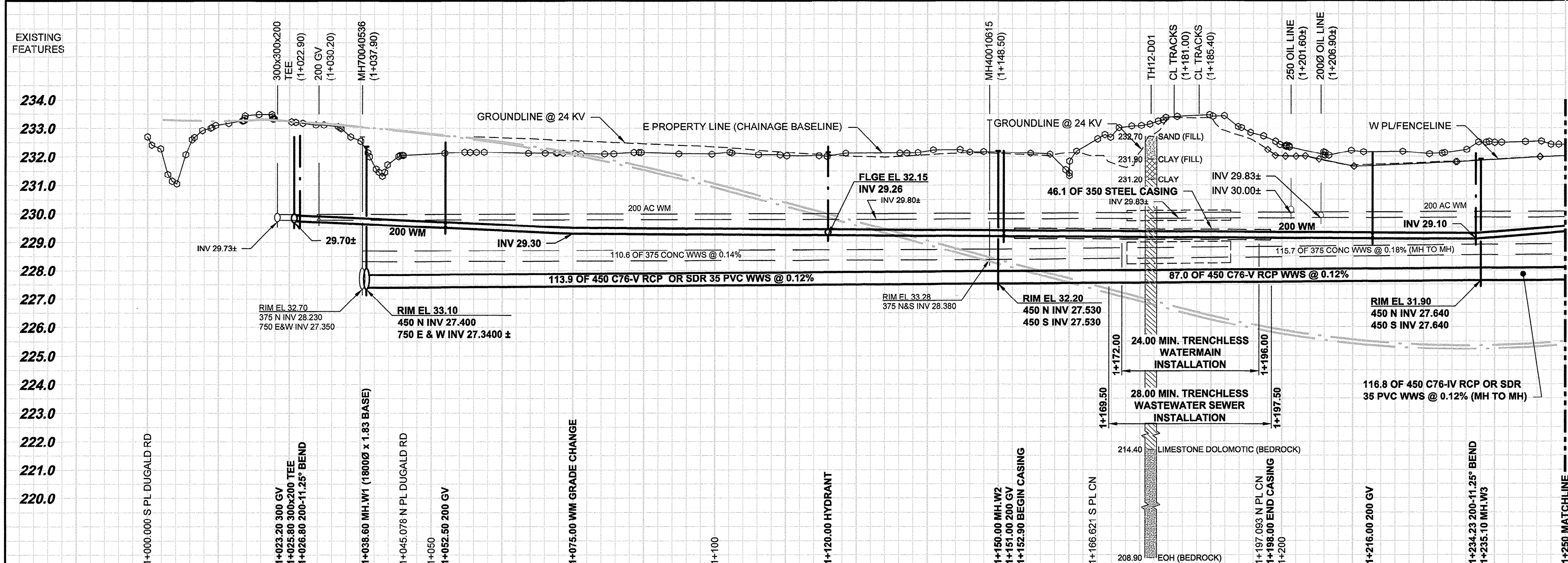
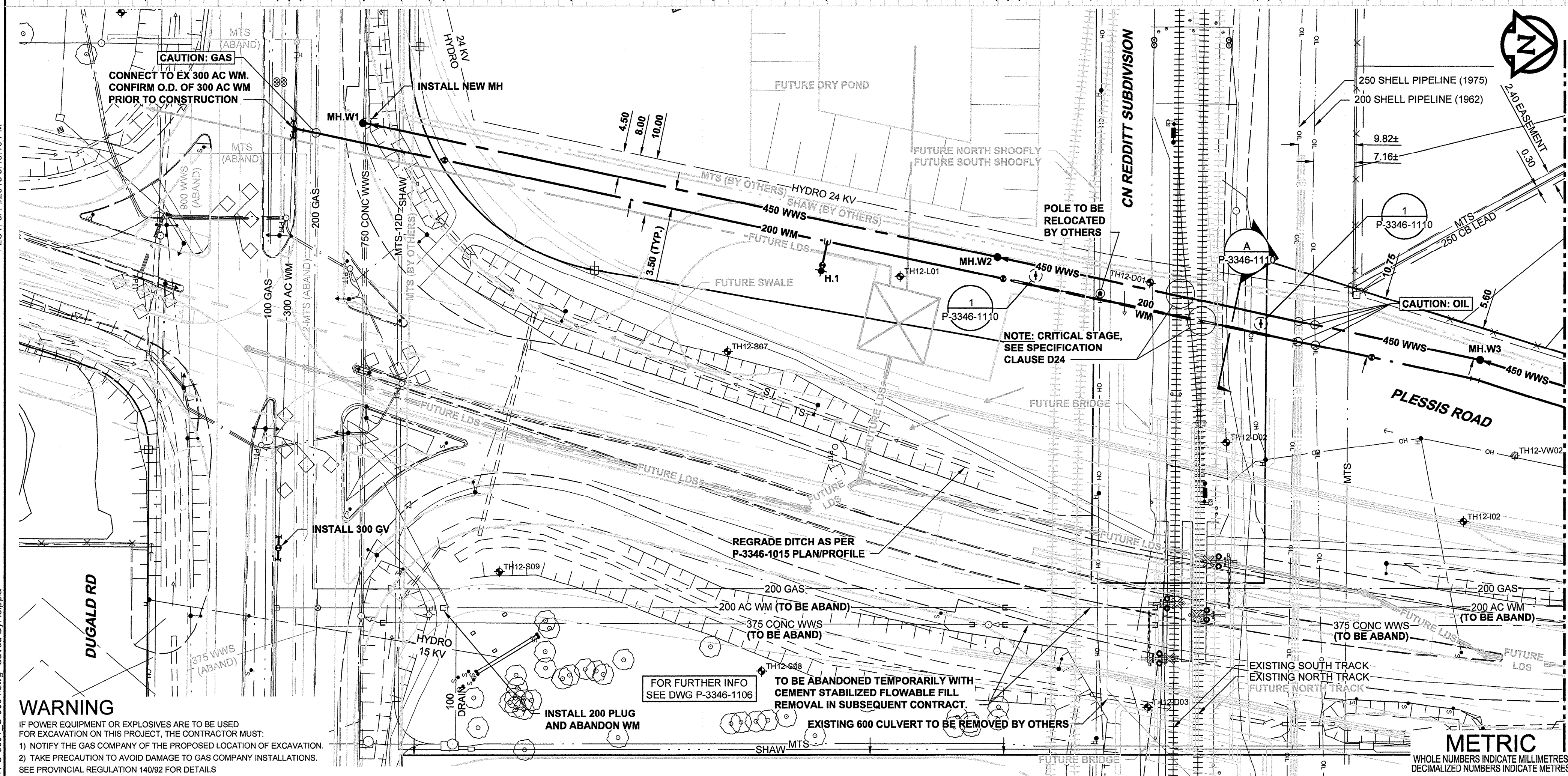


D SIZE 22" x 34" (559mm x 864mm)



RAIL CROSSING NOTES:

RAILWAY MILEAGE AND SUBDIVISION:	MAIN LINE - REDDITT SUBDIVISION - MILE 246.67
MUNICIPAL DESCRIPTION OF ADJACENT PROPERTIES:	PLESSIS ROAD CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT
NAME OF PIPELINE OWNER:	PLESSIS ROAD CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT
CONTENTS TO BE HANDLED:	WASTEWATER SEWER
MAXIMUM OPERATING PRESSURE:	NON-SURCHARGED GRAVITY
MAXIMUM SURGE AND TEST PRESSURE:	NA
MAXIMUM OPERATING TEMPERATURE:	ATMOSPHERIC
MINIMUM OPERATING TEMPERATURE:	NA
PIPING MATERIALS:	CARRIER
NOMINAL DIAMETER:	450 mm
OUTSIDE DIAMETER:	623 mm
MATERIAL SPECIFICATION AND GRADE:	REINFORCED CONCRETE ASTM C76 CLASS 5
WALL THICKNESS:	83 mm
TYPE OF JOINT:	RUBBER GASKET BELL AND SPIGOT
COATING:	NA
LOCATION OF SHUT OFF VALVES:	NA
METHOD OF INSTALLATION:	TRENCHLESS - CONCRETE PIPE TO BE JACKED WITH NO SOIL REMOVAL AHEAD OF PIPE
VENTS:	NA
SEALS:	NUMBER: NA HEIGHT ABOVE GROUND: NA BOTH ENDS TYPE: NA
BURY:	BASE OF RAIL TO TOP OF CARRIER: 5.5 m NOT BENEATH TRACKS: 4.0 m ROADWAY DITCHES: 3.5 m BASE OF RAIL TO BOTTOM OF JACKING/RECEIVING PITS: 6.5 m
EXTENT OF CASING MEASURED PERPENDICULAR TO CENTERLINE OF TRACK:	NA
ANGLE OF PIPE / TRACK CROSSING:	78°28'
DIRECTION OF FLOW:	NA
CENTERLINE OF TRACK TO FACE OF JACKING/RECEIVING PITS:	12.0m
TYPE, SIZE, AND SPACING OF INSULATORS OR SUPPORTS:	NA
CATHODIC PROTECTION:	NA
GEOTECHNICAL BOREHOLES:	SEE PROFILE
SOIL TYPE:	CLAY
BASE OF RAIL TO GROUND WATER:	10.4m - 11.5m
TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH:	TC E-10



RAIL CROSSING NOTES:

RAILWAY MILEAGE AND SUBDIVISION:	MAIN LINE - REDDITT SUBDIVISION - MILE 246.67
MUNICIPAL DESCRIPTION OF ADJACENT PROPERTIES:	PLESSIS ROAD CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT
NAME OF PIPELINE OWNER:	PLESSIS ROAD CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT
CONTENTS TO BE HANDLED:	POTABLE WATER
MAXIMUM OPERATING PRESSURE:	450 KPa (65 psf)
MAXIMUM SURGE AND TEST PRESSURE:	1000 KPa (145 psi)
MAXIMUM OPERATING TEMPERATURE:	20°C
MINIMUM OPERATING TEMPERATURE:	4°C
PIPING MATERIALS:	CARRIER
NOMINAL DIAMETER:	200 mm
OUTSIDE DIAMETER:	230 mm
MATERIAL SPECIFICATION AND GRADE:	PVC AWWA C900 DR18
WALL THICKNESS:	12.8 mm
TYPE OF JOINT:	RUBBER GASKET BELL AND SPIGOT
COATING:	NA
LOCATION OF SHUT OFF VALVES:	A) 18.9m NORTH OF NORTH LIMIT OF R.O.W. B) 15.6m SOUTH OF SOUTH LIMIT OF R.O.W.
METHOD OF INSTALLATION:	TRENCHLESS - CASING TO BE JACKED WITH NO SOIL REMOVAL AHEAD OF PIPE
VENTS:	NUMBER: NA HEIGHT ABOVE GROUND: NA BOTH ENDS TYPE: NA
SEALS:	YES PSI MODEL W BUNA-N
BURY:	BASE OF RAIL TO TOP OF CASING: 4.2 m NOT BENEATH TRACKS: 2.6 m ROADWAY DITCHES: 2.1 m BASE OF RAIL TO BOTTOM OF JACKING/RECEIVING PITS: 4.9 m
EXTENT OF CASING MEASURED PERPENDICULAR TO CENTERLINE OF TRACK:	45.2m
ANGLE OF PIPE / TRACK CROSSING:	78°28'
DIRECTION OF FLOW:	BI-DIRECTIONAL
CENTERLINE OF TRACK TO FACE OF JACKING/RECEIVING PITS:	10.0m
TYPE, SIZE, AND SPACING OF INSULATORS OR SUPPORTS:	PSI RANGER II MDSI SPACERS WITH 38mm RUNNER HEIGHT 1.5m O.C.
CATHODIC PROTECTION:	NA
GEOTECHNICAL BOREHOLES:	SEE PROFILE
SOIL TYPE:	CLAY
BASE OF RAIL TO GROUND WATER:	10.4m - 11.5m
TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH:	TC E-10

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 140/92 FOR DETAILS

EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW
150 WM	WATERMAIN	150 WM	150 WM	CURB STOP	150 WM	150 WM	WATERMAIN	150 WM
Hydrant	HYDRANT	Hydrant	Hydrant	REDUCER	Hydrant	Hydrant	HYDRANT	Hydrant
Valve	VALVE	Valve	Valve	COUPLING	Valve	Valve	VALVE	Valve
300 LDS	LAND DRAINAGE SEWER	300 LDS	300 LDS	ANODE	300 LDS	300 LDS	LAND DRAINAGE SEWER	300 LDS
250 WWS	WASTE WATER SEWER	250 WWS	250 WWS	HYDRO	250 WWS	250 WWS	WASTE WATER SEWER	250 WWS
Manhole	MANHOLE	Manhole	Manhole	MTS	Manhole	Manhole	PAVEMENT CROWN	Manhole
Catch Basin	CATCH BASIN	Catch Basin	Catch Basin	GAS	Catch Basin	Catch Basin	N/W PROPERTY LINE	Catch Basin
Curb Inlet	CURB INLET	Curb Inlet	Curb Inlet	TESTHOLE	Curb Inlet	Curb Inlet	S/E PROPERTY LINE	Curb Inlet
Culvert	CULVERT	Culvert	Culvert	LAMP STANDARD	Culvert	Culvert	N/W GUTTER	Culvert
Pipe Abandonments	PIPE ABANDONMENTS	Pipe Abandonments	Pipe Abandonments	TREE	Pipe Abandonments	Pipe Abandonments	S/E GUTTER	Pipe Abandonments
Survey Bar	SURVEY BAR	Survey Bar	Survey Bar		Survey Bar	Survey Bar		Survey Bar

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPR. UG 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.

0	ISSUED FOR TENDER	13/05/14	ADL
NO.	REVISIONS	YYMMDD	BY

AECOM

DESIGNED BY: JAT
DRAWN BY: ADL
HOR. SCALE: 1:500
VERT. SCALE: 1:100

CHECKED BY: [Signature]
APPROVED BY: [Signature]
RELEASED FOR CONSTRUCTION: [Signature]

PROFESSIONAL'S SEAL

PROVINCE OF MANITOBA REGISTERED PROFESSIONAL ENGINEER

D.M.R. ENNS Member 31777
MAY 14, 2013

CONSULTANT DRAWING NO. 60273041-SHT-01-Con1-C-0001_C-0004

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

PLESSIS ROAD TWINNING AND GRADE SEPARATION AT CN REDDITT SUBDIVISION CONTRACT 1

PLESSIS ROAD - 450 WWS & 200 WM
DUGALD ROAD TO 350m SOUTH OF KERNAGHAN AVENUE

CITY DRAWING NUMBER: P-3346-1104
SHEET: 20 OF 27
CONSULTANT DWG No. REV: C-0001 0

BID OPPORTUNITY NO. 342-2013