DRAWING INDEX SHEET | CITY OF WINNIPEG DRAWING TITLE NUMBER | DRAWING NUMBER LD-8943 COVER SHEET 2 LD-8944 GENERAL INFORMATION - DRAWING INDEX, CONSTRUCTION NOTES, LEGEND - MANHOLE SCHEDULE & TESTHOLE SCHEDULE GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - CAMBRIDGE STREET TO STA 2+10 3 LD-8945 LD-8946 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 2+10 TO STA 3+45 LD-8947 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 3+45 TO STA 4+85 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 4+85 TO STA 6+20 LD-8948 7 LD-8949 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 6+20 TO STA 7+45 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 7+45 TO STA 8+85 LD-8950 8 LD-8951 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 8+85 TO STA 10+15 10 LD-8952 GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 10+15 TO STA 11+55

GRANT AVENUE - CAMBRIDGE STREET TO GUELPH STREET - STA 11+55 TO GUELPH STREET

CONSTRUCTION NOTES

LD-8953

LD-8954

11

12

- 1. ALL UNDERGROUND WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
- 2. ALL EXISTING UNDERGROUND SERVICES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY.
- 3. 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.
- 4. FOR DETAILS OF STANDARD MANHOLE AND LARGE DIAMETER MANHOLE SEE DWG. LD-8954.

MISCELLANEOUS DETAILS

- 5. STANDARD DROP MANHOLE SHALL COMPLY WITH C.O.W. DETAIL SD-010D.
- 6. ALL NEW CATCH BASINS LEADS TO BE 2500 OR 3000 PVC SDR 35 PIPES (AS SHOWN ON THE DRAWINGS).
- 7. ALL PIPE SHALL HAVE CLASS B BEDDING WHEN INSTALLED BY TRENCH METHOD.
- 8. CONTRACTOR TO INSTALL PIPE BY TRENCHLESS METHODS.
- 9. BACKFILL UNDER PAVEMENT & WITHIN 1.0 OF PAVEMENT ON REGIONAL STREETS TO BE CLASS 1.
- 10. BACKFILL UNDER PAVEMENT & WITHIN 1.0 OF PAVEMENT ON OTHER ROADWAYS TO BE CLASS 3.
- 11. BACKFILL IN BOULEVARDS TO BE CLASS 5.
- 12. EXISTING SEWER AND WATER SERVICES TO BE REGRADED AS REQUIRED FOR CONSTRUCTION OF THE NEW LDS PIPING.
- 13. EXISTING SERVICES OF THE COMBINED SEWER TO BE ABANDONED SHALL BE INSPECTED IN ADVANCE OF ABANDONING TO CONFIRM THAT NO REMAINING SERVICE CONNECTIONS EXIST.
- 14. CONTRACTOR TO INSTALL SEWER SERVICE RISERS TO AN ELEVATION WHERE MINIMUM SLOPE OF 2.0% IS MAINTAINED FOR ALL SERVICES.
- 15. CONTRACTOR SHALL MITIGATE IMPACTS TO THE WORK AREA FROM SITE SURFACE RUNOFF.
- 16. PEDESTRIAN ACCESS MUST BE MAINTAINED DURING CONSTRUCTION AT ALL TIMES.
- 17. RESTORE ALL EXISTING SURFACES AND STRUCTURES, INCLUDING BUT NOT LIMITED TO PAVEMENT, CURBS, SIDEWALKS, SOD TO PRE CONSTRUCTION CONDITIONS OR BETTER.

ABBREVIATIONS					
WWS	WASTE WATER SEWER				
CS	COMBINED SEWER				
LDS	LAND DRAINAGE SEWER				
 ዊ	PROPERTY LINE				
 დ	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				
HORZ.	HORIZONTAL				
I.B.	IRON BAR				
FIBRE	FIBRE OPTIC				
TYP	TYPICAL				
X-ING	CROSSING				
HYD	HYDRANT				
EXIST	EXISTING				
N N	NORTH				
E E	EAST				
S	SOUTH				
	WEST				
	WITH				
	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				

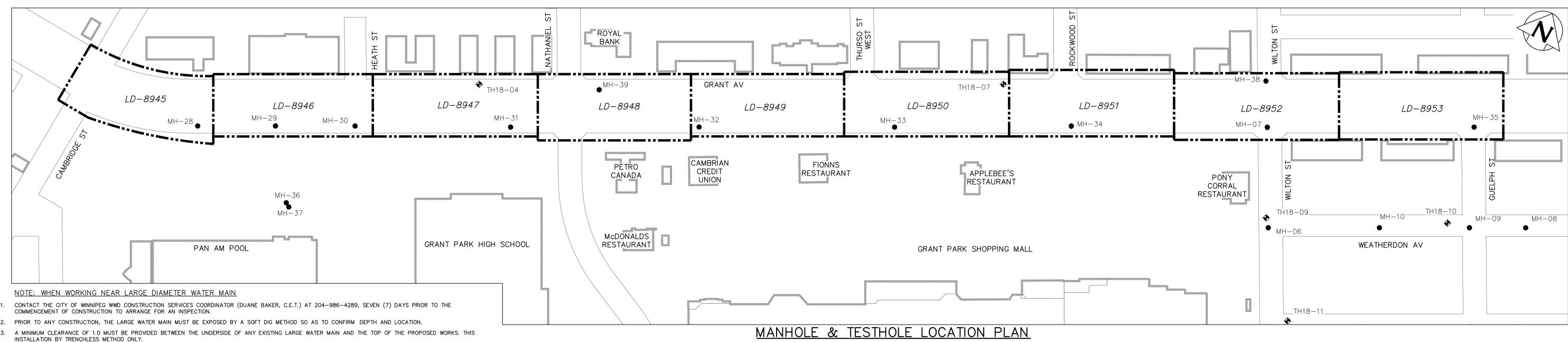
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UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION

DESCRIPTION	EXISTING	PROPOSED
WATER PIPE		
FIRE HYDRANT		+
VALVE	⊗	8
CURB STOP	ď	•
REDUCER	4	•
COUPLING OR SLIDER	X	X
CROSS	H	⊕
BEND - 11.25°, 22.5°, 45°, 90°	H H 4 4 4	н ч ч ч
TEE	ř.	д
VERTICAL BEND	Н	н
ANODE	P	7
PLUG]	3
SEWER PIPE		
MANHOLE	0	•
CATCH BASIN		
CURB INLET	∇	▼
JUNCTION		
SURVEY BAR	 	-#-
SURVEY MONUMENT	Ψ (A)	•
SORVET MONOMENT		<u> </u>
TREE - DECIDUOUS	<u>{·</u>)	
TREE - CONIFEROUS		
HYDRO		
HYDRO POLE	•н	
LAMP STANDARD	•••	
HYDRO POLE W/STREET LIGHTING	Н●	
POLE	•	
GUY ANCHOR		
M.T.S. POLE	•м	
PEDESTAL OR BOX	\boxtimes	
M.T.S., SHAW, OR VIDEON		<u> </u>
TRAFFIC SIGNALS		<u> </u>
TRAFFIC LIGHT STANDARD	•>	
GAS		
FIBRE OPTIC		
FENCE		
EDGE OF PAVEMENT OR GUTTER		
EDGE UNPAVED OR GRAVEL ROAD		
ዊ		
PROJECTED PL		
LOT LINE		
SIDEWALK - PATHWAY		
EDGE OF BUILDING	Zimmin)	
MAILBOX	M	
TEST HOLE	*	Φ

<u>LEG</u>	ΞΝΙ	<u>)</u>							
					PROF	ILE			
D		DESCRIPTION				EXISTING	G	PROPOSED	
		WATE	ER PIPE						
		HYDR	ANT TOP			+		+	
		V	ALVE		- — - - — -		_	X	
		TEE O	R CROSS					()	
ч	COUPLING OR BEND						--		
		REC	DUCER						
	END OF PIPE					8		8	
		SEWE	ER PIPE						
		UNPAVED GR	OUND SURFACE		——————————————————————————————————————		XIII		
		PAVED GROUND	SURFACE - & PIP	E					
		GUTTER (NORTH AND WEST)							
ı		GUTTER (SOUTH AND EAST)							
			RTH AND WEST)						
		€ DITCH (SOUTH AND EAST)							
		STRUCTURE					-		
	MANHOLE OR CATCH BASIN								
							,		
		MANHOLE SCHEDULE					IAM	NHOLE SCHEDU	JLE
		REFERENCE	NORTHING	ΕA	STING		REFERENCE	NORTHING	EASTING
		MH-07	5524669.83	632	2033.90		MH-34	5524589.82	631888.03
		MH-28	5524233.30	631	238.03		MH-35	5524754.27	632187.82

-28	5524233.30	631238.03	MH-35	5524754.27	632187.82
-29	5524265.04	631295.90	MH-36	5524213.22	631334.81
-30	5524297.53	631355.14	MH-37	5524212.05	631337.72
-31	5524361.00	631470.84	MH-38	5524703.57	632014.25
-32	5524437.99	631611.21	MH-39	5524424.85	631521.61
-33	5524517.72	631756.58			
TESTHOLE SCHEDULE					
ENCE	NORTHING	EASTING			



JUNCTION

3. 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

EXISTING LARGE PROPOSED WORKS DIAMETER WATER 0.5 MINIMUM .O MINIMUM EXISTING LARGE DIAMETER WATER MAIN PROPOSED WORKS

- 4. 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
- 5. 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. 6. 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 CENTERLINE OF THE LARGE DIAMETER WATER MAIN.

9. CONSTRUCTION PRACTICES SHALL NOT SUBJECT THE LARGE DIAMETER WATER MAIN TO ASYMMETRICAL LOADING AT ANY TIME.

- 8. GRANULAR MATERIAL, CONSTRUCTION MATERIAL, SOIL OR OTHER MATERIAL SHALL NOT BE STOCKPILED ON THE LARGE DIAMETER WATER MAIN OR WITHIN 5 METERS OF
- 7. DO NOT OPERATE VIBRATORY EQUIPMENT OVER OR WITHIN 3.0 METERS OF THE LARGE DIAMETER WATER MAIN CENTERLINE.
- THE LARGE DIAMETER WATER MAIN CENTERLINE.
- 10. 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.
- 11. 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.
- 12. 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. 13. 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

LARGE DIAMETER WATER MAIN AND THE CONSTRAINTS ASSOCIATED WITH WORK IN CLOSE PROXIMITY TO THE LARGE DIAMETER WATER MAIN.

WORKERS ON SITE FULLY COGNIZANT OF THE LIMITATIONS OF ALTERED LOADING ON LARGE DIAMETER WATER MAIN, THE RAMIFICATIONS OF INADVERTENT DAMAGE TO THE

KGS LOCATION APPROVED UNDERGROUND STRUCTURES GROUP CONSULTING SUPV. U/G STRUCTURES CHECKED DESIGNED APPROVED GEL LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL RELEASED FOR EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF CONSTRUCTION HORIZONTAL AS NOTED EXISTENCE AND EXACT LOCATION OF ALL VERTICAL ISSUED FOR CONSTRUCTION 2019/04/1 SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL

REVISIONS

DATE

GEOSCIENTISTS MANITOBA Certificate of Authorization KGS Group No. 245 ENGINEER'S SEAL

M.A. (IANKOVA-DEDOVA)

Member

31615

CONSULTANT DRAWING NUMBER

1-0107-18-C12_LD-8944

METRIC WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES

Winnipeg

MH - 29

MH - 30

MH - 31

MH - 32

MH - 33

REFERENCE

TH18-10

TH18-11

TH18-04 | 5524380.0 | 631430.0

TH18-07 | 5524594.0 | 631820.0

TH18-09 | 5524602.0 | 632070.0

5524672.0 | 632207.0

5524534.0 | 632128.0

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION

COCKBURN & CALROSSIE SEWER RELIEF WORKS CONTRACT 12

DRAWING INDEX, CONSTRUCTION NOTES, LEGEND,

MANHOLE SCHEDULE & TESTHOLE SCHEDULE

GENERAL INFORMATION

CITY DRAWING NUMBER

SHEET 2 OF 12

LD-8944

2019 04 17

DATE

CONTRACT NUMBER: 12

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