

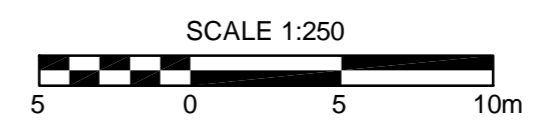
**NOTES**

- ALL MATERIALS AND CONSTRUCTION METHODS TO COMPLY WITH LATEST EDITION OF CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATION.
- LOCATION OF ALL SEWER AND WATER MAINS AND SERVICES TO BE CONFIRMED IN FIELD PRIOR TO CONSTRUCTION. SEWER AND WATER SERVICES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. NOTIFY CONTRACT ADMINISTRATOR OF ANY DISCREPANCIES.
- CONFIRM THAT SERVICES ARE ACTIVE BEFORE CONNECTING. ABANDON SERVICES NO LONGER IN USE WHERE DIRECTED BY THE CONTRACT ADMINISTRATOR.
- CONDITION OF EXISTING SERVICES TO BE VERIFIED BY CONTRACT ADMINISTRATOR. NEWER OR GOOD CONDITION SERVICES TO REMAIN AND OLDER OR POOR CONDITION SERVICES TO BE RENEWED TO PROPERTY LINE.
- CONFIRM DEPTH OF SEWER SERVICES AT PROPERTY LINE USING SOFT DIG OR PIPE TRACING METHODS BEFORE ORDERING MAINLINE SEWER MANHOLES. CONTRACT ADMINISTRATOR MAY ADJUST MAINLINE SEWER DEPTH IF NECESSARY.
- ALL SEWERS AND CATCHBASIN LEADS BENEATH PROPOSED PAVEMENT TO BE ABANDONED WITH FLOWABLE FILL TO SD-021.
- INSTALL NEW SEWERS AND CATCHBASIN LEADS BY TRENCHLESS METHODS, UNLESS OTHERWISE NOTED.
- CATCHBASIN OFFSETS ARE DIMENSIONED TO BACK OF CURB.
- CATCHBASIN LEAD RISERS TO BE TYPE 'B' (SD-015).
- ALL MANHOLES AND CATCHBASINS WITHIN SLIP-FORM PAVING AREAS TO INCLUDE 100mm RISER BELOW FRAME AND COVER. CATCHBASIN RISERS FOR SD-024 INSTALLATIONS WITH AP-008 FRAMES TO BE 2' X 50mm MODULOC TYPE PRECAST SQUARE RISERS.
- ALL DEEP SHAFTS ON ST JAMES STREET, ST MATTHEWS AVENUE, AND ELLICE AVENUE TO HAVE CLASS 1 BACKFILL. SHALLOW EXCAVATIONS UNDER AND WITHIN 1.0m OF PAVEMENT OR SIDEWALK TO USE CLASS 3 BACKFILL. CLASS 3 BACKFILL TO BE USED UNDER BOULEVARD AREAS.
- WATERMAIN TO HAVE 2.5m COVER FROM CENTRELINE OF ROAD. 100mm BOX INSULATION TO BE PROVIDED WHERE WATERMANS AND SERVICES ARE SHALLOWER THAN 2.5m.
- PUSH-ON WATERMAIN FITTINGS TO BE RESTRAINED AGAINST THRUST USING CONCRETE THRUST BLOCKS TO CITY OF WINNIPEG SD-004 AND SD-005. ADDITIONAL THRUST RESTRAINT USING JOINT HARNESSES WITH STAINLESS STEEL TIE RODS AND NUTS TO BE PROVIDED AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- INSTALL WATERMAIN BY TRENCHLESS METHODS UNDER ALL PAVEMENTS, TREES AND OTHER APPURTENANCES.
- ALL VALVES SHALL TURN COUNTER-CLOCKWISE TO CLOSE (RED OPERATING NUT).
- INSTALL ALL HYDRANTS WITH FLANGE ELEVATION FROM 100mm TO 150mm ABOVE FINISHED GRADE.
- SALVAGE ALL EXISTING HYDRANT ASSEMBLIES, VALVES AND VALVE BOXES AND RETURN TO CITY OF WINNIPEG PLINYQUET YARD. REUSE EXISTING HYDRANTS ONLY AS DIRECTED.
- CONTRACTOR TO NOTIFY BUSINESSES AND RESIDENTS A MINIMUM OF 48 HOURS PRIOR TO ANY DISRUPTION TO WATER SERVICE.
- ADD 200.00m TO ABBREVIATED ELEVATIONS TO OBTAIN GEODETIC ELEVATIONS.

**NOTE:** ALL MANHOLES ON DRAWINGS 51 TO 56 STEPS TO FACE EAST.

**NOTE:** SACRIFICIAL CONCRETE PAVEMENT FOR ALL WATERMAIN AND LAND DRAINAGE SEWER SHAFTS IN ST JAMES AND ELLICE INTERSECTION (2014).

**NOTE:** RECONNECT ALL EXISTING COPPER SERVICES TO NEW WATERMAIN. INSTALL ANODE AT EVERY COPPER WATER SERVICE CONNECTION TO NEW PVC WATERMAIN.



150 WM	WATERMAIN	---	---	BEND	---	---	ANCHOR
400 FM	FEEDERMAIN	---	---	TEE	---	---	HYDRO BOX
300 LDS	LAND DRAINAGE SEWER	---	---	COUPLING	---	---	HYDRO POLE
250 WWS	WASTEWATER SEWER	---	---	REDUCER	---	---	SIGNAL CONTROLLER
300 CS	COMBINED SEWER	---	---	ANODE	---	---	RIGHT-OF-WAY
200 FCM	FORCEMAIN	---	---	MANHOLE	---	---	GAS
---	JUNCTIONS	---	---	CATCHBASIN	---	---	HYDRO
---	HYDRANT	---	---	LIGHT STANDARD	---	---	MTS
---	VALVE	---	---	TREE	---	---	SUBDRAINS
---	CURB STOP	---	---	SURVEY BAR	---	---	---
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN

LOCATION APPROVED UNDERGROUND STRUCTURES	
SUPV. U/G STRUCTURES COMMITTEE	DATE
NOTE: 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 ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	

GBM ELEV.	SEE DWG No. 1
ELEV.	SEE DWG No. 1
ISSUED FOR CONSTRUCTION	14/04/04 KJM
REVISIONS	YYMMDD BY

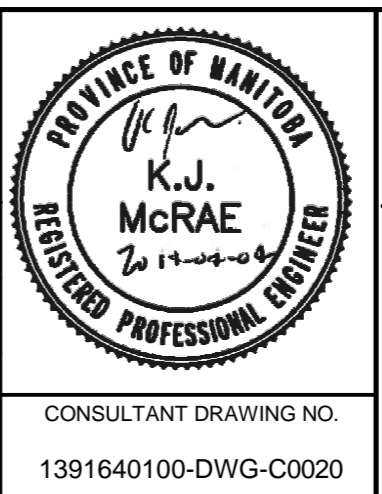
**TETRA TECH**

DESIGNED BY GC CHECKED BY KJM

DRAWN BY GMD APPROVED BY GS

HOR. SCALE: 1 : 250  
VERT. SCALE: 1 : 50

RELEASED FOR CONSTRUCTION  
DATE: 14/03/17



**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

2013 POLO PARK  
INFRASTRUCTURE IMPROVEMENTS  
ST. JAMES STREET  
LAND DRAINAGE SEWER AND WATERMAIN  
STA 1+520 TO STA 1+640

CITY DRAWING NUMBER: D-13597  
SHEET 55 OF 61  
DRAWING No. 55  
REV 0

CONSULTANT DRAWING No. 1391640100-DWG-C0020

**APEGM**  
Certificate of Authorization  
TETRA TECH WEI Inc.  
No. 5313 Date: April 30, 2014

BID OPPORTUNITY No. 210-2014