

DRAWING INDEX

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12	LD-8954	MISCELLANEOUS DETAILS

ABBREVIATIONS

WWS	WASTE WATER SEWER
CS	COMBINED SEWER
LDS	LAND DRAINAGE SEWER
P	PROPERTY LINE
CL	CENTER LINE
G.I.S.	GEOGRAPHIC INFORMATION SYSTEM
B.M.	BENCH MARK
TH	TEST HOLE
ELEV	ELEVATION
INV	INVERT
MIN	MINIMUM
MAX	MAXIMUM
SL	STREET LIGHTING
TS	TRAFFIC SIGNALS
ABAND	ABANDONED
BLDG	BUILDING
HSE	HOUSE
CRN	CORNER
OPP	OPPOSITE
C/S OR S/C	CURB STOP
MTS	MANITOBA TELEPHONE SYSTEM
R.O.W.	RIGHT-OF-WAY
WM	WATER MAIN
CULV	CULVERT
MH	MANHOLE
CB	CATCH BASIN
CI	CURB INLET
VERT.	VERTICAL
HORIZ.	HORIZONTAL
I.B.	IRON BAR
FIBRE	FIBRE OPTIC
TYP	TYPICAL
X-ING	CROSSING
HYD	HYDRANT
EXIST	EXISTING
N	NORTH
E	EAST
S	SOUTH
W	WEST
W/	WITH
C/W	CONSTRUCTED WITH
CONC	CONCRETE
AC	ASBESTOS CEMENT
VC OR CLAY	VITRIFIED CLAY
CI	CAST IRON
DI	DUCTILE IRON
PVC	POLYVINYL CHLORIDE
HDPE	HIGH DENSITY POLYETHYLENE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
JCT	JUNCTION

LEGEND

DESCRIPTION	PLAN VIEW		PROFILE
	EXISTING	PROPOSED	
WATER PIPE	---	---	---
FIRE HYDRANT	⊕	⊕	+
VALVE	⊗	⊗	X
CURB STOP	⊙	⊙	⊙
REDUCER	∠	∠	∠
COUPLING OR SLIDER	X	X	X
CROSS	⊕	⊕	⊕
BEND - 11.25', 22.5', 45', 90'	⋈	⋈	⋈
TEE	⊕	⊕	⊕
VERTICAL BEND	∩	∩	∩
ANODE	⊖	⊖	⊖
PLUG	⊙	⊙	⊙
SEWER PIPE	---	---	---
MANHOLE	⊙	⊙	⊙
CATCH BASIN	⊕	⊕	⊕
CURB INLET	∇	∇	∇
JUNCTION	⊕	⊕	⊕
SURVEY BAR	⊕	⊕	⊕
SURVEY MONUMENT	⊕	⊕	⊕
TREE - DECIDUOUS	⊙	⊙	⊙
TREE - CONIFEROUS	⊙	⊙	⊙
HYDRO	---	---	---
HYDRO POLE	⊕	⊕	⊕
LAMP STANDARD	⊕	⊕	⊕
HYDRO POLE W/STREET LIGHTING	⊕	⊕	⊕
POLE	⊕	⊕	⊕
GUY ANCHOR	⊕	⊕	⊕
M.T.S. POLE	⊕	⊕	⊕
PEDESTAL OR BOX	⊕	⊕	⊕
M.T.S., SHAW, OR VIDEON	⊕	⊕	⊕
TRAFFIC SIGNALS	⊕	⊕	⊕
TRAFFIC LIGHT STANDARD	⊕	⊕	⊕
GAS	⊕	⊕	⊕
FIBRE OPTIC	---	---	---
FENCE	---	---	---
EDGE OF PAVEMENT OR GUTTER	---	---	---
EDGE UNPAVED OR GRAVEL ROAD	---	---	---
PROJECTED	---	---	---
LOT LINE	---	---	---
SIDEWALK - PATHWAY	---	---	---
EDGE OF BUILDING	---	---	---
MAILBOX	⊕	⊕	⊕
TEST HOLE	⊕	⊕	⊕

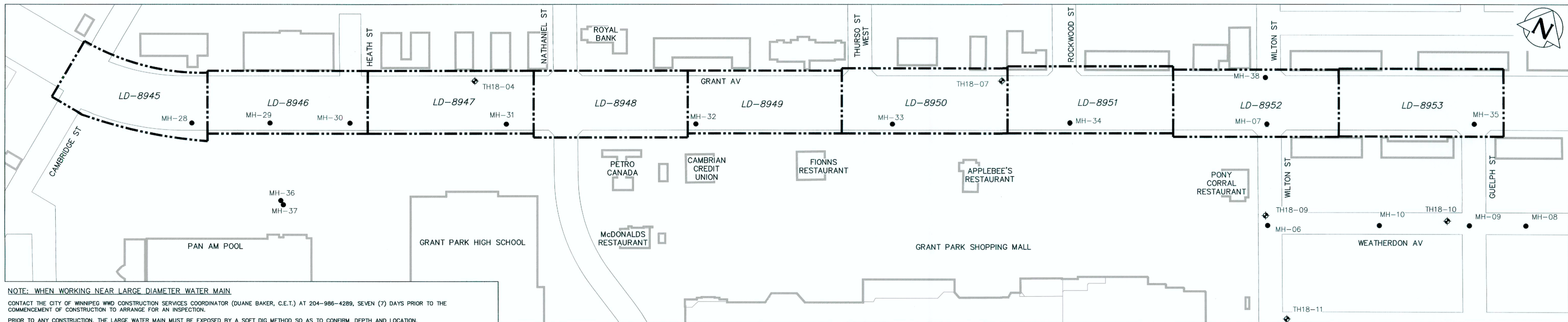
CONSTRUCTION NOTES

- ALL UNDERGROUND WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
- ALL EXISTING UNDERGROUND SERVICES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY.
- CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES AND SERVICES PRIOR TO START OF CONSTRUCTION. HYDROVAC TO CONFIRM DEPTHS AND LOCATIONS OF ALL EXISTING UTILITIES ALONG LDS SEWER ALIGNMENT.
- FOR DETAILS OF STANDARD MANHOLE AND LARGE DIAMETER MANHOLE SEE DWG. LD-8954.
- STANDARD DROP MANHOLE SHALL COMPLY WITH C.O.W. DETAIL SD-010D.
- ALL NEW CATCH BASINS LEADS TO BE 250# OR 300# PVC SDR 35 PIPES (AS SHOWN ON THE DRAWINGS).
- ALL PIPE SHALL HAVE CLASS B BEDDING WHEN INSTALLED BY TRENCH METHOD.
- CONTRACTOR TO INSTALL PIPE BY TRENCHLESS METHODS.
- BACKFILL UNDER PAVEMENT & WITHIN 1.0 OF PAVEMENT ON REGIONAL STREETS TO BE CLASS 1.
- BACKFILL UNDER PAVEMENT & WITHIN 1.0 OF PAVEMENT ON OTHER ROADWAYS TO BE CLASS 3.
- BACKFILL IN BOULEVARDS TO BE CLASS 5.
- EXISTING SEWER AND WATER SERVICES TO BE REGRADED AS REQUIRED FOR CONSTRUCTION OF THE NEW LDS PIPING.
- EXISTING SERVICES OF THE COMBINED SEWER TO BE ABANDONED SHALL BE INSPECTED IN ADVANCE OF ABANDONING TO CONFIRM THAT NO REMAINING SERVICE CONNECTIONS EXIST.
- CONTRACTOR TO INSTALL SEWER SERVICE RISERS TO AN ELEVATION WHERE MINIMUM SLOPE OF 2.0% IS MAINTAINED FOR ALL SERVICES.
- CONTRACTOR SHALL MITIGATE IMPACTS TO THE WORK AREA FROM SITE SURFACE RUNOFF.
- PEDESTRIAN ACCESS MUST BE MAINTAINED DURING CONSTRUCTION AT ALL TIMES.
- RESTORE ALL EXISTING SURFACES AND STRUCTURES, INCLUDING BUT NOT LIMITED TO PAVEMENT, CURBS, SIDEWALKS, SOD TO PRE CONSTRUCTION CONDITIONS OR BETTER.

MANHOLE SCHEDULE		
REFERENCE	NORTHING	EASTING
MH-07	5524669.83	632033.90
MH-28	5524233.30	631238.03
MH-29	5524265.04	631295.90
MH-30	5524297.53	631355.14
MH-31	5524361.00	631470.84
MH-32	5524437.99	631611.21
MH-33	5524517.72	631756.58

MANHOLE SCHEDULE		
REFERENCE	NORTHING	EASTING
MH-34	5524589.82	631888.03
MH-35	5524754.27	632187.82
MH-36	5524213.22	631334.81
MH-37	5524212.05	631337.72
MH-38	5524703.57	632014.25

TESTHOLE SCHEDULE		
REFERENCE	NORTHING	EASTING
TH18-04	5524380.0	631430.0
TH18-07	5524594.0	631820.0
TH18-09	5524602.0	632070.0
TH18-10	5524672.0	632207.0
TH18-11	5524534.0	632128.0



MANHOLE & TESTHOLE LOCATION PLAN
SCALE: N.T.S.

- NOTE: WHEN WORKING NEAR LARGE DIAMETER WATER MAIN**
- CONTACT THE CITY OF WINNIPEG WMD CONSTRUCTION SERVICES COORDINATOR (DUANE BAKER, C.E.T.) AT 204-986-4289, SEVEN (7) DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO ARRANGE FOR AN INSPECTION.
 - PRIOR TO ANY CONSTRUCTION, THE LARGE WATER MAIN MUST BE EXPOSED BY A SOFT DIG METHOD SO AS TO CONFIRM DEPTH AND LOCATION.
 - A MINIMUM CLEARANCE OF 1.0 MUST BE PROVIDED BETWEEN THE UNDERSIDE OF ANY EXISTING LARGE WATER MAIN AND THE TOP OF THE PROPOSED WORKS. THIS INSTALLATION BY TRENCHLESS METHOD ONLY.



- A MINIMUM CLEARANCE OF 0.5 MUST BE PROVIDED BETWEEN THE UNDERSIDE OF THE PROPOSED WORKS AND THE TOP OF ANY EXISTING LARGE WATER MAIN BY TRENCHLESS OR OPEN TRENCH.
- A SHAFT MUST BE EXCAVATED BY SOFT DIG METHODS 4.0 FROM THE CENTRELINE OF THE LARGE WATER MAIN TO CONFIRM THE ALIGNMENT AND ELEVATION OF THE DRILLING ROD BEFORE IT CROSSES OVER OR UNDER THE LARGE WATER MAIN. THIS CONFIRMATION MUST BE WITNESSED BY A CITY REPRESENTATIVE.
- INSTALLATION EQUIPMENT FOR PROPOSED WORKS SHALL NOT CROSS OR TRAVEL ALONG EITHER SIDE OF THE LARGE DIAMETER WATER MAIN WITHIN A LATERAL DISTANCE OF 5.0 METERS FROM THE CENTRELINE OF THE LARGE DIAMETER WATER MAIN.
- DO NOT OPERATE VIBRATORY EQUIPMENT OVER OR WITHIN 3.0 METERS OF THE LARGE DIAMETER WATER MAIN CENTRELINE.
- GRANULAR MATERIAL, CONSTRUCTION MATERIAL, SOIL OR OTHER MATERIAL SHALL NOT BE STOCKPILED ON THE LARGE DIAMETER WATER MAIN OR WITHIN 5 METERS OF THE LARGE DIAMETER WATER MAIN CENTRELINE.
- CONSTRUCTION PRACTICES SHALL NOT SUBJECT THE LARGE DIAMETER WATER MAIN TO ASYMMETRICAL LOADING AT ANY TIME.
- CONSTRUCTION PRACTICES OR PROCEDURES NEAR THE LARGE DIAMETER WATER MAIN SHALL NOT IMPART EXCESSIVE VIBRATION LOADS AND CAUSE SETTLEMENT OF THE SUB-GRADE BELOW THE WATER MAIN.
- FURTHER TO CW-2030-R7, ONLY SMOOTH EDGED EXCAVATION BUCKETS, SOFT EXCAVATION OR HAND EXCAVATION SHALL BE USED FOR EXCAVATION OVER THE LARGE DIAMETER WATER MAIN.
- CONCRETE REMOVAL WITHIN 3 METERS HORIZONTALLY OF THE LARGE DIAMETER WATER MAIN SHALL BE COMPLETED BY SAW-CUTTING AND REMOVAL, OR USE OF HAND HELD JACKHAMMERS. USE OF MACHINE MOUNTED CONCRETE BREAKERS SHALL NOT BE PERMITTED.
- THE CONTRACTOR SHALL ENSURE THAT ALL WORK CREW MEMBERS UNDERSTAND AND OBSERVE THE REQUIREMENTS ABOVE. PRIOR TO COMMENCEMENT OF ONSITE WORK THE CONTRACTOR SHALL CONDUCT AN ORIENTATION MEETING WITH THE CONSULTANT, ALL SUPERINTENDENTS, FOREMEN AND HEAVY EQUIPMENT OPERATORS TO MAKE ALL WORKERS ON SITE FULLY COGNIZANT OF THE LIMITATIONS OF ALTERED LOADING ON LARGE DIAMETER WATER MAIN, THE RAMIFICATIONS OF INADVERTENT DAMAGE TO THE LARGE DIAMETER WATER MAIN AND THE CONSTRAINTS ASSOCIATED WITH WORK IN CLOSE PROXIMITY TO THE LARGE DIAMETER WATER MAIN.

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.			

NO.	REVISIONS	DATE	BY
1	ISSUED FOR ADDENDUM 2	2019/05/02	ATD
0	ISSUED FOR CONSTRUCTION	2019/04/17	MID

DESIGNED BY: MID	CHECKED BY: JMM
DRAWN BY: GEL	APPROVED BY: RBO
SCALE: HORIZONTAL AS NOTED	RELEASED FOR CONSTRUCTION
DATE: 2019 05 02	DATE:

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

ENGINEER'S SEAL
CONSULTANT DRAWING NUMBER
11-0107-18-C12_LD-8944

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

COCKBURN & CALROSSIE SEWER RELIEF WORKS
CONTRACT 12

GENERAL INFORMATION
DRAWING INDEX, CONSTRUCTION NOTES, LEGEND, MANHOLE SCHEDULE & TESTHOLE SCHEDULE

SHEET 2 OF 12
CITY DRAWING NUMBER
LD-8944

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES