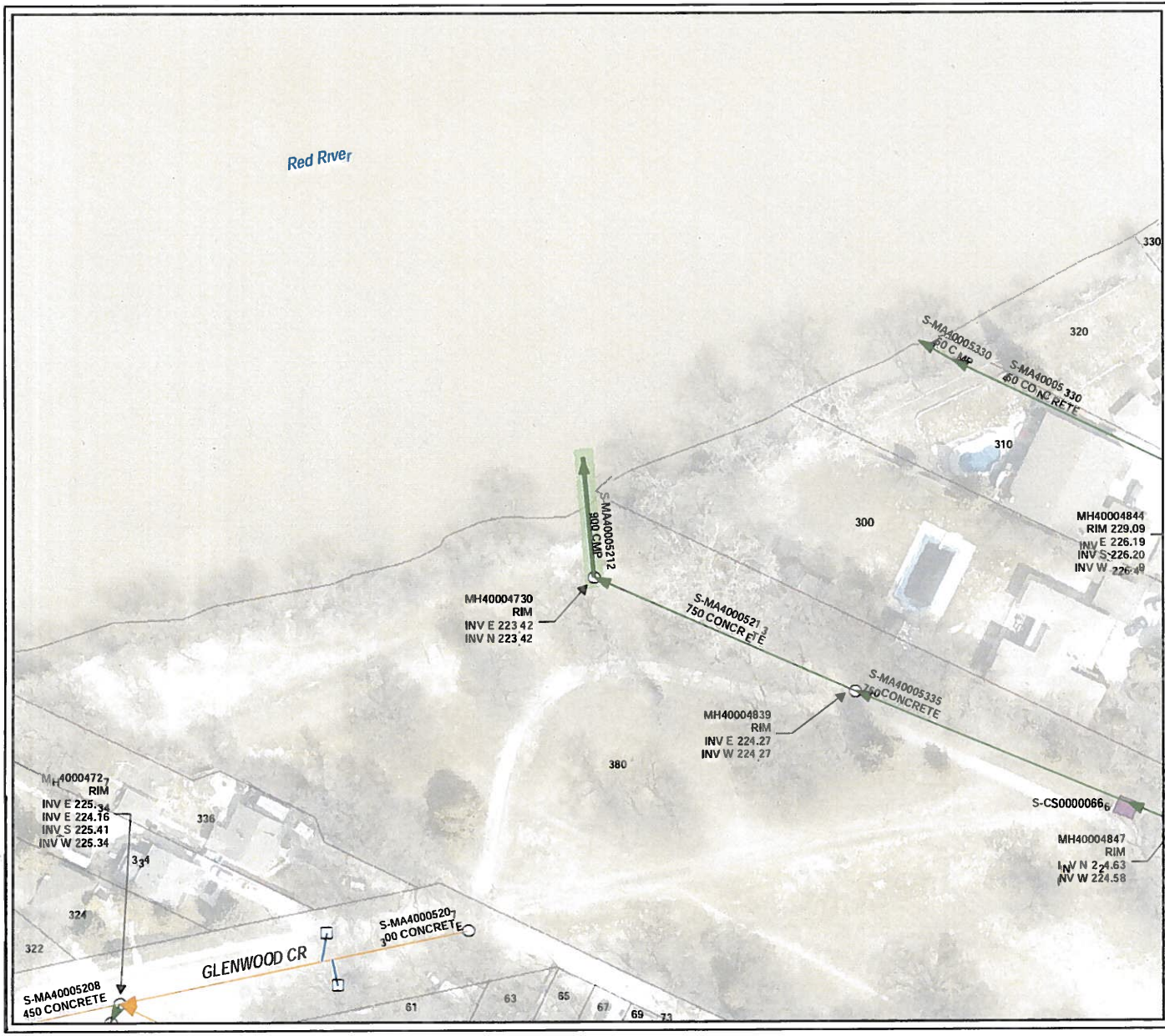
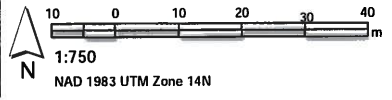


## **APPENDIX B – GENERAL LOCATION MAPS AND SITE SPECIFIC SUPPORTING DOCUMENTATION**



- LEGEND**
- CS
  - SRS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN
  - CONTROL STRUCTURE



Outfall Asset Number: S-MA40005212 - 22.86m  
 Upstream Sewer Asset Number: None - 0m  
 Upstream Manhole Coordinates: 635201.6591E, 5531351.9526N  
 Location: 300 BREDIN DR

**031-03**



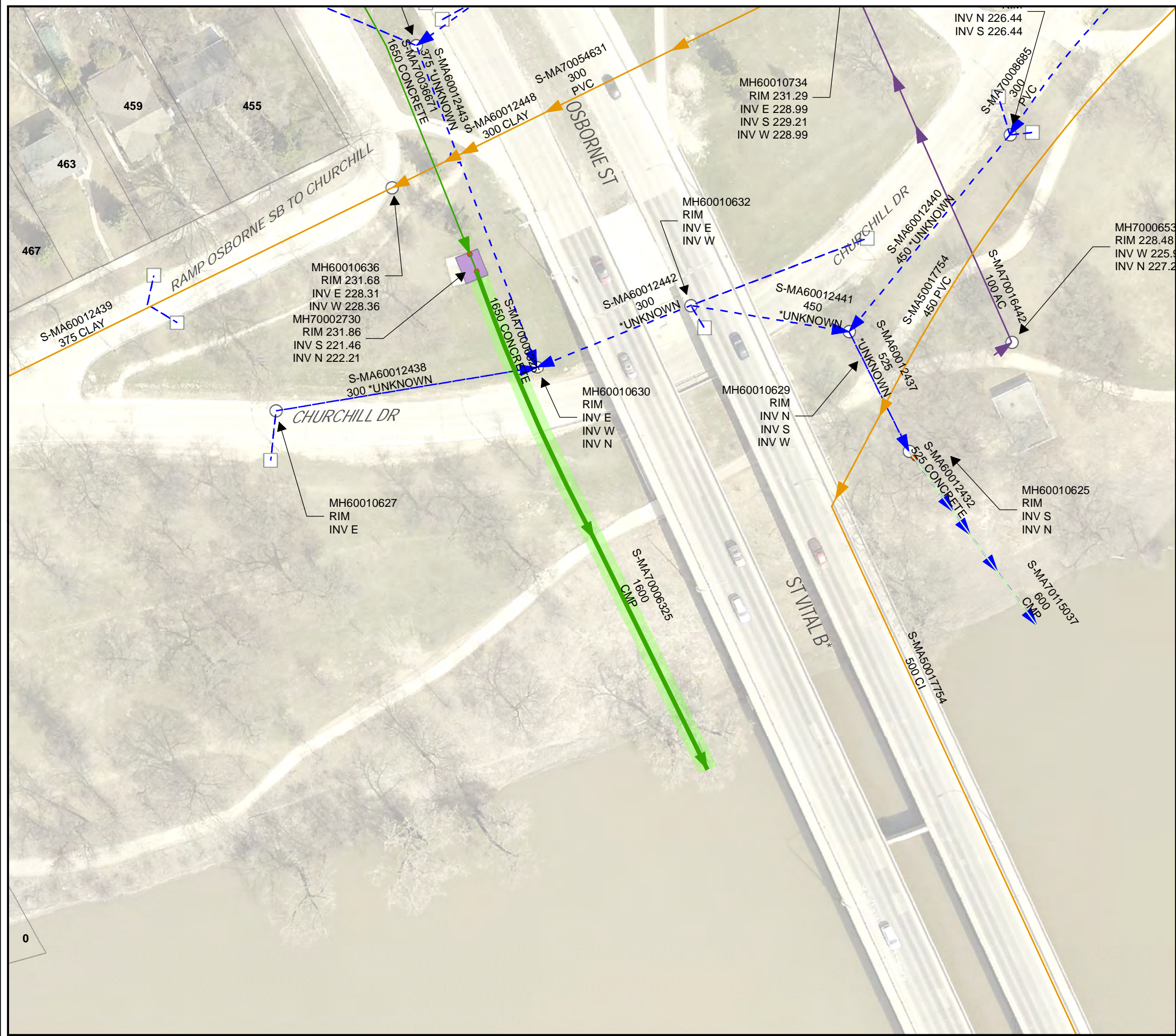
**031-03**



**031-04**





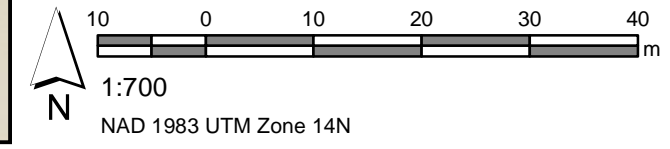


- LEGEND**
- OUTFALL INSPECTION
  - CS
  - LDS
  - SRS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN
  - CONTROL GATE
  - CONTROL STRUCTURE

**SITE CONSIDERATIONS**

**KEY CONTACTS**

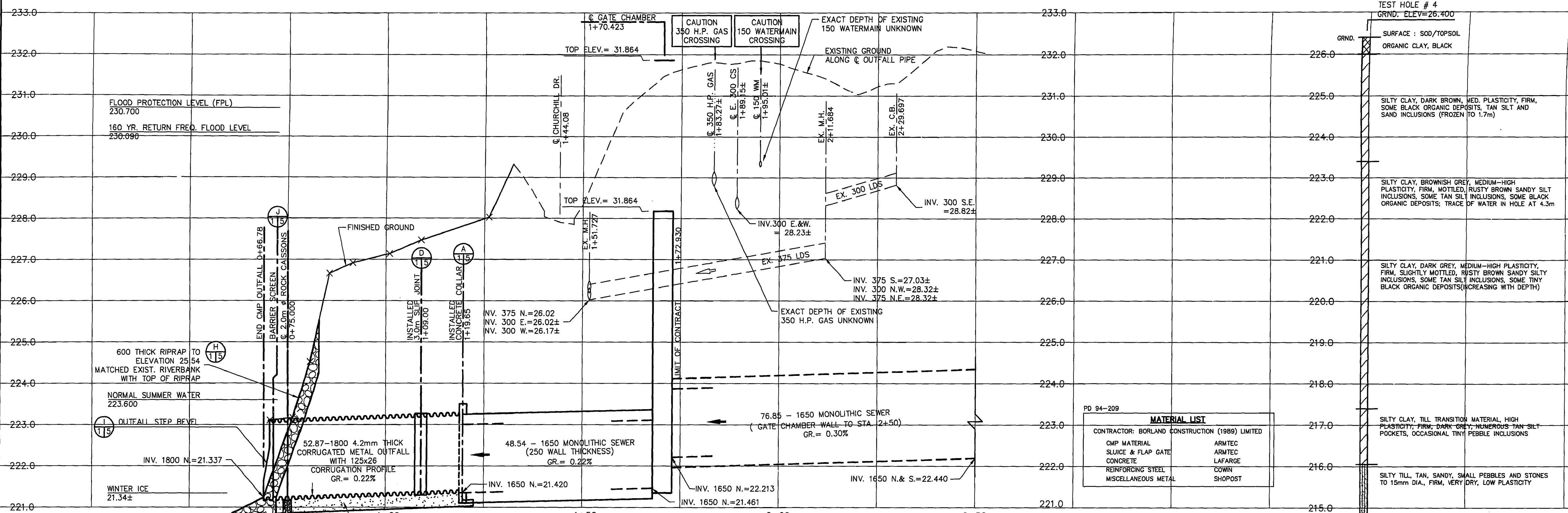
**MISCELLANEOUS**



Issue Status: Draft







**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**WARNING**

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:  
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.  
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.  
SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

NOTE:  
CHAINAGES ARE WITH RESPECT TO C 1650 STORM RELIEF SEWER

EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED
150 WM	WATERMAIN	150 WM	HYDRO	HYDRANT	HYDRANT	150 WM	WATERMAIN	150 WM
300 LDS	LAND DRAINAGE SEWER	300 LDS	M.T.S.	VALVE	VALVE	300 LDS	HYDRANT, VALVE	300 LDS
250 WWS	WASTE WATER SEWER	250 WWS	CONCRETE	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	250 WWS	WASTE WATER SEWER	250 WWS
○	MANHOLE	○	ASPHALT	WASTE WATER SEWER	WASTE WATER SEWER	○	ASPHALT	○
□	CATCH BASIN	□	SIDEWALK	WASTE WATER SEWER	WASTE WATER SEWER	□	SIDEWALK	□
▽	CURB INLET	▽	PROPERTY LINE	WASTE WATER SEWER	WASTE WATER SEWER	▽	PROPERTY LINE	▽
⊕ I-1	INCLINOMETER	⊕ I-1	SURVEY BAR	WASTE WATER SEWER	WASTE WATER SEWER	⊕ I-1	SURVEY BAR	⊕ I-1
⊕ P-1	PIEZOMETER NEST	⊕ P-1	DITCH	WASTE WATER SEWER	WASTE WATER SEWER	⊕ P-1	DITCH	⊕ P-1
⊕	GAS	⊕	ELEVATION	WASTE WATER SEWER	WASTE WATER SEWER	⊕	ELEVATION	⊕
			TESTHOLE	WASTE WATER SEWER	WASTE WATER SEWER		TESTHOLE	
			SPRINKLER(SPR)	WASTE WATER SEWER	WASTE WATER SEWER		SPRINKLER(SPR)	

NO.	REVISIONS	DATE	BY
1	REVISED TO AS BUILT	21/10/97	K.R.

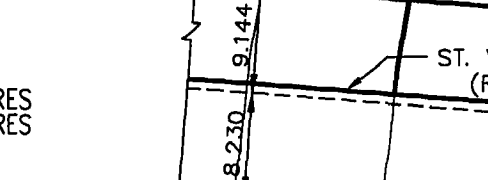
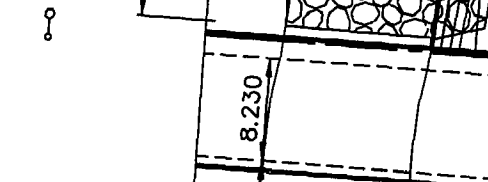
**REVISIONS**  
DATE: 21/10/97 BY: K.R.  
CHECKED BY: R.M.

CONTRACT #3 COMPLETION DATE  
AUGUST 21, 1995

**CURVE DATA**  
CURVE #1  
Δ = 10°05'36"  
R = 100.000  
T = 8.831  
L = 17.616  
C = 17.593  
E = 0.389  
BC STA = 1+23.583  
EC STA = 1+41.199

**CURVE DATA**  
CURVE #2  
Δ = 14°14'02"  
R = 100.000  
T = 12.486  
L = 24.843  
C = 24.779  
E = 0.776  
BC STA = 1+87.643  
EC STA = 2+12.486

FLOOD PROTECTION LEVEL = 230.700m  
160 YEAR RETURN FREQ. FLOOD LEVEL = 230.090m  
NORMAL SUMMER WATER LEVEL = 223.6m  
WINTER ICE LEVEL = 221.34 ±



PROVIDE CIRCUMFERENTIAL 38x89 KEYWAY AT CONSTRUCTION JOINTS  
REINFORCED MONOLITHIC TUNNEL LINER FOR SHAFTS, CONNECTIONS, MANHOLES AND CAVE-INS

DETAIL A  
N.T.S.

DETAIL B  
N.T.S.

BENCHMARK:  
74M511 - T.B.T. IN S. FACE OF E. CONC. PIER  
IN 1ST ROW OF CONC. PIERS N. OF S. END  
OF ST. VITAL BRIDGE OVER RED RIVER, N. OF  
KINGSTON ROW, 5m W. OF E. END OF PIER.

**MATERIAL LIST**  
CONTRACTOR: BORLAND CONSTRUCTION (1989) LIMITED  
CMP MATERIAL: ARMETEC  
SLUICE & FLAP GATE: ARMETEC  
CONCRETE: LAFARGE  
REINFORCING STEEL: COWIN  
MISCELLANEOUS METAL: SHOPOST

TEST HOLE # 4  
GRND. ELEV = 26.400  
SURFACE: SOD/TOPSOIL  
ORGANIC CLAY, BLACK

SILTY CLAY, DARK BROWN, MED. PLASTICITY, FIRM, SOME BLACK ORGANIC DEPOSITS, TAN SILT AND SAND INCLUSIONS (FROZEN TO 1.7m)

SILTY CLAY, BROWNISH GREY, MEDIUM-HIGH PLASTICITY, FIRM, MOTTLED, RUSTY BROWN SANDY SILT INCLUSIONS, SOME TAN SILT INCLUSIONS, SOME BLACK ORGANIC DEPOSITS, TRACE OF WATER IN HOLE AT 4.3m

SILTY CLAY, DARK GREY, MEDIUM-HIGH PLASTICITY, FIRM, SLIGHTLY MOTTLED, RUSTY BROWN SANDY SILTY INCLUSIONS, SOME TAN SILT INCLUSIONS, SOME TINY BLACK ORGANIC DEPOSITS (INCREASING WITH DEPTH)

SILTY CLAY, TILL TRANSITION MATERIAL, HIGH PLASTICITY, FIRM, DARK GREY, NUMEROUS TAN SILT POCKETS, OCCASIONAL TINY PEBBLE INCLUSIONS

SILTY TILL, TAN, SANDY, SMALL PEBBLES AND STONES TO 15mm DIA., FIRM, VERY DRY, LOW PLASTICITY

REFUSAL ON ROCK AT 11.9m.  
NO WATER IN HOLE AT COMPLETION

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

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CHURCHILL DRIVE

OSBORNE STREET

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CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

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CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

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CHURCHILL DRIVE

OSBORNE STREET

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CHURCHILL DRIVE

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CHURCHILL DRIVE

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OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

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CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

ST. VITAL BRIDGE (ROUTE 62)

CHURCHILL DRIVE

OSBORNE STREET

**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
SOUTH WEST DISTRICT

BALTIMORE SEWER RELIEF PROJECT  
OSBORNE STREET OUTFALL

STORM RELIEF OUTFALL & RIPRAP

CITY DRAWING NUMBER  
SHEET 1 OF 5

LD-1363

**IDE** I.D. ENGINEERING CANADA INC.  
Professional Engineers  
WINNIPEG, MANITOBA

DESIGNED BY: D.G.M. CHECKED BY: D.G.M.  
DRAWN BY: M.M. APPROVED BY: D.G.M.

HOR. SCALE: 1 : 500  
VERTICAL: 1 : 50

RELEASED FOR CONSTRUCTION: DATE

CONSULTANT DRAWING NO. D6-01-533

**PROVINCE OF MANITOBA**  
REGISTERED ENGINEER  
D. G. MULDER  
21/10/97

169-01



169-01



169-01



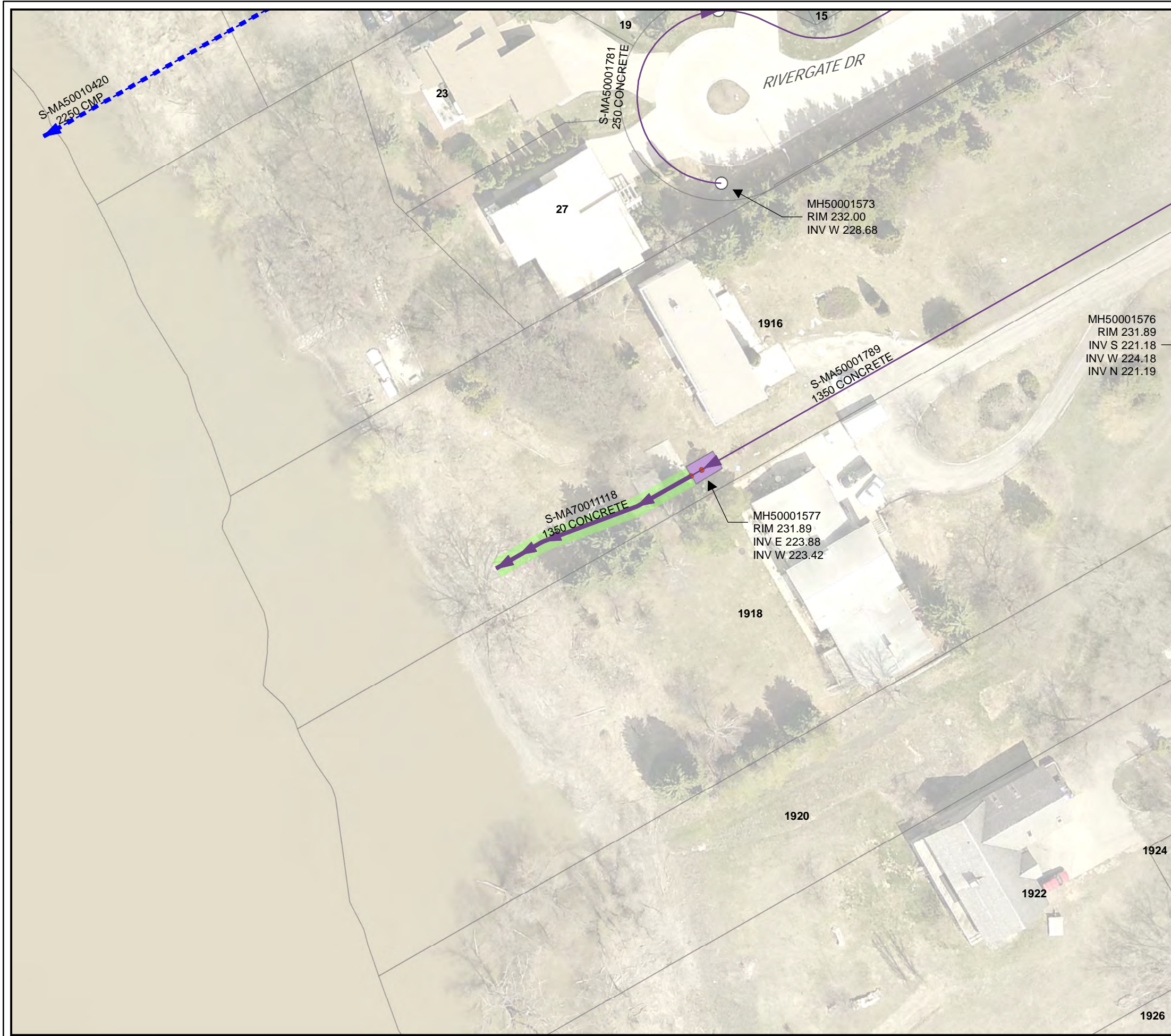




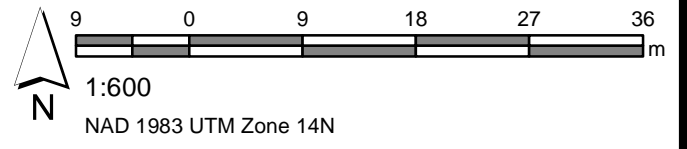




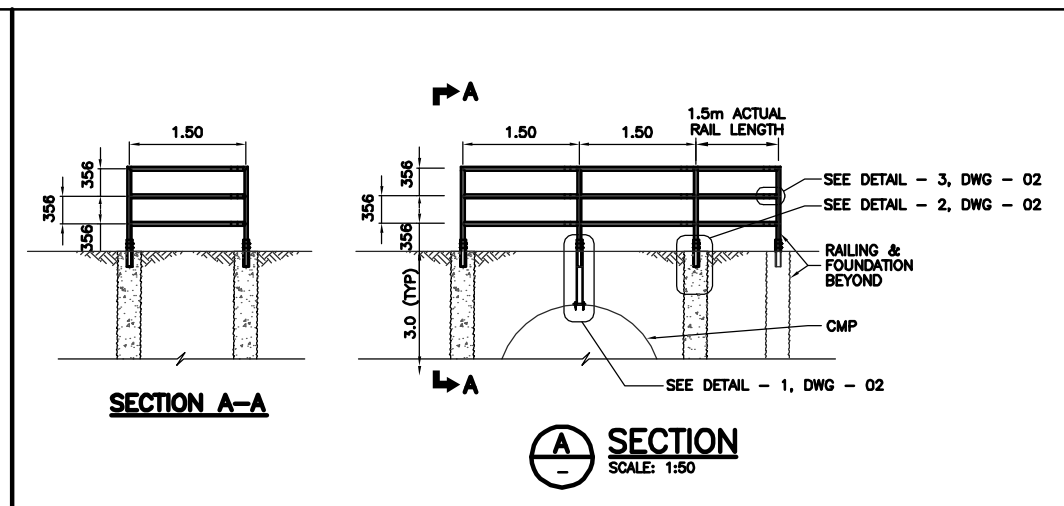
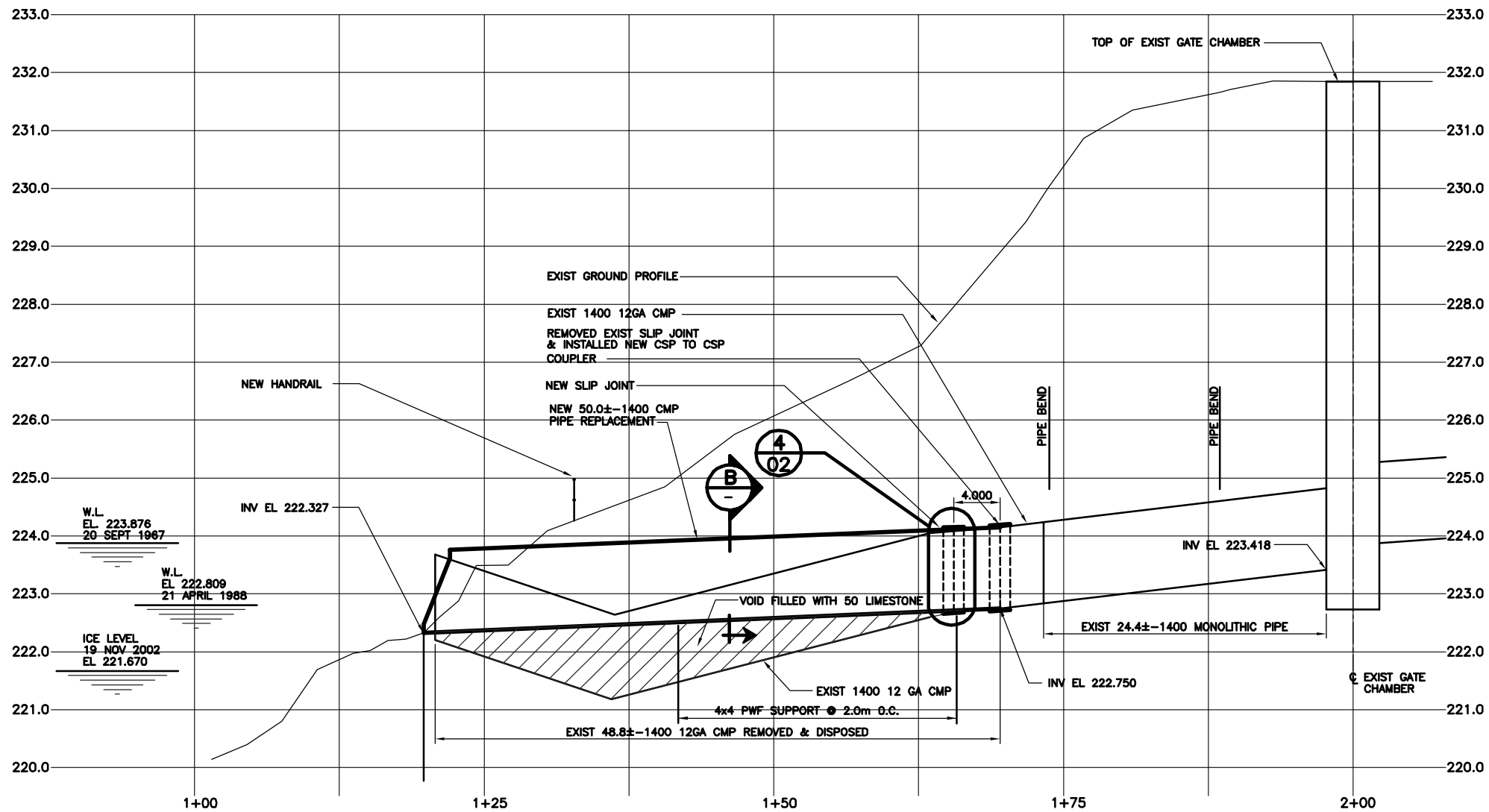




- LEGEND**
- OUTFALL INSPECTION
  - LDS
  - WWS
  - SEWER MANHOLE
  - CONTROL GATE
  - CONTROL STRUCTURE

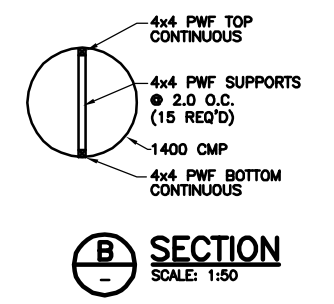


**Asset Number: S-MA70053500**  
**Location: 27 RIVERGATE DR**  
**Coordinates: 635675.00E, 5519728.54N**



LEGAL BAR LOCATION		
BAR NO.	NORTHING	EASTING
LB-1	4913578.7738	833525.0571
LB-2	4913571.1539	833525.1059
LB-4	4913570.8977	833485.1067

**AS-CONSTRUCTED**  
 WATER & WASTE DEPARTMENT  
 PROJECT COMPLETION DATE: 24 MARCH 2003

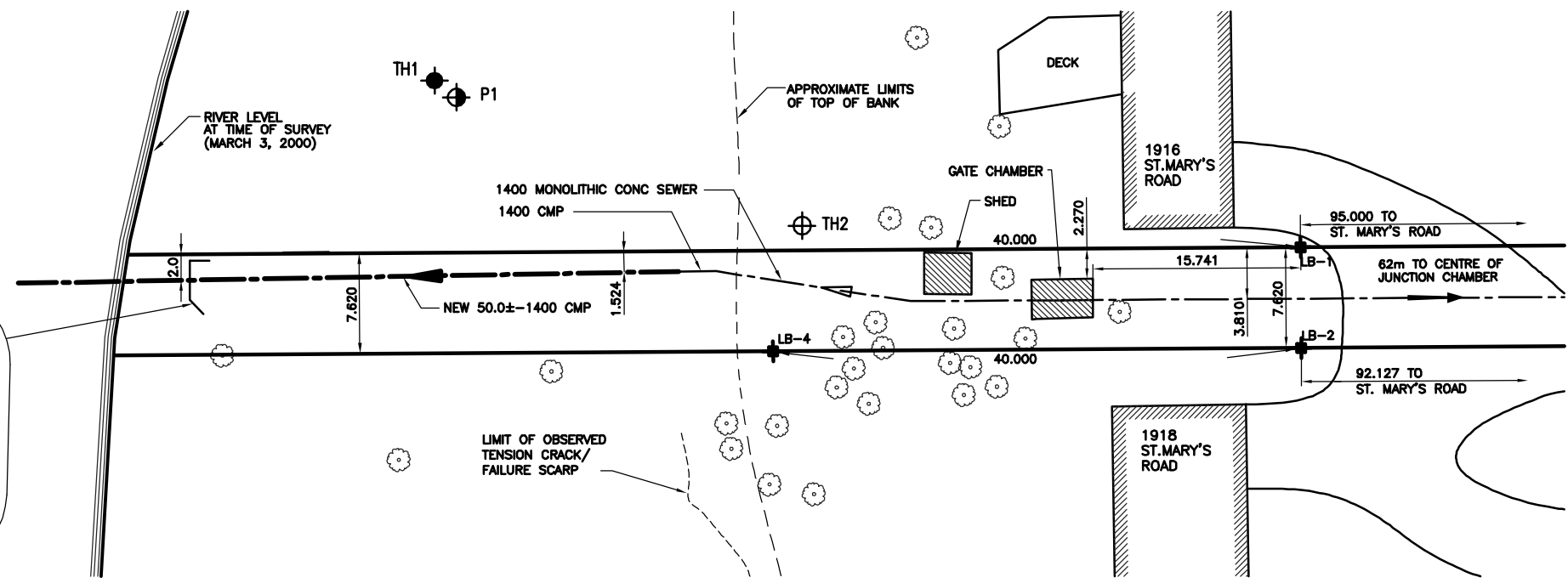
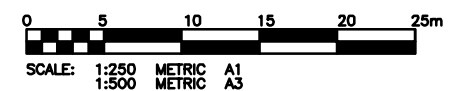


**LEGEND**

- TREE
- TH1 KGS GROUP TEST HOLE WITH INCLINOMETER
- TH2 KGS GROUP TEST HOLE (FEBRUARY 2000)
- P1 KGS GROUP PIEZOMETER (FEBRUARY 2000)
- LB-1 LEGAL BARS

**NOTE:**

1. TOPOGRAPHIC MAP BASED ON KGS SURVEY PERFORMED MARCH 3, 2000.
2. NORTH DIRECTION IS APPROXIMATE.
3. RIVER BOTTOM SOUNDINGS BY KGS GROUP MAY 11, 2000.



**RIVER GATE OUTFALL**

BM-78-017  
 W. SIDE ST. MARY'S RD. S. OF BRITANNICA RD., TBLT. IN N. CONC. FOUNDATION NO. 1928  
 ST. MARY'S RD., 3.8 m W. & 0.3m BELOW STUCCO OF N.E. COR. OF DWELLING.

150 WM	WATERMAIN	150 WM	HYDRO	150 WM	HYDRO	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED
	HYDRANT		M.T.S.		M.T.S.						
	VALVE		PROPERTY LINE		PROPERTY LINE						
	LAND DRAINAGE SEWER		SURVEY BAR		SURVEY BAR						
	WASTE WATER SEWER		LIGHT STANDARD		LIGHT STANDARD						
	MANHOLE		HYDRO POLE		HYDRO POLE						
	CATCH BASIN		GUY WIRE		GUY WIRE						
	CURB INLET		SIGN		SIGN						
	JUNCTIONS		BUSH LINE		BUSH LINE						
	CULVERT		FENCE		FENCE						
	GAS		ELEVATION		ELEVATION						
	EXISTING		231.334		231.334						
	LEGEND-PLAN		PROPOSED		PROPOSED						
	LEGEND-PROFILE		EXISTING		EXISTING						
	PROPOSED		PROPOSED		PROPOSED						

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
2	AS-BUILT	07/04/03	R.J.H.
1	LEGAL SURVEY	20/01/03	R.J.H.
0	ISSUED FOR TENDER	06/12/02	R.J.H.
A	ISSUED FOR REVIEW	02/12/02	R.J.H.

**KGS GROUP** CONSULTING ENGINEERS & PROJECT MANAGERS  
 WINNIPEG (204) 896-1208  
 THUNDER BAY (807) 346-2233

DESIGNED BY: R.J.H. CHECKED BY: R.J.H.  
 DRAWN BY: D.W. APPROVED BY: R.J.H.

HOR. SCALE: 1:250  
 VERTICAL: 1:50

NOV 18, 2002

ENGINEER'S SEAL

ORIGINAL SIGNED BY: R.J. HOUSTON  
 12 JUNE 06

CONSULTANT DRAWING NO. 02-107-04\_RG1-Rev2

METRIC  
 WHOLE NUMBERS INDICATE MILLIMETRES  
 DECIMALIZED NUMBERS INDICATE METRES

**THE CITY OF WINNIPEG**  
 WATER & WASTE DEPARTMENT

OUTFALL REPAIRS  
**ST. MARY'S ROAD OVERFLOW (RR-15)**  
 PLAN AND SECTION

SHEET 01 OF 09  
 CAD FILE DRAWING NUMBER 02-107-04\_RG1-Rev2  
 CITY DRAWING NUMBER LD-2748

**APEGM**  
 Certificate of Authorization  
 KGS Group  
 No. 245 Expiry: April 30, 2007



**136-01**



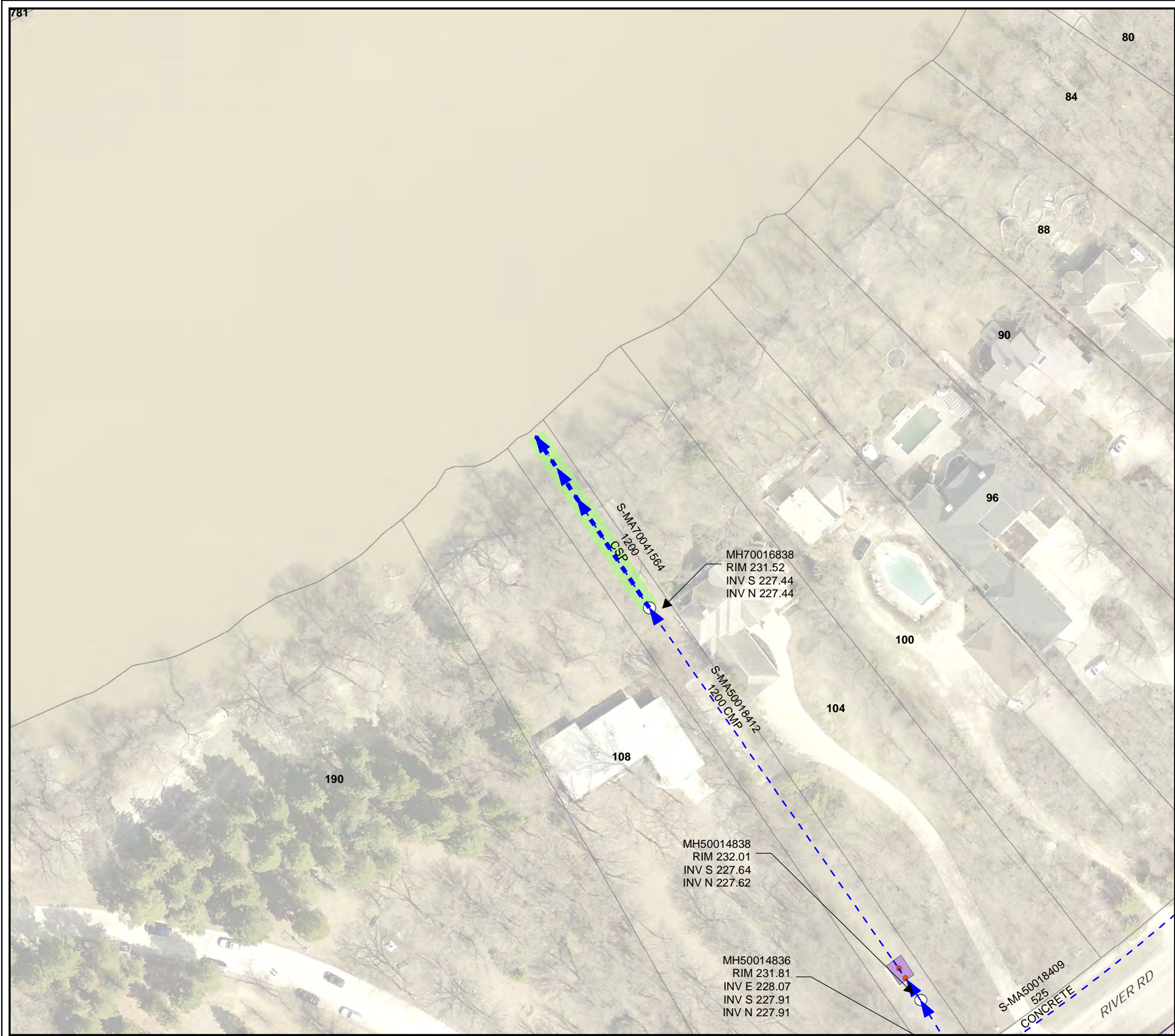
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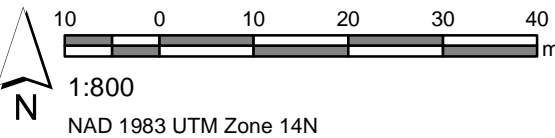
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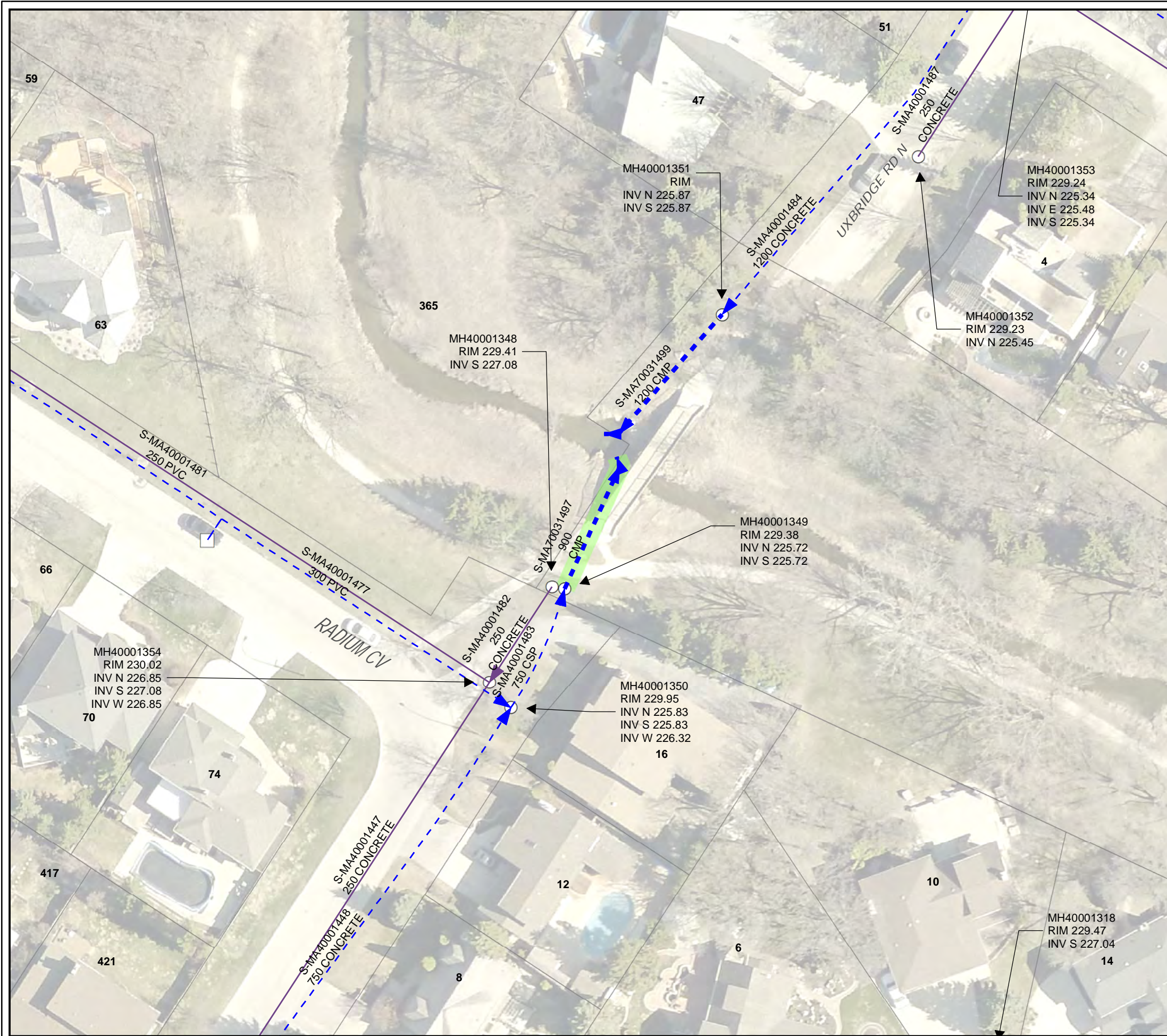


- LEGEND**
- OUTFALL INSPECTION
  - LDS
  - WWS
  - SEWER MANHOLE
  - CONTROL GATE
  - CONTROL STRUCTURE

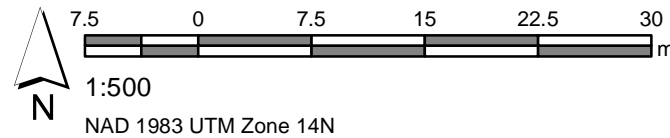


**Asset Number: S-MA70041564**  
**Location: 106 RIVER RD**  
**Coordinates: 634314.66E, 5521528.42N**





- LEGEND**
- OUTFALL INSPECTION
  - LDS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN



**Asset Number: S-MA70031497**  
**Location: 16 UXBRIDGE RD S**  
**Coordinates: 639431.95E, 5534517.08N**



008-01



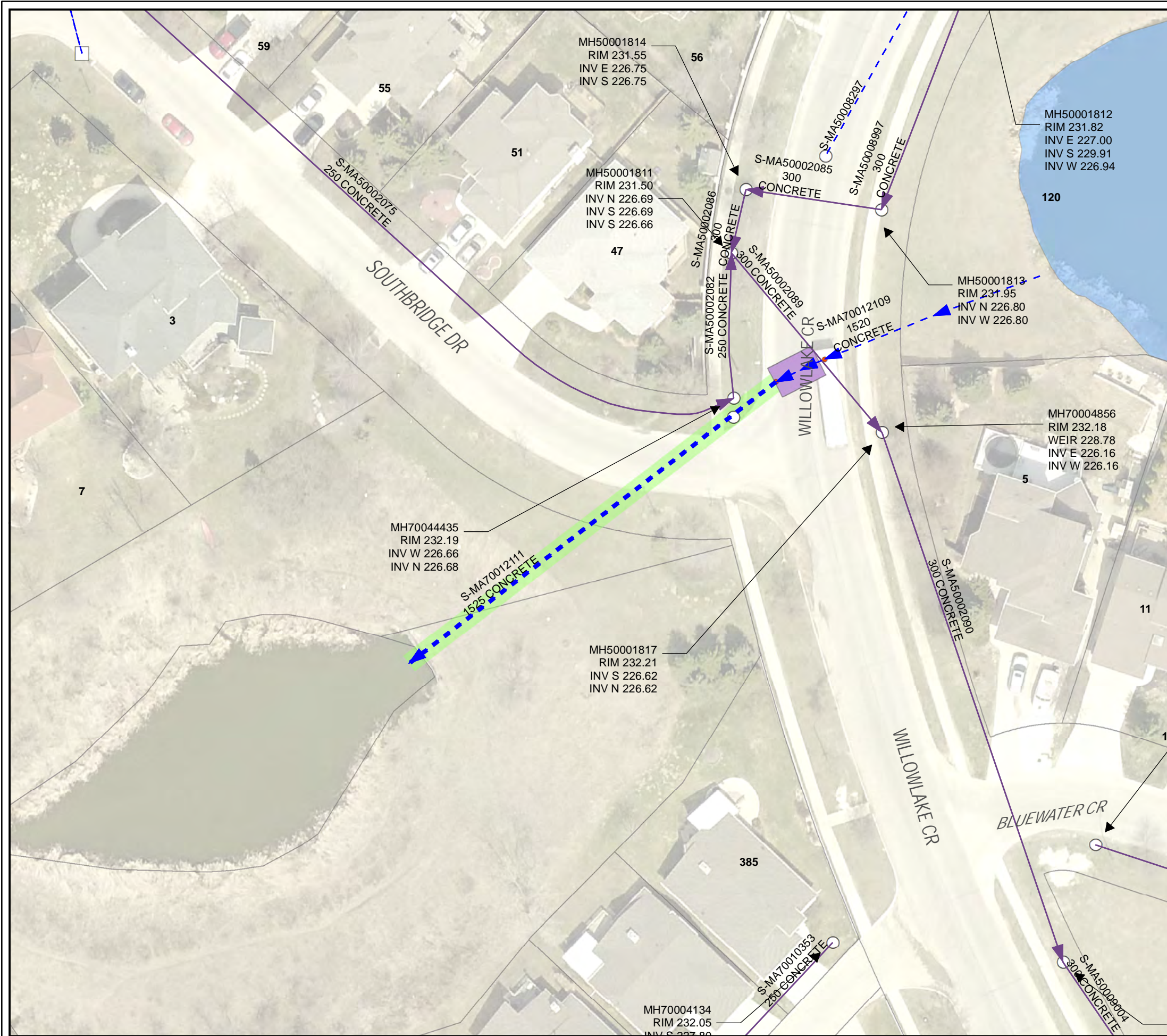
008-01



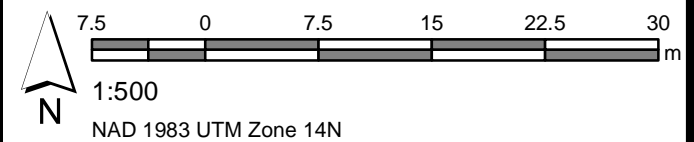
008-03







- LEGEND**
- OUTFALL INSPECTION
  - LDS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN
  - CONTROL GATE
  - CONTROL STRUCTURE
  - SEWER RETENTION BASIN



**Asset Number: S-MA70012111**  
**Location: 47 SOUTHBRIDGE**  
**Coordinates: 637547.75E, 5523198.87N**



**063-01**



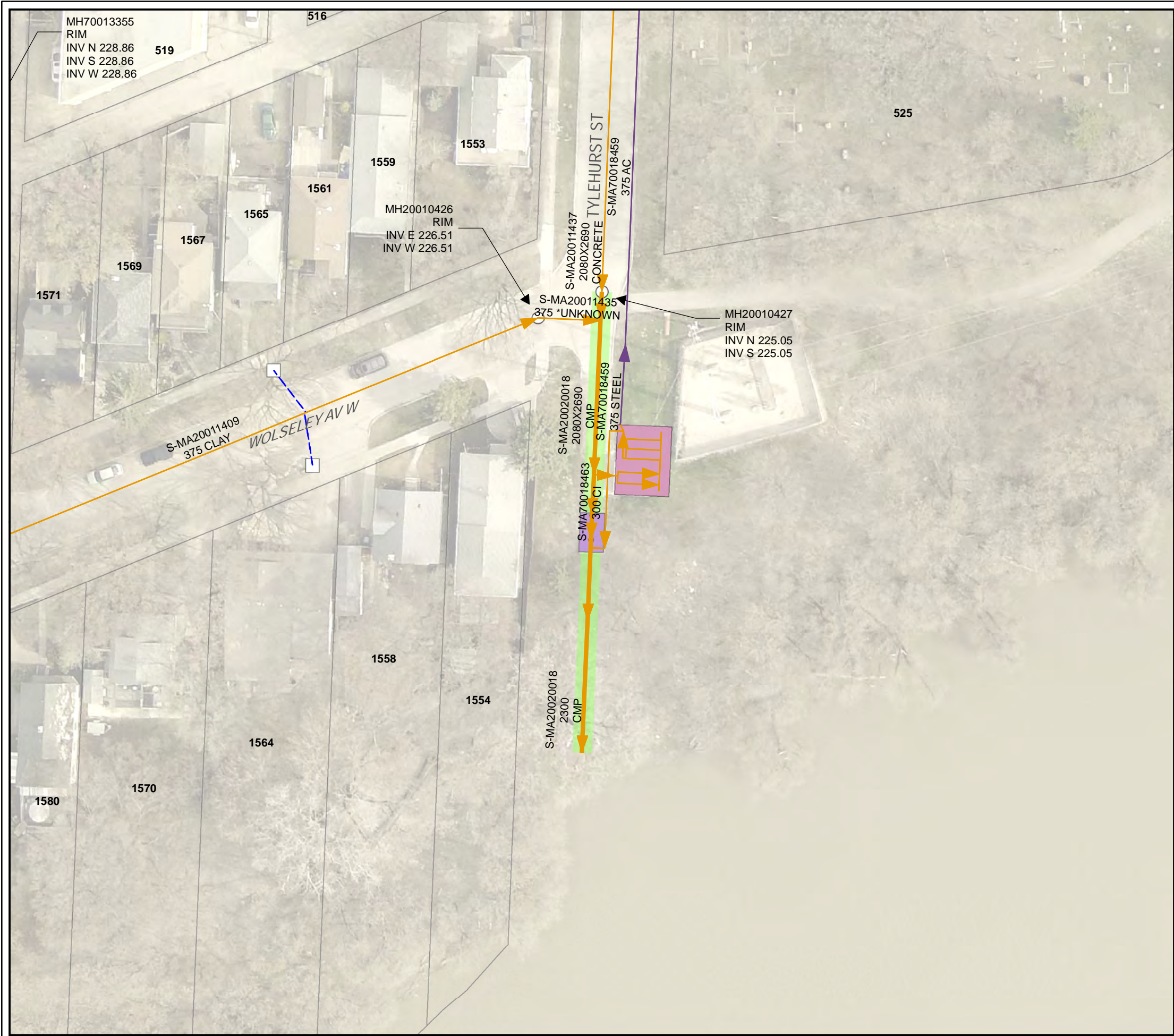
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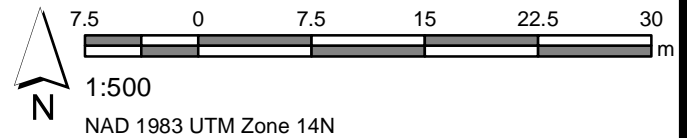
**063-05**







- LEGEND**
- OUTFALL INSPECTION
  - CS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN
  - CONTROL GATE
  - SEWER PUMP STATION
  - CONTROL STRUCTURE
  - ASSESSMENT PARCEL



**Asset Number: S-MA20020018**  
**Location: 499 TYLEHURST ST**  
**Coordinates: 629349.51E, 5526679.78N**



266-01



266-01



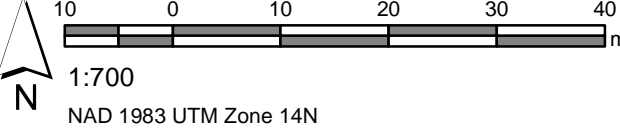
266-01







- LEGEND**
- OUTFALL INSPECTION
  - CS
  - LDS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN
  - CONTROL GATE
  - SEWER PUMP STATION



Asset Number: S-MA70016792  
 Location: 856 KILDONAN DR  
 Coordinates: 635629.46E, 5533044.03N



027-02



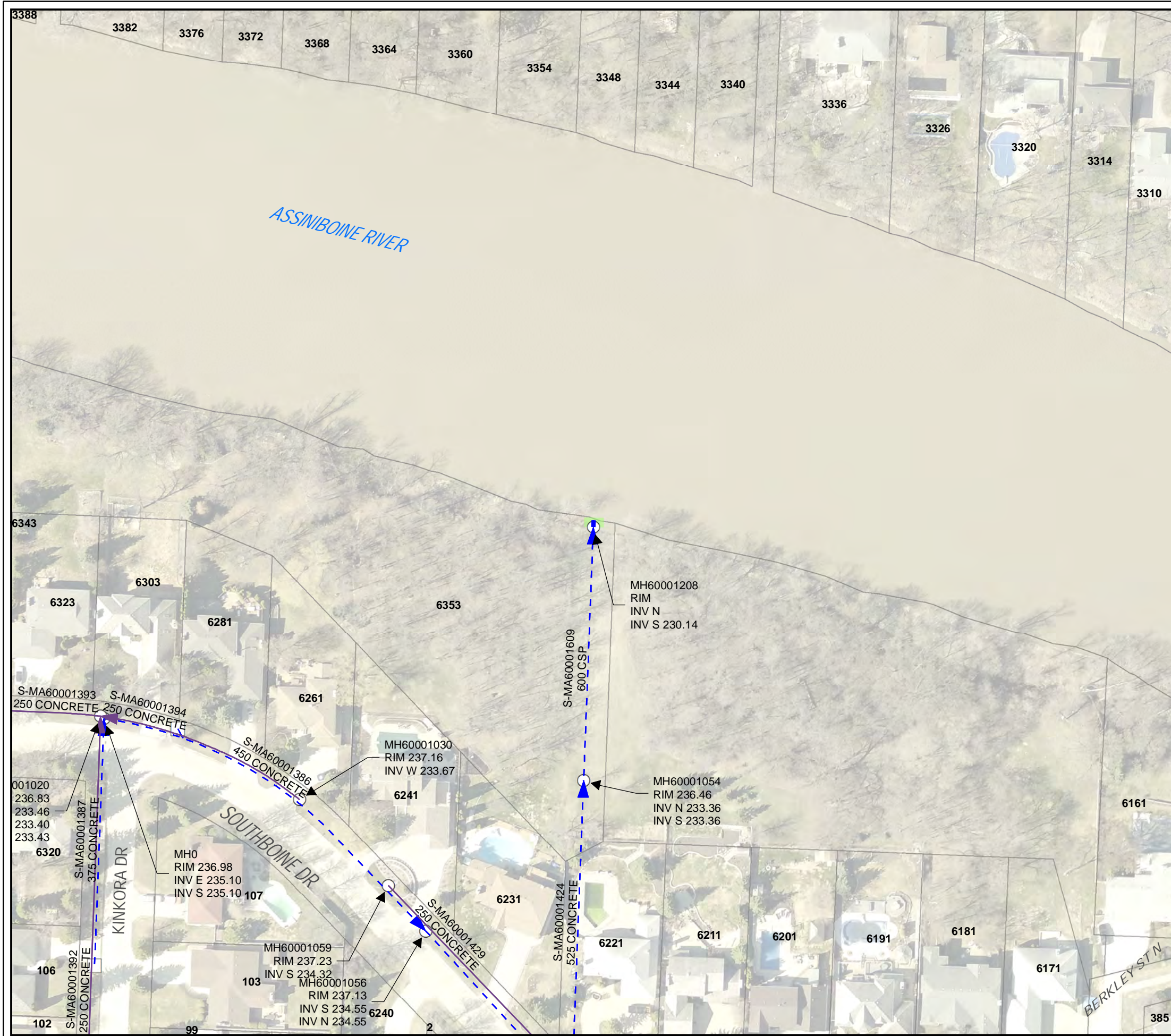
027-02



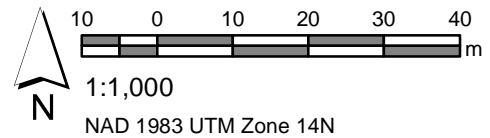
027-05







- LEGEND**
- OUTFALL INSPECTION
  - ▶ LDS
  - WWS
  - CB Lead
  - SEWER MANHOLE
  - CATCH BASIN



**Asset Number: S-MA60001608**  
**Location: 6353 SOUTHBONE DR**  
**Coordinates: 621844.72E, 5525045.09N**



209-02



209-02



209-02

