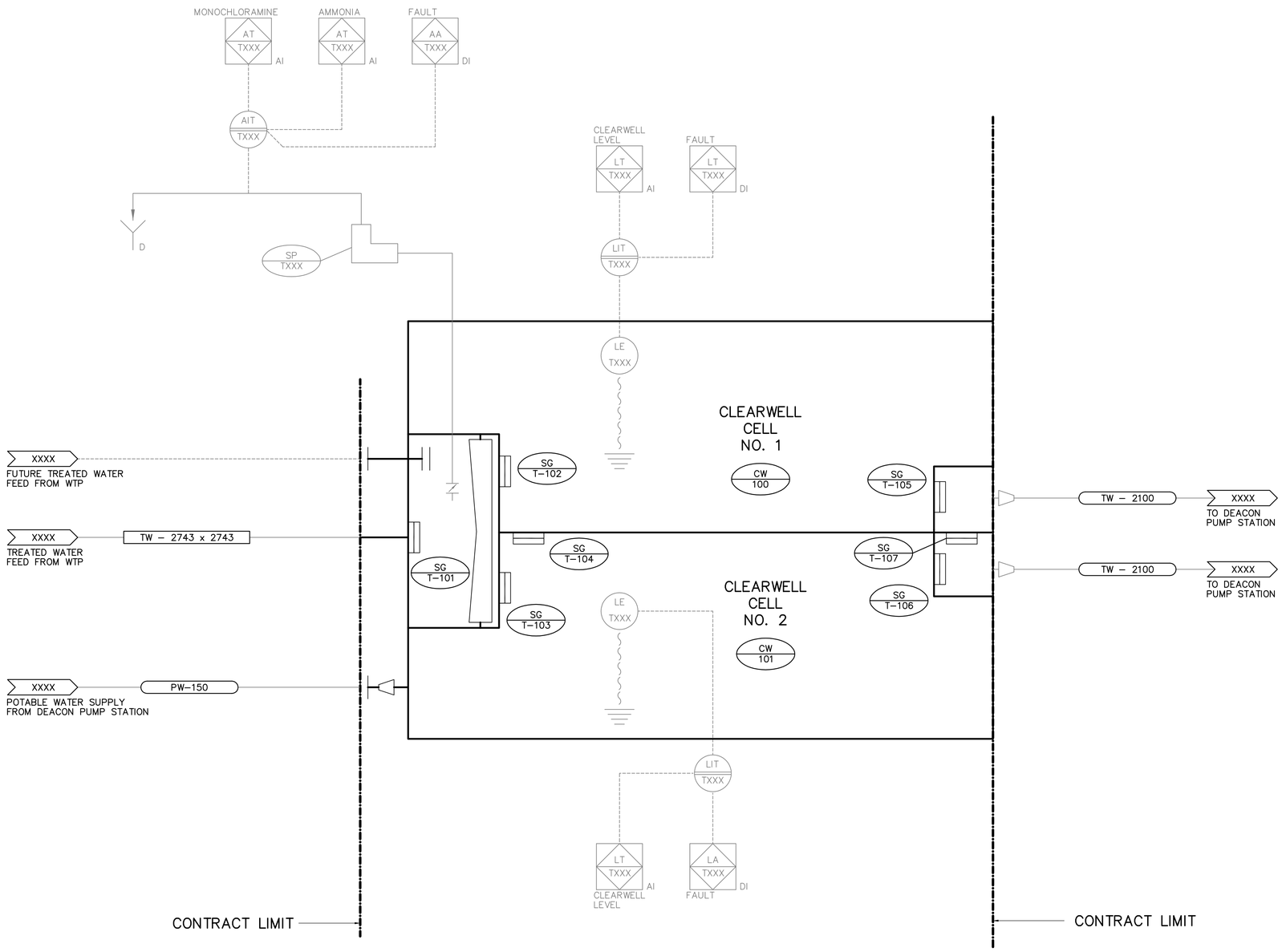

NOTES

1. SUPPLY AND INSTALLATION OF LEVEL TRANSMITERS, SAMPLING PUMP AND ANALYZER BY OTHERS. INSTALLATION OF STAND PIPES FOR EQUIPMENT MOUNTING AND SAMPLE DRAIN INCLUDED IN CONTRACT.
2. DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS FOR EQUIPMENT, PIPING CONNECTIONS, ETC., ARE APPROXIMATE. CORRECT TO SUIT THE EXACT DIMENSIONS OF THE EQUIPMENT PROVIDED FOR EACH APPLICATION PRIOR TO START. ARRANGE ANY NECESSARY MODIFICATIONS TO PIPING CONNECTIONS, PIPEWORK, OR OTHER ANCILLARIES AT NO COST AND AFTER ACCEPTANCE BY THE CONTRACT ADMINISTRATOR.
3. HANDLE, STORE, INSTALL AND TEST EQUIPMENT USING METHODS RECOMMENDED BY AMERICAN WATER WORKS ASSOCIATION STANDARD C560–00 FOR CAST IRON OR C561–04 FOR STAINLESS STEEL.
4. COORDINATE WITH OTHERS DURING DELIVERY, INSTALLATION, AND LEAKAGE TEST.
5. NON–STAINLESS STEEL PIPES, VALVES, SLUICE GATES AND PROCESS EQUIPMENT SHALL BE COLOR COATED TO THE COLOUR DESIGNATED FOR THE MEDIUM BEING CONVEYED. CONTRACT ADMINISTRATOR SHALL PROVIDE INFORMATION FOR THE SELECTION OF THE IDENTIFICATION COLOURS. COLOURS REQUIRED SHALL BE FROM THE GENERAL PAINTS (CANADA) LTD. LINE OF INDUSTRIAL/MARINE PRODUCTS OR APPROVED EQUAL.
6. ALL COATED EQUIPMENT SHALL BE PROTECTED ADEQUATELY AGAINST DAMAGE, DUST, MOISTURE AND SCRATCHING. IF, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, THE COATING IS DAMAGED TO THE EXTENT THAT TOUCH UP WOULD NOT BE SATISFACTORY, THE EQUIPMENT SHALL BE RETURNED AND RE–COATED AT THE FACTORY AT THE CONTRACTOR'S COST. DAMAGE TO COATINGS OCCURRING AT ANY TIME SHALL BE MADE GOOD PRIOR TO THE APPLICATION OF ANY FURTHER COATINGS. ALL COATING TOUCH UP SHALL BE COMPLETED AS PER MANUFACTURER'S RECOMMENDATIONS.
7. TESTING IS DEFINED AS THE OPERATION OF A SPECIFIC ITEM OF EQUIPMENT UNDER ACTUAL AND/OR SIMULATED CONDITIONS FOR THE PURPOSE OF ENSURING THE EQUIPMENT SATISFIES ITS BASIC DESIGN CRITERIA. TESTING SHALL BE CONDUCTED BY THE CONTRACTOR. ALL MATERIALS, LABOUR, POWER, WATER AND EQUIPMENT REQUIRED TO CONDUCT THE TESTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
8. OPERATE EACH GATE WITH AND WITHOUT LIQUID ON BOTH SIDES TO SHOW THAT EACH GATE CAN BE OPERATED WITH APPLIED TORQUES WITHIN DESIGN LIMITS.
9. IN THE EVENT ANY SLUICE GATE FIELD LEAKAGE TEST IS NOT SUCCESSFUL, RETESTING SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSES.
10. DEPENDING UPON THE CAUSE OF THE TEST FAILURE, THE CONTRACT ADMINISTRATOR SHALL DETERMINE THE LIABLE PARTY FOR THE RE–TESTING COST.
11. FOR SLUICE GATE T–SG–101, T–SG–105, T–SG–106, AND T–SG–107 THE SLUICE GATES SHALL BE TESTED BY INSTALLING A TEMPORARY STEEL BOX. FOR STEEL BOX CONSTRUCTION REFER TO THE STRUCTURAL DRAWINGS.
12. TESTING OF T–SG–101 SHALL BE AS PER CONTRACT ADMINISTRATOR'S SPECIFIED SCHEDULE I.E. IN YEAR 2007.
13. CONTRACTOR SHALL SUPPLY AND INSTALL THE STEEL BOX AND ALL ANCILLIARY ITEMS FOR THE COMPLETION OF THE LEAKAGE TEST.
14. THE STEEL BOX SHALL BE PROVIDED WITH GAUGES AND 50mm TAP CONNECTIONS WITH ISOLATION VALVES FOR WATER FILL.
15. ONCE THE STEEL BOX, COMPLETE WITH A GASKET, PRESSURE GAUGE, AND 50mm TAP CONNECTION IS INSTALLED, THE SLUICE GATE SHALL BE PRESSURIZED TO THE DESIGN PRESSURE UTILIZING THE TEMPORARY TAP CONNECTION. PRESSURE SHALL BE MEASURED USING THE INSTALLED PRESSURE GAUGE.
16. THE PRESSURE GAUGE SHALL BE MONITORED FOR 120 MINUTES.
17. AFTER THE EXPIRY OF THE 120 MINUTES, IF IT IS DETERMINED THAT THE LEAKAGE RATE EXCEEDS THE AMERICAN WATER WORKS ASSOCIATION STANDARDS, RETESTING OF THE SLUICE GATE SHALL BE REQUIRED AT CONTRACTOR'S EXPENSE. THE LEAKAGE VOLUMES WILL BE MEASURED BY MEASURING THE QUANTITY OF THE INJECTED WATER REQUIRED TO ACHIEVE THE PRESSURE RECORDED AT THE START OF TEST IN THE STEEL BOX.
18. THE FIELD LEAKAGE TEST FOR THE SEATING SIDE OF VALVE T–SG–101, T–SG–105 AND T–SG–106 CAN ALSO BE COMPLETED BY FILLING THE CLEARWELL STRUCTURE TO THE DESIGNED MAXIMUM WATER LEVEL. CONTRACTOR TO COORDINATE.
19. IF THE LEAKAGE EXCEEDS THE AMERICAN WATER WORKS ASSOCIATION STANDARDS C560–00 FOR CAST IRON OR C561–04 FOR STAINLESS STEEL, RETESTING OF THE SLUICE GATES SHALL BE REQUIRED AT THE CONTRACTOR'S COST.
20. FOR T–SG–102 TO T–SG–104 GATES, THE CONCRETE STRUCTURE SHALL BE FILLED WITH WATER IN A SEQUENTIAL MANNER SIMULATING SEATING AND UNSEATING HEAD CONDITIONS.
21. TEST ALL PROCESS EQUIPMENT TO ENSURE THE EQUIPMENT OPERATES AS INTENDED. COMPLETE THE SERIES OF FORMS (FORM 200, 201, 202, 203) THAT ATTEST TO THE PROPER INSTALLATION AND FUNCTIONING OF THE EQUIPMENT. REFER TO SPECIFICATION FOR THE FORMS.

APEGM
Certificate of Authorization
Earth Tech Canada Inc.
No. 730 Expiry: April 30, 2005

B.M.
ELEV.

NO.	REVISIONS	DATE	BY
00	ISSUED FOR TENDER	05/04/17	ERC

CH2MHILL
Frederickson Cooper ARCHITECTS
EarthTech A Tyco International Ltd. Company

DESIGNED BY	BLM	CHECKED BY	SRB
DRAWN BY	ERC	APPROVED BY	AHL
HOR. SCALE: NTS VERTICAL SCALE:		RELEASED FOR CONSTRUCTION BY:	R. SOROKOWSKI
DATE	2005/3/31	DATE	2005/04/17

ENGINEER'S SEAL
ORIGINAL SIGNED BY
S.R. BILEVICIUS
2005/04/15

CONSULTANT DRAWING NO.
WT–P001

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

WATER TREATMENT PLANT
CLEARWELL CONSTRUCTION

CITY FILE NUMBER
SHEET OF

PROCESS
PROCESS AND INSTRUMENTATION DIAGRAM

CITY DRAWING NUMBER
1-0601T-G-P0001-001-00D