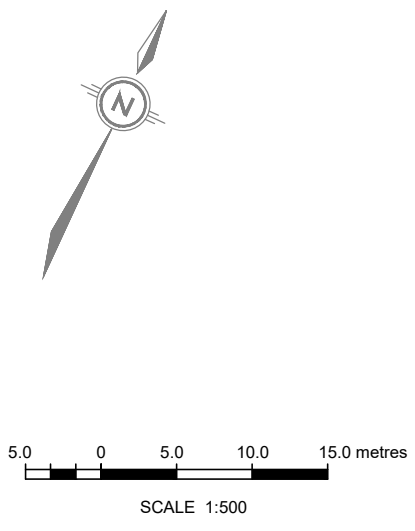
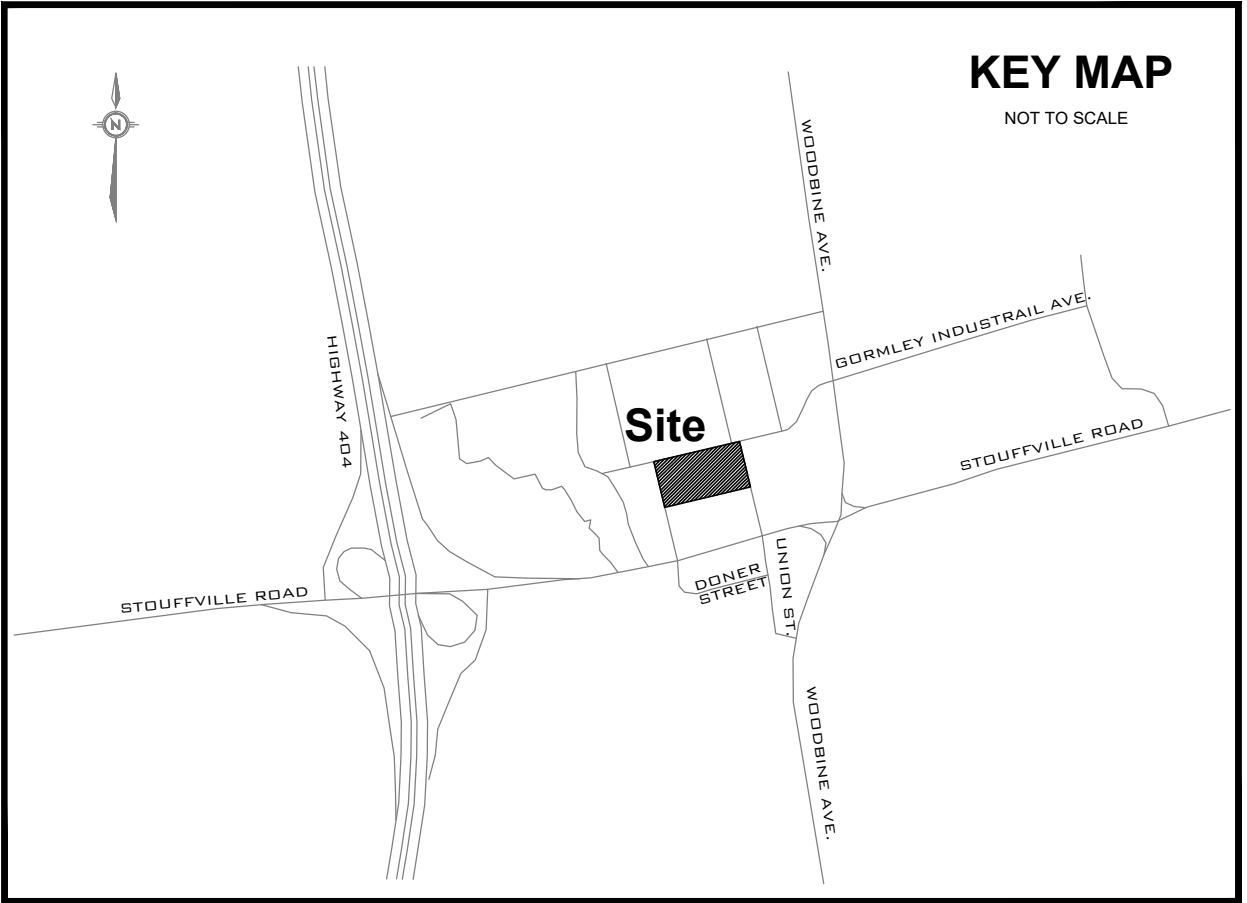
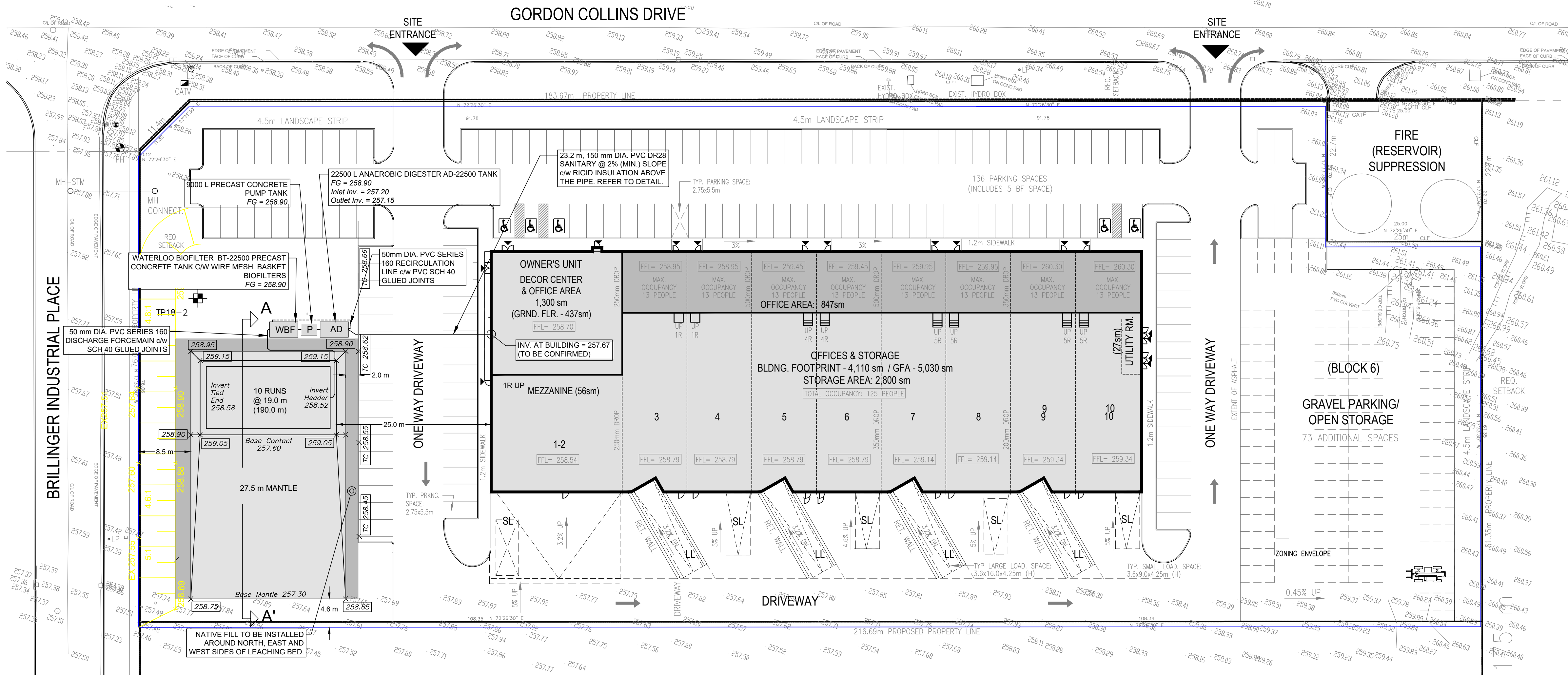


THE GRADES AND LOCATIONS OF STRUCTURES AND FACILITIES ON THIS PLAN WERE DESIGNED ON THE BASIS OF SURVEY OR CONTOUR DATA PROVIDED BY OTHERS. IT IS THE RESPONSIBILITY OF THE CLIENT AND HIS CONTRACTORS TO CONFIRM THE ACCURACY OF THE SETBACKS, LOCATION AND GRADES. ANY VARIATION BETWEEN EXISTING CONDITIONS AND THIS PLAN SHOULD BE REFERRED TO WSP TO DETERMINE THE IMPACT OF THE VARIATIONS ON THE SUITABILITY OF THE DESIGN.



TEST PIT LOG TP18-1
0.00 - 0.43 m DARK BROWN TOPSOIL, TRACE CLAY, ROOTLETS, ORGANICS
0.43 - 1.63 m SILT AND SAND, SOME CLAY, TRACE GRAVEL
- SAMPLE TAKEN AT 1.0 - 1.5 m
- NO GROUNDWATER SEEPAGE
- NO STAINING

TEST PIT LOG TP18-2
0.00 - 0.30 m DARK BROWN TOPSOIL, TRACE CLAY, ROOTLETS, ORGANICS
0.30 - 1.63 m SILT AND SAND, SOME CLAY, TRACE GRAVEL, COMPACT
- NO GROUNDWATER SEEPAGE
- NO STAINING

Legend

EXISTING GRADE
PROPOSED FINISHED GRADE AT SPECIFIC LOCATION
PROPOSED FINISHED GRADE BY OTHERS
TEST PIT LOCATION
CROSS SECTION LINE

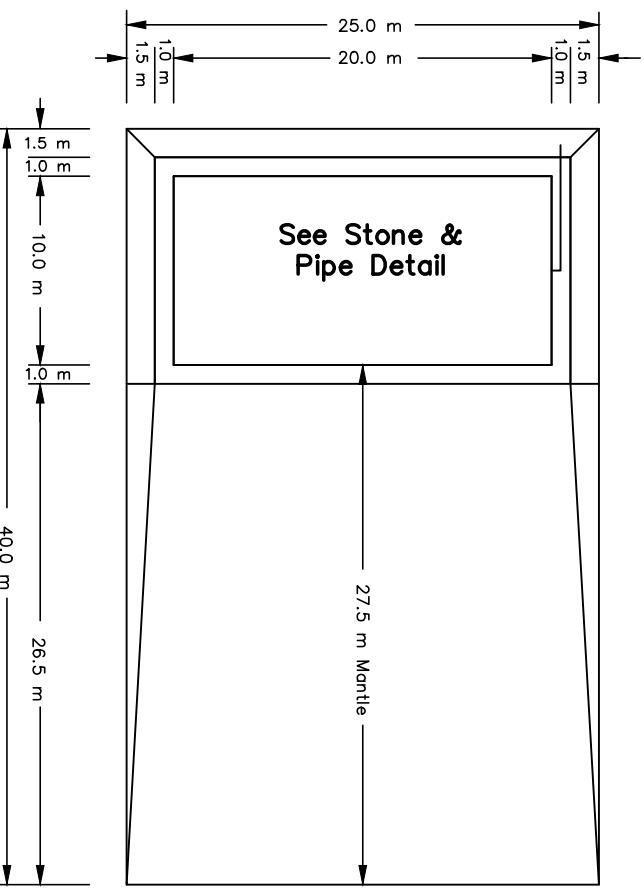
FG = FINISHED GRADE
FTL = FINISHED FLOOR
WBF = WATERLOO BIOFILTER
AD = ANAEROBIC DIGESTER
P = PUMP TANK

SITE PLAN

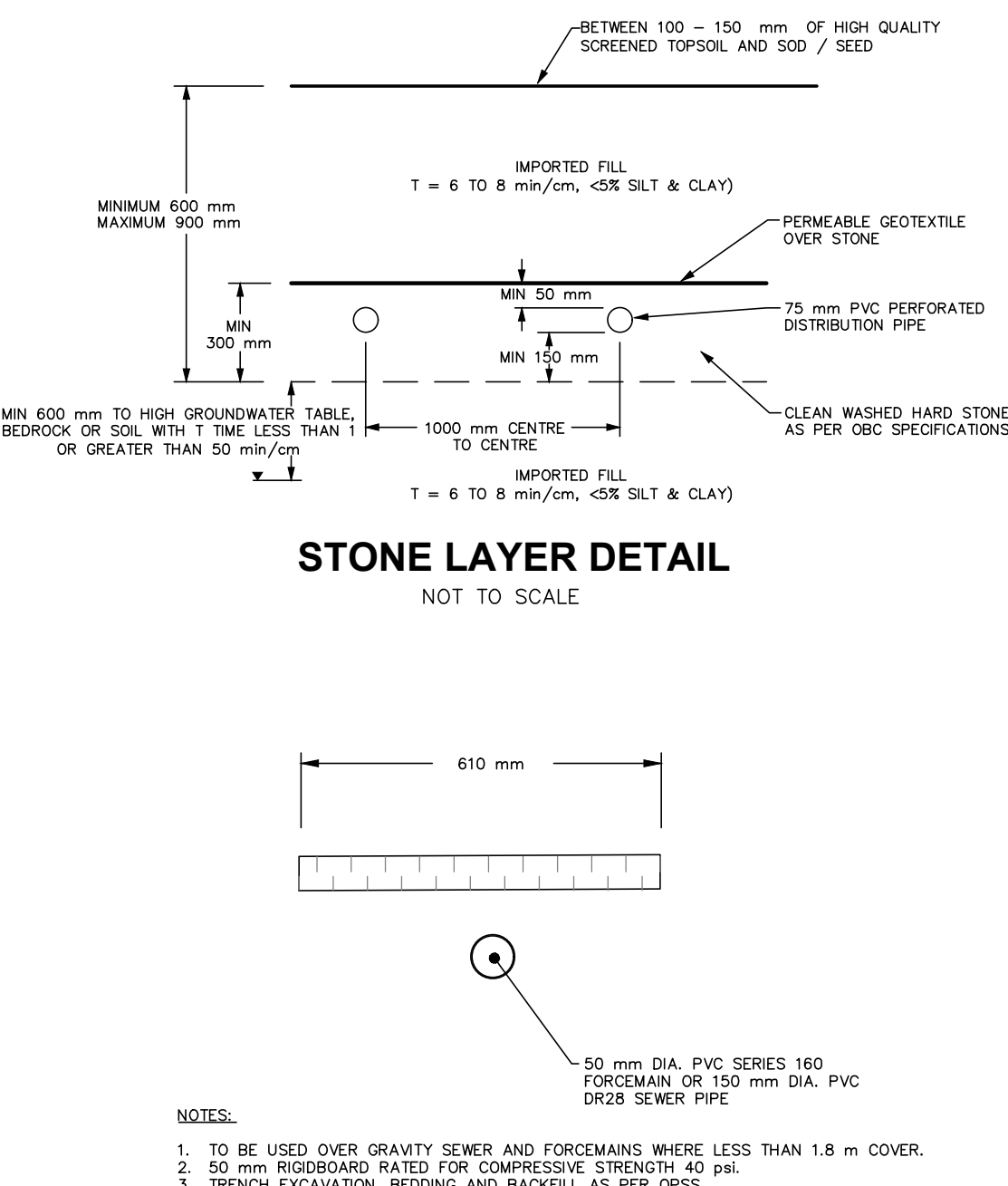
DESIGN FLOW CALCULATIONS

PROPOSED OFFICE AREA
FLOOR AREA = 1,162 m² (MAX.)
FLOW PER 9.3 m² OF FLOOR SPACE = 75 L/DAY
FLOW BASED ON FLOOR AREA = 1162 / 9.3 * 75 = 9,370 L/DAY = A
OR
NUMBER OF OFFICE EMPLOYEES = 125 (MAX.)
FLOW PER EMPLOYEE (WITHOUT SHOWERS) = 75 L/DAY
FLOW FROM EMPLOYEES = (150)(75) = 9375 L/DAY = B
FLOW FOR OFFICE AREA = GREATER OF A OR B = 9375 L/DAY = Q1
PROPOSED NUMBER OF LOADING BAYS = 4
FLOW PER LOADING BAY = 125 L/DAY
DAILY DESIGN FLOW FOR LOADING BAYS = (150)(4) = 600 L/DAY = Q2
DAILY DESIGN SEWAGE FLOW = Q1 + Q2 = 9975 L/DAY = Q

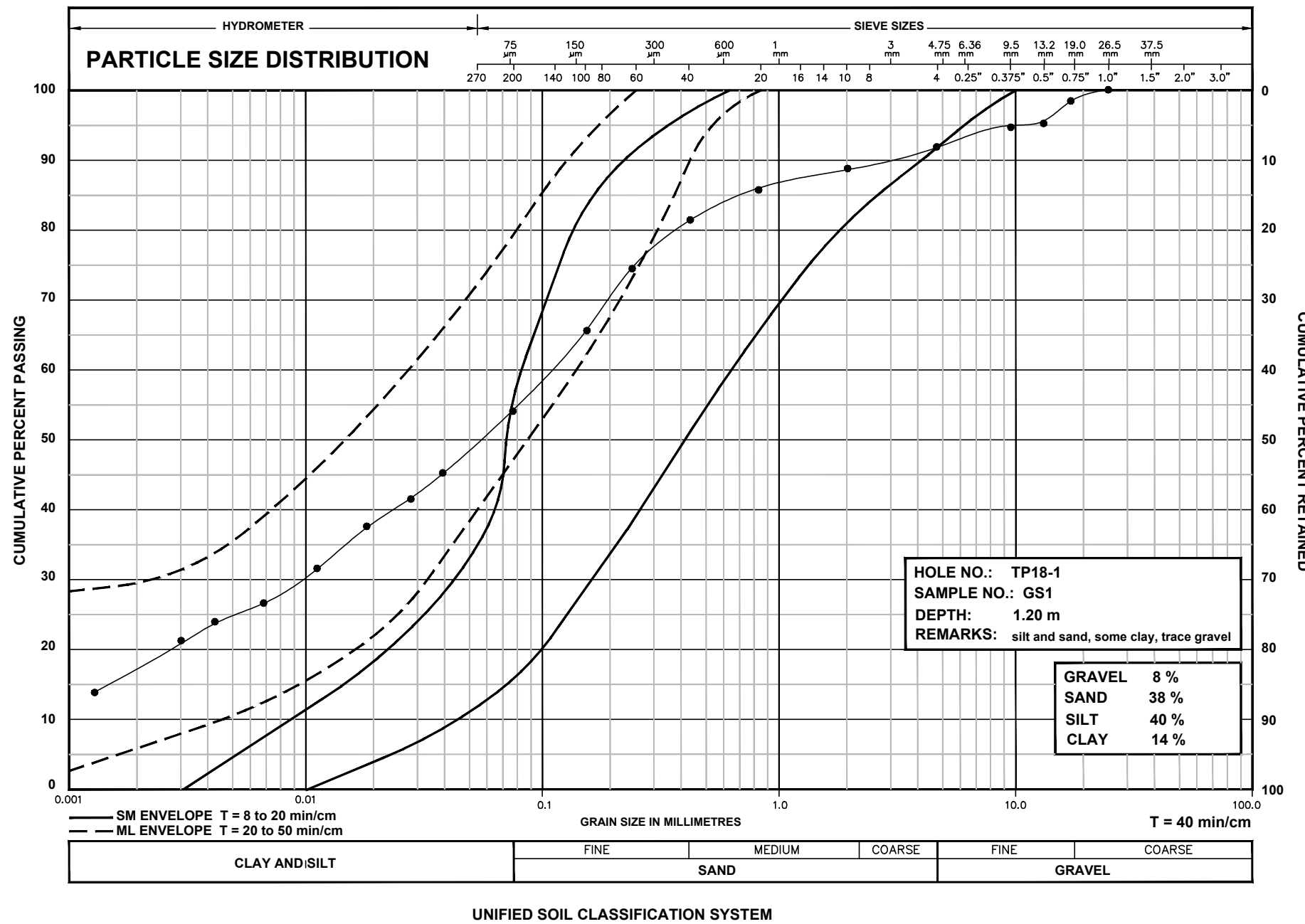
PROPOSED LEVEL IV TREATMENT SYSTEM = WATERLOO BIOFILTER MODEL AD-BA100 BASKETS IN CONCRETE TANK (WITH CONFIGURATION 1b EQUIPMENT PACKAGE) BNQ CERTIFICATE #2312
MINIMUM ANAEROBIC DIGESTER SIZE = (1.89 X Q)(0.2 X Q) = 20848 L
PROPOSED ANAEROBIC DIGESTER SIZE = 22500 L (TANK AD-22500, NEWMARKET PRECAST, OR EQUIVALENT)
PROPOSED TREATMENT UNIT PACKAGE = WATERLOO BIOFILTER BT-22500 (NEWMARKET PRECAST, OR EQUIVALENT)
VOLUME OF MEDIA = 14.0 m³
DOSAGE PUMP SETTING OF TREATMENT TANKAGE = 6 - 9 L/m³ OF FOAM MEDIA
PERCOLATION RATE OF NATIVE SOILS = 40 min/cm = T (SOILS ANALYSIS COMPLETED BY WSP IN OCTOBER 2018)
LEACHING BED TYPE = PARTIAL RAISED TYPE A DISPERSAL BED
MINIMUM AREA BED SIZE = QT / 400 = 997.5 m²
PROPOSED AREA BED SIZE = 1000 m² (25.0 m x 40.0 m)
MINIMUM STONE AND PIPE AREA = Q / 50 = 199.5 m²
PROPOSED STONE AND PIPE AREA = 200 m² (20.0 m x 10.0 m)
PROPOSED LENGTH OF DISTRIBUTION PIPE = 190 m (10 RUNS @ 19.0 m LENGTH)
PROPOSED DISPOSAL PUMPS = LITTLE GIANT MODEL WS50M-12-20 DUPLEX EFFLUENT PUMPS, ALTERNATING, ON DEMAND (OR EQUIVALENT)
PROPOSED DISPOSAL PUMP SETTINGS = 1500 L/DOSE (ON DEMAND) WITH 50% RECIRCULATION (750 L RECIRCULATION, 750 L TO BED)



BED LAYOUT
SCALE 1:400



RIGIDBOARD INSULATION DETAIL
NOT TO SCALE



KEY PLAN	DISCLAIMER THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. THIS DRAWING IS NOT TO BE SCALED.	COPYRIGHT	ISSUED FOR REVISION	SCALE	CLIENT FAIRGATE HOMES INC.	PROJECT GORMLEY INDUSTRIAL PARK GORDON COLLINS DRIVE STOUFFVILLE, ON	ORIGINAL SCALE AS SHOWN IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE.	TITLE ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM DESIGN	DESIGNED BY IA DRAWN BY IA CHECKED BY ST DISCIPLINE ENVIRONMENT	ISSUE DRAFT FOR DISCUSSION	REV # 0
			IA 1 2023/04/05 REVISED SEWAGE SYSTEM		CLIENT REF. #	PROJECT NO. 181-02545-00	DATE NOV. 2018		DRAWING NUMBER 1 OF 2		
			IS RE DATE DESCRIPTION						SHEET #		