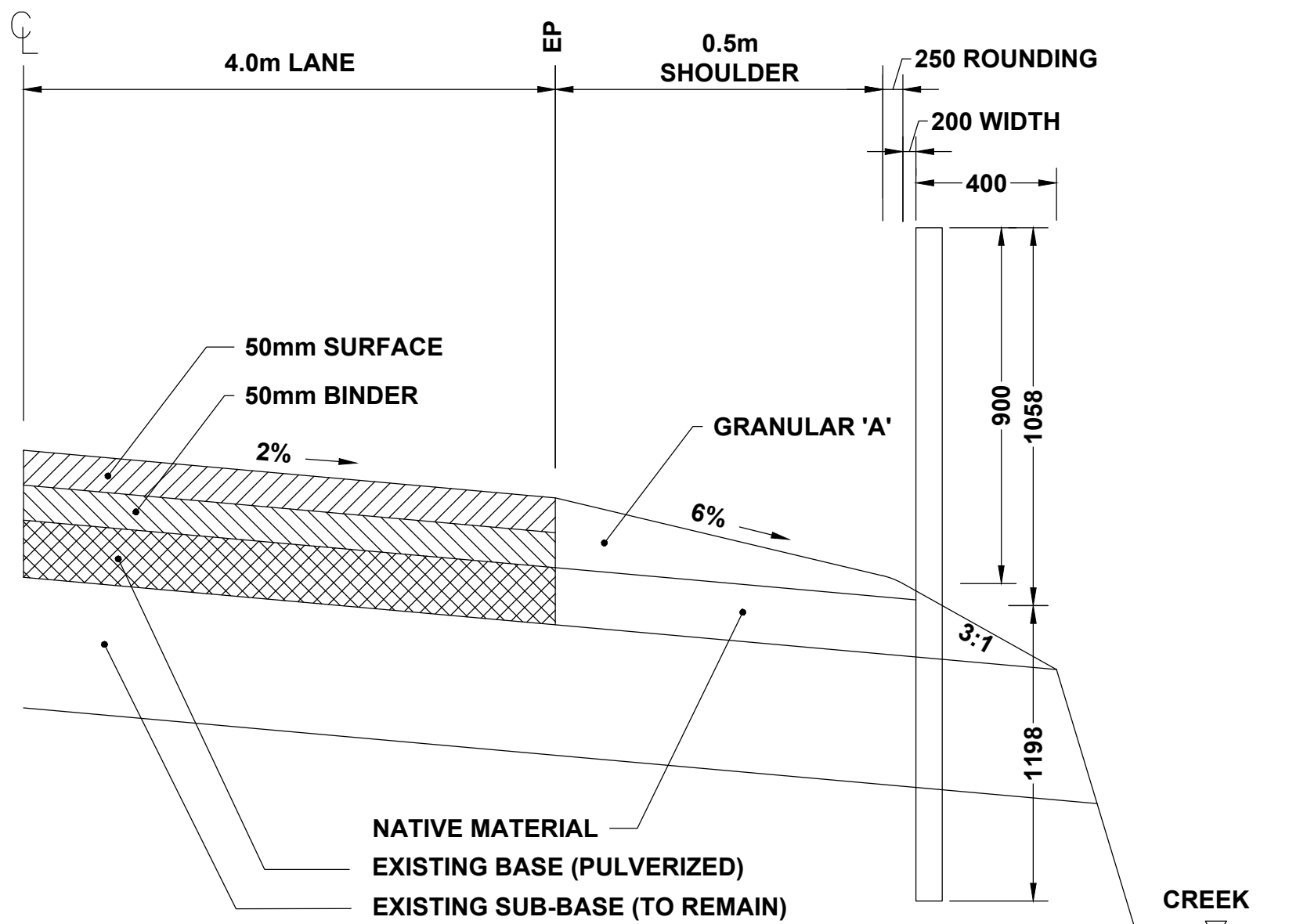
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1:50

Drawing Number: **C-12** Drawing Set: **14 of 17**

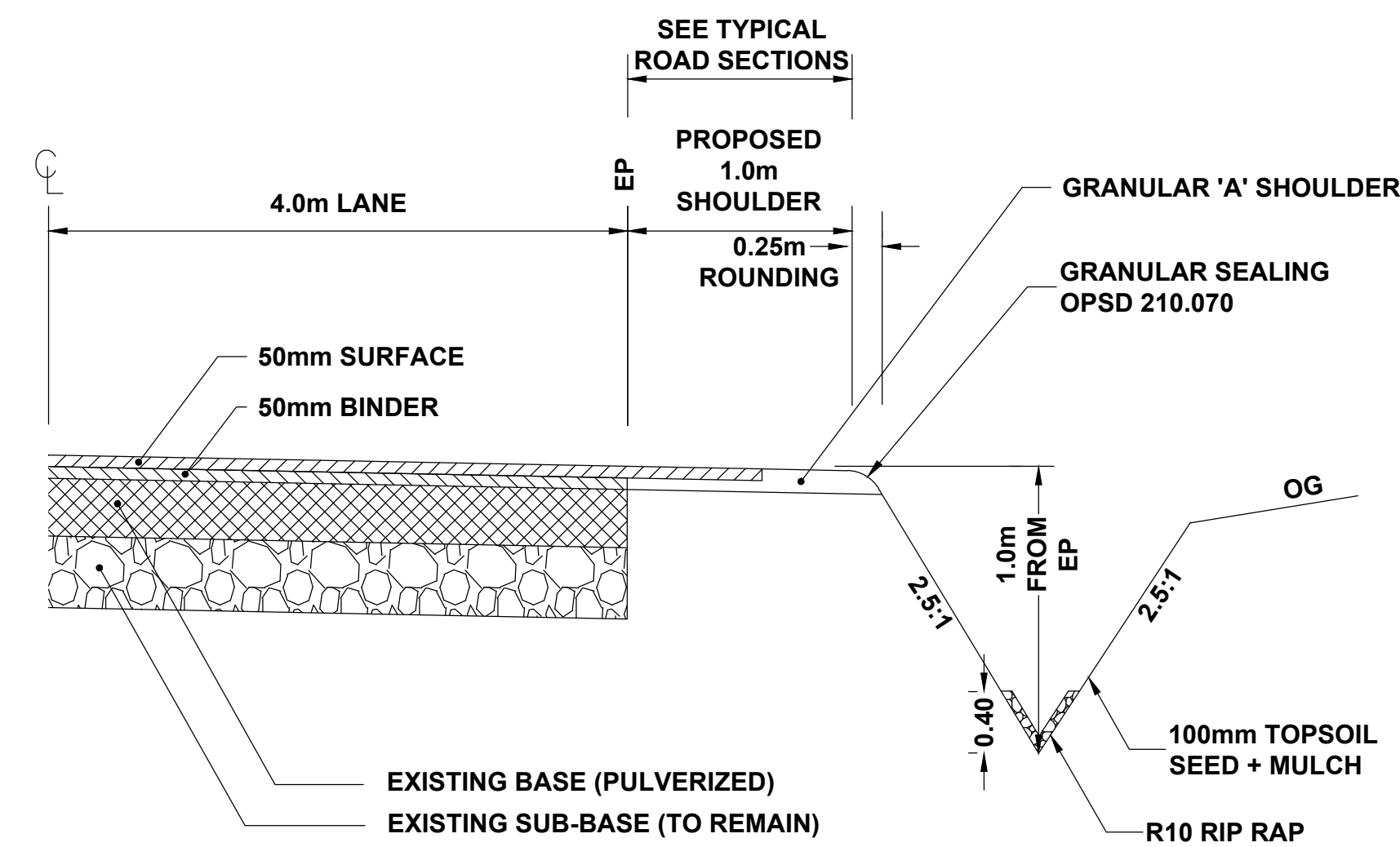


NOTE: OUTLET SUBDRAIN TO DITCH SHOWN ON DRAWINGS AS PER OPSD 206.050

FROST HEAVE TREATMENT
TYPICAL SECTION
NTS

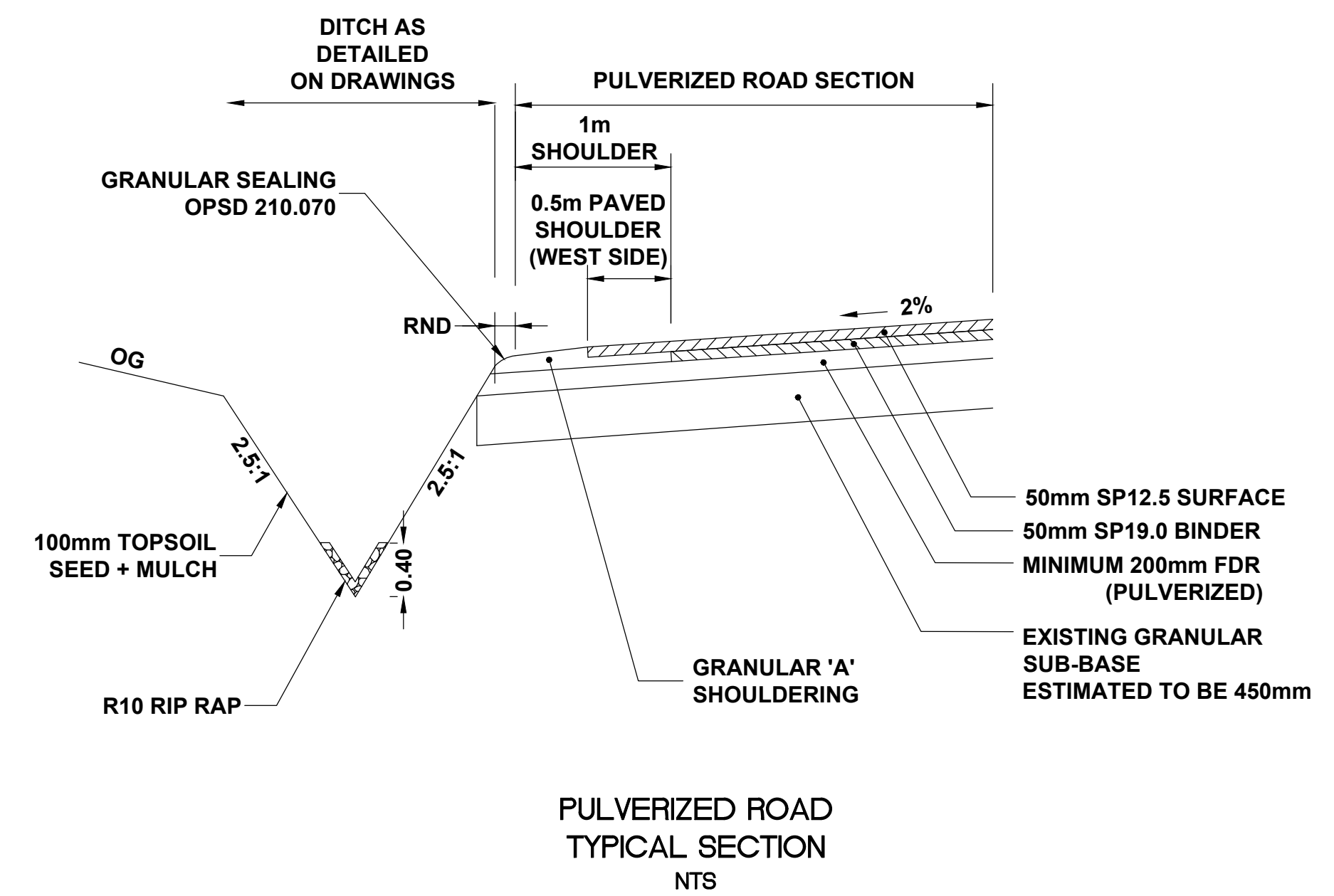


SAFENCE, 3-CABLE GUIDE RAIL AND
SLOPE GRADING ALONG CREEK
TYPICAL SECTION
NTS

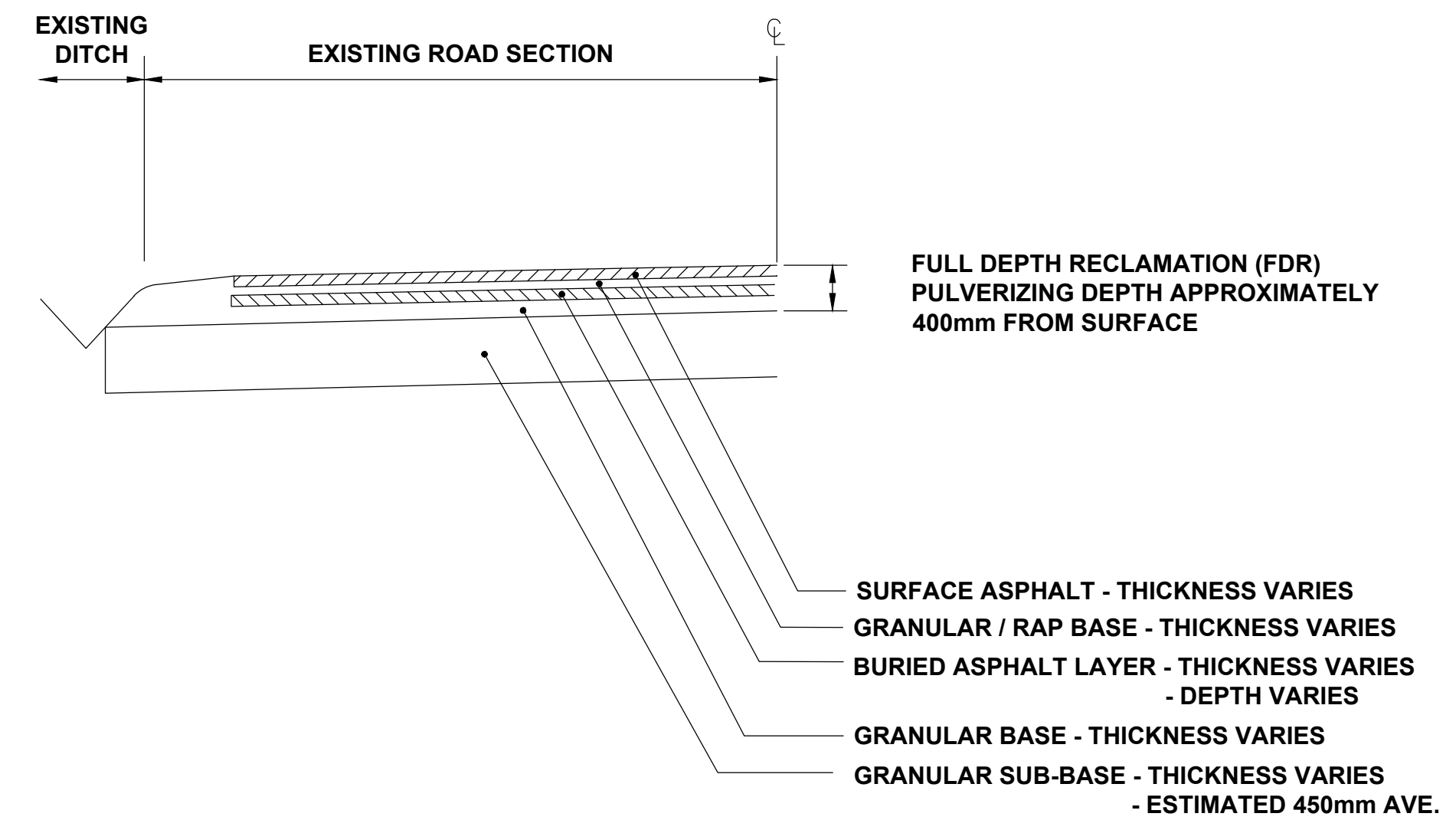


NOTE: REDUCE DITCH SLOPE TO 2:1 AND WHERE DIRECTED PLACE RIP RAP ON BOTH SIDES OF ENTIRE DITCH.

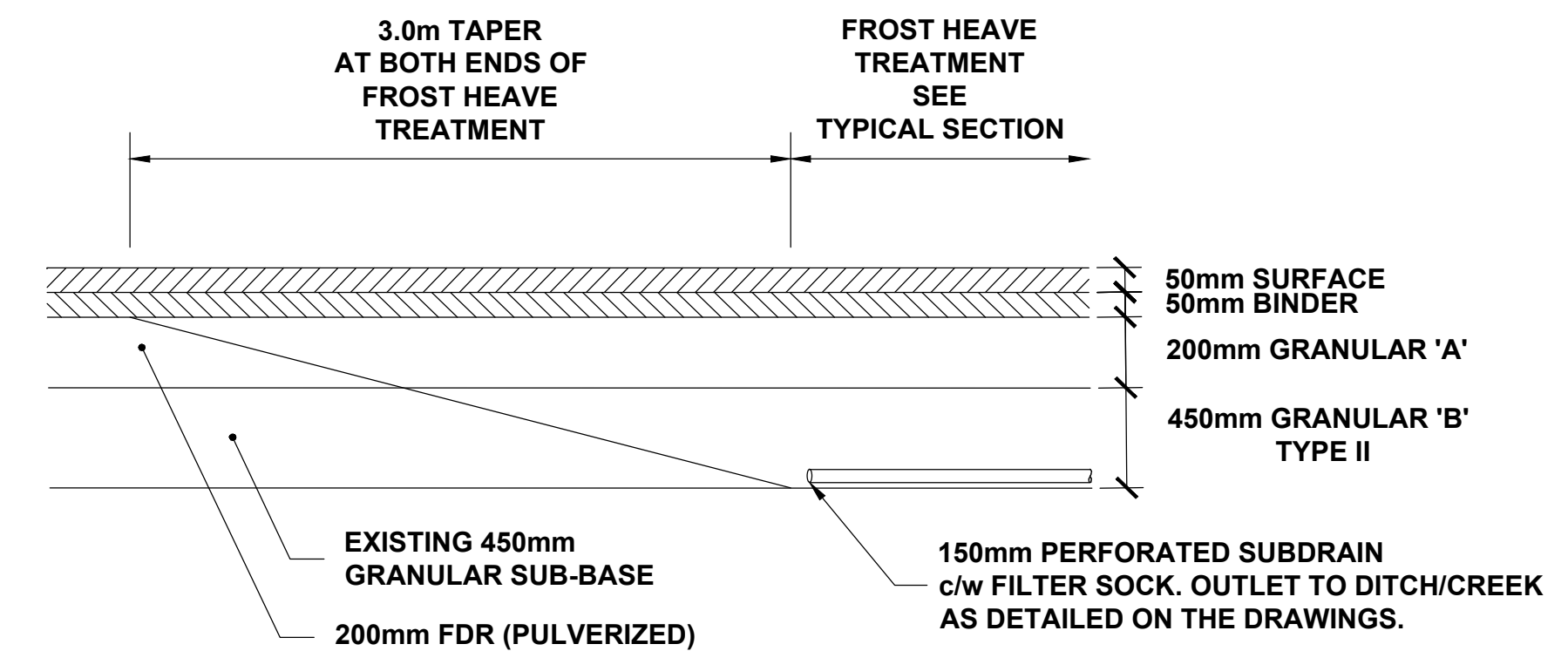
ROAD DITCH
TYPICAL SECTION
NTS



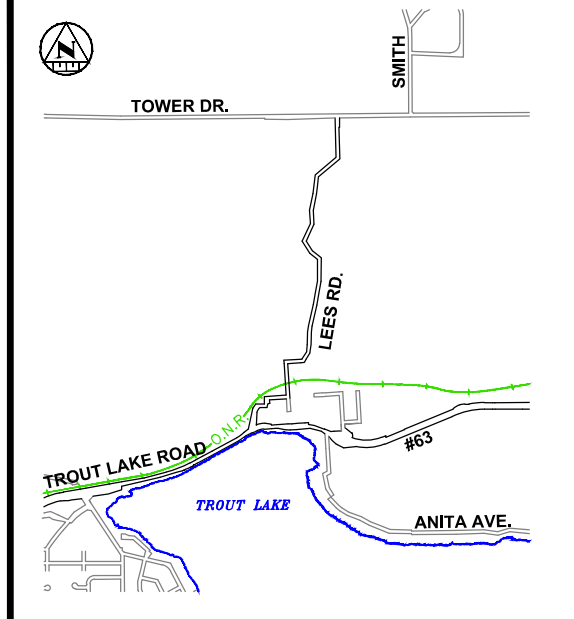
PULVERIZED ROAD
TYPICAL SECTION
NTS



EXISTING ROAD
PRIOR TO PULVERIZATION
TYPICAL SECTION
NTS



FROST HEAVE TAPER
NTS



KEY PLAN

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REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWC	ISSUED FOR TENDER

Professional Engineer
Limited Licensee
Name: G. W. C. G.W.C.
Number: 190120191
Category: CIVIL - Road/General/Structures
Licence No. 190120191
The licensee is subject to the sanctions in regard to the conditions of the License.
Association of Professional Engineers of Ontario



LEES ROAD
REHABILITATION

NEW CONSTRUCTION

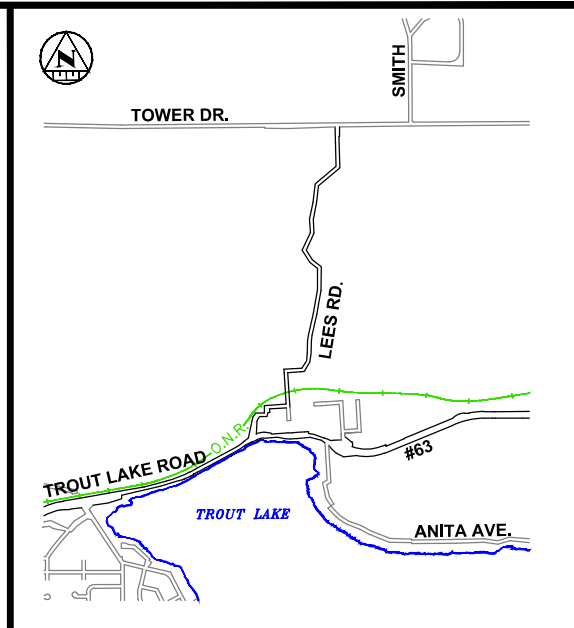
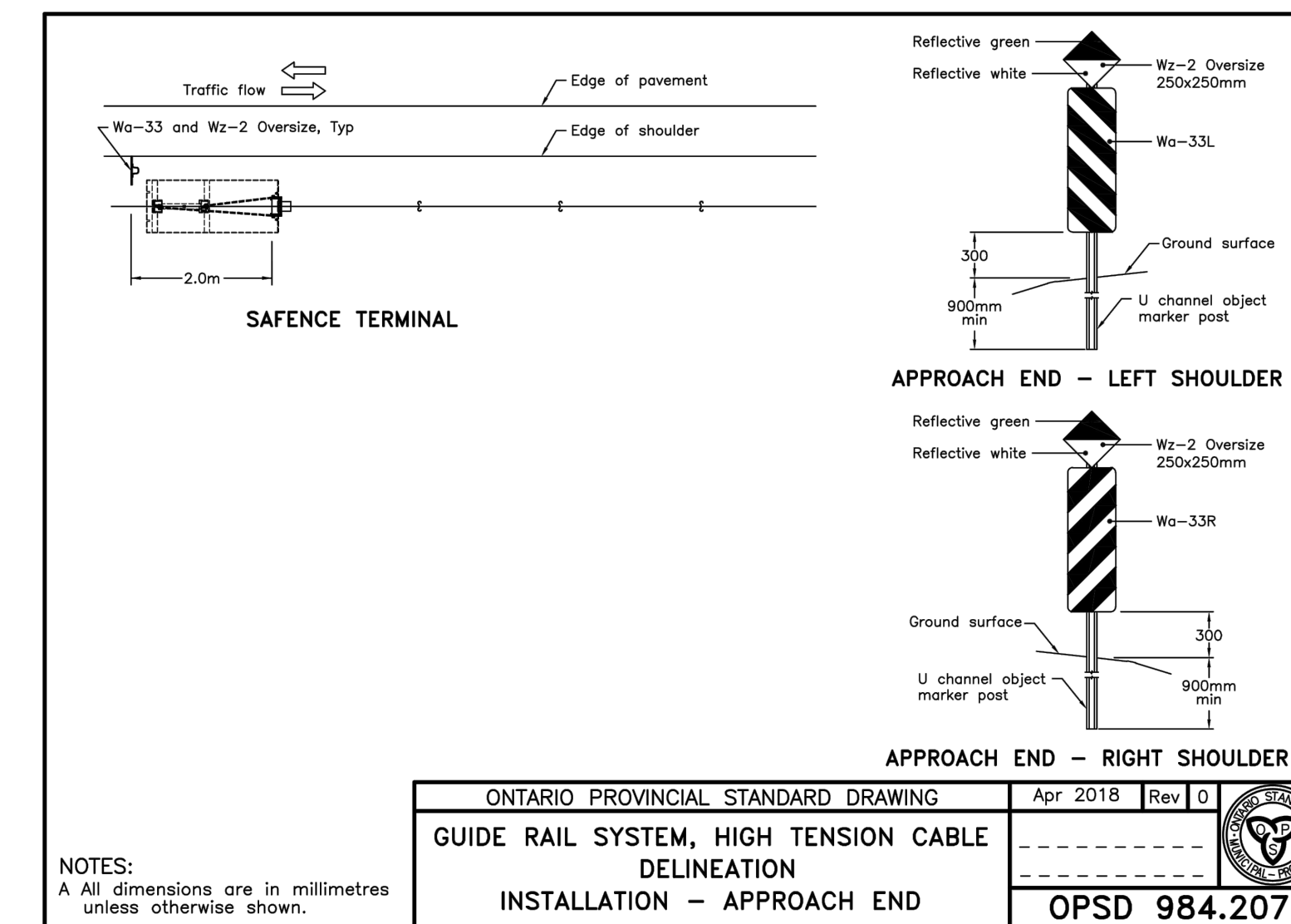
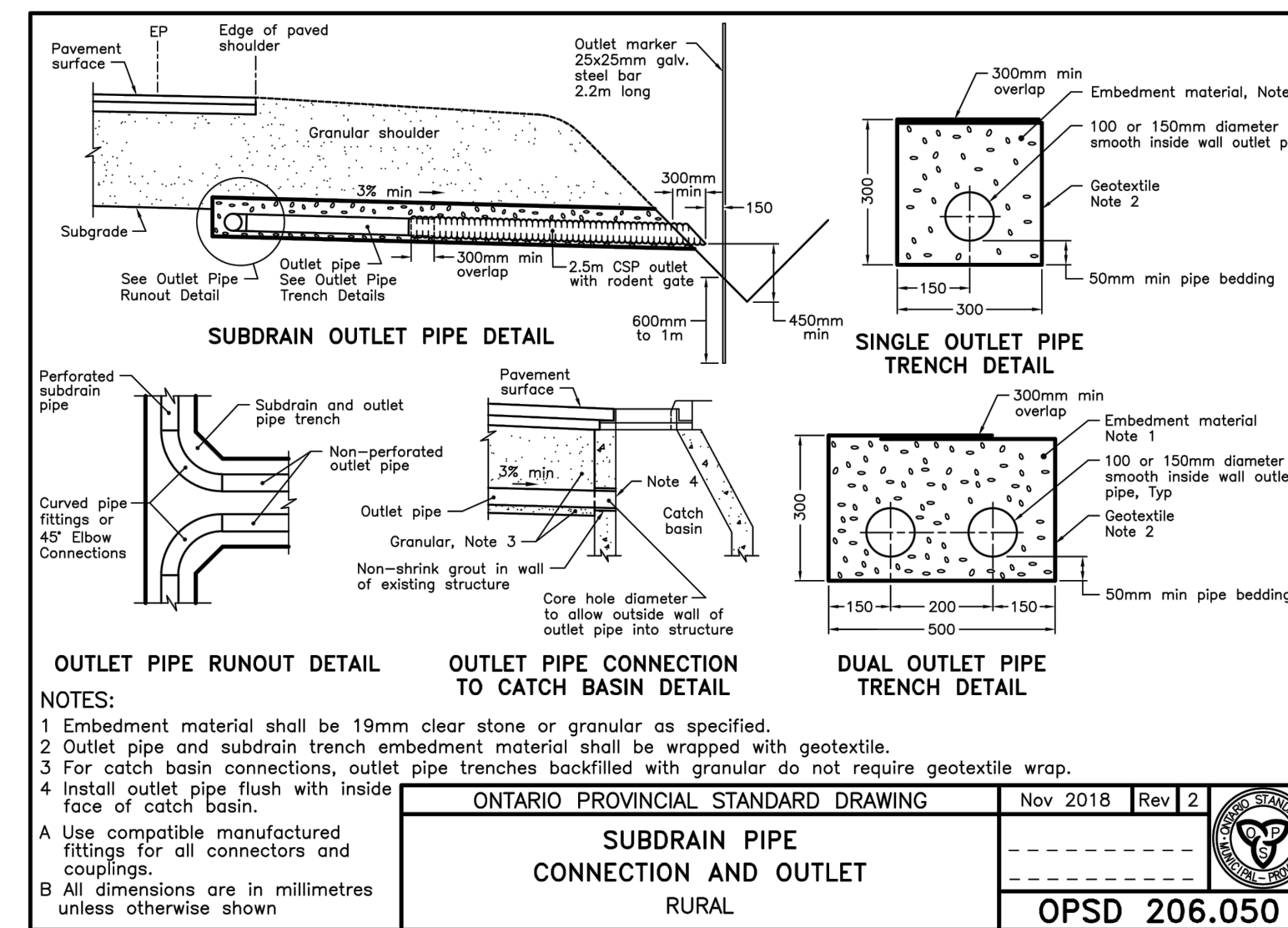
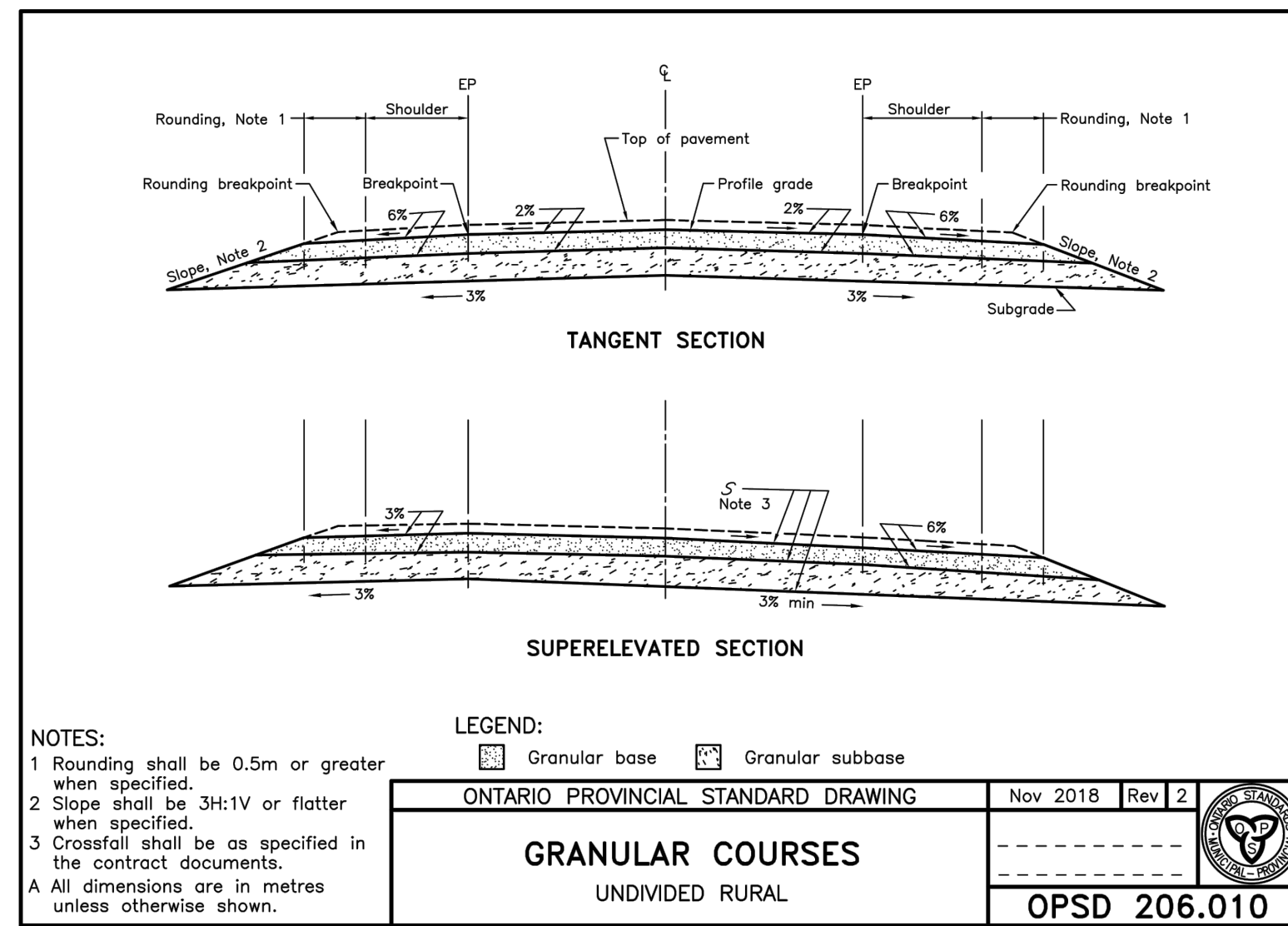
TYPICAL SECTIONS

Designer: G.W.C. Checked by: G.Mc.

Date: 07/04/2022 Approved by: A.L.

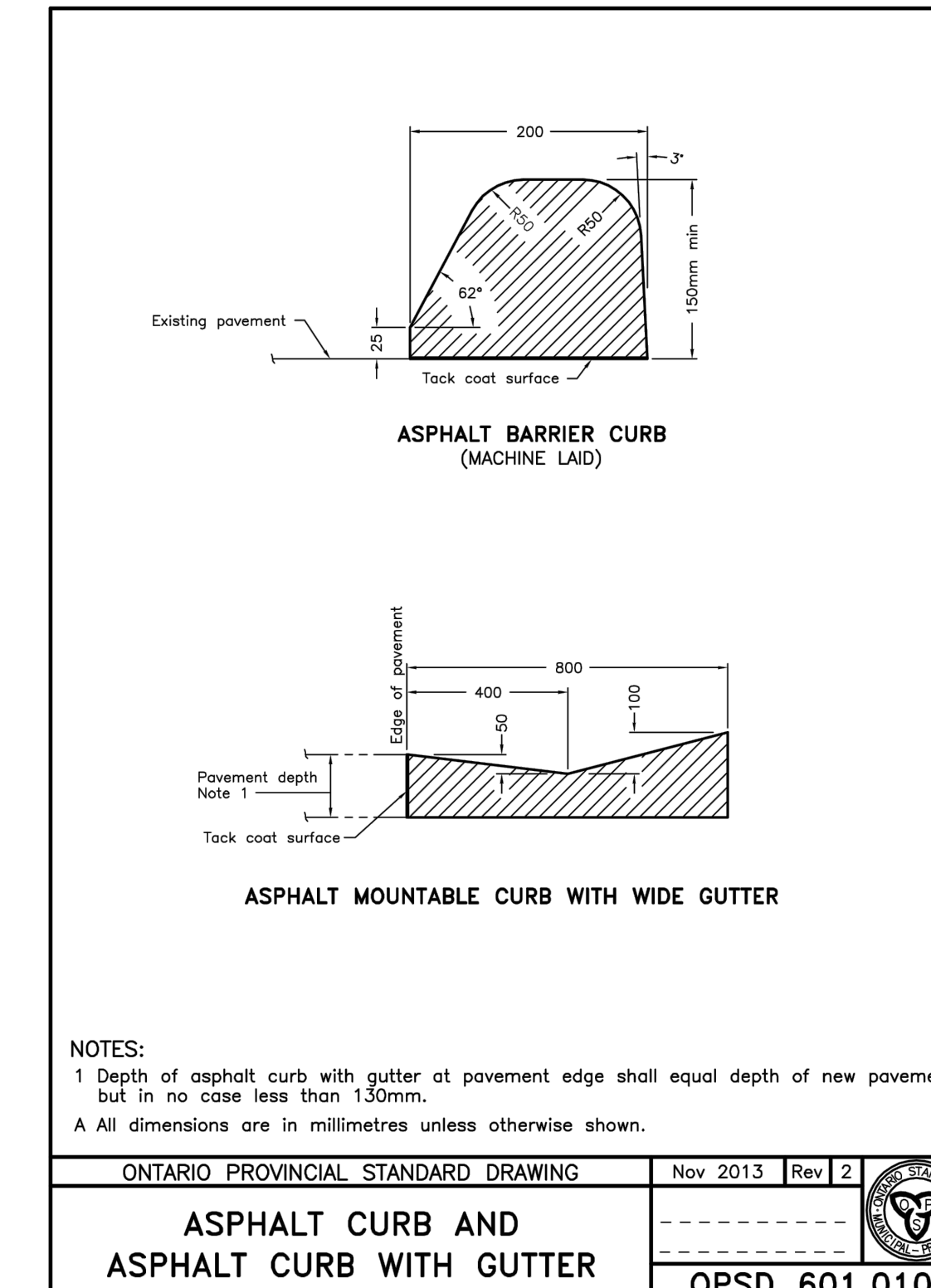
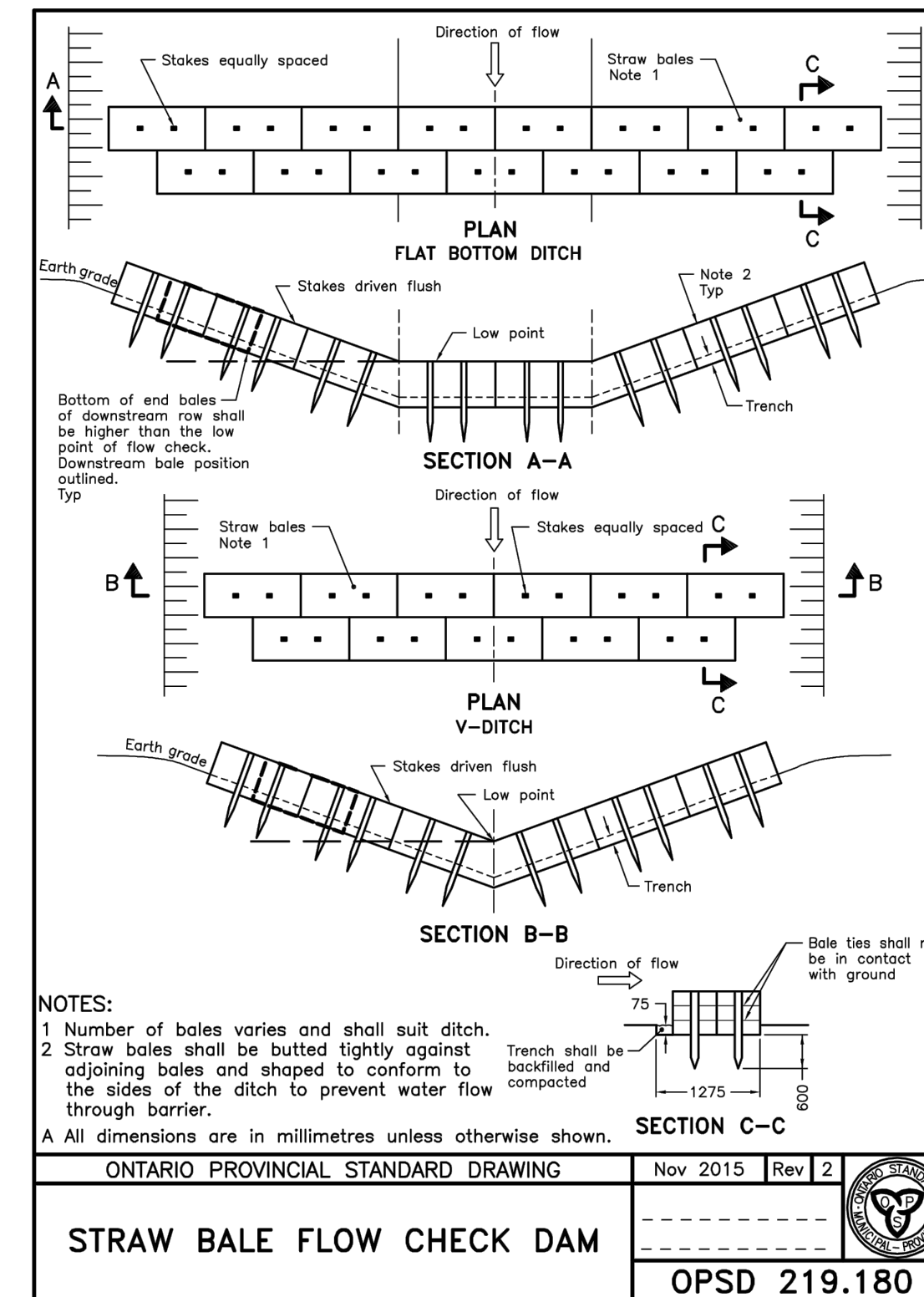
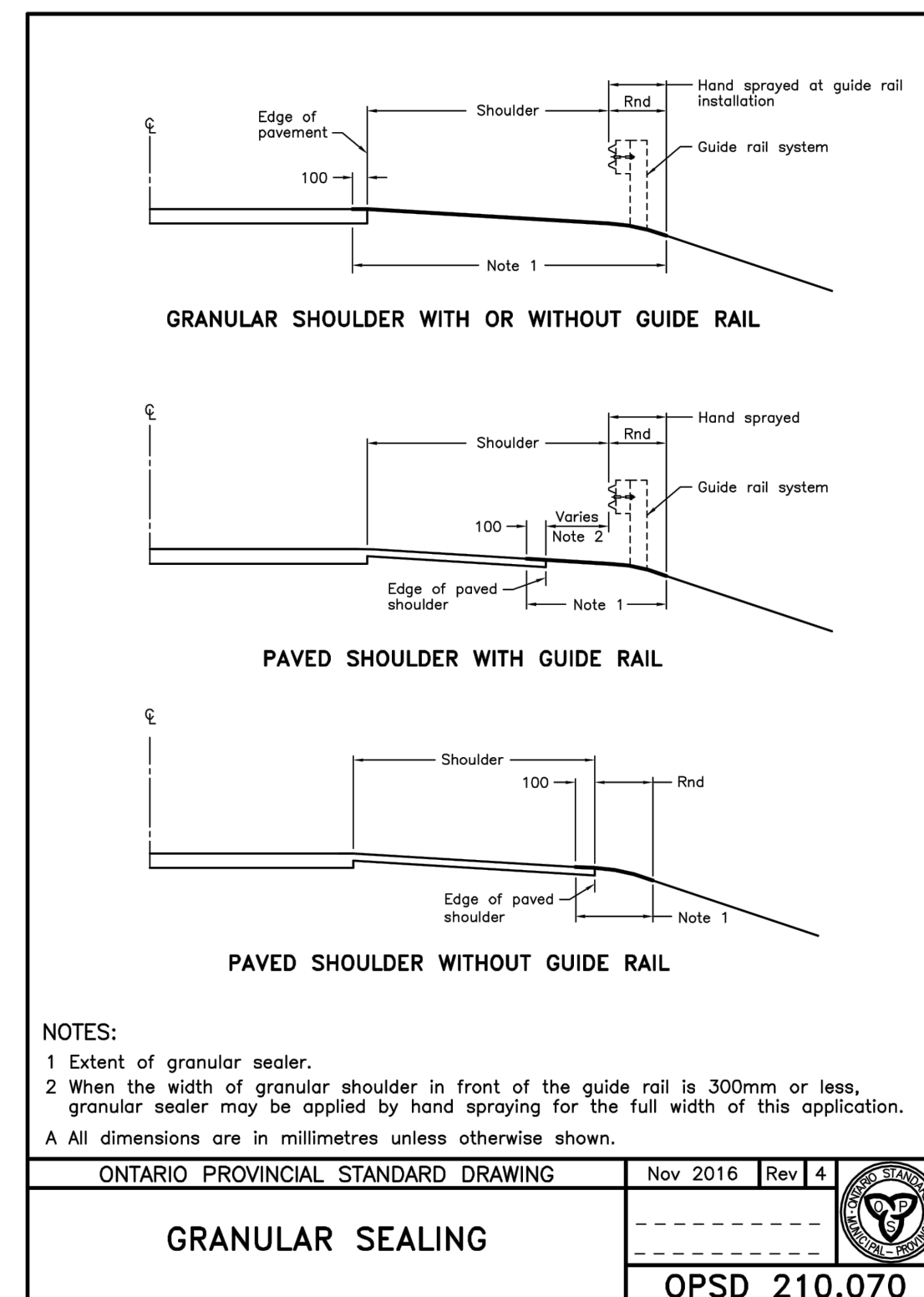
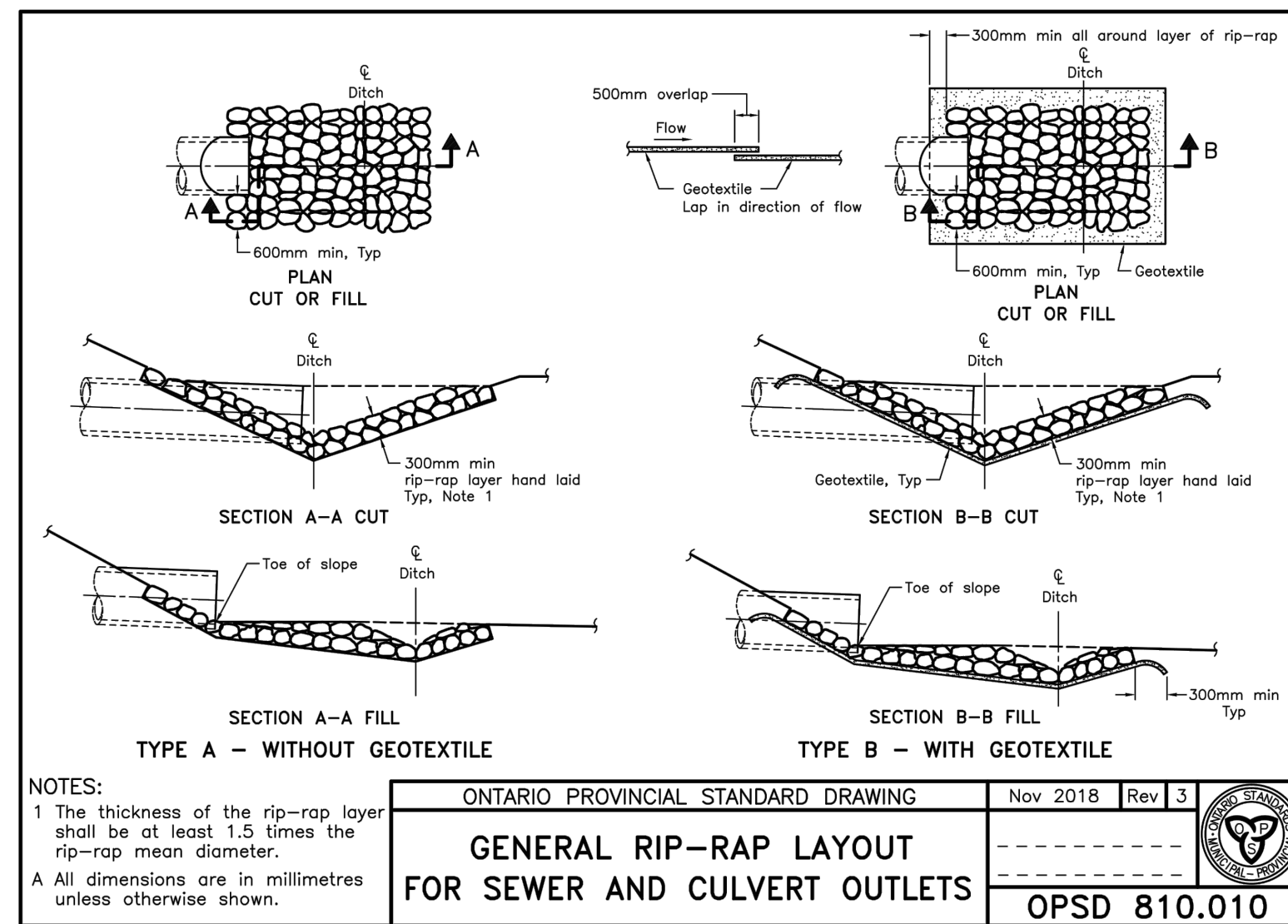
Scale: Not to Scale

Drawing Number: S-1 Drawing Set: 15 of 17



NOTES

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REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWG	ISSUED FOR TENDER

Limited Licensee

PROFESSIONAL ENGINEER
G.W.C. ROYCE
Category: CIVIL, Transportation/Infrastructure
This license is subject to the limitations as stated on the certificate.
Association of Professional Engineers of Ontario



LEES ROAD REHABILITATION

NEW CONSTRUCTION

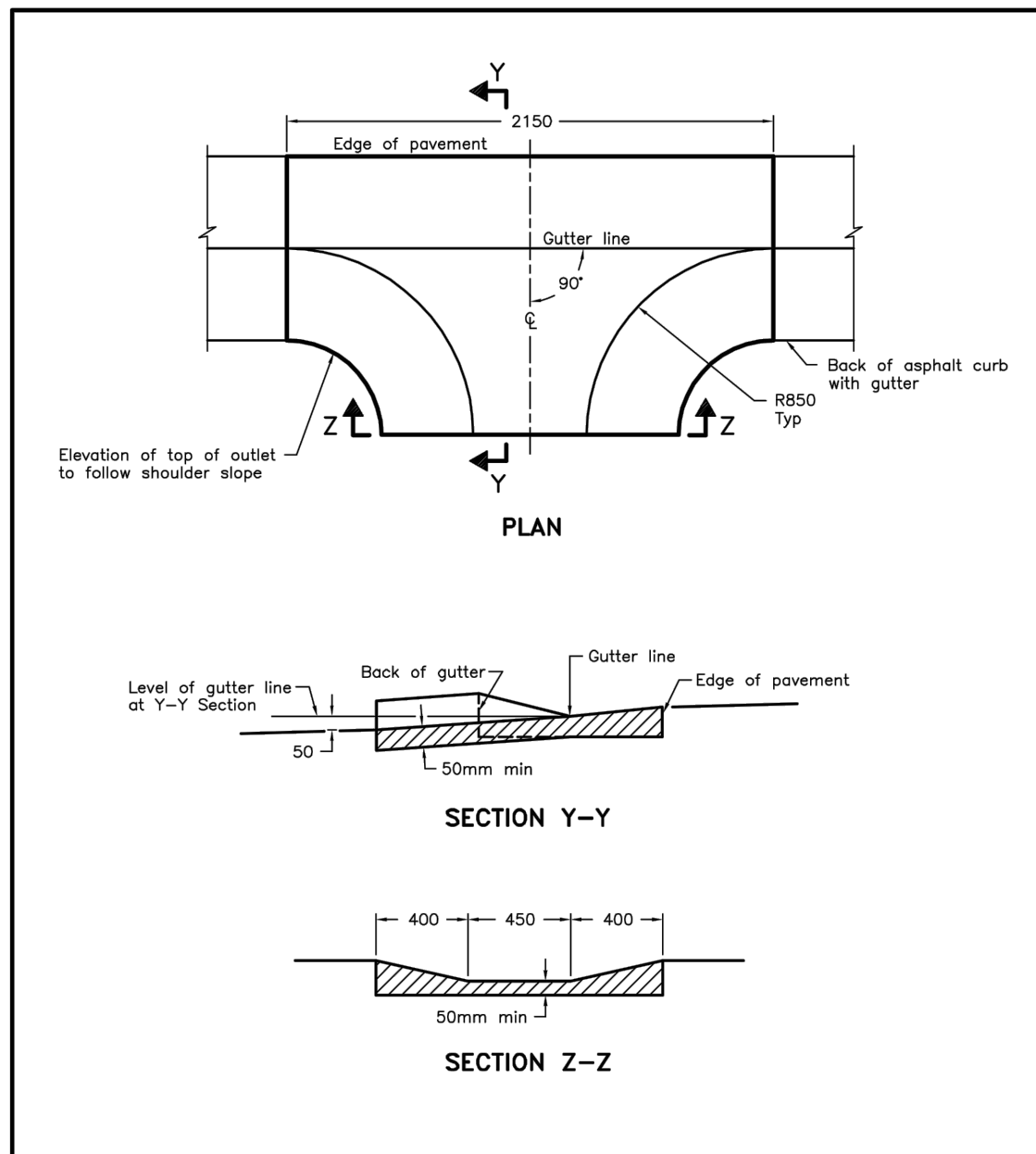
CONSTRUCTION DETAILS 1

Designer: **G.W.C.** Checked by: **G.Mc.**

Date: **07/04/2022** Approved by: **A.L.**

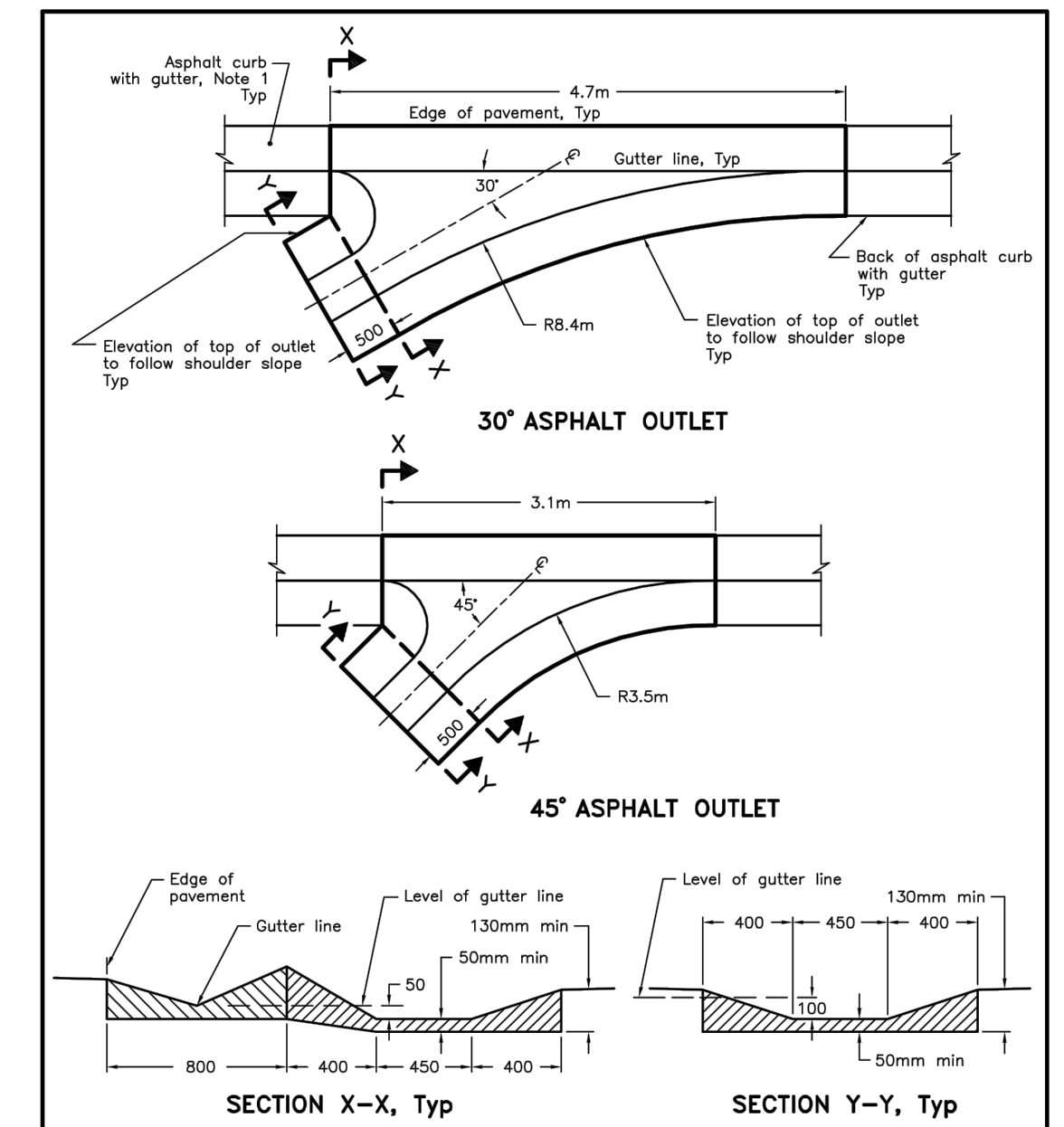
Scale: **Not to Scale**

Drawing Number: **D-1** Drawing Set: **16 of 17**



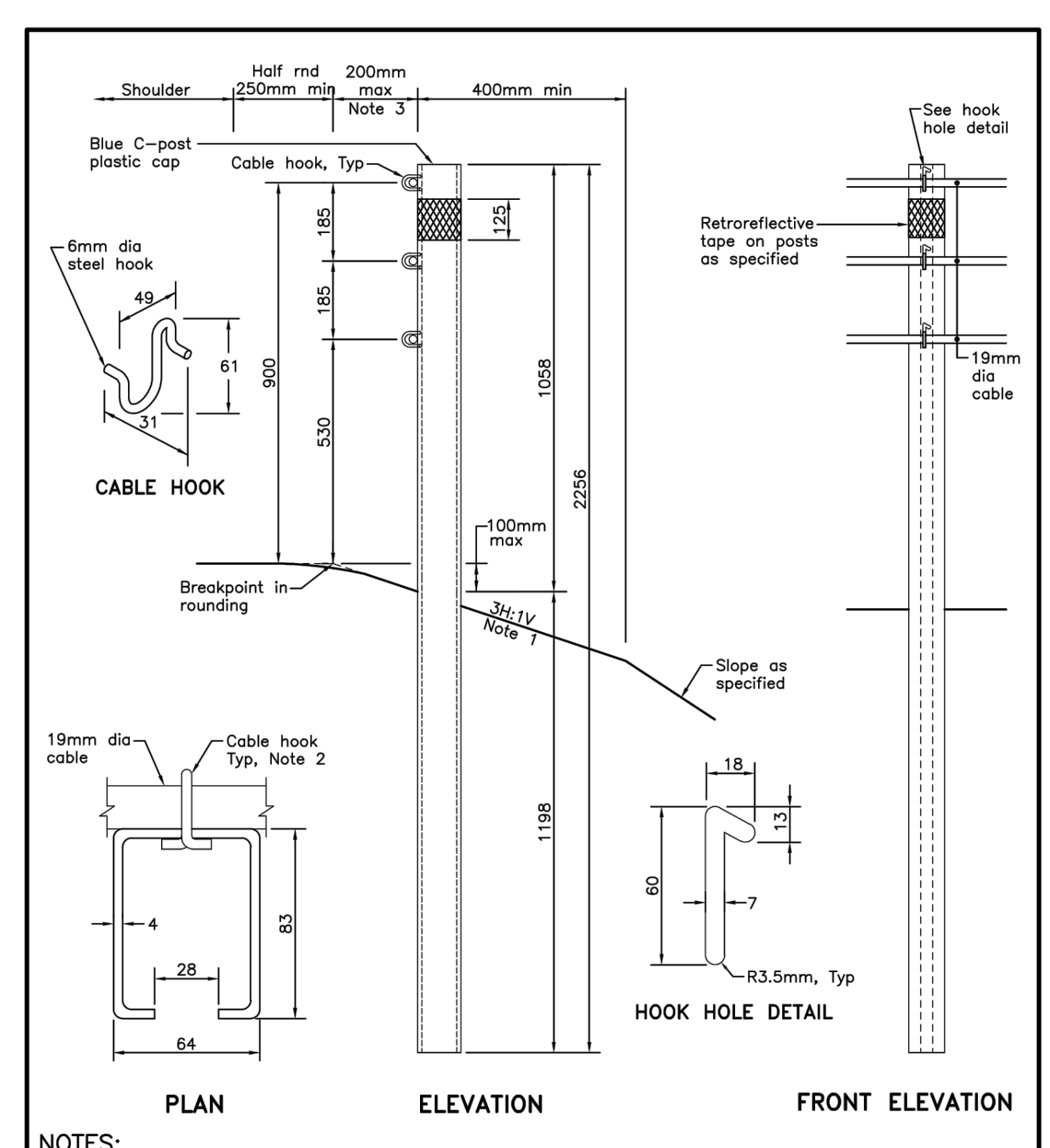
NOTES:
 A For asphalt spillway details refer to OPSD 605.040.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2013 Rev 2
90° ASPHALT OUTLET FOR ASPHALT CURB WITH GUTTER
 OPSD 604.020



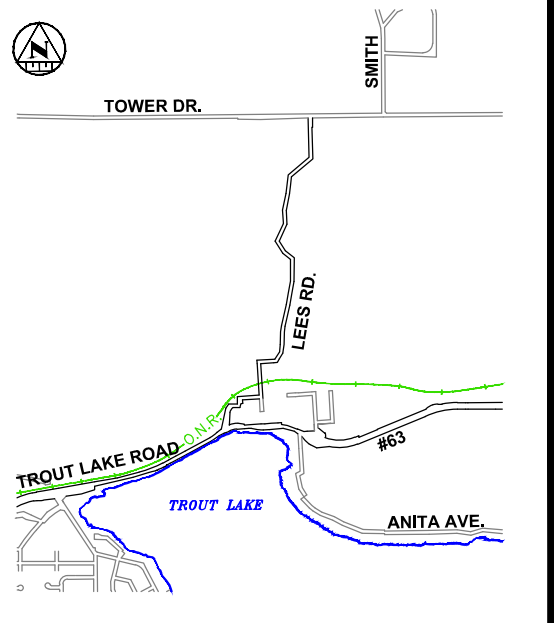
NOTES:
 1 For asphalt curb with gutter refer to OPSD 601.010.
 A For asphalt spillway details refer to OPSD 605.040.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2013 Rev 2
30° AND 45° ASPHALT OUTLETS FOR ASPHALT CURB WITH GUTTER
 OPSD 605.020



NOTES:
 1 Desirable 3H:1V or flatter slope. Minimum 2H:1V slope when specified.
 2 Cable hook shall be inserted into hole with rubber grommet.
 3 Face of post shall not be offset more than 200mm beyond the rounding breakpoint.
 A The components depicted here are proprietary.
 B ASTM A1011 Grade 60 steel post hot dip galvanized according to ASTM F1043.
 C All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Apr 2018 Rev 0
GUIDE RAIL SYSTEM, HIGH TENSION CABLE SAFENCE, 3-CABLE SLOPE INSTALLATION LINE POST COMPONENT
 OPSD 913.252



KEY PLAN

NOTES

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- REFER TO GENERAL PLAN PAGE FOR DRAWING LEGEND.

REVISIONS

No.	Date	By	Description
1	JULY 4 2022	GWG	ISSUED FOR TENDER

Professional Engineer PROJECT 2022-01 DATE: JULY 4 2022
Limited Licensee
 Name: G. MICHELETTI
 Number: 10010281
 Category: CIVIL - ROAD/STREETS/TRANSPORTATION
 Licensee
 This license is subject to the conditions as stated on the certificate.
 Association of Professional Engineers of Ontario



LEES ROAD REHABILITATION

NEW CONSTRUCTION

CONSTRUCTION DETAILS 2

Designer: G.W.C.	Checked by: G.Mc.
Date: 07/04/2022	Approved by: A.L.
Scale: Not to Scale	
Drawing Number: D-2	Drawing Set: 17 of 17

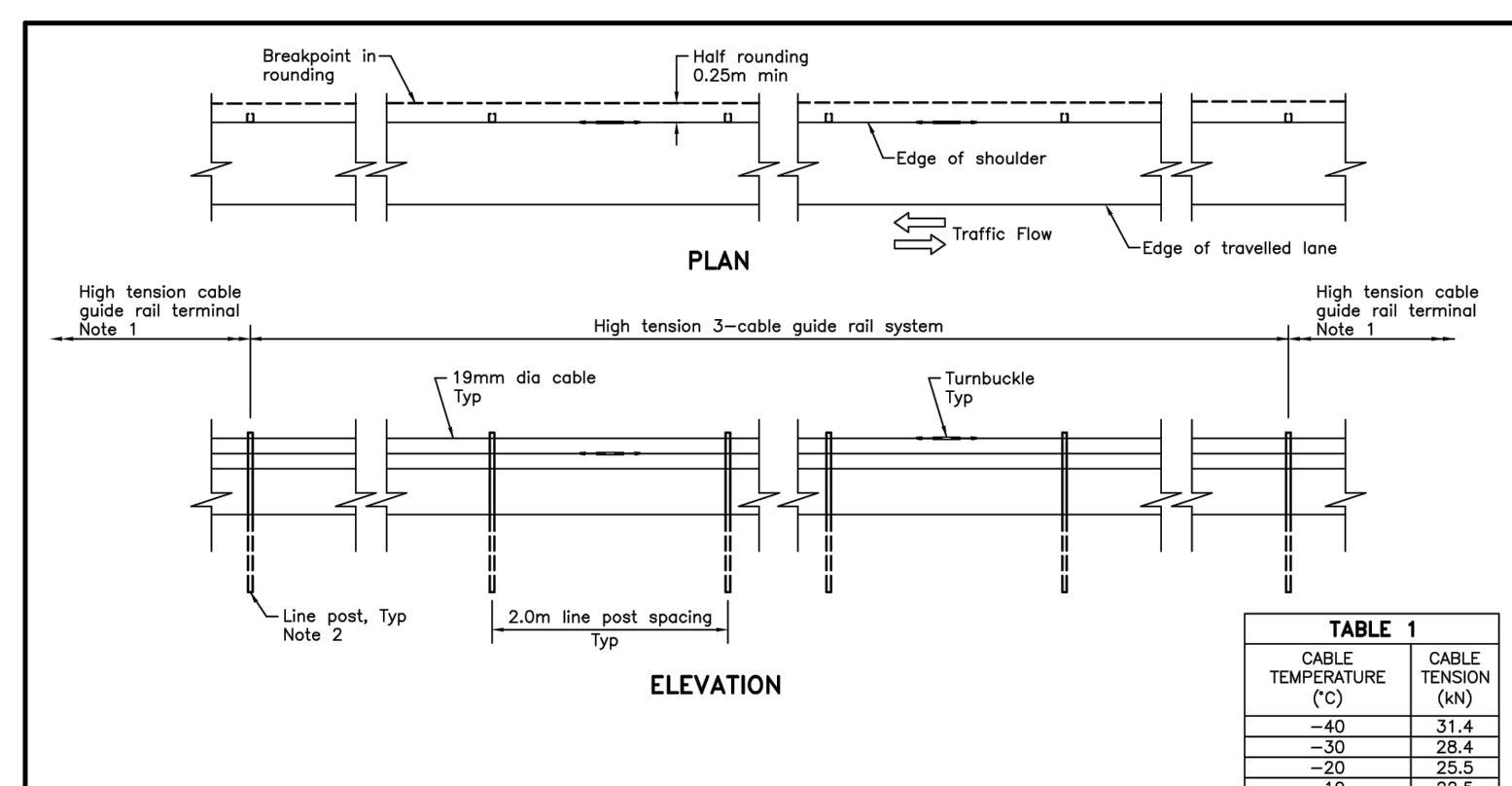
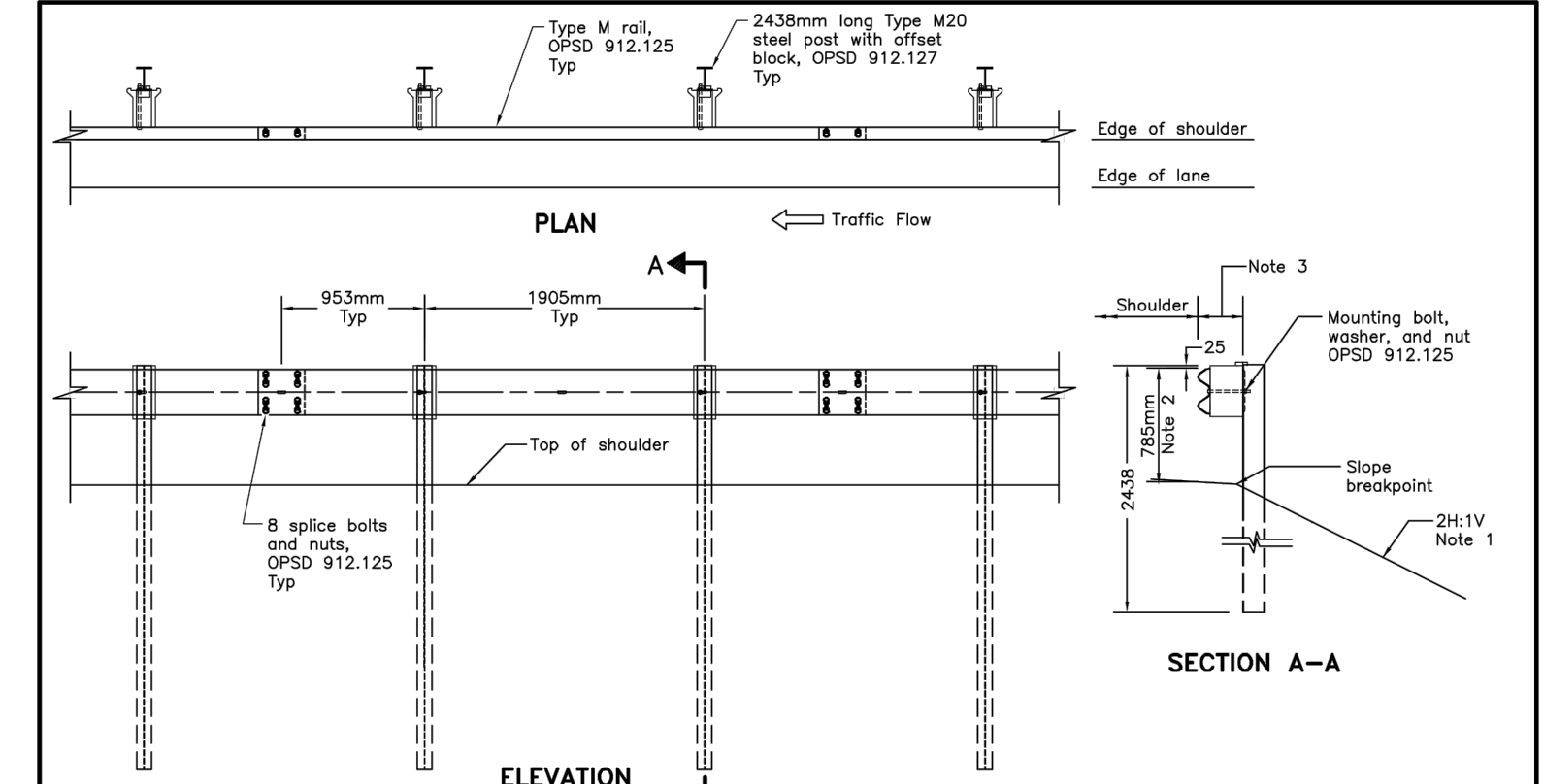


TABLE 1

CABLE TEMPERATURE (°C)	CABLE TENSION (kN)
-40	31.4
-30	28.4
-20	25.5
-10	22.5
0	19.6
+10	16.7
+20	13.7
+30	10.8
+40	7.8

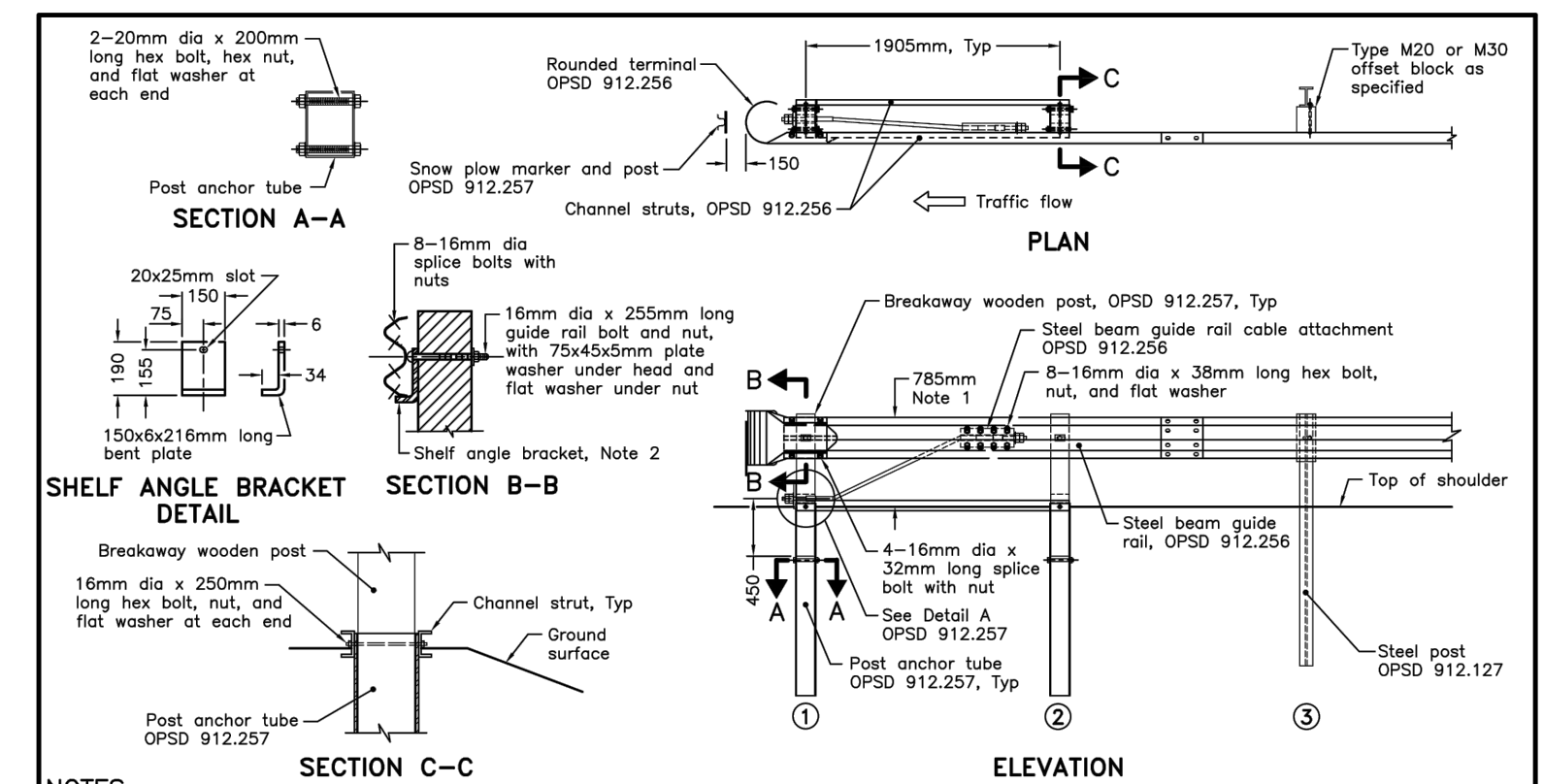
NOTES:
 1 Each end of the installation shall be anchored by a high tension cable guide rail terminal according to OPSD 913.221.
 2 Line posts and grading shall be according to OPSD 913.253.
 A Tension in 19mm diameter cables shall be according to Table 1.
 B The system depicted here is a proprietary product.
 C System configuration meets AASHTO MASH TL-3.
 D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Apr 2018 Rev 0
GUIDE RAIL SYSTEM, HIGH TENSION CABLE SAFENCE, 3-CABLE SHOULDER INSTALLATION
 OPSD 913.250



NOTES:
 1 Slope shall be flatter when specified.
 2 Mounting height to top of steel beam rail shall be measured vertically at face of rail.
 3 Offset from edge of shoulder to traffic side face of post shall be 280mm.
 A System configuration meets AASHTO MASH TL-3.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2016 Rev 0
GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 - ADJACENT TO 2H:1V SLOPE INSTALLATION - RAIL AT SHOULDER
 OPSD 912.186



NOTES:
 1 Mounting height to top of steel beam shall be measured vertically at face of rail.
 2 Rail is not bolted to post (1) and is supported by shelf angle bracket that is bolted to post (2).
 A Splice and mounting hardware shall be according to OPSD 912.125.
 B This OPSD shall be read in conjunction with OPSD 912.256 and 912.257.
 C All dimensions subject to manufacturing tolerances unless otherwise shown.
 D System configuration meets AASHTO MASH TL-3.
 E All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2018 Rev 1
GUIDE RAIL SYSTEM, STEEL BEAM TYPE M20 AND M30 LEAVING END TREATMENT INSTALLATION
 OPSD 912.255