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# Permit Introductory Note

The Pollution Prevention and Control Act 1999  
The Environmental Permitting (England and Wales) Regulations 2007



**IPSWICH**  
BOROUGH  
COUNCIL

**Southern Cement Ltd  
No 1 Shed  
Cliff Quay  
Port of Ipswich  
Ipswich  
Suffolk  
IP3 0BG**

LAPPC Permit Ref No:  
**C1/VPA/12/09**

<u>Contents</u>	
Introductory Note	i – iv
Permit	1
Site Location	11
Site Boundary	13
Site Layout	15

## **Chronicle**

<b>Detail</b>	<b>Date</b>	<b>Comments</b>
First Authorised	13 March 2002	2.3/6/CFB
LAPPC Deemed Application	1 April 2003	Duly Made
Temporary Permit	5 May 2004	3.1/RJD/1
Variation Notice	30 May 2005	3.1/RJD/1/V1
Consultation Permit	18 October 2005	3.1/RJD/1/05
Permit Issued	24 January 2006	3.1/RJD/1/05
Consultation Permit	12 November 2009	3.1/RJD/1/05 / C1/VPA/12/09
Variation Notice	19 January 2010	C1/VPA/12/09
Permit Issued	19 January 2010	C1/VPA/12/09

Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Floor 4 East  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433053 or 01473 433112  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

***This introductory note does not form part of the permit***

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2007, hereinafter referred to as the EP Regulations, to operate a scheduled installation carrying out an activity, or activities covered by the description in sections 3.1(B)b in Part 2 to Schedule 1 of the EP Regulations, to the extent authorised by the Permit.

Conditions within this Permit detail Best Available Techniques (BAT), for the management and operation of the installation, to prevent, or where that is not practicable, to reduce emissions.

In determining BAT, Southern Cement Ltd, hereinafter referred to as, the Operator, should pay particular attention to relevant sections of the LAPPC Process Guidance note 3/1(04), and any other relevant guidance. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Note that the Permit requires the submission of certain information to Ipswich Borough Council, hereinafter referred to as the Regulator, and in addition, the Regulator has the power to seek further information at any time under Regulation 60 of the EP Regulations provided that the request is reasonable.

**Public Registers**

Information relating to Permits, including the application, is available on public registers in accordance with the EP Regulations. Certain information may be withheld from the public registers where it is commercially confidential, or if it is in the interest of national security to do so.

**Variations to the Permit**

The Regulator may vary the permit in the future, by serving a variation notice on the Operator. Should the Operator want any of the conditions of the Permit to be changed, a formal application must be submitted to the Regulator (the relevant forms are available from the Regulator). The Status Log that forms part of this introductory note will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

**Transfer of the Permit or Part of the Permit**

Before the Permit can be wholly or partially transferred to another Operator, an application to transfer the Permit has to be made jointly by the existing and proposed Operators. A transfer will not be approved if the Regulator is not satisfied that the proposed Permit holder will be the person having control over the operation of the installation, or will not comply with the conditions of the transferred Permit. In addition, if the Permit authorises the Operator to carry out a specified waste management activity, the transfer will not be approved if the Regulator does not consider the proposed Permit holder to be a 'fit and proper person' as required by the EP Regulations.

### **Surrender of the Permit**

Where an Operator intends to cease the operation of an installation (in whole or in part) the Regulator should be informed in writing. Such notification must include the information specified in Regulation 24(3) of the EP Regulations.

### **Responsibility under Workplace Health and Safety Legislation**

The permit is given in relation to the requirements of the EP Regulations. It must not be taken to replace any responsibilities an Operator may have under the workplace health and safety legislation.

### **Appeal Against Permit Conditions**

Any person who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date of the Permit).

Appeals relating to installations in England should be received by the Secretary of State for Environment, Food & Rural Affairs. The address is as follows:

**The Planning Inspectorate  
Environmental Appeals Administration  
Room 4/19 – Eagle Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol, BS1 PN**

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included:

- (a) A statement of the grounds of appeal;
- (b) A copy of any relevant application;
- (c) A copy of any relevant Permit;
- (d) A copy of any relevant correspondence between the person making the appeal and the Council;
- (e) A statement indicating whether the appellant wishes the appeal to be dealt with.
  - by a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
  - by both parties sending the Secretary of State written statements of their case (and having the opportunity to comment upon one another's statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this had been done.

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this has been done.

- An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.

### **Copyright of any Maps Provided with this Permit**

The Ordnance Survey mapping included within this publication is provided by Ipswich Borough Council, under licence from the Ordnance Survey in order to fulfil its public function to provide information regarding environmental searches, site notices or authorisations for prescribed processes. Persons viewing this mapping should contact Ordnance Survey copyright for advice where they wish to licence Ordnance Survey mapping for their own use.

### **Talking to us**

Please quote the Permit Number if you contact the Regulator about this permit. To give a notification the Operator should telephone 01473 433012 or any other number notified in writing by the Regulator for that purpose.

*~ End of Introductory Note~*

# Permit

The Pollution Prevention and Control Act 1999  
The Environmental Permitting (England and Wales) Regulations 2007



**LAPPC Permit Ref No: C1/VPA/12/09**

Ipswich Borough Council in exercise of its powers under Regulation 13 of The Environmental Permitting (England and Wales) Regulations 2007, hereby authorises:

## **Southern Cement Ltd**

whose Registered Office is:

**Southern Cement Ltd  
No 1 Shed  
Cliff Quay  
Port of Ipswich  
Ipswich  
Suffolk  
IP3 0BG**

to operate an installation at:

**Southern Cement Ltd  
No 1 Shed  
Cliff Quay  
Port of Ipswich  
Ipswich  
Suffolk  
IP3 0BG**

to the extent authorised by and subject to the conditions of this Permit.

Signature:

Matthew Ling  
Head of Environmental Services  
The Authorised Officer for this purpose

Date: 19/11/10.

Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Floor 4 East  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433053 or 01473 433112  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

## **Process Description**

The process is carried out at Southern Cement, No 1 Shed Cliff Quay, Port of Ipswich, Ipswich, IP3 0BG. The attached Site plan 1/southern cement shows the location of the premises.

The process is to offload bulk cement in powder form delivered by ship into storage and subsequently to store the cement prior to discharge to bulk road tankers. The attached Site plan 2/southern cement shows the site boundary. Cement ships dock in the berth leased by Southern Cement Ltd from Associated British Ports Ltd during the unloading of cement into storage. During the unloading process, the site boundary on the quayside includes the ship.

Cement is discharged from ships by the use of either a fully enclosed pneumatic or mechanical ship unloader or by the use of a pneumatic or mechanical self-discharging vessel.

Cement is stored into two cement silos of 150 tonne capacity each and a flat storage warehouse of 9500 tonne capacity. Cement storage into a 6500 tonnes capacity silo is also permitted.

The warehouse is maintained at a small negative pressure to prevent dust seeping out of building. This is achieved by drawing displaced air through suction fans onto 7 WAMAIR reverse jet pulse self-cleaning filters which are designed for a maximum dust emission level of 10mg/m<sup>3</sup>. The filters are spaced over the building.

Displaced air is vented from the silos through 2 WAMAIR reverse jet filters which are designed for a maximum dust emission level of 10mg/m<sup>3</sup>.

Cement is packed into bags and palletised prior to discharge to flat/covered trailers. The cement-bagging unit is vented to atmosphere via a dust arrestment plant which is continuously monitored. The dust arrestment plant is supplied by an INTENSIV Supply via Haver & Boecker GmbH filter designed for a maximum dust emission level of 20mg/m<sup>3</sup>.

The attached Site plan 3/southern cement shows the layout of the premises and associated plants.

The process is designed and operated to prevent and control dust emissions to air using the Best Available Techniques, as described by the Secretary of State in Process Guidance Note 3/1 (04).

The conditions in this permit are required to be met in order to achieve that aim.

1. Emission Limits, Monitoring and Other Provisions

Row	Location	Particulate Matter Emission Limit/Requirement	Monitoring
1.	Whole process	No persistent visible emissions migrating off-site across site boundary as perceived by an Authorised Officer of Ipswich Borough Council.	Operator observations twice daily.
2.	Silo inlet and outlets	No persistent visible emissions.	Operator or driver observations during every delivery. Start and finish times of delivery to be recorded.
3.	Arrestment equipment* with exhaust flow $\geq 100\text{m}^3/\text{min}$ (other than silo arrestment plant)	No persistent visible emissions. Equipment should be designed to achieve $50\text{mg}/\text{m}^3$	Continuous indicative monitoring to demonstrate that the arrestment equipment is functioning correctly.
4.	Arrestment equipment* with exhaust flow $< 100\text{m}^3/\text{min}$ (other than silo arrestment plant)	No persistent visible emissions.	Operator observations at least daily or continuous indicative monitoring to show that the equipment is functioning correctly.
*Where the plant is discharging to the external environment			

2. The Operator shall keep records of inspections, tests and monitoring, including visual assessments. The records shall be:
  - (i) kept on site;
  - (ii) kept by the Operator for at least two years; and
  - (iii) made available for an authorised officer from Ipswich Borough Council to inspect.
3. Any historical records kept off site shall be made available for inspection within one working week of any request by an authorised officer from Ipswich Borough Council.
4. The Operator shall notify the Regulator at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. The Operator shall state a provisional time and date of monitoring and the test methods to be used.
5. The results of non-continuous emission testing shall be forwarded to Ipswich Borough Council within 8 weeks of completion.

6. Adverse results from any monitoring activity (both continuous and non-continuous) shall be investigated by the Operator immediately.

The Operator shall:

- (i) identify the cause and take corrective action;
  - (ii) record as much detail as possible regarding the cause and extent of the problem, and action taken to rectify the situation;
  - (iii) retest to demonstrate compliance as soon as possible; and
  - (iv) notify Ipswich Borough Council of this.
7. Emission from combustion processes shall in normal operation be free from visible smoke and in any case shall not exceed the equivalent of Ringleman Shade 1 as described in British Standard BS2742:1969.
  8. All releases to air, other than condensed water vapour, shall not be persistent.
  9. All emissions to air shall be free from droplets.
  10. Visual assessments of emissions shall be made frequently, and at least once a day during the unloading operations. The time, date, location and results of these assessments shall be recorded.
  11. Where, in the opinion of the Regulator, there is evidence of airborne dust from the process off the site, the Operator shall make their own inspection and assessment, and where necessary undertake ambient monitoring with the aim of identifying those process operations giving rise to the dust. The monitoring may either be by a British Standard method or by a method agreed with Ipswich Borough Council. In these situations, determination of wind direction may be required. Once the source of the emission is known, corrective action shall be taken without delay.
  12. In the event of the failure of the key arrestment plants, as listed and submitted by the Operator to the Regulator, the Operator shall ensure that the procedures for dealing with the failure are followed in order to minimise any adverse effects.
  13. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the Operator shall:
    - (i) investigate and undertake remedial action immediately;
    - (ii) adjust the process or activity to minimise those emissions; and
    - (iii) promptly record the events and actions taken in the site log book.
  14. Ipswich Borough Council shall be informed without delay:
    - (i) if there is an emission that is likely to have an effect on the local community; or
    - (ii) in the event of the failure of key arrestment plant.

### **Continuous Monitoring**

15. All continuous monitoring reading shall be on display to appropriately trained operating staff so that appropriate action may be taken in the case of abnormal readings being noted.



16. Instruments shall be fitted with audible and visual alarms, situated appropriately to warn the Operator of arrestment plant failure or malfunction.
17. The activation of alarms shall be recorded in the site log book by the Operator.
18. All continuous monitors shall be operated, maintained and calibrated (or referenced) in accordance with the manufacturers instructions, which shall be made available for inspection by an authorised officer of Ipswich Borough Council. The relevant maintenance and calibration (or referencing) shall be recorded.
19. Purchasers of new or replacement monitoring equipment shall specify the requirement for less than 5% downtime over any 3-month period.
20. Calibration and quantitative instruments and compliance monitoring shall meet the following provisions as appropriate:

No results shall exceed the emission concentration limits specified, except where either:

  - (i) data is obtained over at least 5 sampling hours in increments of 15 minutes or less; or
  - (ii) at least 20 results are obtained where sampling time increments of more than 15 minutes are involved; AND in the case of (i) or (ii);
  - (iii) no daily mean of all 15 minute mean emissions concentrations shall exceed the specified emission concentration limits during normal operation (excluding start up and shut down); and
  - (iv) no 15 minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start up and shut down).
21. Non-continuous emissions monitoring of particulate matter shall be carried out according to the main procedural requirements of BS ISO 9096:2003, with averages taken over operating periods, excluding start up and shut down.
22. Exhaust flow rates shall be consistent with efficient capture of emissions, good operating practice and meeting the requirements of the legislation relating to the workplace environment.
23. The introduction of dilution air to achieve emission concentration limits shall not be permitted.

### **Arrestment Plant**

24. New or replacement arrestment plant with one exhaust flow of over 100m<sup>3</sup>/min shall be designed to achieve the limit of 50mg/m<sup>3</sup> for particulate matter when functioning correctly.
25. Arrestment plant with an exhaust flow of 100m<sup>3</sup>/min or less shall be designed and maintained to prevent visible emission of dust. Checks shall be made and recorded on a daily basis to ensure the correct functioning of the plant. This shall be recorded in the site log book.
26. Where arrestment plant is designed to meet a specific emission limit, the specification shall be available for inspection by an authorised officer of Ipswich

Borough Council. The plant thereafter shall be maintained to meet this specification.

27. All replacement arrestment plant, including that serving silos, shall meet the standards of new plant.

### **Silos**

28. The silo filtration plant shall be designed to operate to an emission standard of less than 10mg/m<sup>3</sup> for particulate matter.
29. Operators shall have a procedure in place to ensure that visual assessment of emissions from silo inlet connections and the silo arrestment plant are undertaken throughout the duration of all bulk deliveries. The start and finish times of all deliveries shall be recorded.
30. The reverse jet filters shall be inspected at least once a month.
31. The silo arrestment plant outlet shall be checked for signs that emissions have occurred. The equipment shall also be checked for defects in the airflow or the cam shakers. If emissions or defects are detected then corrective action shall be taken promptly and before another delivery takes place. Any failure of the silo management system (e.g. high level alarms, filter, pressure relief valve) shall lead to full investigation of the operation of the plant and equipment.
32. The frequency of testing shall be increased, for example, as part of the commissioning of new or substantially changed processes, or where emission levels are nearer to or approach the emission concentration limits.

### **Control Techniques**

33. Filters serving the warehouse 'silo' shall be jet pulse self-cleaning filters. These shall be multiple filter/fan sets equally spaced over the shed.
34. Filters and fans serving the warehouse 'silo' shall be sized to be able to handle at least twice the volume of air that is being blown into the warehouse.
35. The warehouse and 'day' silos shall be installed with automatic protection systems to control delivery of material to the silo such that it is not possible to overfill or over pressurise the silo.
36. The silo management system shall include high level alarms, arrestment plant and pressure relief device.
37. Continuous high level monitoring systems shall be used in cement storage silos. They may be used telemetrically to monitor stock within the silo. They shall also be used to automatically stop delivery of material to the silo.
38. Bulk cement and other cementitious materials shall be stored in silos or in fully enclosed containers/packaging. The term silo includes the term 'flat silo' which consists of an adapted shed/warehouse on the dock, sealed in such a manner as to prevent fugitive dust emissions.

39. When delivery to a silo or bulk storage tank takes place, displaced air shall either be vented to suitable arrestment plant or back-vented to delivery vehicle, in order to minimise emissions. Arrestment plant fitted to silos shall be of sufficient size (and kept clean) to avoid pressurisation during delivery.
40. In order that fugitive emissions are minimised during the charging of silos, transfer lines shall be securely connected to the silo delivery inlet point and discharge point, in that order.
41. Bulk storage tanks and silos containing dry materials shall be equipped with visual high level alarms, or volume indicators, to warn of overfilling. The correct operation of such alarms shall be checked weekly or before a delivery takes place, whichever is the longer interval.
42. If emissions of particulate matter are visible from ducting, pipework, the pressure relief device or dust arrestment during silo filling, the operation shall cease; the cause of the problems shall be rectified prior to further deliveries taking place.
43. Seating of pressure relief devices on silos shall be checked at least once a week, or before a delivery takes place, whichever is the longer interval.
44. Immediately it appears that the valve has become unseated during silo filling or discharge, no further delivery shall take place until corrective action has been taken. The pressure relief device shall be examined to check for defects before being reset and a replacement valve fitted if necessary.
45. Care shall be taken to avoid delivering materials to silos at a rate which is likely to result in pressurisation of the silo. Particular care is required towards the end of the delivery when the quantity of material entering the ducting is reduced and hence the airflow is increased.
46. Silos shall be fitted with an automatic system to cut off delivery in the event of pressurisation or overfilling.

### **Pressure Operations**

47. During the offloading from ships during high winds, there is a potential for wind whipping of cement out of the ship's hold. During ship discharge Operators shall continuously observe the area above the open hold and if any persistent visible emissions are apparent, the discharge shall be stopped and the ship's hold closed until weather conditions change such that emissions do not occur.
48. The discharge of ships handling cement clinker using cranes and grabs shall not be permitted.
49. The transfer of cement shall be by a fully enclosed pneumatic or mechanical ship unloader or by the use of a pneumatic or mechanical self-discharging vessel.
50. The packing of cement into bags shall be carried out using purpose-designed plant fitted with extraction for displaced air ducted to arrestment plant.
51. The Operator shall keep an electronic record of Close Circuit Television images during the unloading of cement from ships. Those records shall be kept for at least 6 months and be made available to an authorised officer of Ipswich Borough

Council upon request. The footage shall clearly display the date and time when the recording was made.

### **Fugitive Emissions**

52. Fugitive dust emissions shall be prevented whenever practicable. When this is not practical, arrestment shall be used, or emissions shall be controlled at source by measures agreed between Ipswich Borough Council and the Operator.
53. All process buildings shall be made as dust-tight as is necessary to prevent persistent visible emissions.
54. All process buildings shall be cleaned regularly, according to the written maintenance programme provided by the Operator to the Regulator, to minimise fugitive emissions.
55. Where local exhaust ventilation is used emissions shall be ducted to suitable arrestment plant.
56. Dusty waste should be stored in closed containers.
57. A high standard of housekeeping shall be maintained.
58. All spillages which may give rise to dust emissions shall be cleaned up promptly, normally by wet handling methods or by the use of an industrial vacuum cleaner. Dry handling of dusty spillages shall not be permitted other than in fully enclosed buildings. (NB: Dry handling of dusty spillages within fully enclosed buildings may not be acceptable under COSHH). In the event of a major spillage it shall be dealt with on the same day that it occurs, and measures to minimise emissions, such as wetting the surface to create a crust, shall be taken immediately.
59. All buildings housing processing machinery shall be externally clad with materials that can be readily cleaned, in accordance with the maintenance programme.

### **Roadways and Vehicles**

60. Roadways in normal use and any other area where there is regular movement of vehicles shall have a consolidated surface capable of being cleaned. They shall be kept clean in order to prevent or minimise dust emissions. They shall be kept in good repair.
61. Where necessary to prevent visible dust being carried off site, wheel-cleaning facilities shall be provided and used by vehicles before leaving the site.

### **Management**

62. The Operator shall be aware that important elements for effective control of emissions include:
  - (i) proper management, supervision and training for process operations
  - (ii) proper use of equipment;
  - (iii) effective preventative maintenance on all plant and equipment with the control of emissions to the air, and

- (iv) it is good practice to ensure that spares and consumables are available at short notice in order to rectify breakdowns rapidly.
- 63. The Operator shall keep spares and consumables on site, in particular those subject to continual wear, or shall be available at short notice from a guaranteed supplier.
- 64. The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation which is not regulated by any other condition of this permit.

### **Training**

- 65. The Operator shall ensure that staff at all levels obtain the necessary training and instruction in their duties relating to control of the process and emissions to air.
- 66. The Operator shall ensure the training of all staff with responsibility for operating the process should include:-
  - (i) awareness of their responsibilities under the permit, in particular how to deal with conditions likely to give rise to dust emissions;
  - (ii) action to minimise emissions during abnormal conditions.
- 67. The Operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to an authorised officer at Ipswich Borough Council at their request.

### **Maintenance**

- 68. Effective preventative maintenance shall be employed on all aspects of the process including all plant, buildings and the equipment concerned with control of emissions to air.
  - (i) This shall be undertaken in accordance with the written maintenance programme provided from the Operator to the Regulator with respect to pollution control equipment; and
  - (ii) records of such maintenance shall be made available to an authorised officer of Ipswich Borough Council for inspection.

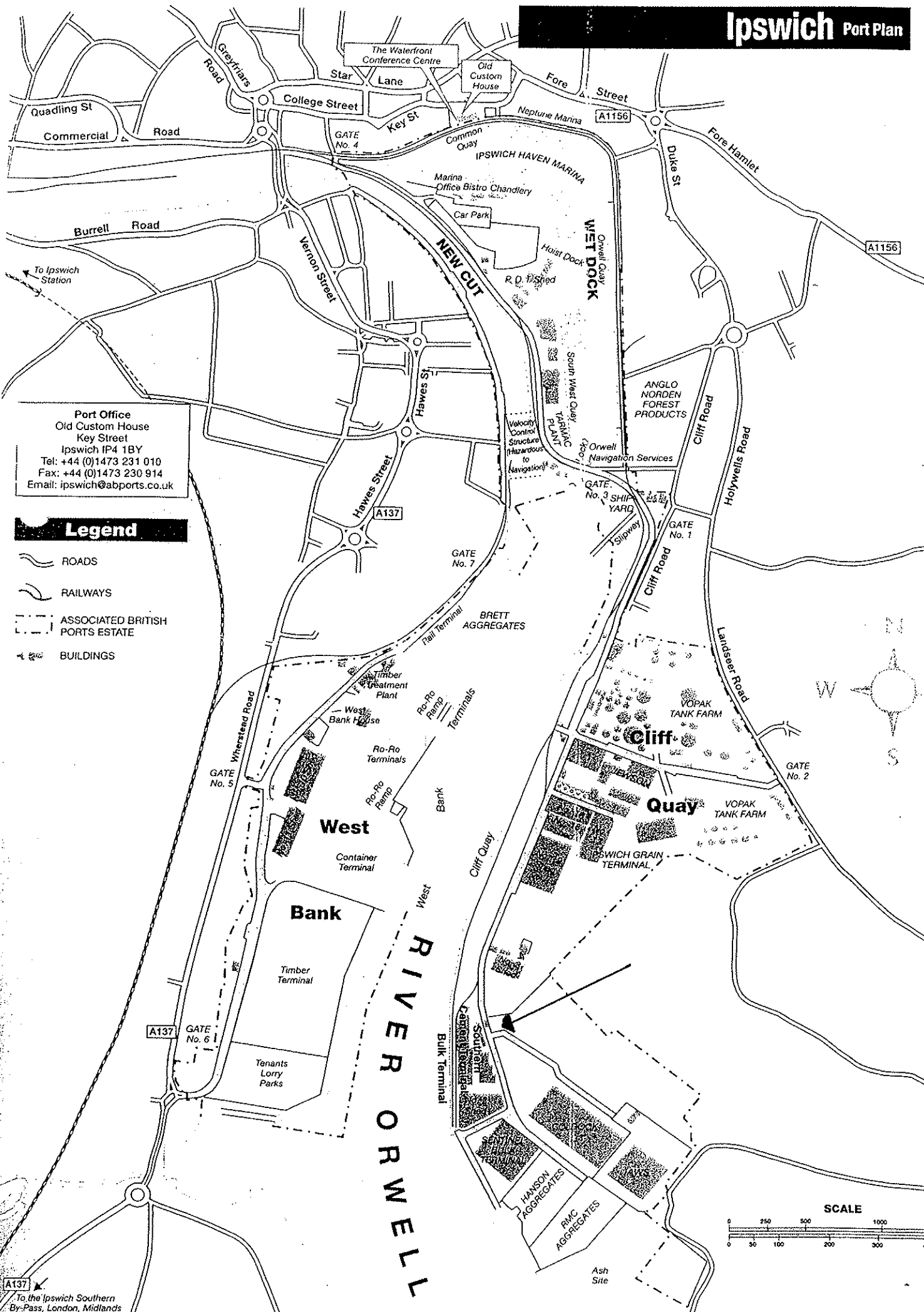
### **Notifications**

- 69. The Operator shall notify Ipswich Borough Council without delay of:-
  - (i) the detection of an emission of dust that exceeds any limit or criterion in this permit;
  - (ii) records of such maintenance shall be made available to an authorised officer of Ipswich Borough Council for inspection.
- 70. The Operator shall give written notification as soon as possible prior to any of the following:
  - (i) permanent cessation of the operation of part or all of the Permitted Installation;

- (ii) cessation of operation of part or all of the Permitted Installation for a period likely to exceed one year; and
  - (iii) resumption of the operation of part or all of the Permitted Installation after a cessation has been notified.
71. The Operator shall notify the following matter to Ipswich Borough Council in writing within 14 days of their occurrence:
- (i) any change to the operation capable of altering the substances from the operation;
  - (ii) any change in the Operator's trading name, registered name or registered office address;
  - (iii) any change to particulars of the Operator's holding company (including details of an ultimate holding company where an Operator has become a subsidiary);
  - (iv) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement, or being wound up.
72. At the planning and design stage for the construction of an additional cement storage silo of approximately 6500 tonnes capacity, as detailed in the application for permit variation dated 1 July 2008 from the Operator, the latter shall provide detailed information to the Regulator so that these may be examined and approved prior to construction starting.

**Site Location**

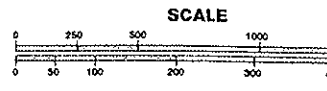
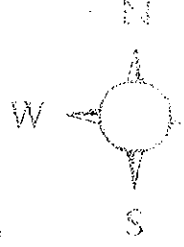
# Ipswich Port Plan



Port Office  
 Old Custom House  
 Key Street  
 Ipswich IP4 1BY  
 Tel: +44 (0)1473 231 010  
 Fax: +44 (0)1473 230 914  
 Email: ipswich@abports.co.uk

**Legend**

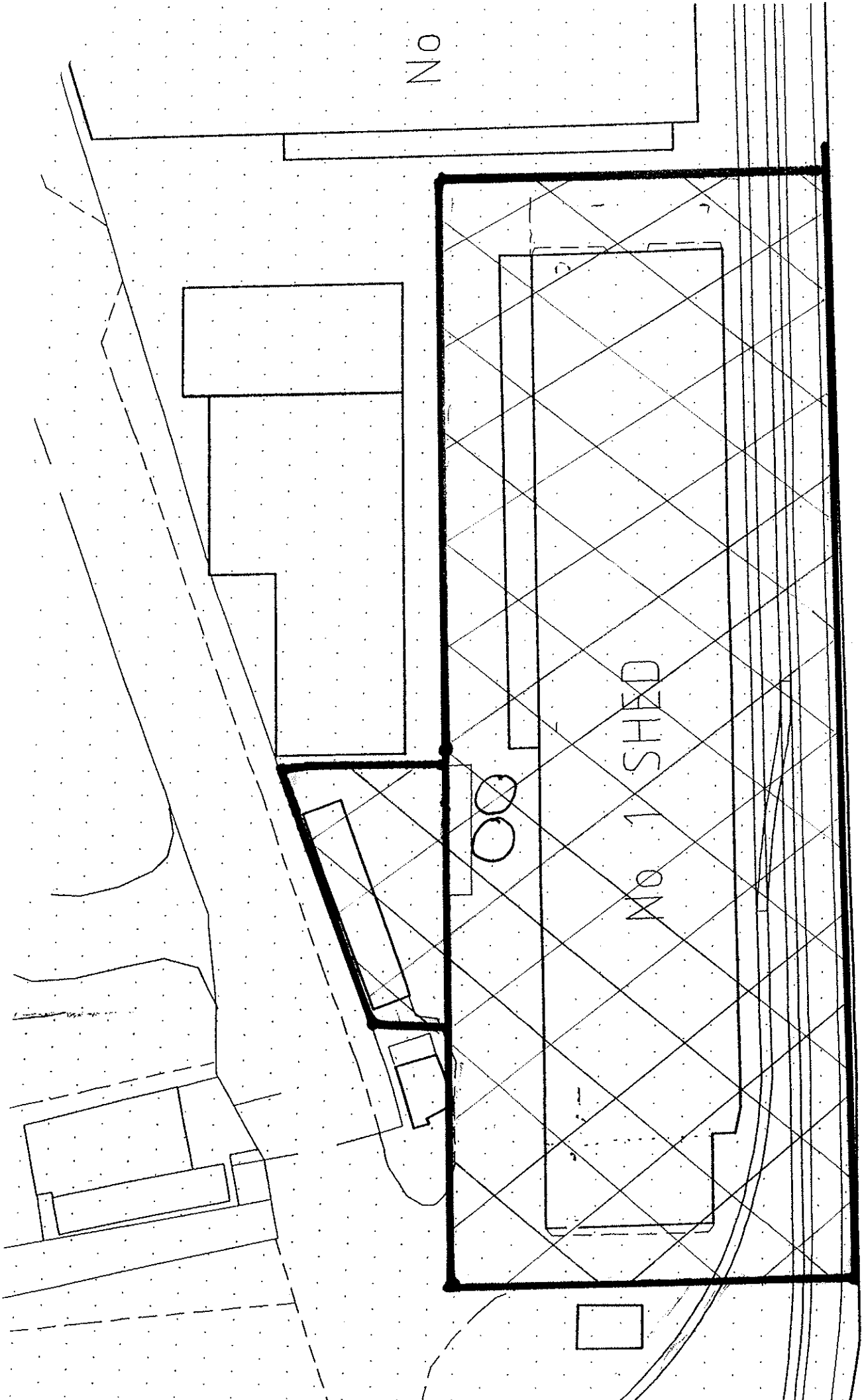
- ROADS
- RAILWAYS
- ASSOCIATED BRITISH PORTS ESTATE
- BUILDINGS



To the Ipswich Southern  
 By-Pass, London, Midlands  
 & North A12 & A14



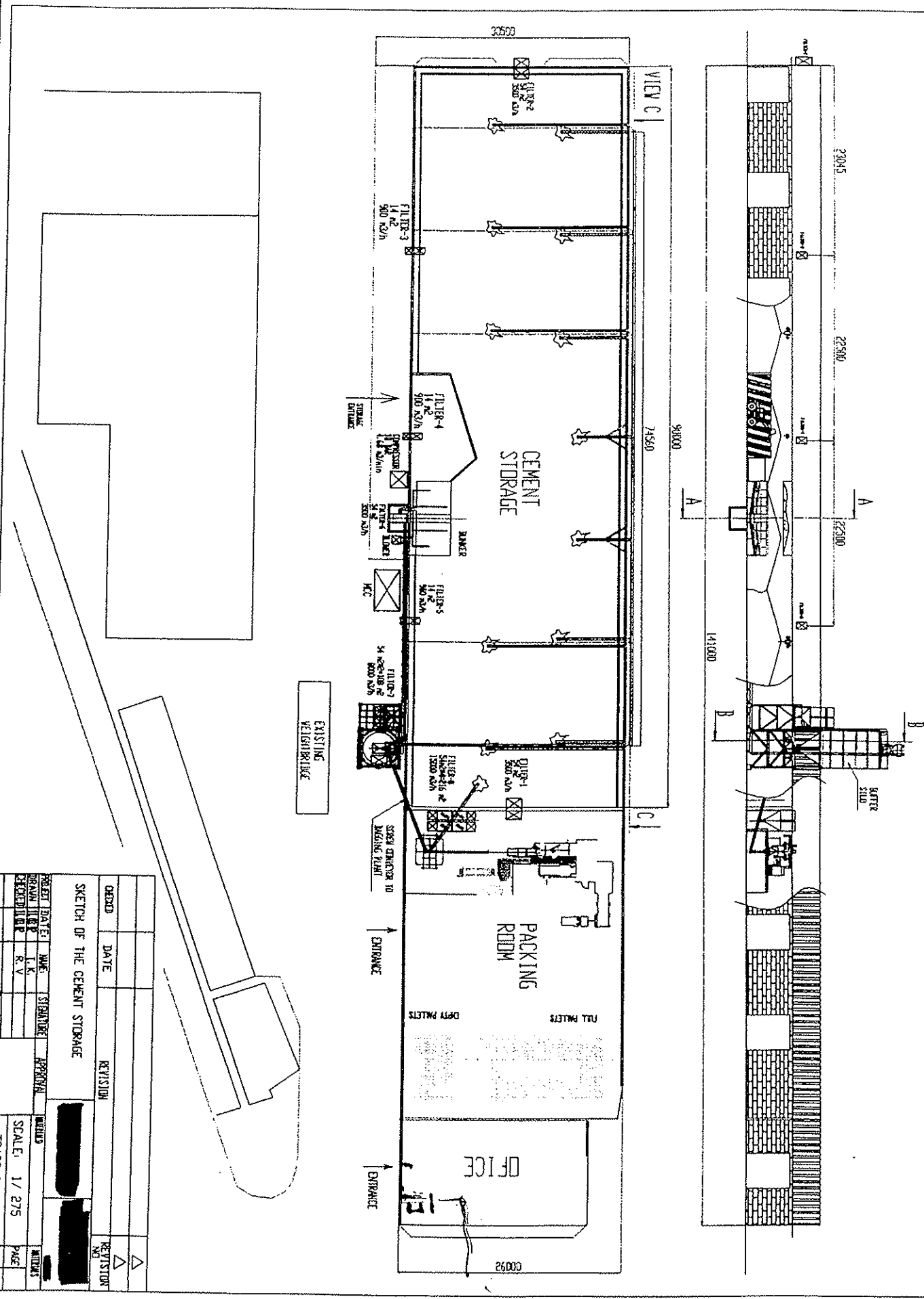
**Site boundary**



(990m)

CLIFF QUAY NO 1 SHED

**Site layout**



NO.	REVISION	DATE	BY	CHKD.
1				
2				

SKETCH OF THE CEMENT STORAGE			
PROJECT DATE:	NAME:	SIGNATURE:	APPROVAL:
DRAWN BY:	L.K.		
CHECKED BY:	R.V.		
SCALE:	1 / 275		
PROJECT NO.:	TPAD2-002-00		
PAGE:	42		