

**1 GRADING PLAN**  
L-3 Scale: 1:500

Location of underground structures as shown are based on the best information available but no guarantee is given that all existing utilities are shown or that the given locations are exact. Confirmation of existence and exact location of a services must be obtained from the individual utilities before proceeding with construction.  
DO NOT SCALE DRAWING - PLOT MAY NOT BE AT 100%

**ENGINEERS  
GEO-SCIENTISTS  
MANITOBA**  
Certificate of Authorization  
WSP Canada Inc.  
No. 5750 Date: 31/07/2019

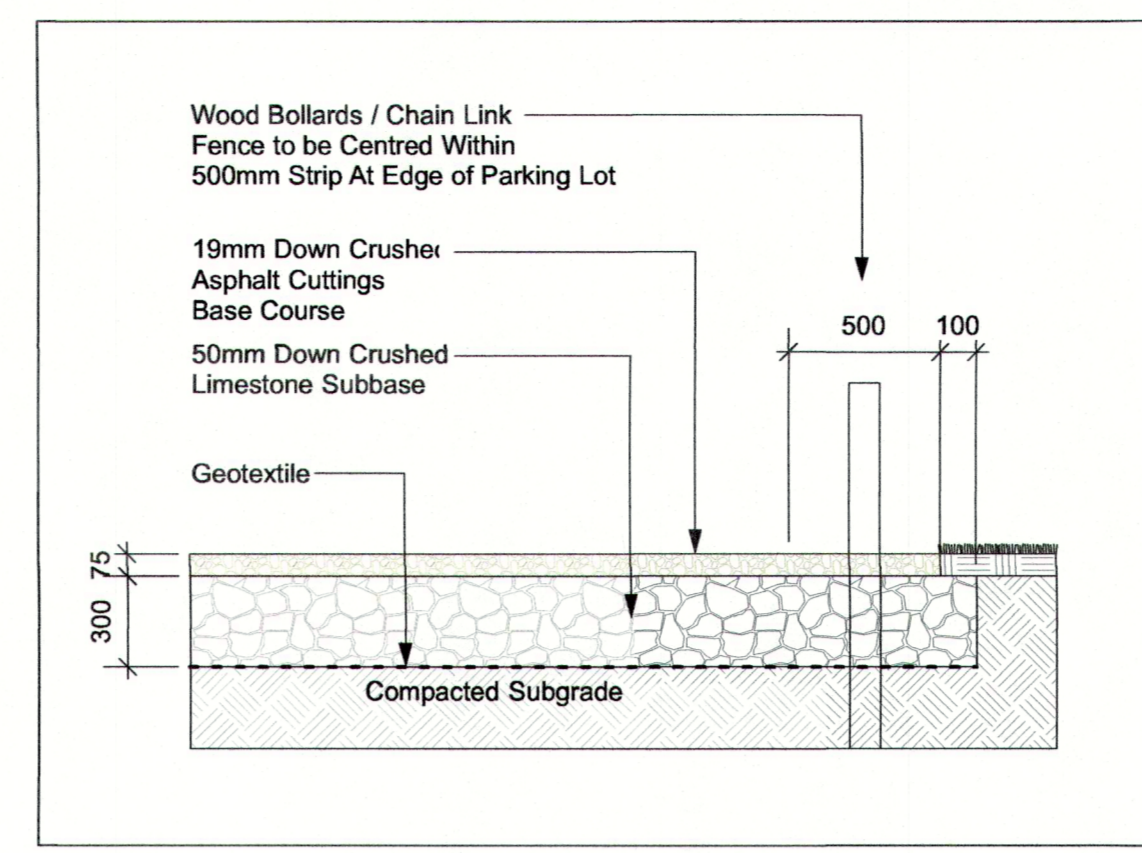


NO.	REVISION / NOTE	DATE	BY
1	Storm Water Calculations	31/07/2019	LLW

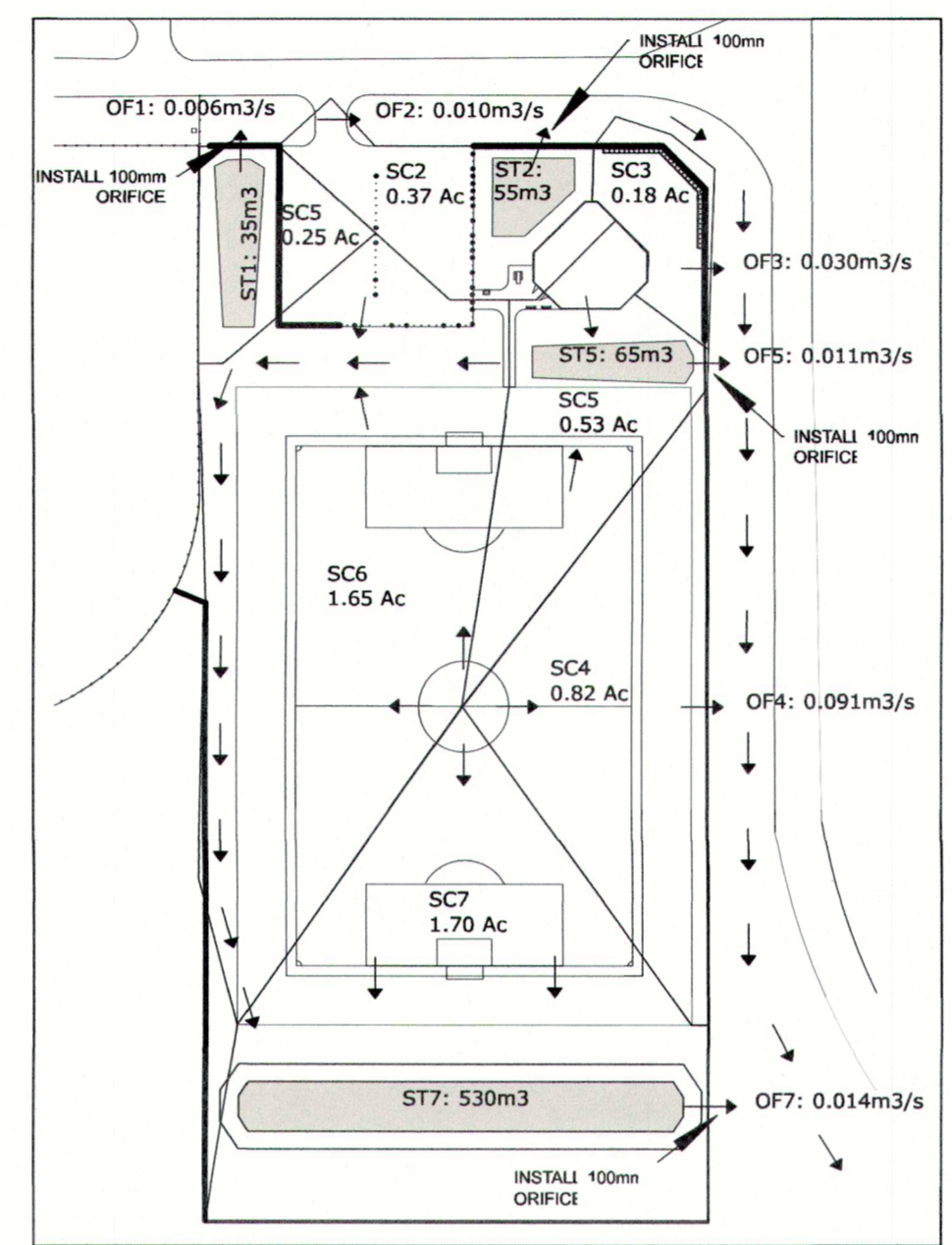
**PROJECT**  
OPTIMIST PARK  
EAST SOCCER FIELD AND  
ASSOCIATED FACILITIES  
1600 SUMMIT ROAD  
WINNIPEG

**SCALE**  
AS SHOWN  
**DATE**  
July 29, 2019  
**DRAWN BY**  
JP/LLW  
**CHECKED BY**  
DW  
**PROJECT NO.**  
1906

**DRAWING TITLE**  
GRADING PLAN AND  
DETAILS  
**SHEET NO.**



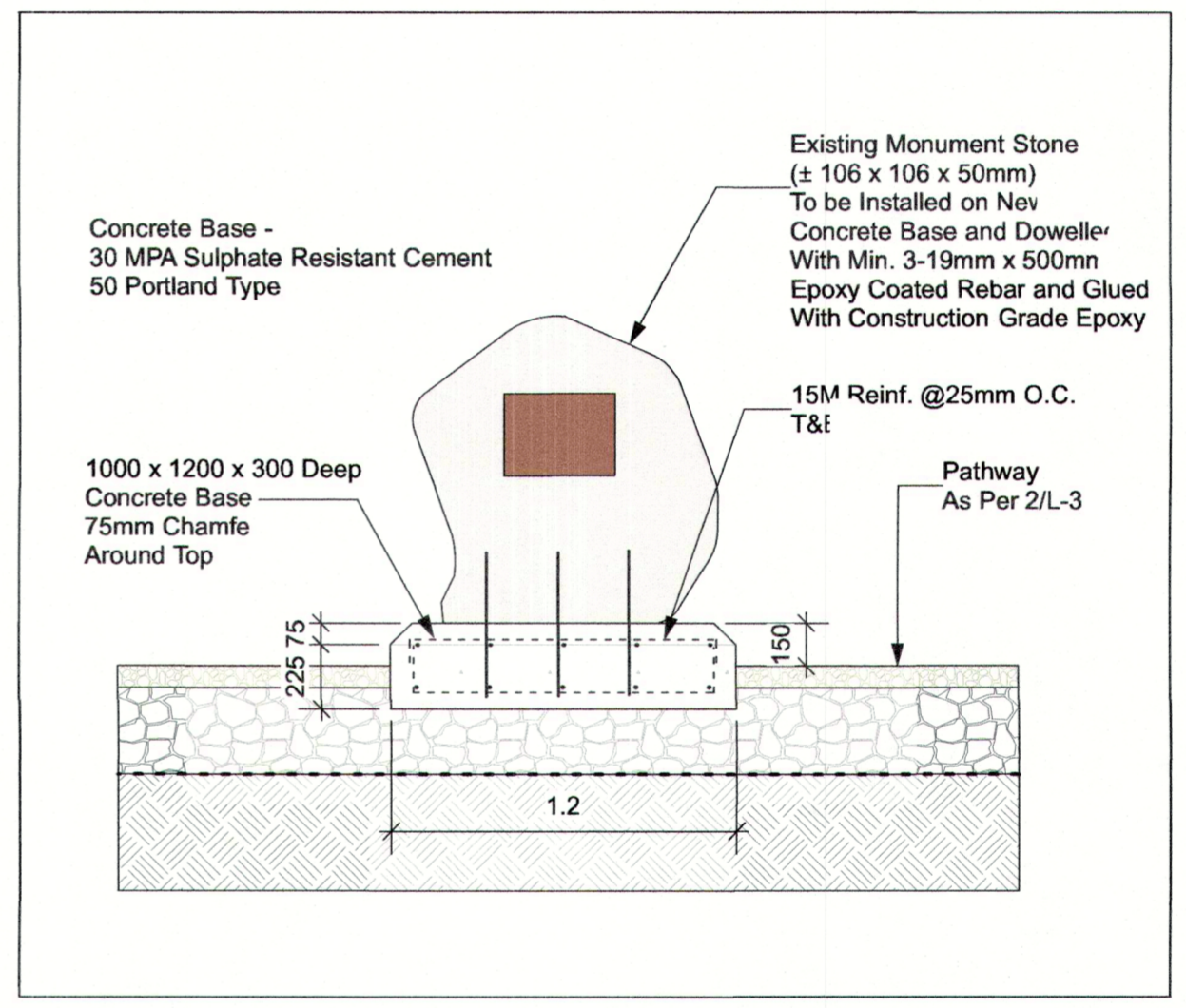
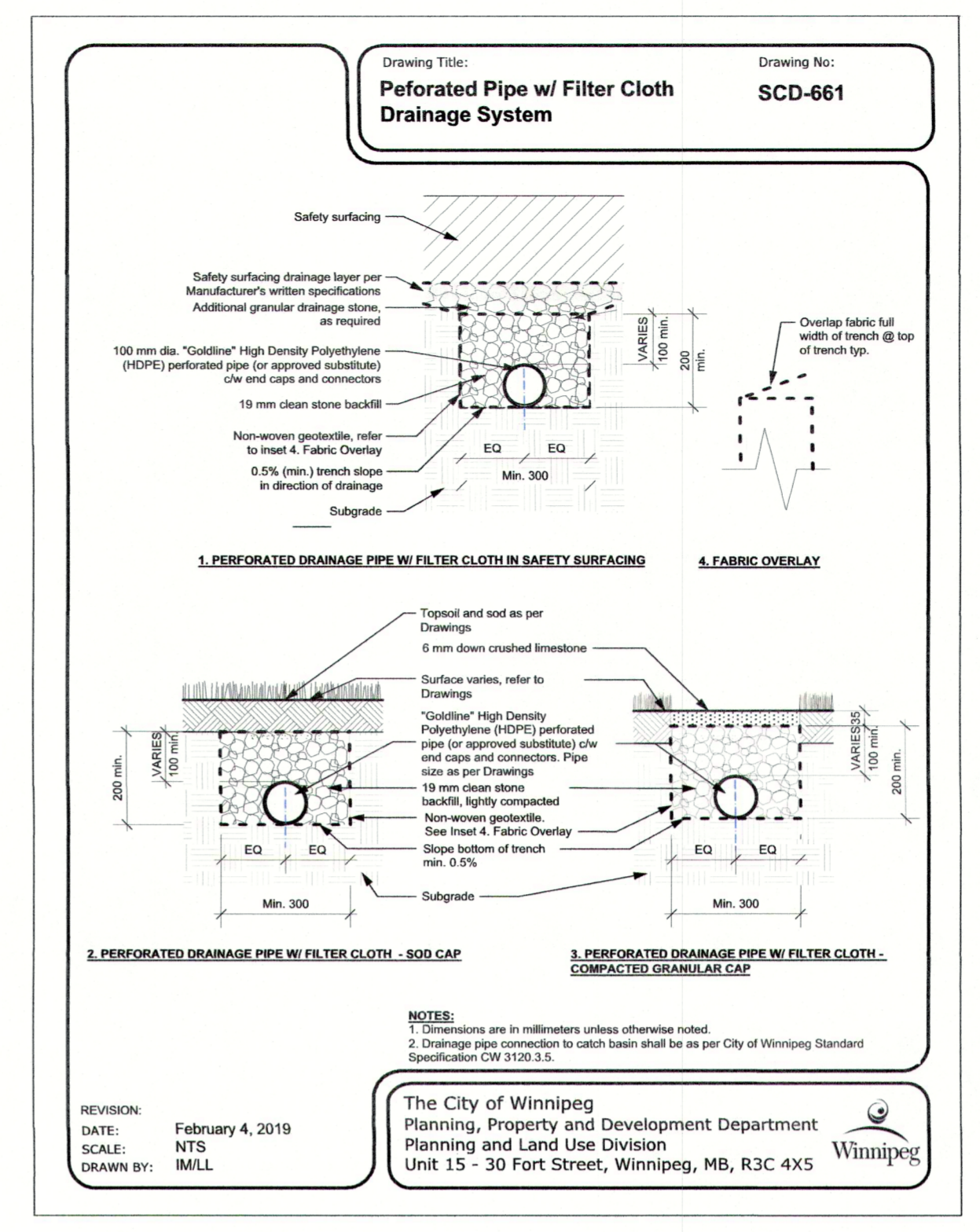
**2 PARKING LOT / PATHWAY DETAIL**  
L-3 Scale: 1:25



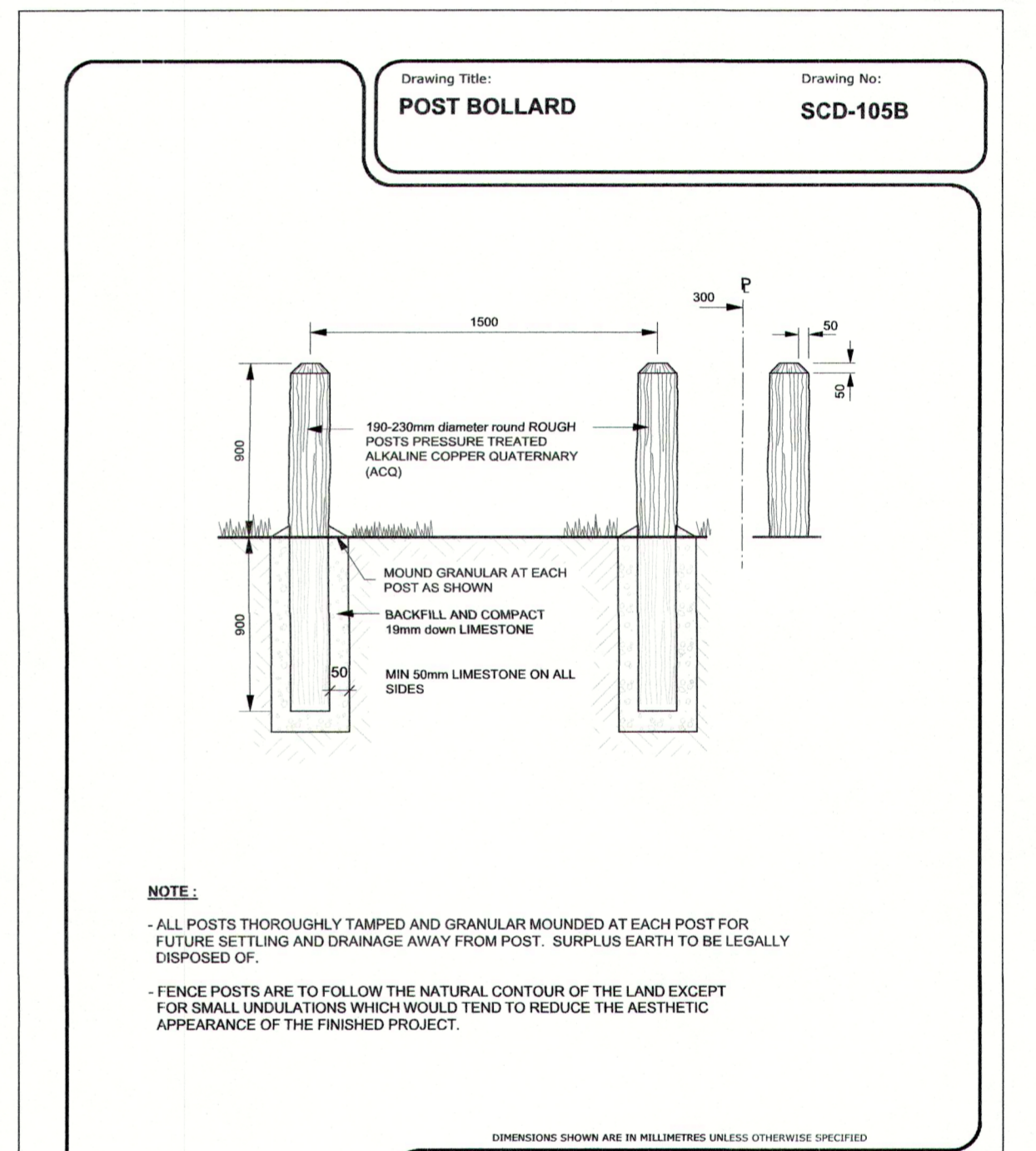
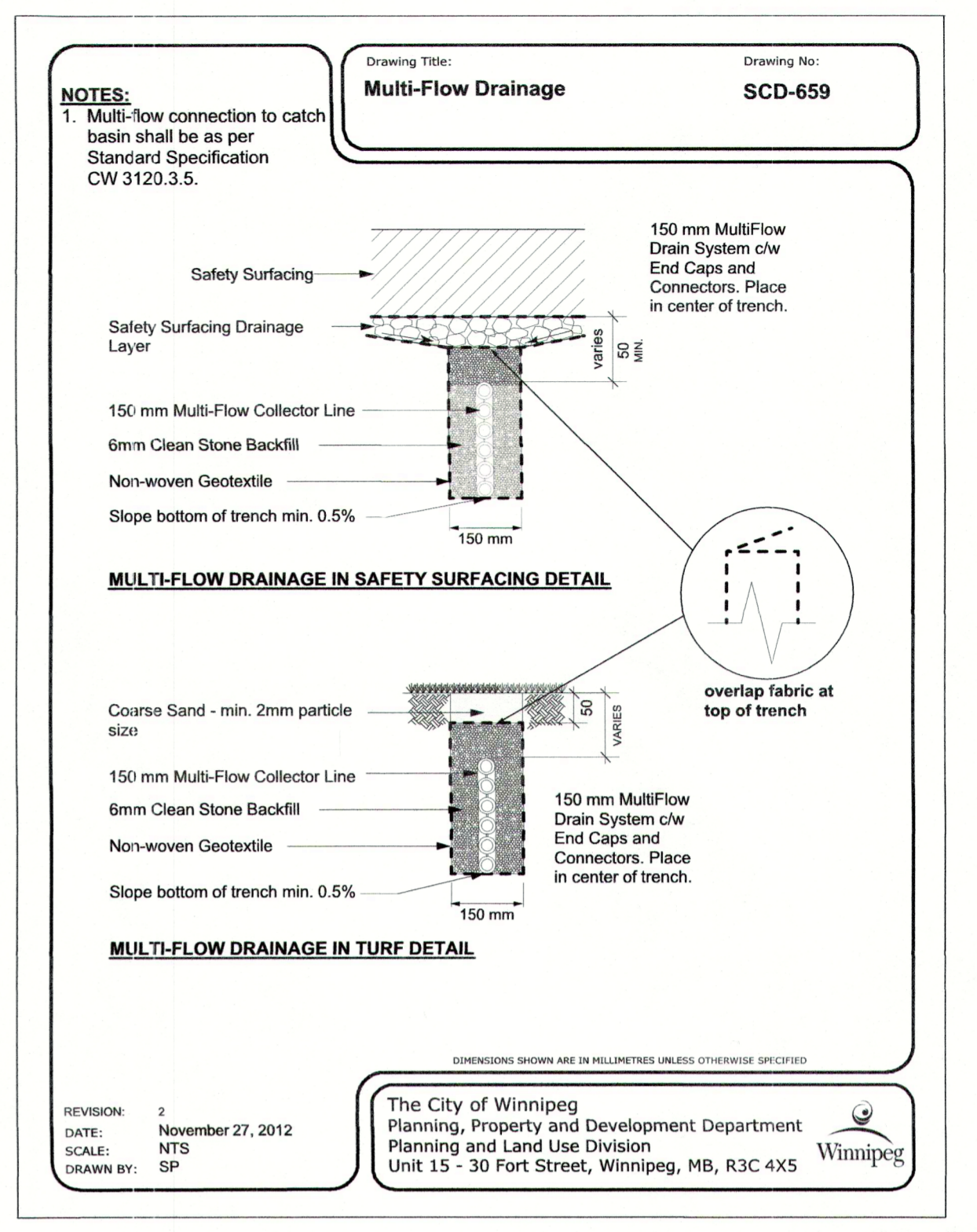
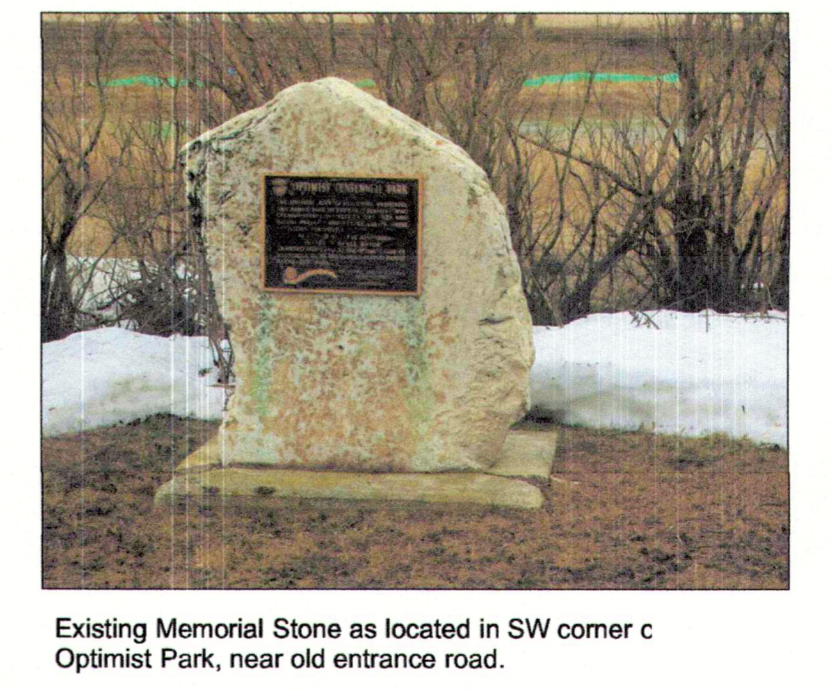
**STORM WATER CALCULATIONS**

ITEM	Units	TOTAL
Area	ACRES / ha	5.46 2.21
TOTAL IMPERVIOUS AREA	ACRES / ha	0.40 0.16
TOTAL PERVIOUS AREA	ACRES / ha	5.06 2.05
C	ALLOWABLE COEFF	0.25 0.25
Q <sub>p</sub>	CFS / CMS	4.83 0.14
STORAGE REQUIRED ISOCHROME	m <sup>3</sup>	650
STORAGE REQUIRED SWMM	m <sup>3</sup>	685
STORAGE AVAILABLE	m <sup>3</sup>	820
FLOW OF1	CFS / CMS	0.21 0.006
FLOW OF2	CFS / CMS	0.35 0.010
FLOW OF3	CFS / CMS	1.06 0.030
FLOW OF4	CFS / CMS	3.21 0.091
FLOW OF5	CFS / CMS	0.39 0.011
FLOW OF7	CFS / CMS	0.49 0.014
TOTAL FLOW RESTRICTED	CFS / CMS	5.72 0.162

- LEGEND AND NOTES**
- 238.49± Existing Grades (metric) Refer to L-1 for Complete Site Survey
  - +238.45 Proposed Grades (metric)
  - BS/BD Bottom of Swale/Ditch
  - TS Top of Swale/Ditch
  - TTC Top of Timber Cap
  - INV Invert
  - RD Road
  - 2% Direction and % Slope
  - ST4 Storm Water Storage Area
- Ditch/Swale Bottoms to be Minimum 1m Wide.  
Site Grading to be Within Construction Boundary Except for Connections to Existing Ditches.



**3 MEMORIAL STONE DETAIL**  
L-3 Scale: 1:25



**4 OUTLET CULVERT DETAIL**  
L-3 Scale: 1:25

