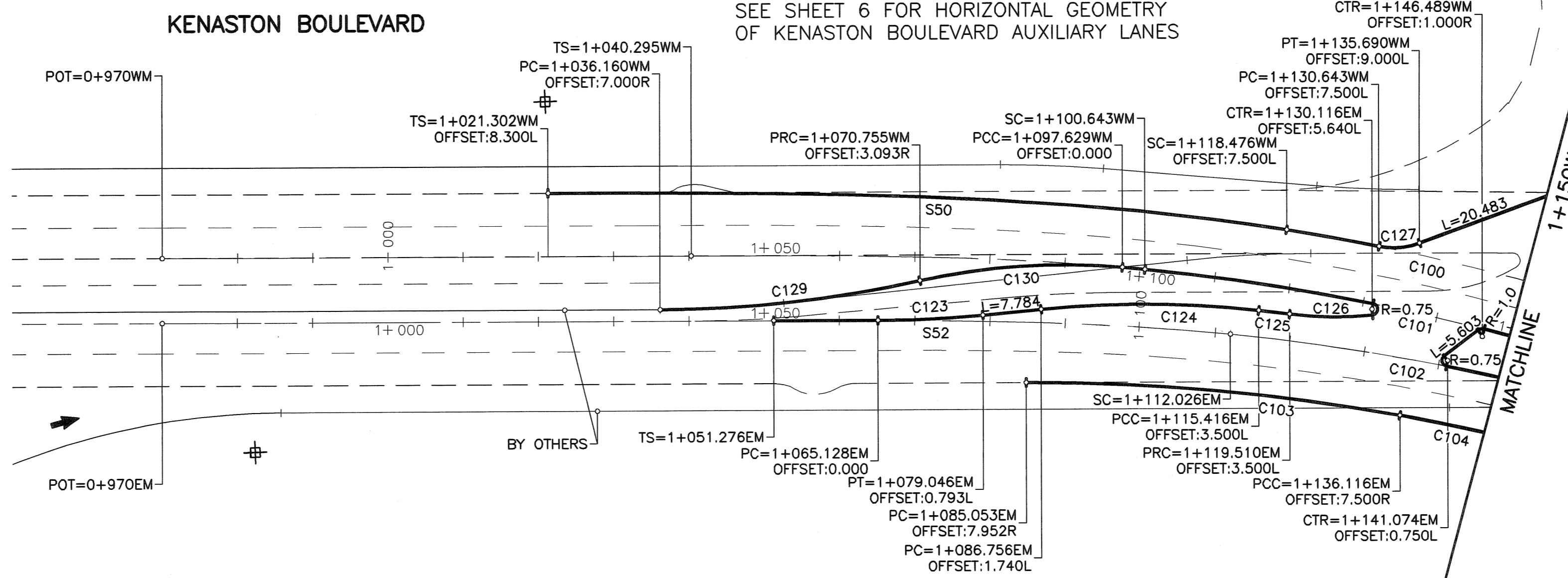


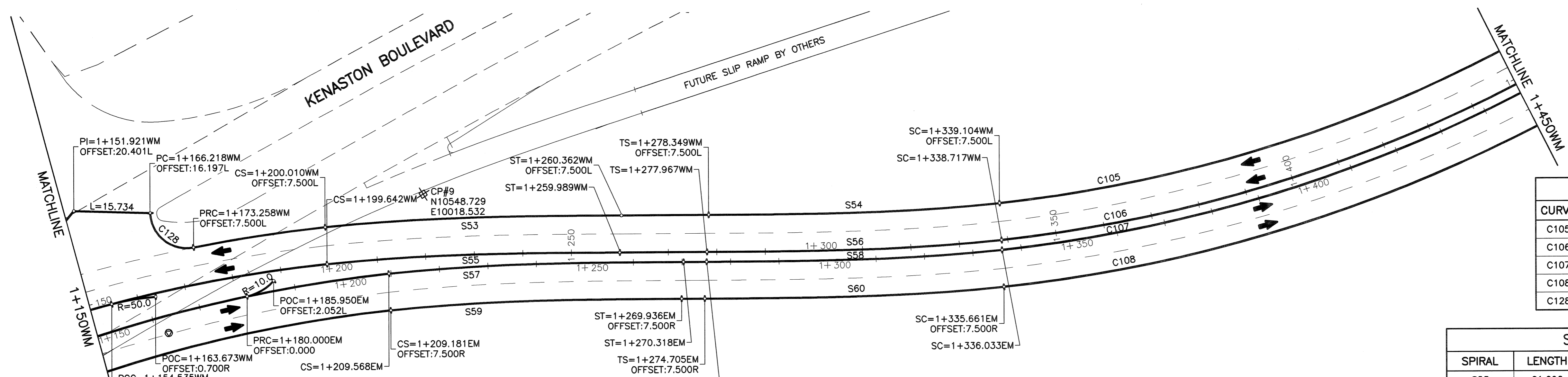
KENASTON BOULEVARD DETOUR WEST MEDIAN CONTROL		
POINT	NORTHING	EASTING
POT=0+970	10299.777	9984.613
TS=1+040.295	10370.032	9986.987
SC=1+100.643	10430.217	9991.029

KENASTON BOULEVARD DETOUR EAST MEDIAN CONTROL		
POINT	NORTHING	EASTING
POT=0+970	10299.459	9993.108
TS=1+051.276	10380.689	9995.852
SC=1+112.026	10441.273	9999.948



CIRCULAR CURVE DATA				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C100	83.559	309.500	15°28'08"	42.035
C101	98.999	302.000	18°46'56"	49.948
C102	97.541	300.000	18°37'45"	49.205
C103	49.926	275.000	10°24'07"	25.032
C104	71.238	292.500	13°57'16"	35.796
C123	13.954	140.000	5°42'38"	6.983
C124	28.968	140.000	11°51'19"	14.536
C125	4.142	303.500	0°46'55"	2.071
C126	11.058	50.000	12°40'16"	5.551
C127	5.465	10.000	31°18'46"	2.803
C129	34.770	165.000	12°04'26"	17.450
C130	27.060	90.000	17°13'36"	13.633

SPIRAL CURVE DATA				
SPIRAL	LENGTH	THETA	S TANGENT	L TANGENT
S50	98.398	9°06'28"	32.878	65.685
S51	60.348	5°43'29"	20.135	40.253
S52	60.750	5°48'04"	20.270	40.522



CIRCULAR CURVE DATA				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C105	143.219	292.500	28°03'15"	73.075
C106	147.665	300.000	28°12'07"	75.360
C107	148.852	302.000	28°14'26"	75.971
C108	153.311	309.500	28°22'53"	78.262
C128	12.895	7.500	98°30'46"	8.706

SPIRAL CURVE DATA				
SPIRAL	LENGTH	THETA	S TANGENT	L TANGENT
S53	61.092	5°39'17"	20.383	40.749
S54	59.986	5°52'30"	20.015	40.013
S55	60.348	5°43'29"	20.135	40.253
S56	60.750	5°48'04"	20.270	40.522
S57	60.750	5°48'04"	20.270	40.522
S58	60.952	5°46'55"	20.337	40.656
S59	59.986	5°52'30"	20.015	40.013
S60	61.703	5°42'41"	20.587	41.157

KENASTON BOULEVARD DETOUR WEST MEDIAN CONTROL		
POINT	NORTHING	EASTING
CS=1+199.642	10524.442	10019.927
ST=1+259.989	10576.545	10050.323
TS=1+277.967	10591.763	10059.894
SC=1+338.717	10644.226	10090.468

KENASTON BOULEVARD DETOUR EAST MEDIAN CONTROL		
POINT	NORTHING	EASTING
CS=1+209.568	10534.117	10028.423
ST=1+270.318	10586.581	10058.997
TS=1+275.081	10590.613	10061.533
SC=1+336.033	10643.247	10092.215

GEODETIC VERTICAL CONTROL POINTS--PROJECT COORDINATES					NAD83 DATUM		
GBM	LOCATION	NORTHING	EASTING	ELEVATION	NORTHING	EASTING	ELEVATION
67-001	S SIDE WILKES AVE E OF McCREARY ROAD	10554.718	8426.237	234.148	5522899.108	627228.196	-
67-002	S SIDE WILKES AVE W OF KENASTON BLVD	10771.437	9669.574	233.951	5523115.778	628471.249	-

NOTE: PROJECT DRAWINGS HAVE AN APPLIED SCALE FACTOR OF 1.000196 APPLIED TO LBIS INFORMATION TO MATCH LOCAL PROJECT COORDINATES.



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.

B.M. GBM67-002 ELEV. 233.951			
DESIGNED BY RPB,WRJ	CHECKED BY JGK		
DRAWN BY DID,CGC	APPROVED BY RPB		
0 ISSUED FOR CONSTRUCTION	05/04/19	DL	
A ISSUED FOR CLIENT REVIEW	05/02/28	DID	
NO. REVISIONS	DATE	BY	DATE 05/04/19

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ENGINEER'S SEAL
PROVINCE OF MANITOBA
APRIL 19 2005
R.P. BRUCE
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY RPB,WRJ
CHECKED BY JGK
DRAWN BY DID,CGC
APPROVED BY RPB
AUTHORIZED BY DATE
R. FINGAS PIENG. 05/04/19
BRIDGE PROJECTS ENGINEER

HOR. SCALE: 1:500
VERTICAL: N/A

CONSULTANT DRAWING NO. 3241-040-03-32

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

KENASTON UNDERPASS PROJECT
KENASTON BOULEVARD DETOUR

SHEET 32 OF 61
CAD FILE DRAWING NUMBER 01-CT1028_RX
CITY DRAWING NUMBER P-3258-92

HORIZONTAL GEOMETRY
STA. 0+950 TO STA. 1+450

BID OPPORTUNITY No. 84-2005
Certificate of Authorization UMA Engineering Ltd. No. 258 Expiry: April 30, 2005