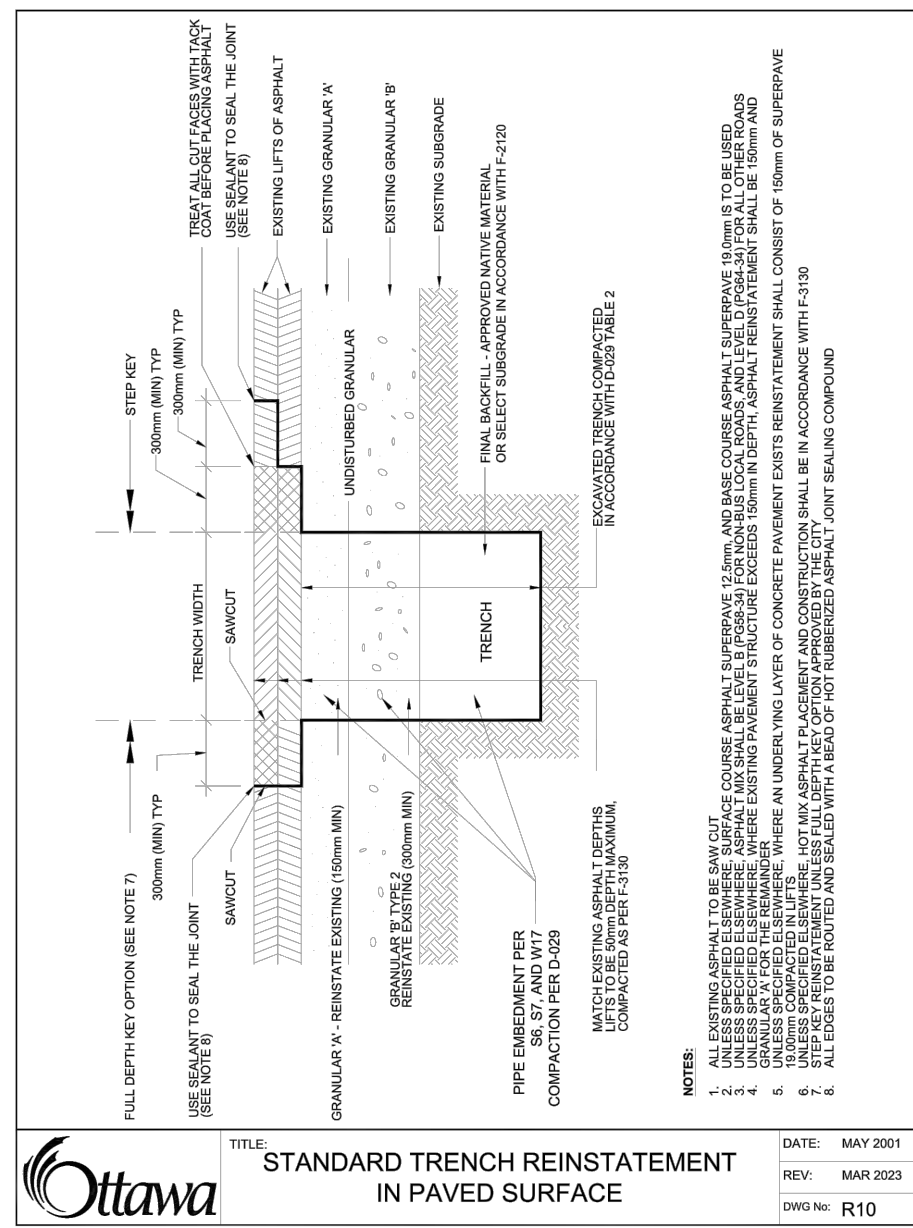
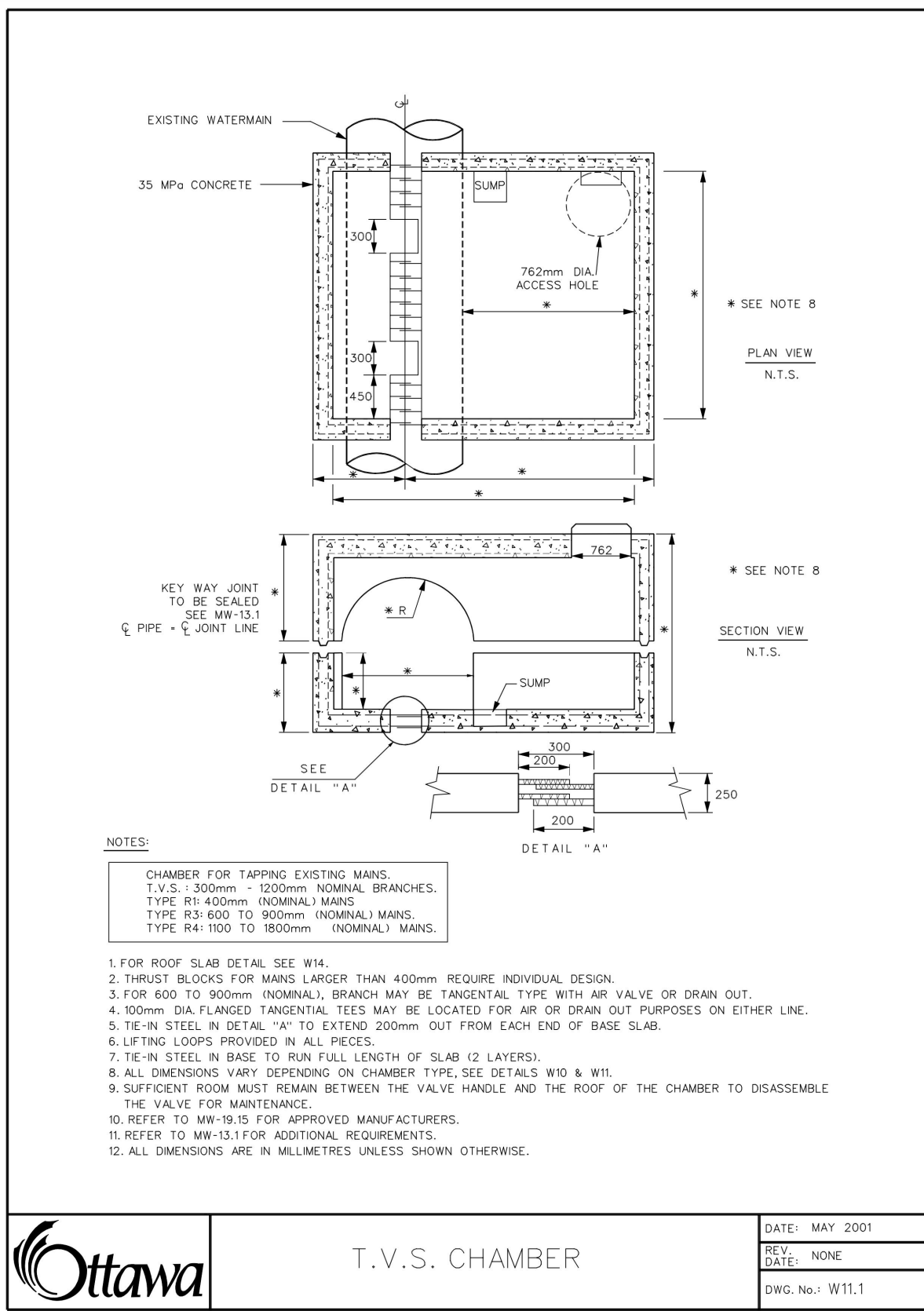
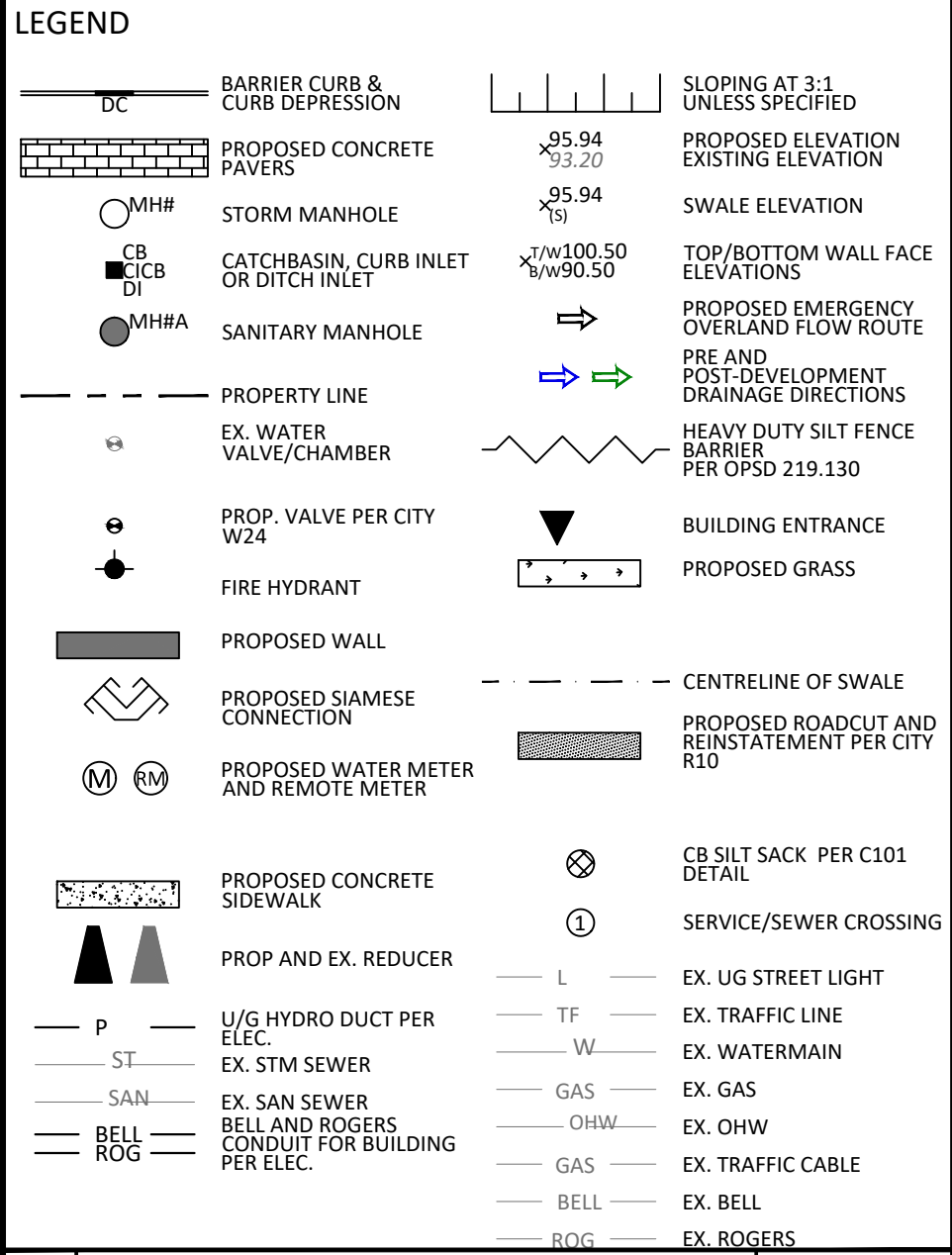


- CONSTRUCT ALL SEWERS, MANHOLES AND APPURTEANCES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY.
2. SEWER TRENCHING AND BEDDING SHALL CONFORM TO OPSD 802.010 AND 802.013 UNLESS NOTED OTHERWISE.
- 2.1. BEDDING SHALL BE A MINIMUM 150mm OF GRANULAR "A", COMPACTED TO MINIMUM 98% STANDARD PROCTOR DRY DENSITY (SPD). CLEAR STATE BEDDING SHALL NOT BE PERMITTED. BEDDING THICKNESS IS TO BE INCREASED TO 300mm IF PLACED ON BEDROCK.
- 2.2. SUB-BEDDING, IF REQUIRED SHALL CONSIST OF 450mm OF COMPACTED GRANULAR "B" TYPE 1.
- 2.3. SUB-BEDDING SHALL BE 300mm OF GRANULAR "A" OR GRANULAR "B" TYPE 1.
- 2.4. TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO 1.8 METRES BELOW FINISHED GRADE) SHALL MATCH EXISTING SOIL CONDITIONS. THE TRENCH BACKFILL SHALL BE PLACED IN MAXIMUM 225mm THICK LAYERS LOOSE LIFTED AND COMPACTED TO 98% OF THE MATERIAL'S SPMD.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION PHASING AND LAYOUT. A PHASING PLAN SHALL BE ESTABLISHED FOR THE REALIGNMENT OF THE PROPOSED WATER AND SANITARY SERVICES TO ENSURE CONTINUOUS SERVICE FOR THE CITY.
4. SEWERS AND CONNECTIONS 200mm-375mm shall BE PVC SRD-35. SEWER CONNECTIONS 450mm AND LARGER TO BE CONCRETE. BEDDING TO BE TYPE "B" EXCEPT AT RISERS, UNLESS NOTED OTHERWISE. CONCRETE SEWER CLASS IN ACCORDANCE WITH OPSD 807.010 & 807.030, AS APPLICABLE.
5. CONTRACTOR TO CCTV SANITARY SEWER UPSTREAM AND DOWNSTREAM OF PROPOSED TIE IN LOCATIONS PRIOR TO AND AFTER PROPOSED WORKS.
6. PROPOSED SANITARY MAINS TRENCHES TO BE BENCHMARK PER OPSD 701.021.
7. SEWERS AND WATERMAIN LINES LOCATED PARALLEL TO EACH OTHER SHOULD BE CONSTRUCTED IN SEPARATE TRENCHES, WHEN IT IS IMPOSSIBLE OR NOT PRACTICAL TO MAINTAIN VERTICAL AND/OR HORIZONTAL SEPARATION MEET STANDARDS. ALLOW SLOWS SHOULD BE CONSTRUCTED OF WATERMAIN QUALITY PIPE, PRESSURE TESTED IN PLACE AT A PRESSURE OF 500 kPa (50 psi) AND NOT LEAKAGE USING THE TESTING METHODOLOGY IN ONTARIO PROVINCIAL STANDARD SPECIFICATION 701 (OPS5 703) OF THE OPS.
8. WHEN SANITARY SEWERS ARE 0.6m BELOW GROUNDWATER TABLE, SANITARY MAINS MAINS HOLES SHALL BE INSTALLED AND EQUIPPED WITH WATERPUMP AND PERMEABLE PLATE EXTERNALLY AROUND ALL PRECAST JOINTS, INCLUDING JOINTS BETWEEN MAINS PLACEMENT HOLE FRAME AND COVER, WITH A MINIMUM 300MM WATER TIGHT COVER.
9. THE LOCATION OF EXISTING UTILITIES ARE TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
10. INSTALLATION TO BE IN ACCORDANCE WITH CURRENT CODES AND STANDARDS OF APPROVAL AGENCIES HYDRO ONTARIO, VICTORIA AND AS WELL AS CITY STANDARDS.
11. CONSTRUCT ALL WATERMAINS AND SERVICES IN ACCORDANCE WITH OPSD STANDARDS AND SPECIFICATIONS, AS WELL AS CITY STANDARDS.
12. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 2.4m. INSULATE ALL WATERMAINS AND SERVICES THAT HAVE LESS THAN 2.4m COVER WITH Thermal Insulation AS PER CITY DETAIL W222.
13. IF THE WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS EQUAL TO OR LESS THAN THAT WHICH IS RECOMMENDED BY THE MANUFACTURER.
14. THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES AS PER CITY DETAIL W223.
15. VALVES TO BE OPERATED BY CITY STAFF ONLY.
16. NO CONNECTION TO EXISTING WATER NETWORK SHALL BE COMPLETED UNTIL A WATER PERMIT IS OBTAINED FROM THE CITY TO BE PRESENT FOR WATERMAIN CONNECTION, CONNECTION, EXCAVATION, BACKFILLING AND REINSTATEMENT TO BE COMPLETED BY CONTRACTOR.
17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ANY WATERMAIN CONNECTION(S) REPAIRS AND/OR MAINTENANCE WORKS IN THE PRESENCE OF A PLACED AND OPERATING MINING AND/OR OPERATOR AND THE SELECTED CONTRACTOR SHALL PROVE TO THE SATISFACTION OF THE CITY THAT THEY ARE COMPETENT TO PERFORM THE WORKS PRIOR TO INITIATING CONSTRUCTION.
18. CONCRETE THRUST BLOCKS TO CONFORM TO OPSD 1103.010 AND OPSD 1103.020.
19. ALL WATERMAIN TO BE CLASS 150 OR 18 OR APPROVED EQUIVALENT.
20. ALL WATERMAIN TO BE EQUIPPED WITH TRACER WIRE.
21. AS PER CITY GUIDELINE, THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER/UTILITY IS 0.25m FOR CROSSING OVER THE SEWER, AS PER CITY DETAIL W22.2 FOR CROSSING UNDER SEWER, THE MINIMUM VERTICAL CLEARANCE SHALL BE 0.75m FOR CROSSING UNDER THE SEWER. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS IS REQUIRED TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND THEREFORE THE CONTRACTOR SHALL BE CERTIFIED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIQUANT AND AS FAR AS POSSIBLE FROM THE SEWER.



Check and verify all dimensions before proceeding with the work

Do not scale drawings

SCALE 1 : 200

0 10 20 Metres

115 Walgreen Road, R.R.3  
Carp, ON K0A 1L0  
Tel: 613-836-2184  
Fax: 613-836-3742  
[www.egis-group.com](http://www.egis-group.com)



Drawing Title:	
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1:200	
Drawn By:	Drawing Number:  <div align="right"><b>C203</b></div>
RRR	
Checked By:	
AM	
Designed By:	
RRR	