

Legal description of property: _____

Contact person: _____

Phone number: _____ Company: _____

Email address: _____

The following list of items are the minimum requirements for review and acceptance of the servicing drawing. Plans not meeting these requirements will be deemed incomplete and returned. This checklist must be completed and submitted by the P.Eng. as part of the servicing drawing submission package. Any items which do not apply to the project must be marked N/A (not applicable). The Town's detailed review will not start prior to your confirmation. The purpose of this step is to reduce potential resubmissions with the intent of providing a shorter permit issuance timeline.

Potential prerequisite requirements

- Official Plan Amendment
- Zoning By-law Amendment
- Committee Of Adjustment
- Alteration Permit (SAEP)
- LSRCA Permits
- Others

General requirements

- Provide drawings signed and sealed by a professional
- Local topographic information required including key elevations.
- All existing and proposed driveway locations to be shown.
- Location of all relevant trees, shrubs and general landscaping as required. Include related removals, and by whom, as necessary.
- All nearby stormwater and culverts including elevations and lengths should be shown, as necessary.
- All overhead utilities to be shown on drawings.
- Plan and profile drawings to be included, as necessary.
- Minimum horizontal separation between proposed watermain and sewer (and property line) of 2.5 metres to be shown.
- Include relevant standard drawings OPSS and OPSD and Town drawing details for connections, backfill, pipe crossing, frost cover, etc. as necessary.
- Show depth of cover for all proposed services.
- Any existing laterals (or reused) to be inspected and CCTV provided prior to issuance of a building permit. Size of all existing laterals to be confirmed and shown.

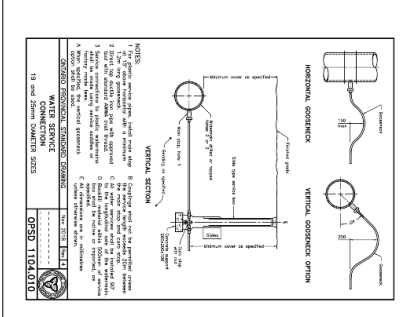
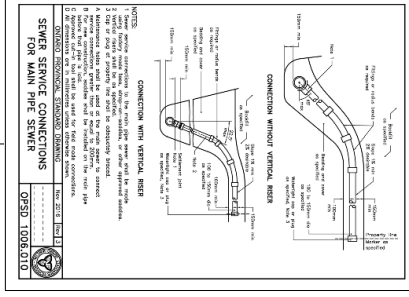
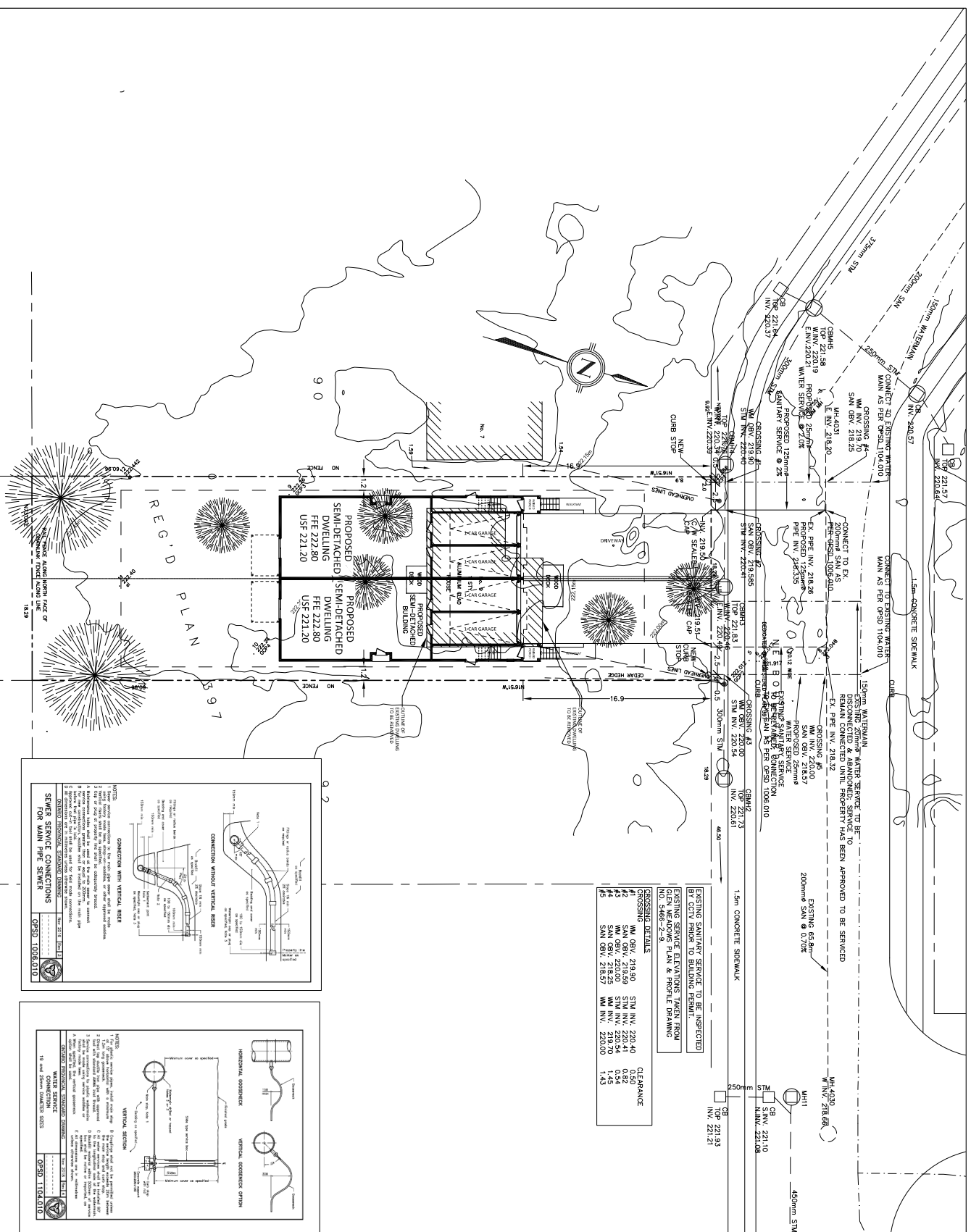
- Crossing of existing services (with proposed services) shall include:
 - all profile elevations of drawings, both inverts and obverts.
 - provide a profile drawing or separate table showing clearance, invert and obvert elevations.

Checklist watermain

- Existing Town Infrastructure to be detailed show existing proposed watermain material and diameter.
- Connection per [OPSD 1104.010](#)
- See house service location standard drawing [GG-7](#)
- Show location of proposed [curb stop](#) per Town standards (lead free brass non-draining ball valve) 300mm away from property line on private property. Water valve cannot be in driveway.

Checklist sanitary

- Show proposed sanitary connection location invert elevation.
- Connection per relevant OPSD (e.g.: 1006.010)
- Cross-section drawings showing crossing clearances (as necessary) and related top of grade ground cover elevations.
- Show diameter, material and slope of all proposed sanitary pipes (e.g.: 125 PVC SDR28 Sanitary Service Per CSA B182.1 at 2%)
- Show location of proposed cleanout. Cleanout should be as close to property line as possible but remain on private property.
- Show location and elevation of sanitary connection at house foundation and property line.
- Calculate and label proposed sanitary slope (between 2% minimum and 8% maximum).



EXISTING SANITARY SERVICE TO BE INSPECTED BY CITY PRIOR TO BUILDING PERMIT.		EXISTING SERVICE ELEVATIONS TAKEN FROM OPEN MANSIONS PLAN & PROFILE DRAWING	
CROSSING DETAILS			
#1	WM OBV. 219.50	STM INV. 220.40	CLEARANCE 0.50
#2	WM OBV. 220.00	STM INV. 220.54	0.54
#3	WM OBV. 218.25	STM INV. 219.70	1.45
#4	WM OBV. 218.25	STM INV. 220.54	0.54
#5	SM OBV. 218.50	WM INV. 220.00	1.50

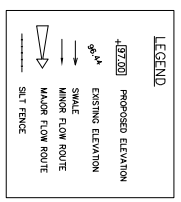
SENDING NOTES

EXISTING 150mm SANITARY SERVICE TO BE REMOVED IN ITS ENTIRETY AND REINSTALLED IN ITS ORIGINAL LOCATION ON EAST HALF OF NEW SEMI-DETACHED LOT. EXISTING 150mm WATER SERVICE TO BE DISCONNECTED AT MAIN AND ABANDONED.

NEW SANITARY AND WATER SERVICE TO BE INSTALLED AS NOTED AND AS PER (OWN STRIPING CO.) DRAWING.

PAVEMENT RESTORATION TO MATCH EXISTING MATERIAL, DEPTH AND COMPACTED TO 100% SPHD AND OR AS OTHERWISE DIRECTED BY TOWN ENGINEER.

RESERVED TO ORIGINAL CONDITION OR BETTER.



NO.	DATE	REVISIONS	BY
1	1/15/2021	Comments from the Town	WJF
2	1/15/2021	Comments from the Town	WJF

APPROVAL: _____ ENGINEER'S SEAL

PROJECT TITLE: _____

DRAWING TITLE: **SERVICING PLAN**

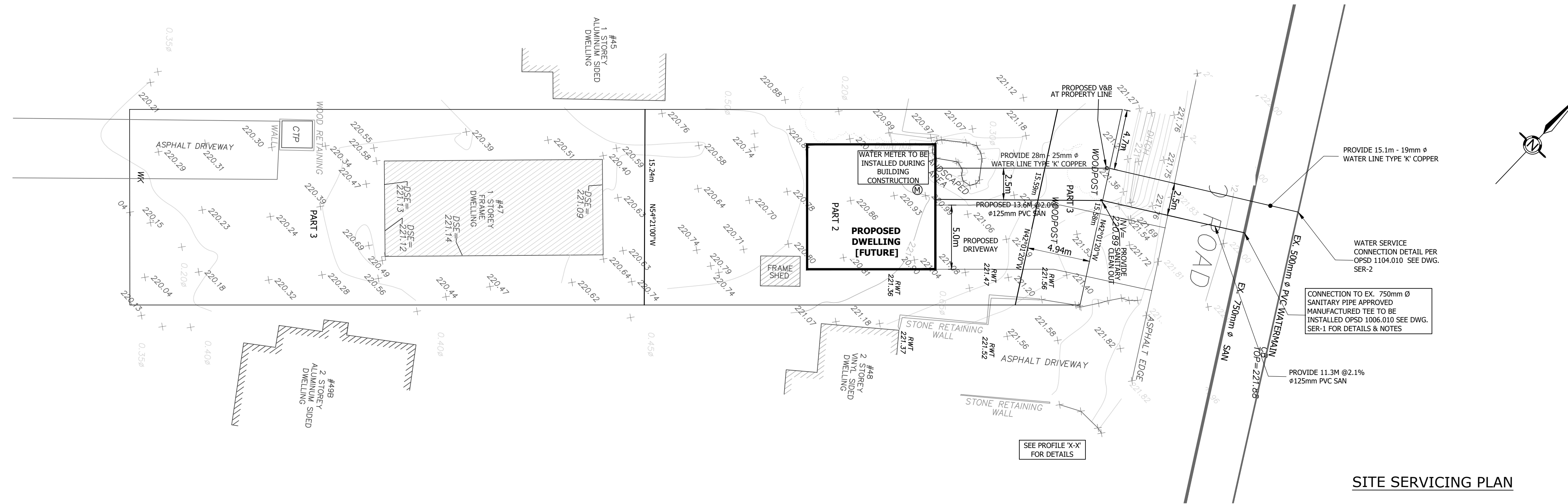
SEAL NO: _____

DATE: JULY 2021

SCALE: 1:150

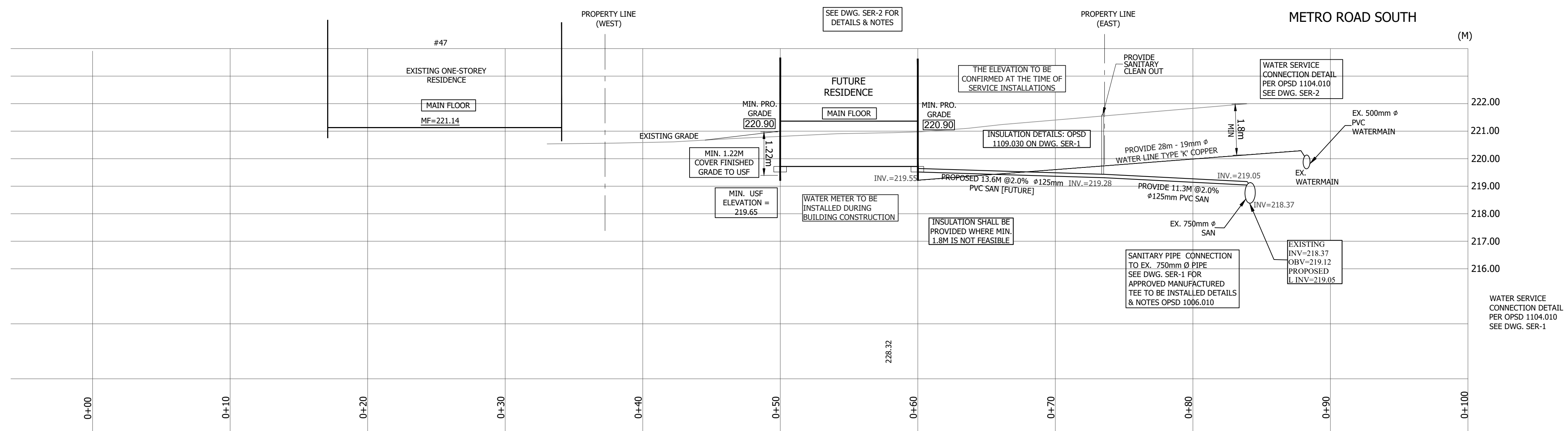
PROJECT NO: **21-48**

SS-1



SITE SERVICING PLAN

REFERENCE:
SITE SERVICING PLAN & PROFILE
CONSTRUCTION RECORD
BY PROJECT PLANNING ASSOCIATES LIMITED



PROFILE 'X-X'

SCALE
HOR. 1 : 200
VERT. 1: 100

DESTINANCE

SITE SERVICING PLAN

PROJECT NO.: **23-1983**
DRAWING NO.: **SER-1**

Date: SEP 2023
Scale: 1 : 200

Designed By: BH
Drawn By: BH

THE CONNECTION TO THE MAIN SEWER SHALL BE MADE WITH AN APPROVED MANUFACTURED TEE. APPROVED SADDLES SHALL BE USED FOR CONNECTING TO EXISTING SEWER MAINS, UNLESS OTHERWISE APPROVED BY THE TOWN. ALL MATERIALS ARE TO BE AWWA APPROVED OR AS PER OPSD. CONNECTION TO MANHOLES WILL NOT BE ALLOWED. SPECIAL CONSIDERATION MAY BE MADE FOR CUL-DE-SACS OR DEAD ENDS PROVIDED THAT THE INVERT IS CONNECTED NO HIGHER THAN THE OVERT OF THE OUTLET PIPE IN THE MANHOLE AND IS PROPERLY BENCHMARKED.

NO SERVICE CONNECTION OF A SIZE GREATER THAN HALF THE DIAMETER OF THE MAIN SHALL BE CUT INTO THE MAIN SEWER. A MANHOLE SHALL BE INSTALLED ON THE MAIN SEWER AT THE INTERSECTION OF A SERVICE CONNECTION WHICH HAS A SIZE GREATER THAN HALF THE DIAMETER OF THE MAIN SEWER EXCEPT

A 125 MM OR 150 MM SERVICE CONNECTION WILL BE PERMITTED TO CONNECT TO A 200 MM AND 250 MM MAIN SEWER PROVIDED AN APPROVED MANUFACTURED TEE IS INSTALLED AND PROVIDED THE INVERT OF THE SERVICE CONNECTION IS ABOVE THE SPRING-LINE OF THE MAIN SEWER.

MINIMUM ACCEPTABLE VELOCITY = 0.6 M/S (BASED ON ACTUAL VELOCITIES AS CALCULATED)

THE ABSOLUTE MINIMUM AND MAXIMUM GRADES FOR SANITARY SEWERS SHALL BE IN ACCORDANCE WITH TABLE 4 SUBJECT TO ACHIEVING MINIMUM ACCEPTABLE VELOCITY AT THE DESIGN FLOW. THE MINIMUM GRADE FOR THE FIRST UPSTREAM LEG SHALL NOT BE LESS THAN 1.0% AND NOT LESS THAN 50 M IN LENGTH, UNLESS THE DESIGNER DEMONSTRATES THAT THE MINIMUM ACTUAL VELOCITY OF 0.6M/S IS BEING ACHIEVED. SLOPES LESS THAN THOSE REQUIRED FOR 0.75 M/S VELOCITY (WHEN FLOWING FULL) MAY BE PERMITTED WHEN INCREASING THE SLOPE WOULD REQUIRE DEEPENING OF EXTENSIVE SECTIONS OF THE SYSTEM, OR THE ADDITION OF A PUMPING STATION.

THE MINIMUM DEPTHS OF SEWERS FOR RESIDENTIAL AREAS SHALL BE 2.7 M AS MEASURED FROM THE FINAL CENTRELINE FINISHED ROAD ELEVATION TO THE TOP OF THE SANITARY SEWER. THE MAXIMUM DEPTH OF SEWERS WITH DIRECT LATERAL CONNECTIONS SHALL BE 7.0 M (MEASURED FROM FINISHED CENTERLINE OF ROAD ELEVATION TO INVERT OF SEWER). IN CASES WHERE DEEPER SEWERS ARE REQUIRED THESE SHALL BE CONSIDERED TRUNK SEWERS AND NO DIRECT LATERAL CONNECTIONS WILL BE PERMITTED. SEPARATE LOCAL SEWER SHALL BE CONSTRUCTED OFFSET ABOVE THE TRUNK SEWER WITH SUFFICIENT SPACE TO ALLOW

THE CLASS OF PIPE AND THE TYPE OF BEDDING SHALL BE SELECTED TO SUIT LOADING AND PROPOSED CONSTRUCTION CONDITIONS. DETAILS AND TYPES OF BEDDING AND BACKFILL ARE ILLUSTRATED IN OPSD 802.010 AND 802.030. THE WIDTH OF THE TRENCH AT THE TOP OF THE PIPE MUST BE CAREFULLY CONTROLLED TO ENSURE THAT THE MAXIMUM TRENCH WIDTH IS NOT EXCEEDED UNLESS A HIGHER CLASS OF BEDDING OR HIGHER STRENGTH PIPE IS USED. THE RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER WILL BE REQUIRED IN DETERMINING STRENGTH OF PIPE, BEDDING MATERIAL.

AN INSPECTION MANHOLE SHALL BE REQUIRED ON THE PRIVATE PROPERTY LOCATED 1.5 M FROM THE PROPERTY LINE TO THE CENTRE OF THE FRAME AND

ALL SANITARY SERVICE CONNECTIONS FOR RESIDENTIAL USES SHALL BE CONSTRUCTED OF THE POLYVINYL

WATER SERVICE CONNECTIONS:

- GENERAL**
A SINGLE WATER LINE SHALL BE INSTALLED TO SERVICE EACH RESIDENTIAL PROPERTY. SERVICES FOR OTHER USES ARE TO BE ADEQUATELY SIZED AND IDENTIFIED ON THE ENGINEERING DRAWINGS. SERVICES SHALL BE INSTALLED ACCORDING TO OPSD 1104.010 AND 1104.020.
- MATERIAL**
ALL WATER SERVICE CONNECTIONS SMALLER THAN 50 MM IN DIAMETER SHALL BE CONSTRUCTED OF TYPE 'K' COPPER MEETING THE REQUIREMENTS OF ASRM B88. NO JOINTS OR FITTINGS WILL BE PERMITTED ON THE COPPER SERVICE.
ALL WATER SERVICE CONNECTIONS 100 MM IN DIAMETER AND LARGER SHALL BE CONSTRUCTED OF PVC PIPING. TRACER WIRE SHALL BE INSTALLED ON PVC SERVICES.
- MINIMUM SIZE**
THE MINIMUM SIZE OF SERVICE CONNECTION TO BE PROVIDED FOR A SINGLE FAMILY RESIDENCE SHALL BE 25 MM IN DIAMETER.
- LOCATION**
SINGLE SERVICES SHALL BE PROVIDED FOR ALL SINGLE AND SEMI-DETACHED LOTS AND ON-STREET TOWNHOUSE UNITS. THE LOCATION SHALL BE SHOWN ON ALL PLAN AND PROFILE DRAWINGS AND THE COMPOSITE UTILITY PLANS AND SHALL BE IN ACCORDANCE WITH GG-7. THE MINIMUM COVER OVER WATER SERVICES SHALL BE 1.8 M. CONSIDERATION SHALL BE GIVEN TO THE PROXIMITY OF THE STORM SEWER IN RELATION TO THE WATER SERVICE WHERE SERVICES CROSS PERPENDICULAR TO THE STORM SEWER. WATER SERVICES MAY BE REQUIRED TO BE INSTALLED UNDERNEATH THE STORM SEWER TO PREVENT FREEZING.
A MINIMUM CLEARANCE OF 2.5 M (MOE) SHALL BE PROVIDED FROM ALL WATER SERVICES TO ANY STORM, OR SANITARY SEWERS, OR CATCHBASINS, UNLESS THE DESIGNER CAN DEMONSTRATE THAT SAME IS NOT ACHIEVABLE, AT WHICH TIME, A LESSER CLEARANCE MAY BE CONSIDERED AS PER SECTION 15.1.1 OF THE MOE.
- MARKERS**
ALL NEW WATER SERVICE CONNECTIONS SHALL BE MARKED WITH 50 MM X 100 MM X 2.4 M STAKES PAINTED BLUE.
- CURB STOPS**
THE VALVE ON ALL WATER SERVICE CONNECTIONS SHALL BE LOCATED AT THE STREET LIMIT AND A MINIMUM DISTANCE OF 0.3 M AWAY FROM THE OUTER EDGE OF ANY DRIVEWAY OR SIDEWALK. CURB STOPS ARE TO BE BRASS (LEAD FREE) NON-DRAINING BALL VALVES.

LOCATION IDENTIFICATION (TRACING)

THE INSTALLATION OF BLUE CAUTION TAPE IS REQUIRED APPROXIMATELY 300 MM ABOVE THE PIPE TO DELINEATE THE LOCATION OF THE WATERMAIN. A TRACER WIRE SHALL BE PROVIDED ALONG THE TOP OF ALL WATERMAINS TO PERMIT FIELD TRACING OF THE WATERMAIN. THE WIRE IS TO BE SECURED TO THE TOP OF THE WATERMAIN AT EVERY FITTING AND VALVE AND AT INTERVALS NOT TO EXCEED 3.0 M. ALL WATERMAINS SHALL BE INSTALLED WITH A #12 TWU STRANDED COPPER TRACER WIRE ON TOP OF THE WATERMAIN. THE TRACER WIRE SHALL BE WRAPPED AROUND EACH JOINT OF THE WATERMAIN AND BROUGHT TO THE SURFACE AT EACH HYDRANT AND CONNECTED TO THE BOTTOM OF THE FLANGE BOLT. A CONTINUOUS LENGTH OF WIRE MUST BE USED. IF THE WIRE MUST BE JOINED, THE APPROPRIATE WIRE CONNECTORS SHALL BE USED AND WRAPPED WITH SELF-AMALGAMATING TAPE TO PREVENT CORROSION

CORROSION PROTECTION

FOR ANY INSTALLATION OF WATER PIPE SYSTEMS, AN INVESTIGATION OF THE SOILS CONDITIONS SHALL BE UNDERTAKEN TO DETERMINE THE CORRODIBILITY OF THE NATIVE SOILS AND TO PROVIDE RECOMMENDATIONS WITH REGARD TO CORROSION PROTECTION.
AS A MINIMUM, 175 GRAM ZINC CAPS OR WASHERS, OR APPROVED EQUIVALENT, SHALL BE INSTALLED ON EACH BOLT OF ANY MECHANICAL CONNECTION. ADDITIONALLY A 4-KG (12 LB.) PACKAGED ZINC ANODE SHALL BE INSTALLED ON EACH HYDRANT AND ALL VALVES. AN ANODE IS TO BE ATTACHED TO EACH CURB STOP. ALL SPECIFICATIONS ARE TO BE PER OPS 702.
"DENSO" TAPE OR APPROVED EQUIVALENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S AND THE TOWN'S SPECIFICATIONS ON ALL METALLIC VALVES AND FITTINGS IN A CHAMBER OR DIRECT BURY. (ALSO SEE OPS 1109.)

- MINIMUM DEPTH OF PIPE: ROADS WITH CURB AND GUTTER SHALL HAVE A MINIMUM COVER OF 1.80 M, THE WATERMAIN MEASURED FROM THE TOP OF PIPE TO THE FINISHED CENTRE LINE ROAD GRADE. ROADS WITH OPEN DITCHES, THE WATERMAIN SHALL HAVE A MINIMUM COVER OF 1.80 M.
- WATERMAIN BEDDING AND BACKFILL REQUIREMENTS SHALL CONFORM TO OPSD 802.010 FOR PVC PIPE, OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE TOWN.

