

**From:** [Hilary Saunders](#)  
**To:** [Planning](#)  
**Subject:** FW: NYM/2018/0375/FL - Whitby Seafoods  
**Date:** 05 September 2018 11:51:57  
**Attachments:** [image002.png](#)  
[Surface water drainage proposals \(revised\) sheet 1.pdf](#)  
[Surface water drainage proposals \(revised\) sheet 2.pdf](#)

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**From:** Simon Banks  
**Sent:** 05 September 2018 11:49  
**To:** Hilary Saunders  
**Subject:** RE: NYM/2018/0375/FL - Whitby Seafoods

Hilary

Further to my earlier email, please find attached the revised drainage proposals. As you can see from the attached, the proposals have been amended to utilise a single run-off destination. I can also confirm that the reasoning behind the decision to disregard ground infiltration was made on the back of the information gained from the recent ground investigation completed by JPG, who have advised that the ground conditions are not suitable for infiltration.

In summary all the roof water from the new extension along with the surface water from the proposed car park and HGV access road are to drain to a new pond prior to connection to the existing drain which discharges into the watercourse to the North of the site. Drainage from the car park and HGV access road will incorporate interceptors prior to entering the new pond. A new land drain will be introduced at the change in ground level to the rear of the site, the outfall from which will connect to the new surface water drainage system prior to entering the new pond.

I hope that the above/attached meets with the NYCC requirements and should you require any further information, please do not hesitate in contacting me.

Kind regards

Simon

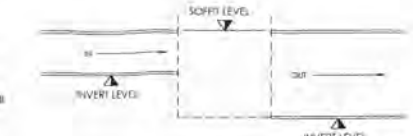


# DO NOT SCALE

## NOTES

- BELOW GROUND DRAINAGE**
- ALL ADAPTABLE STANDARD DRAINAGE TO BE CARRIED OUT IN ACCORDANCE WITH SEWERS FOR ADOPTION 6th EDITION. ALL PRIVATE DRAINAGE BELOW GROUND TO BE CARRIED OUT IN ACCORDANCE WITH BS8301 'AND PART H' OF THE CURRENT BUILDING REGULATIONS.
  - WHERE DRAINS PASS UNDER BUILDINGS THE FOLLOWING CRITERIA WILL APPLY.
    - IF THE CROWN OF THE PIPE IS WITHIN 300mm OF THE U/S OF A CONCRETE FLOOR OR GROUND BEAM ETC. THEN THE PIPE SHALL BE ENCASED INTEGRAL WITH FLOOR/BEAM.
    - WHERE THE DISTANCE BETWEEN CROWN OF PIPE AND FLOOR/BEAM SOFFIT IS GREATER THAN 300mm THE PIPE SHOULD BE LAID IN 'CLASS S' BED & SURROUND AND ALL TRENCHES BACKFILLED USING 40mm DOWN WELL GRADED STONE.
  - NOTE:- WHERE PIPES PASS FROM (CONDITION A TO CONDITION B) ABOVE A SHORT (600mm) ROCKER PIPE AND 2m FLEXIBLE COUPLINGS ARE TO BE PROVIDED.
    - 2m FLEXIBLE JOINTS ARE TO BE POSITIONED ON EACH PIPE CONNECTING INTO MANHOLE. AT 150mm AND 600mm RESPECTIVELY MEASURED FROM THE OUTSIDE FACE OF THE MANHOLE TO AVOID SHEAR FRACTURE SHOULD MOVEMENT OCCUR.
    - ALL CONCRETE PIPES AND MANHOLE RINGS & COVER SLABS TO BE DESIGNED TO CHEMICAL CLASS DC (TBC) IN ACCORDANCE WITH BRE SPECIAL DIGEST 1-2005.
    - 150-225mm PIPES TO BE EXTRA STRENGTH VII CLAY, 300mm & ABOVE TO BE CLASS 'H' CONCRETE (ALL PIPES TO BE KITE MARKED.)
    - ALL MANHOLE COVERS & FRAMES TO BS EN124 (NON ROCKING). SEE TABLE
  - NOTE: IN ADAPTABLE STANDARD HIGHWAYS ALL COVERS TO BE 150mm DEEP. NON VENTILATING AND HAVE CLOSED KEYWAYS.
    - CONCRETE SURROUND TO PIPEWORK: ADAPTABLE AREAS: ALL PIPEWORK WITH LESS THAN 1200mm COVER IN HARD PAVED AREAS & 900mm COVER IN LANDSCAPED AREAS TO CROWN OF PIPE TO HAVE 150mm CONCRETE SURROUND. NON-ADAPTABLE AREAS: ALL PIPEWORK WITH LESS THAN 900mm COVER IN HARD PAVED AREAS & 750mm COVER IN LANDSCAPED AREAS TO CROWN OF PIPE TO HAVE 150mm CONCRETE SURROUND.
  - CONCRETE SPECIFICATION: CONCRETE SURROUND TO PIPEWORK, MANHOLES & MANHOLE BASES TO BE C (TBC) USING 20mm AGGREGATE.
 

Min. CEMENT CONTENT	= 225kg/m <sup>3</sup>
Max. WATER/CEMENT RATIO	= 0.45
CEMENT TYPE	= 225
DESIGN CHEMICAL CLASS	= CLASS 2

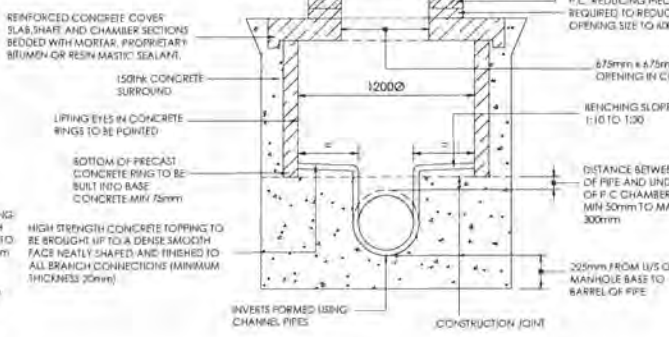


TYPICAL MANHOLE INVERT ARRANGEMENT

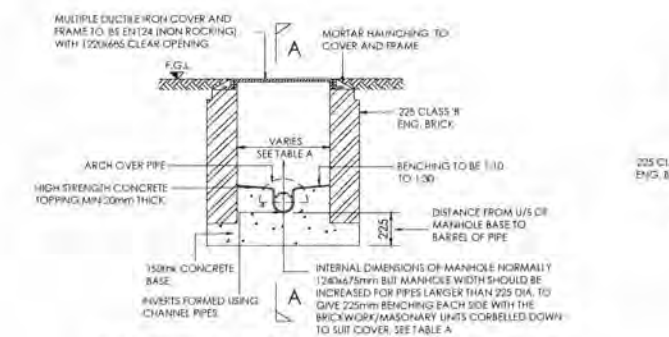
PIPE DIA.	INTERNAL MANHOLE SIZE	CORRELL DETAILS
UP TO 225	150x675	NOT REQUIRED
300	1240x750	2 BRICK CORRELL
375	1240x825	3 BRICK CORRELL
450	1240x900	3 BRICK CORRELL

MAX. BRICK CORRELL PER COURSE TO BE 30mm

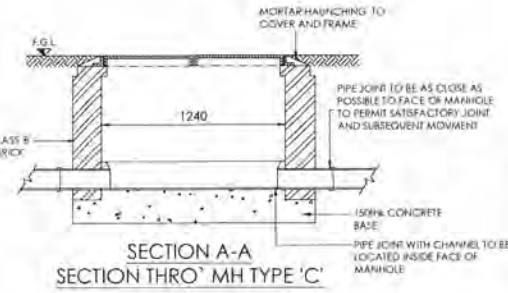
TABLE A



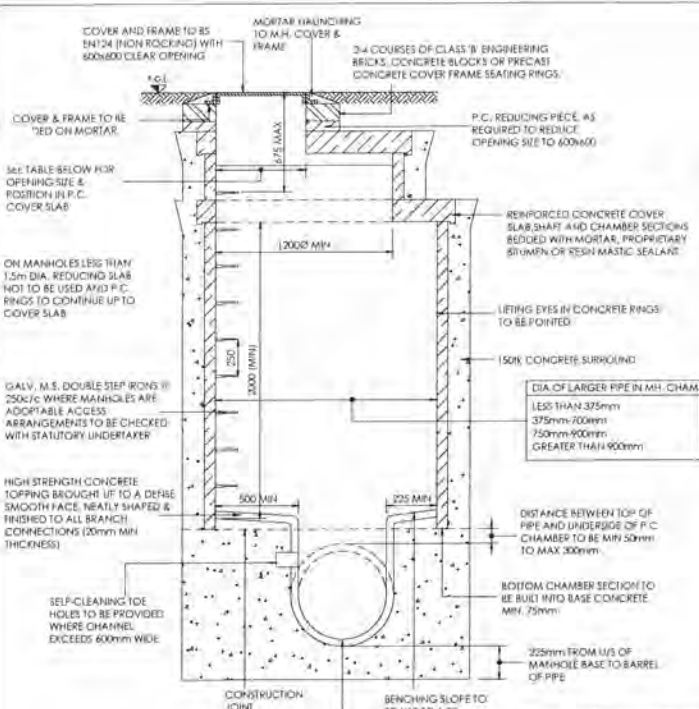
TYPE 'E' MANHOLE DETAIL DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1.05m to 1.50m (FOR PIPES UP TO AND INCLUDING 375Ø)



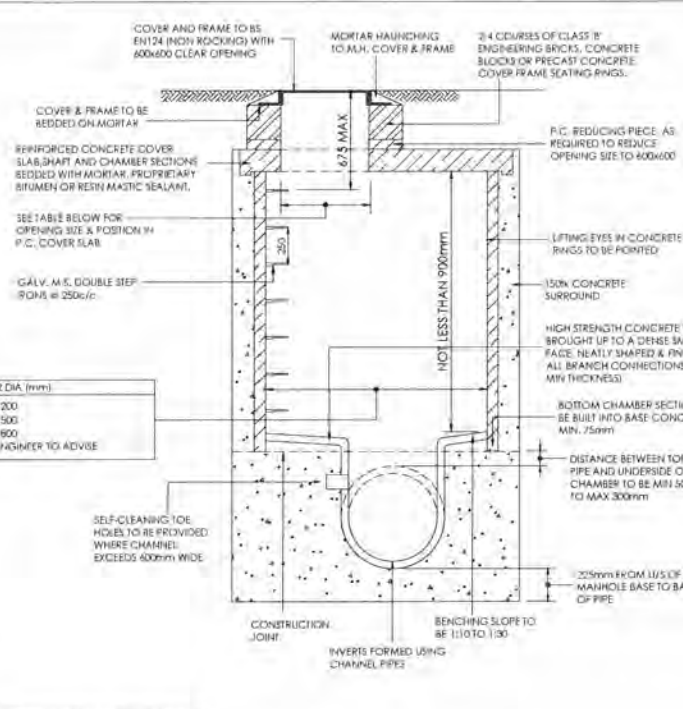
TYPE 'C' MANHOLE DETAIL DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1.00m



SECTION A-A SECTION THRO' MH TYPE 'C'



TYPE 'A' MANHOLE DETAIL DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3m to 6m



TYPE 'B' MANHOLE DETAIL DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1.50m to 3m

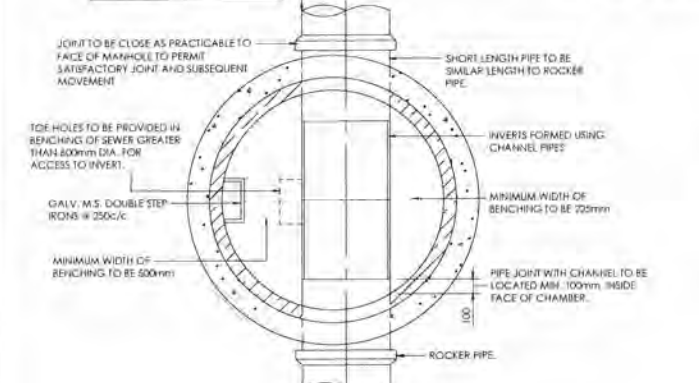
SHAFT/CHAMBER SIZE	MANHOLE LESS THAN 1.5m DEPTH (COVER LEVEL TO PIPE SOFFIT)	MANHOLE GREATER THAN OR EQUAL TO 1.5m DEPTH (COVER LEVEL TO PIPE SOFFIT)
900	675x675 CENTRAL	675x675 CENTRAL
1050	750x750 CENTRAL	675x675 ECCENTRIC
1200	675x675 ECCENTRIC	675x675 ECCENTRIC
1500	1200x675 CENTRAL	675x675 ECCENTRIC
1800-3000	1200x675 ECCENTRIC	675x675 ECCENTRIC

\* PERMITTED BUT NOT RECOMMENDED

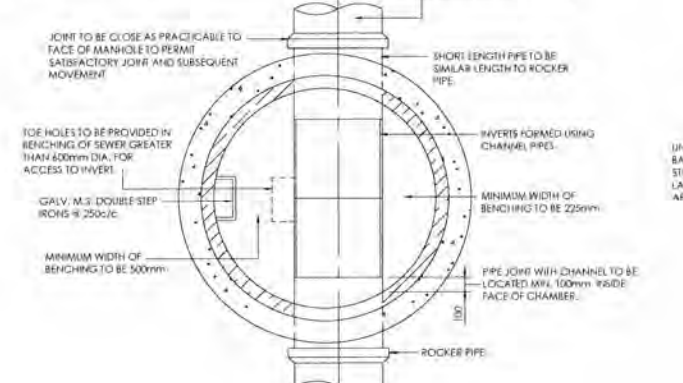
POSITION & SIZE OF ACCESS HOLE IN CONCRETE COVER SLAB TO TYPE A & B MANHOLES.

PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.6
675-750	1.0
825 & ABOVE	1.25

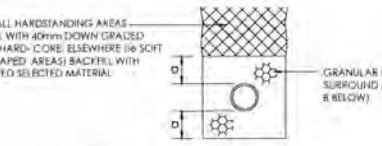
PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.6
675-750	1.0
825 & ABOVE	1.25



PLAN MANHOLE TYPE 'A'



PLAN MANHOLE TYPE 'B'



CLASS 'S' PIPE BEDDING DETAIL

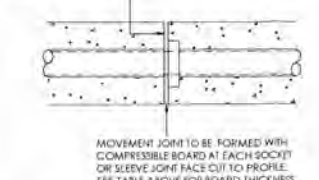
PIPE NOMINAL BORE (DN)	MAX. PARTICLE SIZE (mm)	CLASS OF BEDDING	SUITABLE IMPORTED GRANULAR MATERIALS
OVER 100 TO 150 dia	15	S	10mm OR 14mm NOMINAL SINGLE-SIZED OR 14mm TO 5mm GRADED.
OVER 150 TO 500 dia	20	S	10, 14 OR 20mm NOMINAL SINGLE-SIZED OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED.
OVER 500	40	S	10, 14, 20 OR 40mm NOMINAL SINGLE-SIZED CRUSHED ROCK OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED OR 40mm TO 5mm GRADED.

TABLE B

LOCATION	COVER TYPE	NOTES
ACCESS ROAD & SERVICE YARD	CLASS D400	
CAR PARK AREAS-TARMAC	CLASS C250	
CAR PARK AREAS - BLOCK PAVED	CLASS C250	RECESS INFILL TYPE
LANDSCAPED AREAS	CLASS B125	RECESS INFILL TYPE
OFFICE INTERNAL CORE	CLASS C250	RECESS INFILL TYPE
WAREHOUSES	CLASS D400	RECESS INFILL TYPE

MANHOLE COVER TYPE

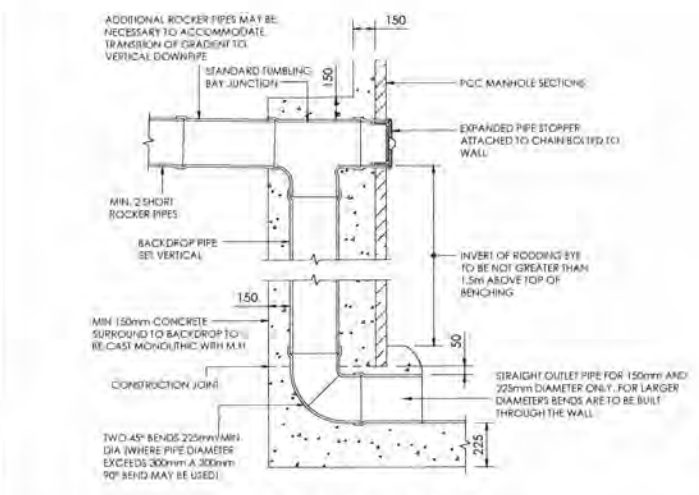
COMPRESSIBLE FILLER TO CONSIST OF BITUMEN IMPREGNATED INSULATING BOARD TO BS 1142 PART 3 OR OTHER EQUALLY COMPRESSIBLE MATERIAL. FILLER THICKNESS OF COMPRESSIBLE FILLER SEE TABLE ABOVE.



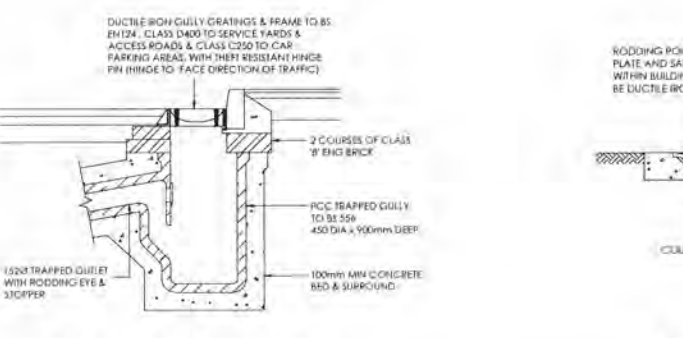
MOVEMENT JOINT TO CONCRETE PIPE SURROUND

NOMINAL DIA OF PIPE (mm)	THICKNESS OF COMPRESSIBLE FILLER (mm)
LESS THAN 450	18
450 TO 1200	34
EXCEEDING 1200	54

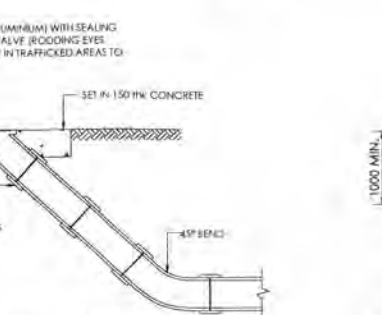
TYPICAL CONCRETE PIPE SURROUND DETAIL



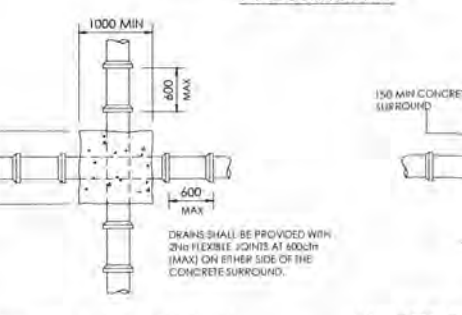
VERTICAL BACKDROP DETAIL



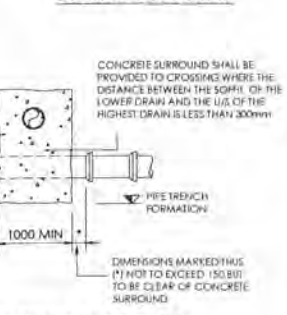
TYPICAL ROAD GULLY DETAIL



RODDING EYE DETAIL



PLAN ON PIPE CROSSOVER



SECTION THRO' PIPE CROSSOVER

REV	DESCRIPTION	DATE	BY

Job Title  
JPG STANDARD DETAILS

Drawing Title  
DRAINAGE CONSTRUCTION DETAILS

Architect  
Nymnpa  
05/09/2018

Checked: Date: Scale: A1  
Drawing No: SHEET 1 K













# Design Proposals

## Surface Water Drainage Attenuation Estimates

4316  
Extension to Whitby Seafoods  
Whitby



### **SURFACE WATER ATTENUATION ESTIMATE**

Date = 31.07.2018  
Initial = DD

#### **Design Parameters**

M560 = 18.000  
R = 0.343  
Site Area = 0.480ha  
Impermeable Area = 0.480ha  
Discharge rate = 3 l/s

#### **Attenuation Volumes**

1:30 Year = 160m<sup>3</sup>  
1:100 Year = 222m<sup>3</sup>  
1:100 Year +40 cc = 345m<sup>3</sup>

#### **Notes**

Say 300m<sup>3</sup> for costing purposes



Calculated by: Dave Dunn  
Site name: Whitby Seafood  
Site location: Whitby

Site coordinates  
Latitude: 54.47209° N  
Longitude: 0.59404° W

This is an estimation of the greenfield runoff rate limits that are needed to meet normal best practice criteria in line with Environment Agency guidance 'Preliminary rainfall runoff management for developments' W5-074/A/TR1/1 rev. E (2012) and the SuDS Manual, C753 (Ciria, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites

Reference: 6413049  
Date: 2018-07-31T08:09:43

Methodology	IH124
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### Site characteristics

Total site area (ha) 0.480

### Methodology

Qbar estimation method Calculate from SPR and SAAR  
SPR estimation method Calculate from SOIL type

	Default	Edited
SOIL type	4	4
HOST class	---	---
SPR/SPRHOST	0.47	0.47

### Hydrological characteristics

	Default	Edited
SAAR (mm)	636	636
Hydrological region	3	3
Growth curve factor: 1 year	0.86	0.86
Growth curve factor: 30 year	1.75	1.75
Growth curve factor: 100 year	2.08	2.08

### Notes:

(1) Is  $Q_{BAR} < 2.0$  l/s/ha?

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consents are usually set at 5.0l/s if blockage from vegetation and other materials is possible.

Lower consent flow rates may be set in which case blockage work must be addressed by using appropriate drainage elements

(3) Is  $SPR/SPRHOST \leq 0.3$ ?

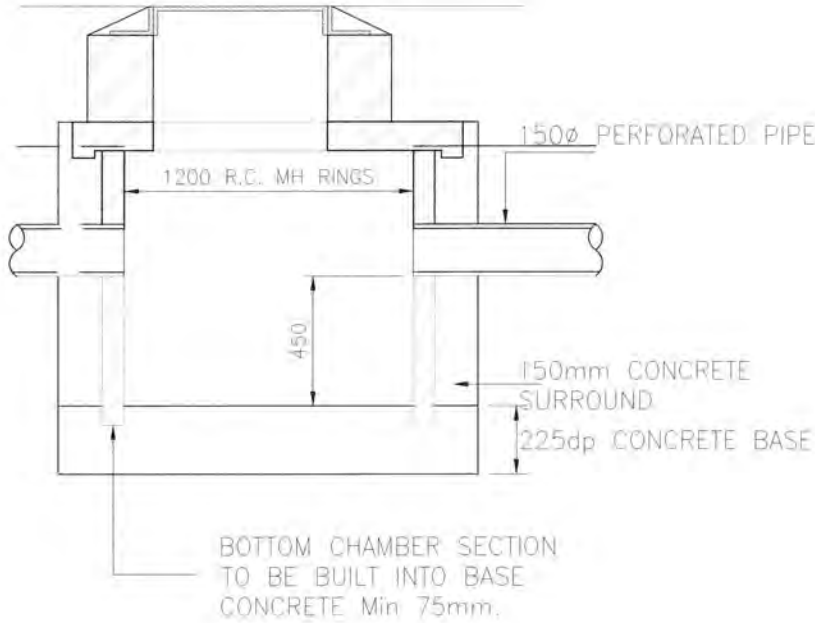
Greenfield runoff rates	Default	Edited
Qbar (l/s)	2.07	2.07
1 in 1 year (l/s)	1.78	1.78
1 in 30 years (l/s)	3.63	3.63
1 in 100 years (l/s)	4.31	4.31

NYMNPA  
05/09/2018

DO NOT SCALE

N O T E S

NOTE  
 SEE MANHOLE TYPE 'B' FOR  
 STANDARD MANHOLE DETAILS.



SILT TRAP DETAIL

(1:25)


REV	DESCRIPTION	DATE	BY
AB	AS BUILT ISSUE	28.04.11	MG

Job Title  
 WHITBY SEAFOODS

Drawing Title  
 SILT PIT DETAIL

Architect  
 BUILDING SERVICES MANAGEMENT

**JORDAN PRITCHARD GORMAN**  
 Consulting Civil & Structural Engineers

 5 John Charles Way  
 Leeds LS12 6QA

Checked	Date FEB 11	Scale 1:25	A4	Drawn kB
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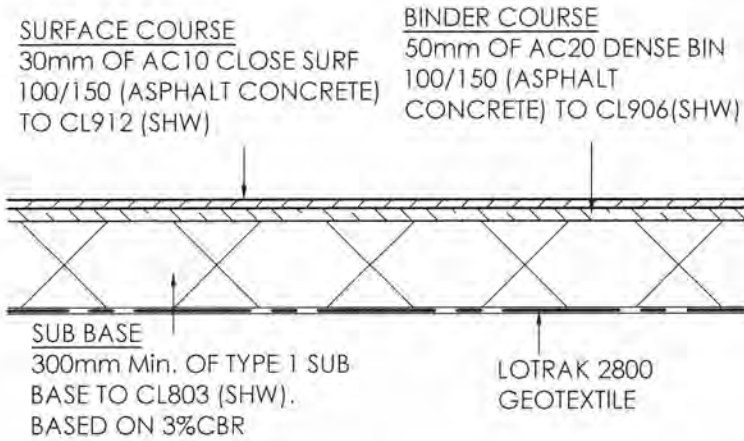
Drawing No 4316-08 AB

NYMNPA

05/09/2018

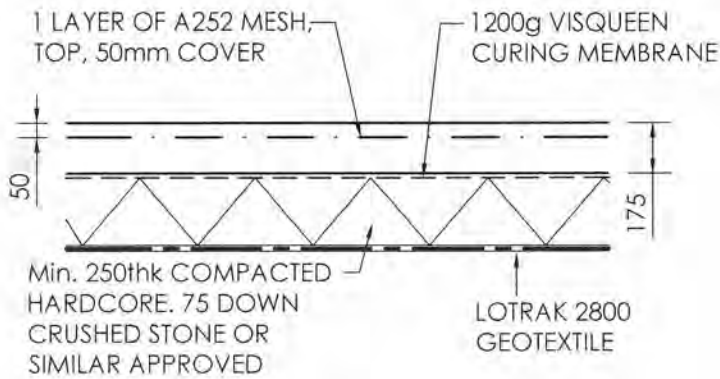
**DO NOT SCALE**

NOTES



**CAR PARKING AREAS (TARMAC)**

Scale 1:25



**CONCRETE SERVICE YARD**

Scale 1:25

NYMNPA

05/09/2018

**TENDER**



Job Title  
 WHITBY SEAFOODS, WHITBY

Drawing Title.  
 EXTERNAL CONSTRUCTION BUILD UPS

REV	DESCRIPTION	DATE	BY
	Architect		
Checked (NBP)	Date July '18	Scale 1:25	Drawn (R)
Drawing No		4316-20	T