

# APPENDIX

# H

STRUCTURAL  
DRAWINGS





**GENERAL NOTES:**

**CLASS OF CONCRETE:**

GIRDERS 50 MPa  
 REMAINDER UNLESS NOTED OTHERWISE 30 MPa CLASS C-1  
 PER CSA A23.1/A23.2

**CLEAR COVER TO REINFORCING STEEL:**

DECK TOP 70 ± 20  
 BOTTOM 40 ± 10  
 REMAINDER UNLESS NOTED OTHERWISE 70 ± 20

**REINFORCING STEEL:**

- REINFORCING STEEL SHALL BE GRADE 400W.
- UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES FOR REINFORCING STEEL BARS SHALL BE CLASS B.
- BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD DRAWING SS12-1 UNLESS INDICATED OTHERWISE.

**RETAINED SOIL SYSTEM:**

RETAINED SOIL SYSTEM WALL SHALL HAVE THE FOLLOWING ATTRIBUTES:  
 APPLICATION: HORIZONTAL RETAINMENT  
 PERFORMANCE: HIGH  
 APPEARANCE: HIGH

**CONSTRUCTION NOTES:**

- THE CONTRACTOR SHALL ESTABLISH THE BEARING SEAT ELEVATIONS BY DEDUCTING THE ACTUAL BEARING THICKNESSES FROM THE TOP OF BEARING ELEVATIONS. IF THE ACTUAL BEARING THICKNESSES ARE DIFFERENT FROM THOSE GIVEN WITH THE BEARING DESIGN DATA, THE CONTRACTOR SHALL ADJUST THE REINFORCING STEEL TO SUIT.
- BACKFILL SHALL BE PLACED SIMULTANEOUSLY BEHIND BOTH ABUTMENTS KEEPING THE HEIGHT OF THE BACKFILL APPROXIMATELY THE SAME. AT NO TIME SHALL THE DIFFERENCE IN ELEVATION BE GREATER THAN 500mm.

**LEGEND:**

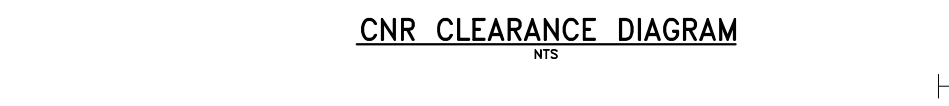
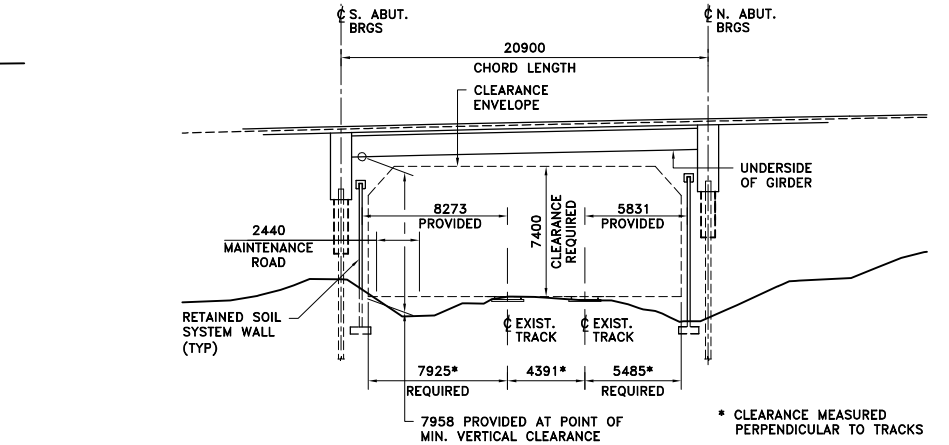
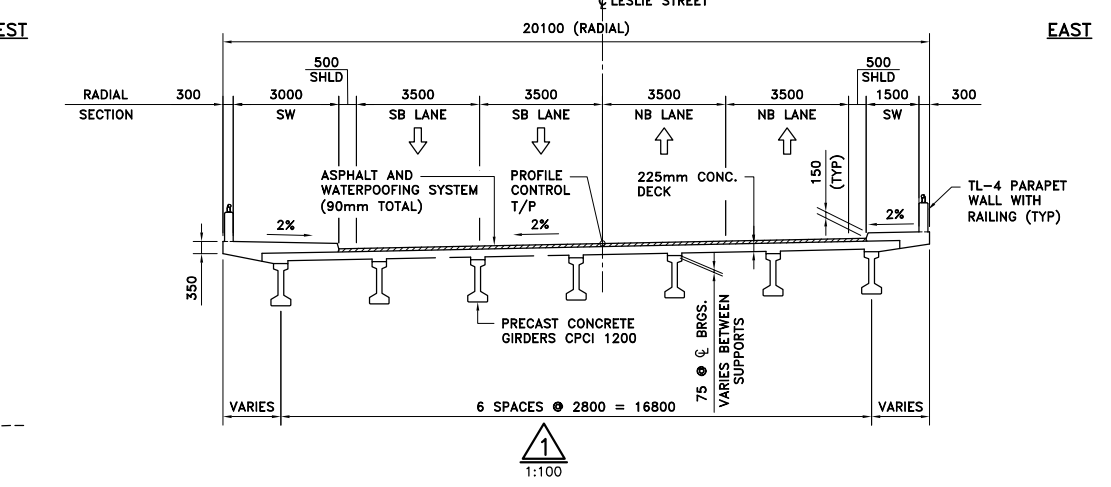
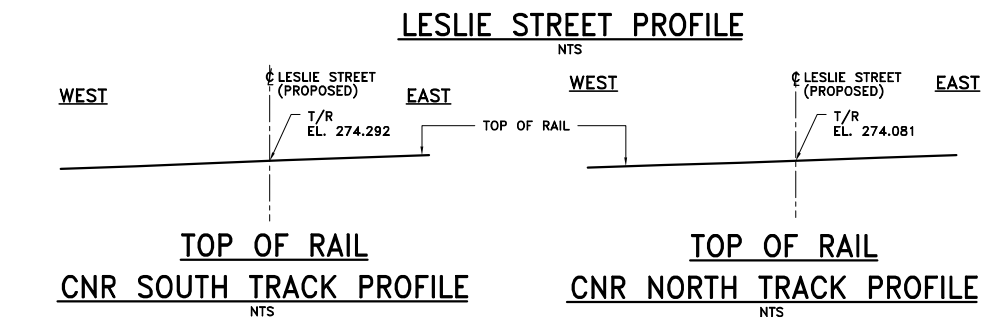
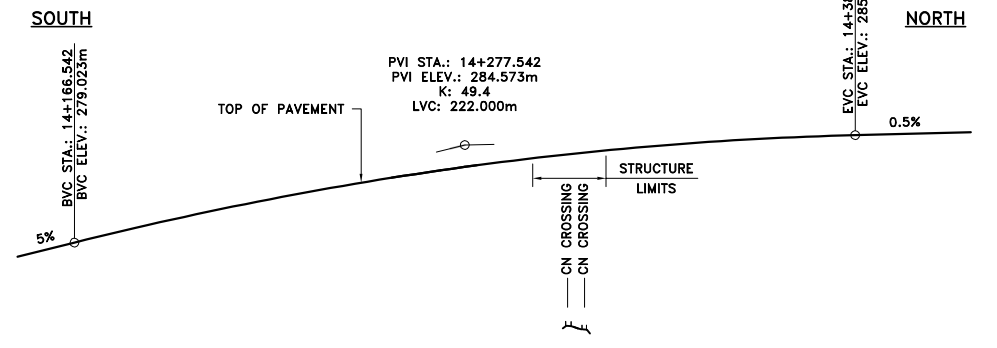
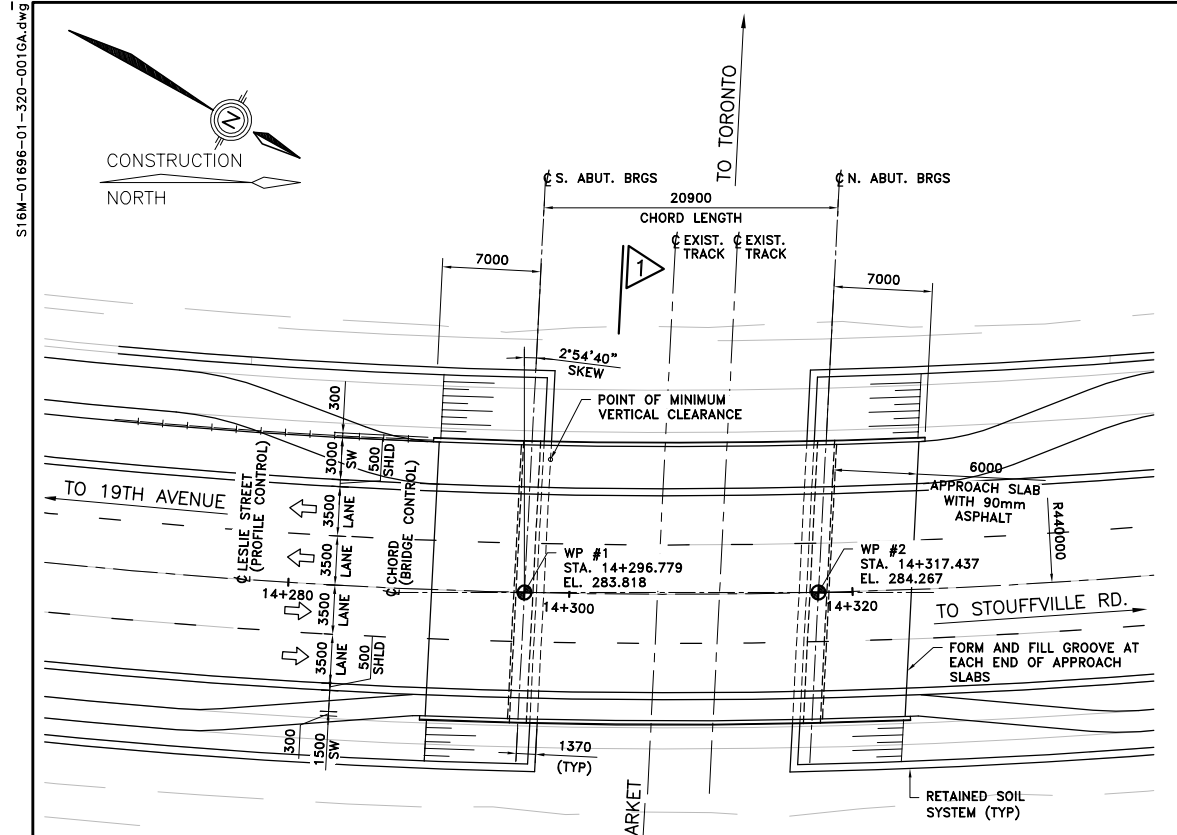
T/P - DENOTES TOP OF PAVEMENT  
 WP - DENOTES WORKING POINT

**DESIGN LOADING:**

CAN CSA S6-14 CHBDC CL-625-ONT

**APPLICABLE STANDARD DRAWINGS:**

- OPSD 912.430 GUIDE RAIL SYSTEM, STEEL BEAM STRUCTURE CONNECTION
- OPSD 3101.150 WALLS, ABUTMENT, BACKFILL, MINIMUM GRANULAR REQUIREMENT
- OPSD 3349.100 DECK, DRAINS, DRAINAGE OF NEW DECK BELOW ASPHALT WEARING SURFACE
- OPSD 3370.100 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE WITH PROTECTION BOARD
- OPSD 3390.100 DECK DRIP CHANNEL
- OPSD 3419.100 BARRIERS AND RAILINGS - STEEL GUIDE RAIL AND CHANNEL ANCHORAGE



DRAWING NOT TO BE SCALED  
 100mm ON ORIGINAL DRAWING



**NOTE:**  
 THE LOCATION OF UTILITIES IS APPROXIMATE ONLY, AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE DURING CONSTRUCTION.

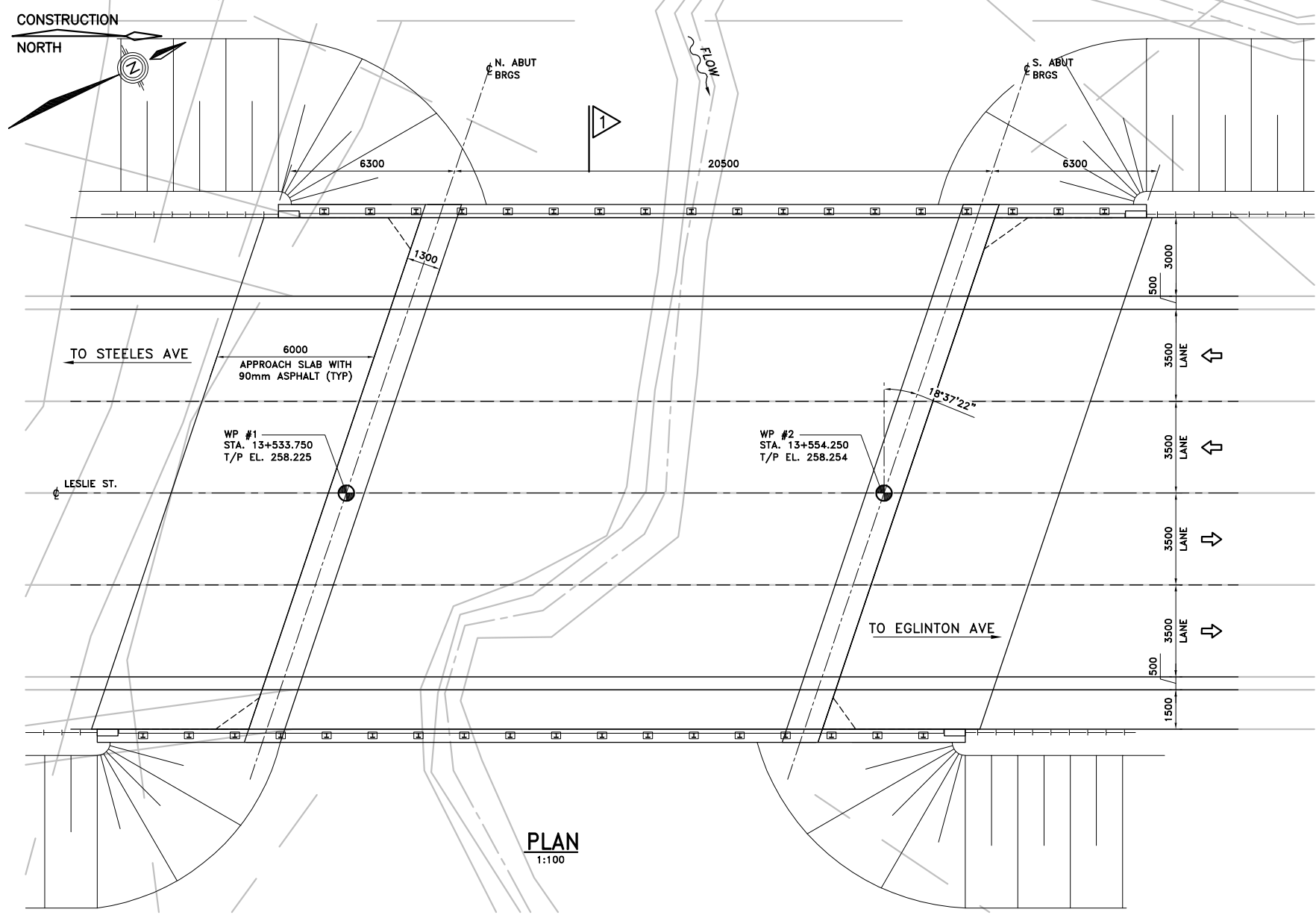
No.	DATE	REVISIONS	BY



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DRAWN DPV	<b>CN OVERHEAD PRELIMINARY GENERAL ARRANGEMENT</b>	CONT. NO. CONT_NUM
CHECKED JCS		SHEET NO. 1

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**PLAN**  
1:100

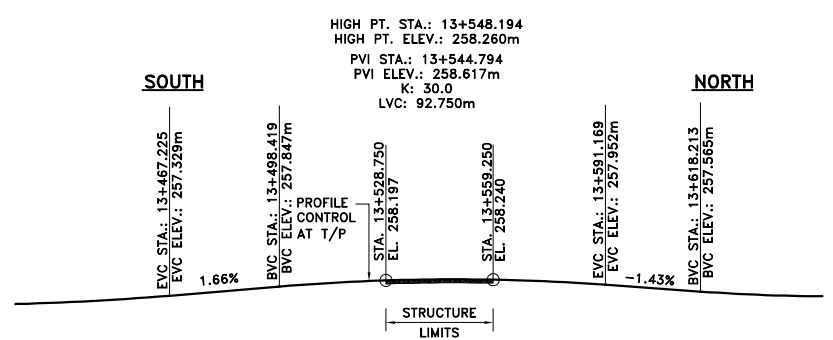
- LIST OF ABBREVIATIONS**
- WP - DENOTES WORKING POINT
  - STA. - DENOTES STATION
  - EL. - DENOTES ELEVATION
  - TYP. - DENOTES TYPICAL
  - T/FTG - DENOTES TOP OF FOOTING
  - T/P - DENOTES TOP OF PAVEMENT
  - BLVD - DENOTES BOULEVARD

- APPLICABLE STANDARD DRAWINGS**
- OPSD 3101.150 WALLS, ABUTMENT BACKFILL, MINIMUM GRANULAR REQUIREMENT
  - OPSD 3102.100 ABUTMENT BACKFILL DRAIN
  - OPSD 3370.100 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE WITH PROTECTION BOARD
  - OPSD 3370.101 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE AT ACTIVE CRACKS GREATER THAN 2mm WIDE AND CONSTRUCTION JOINTS
  - OPSD 3419.100 GUIDE RAIL AND CHANNEL ANCHORAGE

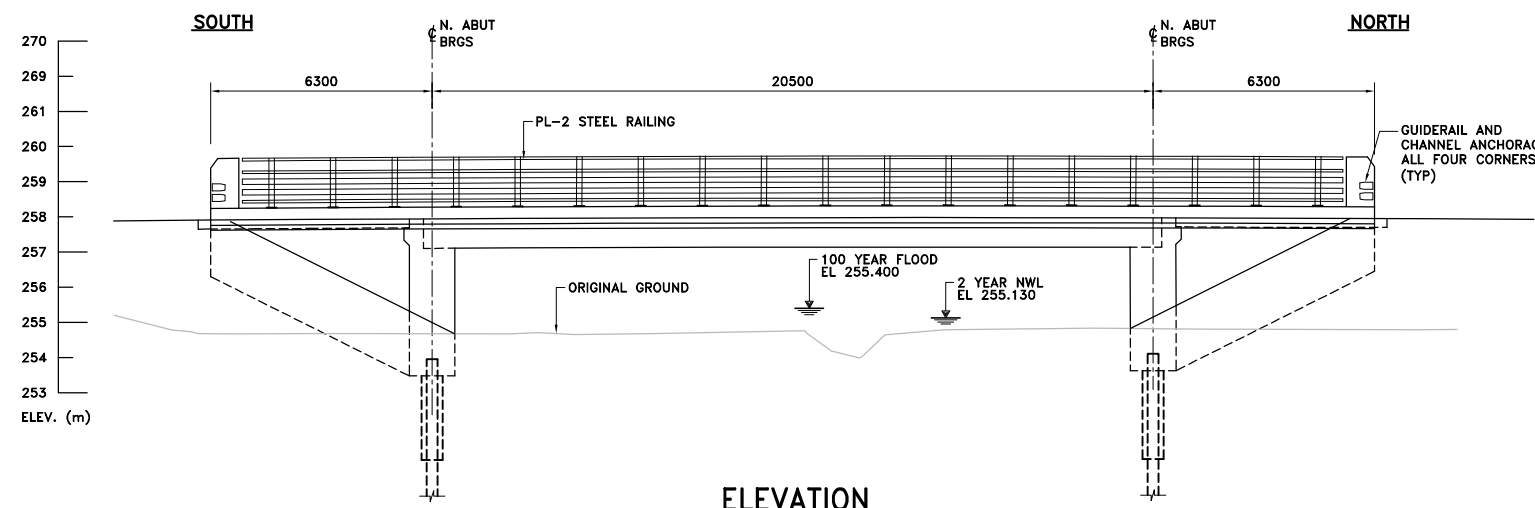
**GENERAL NOTES:**  
DESIGN CODE AND LOADING *METRIC*

- CLASS OF CONCRETE**
- CONCRETE 35 MPa
  - GIRDERS 40 MPa
- CLEAR COVER TO REINFORCING STEEL**
- BOTTOM OF FOOTINGS 100 ± 25mm
  - BOTTOM OF TOP SLAB 40 ± 10mm
  - REMAINDER UNLESS OTHERWISE NOTED 70 ± 20mm

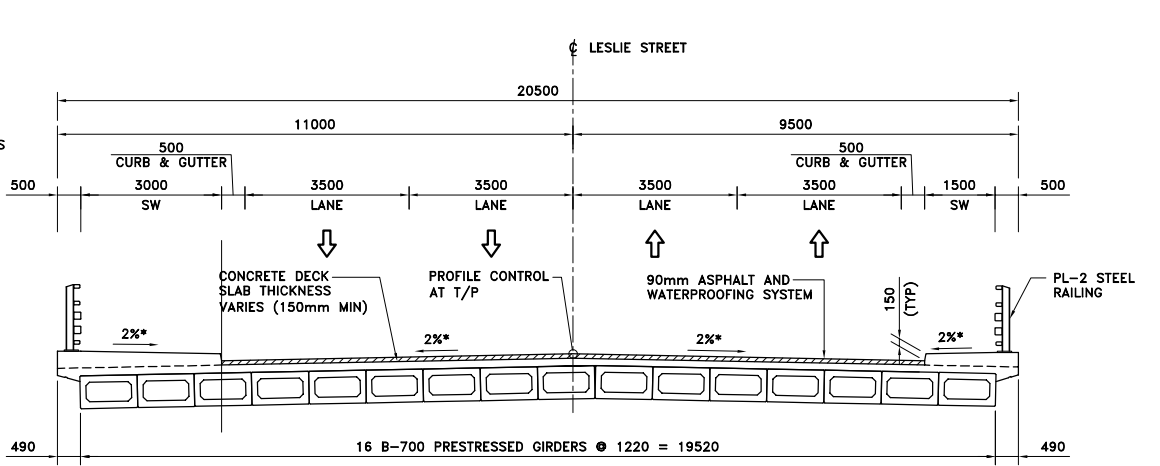
- REINFORCING STEEL**
1. REINFORCING STEEL SHALL BE GRADE 400W.
  2. BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
  3. STAINLESS REINFORCING STEEL SHALL BE TYPE 316LN, DUPLEX 2205 AND HAVE A MINIMUM YIELD STRENGTH OF 500 MPa, UNLESS OTHERWISE SPECIFIED.
  4. UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES FOR REINFORCING STEEL BARS SHALL BE CLASS B.
  5. BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH STRUCTURAL STANDARD DRAWING SS12-1 UNLESS INDICATED OTHERWISE.



**PROFILE OF LESLIE STREET**  
NTS



**ELEVATION**  
1:100



**1**  
1:75

DRAWING NOT TO BE SCALED  
100mm ON ORIGINAL DRAWING



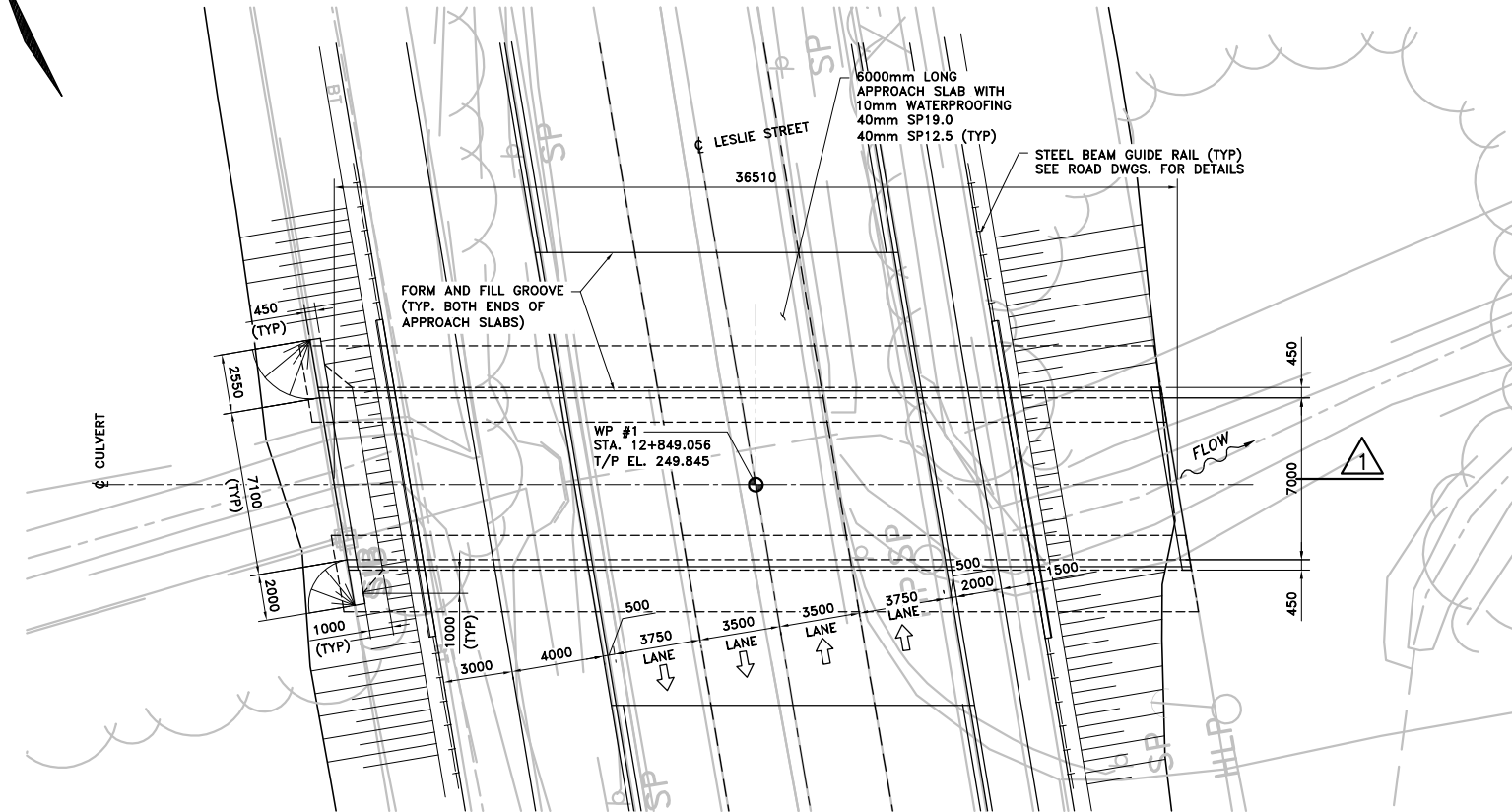
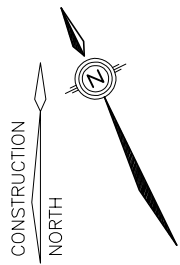
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No.	DATE	REVISIONS	BY

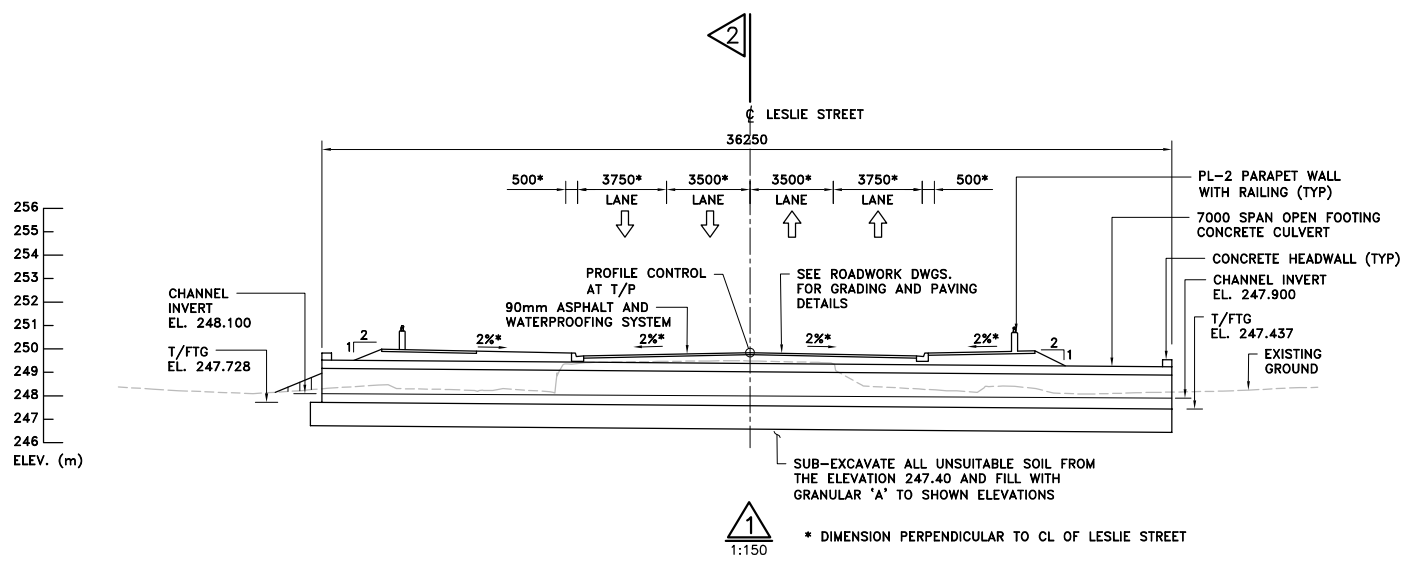


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CHECKED JCS	<b>GENERAL ARRANGEMENT PRELIMINARY</b>	SHEET NO. 1

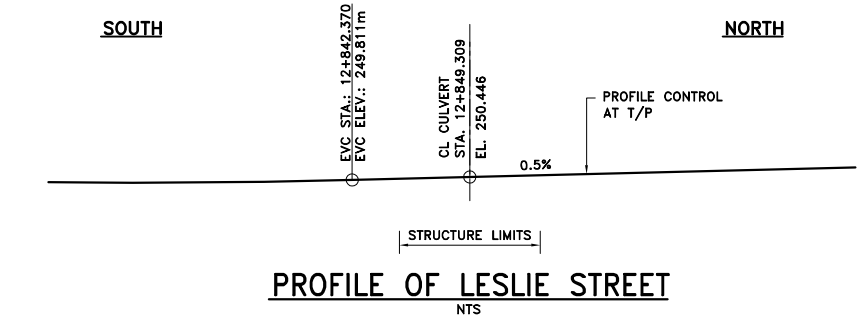
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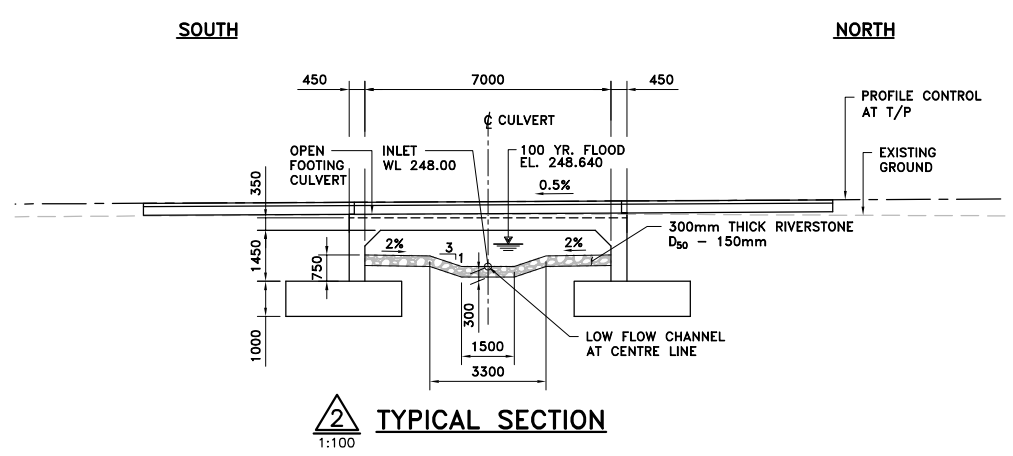
PLAN  
1:150



1  
1:150



PROFILE OF LESLIE STREET  
NTS



2  
1:100  
TYPICAL SECTION

DRAWING NOT TO BE SCALED  
100mm ON ORIGINAL DRAWING

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  - EL. - DENOTES ELEVATION
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  - OPSD 3419.100 GUIDE RAIL AND CHANNEL ANCHORAGE

- GENERAL NOTES:** METRIC  
**DESIGN CODE AND LOADING**  
CHBDC CAN/CSA S6-06 CL-625-ONT  
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DESIGN PP	CULVERT AT LESLIE STREET 12+850.00	DWG. NO. DWG_NUM
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