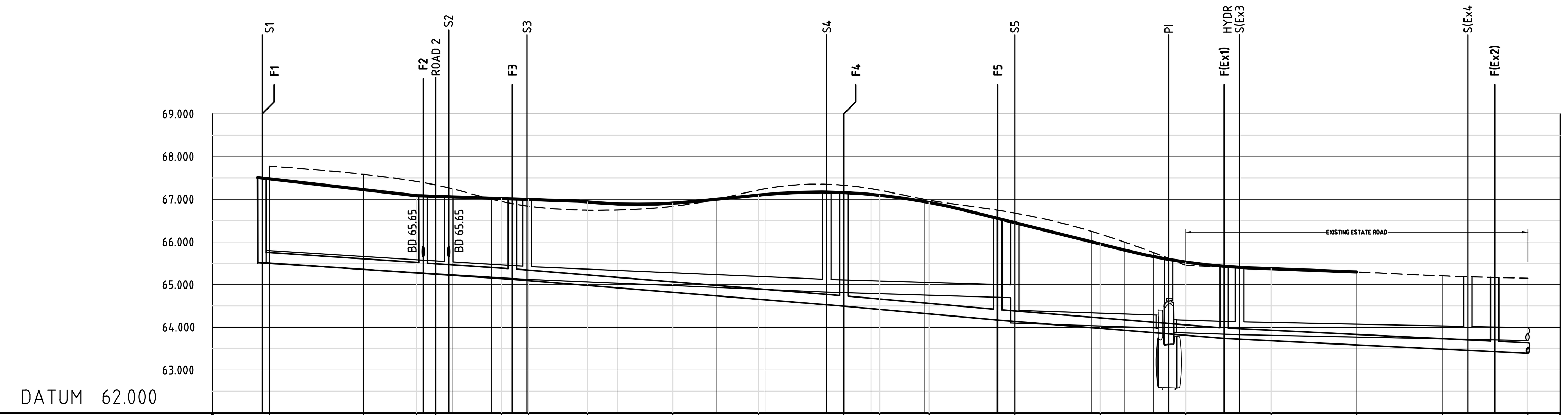
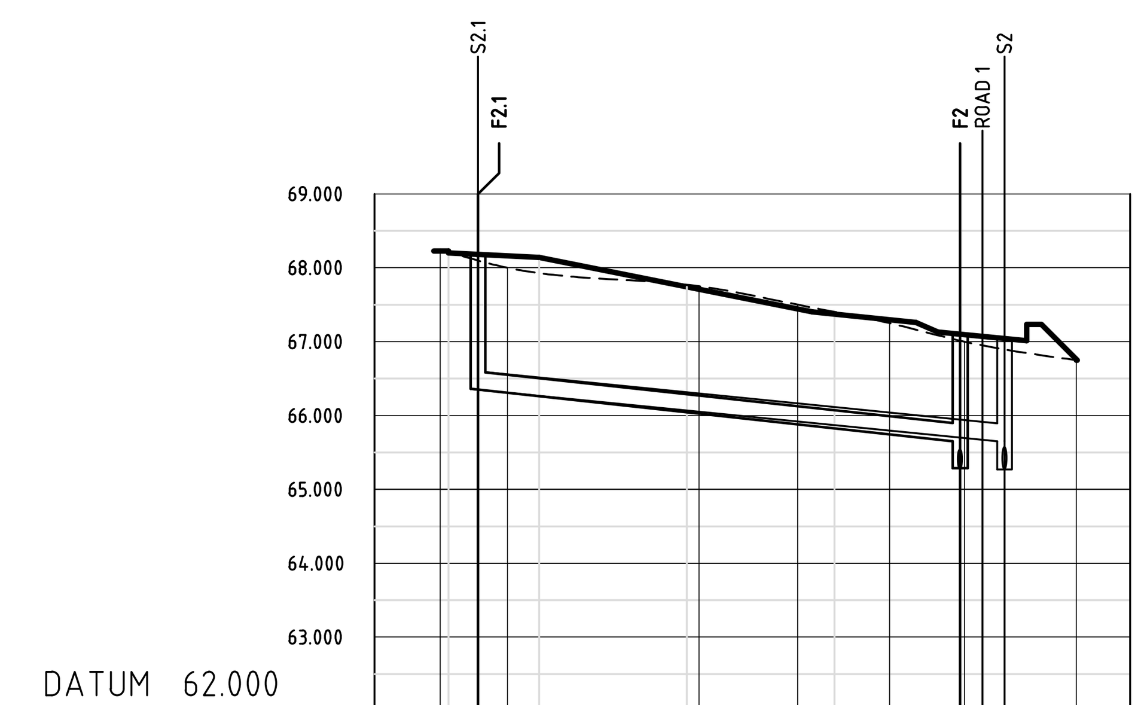


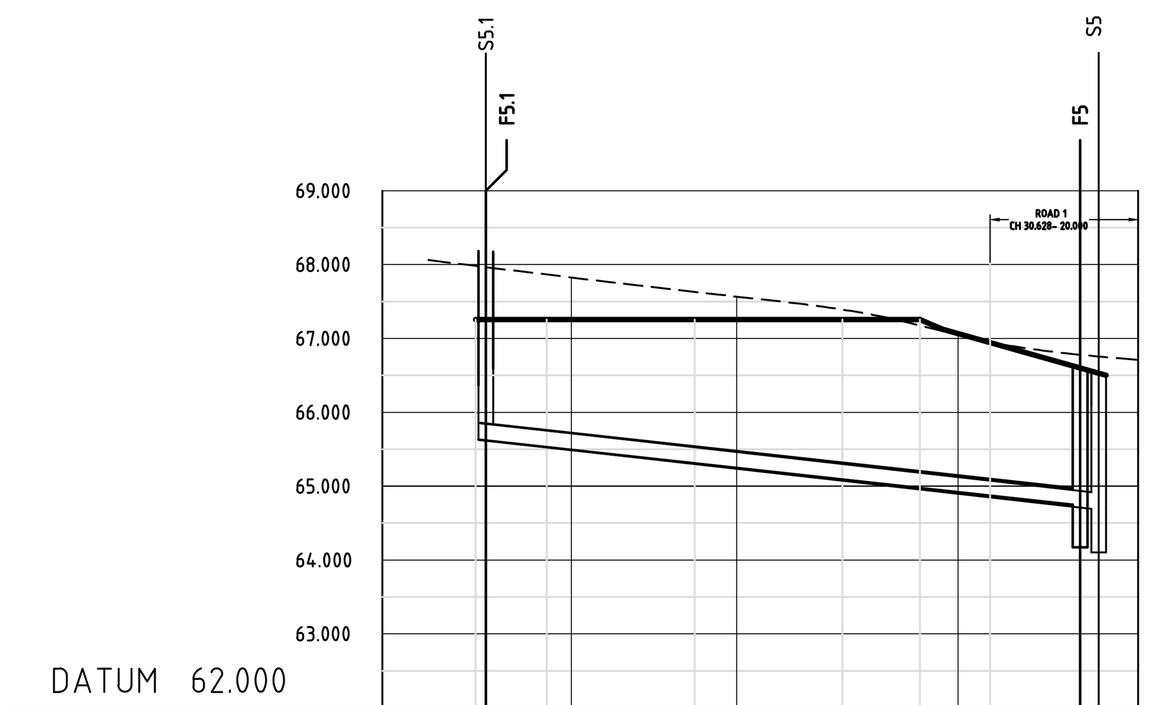
CHAINAGE	107.200, 96.191, 90.000, 87.739, 80.000, 76.861, 70.000, 60.000, 50.000, 40.000, 35.791, 30.000, 20.000, 10.000, 0.000, -10.000, -20.000, -30.000, -40.000
EXISTING GROUND LEVEL	67.781, 67.605, 67.250, 67.000, 66.750, 67.000, 67.250, 67.250, 67.000, 66.750, 66.250, 66.000, 65.750, 65.452, 65.370, 65.297, 65.207, 65.152
ALIGNMENT LEVEL	67.432, 67.213, 67.088, 67.071, 67.045, 66.935, 66.908, 67.097, 67.158, 66.926, 66.452, 65.952, 65.529, 65.370
VERTICAL ALIGNMENT	-1:50 -2.0% GRAD; -1:130 -0.76% GRAD; L=13.8 R=345; +1:50 +2.0%; L=24.0 R=345; -1:20 -5.0%; L=14.5 R=345; -1:129 -0.77%
HORIZONTAL ALIGNMENT	R=31.63; R=60.0; R=352.5
STORMWATER INVERT	65.519, 65.272, 65.125, 64.825, 64.691, 64.100, 63.980, 63.880, 63.830, 63.720
STORMWATER DETAILS	Dia 300 Type CONC 1 in 81; Dia 300 Type CONC 1 in 81; Dia 300 Type CONC 1 in 120; Dia 300 Type CONC 1 in 150; Dia 300 Type CONC 1 in 175; Dia 300 Type CONC 1 in 100; Dia 300 Type CONC 1 in 242
STORMWATER LENGTHS	Len 19.992; Len 11.931; Len 36.199; Len 20.139; Len 21.022; Len 5.000; Len 26.703
FOULWATER INVERT	65.540, 65.296, 65.125, 64.495, 64.170, 63.740, 63.430
FOULWATER DETAILS	Dia 225 Type CONC 1 in 74; Dia 225 Type CONC 1 in 74; Dia 225 Type CONC 1 in 60; Dia 225 Type CONC 1 in 58; Dia 225 Type CONC 1 in 60; Dia 225 Type CONC 1 in 113
FOULWATER LENGTHS	Len 18.056; Len 12.654; Len 37.772; Len 19.007; Len 25.762; Len 31.643

ROAD 1



CHAINAGE	36.125, 30.000, 20.000, 10.000, 0.000
EXISTING GROUND LEVEL	68.250, 68.000, 67.750, 67.500, 67.250, 67.000, 66.750
ALIGNMENT LEVEL	68.200, 68.139, 67.740, 67.371, 67.071 (1:15 RAMP)
VERTICAL ALIGNMENT	-1:100 -1.0%; -1:25 -4.0% GRAD; -1:50 -2.0%; -1:50 -2.0%
HORIZONTAL ALIGNMENT	R=30.0
STORMWATER INVERT	66.35, 65.125
STORMWATER DETAILS	Dia 225 Type CONC 1 in 50
STORMWATER LENGTHS	Len 35.286
FOULWATER INVERT	66.35, 65.125
FOULWATER DETAILS	Dia 225 Type CONC 1 in 48
FOULWATER LENGTHS	Len 33.375

ROAD 2
SCALE : H=1:500, V=1:100

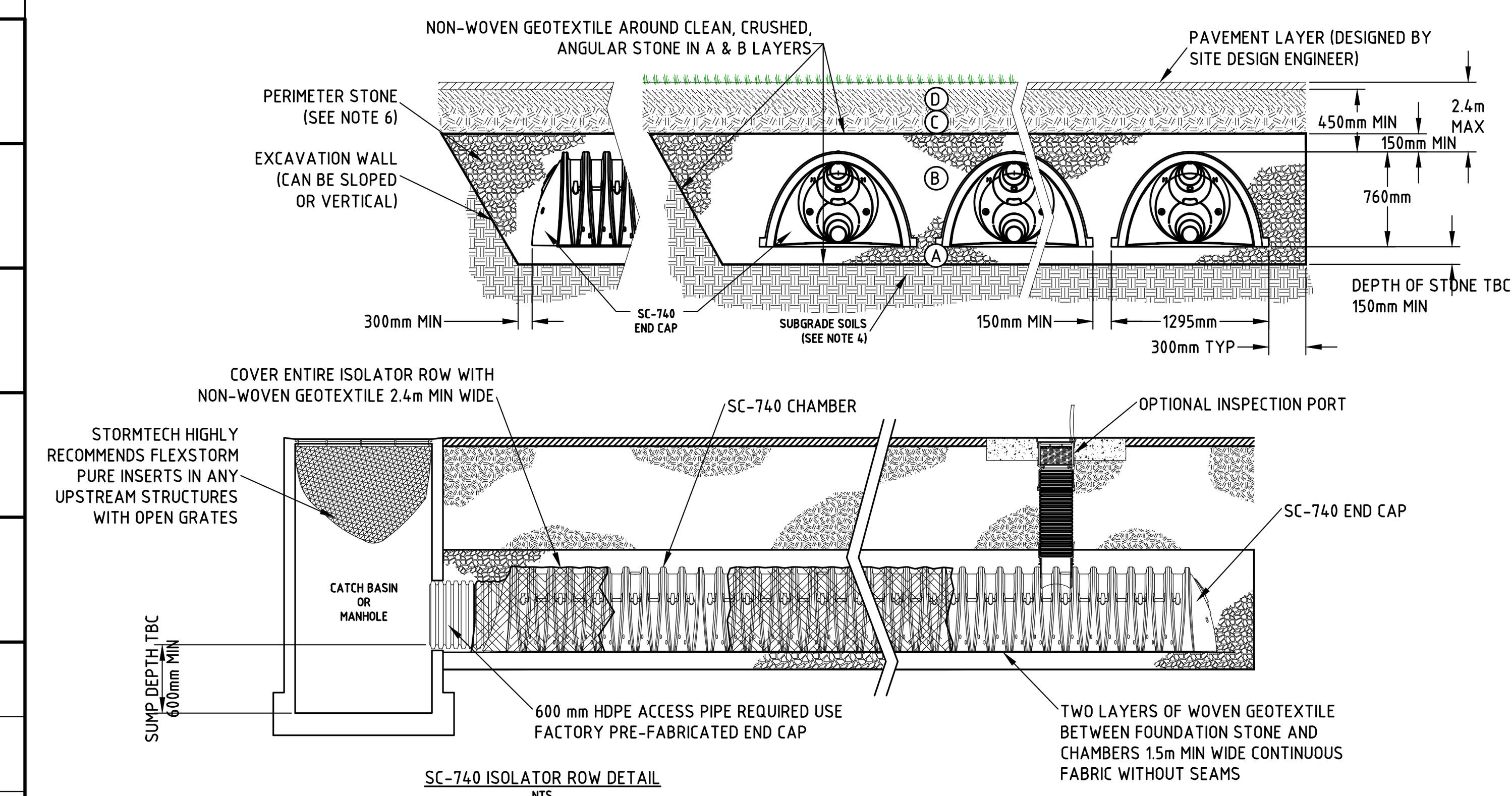


CHAINAGE	34.287, 30.000, 20.000, 10.000, 4.745, 0.000
EXISTING GROUND LEVEL	67.825, 67.569, 67.000
ALIGNMENT LEVEL	67.255, 67.255, 67.155
VERTICAL ALIGNMENT	0.00 -0.0% GRAD; 1:15 RAMP; +1:50 +2.0%
HORIZONTAL ALIGNMENT	
STORMWATER INVERT	66.35, 64.750
STORMWATER DETAILS	Dia 225 Type CONC 1 in 45
STORMWATER LENGTHS	Len 41.838
FOULWATER INVERT	66.35, 64.750
FOULWATER DETAILS	Dia 225 Type CONC 1 in 47
FOULWATER LENGTHS	Len 40.987

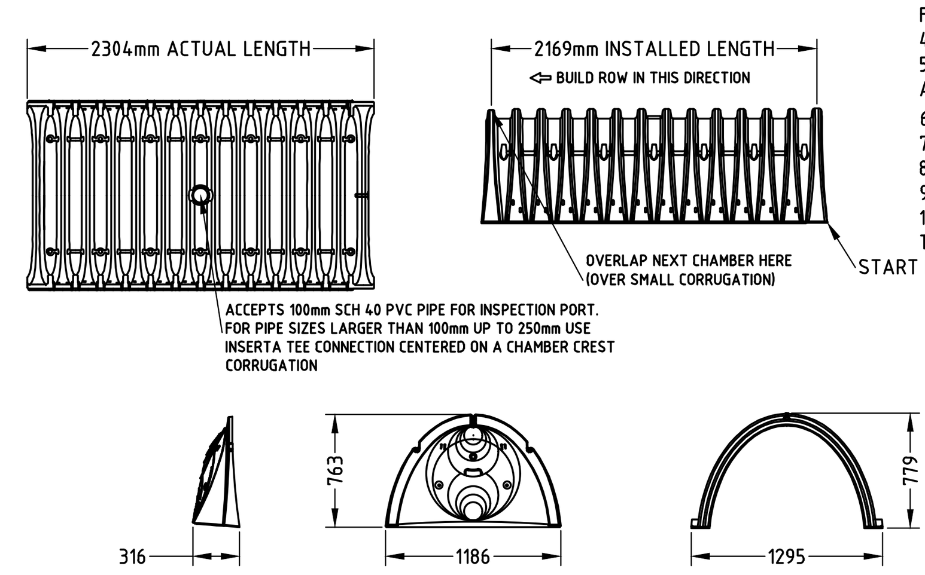
ROAD 3
SCALE : H=1:500, V=1:100

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 450mm ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	BEGIN COMPACTIONS AFTER 300mm OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 150mm MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 53kN. DYNAMIC FORCE NOT TO EXCEED 89kN.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.



SC-740 ISOLATOR ROW DETAIL
NTS

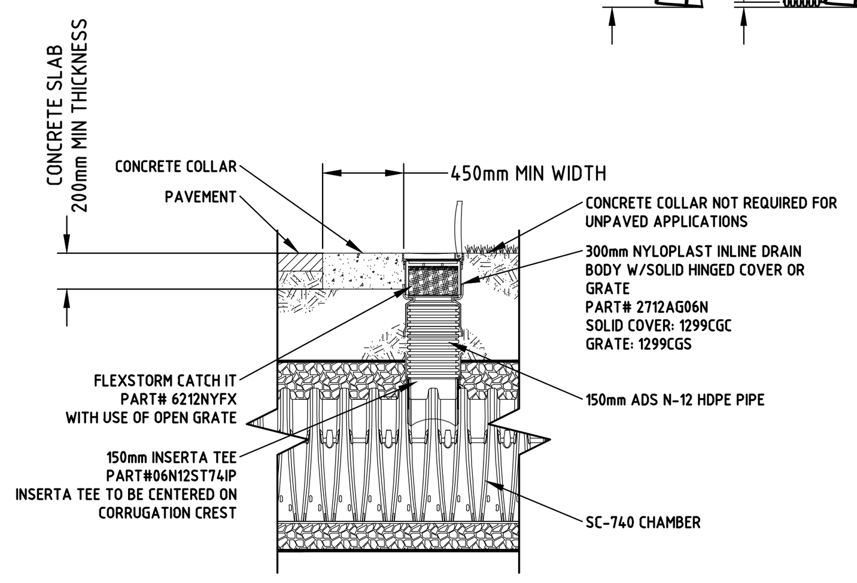


SC-740 TECHNICAL SPECIFICATION
NTS

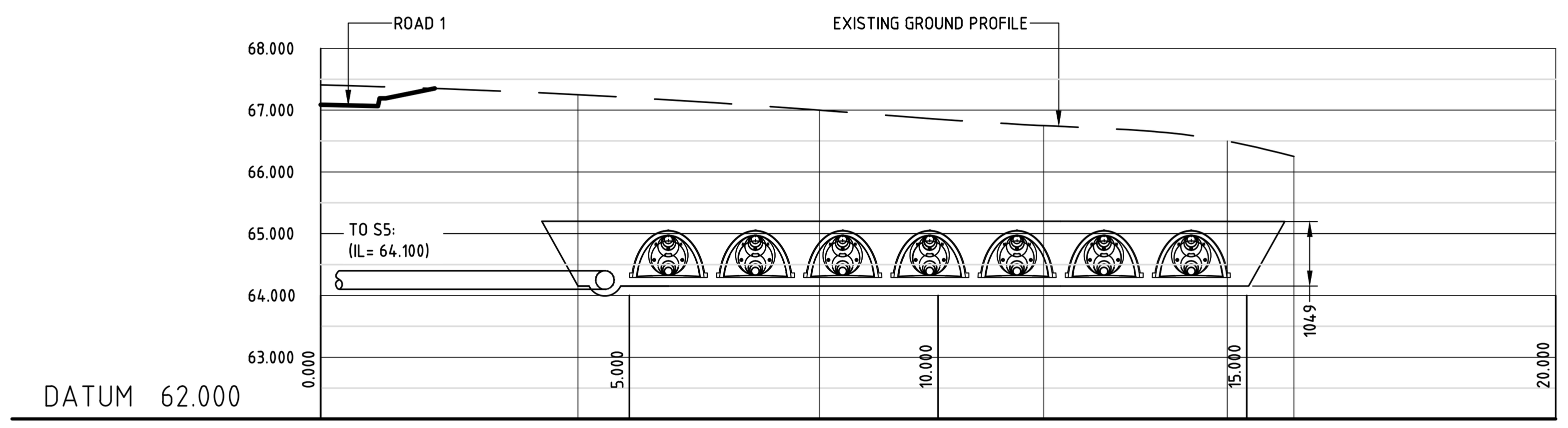
NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	1295mm x 762mm x 2169mm
CHAMBER STORAGE	1.30m³
MINIMUM INSTALLED STORAGE*	2.12m³
WEIGHT	33.6kg

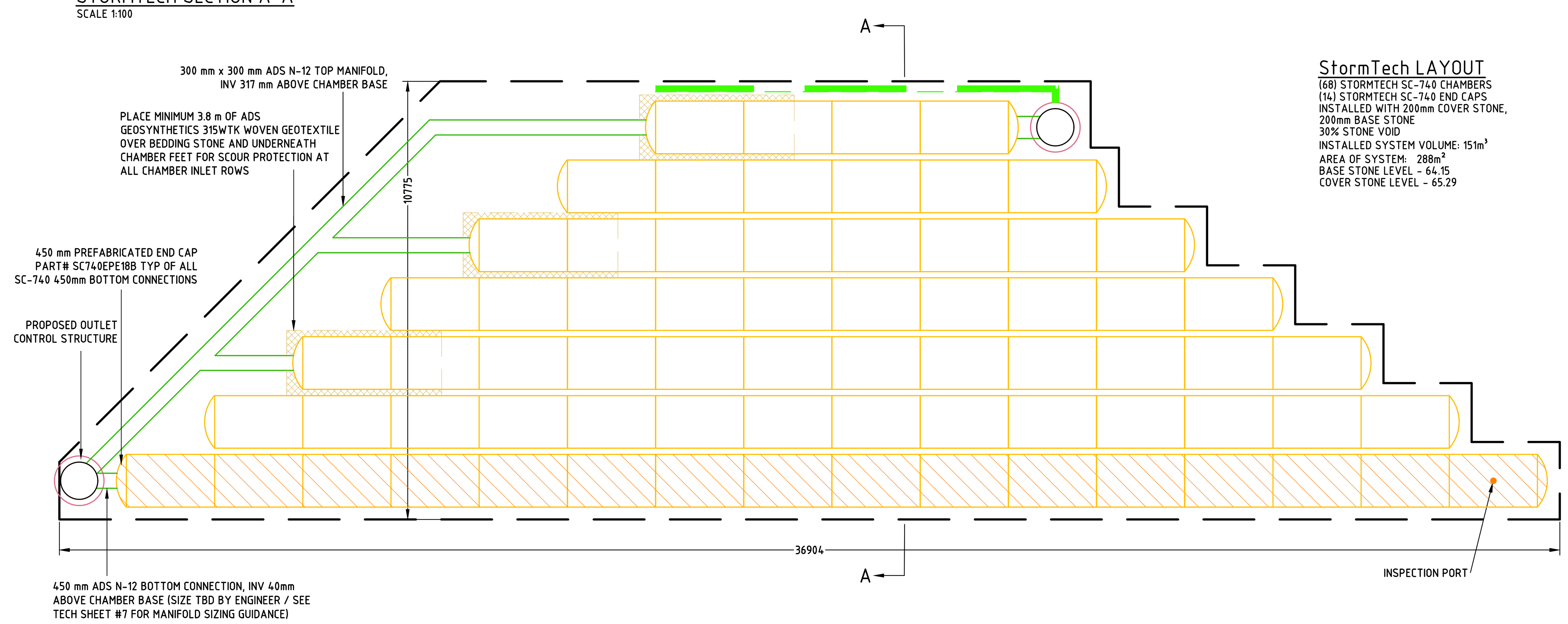
*ASSUMES 152mm STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



SC-740 6" INSPECTION PORT DETAIL
NTS



STORMTECH SECTION A-A
SCALE 1:100



STORMTECH LAYOUT
SCALE 1:100

StormTech LAYOUT
(68) STORMTECH SC-740 CHAMBERS
(14) STORMTECH SC-740 END CAPS
INSTALLED WITH 200mm COVER STONE,
200mm BASE STONE
30% STONE VOID
INSTALLED SYSTEM VOLUME: 151m³
AREA OF SYSTEM: 288m²
BASE STONE LEVEL - 64.15
COVER STONE LEVEL - 65.29

NOTES:

1. ALL HOUSE DRAINS TO BE 150mmØ.
2. LOCAL DRAINS TO RUN AT A GRADIENT OF 1/40 UNLESS OTHERWISE NOTED.
3. DOUBLE GULLIES TO BE PROVIDED AT ALL ROAD SAG CURVES & CUL DE SACS WHERE INDICATED. SEPARATE CONNECTIONS 150mm DIA. SHALL BE PROVIDED FOR EACH GULLY. NO GULLEY SHALL BE MORE THAN 10m FROM A SURFACE WATER CONNECTION.
4. HOUSE DRAINS SHALL NOT PASS THROUGH A PROPERTY THEY DO NOT SERVE.
5. MANHOLES ON HOUSE DRAIN RUNS SHALL BE LOCATED IN PRIVATE PROPERTY IN ALL CASES.
6. FOR SEWER LONG SECTIONS SEE DRAWING No.`s 130 SERIES
7. FOR ROAD CONSTRUCTION DETAILS SEE DRG. No. 151.
8. FOR MANHOLE DETAILS SEE DRG. No. 152.
9. FOR PIPE BEDDING DETAILS SEE DRG. No. 153.
10. ALL PIPES WHICH ARE TO BE TAKEN IN CHARGE BY THE LOCAL AUTHORITY ARE TO BE CONCRETE PIPES COMPLYING WITH I.S. 6 & I.S. 166 OR B.S. 5911.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

1. STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS: STONESHOOTER LOCATED OFF THE CHAMBER BED. BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE. BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 150mm SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 20-50mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
   NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
   WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
3. FULL 900mm OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 80mm PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- B.3. IF SEDIMENT IS AT, OR ABOVE, 80mm PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 1.1m OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

REV	DATE	DESCRIPTION	BY/CHKD/APPR

Client

TIPPERARY COUNTY COUNCIL

PHM Consulting
Civil - Structural - Environmental
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RESIDENTIAL DEVELOPMENT AT BANSHA, CO. TIPPERARY
LONGITUDINAL SECTIONS

Drawn: POR	Scale: AS SHOWN	Project Number: 109-70	Rev.: ~
Chkd.: POR	Date: 04/06/2020	Drawing Number: 131	A1
Apprd.: EOD	Status: DRAFT D4		