

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

WITHDRAWAL OF BUILDING BYE LAW APPLICATIONS

Charges due in relation to applications under the Building Bye Laws have not been paid in respect of the particular application listed hereunder:

<u>FEE DUE</u>	<u>FEE PAID</u>	<u>BALANCE DUE</u>	<u>REG. REF.</u>	<u>DATE DEC. DUE</u>	<u>APPLICANT</u>	<u>PROPOSAL</u>
£3,447.50	NIL	£3,447.50	91A/844	22/7/1991	Nat Ross	Extn. to exist. warehouse & offices @ Site 17 Clondalkin Ind. Estate.

It should be noted that a period of not less than two months has expired since the application listed has been received.

RECOMMENDATION:

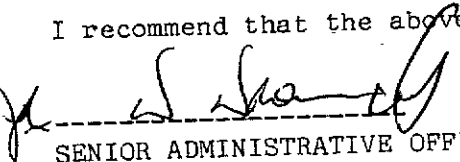
Para 3 (11) of the approved schedule of charges provides that:

"In accordance with Section 6 of the Local Government (Financial Provisions) (No. 2) Act, 1983 where:-

- (a) no fee is submitted with the application, or
- (b) the fee submitted is less than the appropriate fee payable as set out in the schedule of fees,

the County Council will not commence to consider the application until the appropriate fee is paid. If no fee, or a fee less than the appropriate fee has been received by the County Council, on the expiration of two months commencing on the day the application is received the application will be regarded as having been withdrawn and if a fee less than the appropriate fee has been paid, it will be refunded".

I recommend that the above application be regarded as having been withdrawn.


SENIOR ADMINISTRATIVE OFFICER.

ORDER:

The Building Bye Law application listed by the Senior Administrative Officer is hereby regarded as having been withdrawn. The applicant to be informed accordingly.


ASSISTANT CITY AND COUNTY MANAGER.

To whom the appropriate powers have been delegated by order of the Dublin City and County Manager dated: 4th September, 1991.

BYE LAW APPLICATION FEES

REF. NO.: 91A/0844 CERTIFICATE NO.: 15118
 PROPOSAL: Extension to Warehouse & Office
 LOCATION: Unit 17 Crag Avenue, Clondalk Industrial Estate
 APPLICANT: Net Ross

	1	2	3	4	5	6	7
CLASS	DWELLINGS/AREA LENGTH/STRUCTURE	RATE	AMT. OF FEE REQUIRED	AMT. LODGED	BALANCE DUE	RED. FEE APPL.	AMT. OF RED. FEE
A	Dwelling (Houses/Flats)	@ £55					
B	Domestic Ext. (Improvement/Alts.)	@ £30					
C	Building for office or other comm. purpose <u>984.47m²</u>	@ £3.50 per M ² or £70	<u>£3447.50</u>	<u>NIL</u>	<u>£3447.50</u>		
D	Building or other structure for purposes of agriculture	@ £1.00 per M ² in excess of 300 M ² Min. £70				<u>Application Withdrawn</u> <u>BBB/24/76/91</u>	
E	Petrol Filling Station	@ £200					
F	Dev. of prop. not coming within any of the forgoing classes	£70 or £9 per .1 hect. whichever is the greater					

Column 1 Certified: Signed: [Signature] Grade: III Date: 22/5/91
 Column 1 Endorsed: Signed: _____ Grade: _____ Date: _____
 Columns 2,3,4,5,6 & 7 Certified: Signed: [Signature] Grade: So Date: 22/5/91
 Columns 2,3,4,5,6 & 7 Endorsed: Signed: _____ Grade: _____ Date: _____

LOCATION GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1963 TO 1982

ASSESSMENT OF FINANCIAL CONTRIBUTION

REG. REF.:

CONT. REG.:

SERVICES INVOLVED: WATER/FOUR SEWER/SEWER/WATER

AREA OF SITE:

FLOOR AREA OF PRESENT PROPOSAL:

MEASURED BY:

CHECKED BY:

METHOD OF ASSESSMENT:

TOTAL ASSESSMENT:

MANAGER'S ORDERED NO. /
DATE

ENTERED IN CONTRIBUTIONS REGISTER:

DEVELOPMENT CONTROL ASSISTANT GRASS

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

NO FEE WITH BYE LAW APPLICATION

TELEPHONE: 724755
EXTENSION: 231/234
FAX.: 724896

PLANNING DEPARTMENT,
IRISH LIFE CENTRE,
LOWER ABBEY STREET.,
DUBLIN 1.

Rooney Associates,

100 South Circular Road,
Dublin 8.

30/5/91

REG. REF.: 91A/0844

RE: Extension to warehouse and office at Units 17 Crag Terrace, Clondalkin Ind. Estate,
for Nat. Ross.

Dear Sir/Madam,

I refer to your application for Bye Law approval in respect of the above proposal. I wish to inform you that the Planning Authority will not commence to consider the application until the appropriate fee is paid. If no fee or a fee less than the appropriate fee has been received by the Council on the expiration of two months, commencing on the day the application is received, the application will be regarded as having been withdrawn.

The correct fee for the above mentioned application is £ 3,447.50.
Please quote the Register Reference No. stated above when submitting the fee.

Yours faithfully,


for PRINCIPAL OFFICER

91A/0844

CERTIFICATE NO: 25427

USAL: Extension to Warehouse & office
LOCATION: Unit 17 Craig Terrace, Cordell Industrial Estate
PLANT: near Ross

1	2	3	4	5	6	7
Dwellings/AREA LENGTH/STRUCT	RATE	AMT. OF FEE REQ.	AGENCY LOGGED	BALANCE DUE	BALANCE DUE	DATE/ RECEIPT NO.
Dwellings	EE32					
	EE16					
	3500 per M ² IN EXCESS OF 300M ² MAX. FEE					
984.47	EE15					
x .1 FEE	EE14					
x .1 FEE	EE13					
x .1 FEE	EE12					
x .1 FEE	EE11					
x .1 FEE	EE10					
x .1 FEE	EE09					
x .1 FEE	EE08					
x .1 FEE	EE07					
x .1 FEE	EE06					
x .1 FEE	EE05					
x .1 FEE	EE04					
x .1 FEE	EE03					
x .1 FEE	EE02					
x .1 FEE	EE01					

1323.75 / 1722.02 93^A mts 2/9/91

J. Young J. D.K. 29/5/91

Items 2, 3, 4, 5, 6 & 7 Certified Signed: [Signature] Grade: 80 Date: 26/8/91
Items 2, 3, 4, 5, 6 & 7 Enclosed Signed: [Signature] Grade: Date:

LOCATION GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1953 TO 1982

ASSESSMENT OF FINANCIAL CONTRIBUTION

REG. REF.: 91A/844

CONT. REG.:

SERVICES INVOLVED: WATER/FOUL SEWER/SURFACE WATER

AREA OF SITE:

FLOOR AREA OF PRESENT PROPOSAL: 10597ft²

MEASURED BY:

J.Y.
29/5/91

CHECKED BY:

METHOD OF ASSESSMENT:

TOTAL ASSESSMENT:

MANAGER'S ORDERED NO: /
DATED:

ENTERED IN CONTRIBUTIONS REGISTER:

10,597 @ £750

for 10,000 sq. feet

i.e. 10597×0.75
= 7947.75

DEVELOPMENT CONTROL ASSISTANT GRADE

Q

Say £7948 for availability
of public services
8/10/91

P/4621/91

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

CONTRIBUTION:	
Standard:	7948
Roads:	
S. Sers:	
Open Space:	
Other:	
SECURITY:	
Bord na nEil, 1991	
C. sh.	

Register Reference : 91A/0844

Date Received : 12th August 1991

Correspondence : Rooney Associates,
Name and : 100 South Circular Road,
Address : Dublin 8.

Development : Extension to existing warehouse and offices

Location : Site 17 Clondalkin Industrial Estate

Applicant : Nat Ross

App. Type : Permission

Zoning :

Floor Area : 914 Sq.metres

(MG/BB)

Report of Dublin Planning Officer dated 1st October, 1991.

This is an application for PERMISSION for a warehouse extension at site 17 Clondalkin for Nat Ross.

The proposed development provided for an extensive warehouse extension and new attic accommodation at this site. It was considered to be excessive in terms of site coverage and also by reason of the fact that insufficient car parking areas were proposed. Furthermore information was ^{not} submitted on the nature of the existing business or that proposed at the extension (see report dated 17.7.91 on file).

The applicants were requested to submit additional information to provide for a possible reduction in floor area and to clarify ^{requirements} details of the applicants Nat Ross business with regard to parking, as follows:-

1. The applicant is requested to submit a revised site location map which identifies the entire site, the subject of the current application outlined in red, i.e. the area of Site 17.
2. The proposed development involves the construction of a warehouse and office extension of floor area 984.47 sq. metres at Unit 17 Clondalkin Industrial Estate. This would effectively double the floor area of the existing building on site and would result in an overall level of site coverage of c. 65%. This would be in excess of the level of site coverage normally permitted in areas zoned 'E', i.e. 45%, and would result in the overdevelopment of the site. The applicants are requested to submit any proposals they might have to reduce the level of site coverage to a level acceptable to the Planning Authority.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/0844

Page No: 0002

Location: Site 17 Clondalkin Industrial Estate

3. The applicants are requested to submit details of the existing operation on site,

- (i) an outline of goods stored,
- (ii) details of the numbers employed,
- (iii) details of hours of operation,
- (iv) details of the numbers and time of delivery traffic into and out of the site.

4. With regard to the proposed extension, the applicant is requested to clarify,

- (i) what purpose it is intended to use the proposed warehouse extension for,
- (ii) details of any likely increase in the numbers employed at the site,
- (iii) details of the expected increase in delivery traffic into and out of the site.

5. The applicant is requested to submit details of how it is intended to cater for car and truck parking and loading on site in accordance with Development Plan Standards.

6. The applicant is requested to submit detailed proposals for the landscaping and boundary treatment of the site.

7. From site inspection it was noted that there are a number of containers located on the site. The applicant is requested to clarify (i) the use of these containers, (ii) whether planning permission has ever been sought or granted in respect of these structures. If not, the applicant is advised to regularise this situation.

Additional Information on this application was submitted on 12th August, 1991.

A revised site map identified the entire site outlined in red.

Revised drawings were submitted which reduced the width of the proposed building by 2 metres. The applicant's state that this results in a reduction in a level of site coverage of 59.9% which they contend is less than that permitted at adjoining sites.

With regard to the existing operation on site the goods stored are furniture and household goods. 5 no. staff are employed in the offices and 4 no. in the warehouse. Normal hours of operation are 8.00 - 5.30 p.m. and there are 3 - 4 deliveries into and out of the site per day.

With regard to the proposed extension the applicants note that similar goods

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

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Location: Site 17 Clondalkin Industrial Estate

i.e. household goods will be stored. An additional 6/7 staff will be employed and there will be an increase in traffic of 3/4 trucks per day.

With regard to car parking the applicants state that parking for 24 cars can be provided, which they state is in excess of that needed to cater for staff and visiting traffic. There will be no provision for truck parking - at present trucks are parked in warehouse at night for security purposes. According to the submission truck deliveries will unload at doorways on the east and west or will drive through the warehouse and unload inside. A new entrance is now proposed off Canal turn (close to entrance with adjoining factory) to facilitate truck access and car parking in front of building.

The applicants state that it is intended to plant shrubs/trees etc. on completion of proposed development.

With regard to containers on site the applicants note that they house goods which will be stored in the proposed extension.

The revised submission reduces the floor area of the proposed building by c. 70 sq. metres. While this is only a small decrease in the context of the size of the overall development, it allows for an increase in the circulation area/parking. The proposed new entrance will also allow for improved circulation around the site. This entrance will be within c. 5 metres of the entrance to the adjoining site. This is considered acceptable given the level of traffic proposed.

Additional car parking has been indicated on lodged plans i.e 24 spaces. While this is substantially less than that required to meet development plan standards it appears adequate to meet the staffing requirements at the existing and proposed warehouse.

I recommend that a decision to GRANT PERMISSION be made under the Local Government (Planning and Development) Acts, 1963-1990 subject to the following (12) conditions:-

CONDITIONS / REASONS

01 The development to be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application, as amended by additional information received on 12th August 1991 save as may be required by the other conditions attached hereto.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/0844

Page No: 0004

Location: Site 17 Clondalkin Industrial Estate

REASON: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

02 That before development commences, approval under the Building Bye-Laws be obtained and all conditions of that approval be observed in the development.

REASON: In order to comply with the Sanitary Services Act, 1878-1964.

03 That the requirements of the Chief Fire Officer be ascertained and strictly adhered to in the development.

REASON: In the interest of safety and the avoidance of fire hazard.

04 That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.

REASON: In the interest of health.

05 That the water supply and drainage arrangements, including the disposal of surface water, be in accordance with the requirements of the County Council.

REASON: In order to comply with the Sanitary Services Acts, 1978 - 1964.

06 That no industrial effluent be permitted without prior approval from Planning Authority.

REASON: In the interest of health.

07 That the area between the building and roads must not be used for truck parking or other storage or display purpose, but must be reserved for car parking and landscaping as shown on lodged plans.

REASON: In the interest of the proper planning and development of the area.

08 That details of landscaping and boundary treatment to be submitted and approved by the Planning Authority and work thereon commenced prior to the occupation of the proposed development. *In this regard a strip of land 5ft. wide to be reserved for landscaping purposes adjoining both road boundaries*

08 REASON: In the interest of the proper planning and development of the area.

09 That no advertising sign or structure be erected except those which are exempted development, without prior approval of Planning Authority.

REASON: In the interest of the proper planning and development of the area.

10. That details regarding the proposed access onto Canal Turn be agreed with the Council's Roads Department prior to the commencement of development on site *Reason: In the interest of traffic safety.*

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

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Page No: 0005

Location: site 17 Clondalkin Industrial Estate

11. That the structure be used for warehousing purposes only as proposed in application - no manufacturing processes to be placed.
Reason: In sufficient off street car parking facilities are available to comply with Development Plan Standards.

D
12. That a financial contribution in the sum of £7,948. be paid by the proposer to the Dublin County Council towards the cost of provision of public services in the area of the proposed development, and which facilitate this development; this contribution to be paid before the commencement of development on the site.

REASON:

12. The provision of such services in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing the services.

Endorsed:
for Principal Officer

.....
for Dublin Planning Officer

Order: A decision pursuant to Section 26(1) of the Local Government (Planning and Development) Acts, 1963-1990 to GRANT PERMISSION for the above proposal subject to the (17) conditions set out above is hereby made.

Dated :
ASSISTANT CITY & COUNTY MANAGER

to whom the appropriate powers have been delegated by order of the Dublin City and County Manager dated 4 September, 1991.

October

W

SS/CMD

3

Register Reference : 91A/0844

Date : 29th May 1991

Development : Extension to existing warehouse and offices

LOCATION : Site 17 Clondalkin Industrial Estate

Applicant : Nat Ross

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Planning Officer : M.GALVIN

Date Recd. : 23rd May 1991

Attached is a copy of the application for the above development .Your report would be appreciated within the next 28 days.

Yours faithfully,

[Signature]
DUBLIN CC. ENGINEER
SANITARY SERVICES
PRINCIPAL OFFICER
15 JUL 1991
Returned *[Signature]*

Date received in Sanitary Services 6 JUN 1991

FOUL SEWER

Available.

Any effluent other than domestic effluent to be subject to the provisions of the Water Pollution Act.

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date 16.07.91
Time 3.30

SURFACE WATER

Available.

Surface water run-off to be subject to the provisions of the Water Pollution Act.

SENIOR ENGINEER,
SANITARY SERVICES DEPARTMENT,
46/49 UPPER O'CONNELL STREET,
DUBLIN 1

[Signature] 28/6/91.

[Signature]
4/7/91

LM,

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date... 17.07.91
Time... 3.30

Register Reference : 91A/0844

Date : 29th May 1991

.....
ENDORSED _____ DATE _____

WATER SUPPLY.....

Water available.
Existing supply to be metered.

J. McKear 9/7/91

.....
ENDORSED *[Signature]* DATE 10/2/91

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Proposed construction of an extension to existing warehouse and offices at Site 17, Clondalkin Industrial Estate, for Nat Ross.

Rooney Associates,
100 South Circular Road,
Dublin 8.

Reg. Ref. 91A/0844
Appl. Rec'd: 23/5/91
Floor Area: 984.47sq. m.
Site Area: 4100sq. m.
Zoning:

Report of the Dublin Planning Officer, dated 17 July 1991

This is an application for PERMISSION for an extension to an existing warehouse and offices at site 17, Clondalkin Industrial Estate, for Nat Ross.

The proposed site which has an area of c.1 acre (4100sq. metres) is located at the junction of Crag Terrace and Canal Turn in the Clondalkin Industrial Estate in an area zoned 'E' - "to provide for industry and related uses" in the Dublin County Development Plan 1983.

This site is rectangular in shape and is surrounded by low walls at the Crag Terrace and Canal Turn frontages. The boundary with the adjoining site to the east comprises a wire fence. There is a 2m. high block wall and wire fence along the northern boundary. The southern boundary at Canal Turn has been landscaped.

Existing buildings on site include a large warehouse of floor area 922sq. metres and associated office accommodation.

Reg. Ref. No. 85A/116 refers to a grant of planning permission for alterations and extension of offices at Unit 17, Nat Ross Ltd.

From site inspection it was noted that there are several containers (c.10 no.) located on this site which are possibly used for storage purposes. These are not indicated on drawings lodged and the applicants do not mention them in their application. There is no evidence from the planning Register of permission ever having been granted for these structures (temporary or otherwise).

The current application provides for the construction of a warehouse and office extension of floor area 984.47sq. metres. This is to be located to the north of and would effectively double the floor area of the existing facility on site.

Contd/.....

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COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Proposed construction of an extension to existing warehouse and offices at Site 17, Clondalkin Industrial Estate, for Nat Ross.

This would result in a level of site coverage of c.63⁵% taking site coverage as the proportion of the area behind the building lines at both Crag Terrace and Canal Turn which is covered by buildings. The proposed development would result in a level of site coverage of c.57% taking site coverage as the proportion of the site covered by buildings behind the building line at Crag Terrace (on which the main entrances to the site are located). This is significantly in excess of the 45% normally permitted in areas zoned 'E'.

Such a high level of site coverage is considered undesirable. In this instance, because of the location of the proposed buildings on site, it would restrict circulation around the site and would significantly reduce the areas available for car parking, loading, unloading etc.

Lodged plans provide for 2 no. entrances to the new extension on the eastern and western elevations. 7 no. car parking spaces are identified to the west of the building adjoining the northernmost entrance at Crag Terrace. It is noted that some 26 car parking spaces are required to serve the entire development and meet Development Plan Standards. Some 30 no. spaces would be required to accommodate the proposed extension to Development Plan Standards. A certain proportion of car parking could be provided around the site boundaries. However, this would be likely to conflict with heavier delivery traffic etc.

No details have been submitted by the applicants regarding the use of the existing or proposed warehouse, from site inspection it was noted that the existing warehouse is used by Nat Ross Ltd., for the storage of goods for house removals etc. There were only c.5 cars parked on site (on the site of the proposed offices) and it is considered unlikely that such a warehousing activity would generate a parking requirement to Development Plan Standards. However, the applicant should be required to clarify this matter by additional information, i.e. numbers currently employed, expected increase in numbers employed, etc., so as to satisfy the Planning Authority that a lesser amount of parking spaces would be sufficient.

The current proposal is considered to be too excessive and would represent overdevelopment of this site. A revised proposal which would leave adequate site areas for parking/circulation etc., would be acceptable. I recommend the applicants be requested to submit Additional Information on this application to clarify inter alia, whether it is possible to provide for a less extensive extension and to clarify the requirements of the applicants Nat Ross Limiteds' Business with regard to parking etc.

Contd/.....

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Proposed construction of an extension to existing warehouse and offices at Site 17, Clondalkin Industrial Estate, for Nat Ross.

I recommend that Additional Information be requested from the applicant with regard to the following:-

1. The applicants are requested to submit a revised site location map which identifies the entire site, the subject of the current application outlined in red, i.e. the area of Site 17.
2. The proposed development involves the construction of a warehouse and office extension of floor area 984.47sq. metres at Unit 17 Clondalkin Industrial Estate. This would effectively double the floor area of the existing building on site and would result in an overall level of site coverage of c.63%. This would be in excess of the level of site coverage normally permitted in areas zoned 'E', i.e. 45% and would result in the overdevelopment of the site. The applicants are requested to submit any proposals they might have to reduce the level of site coverage to a level acceptable to the Planning Authority.
3. The applicants are requested to submit details of the existing operation on site,
 - (i) an outline of the goods stored,
 - (ii) details of the numbers employed,
 - (iii) details of the hours of operation,
 - (iv) details of the numbers and time of delivery traffic into and out of the site.
4. With regard to the proposed extension, the applicant is requested to clarify,
 - (i) what purpose it is intended to use the proposed warehouse extension for,
 - (ii) details of any likely increase in the numbers employed at the site,
 - (iii) details of the expected increase in delivery traffic into and out of the site.
5. The applicant is requested to submit details of how it is intended to cater for car and truck parking and loading on site *in accordance with Development Plan standards*
6. The applicant is requested to submit detailed proposals for the landscaping and boundary treatment of the site.

Contd/.....

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Proposed construction of an extension to existing warehouse and offices at Site 17, Clondalkin Industrial Estate, for Nat Ross.

7. From site inspection it was noted that there are a number of containers located on the site. The applicant is requested to clarify (i) the use of these containers, (ii) whether planning permission has ever been sought or granted in respect of these structures. If not, the applicant is advised to regularise this situation.

MS (MG/CM)

Endorsed:-


for Principal Officer


For Dublin Planning Officer

Order:-

I direct that ADDITIONAL INFORMATION be requested from the applicant for planning permission as set out in the above report and that notice thereof be served on the applicant.

Dated: 18 July, 1991.


Assistant City & County Manager.

to whom the appropriate powers have been delegated by Order of the Dublin City and County Manager, dated 8th July, 1991.

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

Building Control Department,
Liffey House,
Tara Street,
Dublin 1.

Planning Department,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

Telephone: 773066

Telephone: 724755
Extension: 231/234

4th June, 1992

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1963 TO 1982

LOCATION: Site 17 Clondalkin Industrial Estate
PROPOSED DEVELOPMENT: Extension to warehouse
APPLICANT: Nat Ross
PLANNING REG.REF.: 91A/844
DATE OF RECEIPT
OF SUBMISSION: 5th May, 1992

A Chara,

With reference to above, I acknowledge receipt of application for:

Compliance with Conditions

Mise, le meas

A. Smith

PRINCIPAL OFFICER

Rooney Associates,

100 South Circular Road,

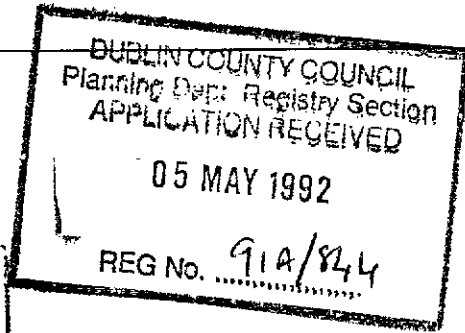
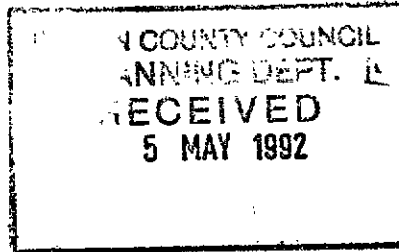
Dublin 8

Consulting Structural and Civil Engineers

DFR/jw/91/15

4th May, 1992

Dublin County Council,
Planning Department,
Block 2,
Irish Life Centre,
Lower Abbey Street,
DUBLIN, 1.



91A/844
2.3.0
Lomh

Re: Extension to Existing Warehouse at
Site 17, Clondalkin Industrial Estate
- Ref: P/4621/91

Dear Sirs,

In compliance with Condition No.8 of the above planning permission, we enclose herewith one copy of our Drg. No: 91/15/1 together with landscaping scheme prepared by Finola Reid for your approval.

Yours faithfully,

Dermot F. Rooney,
ROONEY ASSOCIATES

Encls.

For the attention of Mr S. Farrell:

Enclosed please find drawings for two boundary shrub & perennial beds as requested

Points to note:-

- 1) Existing grass border on Canal Turn to be improved by addition of infill planting of hedge.
2. Three new trees of good ecological standing to be used to increase visual impact.
3. 50 new plants to be planted, using plant material of named origin suitable for this site and giving a range of leaf textures and colours to enhance the bed.
4. Bed to be finished with a high quality bark mulch.
5. Bed will be fertilised with a seaweed meal and bonemeal to ensure rapid settling in and growth of new plantings.
6. Trees to be staked & tied with appropriate support.

PAGE TWO

New shrub border on boundary of back terrace.

Points to note:-

- 1) Five trees of good grade and quality in the 8-10 cm girth (B.S.) to be used. These will be staked & tied & trained.
2. Shrubs are chosen to ensure a good colour scheme all year round. They will be of top retail quality premium grade. This is reflected in the price list for same.
3. Bed will be composed of 20 cubic meters of Wicklow loam supplied from reputable source, free of weeds, glass etc.
4. Bed will be fertilised, peat added, bonemeal used when planting.
5. Bed will be dressed with 2" cover of high quality bark mulch supplied from Kinbark, Co. Wexford.

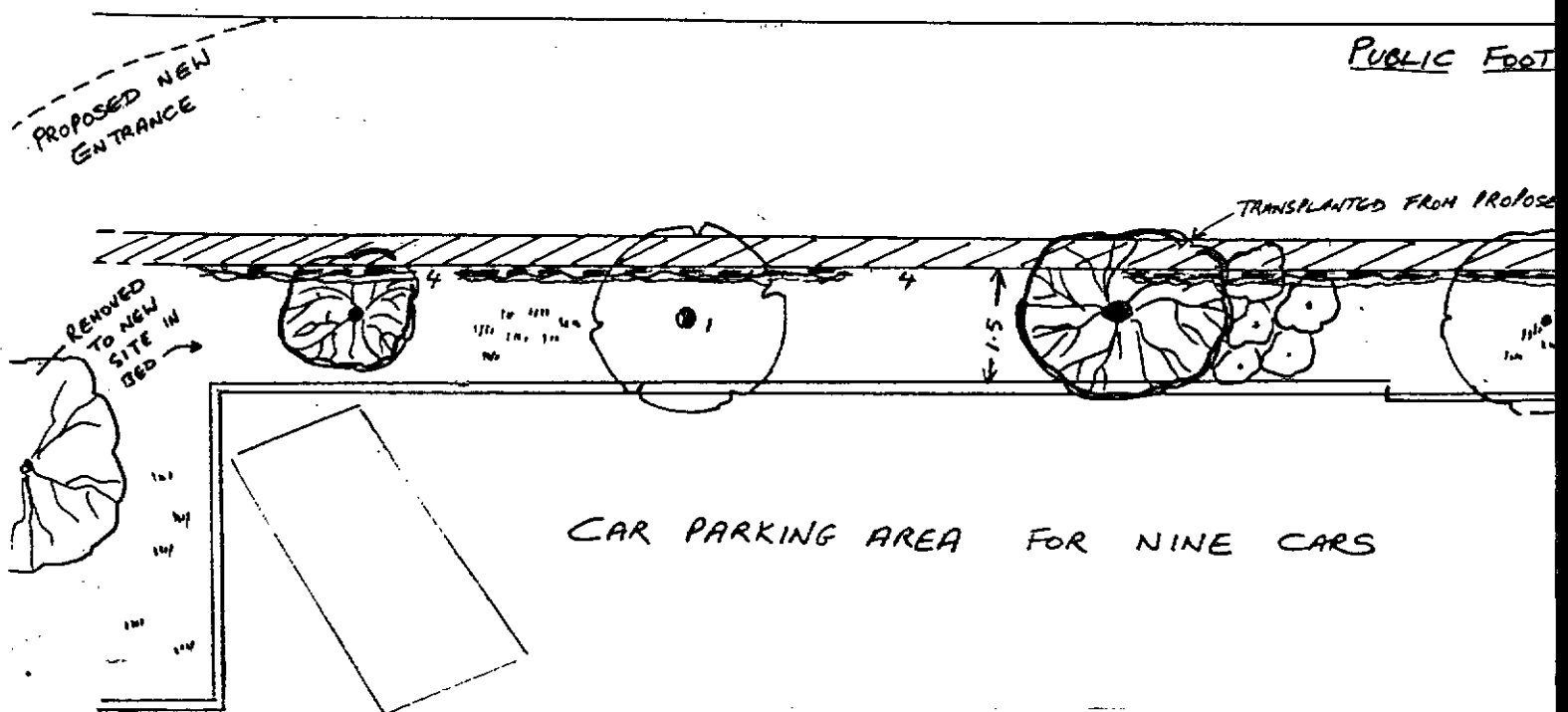
SHRUB + TREE PLANTINGS ON BOUNDARY OF CANAL TURN.

1. QUERCUS RUBRA
2. QUERCUS RUBRA
3. QUERCUS RUBRA
4. INFILL WITH PRIVET HEDGING TO MATCH EXISTING ONES (36 PLANTS)

FIFTY ASSORTED PLANTS TO GIVE GROUND COVER AND SHELTER.

THESE WILL COMPRISE :

- 8 PHILADELPHUS IN VARIETY
- 3 CORYLUS PURPUREA
- 5 PEROVSKIA ATRIPLEXIFOLIA
- 3 TEUCRIUM FRUTICANS
- 3 CARYOPTERIS X CLANDONENSIS
- 20 HELIANTHEMUS IN VARIETY - BEN FHADA ; ROSE OF LEESWOOD ETC IN
- 3 OZOTHAMNUS LEDIFOLIUS
- 5 PARANEBE CATARRACTAE



FINOLA REID
 PLANTS & GARDEN
 17 PARNELL ROAD,
 HAROLDS CROSS. DUBLIN, 12.
 TEL 541980


GROUPS


PATH


ENTRANCE

EXISTING BOUNDARY WALL

OVERALL LENGTH 39 METRES

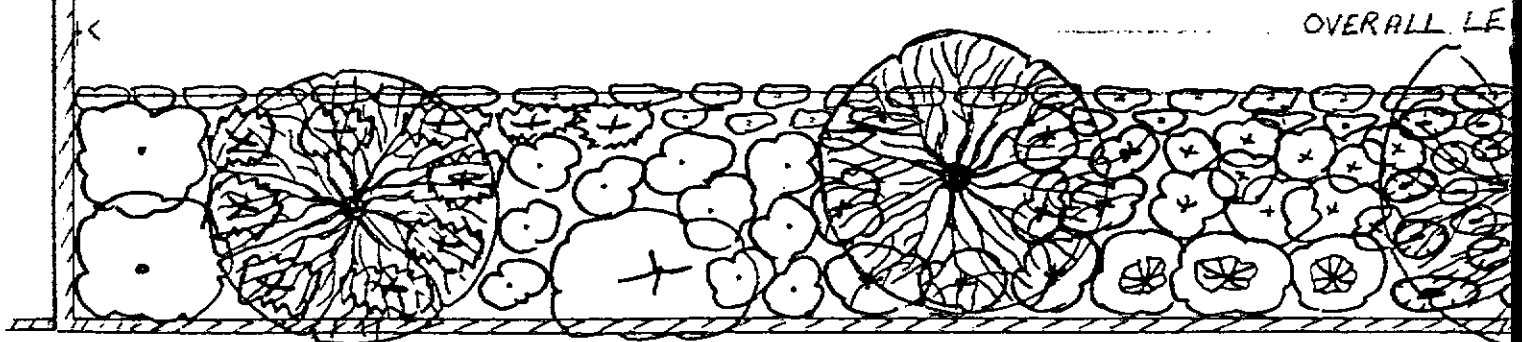
 = EXISTING PRIVET HEDGE SHOWING GAPS
 REQUIRING INFILL OF 36 EXTRA PLANTS

 = EXISTING GRASS STRIP SUITABLE FOR
 CHANGING TO SHRUB BED WITH 50
 ASSORTED SHRUBS AND PERENNIALS.
 SEE ATTACHED PLANT LIST FOR DETAIL OF
 GENERA, SPECIES AND CULTIVARS.

 = EXISTING TREES INCLUDING LARGE
 TRANSPLANTED TREE FROM AREA OF NEW
 ENTRANCE

PLANTING LIST L. TO RIGHT:-

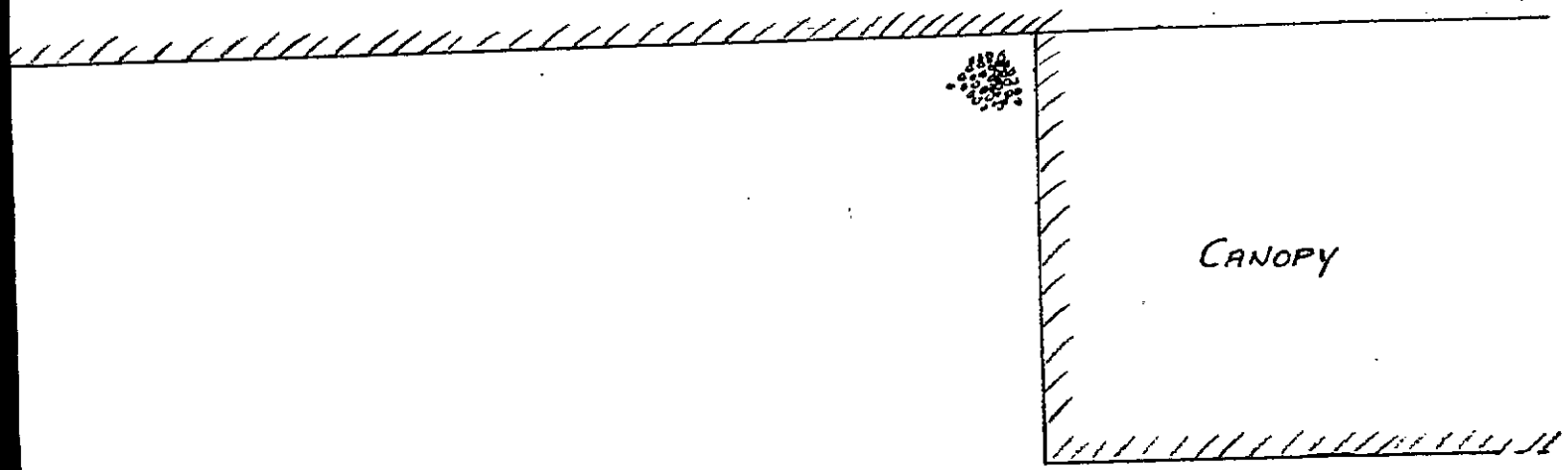
-  = 2 *PITTOSPERUM TENUIFOLIUM* 'PURPUREUM'
-  = 1 *PYRUS SALICIFOLIA* 'PENDULA'
-  = 10 *BERBERIS* 'ROSE GLOW'
-  = 10 *ATRIPLEX HALIMUM*
-  = 1 *COTINUS COGGYRIA* 'ROYAL PURPLE'
-  = 1 *BETULA UTILIS* V. 'JACQUEMONTIAE'
-  = 8 *HEBE* 'GREAT ORME'
-  = 10 *FUCHSIA* 'VERSICOLOR'
-  = 3 *BERBERIS* X *OTTOWENSIS* 'SUPERBA'
-  = 1 *PRUNUS SUBMARTILLA* 'AUTUMNALIS ROSEA'
-  = 24 *POTENTILLA* 'SNOWFLAKE'
-  = 14 *HEBE* 'MAS WINDER'
-  = 3 *BERBERIS* X *OTTOWENSIS* 'SUPERBA'
-  = 1 *BETULA UTILIS* 'JACQUEMONTIAE'
-  = 14 *CYTISUS* X *KENIENSIS*
-  = 1 *COTINUS COGGYRIA* 'ROYAL PURPLE'
-  = 10 *COPROSMA* 'BEATSON'S GOLD'
-  = 1 *SORBUS* 'JOSEPH ROCK'
-  = 10 *SENECIO* CV. 'SUNSHINE'
-  = 50 SUB-SHRUBS AS EDGING BORDER OF
SANTOLINA + *BERBERIS THUN. NANA*



PROPOSED NEW MIXED SHRUB BORDER 1.5 x 19.5 METRES COLOUR SC

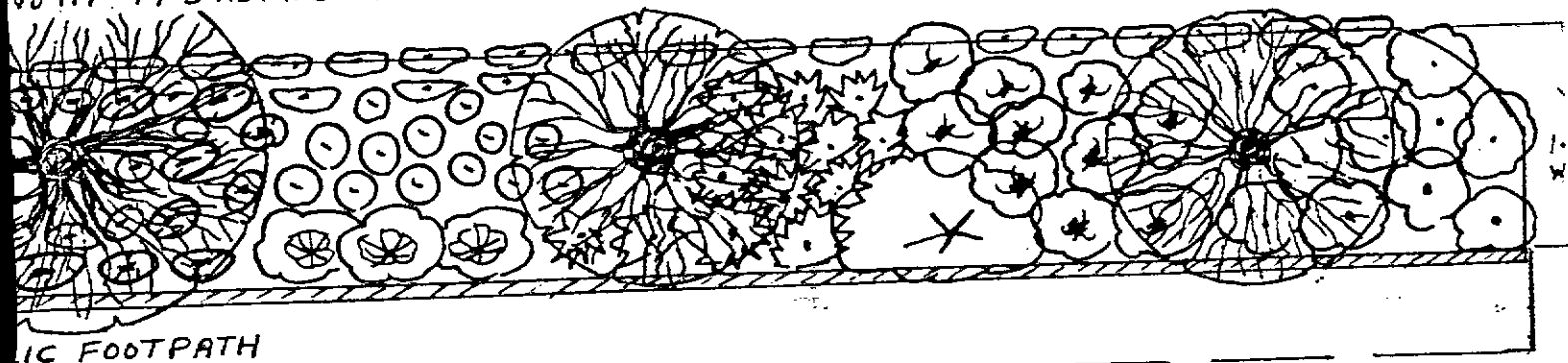
FINOLA REID
PLANTS & GARDEN
17 PARNELL ROAD,
HAROLDS CROSS, DUBLIN, 12.
TEL: 541980

NEW WAREHOUSE EXTENSION



CONCRETE APRON

LENGTH 19.5 METRES



ASPHALTIC FOOTPATH

SCHEME OF SILVER / WHITE / GREY / PINK / PURPLE WITH AUTUMN COLOUR

PK



Bloc 2, Ionad Bheatha na hEireann,
Block 2, Irish Life Centre,
Sraid na Mainistreach Iacht,
Lower Abbey Street,
Baile Atha Cliath 1.
Dublin 1.
Telephone. (01)724755
Fax. (01)724896

Rooney Associates,
100 South Circular Road,
Dublin 8.

Reg. Ref.: 91A/0844

10 October 1991

Re: Permission for extension to existing warehouse and
offices at site 17 Clondalkin Industrial Estate for
Nat Ross.

I, the undersigned, hereby acknowledge receipt of Notification
of Decision, dated 10 October 1991, in connection with the above.

Signed: _____

On behalf of: _____ (Name)
_____ (Address)

J. Ross
100 South Circular Rd.
Dublin 8.

I hereby certify that the above Notification, dated 10 October
1991, was handed by me to the above signed today.

SIGNED: Mary Murphy
DATED: 10.10.91

DUBLIN COUNTY COUNCIL

Tel. 724755 (ext. 262/264)

PLANNING DEPARTMENT,
BLOCK 2,
IRISH LIFE CENTRE,
LR ABBEY STREET,
DUBLIN 1.

Notification of Decision to Grant Permission

Local Government (Planning and Development) Acts, 1963-1983

To Rooney Associates, Decision Order P/4621/91 - 10.10.1991
 100 South Circular Road, Number and Date 91A/0844
 Dublin 8, Register Reference No.
 Planning Control No. 12.08.1991
 Application Received on
 Applicant Nat Ross Floor Area: 914 sq. metres

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission for extension to existing warehouse and offices at site 17 Clondalkin Industrial Estate.

SUBJECT TO THE FOLLOWING CONDITIONS

CONDITIONS	REASONS FOR CONDITIONS
1. The development to be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application, as amended by additional information received on 12th August, 1991, save as may be required by the other conditions attached hereto.	1. To ensure that the development shall be in accordance with the permission and that effective control be maintained.
2. That before development commences, approval under the Building Bye-Laws be obtained, and all conditions of that approval be observed in the development.	2. In order to comply with the Sanitary Services Acts, 1878-1964.
3. That the requirements of the Chief Fire Officer be ascertained and strictly adhered to in the development.	3. In the interest of safety and the avoidance of fire hazard.
4. That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.	4. In the interest of health.

Signed on behalf of the Dublin County Council

[Signature]
For Principal Officer

10th October, 1991.

Date

IMPORTANT: Turn overleaf for further information

CONDITIONS

5. That the water supply and drainage arrangements, including the disposal of surface water, be in accordance with the requirements of the County Council.

6. That no industrial effluent be permitted without prior approval from Planning Authority.

7. That the area between the building and roads must not be used for truck parking or other storage or display purpose, but must be reserved for car parking and landscaping as shown on lodged plans.

8. That details of landscaping and boundary treatment to be submitted and approved by the Planning Authority and work thereon commenced prior to the occupation of the proposed development. In this regard a strip of land 5 ft. wide to be reserved for landscaping purposes adjoining both ROAD boundaries.

9. That no advertising sign or structure be erected, except those which are exempted development, without prior approval of the Planning Authority.

10. That details regarding the proposed access onto Canal Turn be agreed with the Council's Roads Department prior to the commencement of development on site.

Contd.

REASONS FOR CONDITIONS

5. In order to comply with the Sanitary Services Acts 1878-1964.

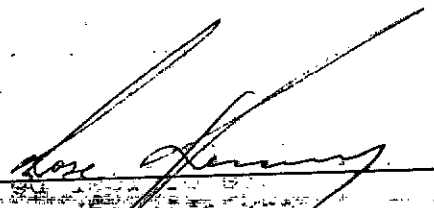
6. In the interest of health.

7. In the interest of the proper planning and development of the area.

8. In the interest of the proper planning and development of the area.

9. In the interest of the proper planning and development of the area.

10. In the interest of traffic safety.



NOTE:

If there is no appeal to An Bord Pleanala against this decision PERMISSION/APPROVAL will be granted by the Council as soon as may be after the expiration of the period for the taking of such appeal. If every appeal made in accordance with the Acts has been withdrawn, the Council will grant the PERMISSION/APPROVAL after the withdrawal.

An appeal against the decision may be made to An Bord Pleanala. The applicant may appeal within one month from the date of receipt by him of this notification. ANY OTHER PERSON may appeal within twenty-one days beginning on the date of the decision.

An appeal shall be in writing and shall state the subject matter and grounds of the appeal. It should be addressed to:— An Bord Pleanala, Blocks 6 and 7, Irish Life Centre, Lower Abbey Street, Dublin 1.

(1) An appeal lodged by an applicant or his agent with An Bord Pleanala will be invalid unless accompanied by a fee of £36 (Thirty-six Pounds). (2) A party to an appeal making a request to An Bord Pleanala for an Oral Hearing of an appeal must, in addition to (1) above, pay to An Bord Pleanala a fee of £36 (Thirty-six Pounds). (3) A person who is not a party to an appeal must pay a fee of £10 (Ten Pounds) to An Bord Pleanala when making submissions or observations to An Bord Pleanala in relation to an appeal.

Approval of the Council under Building Bye-Laws must be obtained and the terms of the approval must be complied with in the carrying out of the work before any development which may be permitted is commenced.

DUBLIN COUNTY COUNCIL

Tel. 724755 (ext. 262/264)

PLANNING DEPARTMENT,
BLOCK 2,
IRISH LIFE CENTRE,
LR. ABBEY STREET,
DUBLIN 1.

Notification of Decision to Grant Permission/

Local Government (Planning and Development) Acts, 1963-1983

To Rooney Associates, Decision Order P/4621/91 - 10.10.1991
 100 South Circular Road, Register Reference No. 91A/0844
 Dublin 8. Planning Control No. 12.08.1991
 Application Received on
 Applicant Nat Ross. Floor Area: 914 sq. metres.

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission/ for:-
 extension to existing warehouse and offices at site 17 Clondalkin Industrial Estate.

SUBJECT TO THE FOLLOWING CONDITIONS

CONDITIONS	REASONS FOR CONDITIONS
<p>11. That the structure be used for warehousing purposes only as proposed in application and no manufacturing processes to take place.</p> <p>12. That a financial contribution in the sum of £7,948 be paid by the proposer to the Dublin County Council towards the cost of provision of public services in the area of the proposed development and which facilitate this development; this contribution to be paid before the commencement of development on the site.</p>	<p>11. Insufficient off-street car parking facilities are available to comply with Development Plan Standards.</p> <p>12. The provision of such services in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing the services.</p>

Signed on behalf of the Dublin County Council

[Signature]
For Principal Officer

10th October, 1991

Date

IMPORTANT: Turn overleaf for further information

CONDITIONS	REASONS FOR CONDITIONS
<p>[Faint, mostly illegible text in the left column, likely representing conditions for planning permission.]</p>	<p>[Faint, mostly illegible text in the right column, likely representing reasons for the conditions.]</p>

NOTE:

If there is no appeal to An Bord Pleanala against this decision PERMISSION/APPROVAL will be granted by the Council as soon as may be after the expiration of the period for the taking of such appeal. If every appeal made in accordance with the Acts has been withdrawn, the Council will grant the PERMISSION/APPROVAL after the withdrawal.

An appeal against the decision may be made to An Bord Pleanala. The applicant may appeal within one month from the date of receipt by him of this notification. ANY OTHER PERSON may appeal within twenty-one days beginning on the date of the decision.

An appeal shall be in writing and shall state the subject matter and grounds of the appeal. It should be addressed to:— An Bord Pleanala, Blocks 6 and 7, Irish Life Centre, Lower Abbey Street, Dublin 1.

- (1) An appeal lodged by an applicant or his agent with An Bord Pleanala will be invalid unless accompanied by a fee of £36 (Thirty-six Pounds).
- (2) A party to an appeal making a request to An Bord Pleanala for an Oral Hearing of an appeal must, in addition to (1) above, pay to An Bord Pleanala a fee of £36 (Thirty-six Pounds).
- (3) A person who is not a party to an appeal must pay a fee of £10 (Ten Pounds) to An Bord Pleanala when making submissions or observations to An Bord Pleanala in relation to an appeal.

Approval of the Council under Building Bye-Laws must be obtained and the terms of the approval must be complied with in the carrying out of the work before any development which may be permitted is commenced.

Building Control Department,
Liffey House,
Tara Street,
Dublin 1.
Telephone:773066



Bloc 2, Ionad Bheatha na hEireann,
Block 2, Irish Life Centre,
Sraid na Mainistreach Iacht,
Lower Abbey Street,
Baile Atha Cliath 1.
Dublin 1.
Telephone. (01)724755
Fax. (01)724896

Register Reference : 91A/0844

Date : 13th August 1991

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1963 TO 1990

Dear Sir/Madam,

DEVELOPMENT : Extension to existing warehouse and offices
LOCATION : Site 17 Clondalkin Industrial Estate
APPLICANT : Nat Ross
APP. TYPE : Additional Information

With reference to the above, I acknowledge receipt of your application received on 12th August 1991.

Yours faithfully,

.....

for PRINCIPAL OFFICER

Rooney Associates,
100 South Circular Road,
Dublin 8.

Consulting Structural and Civil Engineers

DFR/jw/91/15

9th August, 1991

Dublin County Council,
Planning Department,
Block 2, Irish Life Centre,
Lower Abbey Street,
DUBLIN, 1.

12 AUG 91

1.12.0. AI
91A/0844

Re: Proposed Construction of an Extension to
Existing Warehouse and Office at Site 17,
Clondalkin Industrial Estate, for Nat Ross Ltd.
Reg. Ref. No: 91A/0844
"ADDITIONAL INFORMATION"

OS 17-16

Dear Sirs,

We refer to your letter dated 19th July, 1991 in connection with the above and wish to reply as follows to your request for additional information.

1. We enclose herewith four copies of Drawing No. 91/15/05 which is a site plan indentifying the entire site (Site 17).
2. We enclose 4 copies of Drawing No. 91/15/1B and 91/15/3A which show a reduction in span of the proposed extension of 2 metres. We have calculated that this reduction in floor area reduces the level of site coverage to 59.5% which is less than that permitted for nearby buildings, which have a similar large frontage to the public road.

We have, for instance, calculated the site coverage for buildings on Site 14 to be 69.8% and for Site 15 to be 59.8% (See Drg. No. 91/15/5).

We would also submit that the site coverage requirement quoted by you of 45% is not appropriate in this case where the building is a specialist warehouse designed to store standard size storage crates. A condition of the planning permission granted for the existing building on this site (P/4223/78 : 16/10/78) was that the building should be used only for warehousing purposes and that no production or manufacturing processes be carried out therein. Four copies of the planning permission are enclosed herewith.

3. Requested Details of the Existing Operation on Site:

- (i) The goods stored in the existing building are furniture and household goods which are packed into standard wooden crates (approx. 2.2M long x 1.6M wide x 2.4M high) and stacked four crates high.
- (ii) 5 No. Staff are employed in the offices and 4 No. staff in the warehouse.
- (iii) Normal working hours are 8.00 am to 5.30 pm with overtime only being necessary for warehouse staff when deliveries are made outside these hours which is not a regular occurrence.
- (iv) Normal traffic movement into and out of the site amounts to 3/4 trucks per day.

4. Requested Details relating to the Proposed Extension

- (i) The proposed extension will be used to house the same goods as are stored in the existing building, i.e. furniture and household goods - which will also be packed in standard timber crates.
- (ii) An extra 6/7 staff will be employed.
- (iii) The increase in normal traffic will be of the order of 3/4 trucks per day.

5. Requested Details on Car and Truck Parking

The revised Site Layout (Drg. No: 91/15/01B) shows that parking for 24 No. cars can be provided, which we would submit is in excess of what would be needed when staff numbers and visiting traffic requirements are considered.

There would be no provision for parking of trucks. The present practice is that trucks are stored in the warehouse at night for security purposes.

Trucks delivering to the warehouse will unload at doorways on the East and West sides of the warehouse or will drive through into the warehouse to be unloaded inside.

In order to facilitate truck access to the East side doorways of the warehouse and to allow car parking in front of the offices, it is now proposed that a new entrance be opened off Canal Turn as shown on Drg. No. 91/15/01B.

6. Details of Landscaping

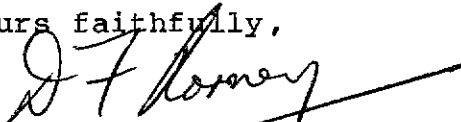
On completion of the proposed development it is proposed to improve the general appearance of the site by the planting of trees, shrubs and grassed areas.

7. Existing Containers on Site

These containers house goods which will be stored in the proposed warehouse extension.

We also enclose herewith cheque in the amount of £3,447.50 being fee for Bye-Laws omitted on our application.

Yours faithfully,



Dermot F. Rooney,
ROONEY ASSOCIATES

Encls.

c.c. Mr. Andrew Purcell

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

46/49 UPPER O'CONNELL STREET, DUBLIN 1.

BYE LAW APPLICATION.

REC. No. N 47045

E3447-50

Received this

13th day of

August

1991

from

Nat Ross Ltd

the sum of

three thousand four hundred and forty seven

Pounds

fully

Pence, being

two 6/11

application at Nat 17 Cross Terrace, Clonsilla

Michael O'Hara

Cashier

S. CAREY
Principal Officer

Class

C

DUBLIN COUNTY COUNCIL

Tel. 742951 (Ext. 143/145)

PLANNING DEPARTMENT,
46 - 49 DAME STREET,
DUBLIN 2.

Notification of Decision to Grant Permission/~~Approval~~ under the Local Government (Planning and Development) Acts, 1963 & 1978

To: **Crag Development Limited,**
158, Shelbourne Road,
Dublin 4.

Decision Order Number and Date: **P/4223/78; 16/10/78**
Register Reference No. **R.A. 1398**
Planning Control No. **10406**
Application Received on **18/8/78**

Applicant: **Crag Development Limited.**

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission/~~Approval~~ for:

Warehouse building and offices at Clondalkin Ind. Estate, Ballymanagin, Clondalkin, Co. Dublin.
NAT. ROSS LTD.

SUBJECT TO THE FOLLOWING CONDITIONS:

CONDITIONS

Subject to the conditions of this permission the development to be carried out and completed strictly in accordance with the plans and specification lodged with the application.

That before development commences approval under the Building Bye-laws be obtained and all conditions of that approval be observed in the development.

That the requirements of the Chief Fire Officer be ascertained and complied with in full before the structure proposed in the development are put into use.

That the requirements of the Chief Medical Officer be ascertained and adhered to in this development.

That the water supply and drainage arrangements be in accordance with the requirements of the Council's Sanitary Services Engineer.

That the proposed building be used for warehousing purposes and ancillary offices and no production or manufacturing processes to be carried out.

That off-street car parking and loading and unloading facilities be provided in accordance with Development Plan Standards. Circulation aisles to be 20-ft. minimum.

That prior to occupation of the proposed building all work must be completed on the new vehicular access from the site to the Clondalkin/Palmerstown Road and conditions attached to decision Order No: P/467/76 dated 16/2/76 relating to the general development of the estate, shall have been complied with.

- REASONS FOR CONDITIONS:**
1. To ensure that the development shall be in accordance with the permission and effective control be maintained.
 2. In order to comply with the Sanitary Services Acts, 1878-1964.
 3. In the interest of safety and avoidance of fire hazard.
 4. In the interest of health.
 5. In order to comply with the Sanitary Services Acts, 1878-1964.
 6. To prevent unauthorised development.
 7. In the interest of the proper planning and development of the area.
 8. In the interest of road safety.

Signed on behalf of the Dublin County Council

[Signature]
for Principal Officer
Date: 17th October, 1978.

12 AUG 1991
91A 0844
APPLICATION TYPE: W.B.B.L.
NO. L.D.S.

IMPORTANT: Turn overleaf for further information.

CONDITIONS

REASONS FOR CONDITIONS

- That the applicant submit further details of proposed connections to public foul sewer to Sanitary Services Engineers. In this regard there appears to be an error in the details submitted of the connection to the estate sewer.
- That a financial contribution in the sum of £2,025 be paid by the proposer to the Dublin County Council towards the cost of provision of public services in the area of the proposed development, and which facilitate this development; this contribution to be paid before the commencement of development on the site.
- That no development takes place until such time as the necessary security provisions for the completion of development works in accordance with decision dated 16/2/76, Order No: P/467/76 have been completed.
- That details of a standard boundary treatment and landscaping scheme be submitted for approval of Planning Authority and work thereon to be completed prior to occupation of building. In this regard a 5-ft. strip of land adjacent to front and side boundary to be reserved for shrubs and suitable planting.
- That no advertising sign or structure be erected except those which are exempted development, without the prior approval of the Planning Authority.
- That the area between the building and adjoining roads be used solely for car parking and landscaping and must not be used for storage purposes of any description.
- That the applicant regrade and realign and clear the Gallanstown Stream from County Council culvert to the end of the site at his expense as agreed in discussion with Sanitary Services Department.

- 9. In order to comply with the Sanitary Services Acts, 1878-1964.
- 10. The provision of these services in the area by the Council will facilitate the proposed development. It is considered reasonable that the developers should contribute towards the cost of providing the services.
- 11. In the interest of the proper planning and development of the area.
- 12. In the interest of the proper planning and development of the area.
- 13. To prevent unauthorised development.
- 14. In the interest of the proper planning and development of the area.
- 15. To ensure a satisfactory standard of development.

John Kav...
for Principal Officer.

NOTE:

If there is no appeal to An Bord Pleanala against this decision PERMISSION/APPROVAL will be granted by the Council as soon as may be after the expiration of the period for the taking of such appeal. If every appeal made in accordance with the Acts has been withdrawn, the Council will grant the PERMISSION/APPROVAL after the withdrawal.

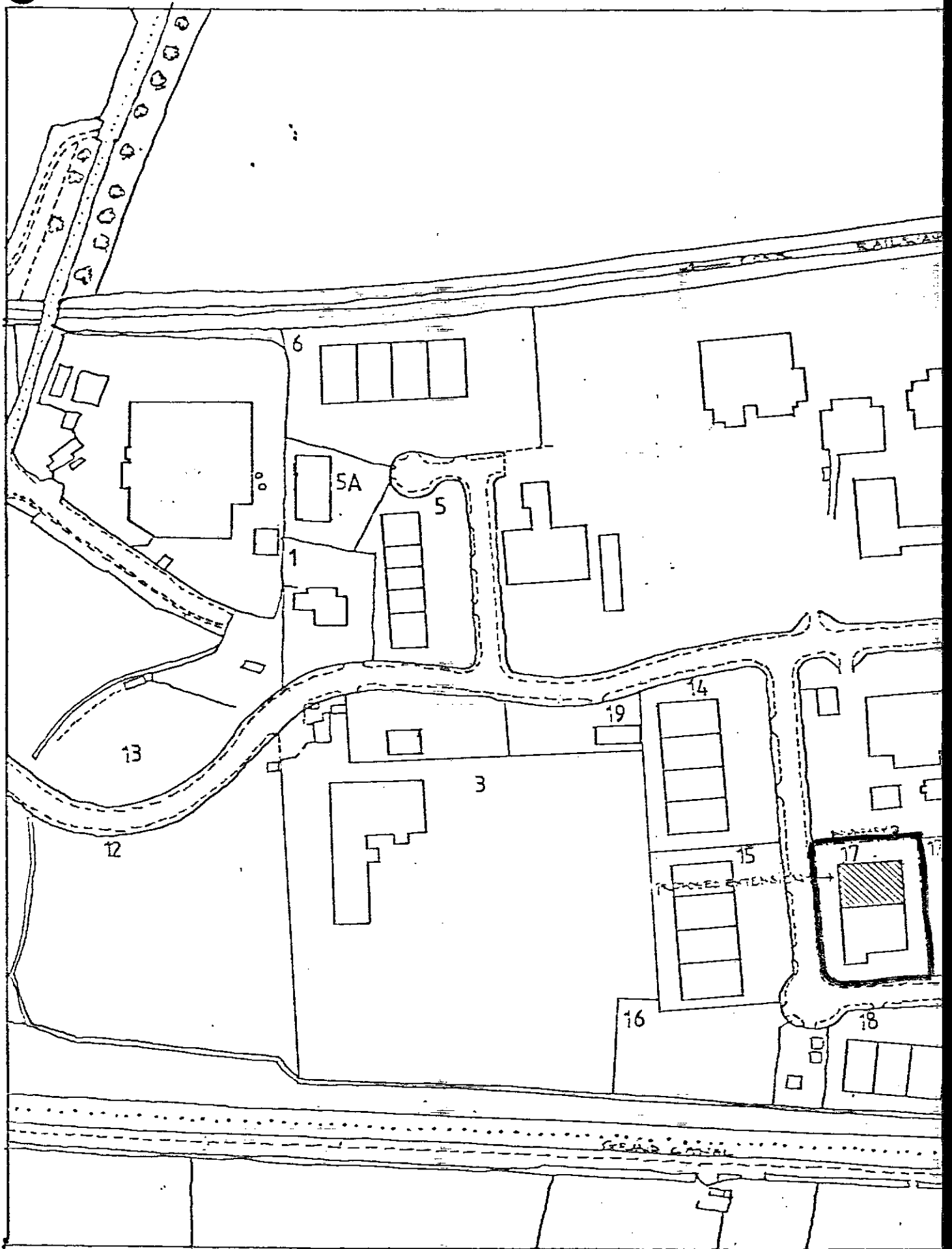
An appeal against the decision may be made to Bord Pleanala. The applicant may appeal within one month from the date of receipt by him of this notification. ANY OTHER PERSON may appeal within twenty-one days beginning on the date of the decision.

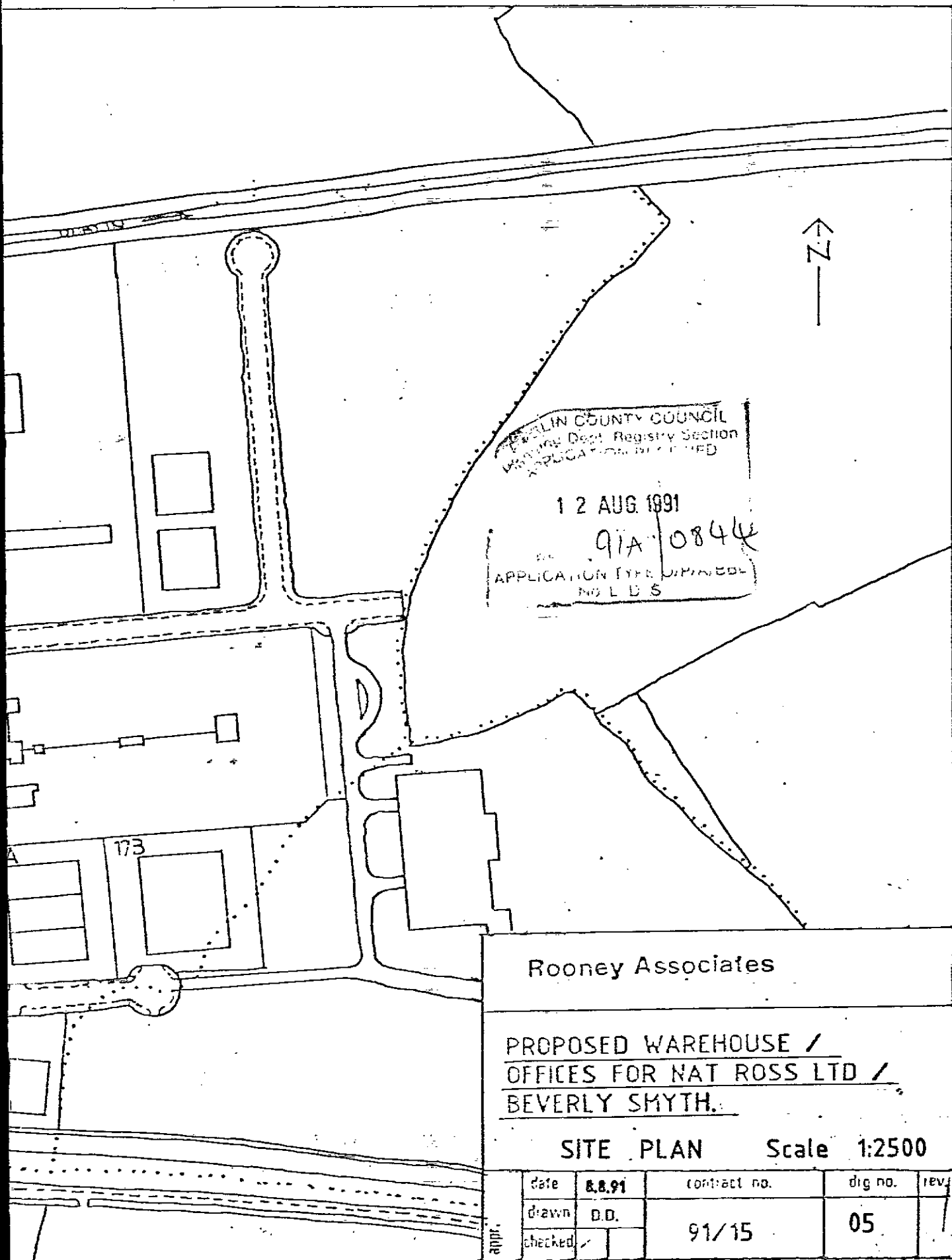
An appeal shall be in writing and shall state the subject matter and grounds of the appeal. It should be addressed to:-

An Bord Pleanala, Holbrook House, Holles Street, Dublin 2.

An appeal by the applicant for PERMISSION/APPROVAL should be accompanied by this form and a deposit of £10.

Approval of the Council under Building Bye-Laws must be obtained and the terms of the approval must be complied with in the carrying out of the work before any development which may be permitted is commenced.





DUBLIN COUNTY COUNCIL
 Planning Dept. Registry Section
 APPLICATION NO. 91A-0844
 12 AUG. 1991
 APPLICATION TYPE: UNPINNED
 NO. L.D.S.

Rooney Associates

PROPOSED WAREHOUSE /
 OFFICES FOR NAT ROSS LTD /
 BEVERLY SMYTH.

SITE PLAN Scale 1:2500

APP.	date	8.8.91	contract no.	dig no.	REV.
	drawn	D.D.	91/15	05	
	checked	<input checked="" type="checkbox"/>			

Rooney Associates,
100 South Circular Road,
Dublin 8.

Reg. Ref. No. 91A/0844

19 July 1991

Re: Proposed construction of an extension to existing warehouse and offices at Site 17, Clondalkin Industrial Estate, for Nat Ross.

Dear Sir,

With reference to your planning application, received here on 23rd May, 1991, in connection with the above, I wish to inform you, that before the application can be considered under the Local Government (Planning and Development) Acts, 1963-1983, the following additional information must be submitted in quadruplicate:-

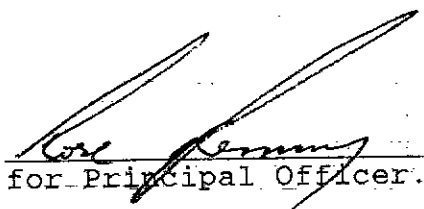
1. The applicants are requested to submit a revised site location map which identifies the entire site, the subject of the current application outlined in red, i.e. the area of Site 17.
2. The proposed development involves the construction of a warehouse and office extension of floor area 984.47sq. metres at Unit 17 Clondalkin Industrial Estate. This would effectively double the floor area of the existing building on site and would result in an overall level of site coverage of c.65%. This would be in excess of the level of site coverage normally permitted in areas zoned 'E', i.e. 45% and would result in the overdevelopment of the site. The applicants are requested to submit any proposals they might have to reduce the level of site coverage to a level acceptable to the Planning Authority.
3. The applicants are requested to submit details of the existing operation on site,
 - (i) an outline of the goods stored,
 - (ii) details of the numbers employed,
 - (iii) details of the hours of operation,
 - (iv) details of the numbers and time of delivery traffic into and out of the site.

Contd...../

4. With regard to the proposed extension, the applicant is requested to clarify,
 - (i) what purpose it is intended to use the proposed warehouse extension for,
 - (ii) details of any likely increase in the numbers employed at the site,
 - (iii) details of the expected increase in delivery traffic into and out of the site.
5. The applicant is requested to submit details of how it is intended to cater for car and truck parking and loading on site, in accordance with Development Plan Standards.
6. The applicant is requested to submit detailed proposals for the landscaping and boundary treatment of the site.
7. From site inspection it was noted that there are a number of containers located on the site. The applicant is requested to clarify (i) the use of these containers, (ii) whether planning permission has ever been sought or granted in respect of these structures. If not, the applicant is advised to regularise this situation.

Please mark your reply "Additional Information" and quote the Reg. Ref. No. given above.

Yours faithfully,


for Principal Officer.

Building Control Department,
Liffey House,
Tara Street,
Dublin 1.
Telephone: 773066



Bloc 2, Ionad Bheatha na hÉireann,
Block 2, Irish Life Centre,
Sraid na Mainistreach Iacht,
Lower Abbey Street,
Baile Atha Cliath 1.
Dublin 1.
Telephone. (01)724755
Fax. (01)724896

Register Reference : 91A/0844

Date : 24th May 1991

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS, 1963 TO 1990

Dear Sir/Madam,

DEVELOPMENT : Extension to existing warehouse and offices

LOCATION : Site 17 Clondalkin Industrial Estate

APPLICANT : Nat Ross

APP. TYPE : PERMISSION/BUILDING BYE-LAW APPROVAL

With reference to above, I acknowledge receipt of your application received on 23rd May 1991.

Yours faithfully,

.....
PRINCIPAL OFFICER

Rooney Associates,
100 South Circular Road,
Dublin 8.



PLEASE READ INSTRUCTIONS AT BACK BEFORE COMPLETING FORM. ALL QUESTIONS MUST BE ANSWERED.

1. Application for Permission Outline Permission Approval Place in appropriate box.
 Approval should be sought only where an outline permission was previously granted. Outline permission may not be sought for the retention of structures or continuances of uses.

2. Postal address of site or building Unit 17, Crag Terrace, Clondalkin Industrial Estate,
 (If none, give description sufficient to identify) Clondalkin, Co. Dublin.

3. Name of applicant (Principal not Agent) Nial Doris
 Address C/o Nat Ross, Unit 17, Clondalkin Industrial Estate. Tel. No. 571011

4. Name and address of Rooney Associates,
 person or firm responsible for preparation of drawings 100 South Circular Road, Dublin, 8. Tel. No. 543118

5. Name and address to which Rooney Associates,
 notifications should be sent 100 South Circular Road, Dublin, 8.

6. Brief description of proposed development Extension to existing warehouse and offices
Steel framed, metal clad buildings.

7. Method of drainage to public sewer 8. Source of Water Supply Mains

9. In the case of any building or buildings to be retained on site, please state:
 (a) Present use of each floor Warehouse and Offices
 or use when last used.
 (b) Proposed use of each floor Warehouse and Offices

BYE LAW APPLICATION
 REC. NO. N/L
 23 MAY

10 Does the proposal involve demolition, partial demolition or change of use of any habitable house or part thereof? No.

11.(a) Area of Site 4100 Sq. m.
 (b) Floor area of proposed development 1722.82 Sq. m.
 (c) Floor area of buildings proposed to be retained within site 984.47 Sq. m.

FEE PAID £1722.82 **24/5**
RECEIPT NO. N 39235

12.State applicant's legal interest or estate in site (i.e. freehold, leasehold, etc.) Freehold

13.Are you now applying also for an approval under the Building Bye Laws?
 Yes No Place in appropriate box.

14.Please state the extent to which the Draft Building Regulations have been taken in account in your proposal:
In accordance with Draft Building Regulations

15.List of documents enclosed with 4 Sets of Drawing Nos: 91/15-01, 02, 03 and 04; Structural Calculations and copy of newspaper advertisement.

CO. DUBLIN - Nat Ross is applying to Dublin County Council for permission to construct an extension to existing warehouse and offices at site 17, Clondalkin Industrial Estate.

16.Gross floor space of proposed development (See back) 984.47 Sq. m.

No of dwellings proposed (if any) Class(es) of Development
 Fee Payable £1722.82 Basis of Calculation @ £1.75 per M²
 If a reduced fee is tendered details of previous relevant payment should be given

Signature of Applicant (or his Agent) D J Doris Date 21/5/1991

Application Type P/BBL FOR OFFICE USE ONLY
 Register Reference 91A/0844
 Amount Received £ 17-16 1 16.0.2
 Receipt No
 Date

Handwritten: Juid
 Lines
 2/5/91

LOCAL GOVERNMENT (PLANNING & DEVELOPMENT) REGULATIONS 1977 to 1984.

Outline of requirements for applications for permission or Approval under the Local Government (Planning & Development) Acts 1963 to 1983. The Planning Acts and Regulations made thereunder may be purchased from the Government Publications Sales Office, Sun Alliance House, Molesworth Street, Dublin 2.

1. Name and Address of applicant.
2. Particulars of the interest held in the land or structure, i.e. whether freehold, leasehold, etc.
3. The page of a newspaper, circulating in the area in which the land or structure is situate, containing the required statutory notice. The newspaper advertisement should state after the heading Co. Dublin.
 - (a) The address of the structure or the location of the land.
 - (b) The nature and extent of the development proposed. If retention of development is involved, the notice should be worded accordingly. Any demolition of habitable accommodation should be indicated.
 - (c) The name of the applicant.

NB. Applications must be received within 2 weeks from date of publication of the notice.
4. Four (4) sets of drawings to a stated scale must be submitted. Each set to include a layout or block plan, proposed and existing services to be shown on this drawing, location map, and drawings of relevant floor plans, elevations, sections, details of type and location of septic tank (if applicable) and such other particulars as are necessary to identify the land and to describe the works or structure to which the application relates (new work to be coloured or otherwise distinguished from any retained structures). Buildings, roads, boundaries and other features bounding the structure or other land to which the application relates shall be shown on site plans or layout plans. The location map should be of scale not less than 1: 2500 and should indicate the north point. The site of the proposed development must be outlined in red. Plans and drawings should indicate the name and address of the person by whom they were prepared. Any adjoining lands in which the applicant has an interest must be outlined in blue.
5. In the case of a proposed change of use of any structure or land, requirements in addition to 1, 2, & 3 are:
 - (a) a statement of the existing use and the proposed use, or, where appropriate, the former use and the use proposed.
 - (b) (i) Four (4) sets of the drawings to a stated scale must be submitted. Each set to consist of a plan or location map (marked or coloured in red so as to identify the structure or land to which the application relates) to a scale of not less than 1:2500 and to indicate the North point. Any adjoining lands in which the application has an interest must be outlined in blue.
 - (ii) A layout and a survey plan of each floor of any structure to which the application relates.
 - (c) Plans and drawings should indicate the name and address of the person by whom they were prepared.
6. Applications should be addressed to: Dublin County Council, Planning Department, Irish Life Centre, Lr. Abbey Street, Dublin 1, Tel. 724755.

SEPTIC TANK DRAINAGE: Where drainage by means of a septic tank is proposed, before a planning application is considered, the applicant may be required to arrange for a trial hole to be inspected and declared suitable for the satisfactory percolation of septic tank effluent. The trial hole to be dug seven feet deep at or about the site of the septic tank. Septic tanks are to be in accordance with I.I.R.S. S.R. 6:75.

INDUSTRIAL DEVELOPMENT:

The proposed use of an industrial premises should, where possible, be stated together with the estimated number of employees, (male and female). Details of trade effluents, if any, should be submitted.

Applicants to comply in full with the requirements of the Local Government (Water Pollution) Act, 1977 in particular the licencing provisions of Sections 4 and 16.

SUMMARY OF CLASSES OF DEVELOPMENT/ FEES

<u>CLASS NO.</u>	<u>DESCRIPTION</u>	<u>FEES</u>
1.	Provision of dwelling - House/Flat.	£32.00 each.
2.	Domestic extensions/other improvements.	£16.00 each.
3.	Provision of agricultural buildings (See Regs.)	£40.00 minimum.
4.	Other buildings (i.e. office, commercial, etc.)	£ 1.75 per sq.metre (Min. £40.00).
5.	Use of land (Mining, deposit or waste).	£25.00 per 0.1 ha. (Min. £250.00).
6.	Use of land (Camping, parking, storage).	£25.00 per 0.1 ha. (Min. £40.00).
7.	Provision of plant/machinery/tank or other structure for storage purposes.	£25.00 per 0.1 ha. (Min. £100.00).
8.	Petrol filling station.	£100.00.
9.	Advertising structures.	£ 10.00 per sq. m. (Min. £40.00).
10.	Electricity transmission lines.	£ 25.00per 1,000m.(Min. £40.00).
11.	Any other development.	£ 5.00 per 0.1ha. (Min. £40.00).

Cheques etc. should be made payable to: Dublin County Council.

Gross Floor space is to be taken as the total floor space on each floor measured from the inside of the external walls.

For full details of Fees and Exemptions see Local Government (Planning and Development) (Fees) Regulations 1984.

RECEIPT CODE

COMHAIRLE CHONTAE ATHA OLATH

This receipt is not an

DUBLIN COUNTY COUNCIL

acknowledgment that the fee

46/49 UPPER O'CONNELL STREET

is used in the prescribed application

DUBLIN 1.

fee

N 39735

£1722.82

24th day of May 1951

Received this

from R. J. S. McNamee, Ltd
Beachill Court, Clonsilla, D.14

the sum of one thousand seven hundred and twenty two Pounds

Pence being 00

application of 1/17 Cross Tarmac, Clonsilla Industrial Estate

Michael O'Hara

Cashier

S. CAREY

Principal Officer

Bye-Law Calculations

for

Proposed Warehouse/Office

for

Nat Ross Ltd./Beverly Smith

RECEIVED

23 MAY 1991
91A/0844
REG. SEC.

Rooney Associates,
Consulting Engineers,
100, South Circular Road,
DUBLIN, 8.

May, 1991

Rooney Associates
Consulting Engineers

Contract NAT-ROSS Job ref. 91/15
Part of structure CONTENTS Calc. Sheet No.
Drawing ref. Calculations by Checked by Date

Members ref.	CALCULATIONS	OUTPUT
	<u>INDEX to CALCULATIONS</u>	
		<u>PAGE No.</u>
1.	GENERAL DESIGN INFORMATION	1
2.	CODES AND SPECIFICATIONS	2
3.	LOADING (ROOF)	3
4.	WIND LOADING	4
5.	PURLINS & SIDE RAILS	5
6.	PORTAL FRAME	6
7.	EAVES CONNECTION	11
8.	GABLE POSTS	15
9.	BRACING DESIGN	19
10.	FOUNDATION SIZING	23
11.	Stub beam Connection	24
12.	OFFICE DESIGN	26

Rooney Associates
Consulting Engineers

Contract NAT-ROSS

Job ref. 91/15

Part of structure GENERAL DESIGN
INFORMATION

Calc. Sheet No.
01

Drawing ref.

Calculations by

Checked by

Date

[Signature]

Members
ref.

CALCULATIONS

OUTPUT

BUILDING ASSUMPTIONS.

Roof: Double Skin Metal Decking on Purlins
on Steel Portal Frames @ 6.000 c/c.

Foundation: Pad. Foundations to Portal Stanchions.

Lateral Stability

Lateral Stability is provided by the
Portal Frame action in one direction,
except at the two gables where the
vertical wind posts are braced to
take the wind load on the 2 end
bays.

In the other direction wind bracing
is provided at Each End bay

Rooney Associates
Consulting Engineers

Contract NAT-ROSS

Job ref. 91/15.

Part of structure CODE AND
SPECIFICATIONS.

Calc. Sheet No. 02

Drawing ref. Calculations by Checked by Date

JUL

Members
ref.

CALCULATIONS

OUTPUT

Codes of PRACTICE

B.S. 5950 : 1985 Structural Use of Steelwork in Buildings

B.S. 8110 : 1985 Structural Use of Concrete

CP III, Chapter 5, Part 2 1972 : Wind loading.

B.S. 6399 : 1984 : Design loading for Buildings.

MATERIAL SPECIFICATIONS

Concrete : Structural Elements - 30 N20

Reinforcement : High yield steel bars - $f_y = 460 \text{ N/mm}^2$

Structural Steelwork - Grade 43.

Contract	NAT-ROSS	Job ref.	91/15
Part of structure	LOADING.	Calc. Sheet No.	3
Drawing ref.	Calculations by	Checked by	Date
	740		11/4/91

Members ref.	CALCULATIONS	OUTPUT
	<u>ROOF LOADING.</u>	
	ROOF PITCH = $12\frac{1}{2}^\circ$	
		kn/m ² (on Plan)
	Live load = Snow Load	= 0.75
	DEAD LOAD = Double Strim Decking	= 0.15.
	Purlins	= 0.10
	Rafter s/ut	= 0.05.
	Services	= 0.10
		<hr/>
		= 0.40
	$G_k = 0.4 \text{ kn/m}^2$	
	$Q_k = 0.75 \text{ kn/m}^2$	
	$W_{service} = 1.15 \text{ kn/m}^2$	
	$W_{ut} = 1.76 \text{ kn/m}^2$	

Contract	NAT-ROSS	Job ref.	91/15
Part of structure	WIND LOADING	Calc. Sheet No.	4
Drawing ref.	Calculations by	Checked by	Date
			11/4/91

Members ref.

CALCULATIONS

OUTPUT

WIND LOADING

Basic Wind speed (Dublin) = 46 m/s

$S_1 = S_3 = 1.00$

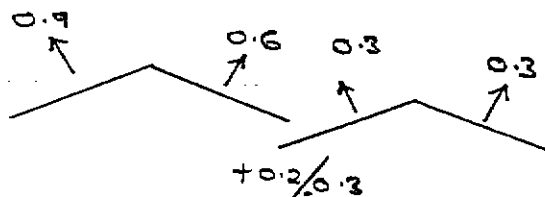
[h = 10.6, Class B, Category 3] $\Rightarrow S_2 = 0.74$

$V_s = 34 \text{ m/s}$

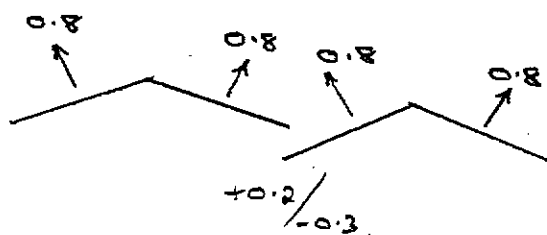
$q = 0.71 \text{ kN/m}^2$

ROOF Cp factors

Wind \perp
To Ridge



Wind \parallel
To Ridge

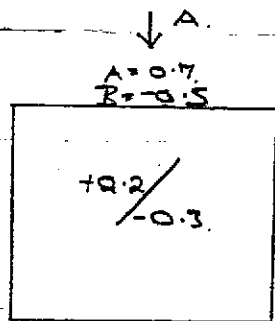


Wall Cp Factors

$\frac{q}{w} = \frac{47}{34} \Rightarrow 1.38$

$\frac{h}{w} = \frac{10}{34} = 0.29$

A \rightarrow 3.05
B



A = -0.5
B = -0.2

A = -0.2
B = -0.5

Contract NAT-ROSS

Job ref. 91/15

Part of structure Purlins & S. Rails.

Calc. Sheet No. 5

Drawing ref. Calculations by 201 Checked by

Date 11/4/91

Members
ref.

CALCULATIONS

OUTPUT

PURLINS

LOADING ÷

(i) Max Downward loading on Purlins.

$$\begin{aligned} \text{(Excluding S-wt)} &= (0.75) + (0.15) + 0.10. \\ &= 1.0 \text{ kN/m}^2 \end{aligned}$$

(ii) Max Uplift (wind) = $(0.9 + 0.2) \times 0.71 = 0.78 \text{ kN/m}^2$.

$$\begin{aligned} \Rightarrow \text{nett uplift} &= 0.78 - [(0.15) + (0.05)]. \\ &= 0.58 \text{ kN/m}^2 << 1.0 \text{ kN/m}^2. \end{aligned}$$

⇒ From Kingspan Catalogue
Spac = 6.00m

Multi-beam Purlin
Sections.

165x175 @ 1500 c/c

165x225 on End
bay single span.

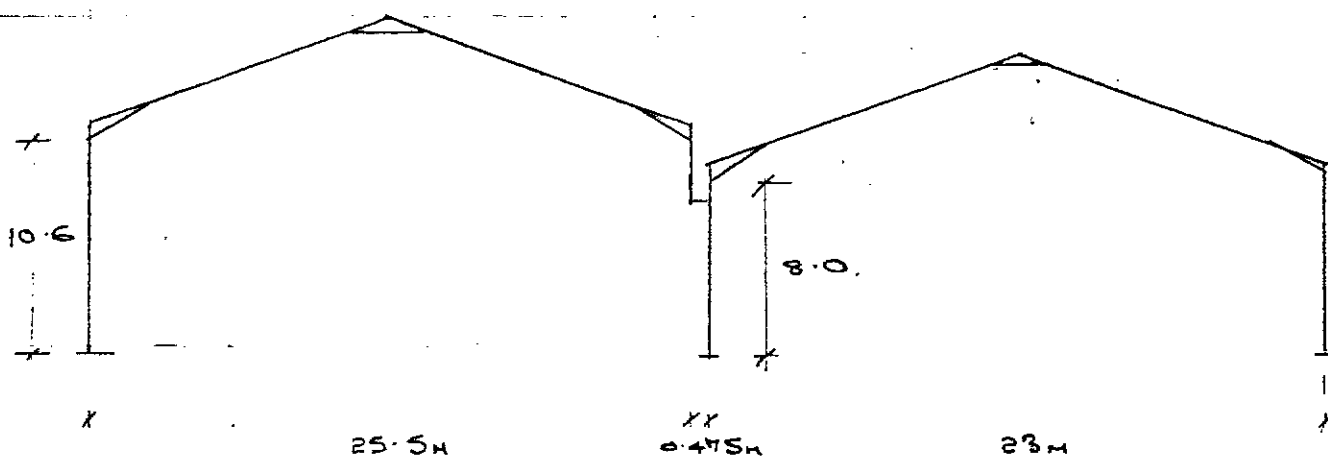
Sheeting Rails on Sidewalk.

$$\begin{aligned} \text{Max wind load/m}^2 &= 0.71 (0.7 + 0.3) \\ &= 0.71 \text{ kN/m}^2. \end{aligned}$$

Spac = 6m.

Provide 140 x 175 @ 1500 c/c.

140 x 225 End bay.

Members ref.	CALCULATIONS	OUTPUT
		
<p><u>LOADING.</u></p> <p>(i) GK on Rafters = $6.000 \times 0.4 \times \cos 12^\circ = 2.34 \text{ kw/m}$ (on Slope).</p> <p>(ii) QK on Rafters = $6.000 \times 0.75 \times \cos 12^\circ = 4.40 \text{ kw/m}$.</p> <p>(iii) Wk on 1st Rafter = $6.000 \times 0.9 \times 0.71 = -3.83 \text{ kw/m}$ on 2nd Rafter = $6.000 \times 0.6 \times 0.71 = -2.55 \text{ kw/m}$ on 3rd Rafter = $6.000 \times 0.3 \times 0.71 = -1.28 \text{ kw/m}$.</p> <p>Wk on Windward Stanchion = $0.7 \times 6.000 \times 0.71 \Rightarrow 2.98 \text{ kw/m}$</p> <p>Wk on Leeward Stanchion = $0.2 \times 6.000 \times 0.71 \Rightarrow 0.852 \text{ kw/m}$.</p>		

Rooney Associates
Consulting Engineers

Contract NAT-ROSS

Job ref. 91/15

Part of structure Portal Frame

Calc. Sheet No. 7

Drawing ref. Calculations by GMD Checked by

Date 11/4/91

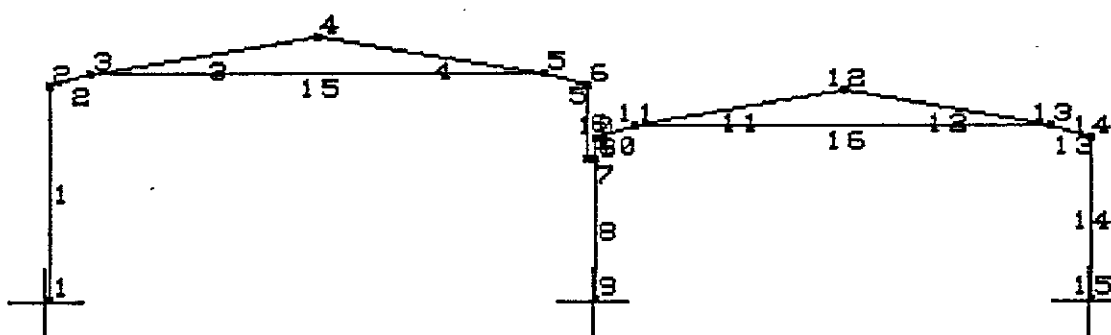
Members
ref.

CALCULATIONS

OUTPUT

Design for Following Load Cases. +

- (i) $1.4 G_k + 1.6 Q_k$ on all spans.
- (ii) $1.2 [G_k + Q_k + W_k]$ on all spans
- (iii) $1.0 G_k + 1.4 W_k$



8.95E24E

Material Properties

ENTRY NO.	TABLE REF./ DESCRIPTION	YOUNG'S MODULUS (kN/mm ²)	POISSON'S RATIO	COEFFICIENT OF THERMAL EXP. (/ Deg C)	WEIGHT/UNIT VOLUME (kN/m ³)
1	SI Steel - Deg. C	205	.300	1.200E-05	77

ROONEY ASSOCIATES

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 AUTHOR GMD
 DATE 11/4/91

NAT-ROSS
 PORTAL DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
 Units: S.I. METRIC (Steel) Data File : PUR1

Joint Co-ordinates

JOINT	X (m)	Z (m)
1	.000	.000
2	.000	10.600
3	1.950	11.200
4	12.750	13.000
5	23.550	11.200
6	25.500	10.600
7	25.500	7.000
8	25.975	7.000
9	25.975	.000
10	25.975	8.000
11	27.875	8.600
12	37.675	10.400
13	47.475	8.600
14	49.425	8.000
15	49.425	.000

Section Properties

N.B. If a Shear Area value field is null (empty), shear distortions are ignored in the analysis.

SECTION NO.	REFERENCE	AREA Ax (cm2)	Iy (cm4)	zMAX (mm)	Az SHEAR AREA (cm2)
DESCRIPTION					
1	UB/27 533*210*92 UB	1.180E+02	5.540E+04	2.665E+02	5.090E+01
2	UB/32 457*191*74 UB	9.500E+01	3.340E+04	2.286E+02	3.864E+01
3	M150*G2	1.158E+02	8.466E+04	3.429E+02	
4	CHS/12 60.3*3.2 CHS	5.740E+00	2.350E+01	3.015E+01	2.870E+00

Member/Element Incidences

MEMBER/ ELEMENT NO.	NODE 1	NODE 2	NODE 3	NODE 4	MEMBER LENGTH (m)
1	1	2			10.600
2	2	3			2.040
3	3	4			10.949
4	4	5			10.949
5	5	6			2.040
6	6	7			3.600
7	7	8			.475
8	8	9			7.000
9	8	10			1.000
10	10	11			1.992
11	11	12			9.964
12	12	13			9.964
13	13	14			2.040
14	14	15			8.000

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NAT-ROSS
 PORTAL DESIGN

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 Units: S.I. METRIC (Steel) Data File : PUR1

Member/Element Incidences

MEMBER/ ELEMENT NO.	NODE 1	NODE 2	NODE 3	NODE 4	MEMBER LENGTH (m)
15	3	5			21.600
16	11	13			19.600

Member/Element Details

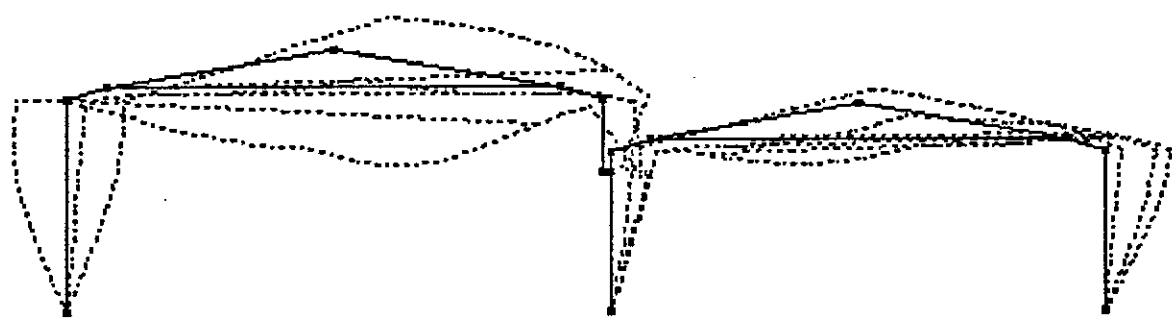
MEMBER/ ELEMENT NO.	y AXIS FLEXURE TYPE NO.	SECTION/ THICKNESS GROUP	MATERIAL GROUP
1	FF	1	1
2	FF	3	1
3	FF	2	1
4	FF	2	1
5	FF	3	1
6	FF	2	1
7	FP	2	1
8	FF	1	1
9	FF	1	1
10	FF	3	1
11	FF	2	1
12	FF	2	1
13	FF	3	1
14	FF	1	1
15	PP	4	1
16	PP	4	1

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Units: S.I. METRIC (Steel) Data File : PUR1



Z E1 : C1,C2,C3
Def XZ 200 mm
Y Str XZ 20 m
NAT-ROSS

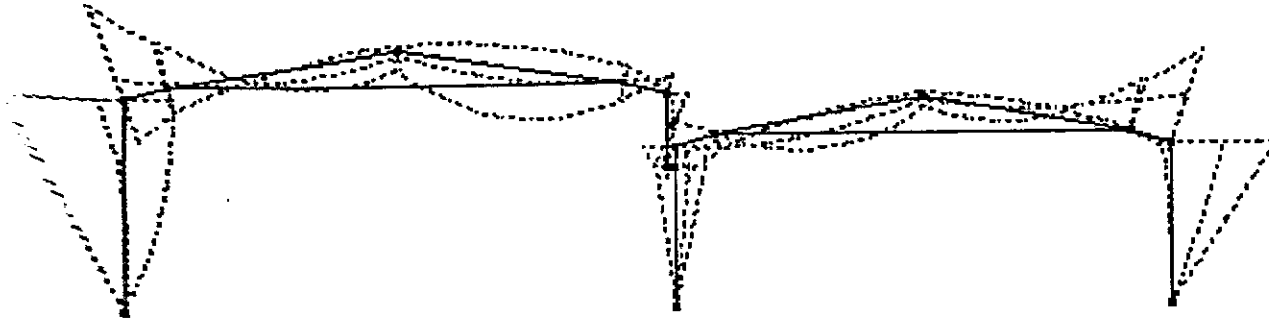
31.03792
2.958242

SAKEY ASSOCIATES

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ROSS
STRUCTURAL DESIGN

ENCAD: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
SITE: S.I. METRIC (Steel) Data File : PUR1



E1 : C1,C2,C3

My XZ 500 kNm

XStrXZ 20m

ROSS

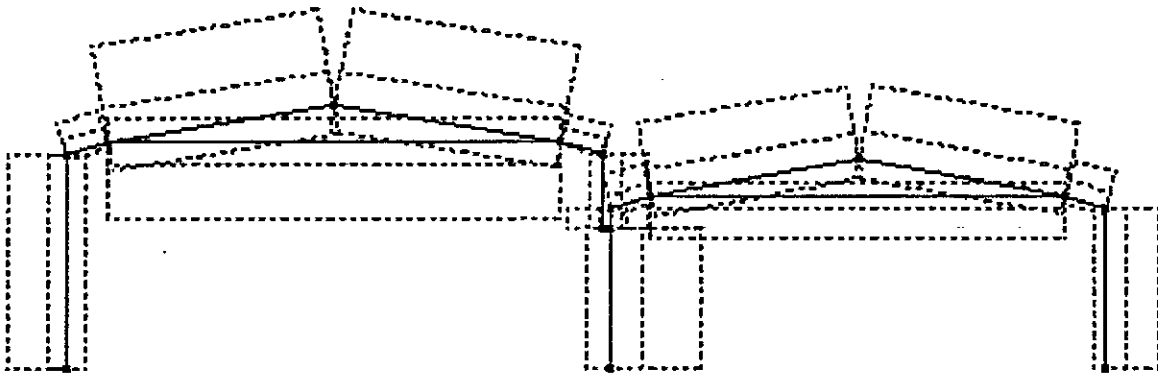
1.0E-002
2.956242

ROONEY ASSOCIATES

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NAT-ROSS
PORTAL DESIGN

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Units: S.I. METRIC (Steel) Data File : PUR1



Z E1 : C1,C2,C3
Y X Str XZ 300kN 20m
NAT-ROSS

1.9E-008
2.95E242

Envelope Case E1 : C1,C2,C3
Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
1	1	-46.2826	-42.9660	.0000
		C3	C1	C3
1	1	145.5131	41.1829	.0000
		C1	C3	C1
1	2	-46.2826	-42.9660	-455.4392
		C3	C1	C1
1	2	145.5131	-3.0403	202.1554
		C1	C3	C3

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NAT-ROSS
 PORTAL DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0
 Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
 Data File : PUR1

Envelope Case E1 : C1,C2,C3
 Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
2	2	-10.7052	-45.1301	-455.4392
		C3	C3	C1
2	2	83.8593	126.4427	202.1554
		C1	C1	C3
2	3	-10.7052	-39.1930	-218.9383
		C3	C3	C1
2	3	83.8593	105.3958	116.1366
		C1	C1	C3
3	3	-70.4297	-29.4300	-218.9383
		C3	C3	C1
3	3	260.5610	83.6998	116.1366
		C1	C1	C3
3	4	-70.4297	-29.2498	-31.6660
		C3	C1	C3
3	4	260.5610	2.4315	79.1474
		C1	C3	C1
4	4	-67.4113	-20.5420	-31.6660
		C3	C3	C3
4	4	255.9631	56.8376	79.1474
		C1	C1	C1
4	5	-67.4113	-56.1120	-82.1541
		C3	C1	C3
4	5	255.9631	11.3195	83.1192
		C1	C3	C1
5	5	-5.3057	-78.6643	-82.1541
		C3	C1	C3
5	5	75.6342	21.6447	83.1192
		C1	C3	C1
5	6	-5.3057	-99.7113	-98.8436
		C3	C1	C1
5	6	75.6342	27.5817	-31.9377
		C1	C3	C3
6	6	-27.9224	3.0403	-98.8436
		C3	C3	C1
6	6	117.5449	42.9660	-31.9377
		C1	C1	C3
6	7	-27.9224	7.3344	-13.2631
		C3	C3	C3
6	7	117.5449	42.9660	55.8339
		C1	C1	C1
7	7	7.3344	-117.5449	-13.2631
		C3	C1	C3
7	7	42.9660	27.9224	55.8339
		C1	C3	C1
7	8	7.3344	-117.5449	.0000
		C3	C1	C1
7	8	42.9660	27.9224	.0000
		C1	C3	C1
8	8	-65.8592	-12.8098	-122.4058
		C3	C1	C3
8	8	225.6743	17.4865	89.6688
		C1	C3	C1
8	9	-65.8592	-12.8098	.0000
		C3	C1	C2
8	9	225.6743	17.4865	.0000
		C1	C3	C3

ROONEY ASSOCIATES

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RUN NO. 1
AUTHOR GMD
DATE 11/4/91

NAT-ROSS
PORTAL DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
Units: S.I. METRIC (Steel) Data File : PUR1

Envelope Case E1 : C1,C2,C3
Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
9	8	-37.9368	-55.7758	-89.6688
		C3	C1	C1
9	8	108.1294	10.1521	122.4058
		C1	C3	C3
9	10	-37.9368	-55.7758	-145.4446
		C3	C1	C1
9	10	108.1294	10.1521	132.5579
		C1	C3	C3
10	10	-21.1049	-33.1188	-145.4446
		C3	C3	C1
10	10	85.7480	86.3145	132.5579
		C1	C1	C3
10	11	-21.1049	-27.3206	6.0585
		C3	C3	C1
10	11	85.7480	65.7600	72.3456
		C1	C1	C3
11	11	-51.7672	-23.4417	6.0585
		C3	C3	C1
11	11	187.5377	55.5643	72.3456
		C1	C1	C3
11	12	-51.7672	-47.2237	-16.7735
		C3	C1	C3
11	12	187.5377	5.5534	47.6110
		C1	C3	C1
12	12	-50.3618	-13.2050	-16.7735
		C3	C3	C3
12	12	192.0785	22.5017	47.6110
		C1	C1	C1
12	13	-50.3618	-80.2862	-240.2695
		C3	C1	C1
12	13	192.0785	15.7900	-3.8951
		C1	C3	C3
13	13	-18.6148	-90.4150	-240.2695
		C3	C1	C1
13	13	92.6524	20.0400	-3.8951
		C1	C3	C3
13	14	-18.6148	-111.4620	-446.2064
		C3	C1	C1
13	14	92.6524	25.9771	43.0474
		C1	C3	C3
14	14	-30.3027	-10.1521	-446.2064
		C3	C3	C1
14	14	133.7808	55.7758	43.0474
		C1	C1	C3
14	15	-30.3027	-6.6097	.0000
		C3	C3	C3
14	15	133.7808	55.7758	.0000
		C1	C1	C1
15	3	-194.1001	.0000	.0000
		C1	C1	C1
15	3	65.9276	.0000	.0000
		C3	C1	C1
15	5	-194.1001	.0000	.0000
		C1	C1	C1
15	5	65.9276	.0000	.0000
		C3	C1	C1

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NAT-ROSS
PORTAL DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
Units: S.I. METRIC (Steel) Data File : PUR1

Envelope Case E1 : C1,C2,C3
Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
16	11	-112.4491 C1	.0000 C1	.0000 C1
16	11	34.7826 C3	.0000 C1	.0000 C1
16	13	-112.4491 C1	.0000 C1	.0000 C1
16	13	34.7826 C3	.0000 C1	.0000 C1

Envelope Case E1 : C1,C2,C3
Support Reactions

JOINT	X FORCE (kN)	Z FORCE (kN)	Y MOMENT (kNm)
1	-41.1829 C3	-46.2826 C3	.0000 C1
1	42.9660 C1	145.5131 C1	.0000 C1
9	-17.4865 C3	-65.8592 C3	.0000 C1
9	12.8098 C1	225.6743 C1	.0000 C1
15	-55.7758 C1	-30.3027 C3	.0000 C1
15	.6097 C3	133.7808 C1	.0000 C1

ROONEY ASSOCIATES

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NAT-ROSS
PORTAL DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR1

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 1
Length = 10.600 m
Section Group = 1
Group Title =
Table Ref. = UB
Steel Grade = 43
Section No. = 27
Section Ref. = 533*210*92 UB
Orientation = 0

Section Depths - Taper Definition

Position (m) = .000 10.600
% Depth = 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) = 6*1.5
'Bottom' Flange Spacing (m) = 7.5
Distance of Restraint from Tension Flange = 83 mm a = 349 mm

Loadcase

Mode (A/M) = Auto
No. = C1
Details = 1.4*B1+1.6*B3+1.4*B2+1.6*B4

*** SECTION OK 0.94 ***

Complex Capacities
Member String 1

Ldcs C1 533*210*92 UB

Grd 43

LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	1.500	.05	.16	.12	P1 .94	.94	PASS
2	1.500	3.000	.05	.26	.22	P1 .94	.94	PASS
3	3.000	4.500	.05	.36	.32	P1 .94	.94	PASS
4	4.500	6.000	.05	.46	.41	P1 .94	.94	PASS
5	6.000	7.500	.05	.56	.51	P1 .94	.94	PASS
6	7.500	9.000	.05	.66	.61	P2 .81	.81	PASS
7	9.000	10.600	.05	.76	.71	P2 .81	.81	PASS

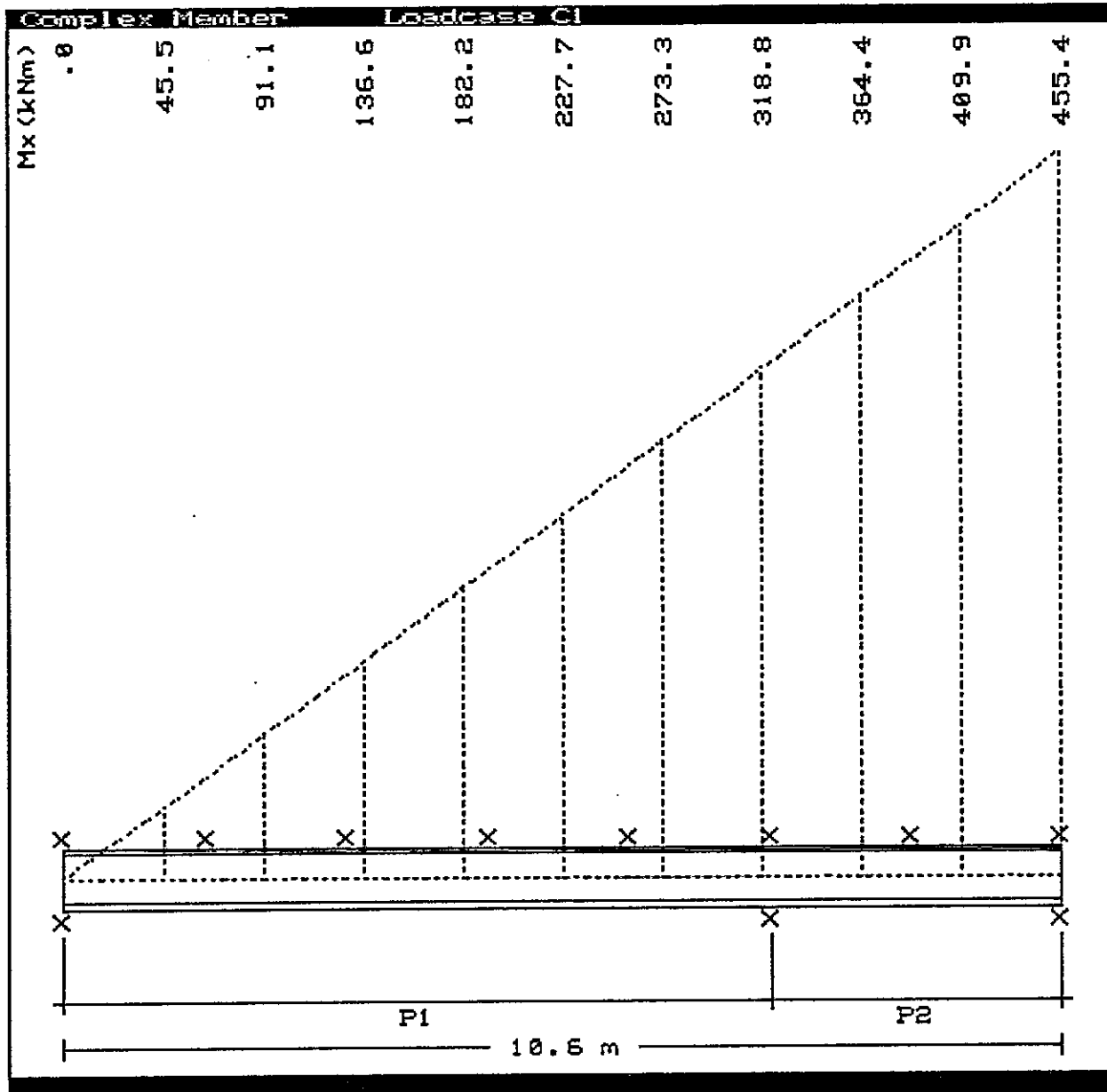
ROONEY ASSOCIATES

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NAT-ROSS
PORTAL DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

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PORTAL DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR1

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 2,3
Length = 12.989 m
Section Group = 2
Group Title =
Table Ref. = UB
Steel Grade = 43
Section No. = 32
Section Ref. = 457*191*74 UB
Orientation = 0

Section Depths - Taper Definition (!) Section Class based on 100% dimensions
Position (m) = .000 1.020 2.040 12.989
% Depth = 200 150 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) = 8*1.4
'Bottom' Flange Spacing (m) =
Distance of Restraint from Tension Flange = 83 mm a = 311 mm

Loadcase

Mode (A/M) = Auto
No. = C1
Details = 1.4*B1+1.6*B3+1.4*B2+1.6*B4
*** SECTION OK 0.62 ***

Complex Capacities
Member String 2,3

Ldcs C1 457*191*74 UB (!)

Grd 43

LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	1.400	.12	.48	.48	P1	.58	PASS
2	1.400	2.800	.12	.61	.62	P1	.62	PASS
3	2.800	4.200	.11	.48	.49	P1	.58	PASS
4	4.200	5.600	.09	.27	.28	P1	.58	PASS
5	5.600	7.000	.07	.28	.29	P2	.58	PASS
6	7.000	8.400	.05	.36	.37	P3	NA	PASS
7	8.400	9.800	.03	.39	.40	P4	NA	PASS
8	9.800	11.200	.02	.40	.41	P5	NA	PASS
9	11.200	12.989	.04	.38	.40	P6	NA	PASS

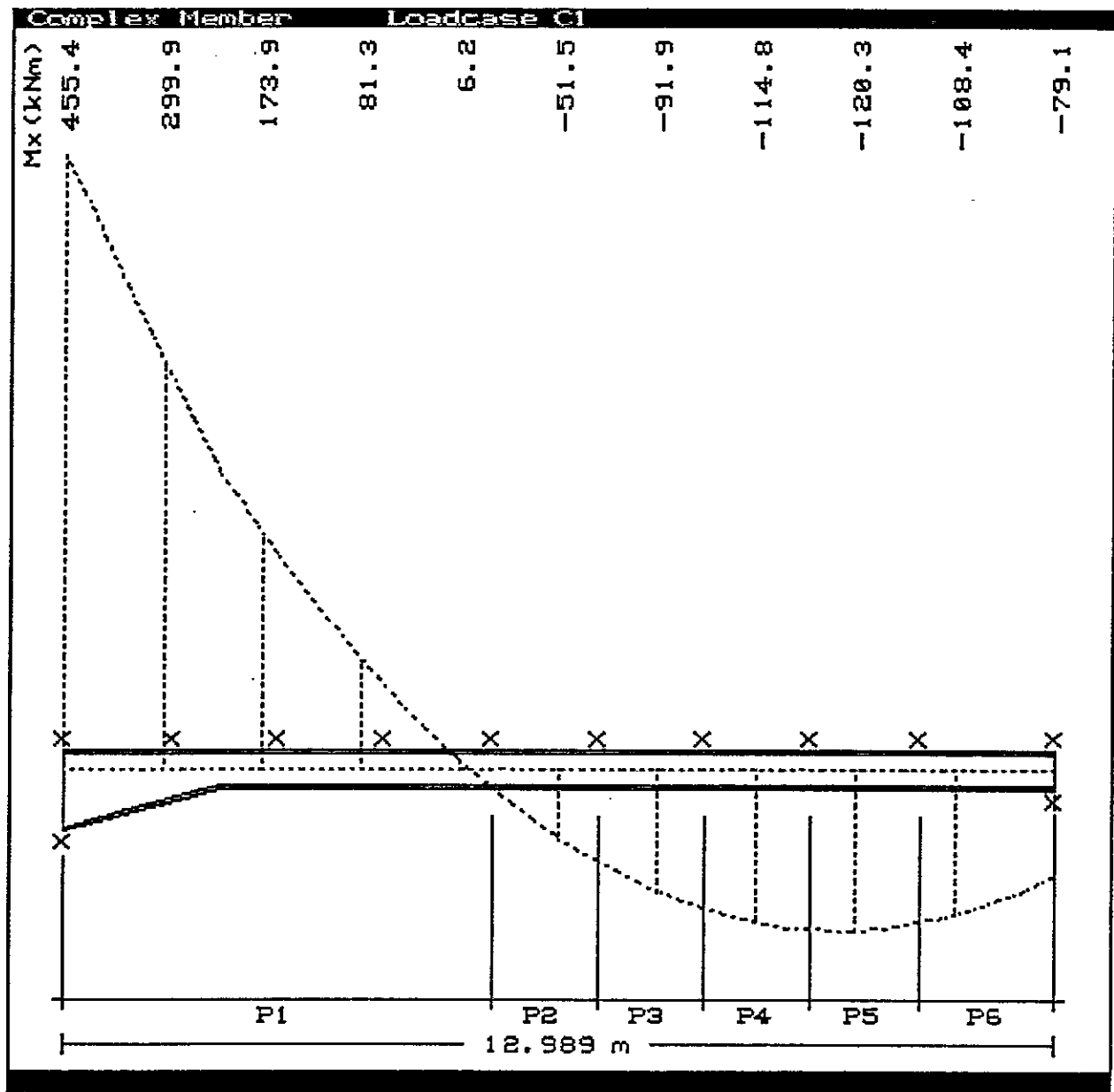
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NAT-ROSS
PORTAL DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR1



Rooney Associates
Consulting Engineers

Contract NAT-ROSS

Job ref. 91/15

Part of structure PORTAL FRAME

Calc. Sheet No. 10

Drawing ref. Calculations by Checked by

Date

GM

Members
ref.

CALCULATIONS

OUTPUT

Summary of Results From Analysis

1. Rafter Section = 457 x 191 x 74 UB

2. Stanchion Section = 533 x 210 x 92 UB

3. Stub Stanchion Section = 457 x 191 x 74 UB

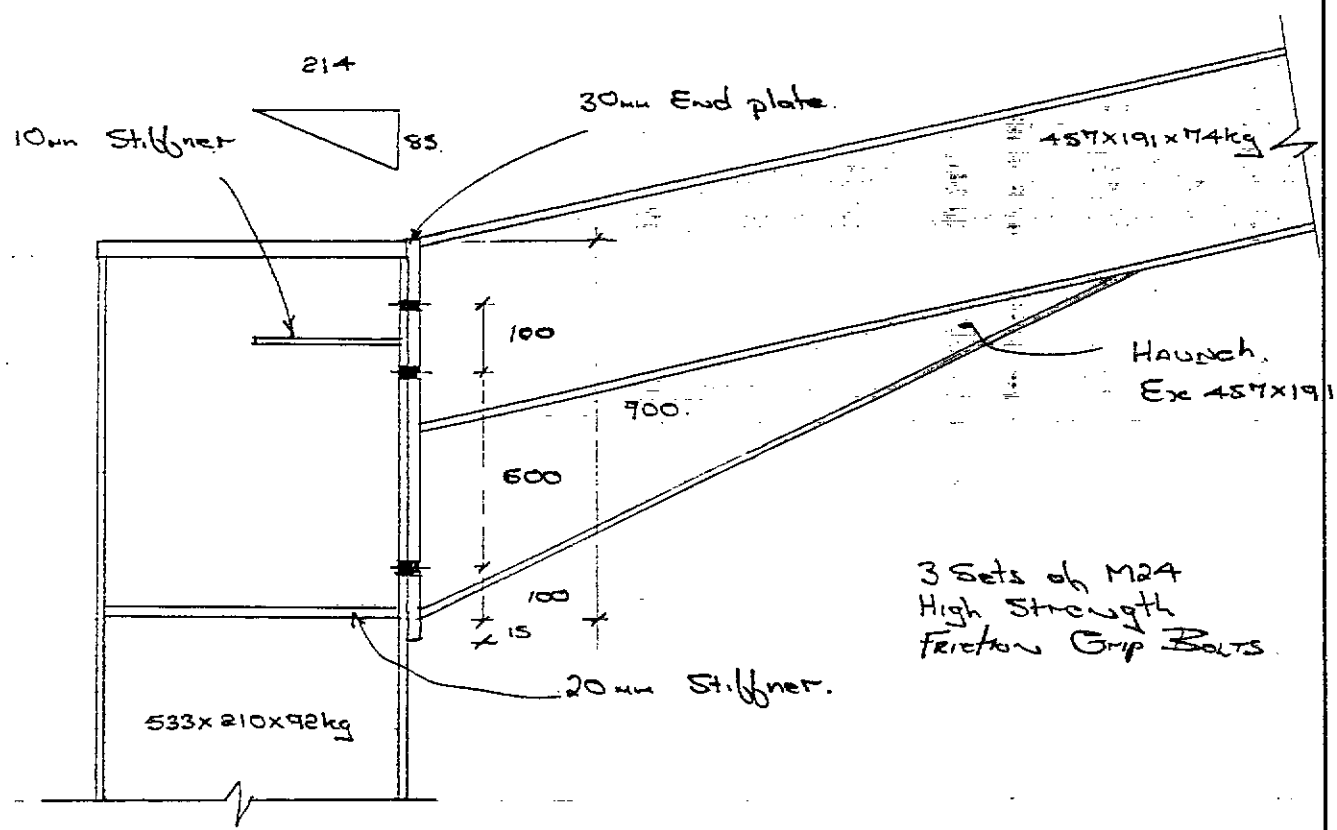
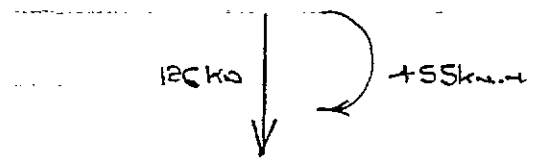
4. Restraint Required to inner flange of
long stanchion at 7.5m above ground
level.

Rooney Associates
Consulting Engineers

Contract	NAT-ROSS	Job ref.	91/15
Part of structure	PORTAL FRAME (EAVES)	Calc. Sheet No.	11
Drawing ref.	Calculations by	Checked by	Date
	7MD		11/4/91

Members ref.	CALCULATIONS	OUTPUT
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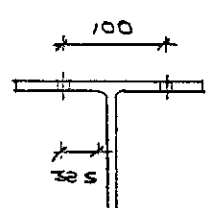
EAVES HAUNCH DESIGN



Design References

- (i) Guide to B.S 5950 Part (i) 1985.
- (ii) Structural Steelwork MacGraw-Hill.

Contract	NAT-ROSS	Job ref.	91/15
Part of structure	PORTAL FRAME (EAVES)	Calc. Sheet No.	12
Drawing ref.	Calculations by <u>QML</u>	Checked by	Date 11/4/91

Members ref.	CALCULATIONS	OUTPUT
	<p>FORCES ON JOINT, 455 kN.m = M_{ult} 126 kN = V_{ult}</p> <p>(i) <u>TENSION BOLTS</u></p> $F_T = \frac{455 \times 0.8}{2 \sqrt{0.8^2 + 0.17^2}} \Rightarrow 161 \text{ kN.}$ <p>TRY M24 GRADE 4.3 HIGH STRENGTH FRICTION GRIP BOLT</p> $P_t = 186 \text{ kN}$	
	<p>(ii) <u>SHEAR BOLTS</u></p> <p>SHEAR FORCE $F_v = 126 \text{ kN}$</p> <p>SHEAR CAPACITY 2 BOTTOM BOLTS</p> $P_v = 204 \text{ kN.}$	
	<p>(iii) <u>WELD SIZE</u></p> $0.75 S_f \geq 0.5 \times 14.5$ $S_f \geq 9.6 \text{ mm}$ <p>Use 10mm FILLET WELD all around.</p>	
	<p>(iv) <u>END PLATE THICKNESS</u></p> <div style="text-align: center;">  </div> <p>length Resisting BENDING = $2 \times 32 \times \tan 60^\circ$ = 110 mm.</p> $h_{ult} = 100 \text{ mm.}$	

Contract NAT-ROSS

Job ref. 91/15.

Part of structure RETAL FRAME (Eaves)

Calc. Sheet No. 13

Drawing ref.

Calculations by JMD

Checked by

Date

15/4/91

Members
ref.

CALCULATIONS

OUTPUT

(iv) Cont'd.

$$B.M = \frac{161 \times 32}{2 \times 1000} = 2.576 \text{ kN.M.}$$

$$b_{\text{net}} = 100 - 27 = 73 \text{ mm.}$$

$$Z = \frac{2.576 \times 10^6}{275} = 9.36 \times 10^3 \text{ mm}^3$$

$$\Rightarrow t \geq \sqrt{\frac{9.36 \times 10^3 \times 6}{73}} \geq 27.17 \text{ mm.}$$

Adopt 30mm End
plate

(v) TENSION IN STANCHION WEB.

$$\text{EFF ON 2 bolts} = 2 \times 161 = 322 \text{ kN}$$

$$f_t \text{ ON WEB} = \frac{322 \times 10^3}{150 \times 9.1} = 235 \text{ N/mm}^2$$

$$235 < 275$$

(vi) BEARING + BUCKLING ON WEB @ BTM OF HAUNCH.

$$F_c = \frac{M}{d_f}$$

$$d_f = 885 \text{ mm}$$

$$F_c = \frac{455}{0.885} = 514 \text{ kN.}$$

(a)

$$b_1 = 14.5 + 20 + 15 = 59.5 \text{ mm}$$

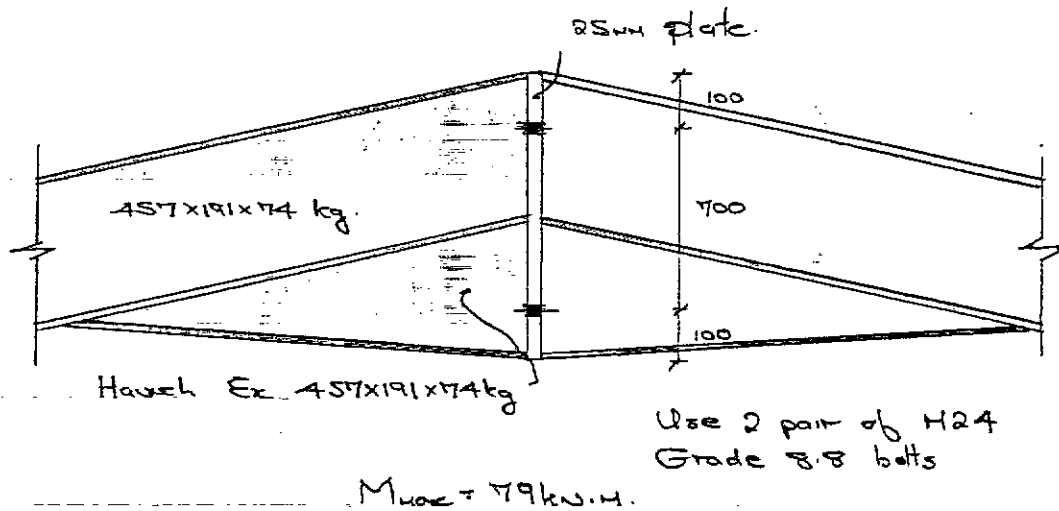
$$b_2 = 2 \times 2.5 (12.7 + 15.6) = 141.5 \text{ mm}$$

$$P_{\text{crip}} = (59.5 + 141.5) \times 10.2 \times 275 \\ = 562.8 \text{ kN}$$

Contract	NAT-ROSS	Job ref.	91/15
Part of structure	Portal Frame (Eaves)	Calc. Sheet No.	14
Drawing ref.	Calculations by GHD	Checked by	Date 15/4/91

Members ref.	CALCULATIONS	OUTPUT
	<p>(b) $\lambda = 2.5 \left(\frac{476}{10.2} \right) = 116$</p> <p>$P_w = (59.5 + 533) \times 10.2 \times 106$</p> <p>$P_w = 640 \text{ kN}$</p> <p>Even though Stiffener is not required provide 20mm Stiffener anyway</p>	

(vii) RIDGE HAUNCH CONNECTION



(i) $F_T = \frac{79 \times 10^3}{700 \times 2} \Rightarrow 56.4 \text{ kN}$

By Comparison with Eaves Haunch use 25mm End plate
10mm fillet weld
all around.

Contract	NATT-ROSS	Job ref.	91/15
Part of structure	GARLE Post DESIGN	Calc. Sheet No.	15
Drawing ref.	Calculations by <i>[Signature]</i>	Checked by	Date 11/4/91

Members ref.	CALCULATIONS	OUTPUT
	<u>WIND POSTS</u>	
	LOADING :	
	Ultimate Wind load / m height of wind Post.	
	Pressure = $1.4 \times 0.71 \times (0.7 + 0.3) \times 5.8 = 5.76 \text{ kN/m}$	
	Suction = $1.4 \times 0.71 \times (0.5 + 0.2) \times 5.8 = 4.03 \text{ kN/m}$	
	Bending Moment :	
	$M_{\text{press.}} = \frac{5.76 \times 13.5^2}{8} = 131.2 \text{ kN.m.}$	
	$M_{\text{suction}} = \frac{4.03 \times 13.5^2}{8} = 91.9 \text{ kN.m.}$	
	(i) for pressure loading, $l_e = 1500$	F_y 356x171x57 UB
	$\lambda = \frac{1500}{392} = 38$	$M_b = 277 \text{ kN.m.}$
	(ii) for suction loading.	
	Lateral Restraints Provided @ Every third of height	
	$l_e = 4.5m$	
	$\lambda_x = \frac{1350}{149} = 9.0$	$\lambda_y = \frac{4500}{392} = 11.4$
	$M_b = 126 \text{ kN.m.}$	
	<u>DEFLECTION :</u>	
	$W_{\text{(service)}} = \frac{5.76}{1.4} = 4.11 \text{ kN/m}$	
	$\Delta_{\text{service}} = \frac{5 \times 4.11 \times 1350^4}{384 \times 205000 \times 16100 \times 10^4} = 52 \text{ mm.}$	
	Allowable = $\frac{13500}{250} = 54 \text{ mm.}$ <i>S.O. ok/</i>	

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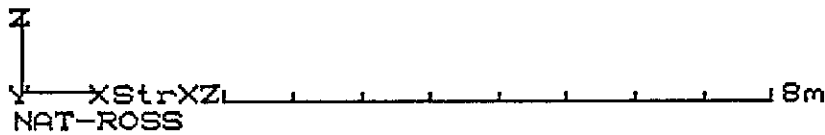
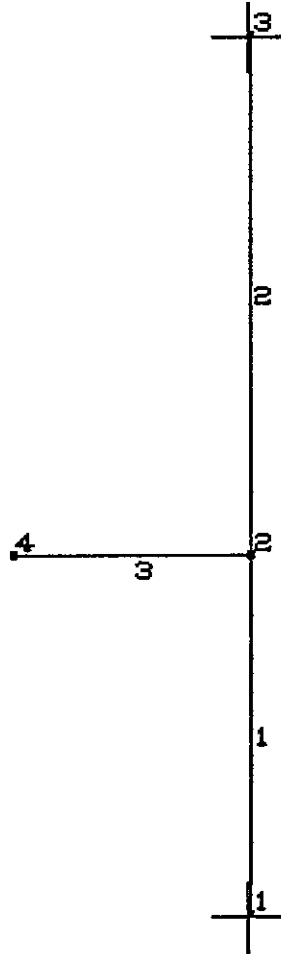
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NAT-ROSS
WIND POST DESIGN

(CANOPY DESIGN) *

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2



3.598593

Material Properties

ENTRY NO.	TABLE REF./ DESCRIPTION	YOUNG'S MODULUS (kN/mm ²)	POISSON'S RATIO	COEFFICIENT OF THERMAL EXP. (/ Deg C)	WEIGHT/UNIT VOLUME (kN/m ³)
1	SI Steel - Deg. C	205	.300	1.200E-05	77

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NAT-ROSS
WIND POST DESIGN

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Units: S.I. METRIC (Steel) Data File : PUR2

Joint Co-ordinates

JOINT	X (m)	Z (m)
1	3.500	.000
2	3.500	5.500
3	3.500	13.500
4	.000	5.500

Section Properties

N.B. If a Shear Area value field is null (empty),
shear distortions are ignored in the analysis.

SECTION NO.	REFERENCE	AREA Ax (cm ²)	Iy (cm ⁴)	zMAX (mm)	Az SHEAR AREA (cm ²)
DESCRIPTION					
1	UB/46 356*171*57 UB	7.220E+01	1.610E+04	1.793E+02	2.649E+01
2	RSC/9 203*89*29.78 RSC	3.790E+01	2.490E+03	1.016E+02	

Member/Element Incidences

MEMBER/ ELEMENT NO.	NODE 1	NODE 2	NODE 3	NODE 4	MEMBER LENGTH (m)
1	1	2			5.500
2	2	3			8.000
3	2	4			3.500

Member/Element Details

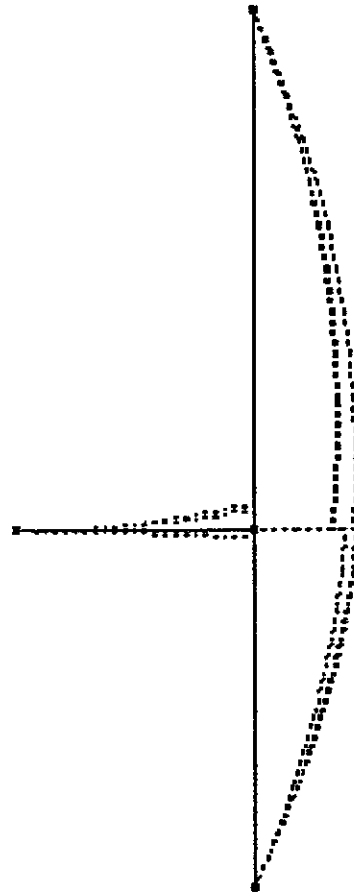
MEMBER/ ELEMENT NO.	y AXIS FLEXURE TYPE NO.	SECTION/ THICKNESS GROUP	MATERIAL GROUP
1	FF	1	1
2	FF	1	1
3	FF	2	1

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25E

NAT-ROSS
 WIND POST DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
 Units: S.I. METRIC (Steel) Data File : PUR2



Z E1 : C1,C2,C3
 My XZ 200 kNm
 X Str XZ 8m
 NAT-ROSS

1.2E-002
 9.592593

Envelope Case E1 : C1,C2,C3
 Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
1	1	-2.9742	31.4794	.0000
		C3	C3	C2
1	1	11.1253	34.5637	.0000
		C2	C2	C3
1	2	-2.9742	5.2994	101.1416
		C3	C3	C3
1	2	11.1253	8.3837	118.1052
		C2	C2	C2

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NAT-ROSS
WIND POST DESIGN

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2

Envelope Case E1 : C1,C2,C3
Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
2	2	-7.6487	5.2994	85.2507
		C2	C3	C2
2	2	2.0448	8.3837	109.9249
		C3	C2	C3
2	3	-7.6487	-32.7806	.0000
		C2	C3	C3
2	3	2.0448	-29.6963	.0000
		C3	C2	C2
3	2	.0000	-5.0190	-32.8545
		C3	C3	C2
3	2	.0000	18.7740	8.7832
		C1	C2	C3
3	4	.0000	.0000	.0000
		C3	C1	C2
3	4	.0000	.0000	.0000
		C1	C3	C1

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NAT-ROSS
WIND POST DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 1,2
Length = 13.500 m
Section Group = 1
Group Title =
Table Ref. = UB
Steel Grade = 43
Section No. = 46
Section Ref. = 356*171*57 UB
Orientation = 0

Section Depths - Taper Definition

Position (m) = .000 13.500
% Depth = 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) = 5.5,1*5.5
'Bottom' Flange Spacing (m) = 5.5
Distance of Restraint from Tension Flange = 83 mm a = 262 mm

Loadcase

Mode (A/M) = Auto
No. = C3
Details = 1.4*B1+1.0*B2+1.4*B5
*** SECTION OK 0.89 ***

Complex Capacities

Ldcs C3 356*171*57 UB

Grd 43

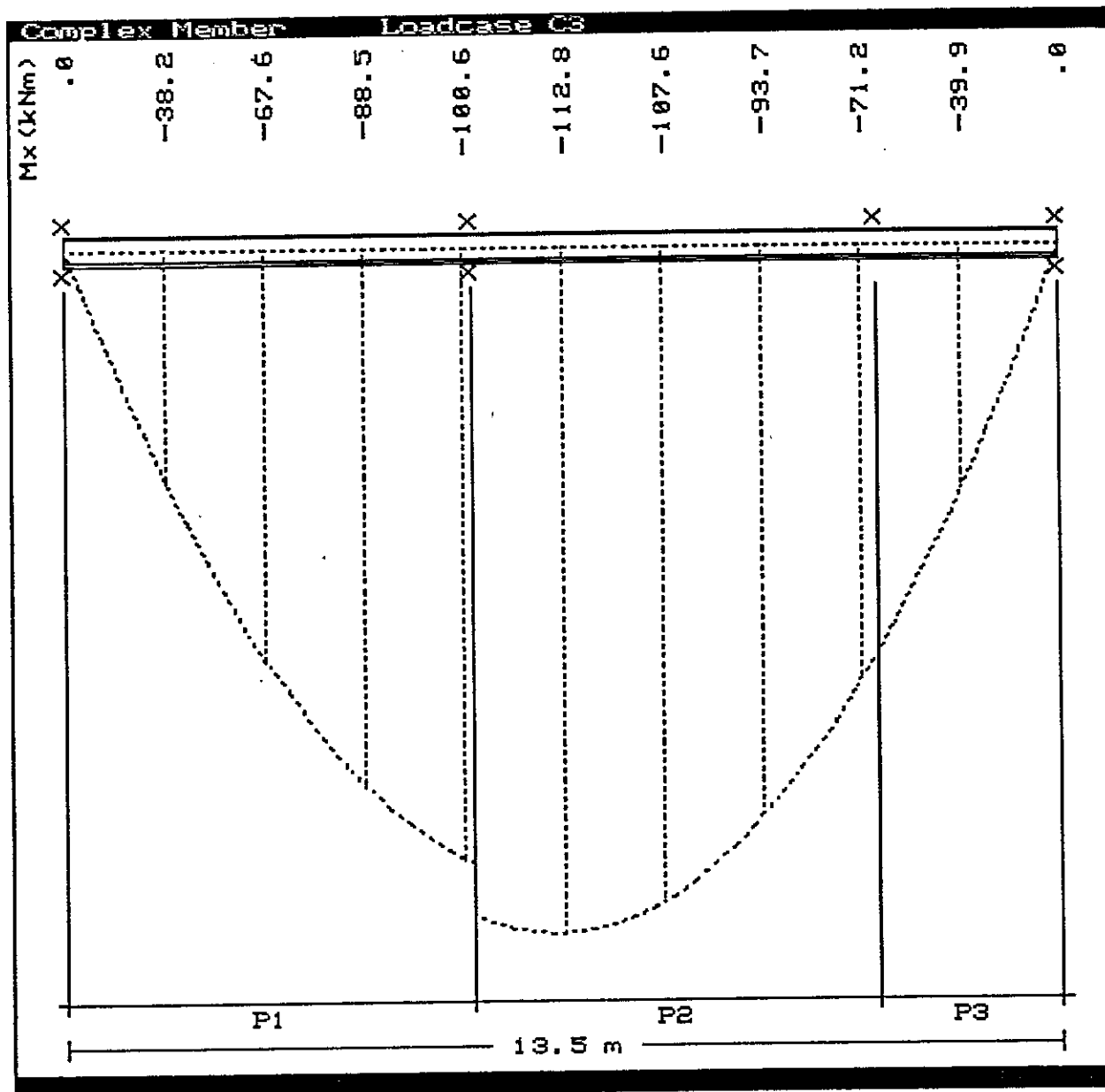
Member String 1,2

LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	5.500	.07	.37	.66	P1 NA	.66	PASS
2	5.500	11.000	.04	.41	.89	P2 NA	.89	PASS
3	11.000	13.500	.07	.24	.26	P3 NA	.26	PASS

NAT-ROSS
WIND POST DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2



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NAT-ROSS
WIND POST DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 3
Length = 3.500 m
Section Group = 2
Group Title =
Table Ref. = RSC
Steel Grade = 43
Section No. = 9
Section Ref. = 203*89*29.78 RSC
Orientation = 0

Section Depths - Taper Definition

Position (m) = .000 3.500
% Depth = 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) =
'Bottom' Flange Spacing (m) =
Distance of Restraint from Tension Flange = mm a = mm

Loadcase

Mode (A/M) = Auto
No. = C2
Details = 1.4*B1+1.2*B2+1.2*B3+1.2*B4
*** SECTION OK 0.69 ***

Complex Capacities

Ldcs C2 203*89*29.78 RSC

Grd 43

Member String 3

LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	3.500	.07	.42	.69	P1 NA	.69	PASS

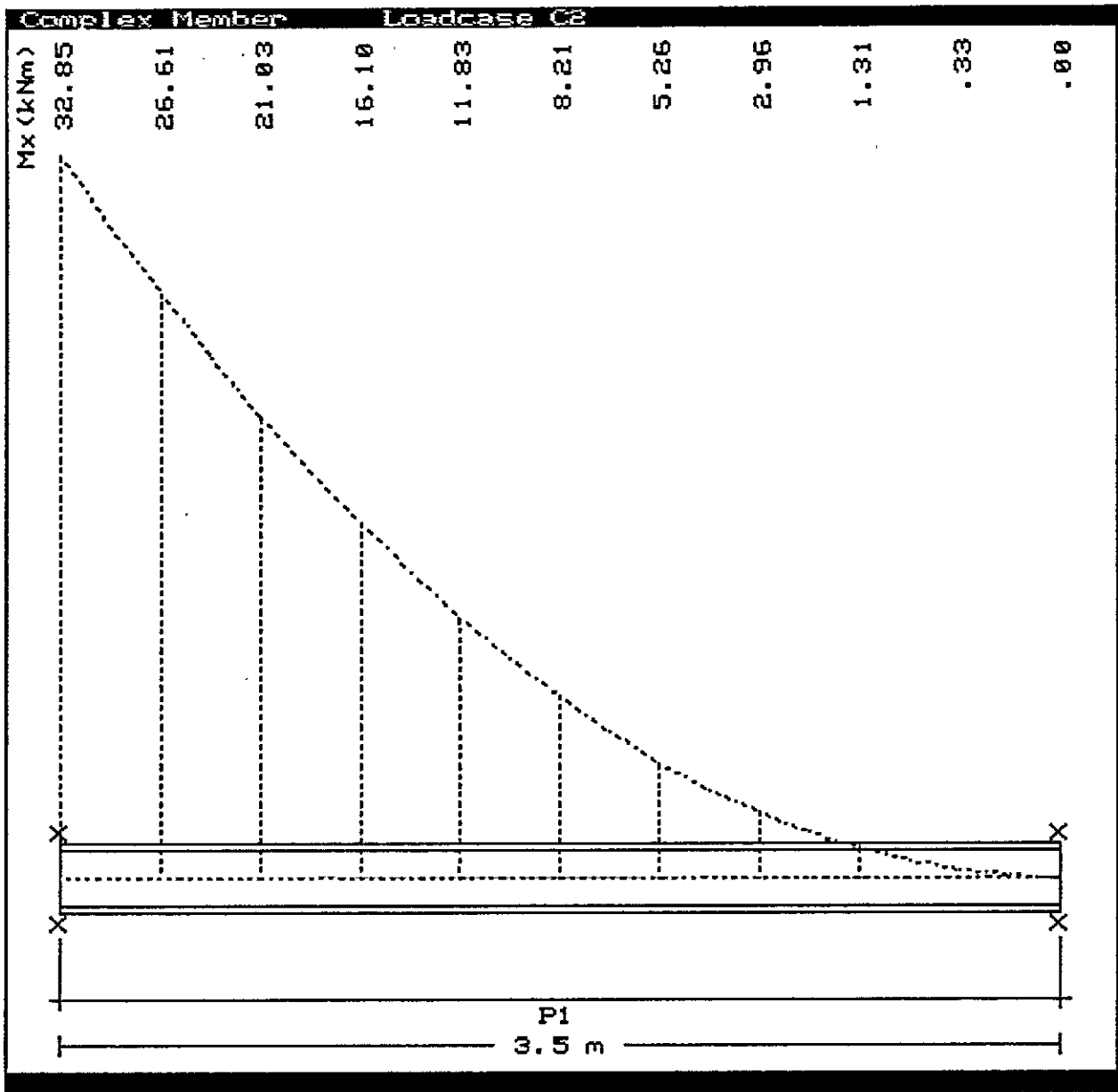
ROONEY ASSOCIATES

PAGE 4
JOB NO. 91/15
RUN NO. 1
AUTHOR GMD
DATE 12/4/91

NAT-ROSS
WIND POST DESIGN

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

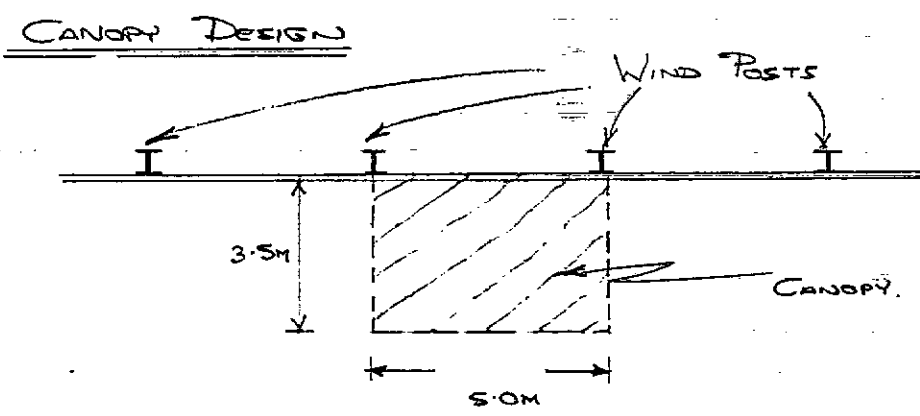
(c) ENCAD SYSTEMS LTD. 1991
Data File : PUR2



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Contract	NAT-ROSS	Job ref.	91/15
Part of structure	CANOPY DESIGN	Calc. Sheet No.	17
Drawing ref.	Calculations by	Checked by	Date
	<i>[Signature]</i>		16/4/91

Members ref.	CALCULATIONS	OUTPUT
--------------	--------------	--------



FROM COMPUTER ANALYSIS $M_{MAX} = 32 \text{ kN.m}$.

TRY 203X89 CHANNEL.

$$L_E = 0.85 \times 3500 \Rightarrow 2975 \text{ mm}$$

$$\lambda = \frac{2975}{26.4} \Rightarrow 112$$

$$\lambda_{LT} = n \cdot u \cdot v \cdot \lambda$$

$$= 1 \times 0.915 \times 0.9 \times 112 \Rightarrow 92$$

$$P_y = 275 \text{ N/mm}^2$$

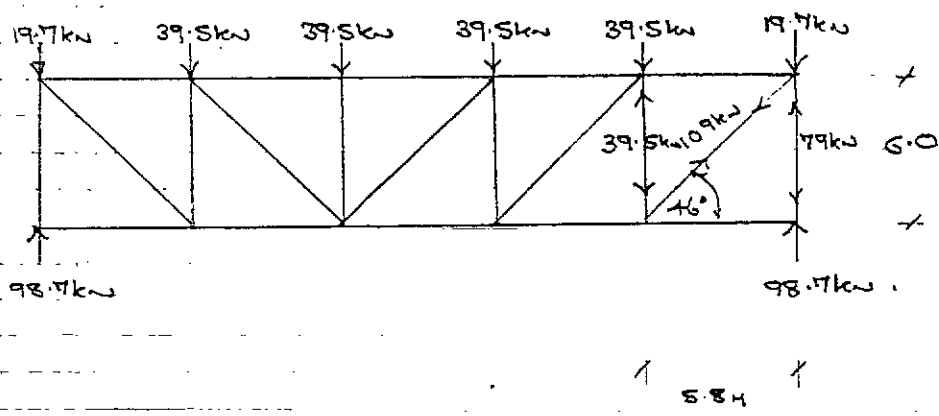
$$P_c = 139 \text{ N/mm}^2$$

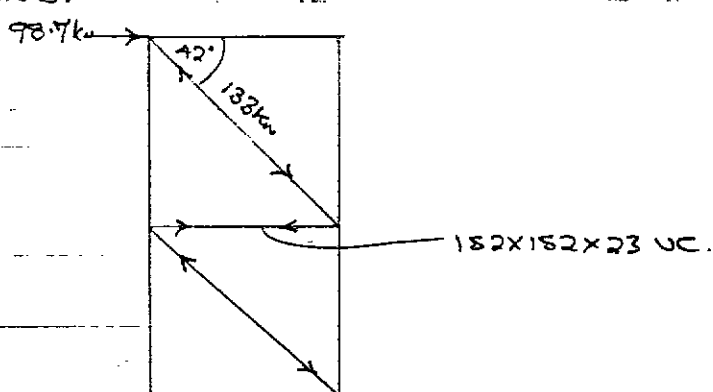
$$M_b = S_x \times P_c = 287 \times 10^3 \times 139$$

$$\Rightarrow 39 \text{ kN.m}$$

Contract	NAT-ROSS	Job ref.	91/15.
Part of structure	CANOPY DESIGN	Calc. Sheet No.	18
Drawing ref.	Calculations by <i>[Signature]</i>	Checked by	Date 17/4/91

Members ref.	CALCULATIONS	OUTPUT
	<u>WELD DESIGN OF CHANNEL TO END PLATE</u>	
		<p>4 M24 BOLTS.</p> $F_{BOLT} = \frac{32 \times 10^3}{2 \times 250}$ $= 64 \text{ kN}$ $159 > 64.$
	$M_{max} = 32 \text{ kN.m.}$ $V_{max} = 18 \text{ kN.}$	
	<p>Assume Moment is taken by the Flanges \div</p> $F_f = \frac{32 \times 10^3}{(203.2 - 12.9)} = 168 \text{ kN.}$	
	<p>length of weld resisting FORCE</p> $L_{wt} = 2 \times 88.9 \Rightarrow 177.8 \text{ mm.}$	
	<p>Assume 8mm fillet weld leg length = 8mm</p> $f_{weld} = \frac{168 \times 10^3}{177.8 \times 0.7 \times 8} = 168 \text{ N/mm}^2$	
	<p>Design Strength $f_{weld} = 215 \text{ N/mm}^2$</p>	
	<p><u>SHEAR CHECK</u></p> $f_{weld\ shear} = \frac{18 \times 10^3}{2 \times 177.8 \times 0.7 \times 8} \Rightarrow 9.14 \text{ N/mm}^2$	
	$9.14 < 215$	
		So ok

Members ref.	CALCULATIONS	OUTPUT
	<p><u>BRACING DESIGN.</u></p> <p>$q = 0.71 \text{ kN/m}^2$</p> <p>Reactions @ Ends of Wind Posts</p> <p>$= 1.4 \times 0.71 (0.7 + 0.3) \times 5.48 \times \frac{13.5}{2} \Rightarrow 37 \text{ kN (Worst Case)}$</p> <p>+ Wind Drag Effect on roof</p> <p>$= 0.04 \times 1.4 \times 0.71 \times 5.8 [34 - 4(5.8)] = 2.5 \text{ kN}$</p> <p style="text-align: right;"><u>39.5 kN</u></p>	
		
	<p>(i) TIE DESIGN</p> <p>TIE FORCE = 109 kN.</p> <p>Try 50 x 50 x 8 Angle.</p> <p>$P_t = A_e P_y$</p> <p>$P_t = 726 \times 275 \Rightarrow 199 \text{ kN.}$</p>	
	<p>(ii) Strut Design.</p> <p>Strut Force = 39.5 kN.</p> <p>$L_e = 5.1 \text{ m.}$</p>	

Members ref.	CALCULATIONS	OUTPUT
	<p>T₁₂₄ 114.3 X 3.6 C.H.S.</p> $\frac{D}{t} = \frac{114}{3.6} \Rightarrow 31.6 \text{ So Plastic}$ $\lambda = \frac{5100}{39.2} \Rightarrow 129.9$ $P_c = 12.5 \times 10^2 \times 129.9$ $= 171 \text{ kW} \text{ So ok.}$	
	<p>(iii) EAVES TIE act as a strut</p> $P_c = 179 \text{ kW.}$ $L_e = 0.7 \times 6000 = 4200$ <p>ADOPT 152 X 152 X 23 UC</p>	
	<p>(iv) SIDE BRACING.</p>  <p>98.7 kW</p> <p>42°</p> <p>138 kW</p> <p>152 X 152 X 23 UC.</p>	
	$L_e = 0.85 \times 8.129 \Rightarrow 6.918 \text{ m}$ <p>T₁₂₄ 129.7 X 5 C.H.S</p> $\frac{D}{t} = \frac{129.7}{5} = 25.94 \Rightarrow \text{Plastic. } \lambda = 145.$ $P_c = 180 \text{ kW.}$	

Contract NATT-ROSS

Job ref. 91/15

Part of structure BRACING DESIGN.

Calc. Sheet No. 21

Drawing ref. 7/1 Calculations by _____ Checked by _____

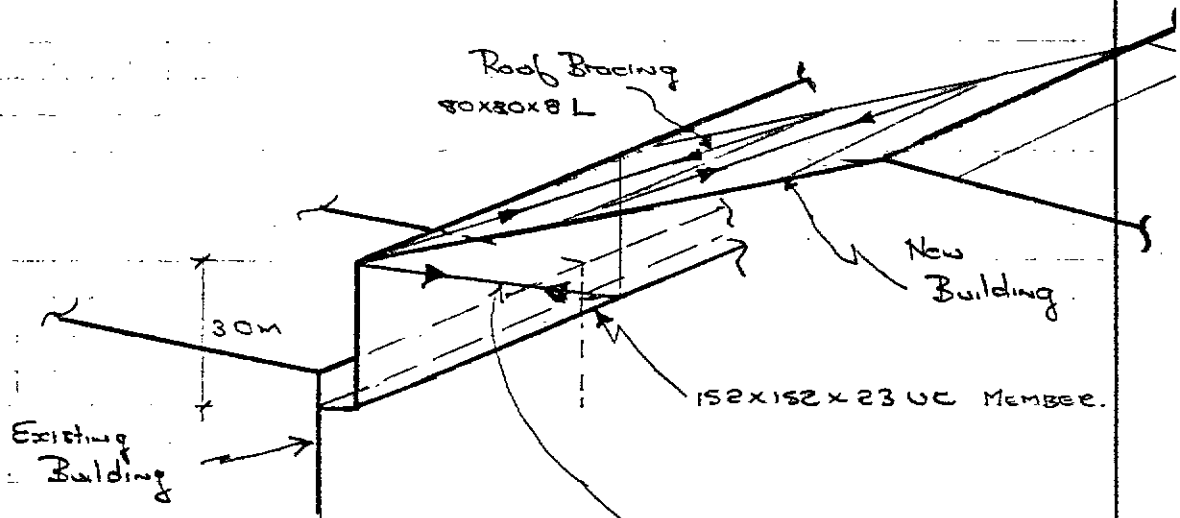
Date 11/5/91

Members ref.

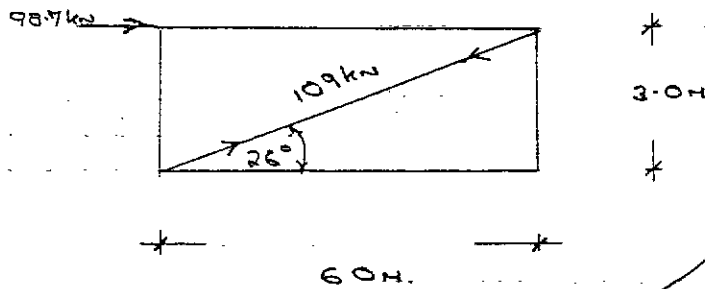
CALCULATIONS

OUTPUT

TRANSFER OF WIND LOAD FROM NEW BUILDING INTO THAT OF THE OLD BUILDING.



FORCE = 98.7kN.



ADOPT A 80x80x8 Angle.

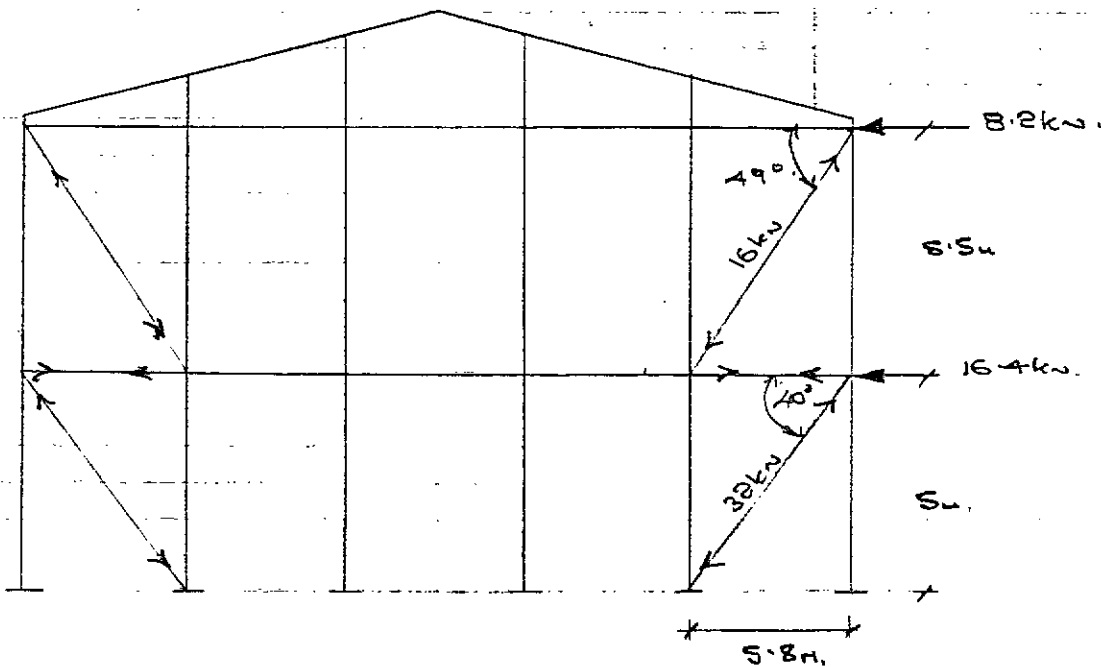
SAT

Members
ref.

CALCULATIONS

OUTPUT

GABLE BRACING.



$$\begin{aligned} \text{WIND FORCE ON GABLE} &= 0.71(0.17+0.3) \times 3 \times \frac{5.5}{2} \times 1.4 \\ &= 8.2 \text{ kN. AND } 16.4 \text{ kN.} \end{aligned}$$

$$\text{COMPRESSION MEMBER } P_c = 16.5 \text{ kN. AND } 32 \text{ kN.}$$

$$L_e = 0.85 \times 7.65 = 6.5 \text{ m.}$$

$$88.9 \times 3.2 \text{ C.H.S.}$$

$$P_c = 35 \text{ kN.}$$

Contract NAT-ROSS

Job ref. 91/15

Part of structure FOUNDATION
SIZING

Calc. Sheet No. 23

Drawing ref. Calculations by Checked by

GH

Date 16/4/91

Members
ref.

CALCULATIONS

OUTPUT

FOUNDATIONS HAVE TO BE SIZED TO
CATER FOR UPLIFT.

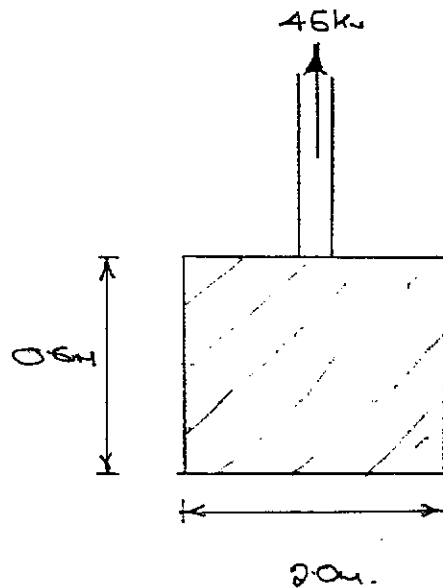
MAX UPLIFT FORCE = 46kN (FROM COMPUTER ANALYSIS)

WEIGHT OF FOUNDATION = 46kN

ASSUME 2.0m x 2.0m sq pads.

$$\text{Depth of Base} = \frac{46}{24 \times 20^2} = 0.47 \text{m.}$$

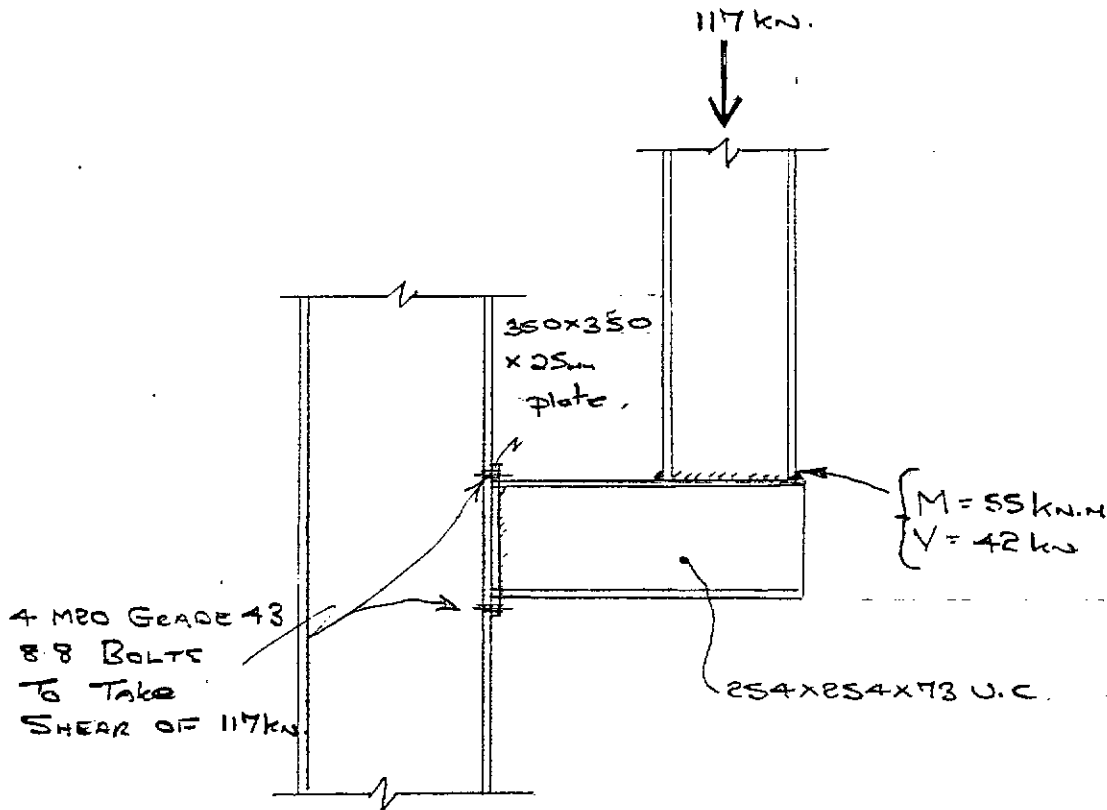
Provide 2.0m sq base by 0.6m deep.



Members ref.

CALCULATIONS

OUTPUT



FORCE ON WELD @ FRANGES.

$$F_f = \frac{55 \times 10^3}{457.2 - 14.5} \Rightarrow 124 \text{ kN}$$

Assume 8mm weld.

$$f_{weld} = \frac{124 \times 10^3}{2 \times 190.5 \times 0.7 \times 8} \Rightarrow 58 \text{ N/mm}^2$$

$$f_{weld} = 215 \text{ N/mm}^2$$

58 < 215 So ok

SHEAR CHECK.

$$V = 42 \text{ kN}$$

$$f_{shear} = \frac{42 \times 10^3}{2 \times 436.8 \times 0.7 \times 8} \Rightarrow 8.5 \text{ N/mm}^2$$

8.5 < 215 So ok.

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Contract NAT-ROSS

Job ref. 91/15

Part of structure TIE FOR PORTALS

Calc. Sheet No. 25

Drawing ref. Calculations by 7/11 Checked by

Date 11/4/91

Members
ref.

CALCULATIONS

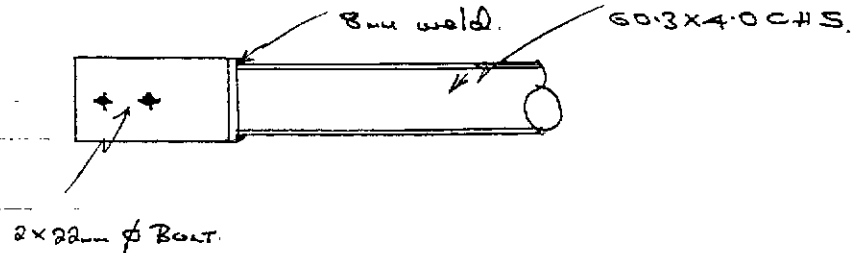
OUTPUT

TIE DESIGN.

MAXIMUM TIE FORCE = 167 kN.

Provide 60.3 x 4.0 C.H.S.

CAPACITY = 194 kN.

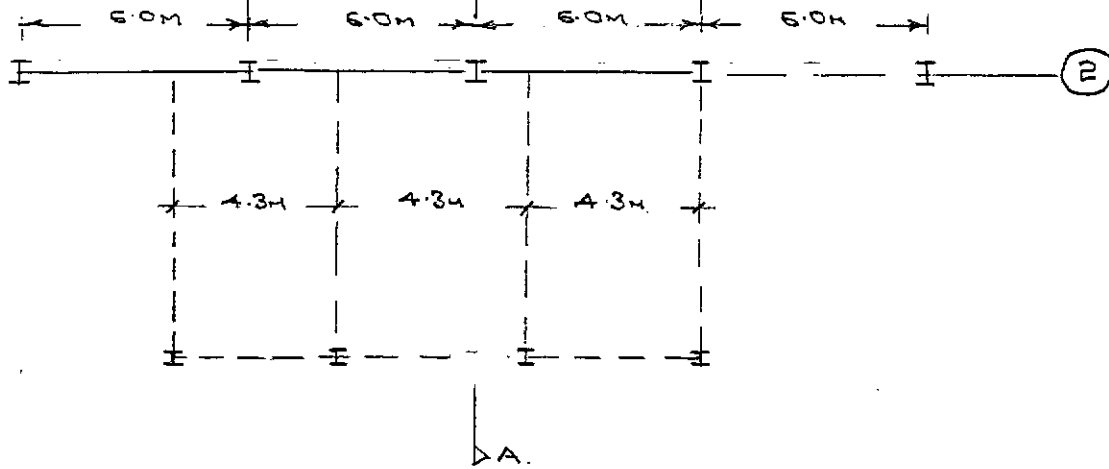


$$\text{Weld Stress} = \frac{167 \times 10^3}{2 \times \pi \times 30 \times 0.4 \times 8} \Rightarrow 158 \text{ N/mm}^2$$

158 < 215 So ok

Members ref.

D CALCULATIONS E F OUTPUT



LOADING ON PAGE 3

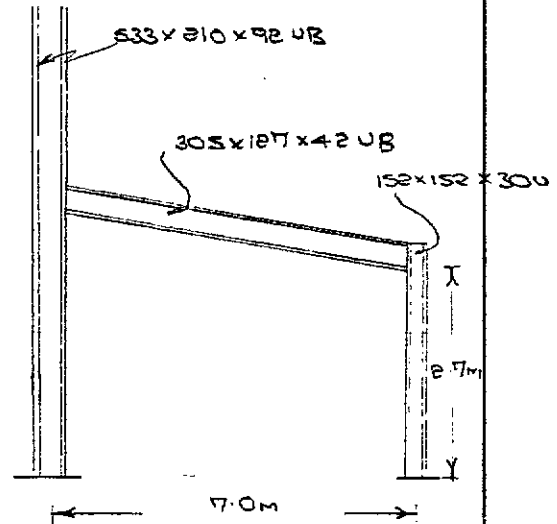
$G_k = 0.4 \text{ kN/m}$

$Q_k = 0.75 \text{ kN/m}^2$

$G_k \text{ on Rafter} = 0.4 \times 4.3 = 1.72 \text{ kN/m}$

$Q_k \text{ on Rafter} = 0.75 \times 4.3 = 3.22 \text{ kN/m}$

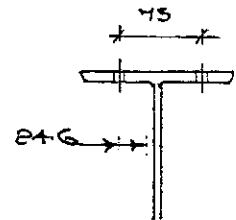
$W_k \text{ on Rafter} = 0.71 \times 4.3 = 3.05 \text{ kN/m}$



Contract	NATT-ROSS	Job ref.	91/15
Part of structure	OFFICE DESIGN	Calc. Sheet No.	27
Drawing ref.	Calculations by GND	Checked by	Date 10/5/91

Members ref.	CALCULATIONS	OUTPUT
	<u>CONNECTING OF MEMBERS @ EAVES.</u>	
	$M_{max} = 28 \text{ kNm}$ $V_{max} = 50 \text{ kN}$	
	<p>(i) Tension Bolts</p> $F_t = \frac{28 \times 0.215}{2 \sqrt{0.215^2 + 0.09^2}} = 55 \text{ kN}$ <p>F_t M20 GRADE A3 8.8 Bolt $P_t = 110 \text{ kN}$</p>	
	<p>(ii) SHEAR BOLTS.</p> $F_v = 50 \text{ kN}$ <p>SHEAR Capacity of Bottom 2 Bolts = 183 kN</p>	
	<p>(iii) WELD SEE</p> $0.75 \text{ Sf} \geq 0.5 \times 12.1$ <p>$S_f \geq 8 \text{ mm}$ Use 8mm fillet weld</p>	

Contract	NATT - ROSS.	Job ref.	91/15
Part of structure	OFFICE DESIGN	Calc. Sheet No.	28
Drawing ref.	Calculations by	Checked by	Date
			10/5/91

Members ref.	CALCULATIONS	OUTPUT
	<p>(iv) END PLATE THICKNESS</p>  <p>length Resisting Bending = $2 \times 24.6 \times \tan 60^\circ$ = 85 mm</p> <p>Bending Moment = $\frac{55 \times 24.6}{2 \times 1000} = 0.676 \text{ kNm}$</p> <p>$Z = \frac{0.676 \times 10^6}{275} = 2458 \text{ mm}^3$</p> <p>$t \geq \sqrt{\frac{2458 \times 6}{85}} \geq 13 \text{ mm}$</p> <p>ADOPT 15mm PLATE</p>	

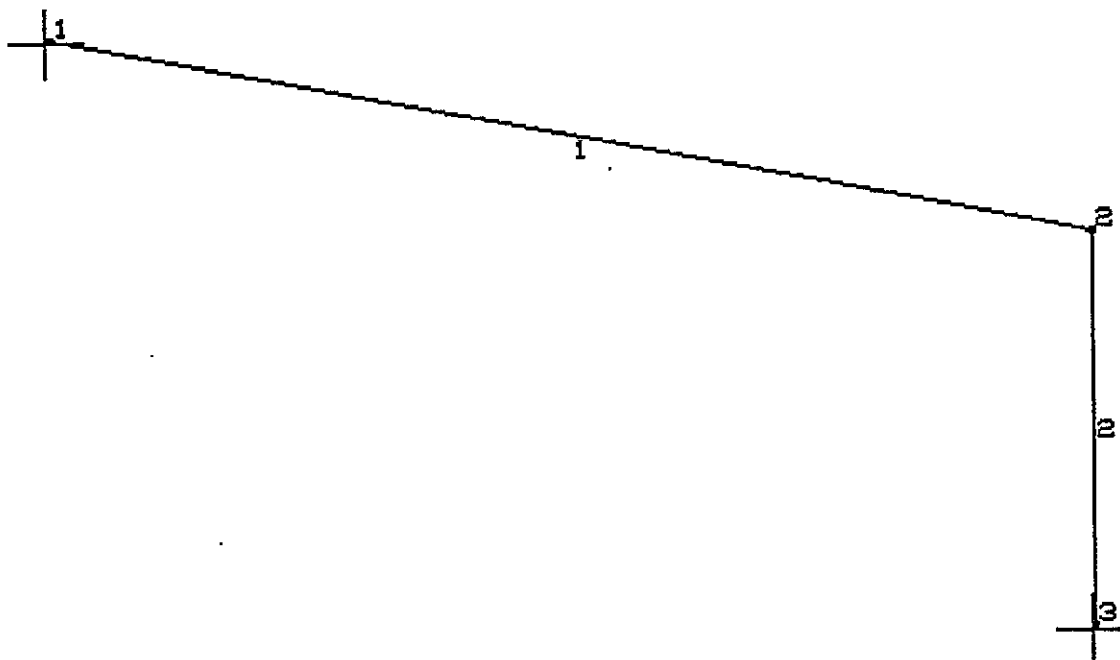
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AUTHOR GMD
DATE 10/5/91

29

NAT-ROSS
OFFICE FRAME

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
Units: S.I. METRIC (Steel) Data File : NATOF



Z
Y XStrXZ
NAT-ROSS
4m

88.87318

Material Properties

ENTRY NO.	TABLE REF./ DESCRIPTION	YOUNG'S MODULUS (kN/mm ²)	POISSON'S RATIO	COEFFICIENT OF THERMAL EXP. (/ Deg C)	WEIGHT/UNIT VOLUME (kN/m ³)
1	SI Steel - Deg. C	205	.300	1.200E-05	77

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NAT-ROSS
OFFICE FRAME

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Units: S.I. METRIC (Steel) Data File : NATOF

Joint Co-ordinates

JOINT	X (m)	Z (m)
1	.000	4.200
2	7.000	2.800
3	7.000	.000

Section Properties

N.B. IF a Shear Area value field is null (empty), shear distortions are ignored in the analysis.

SECTION NO.	REFERENCE	AREA Ax (cm2)	Iy (cm4)	ZMAX (mm)	Az SHEAR AREA (cm2)
<u>DESCRIPTION</u>					
1	UB/55 305*127*42 UB	5.320E+01	8.140E+03	1.533E+02	2.252E+01
2	UC/30 152*152*30 UC	3.820E+01	1.740E+03	7.875E+01	8.816E+00

Member/Element Incidences

MEMBER/ELEMENT NO.	NODE 1	NODE 2	NODE 3	NODE 4	MEMBER LENGTH (m)
1	1	2			7.139
2	2	3			2.800

Member/Element Details

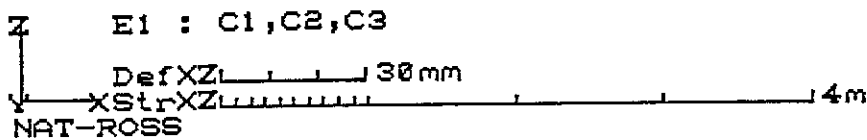
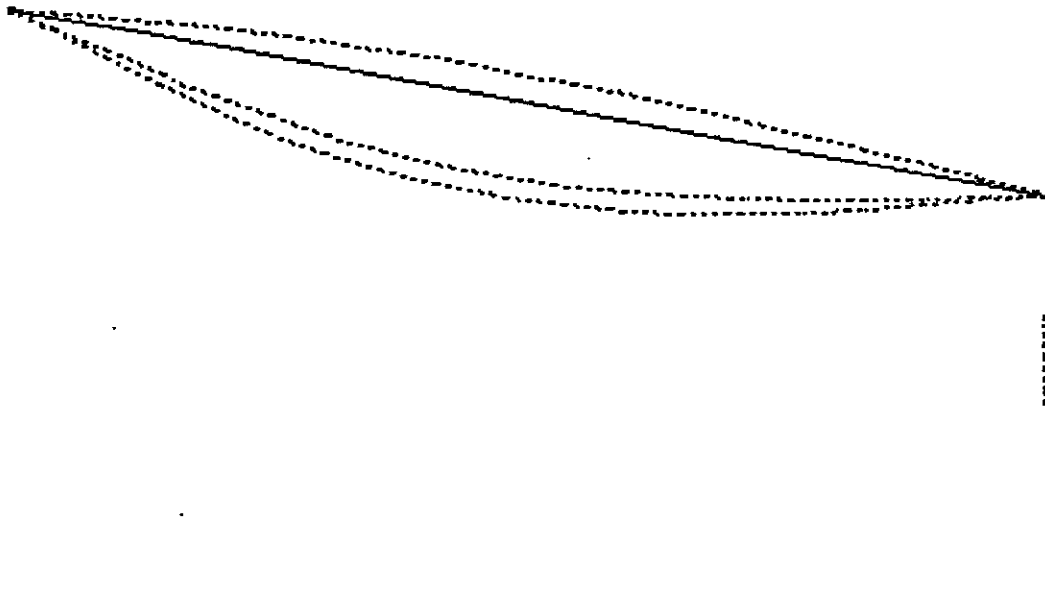
MEMBER/ELEMENT NO.	y AXIS FLEXURE TYPE NO.	SECTION/ THICKNESS GROUP	MATERIAL GROUP
1	FF	1	1
2	FF	2	1

ROONEY ASSOCIATES

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NAT-ROSS
OFFICE FRAME

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
Units: S.I. METRIC (Steel) Data File : NATOF



32.87199
30.87318

Envelope Case E1 : C1,C2,C3
JOINT Displacements

JOINT	X LINEAR (mm)	Z LINEAR (mm)	Y ROTATION (rad)
1	.00000	.00000	-.00258
	C1	C1	C3
1	.00000	.00000	.00987
	C1	C1	C2
2	-.11369	-.19202	-.00771
	C2	C2	C2
2	.02970	.05017	.00201
	C3	C3	C3

ROONEY ASSOCIATES

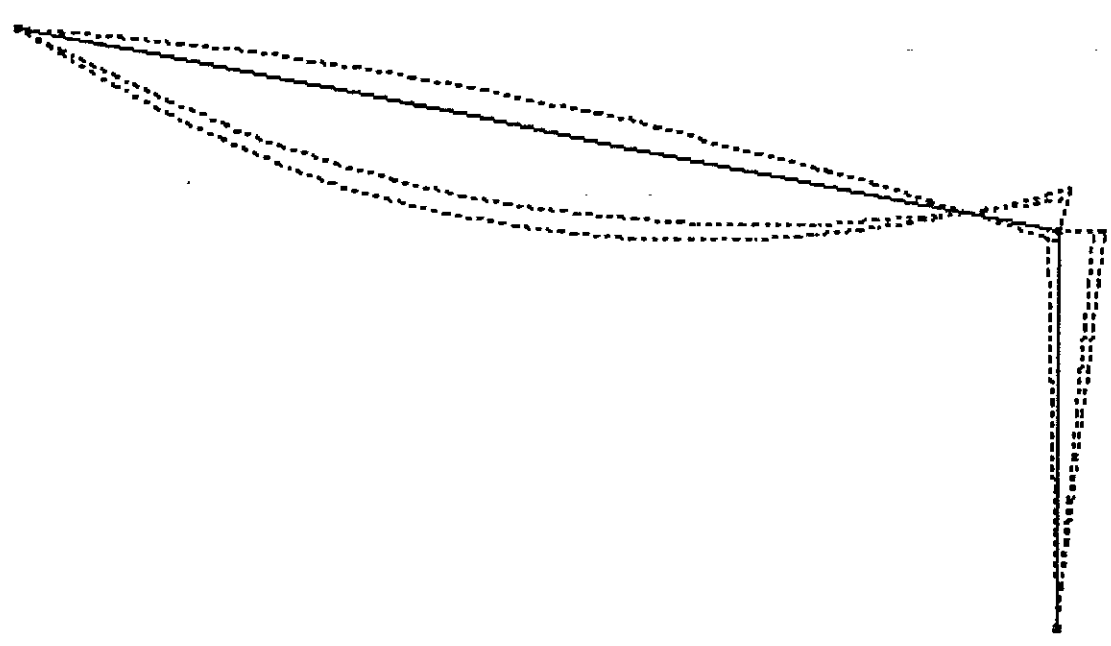
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NAT-ROSS
OFFICE FRAME

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
Units: S.I. METRIC (Steel) Data File : NATOF

Envelope Case E1 : C1,C2,C3
Joint Displacements

JOINT	X LINEAR (mm)	Z LINEAR (mm)	Y ROTATION (rad)
3	.00000	.00000	-.00093
	C1	C1	C3
3	.00000	.00000	.00357
	C1	C1	C2



Z E1 : C1,C2,C3
 My XZ 70 kNm
 Y Str XZ 4m
 NAT-ROSS

1.0E-008
 20.87318

ROONEY ASSOCIATES

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NAT-ROSS
 OFFICE FRAME

EN202: PLANE FRAME/FINITE ELEMENT ANALYSIS-V4.0 (c) ENCAD SYSTEMS LTD. 1991
 Units: S.I. METRIC (Steel) Data File : NATOF

Envelope Case E1 : C1,C2,C3
 Member End Forces

MBR	JOINT	AXIAL Nx (kN)	SHEAR Sz (kN)	MOMENT My (kNm)
1	1	-.5105	-11.1277	.0000
		C3	C3	C1
1	1	1.9540	42.5921	.0000
		C2	C2	C2
1	2	-5.3825	-50.6479	-28.7535
		C3	C2	C2
1	2	20.6020	13.2323	7.5122
		C2	C3	C3
2	2	-14.0310	-2.6829	-28.7535
		C3	C3	C2
2	2	53.7047	10.2691	7.5122
		C2	C2	C3
2	3	-14.0310	-2.6829	.0000
		C3	C3	C3
2	3	53.7047	10.2691	.0000
		C2	C2	C1

Envelope Case E1 : C1,C2,C3
 Support Reactions

JOINT	X FORCE (kN)	Z FORCE (kN)	Y MOMENT (kNm)
1	-2.6829	-10.8115	.0000
	C3	C3	C1
1	10.2691	41.3818	.0000
	C2	C2	C1
3	-10.2691	-14.0310	.0000
	C2	C3	C1
3	2.6829	53.7047	.0000
	C3	C2	C1

ROONEY ASSOCIATES

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NAT-ROSS
OFFICE FRAME

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : NATOF

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 1
Length = 7.139 m
Section Group = 1
Group Title =
Table Ref. = UB
Steel Grade = 43
Section No. = 55
Section Ref. = 305*127*42 UB
Orientation = 0

Section Depths - Taper Definition

Position (m) = .000 7.139
% Depth = 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) = 4*1.4
'Bottom' Flange Spacing (m) =
Distance of Restraint from Tension Flange = 83 mm a = 236 mm

Loadcase

Mode (A/M) = Auto
No. = C2
Details = 1.2*B1+1.2*B2+1.2*B3

*** SECTION OK 0.46 ***

Complex Capacities
Member String 1

Ldcs C2 305*127*42 UB

Grd 43

LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	1.400	.11	.28	.28	P1 NA	.28	PASS
2	1.400	2.800	.06	.41	.45	P2 NA	.45	PASS
3	2.800	4.200	.03	.42	.46	P3 NA	.46	PASS
4	4.200	5.600	.08	.39	.42	P4 NA	.42	PASS
5	5.600	7.139	.13	.21	.24	P5 NA	.24	PASS

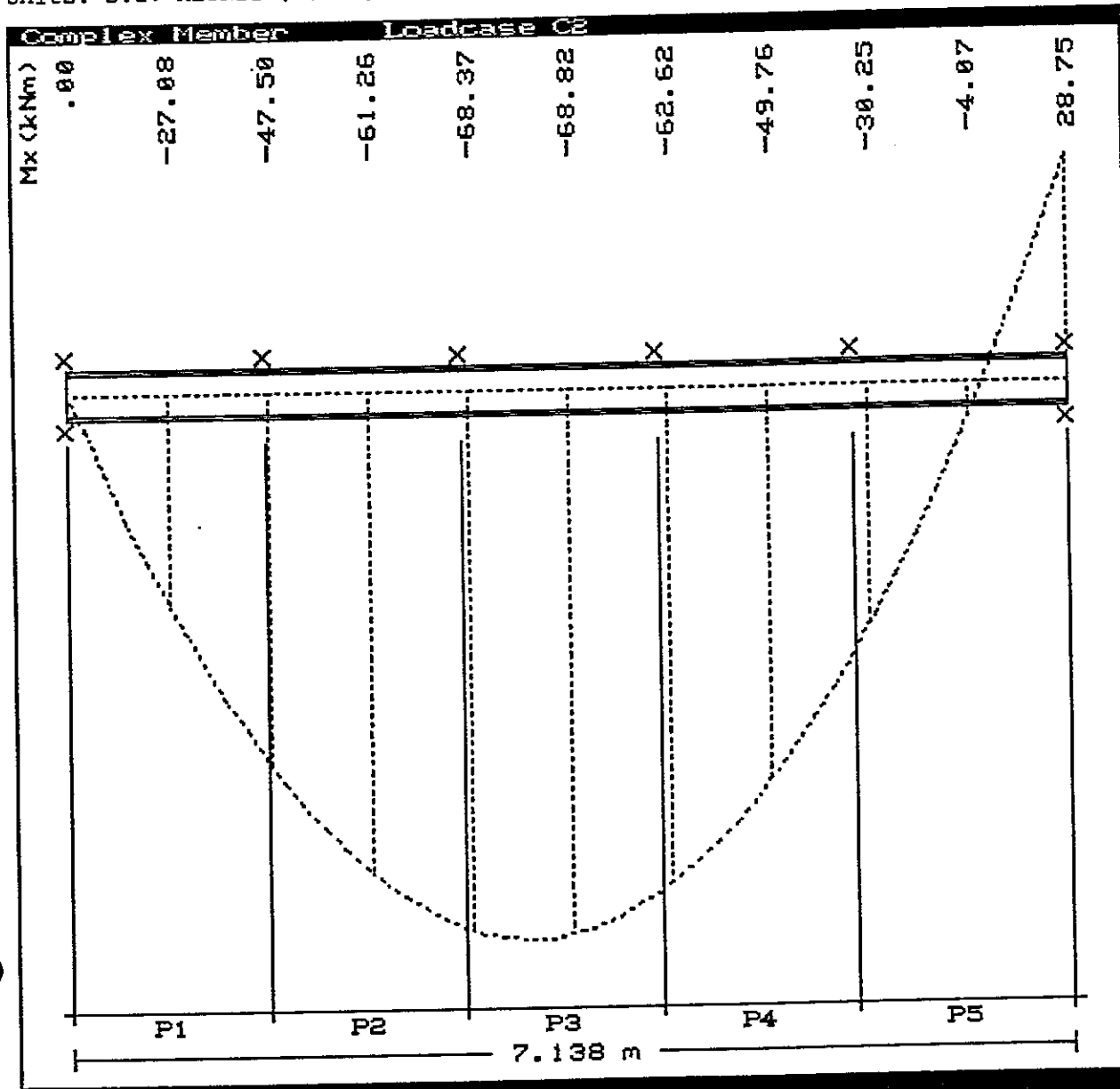
ROONEY ASSOCIATES

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NAT-ROSS
OFFICE FRAME

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : NATOF



ROONEY ASSOCIATES

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NAT-ROSS
OFFICE FRAME

EN5950: STEELWORK DESIGN PROGRAM V2.0
Units: S.I. METRIC (Steel)

(c) ENCAD SYSTEMS LTD. 1991
Data File : NATOF

COMPLEX MEMBER CAPACITY CHECK

Member Details

Member String = 2
Length = 2.800 m
Section Group = 2
Group Title =
Table Ref. = UC
Steel Grade = 43
Section No. = 30
Section Ref. = 152*152*30 UC
Orientation = 0

Section Depths - Taper Definition

Position (m) = .000 2.800
% Depth = 100 100

Intermediate Flange Restraints

'Top' Flange Spacing (m) =
'Bottom' Flange Spacing (m) =
Distance of Restraint from Tension Flange = mm a = mm

Loadcase

Mode (A/M) = Auto
No. = C2
Details = 1.2*B1+1.2*B2+1.2*B3
*** SECTION OK 0.47 ***

Complex Capacities

Ldcs C2 152*152*30 UC

Grd 43

Member String 2

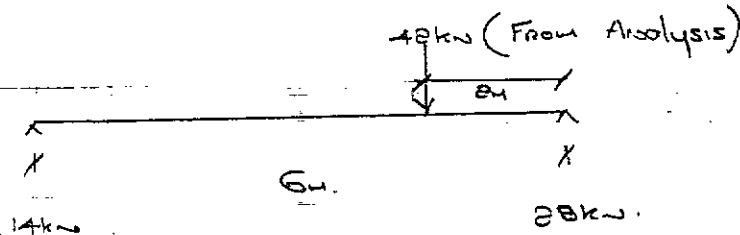
LENGTH NO.	START (m)	END (m)	SHEAR CAPACITY	AXIAL/FLEXURAL	OVERALL BUCKLING	PORTION STABILITY	LOAD/CAPACITY	TEST RESULT
1	.000	2.800	.06	.47	.36	P1 NA	.47	PASS

Members
ref.

CALCULATIONS

OUTPUT

DESIGN OF MEMBER TO TAKE LEAN-TO RAFTER.



$$M_{max} = 56 \text{ kN.m}$$

$$\lambda = \frac{0.85 \times 6000}{27} = 188$$

$$\frac{\lambda}{\alpha} = \frac{188}{26.8} \Rightarrow 7$$

$$\begin{aligned} \lambda_{LT} &= n \cdot u \cdot v \cdot \lambda \\ &= 1 \times 0.872 \times 0.73 \times 188 \\ &= 119 \end{aligned}$$

$$P_b = 96 \text{ N/mm}^2$$

$$\begin{aligned} M_b &= 610 \times 10^3 \times 96 \times 10^{-6} \\ &= 58.5 \text{ kN.m} \end{aligned}$$

So Adopt 305x127x42 UB

ROOF SHEETING RAILS @ 1400 c/c.

SINCE SPAN IS REDUCED

to 4.3m Use Some

SHEETING RAILS AS THE ROOF.

Rooney Associates
Consulting Engineers

Contract NATT - ROSS Job ref. 91/15

Part of structure OFFICE DESIGN Calc. Sheet No. 31

Drawing ref. Calculations by [Signature] Checked by _____ Date 18/5/91

Members
ref.

CALCULATIONS

OUTPUT

Design of Channel Sheet Piling

Try 102X51 CHANNEL SECTION

Assume sheet piling fully restrained section

$$M_e = S_x P_y \Rightarrow 48.2 \times 275 \times 10^{-3} = 13.26 \text{ kN.m}$$

$$\text{U.D.L on channel} = 0.71 \times 1.5 \times 1.4 \text{ say } 1.5 \text{ c/c}$$

$$= 1.49 \text{ kN/m}$$

$$\therefore M_{\text{max}} = 3.44 \text{ kN.m} \quad \text{So ok}$$

Deflection Check

$$A_{\text{allowable}} = \frac{5 \times 1.05 \times 4330^4}{384 \times 205000 \times 208 \times 10^4}$$

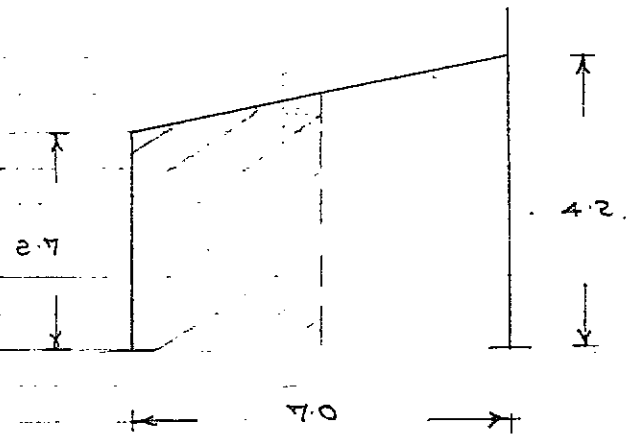
$$= 12.4 \text{ mm}$$

$$A_{\text{actual}} = \frac{4330}{360} \Rightarrow 12 \text{ mm} \quad \text{So ok}$$

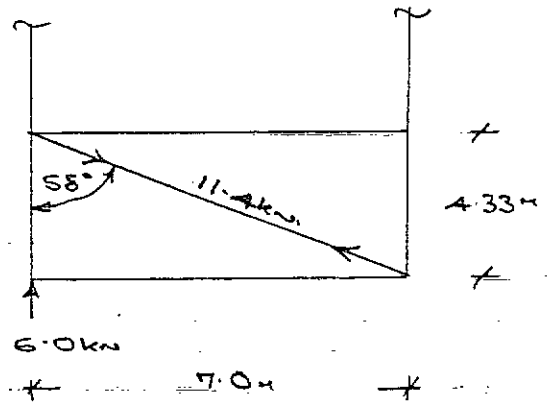
Contract	NATT-ROSS	Job ref.	91/15
Part of structure	OFFICE DESIGN	Calc. Sheet No.	32
Drawing ref.	Calculations by <u>FMD</u>	Checked by	Date 13/5/91

Members ref.	CALCULATIONS	OUTPUT
--------------	--------------	--------

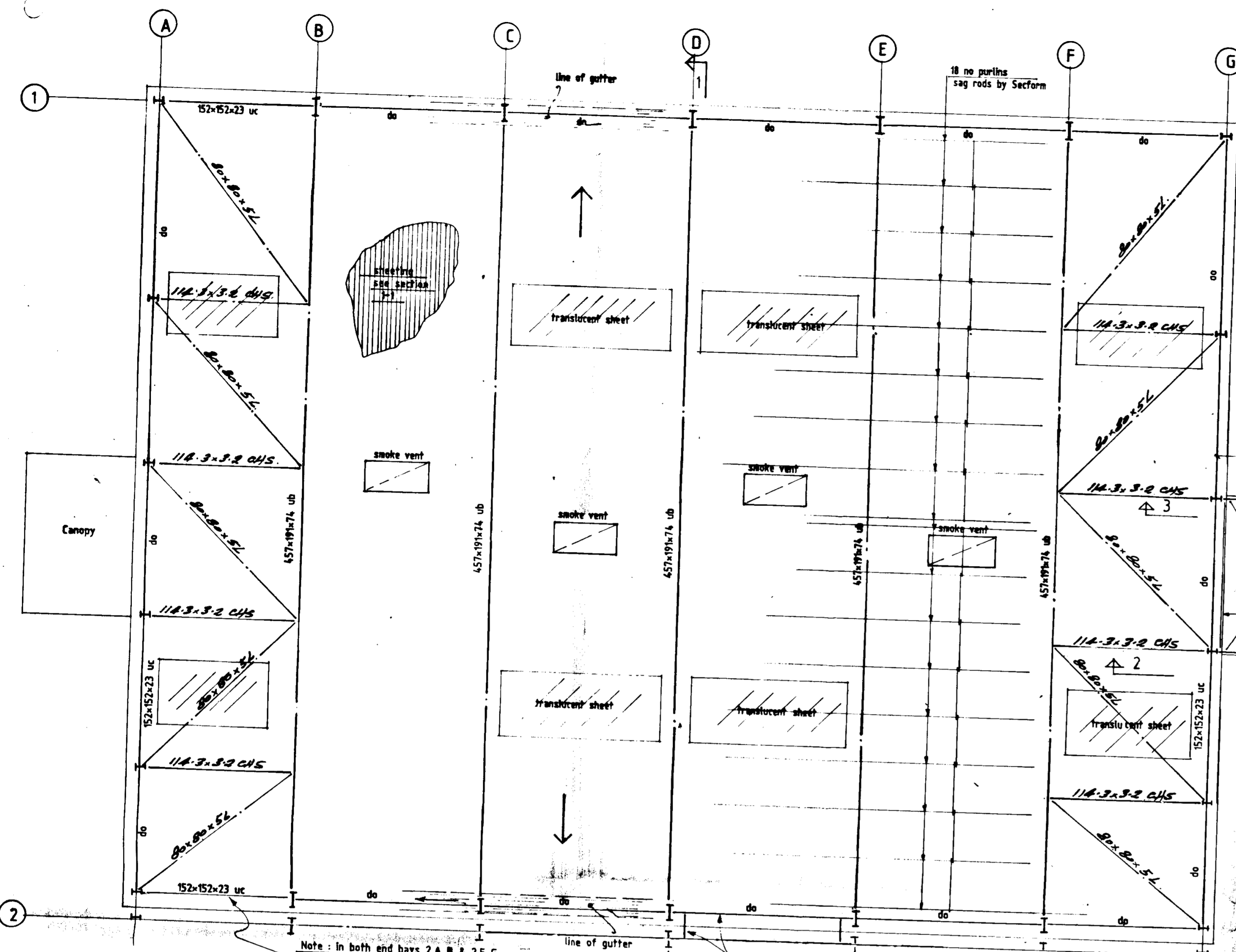
DESIGN OF MEMBERS @ ROOF LEVEL OF OFFICES



WIND LOAD FOR BRACING DESIGN = $0.71 \times 1.4 \times \left(\frac{3.5 \times 3.45}{2} \right)$
= 6.00kN.



Provide 60.3 C.H.S as ROOF TIE.

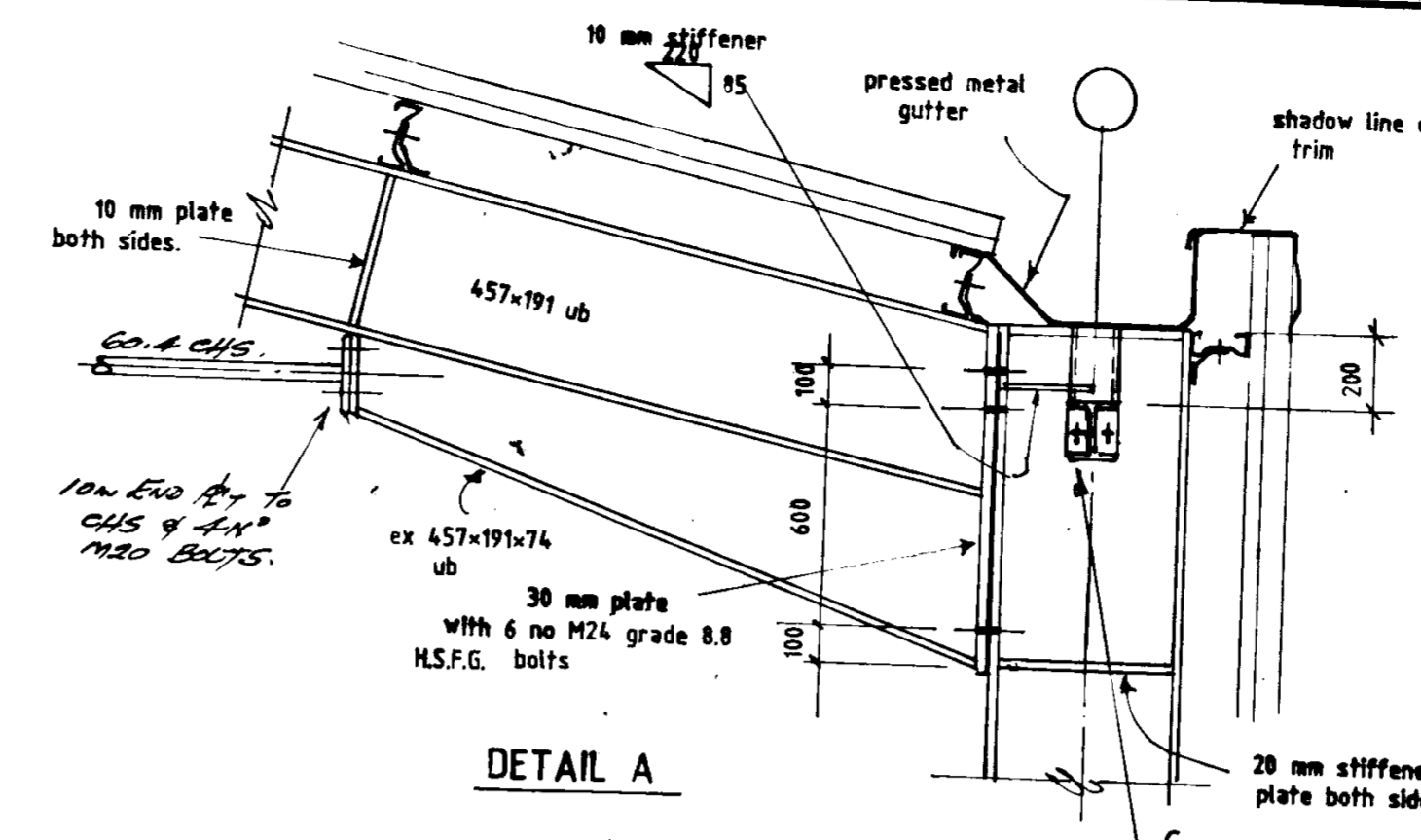


ROOF PLAN

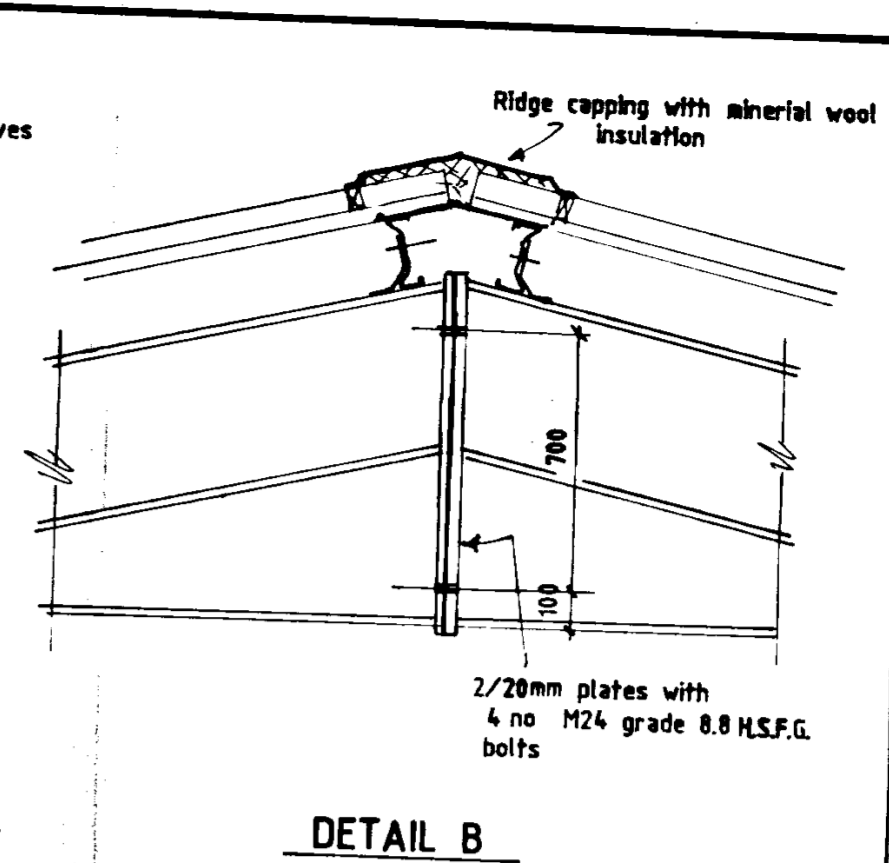
Note: 8 no Astolite translucent sheets to provide 10% glazing.
4 no smoke vents 1000x2000 approx.

Note: In both end bays 2A B & 2F G provide 152x152 UC at low level & 88.9x3.2 diagonal

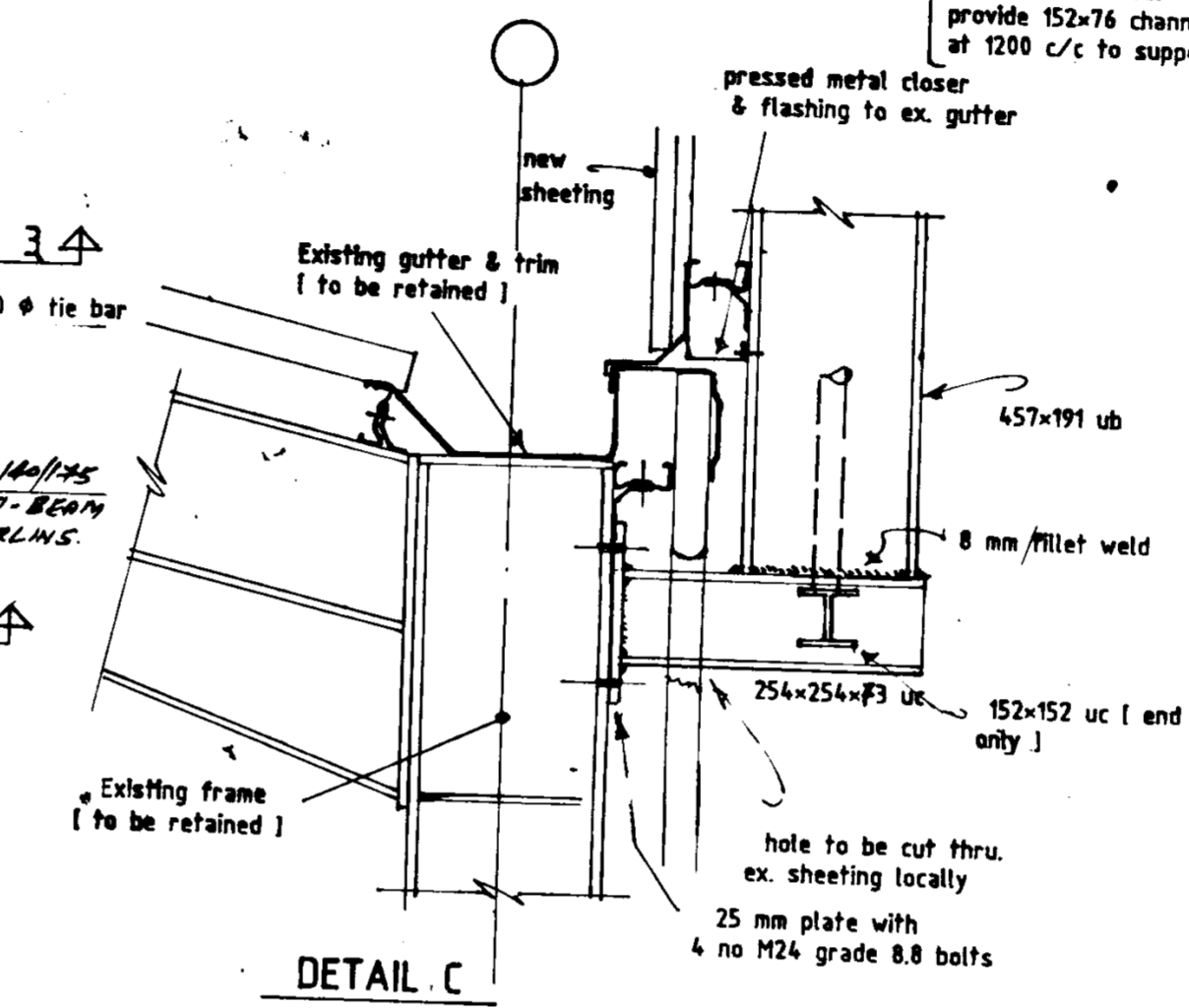
Provide 152x152 UC AT LOW LEVEL & 2x 88.9x3.2 CHS TO CONNECT TO EX. TIE BEAM.



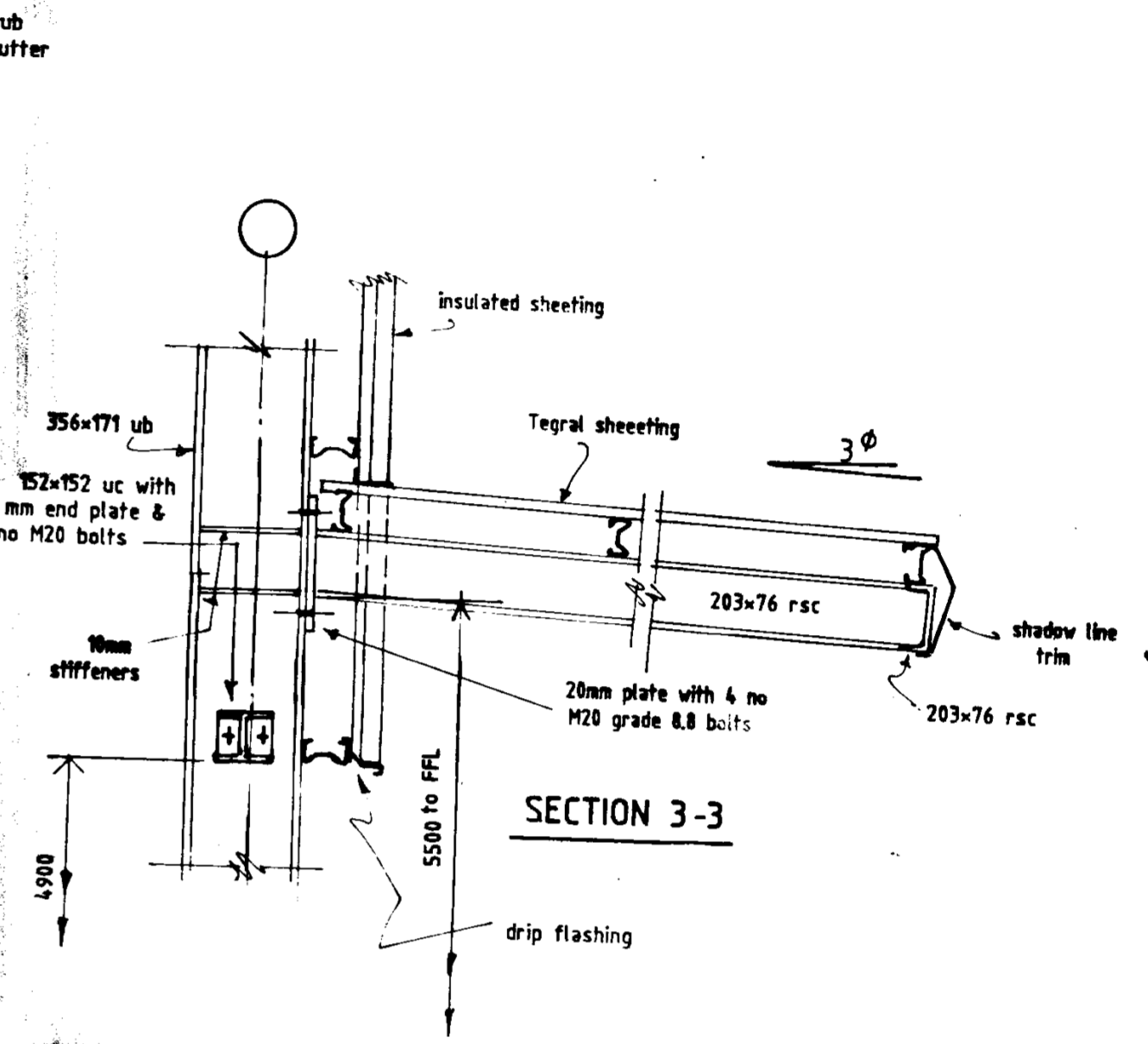
DETAIL A



DETAIL B



DETAIL C



SECTION 3-3

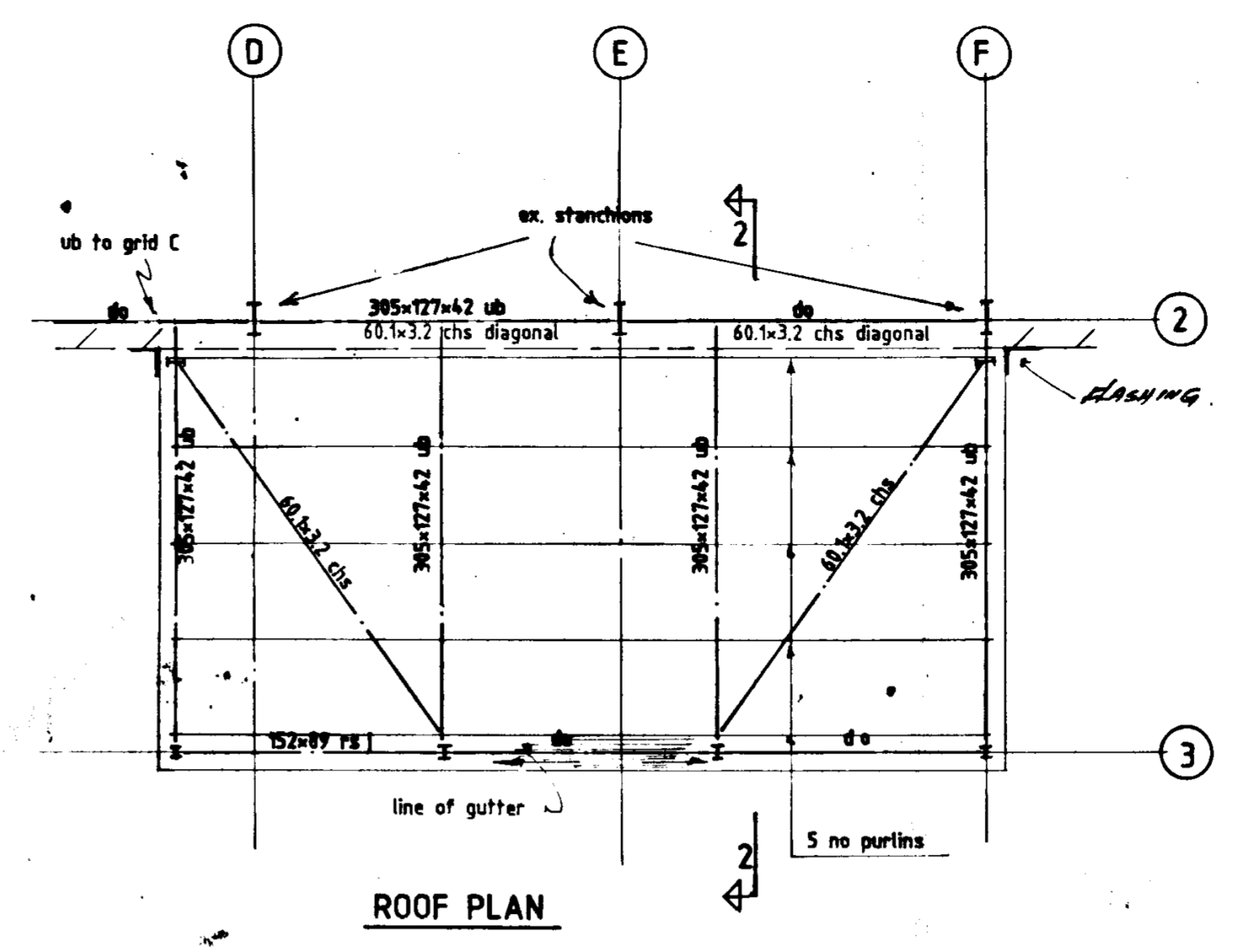
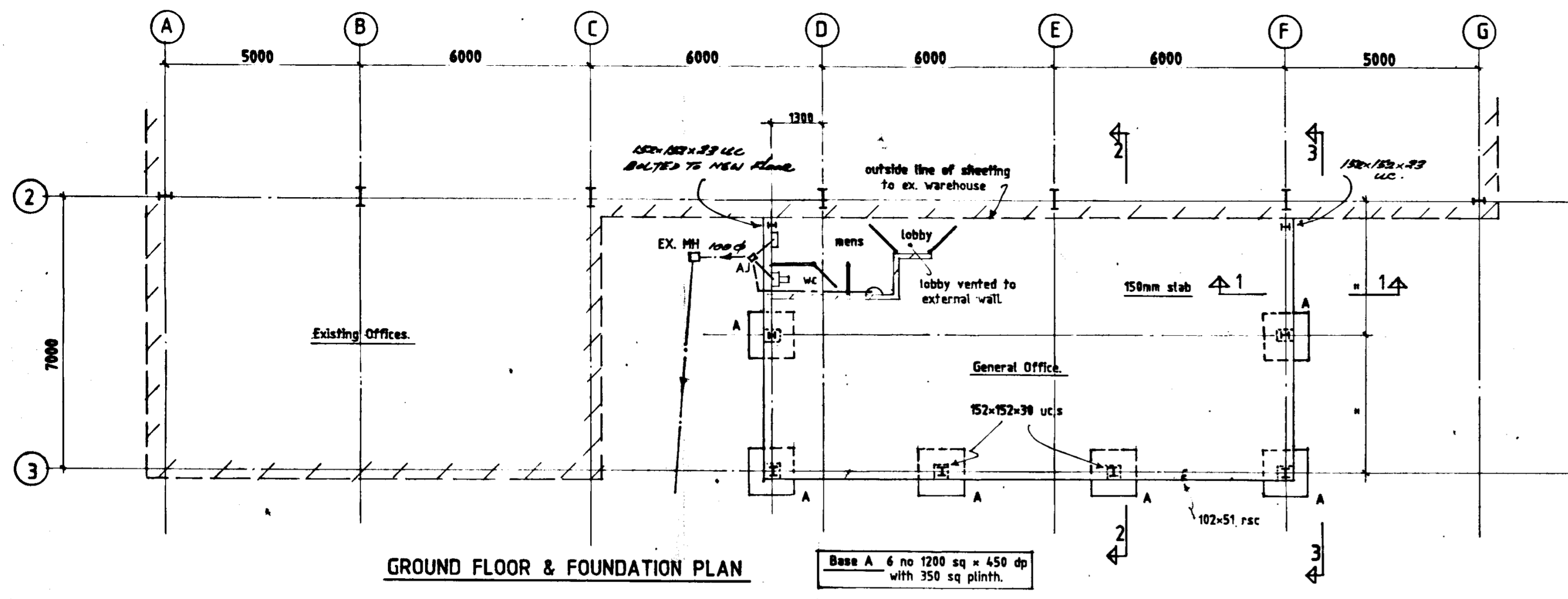
NOTES

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- REINFORCEMENT DETAILS ARE LISTED ON BAR BENDING SCHEDULES No.....

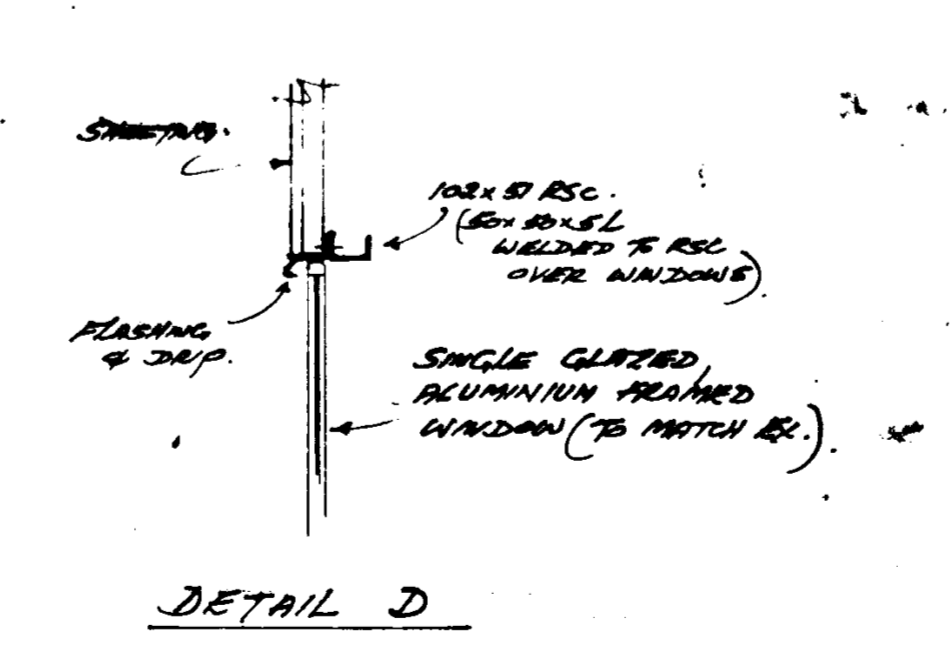
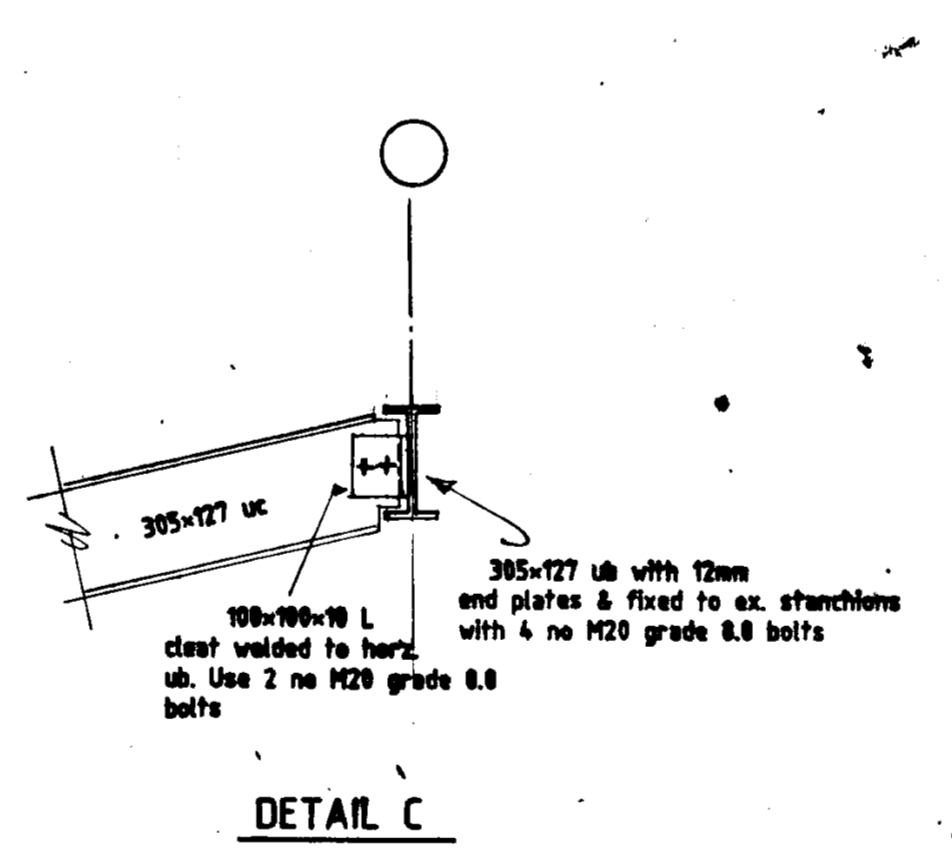
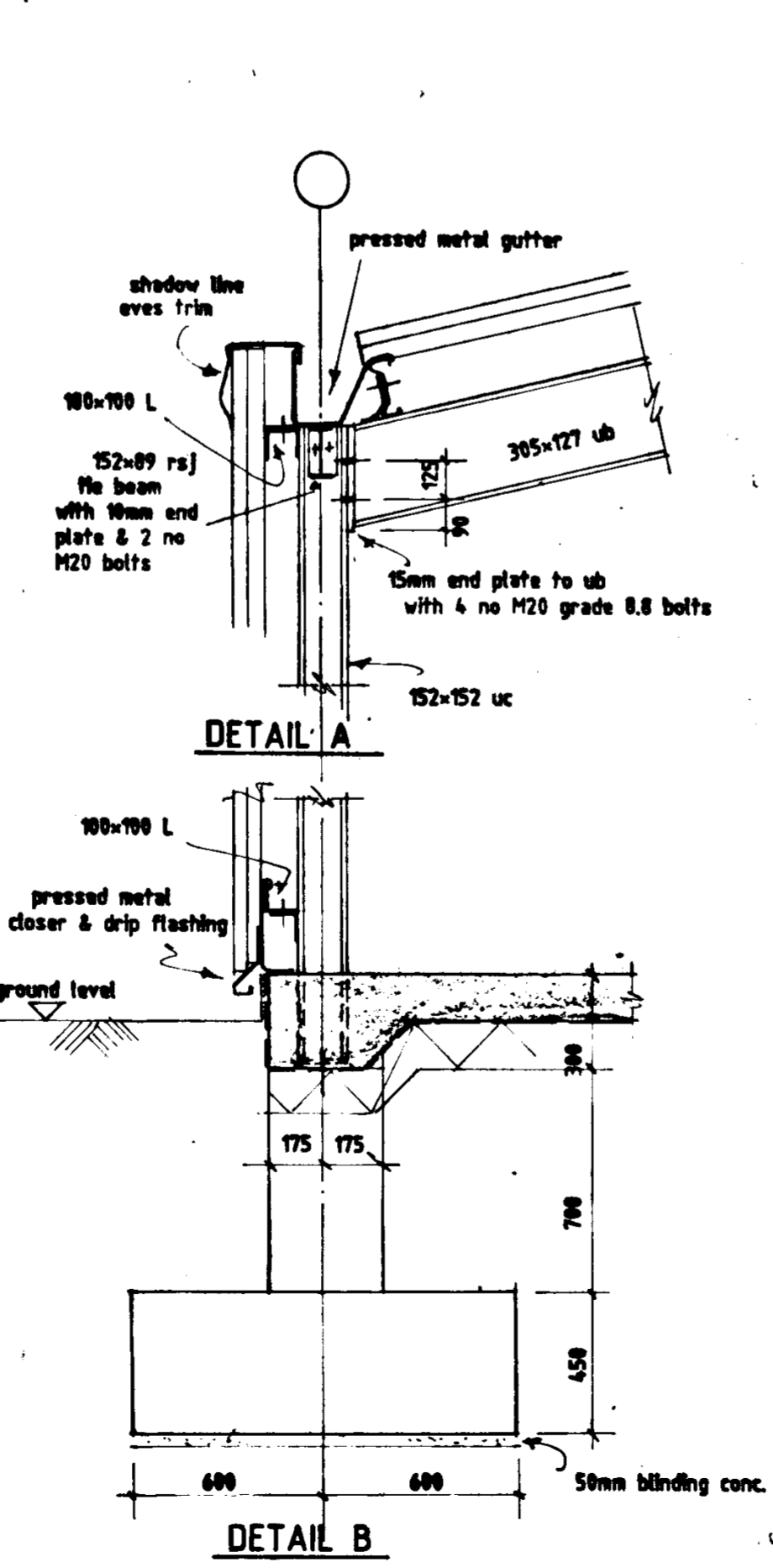
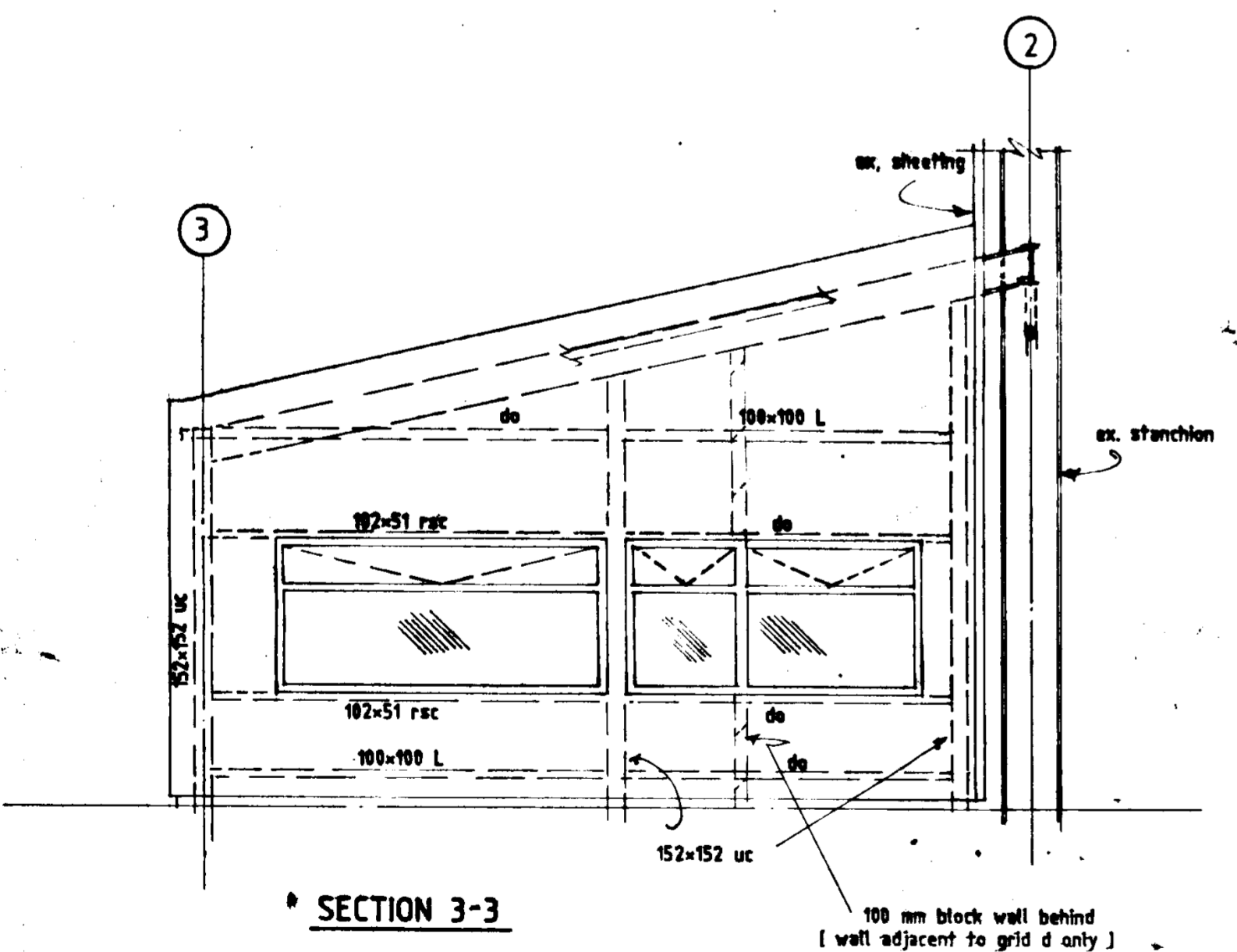
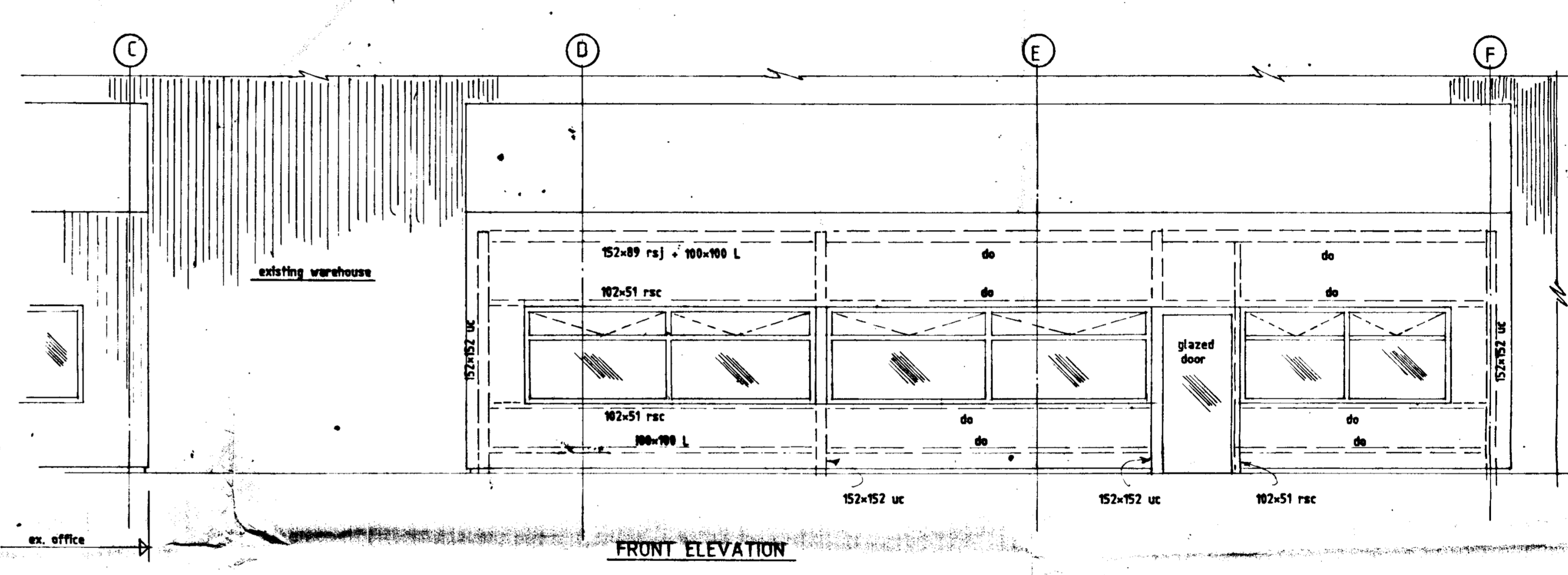
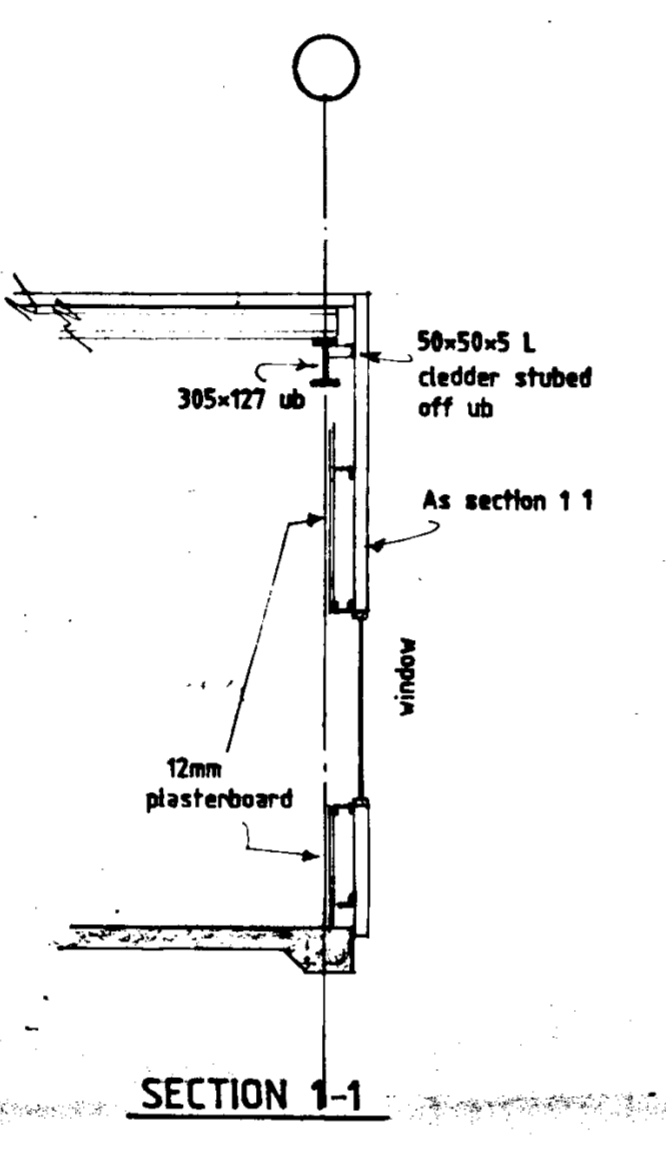
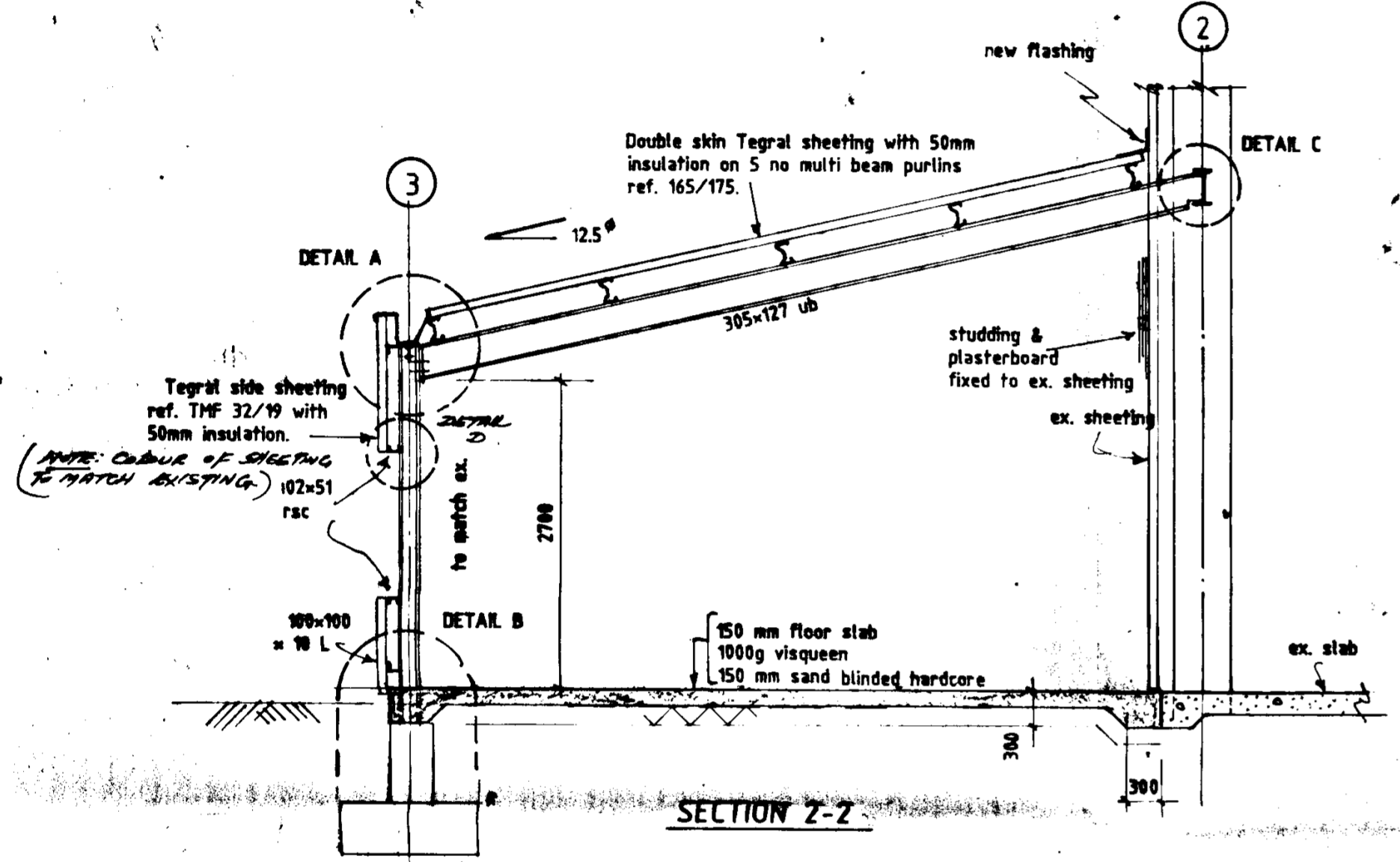
RECORDED
23 MAY 1991
21/10/844
REG/SEC.4

ref	date	amendments	by	chkd
ARCHITECT ANDREW PURCELL				
PROPOSED WAREHOUSE / OFFICES FOR NAT ROSS LTD / BEVERLY SMYTH.				
ROOF PLAN & STEELWORK DETAILS				
scale 1: 100, 1: 20				
Rooney Associates Consulting Structural and Civil Engineers				
Telephone 01 543118 Fax 01 535922 091 63030 Fax 091 65150				
date	13.4.91	contract no.	drg no.	rev
drawn	D.D.			
checked			91/15	04

NOT FOR CONSTRUCTION



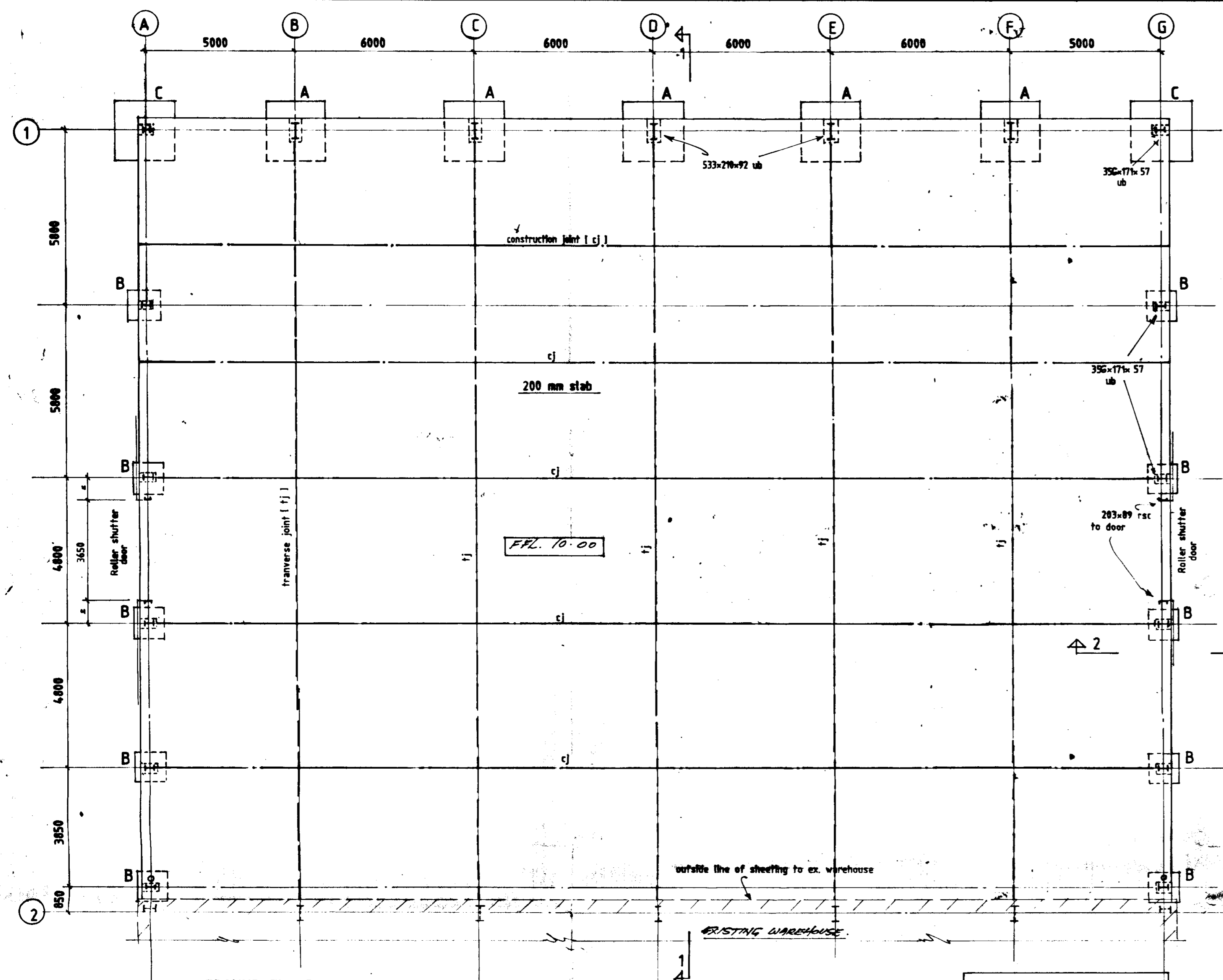
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 - REINFORCEMENT DETAILS ARE LISTED ON BAR BENDING SCHEDULES No



RECEIVED
23 MAY 1991
91A0844

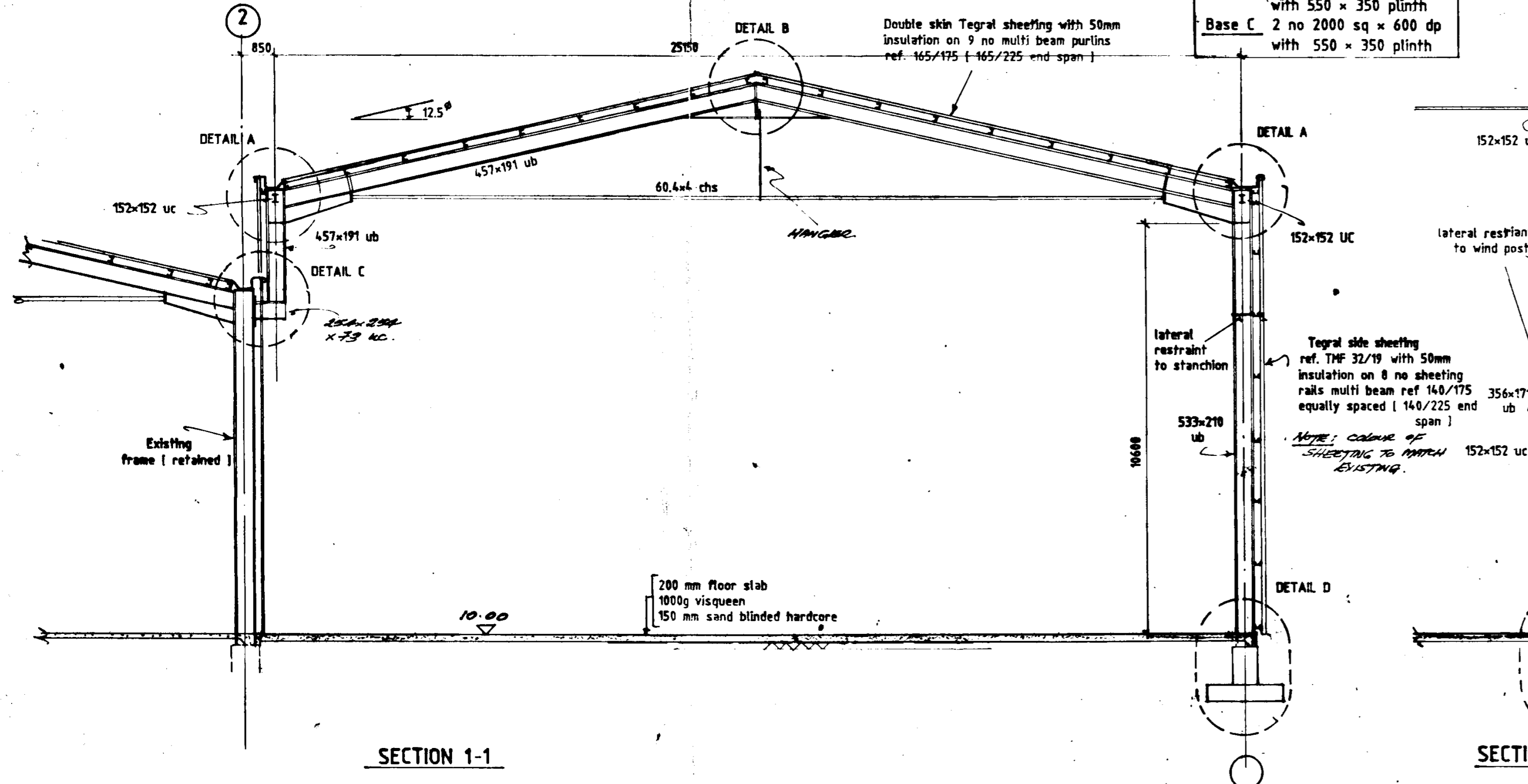
ref	date	amendments	by	chkd
ARCHITECT ANDREW PURCELL				
PROPOSED WAREHOUSE / OFFICES FOR NAT ROSS LTD / BEVERLY SMYTH.				
FOUNDATIONS, GROUND FLOOR & ROOF. NEW OFFICES.				
scale 1 : 100, 1 : 20				
Rooney Associates Consulting Structural and Civil Engineers Telephone 01 543118 Fax 01 535922 091 63030 Fax 091 65150				
date	13.5.91	contract no.		
drawn	D.D.		91/15	02
checked				

NOT FOR CONSTRUCTION

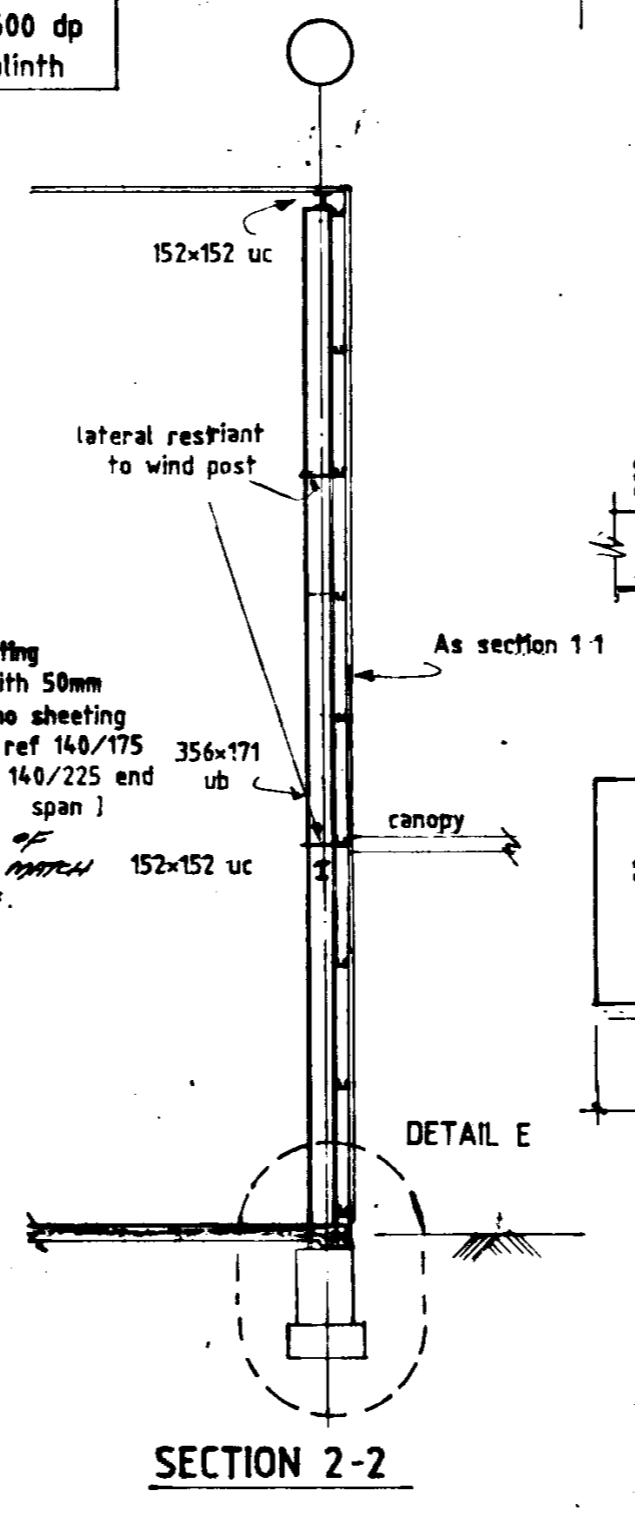


GROUND FLOOR & FOUNDATION PLAN

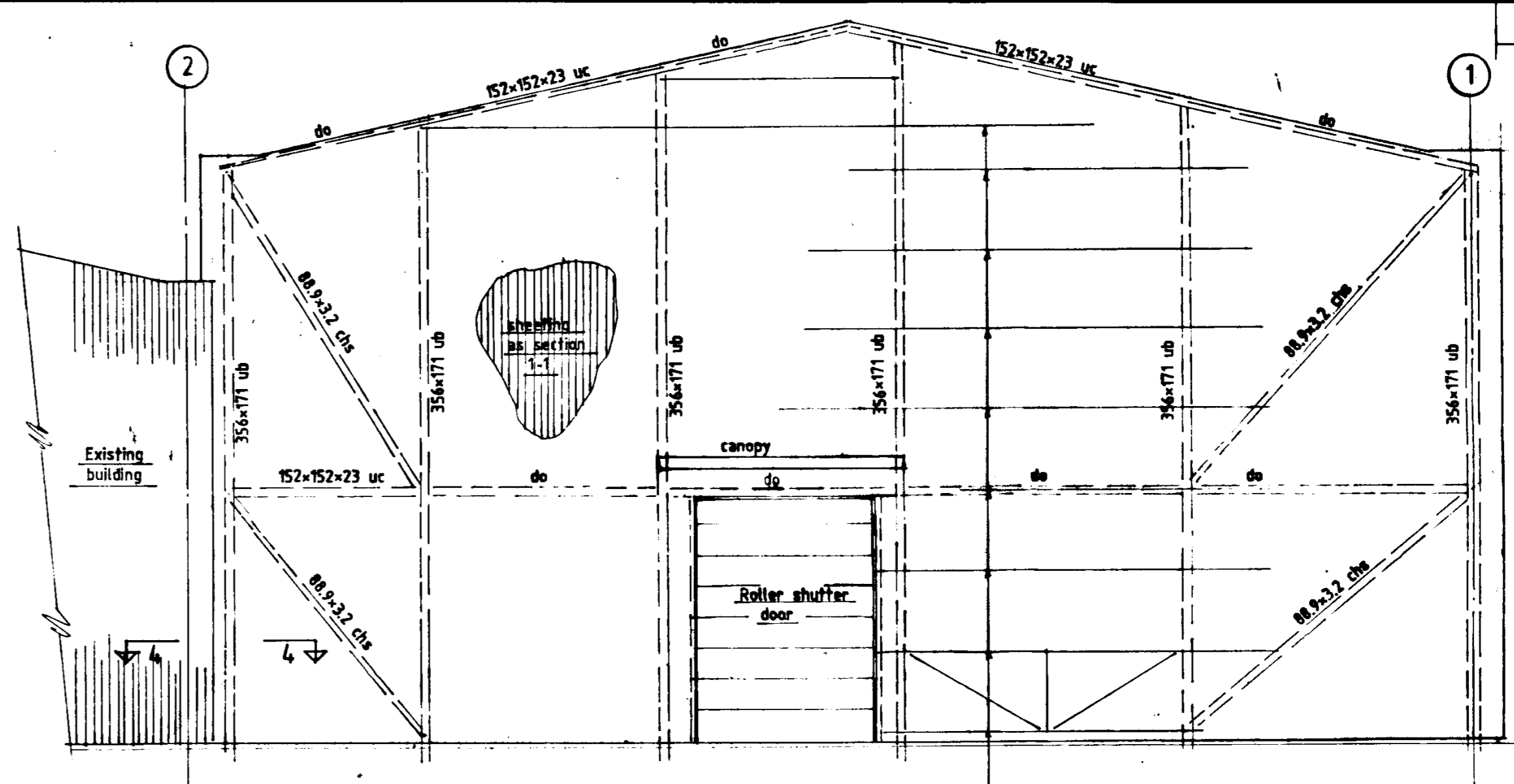
Base A. 5 no 2800 sq x 600 dp with 700 x 350 plinth.
 Base B. 10 no 1000 sq x 450 dp with 550 x 350 plinth
 Base C. 2 no 2000 sq x 600 dp with 550 x 350 plinth



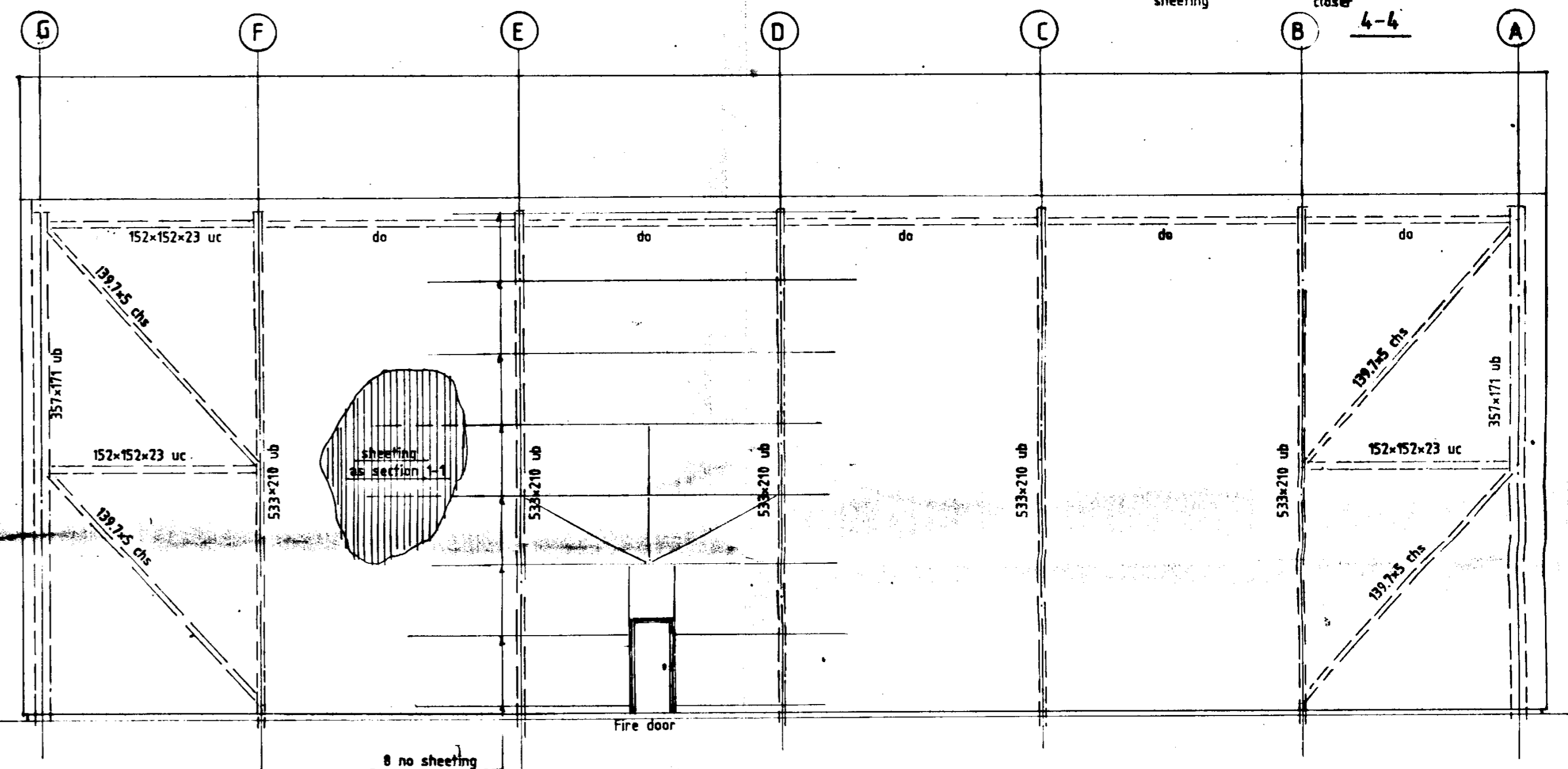
SECTION 1-1



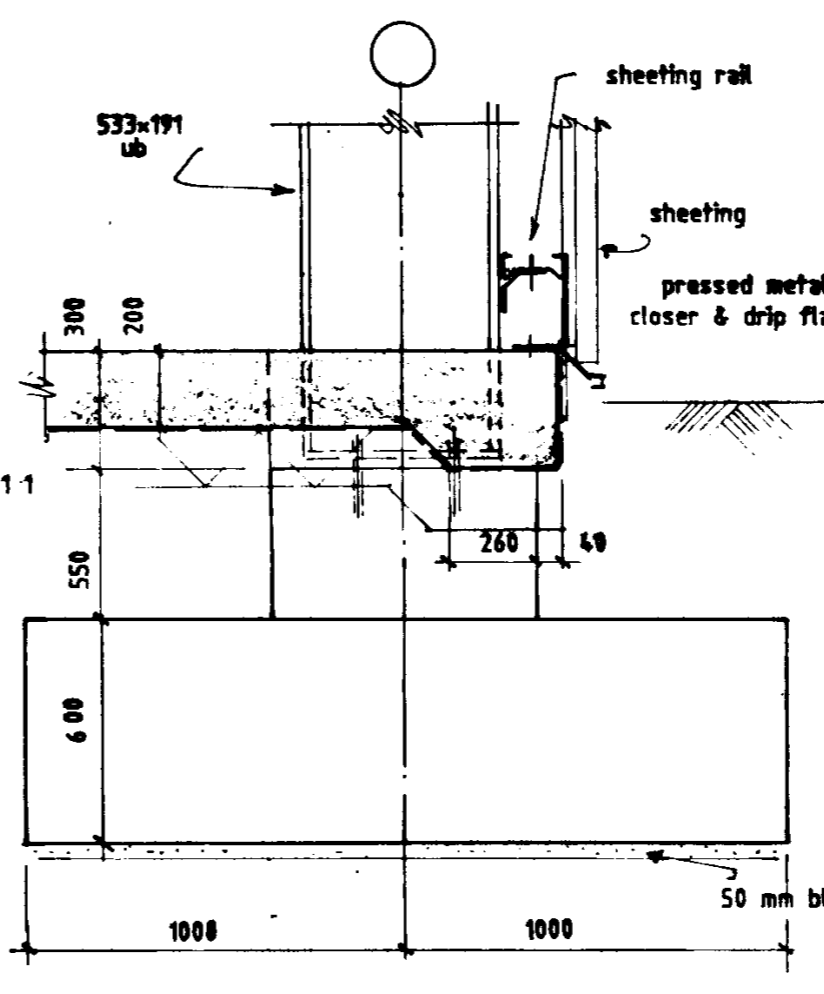
SECTION 2-2



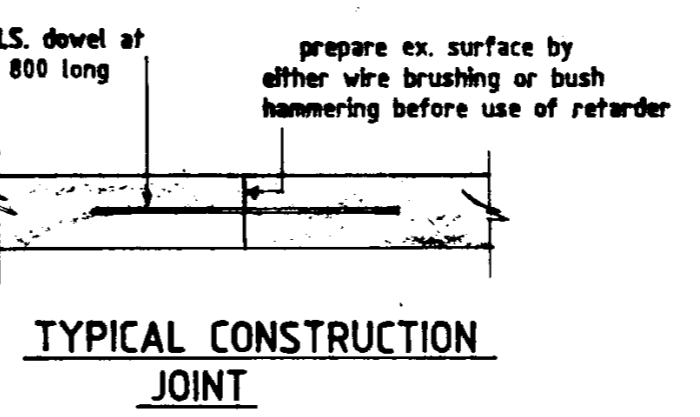
ELEVATION ON GRIDS A&G



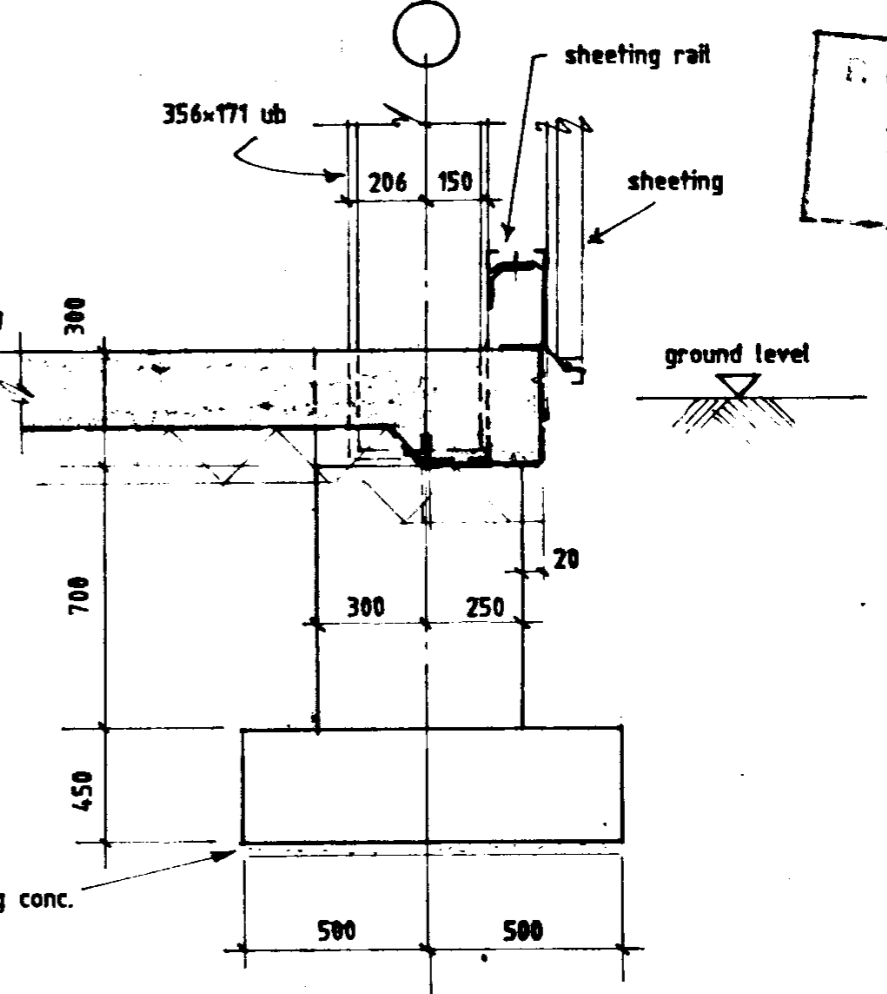
ELEVATION ON GRID 1



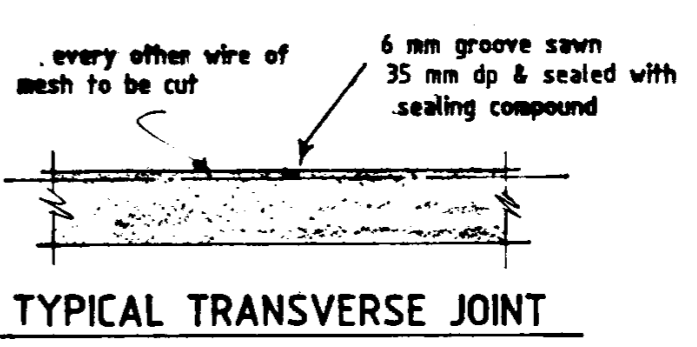
DETAIL D



TYPICAL CONSTRUCTION JOINT

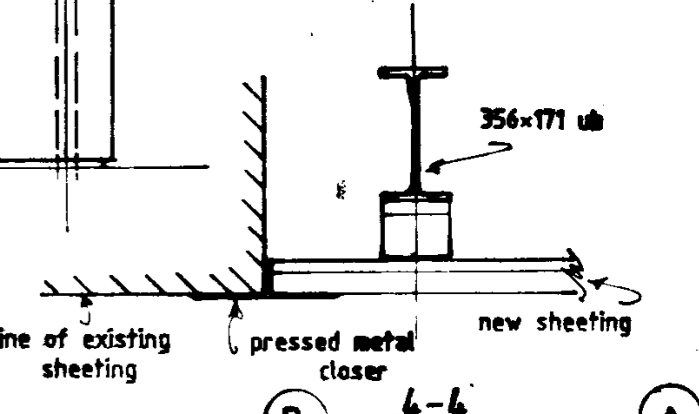


DETAIL E



TYPICAL TRANSVERSE JOINT

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 - REINFORCEMENT DETAILS ARE LISTED ON BAR BENDING SCHEDULES No.....



4-4

RECEIVED
 23 MAY 1991
 91A/0844

ref	date	amendments	by	chkd

ARCHITECT
ANDREW PURCELL

PROPOSED WAREHOUSE /
 OFFICES FOR NAT ROSS LTD /
 BEVERLY SMYTH.

GROUND FLOOR & FOUNDATIONS
 SECTION & ELEVATIONS

scale 1: 100 1:20

Rooney Associates
 Consulting Structural and Civil Engineers

Telephone 01 543118 Fax 01 635922
 091 63030 Fax 091 65150

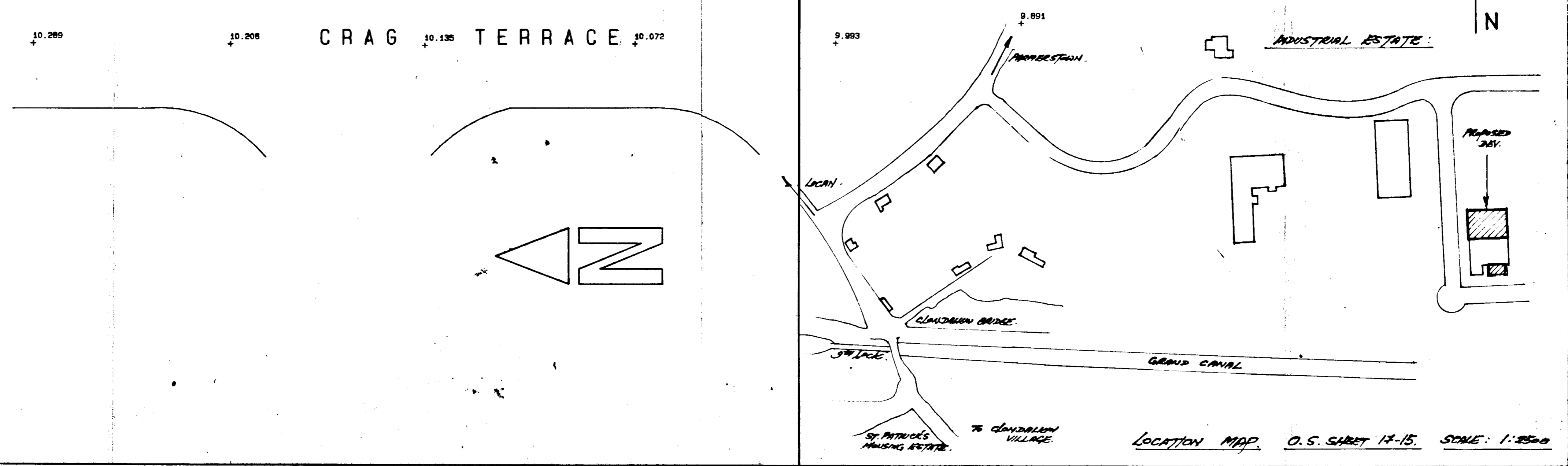
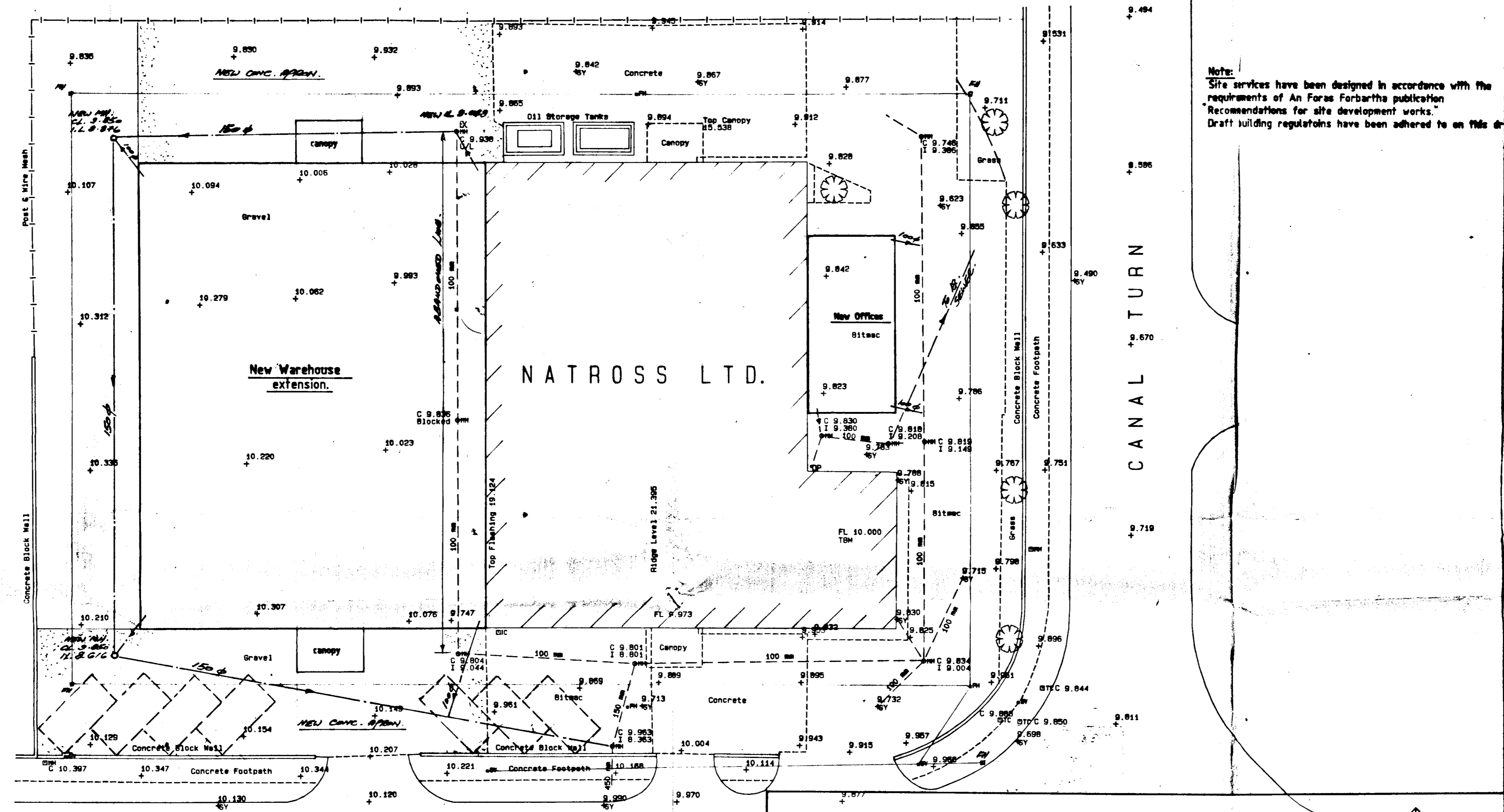
date	13.4.91	contract no.		drg no.		rev.	
drawn	O.D.						
checked		91/15		03			

NOT FOR CONSTRUCTION

NOTES

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Note:
Site services have been designed in accordance with the requirements of An Foras Forbartha publication "Recommendations for site development works".
Draft building regulations have been adhered to on this drawing.



RECEIVED
23 MAY 1991
CIVIL/0344
REG. SEC.

ref	date	amendments	by	chkd

ARCHITECT
ANDREW PURCELL

PROPOSED WAREHOUSE / OFFICES FOR NAT ROSS LTD / BEVERLY SMYTH.

SITE LAYOUT

scale 1 : 200

Rooney Associates
Consulting Structural and Civil Engineers

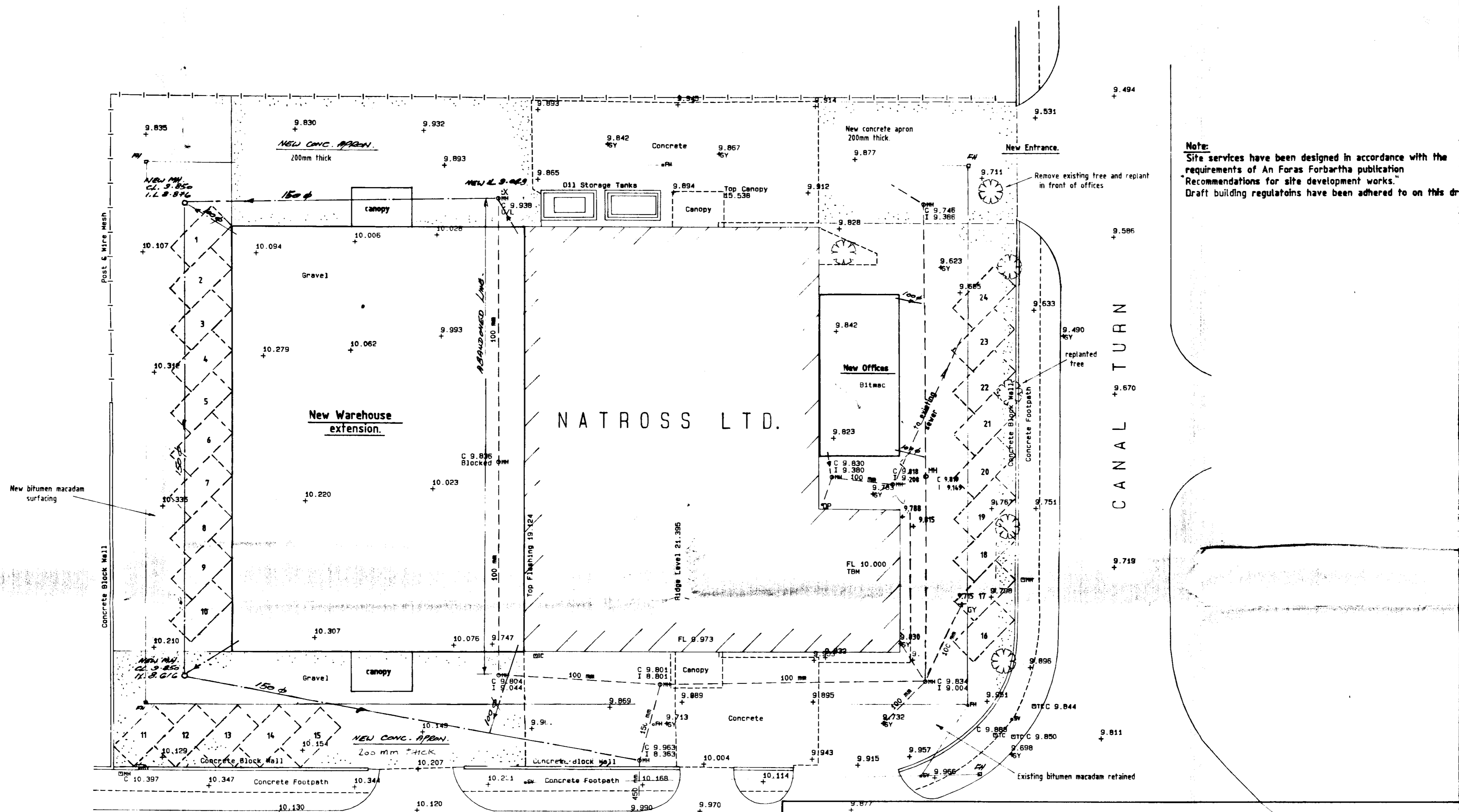
Telephone 01 543118 Fax 01 535922
091 63030 Fax 091 65150

date	drawn	checked	contract no.	drg no.	rev.
04.91	D.D.			91/15	01

LOCATION MAP. O.S. SHEET 17-15. SCALE: 1:2500

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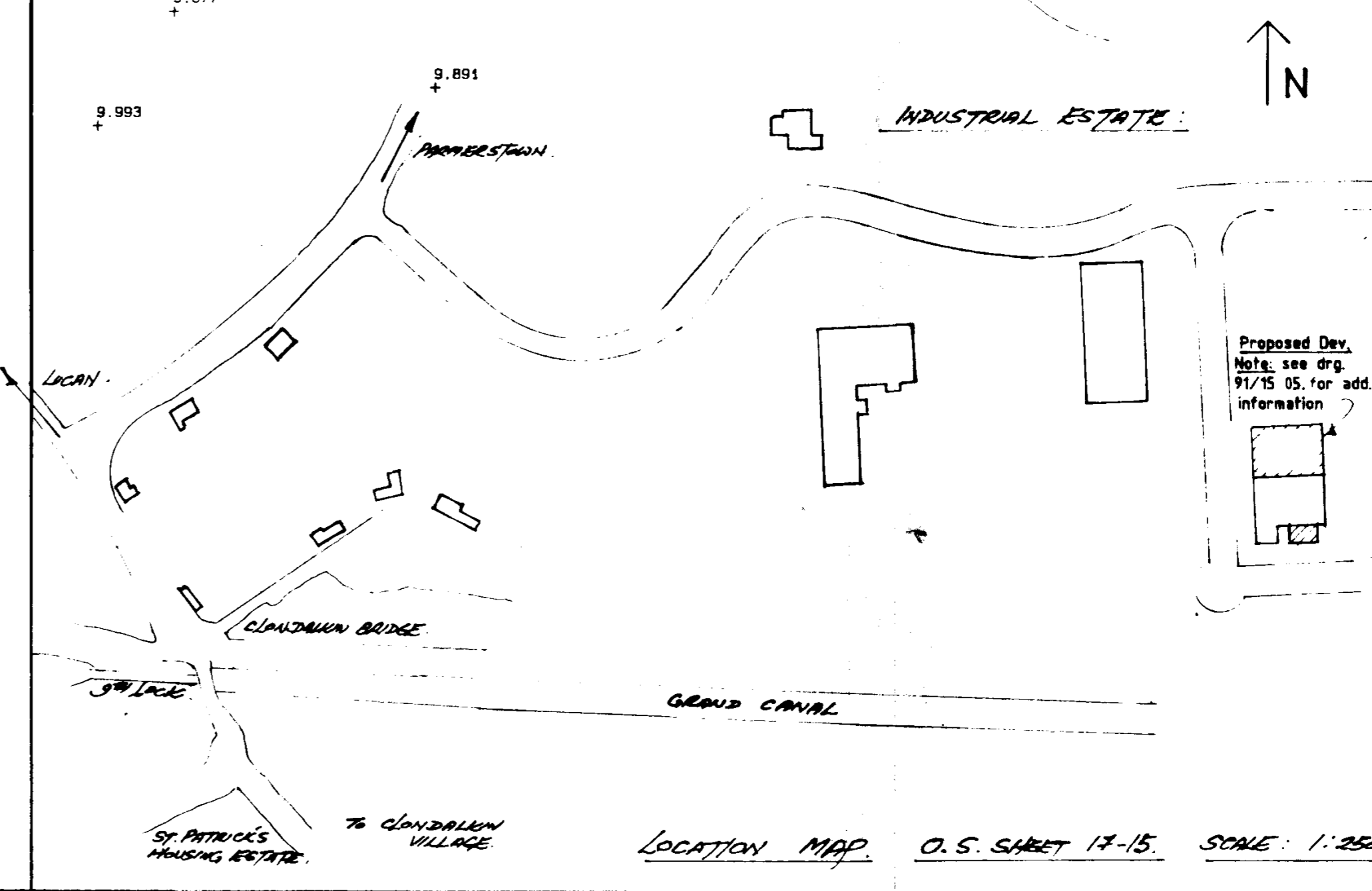
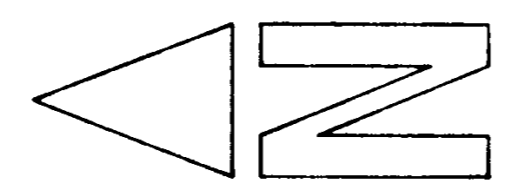
Note:
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 Draft building regulations have been adhered to on this drg.



12 AUG 1991
 REC. N. 91A 084
 APPLICATION TYPE: P/A/B/L
 NO. L.D.S.

C R A G T E R R A C E

I N D U S T R I A L E S T A T E



B	08/04	Car spaces 25,26 removed. Bitmac extended conc. apron added.	PKK
A	28.91	size of ext. rev. & car parking am.	D.D.
ref.	date	amendments	by

ARCHITECT
ANDREW PURCELL

PROPOSED WAREHOUSE / OFFICES FOR NAT ROSS LTD / BEVERLY SMYTH.

SITE LAYOUT

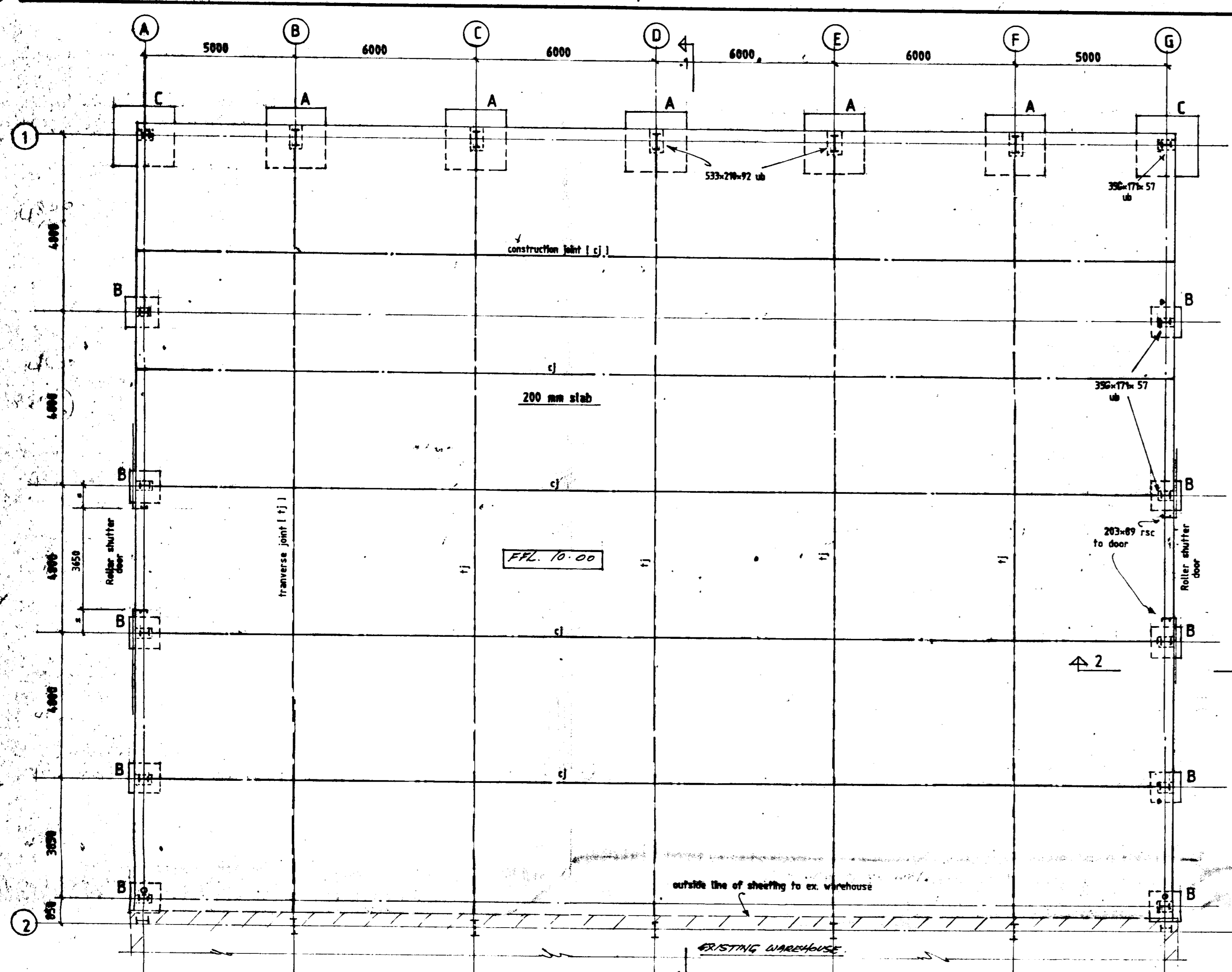
scale 1 : 200

Rooney Associates
 Consulting Structural and Civil Engineers

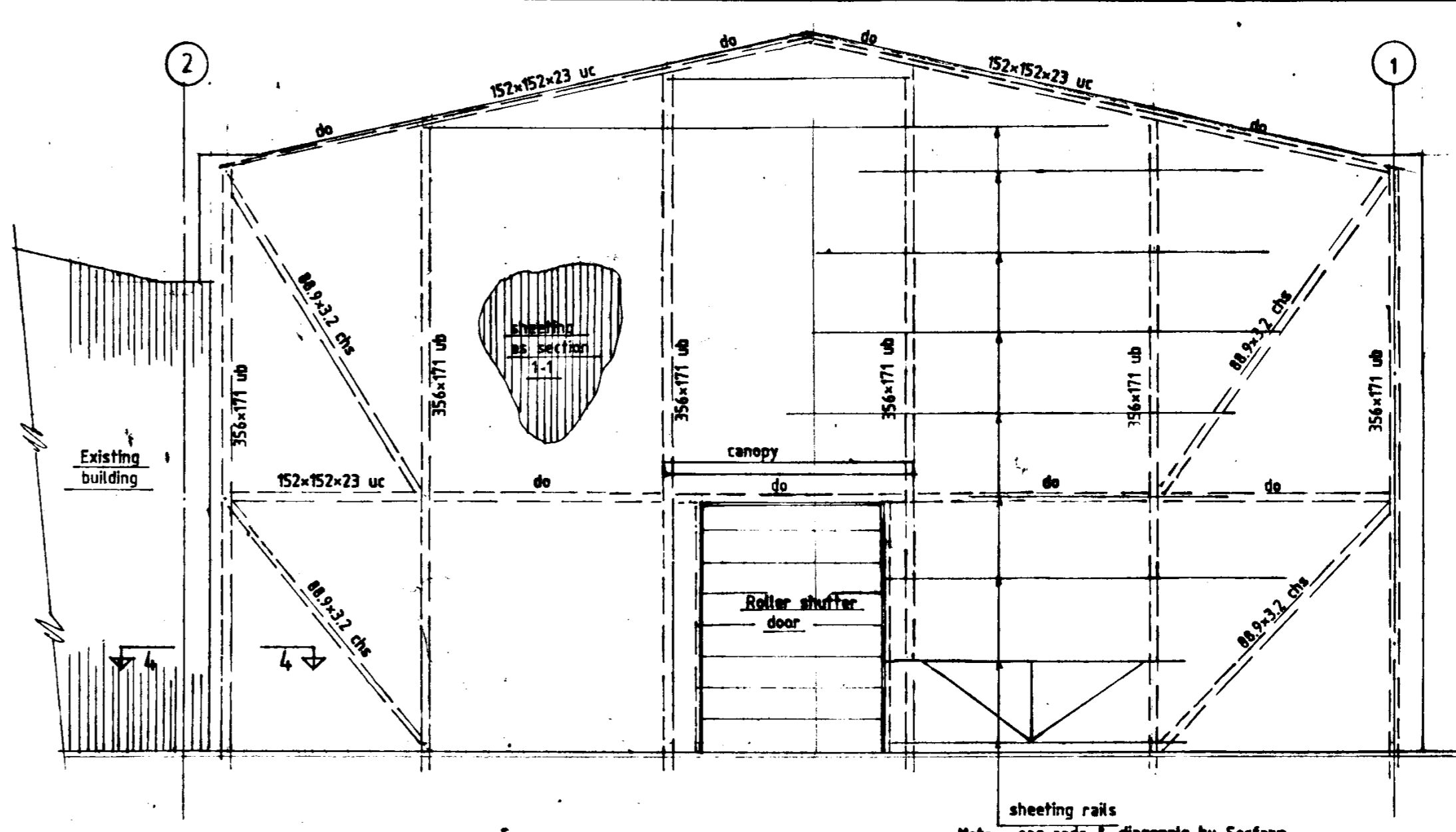
Telephone 01 543118 Fax 01 535922
 091 63030 Fax 091 65150

date	8.4.91	contract no.	01	rev	B
drawn	D.D.				
checked			91/15	01	B

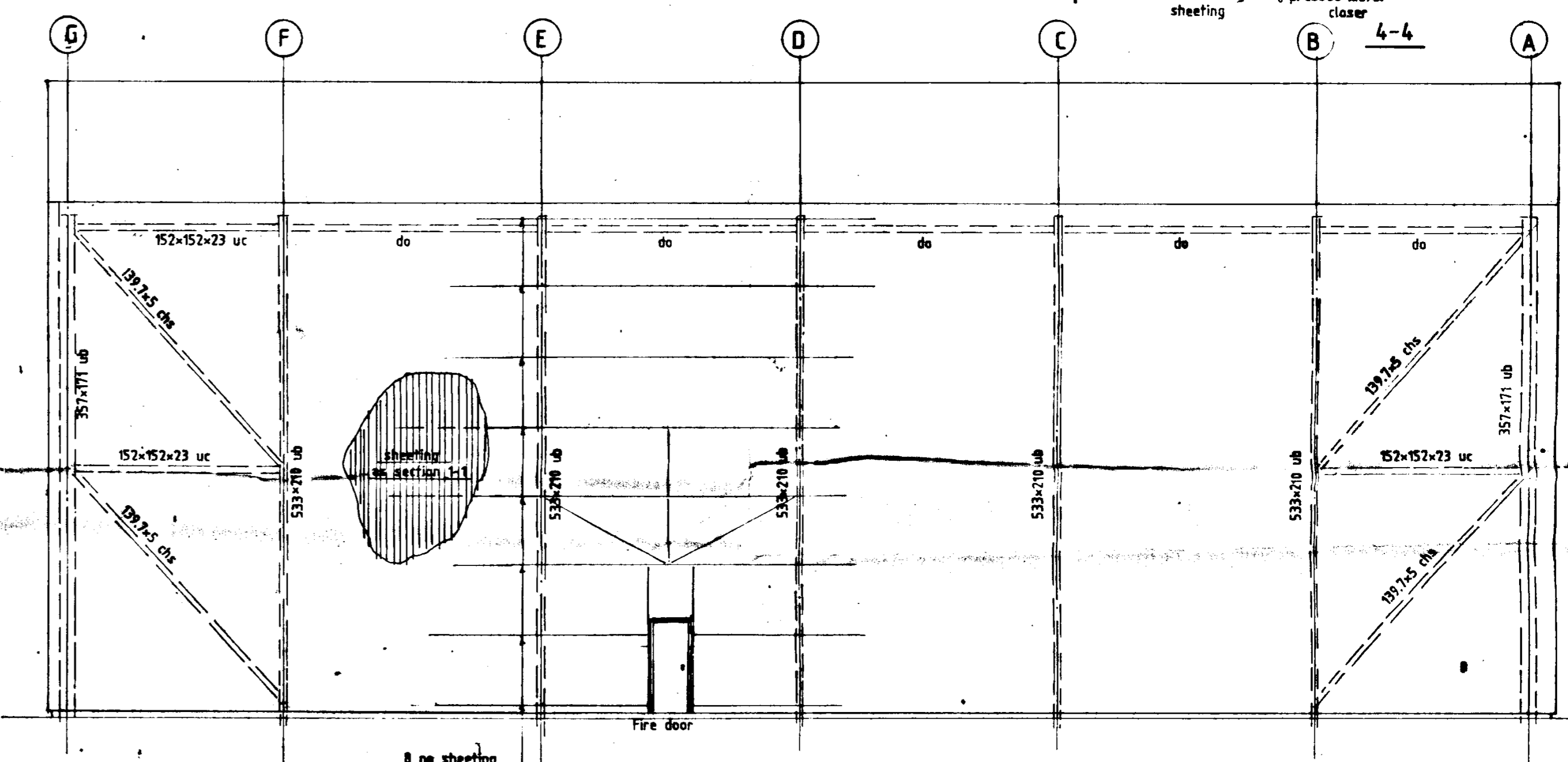
LOCATION MAP. O.S. SHEET 17-15. SCALE: 1:2500



GROUND FLOOR & FOUNDATION PLAN

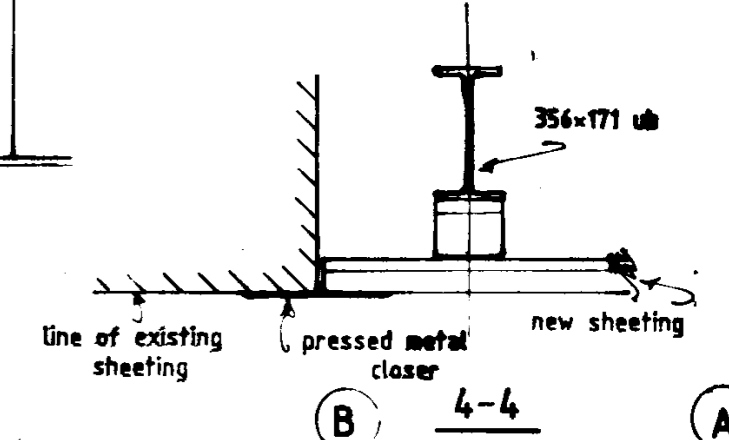


ELEVATION ON GRIDS A&G

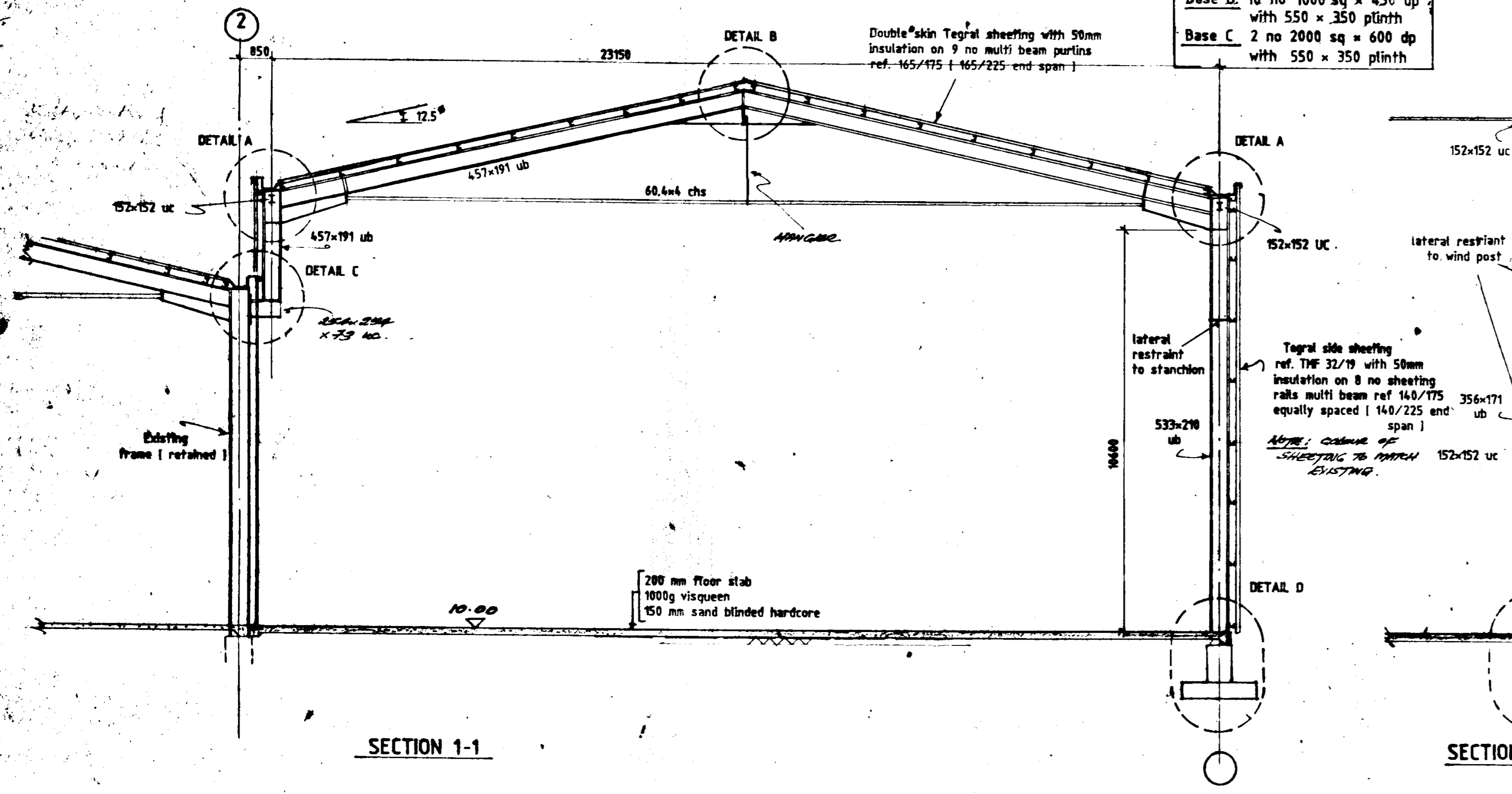


ELEVATION ON GRID 1

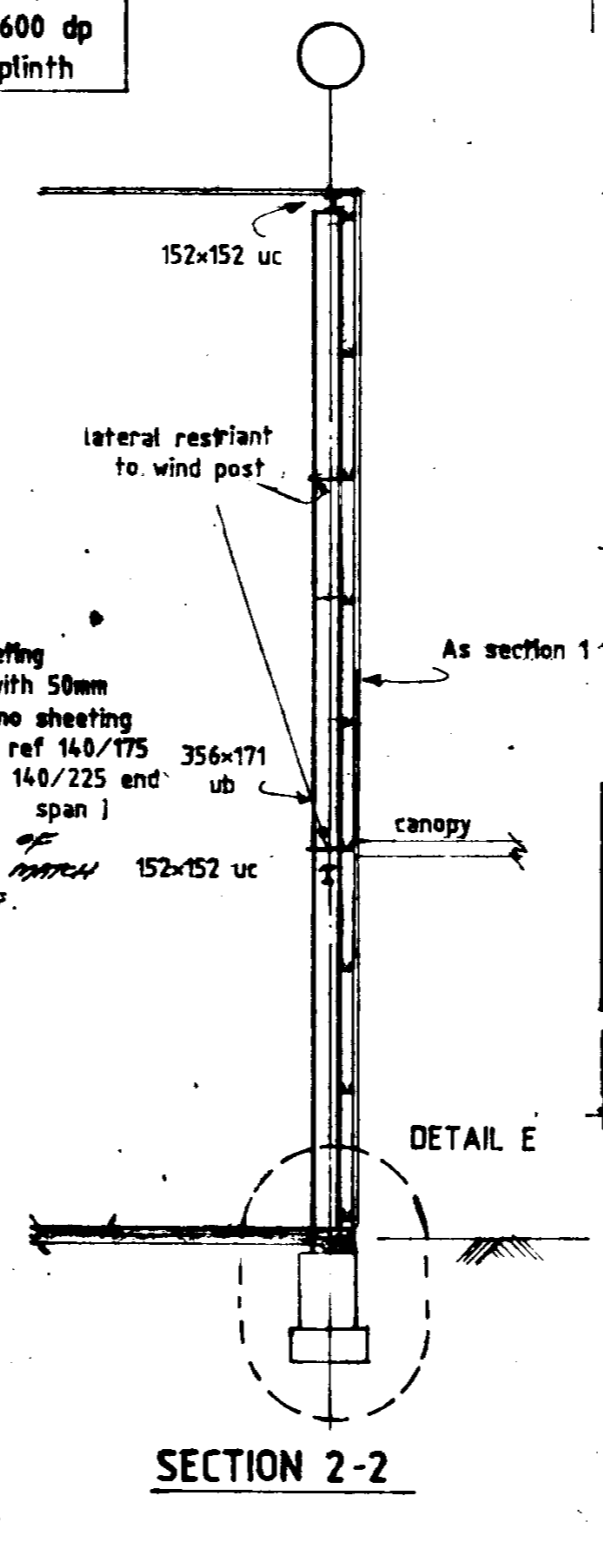
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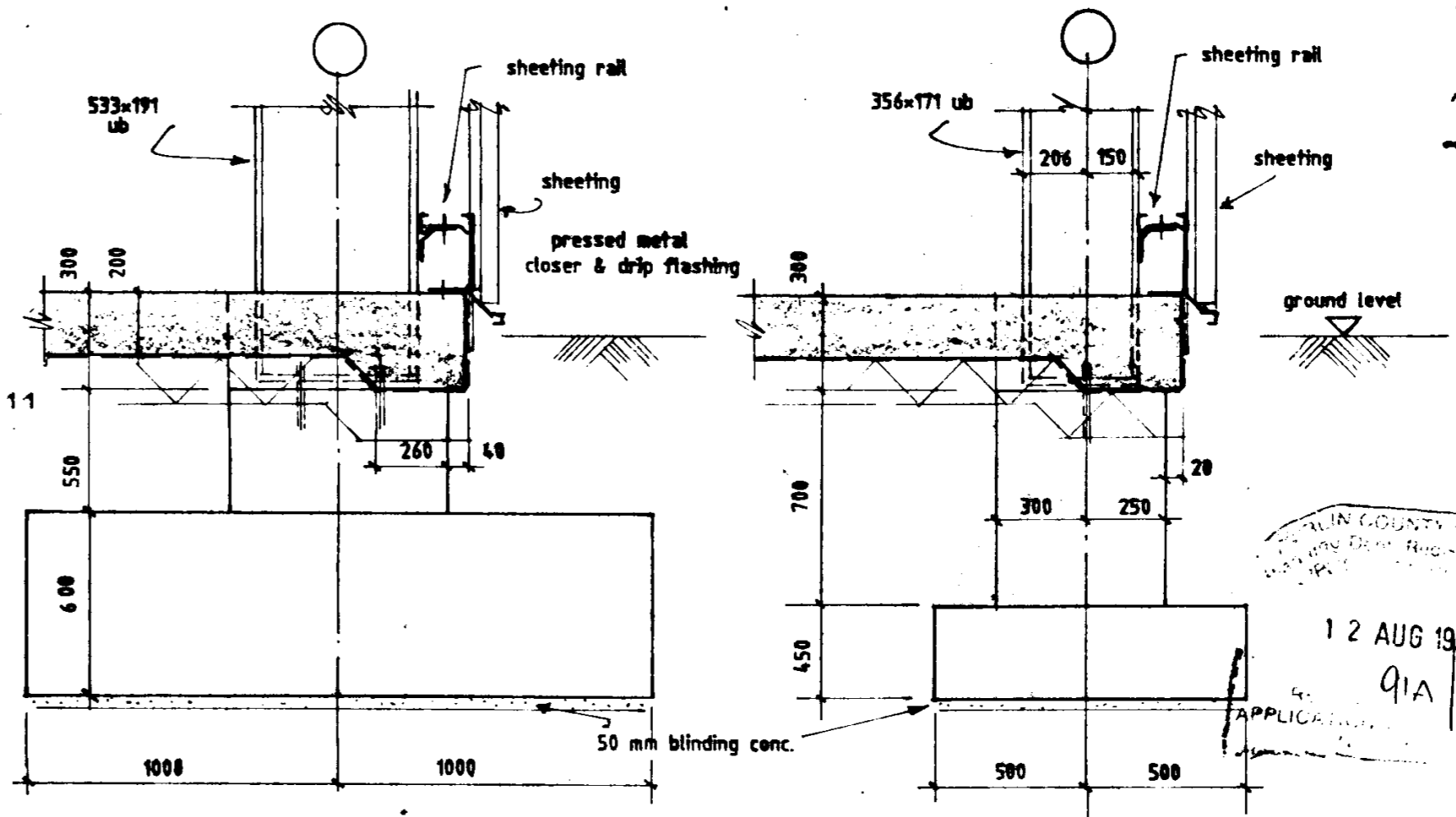
4-4



SECTION 1-1



SECTION 2-2



DETAIL D

DETAIL E

TYPICAL CONSTRUCTION JOINT

TYPICAL TRANSVERSE JOINT

- REINFORCEMENT QUANTITIES FOR OFFICES & WAREHOUSE :-
1. A1A2 MESH (TOP) IN 200mm x 150mm SLABS
 2. ALLOW 2.0 TONNES OF T12 & T10 FOR BASES, FINISHES & SLAB THICKENINGS

A	2.8.91	span of portal reduced	D.D.
ref	date	amendments	by chkd

ARCHITECT
ANDREW PURCELL
 PROPOSED WAREHOUSE / OFFICES FOR NAT ROSS LTD / BEVERLY SMYTH.
 GROUND FLOOR & FOUNDATIONS SECTION & ELEVATIONS

scale 1: 100 1:20

Rooney Associates
 Consulting Structural and Civil Engineers

Telephone 01 543118 Fax 01 535822
 091 63030 Fax 091 65150

date	13.4.91	contract no	drg no.	rev.
drawn	D.D.			
checked		91/15	03	A

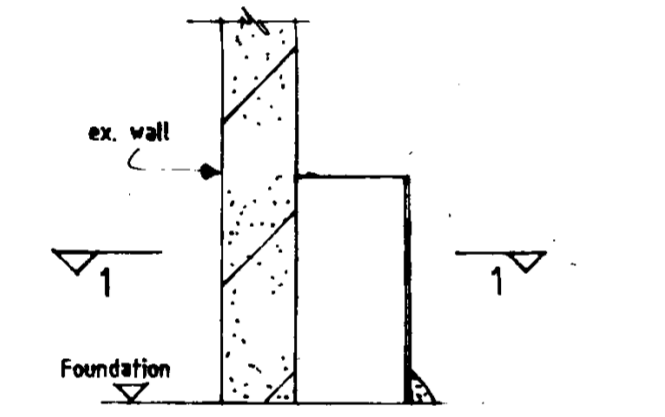
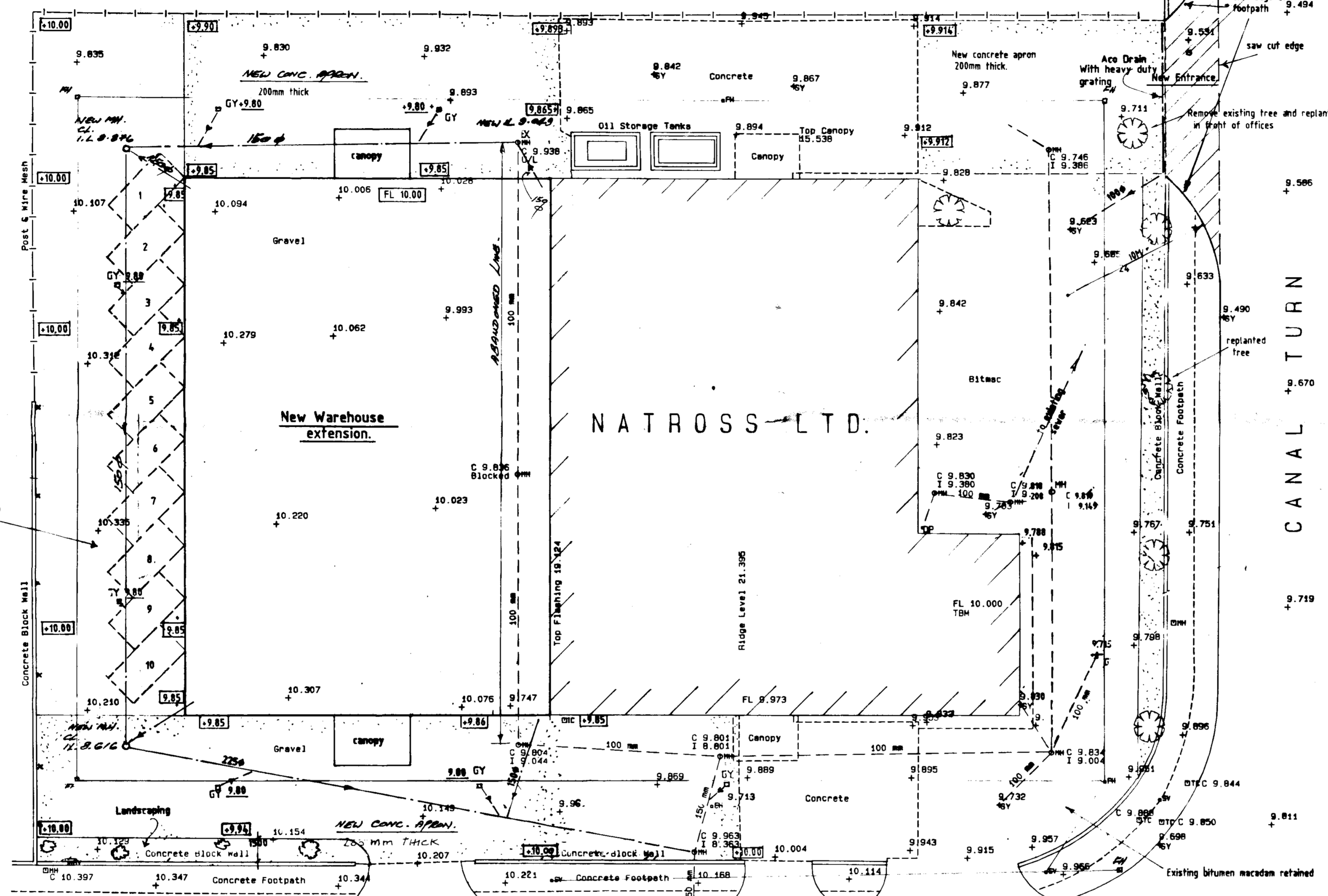
NOT FOR CONSTRUCTION

NOTES

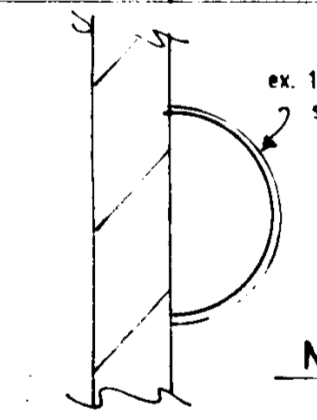
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*9.90 indicates new levels

Note: Site services have been designed in accordance with the requirements of An Foras Forbartha publication "Recommendations for site development works." Draft building regulations have been adhered to on this dr.

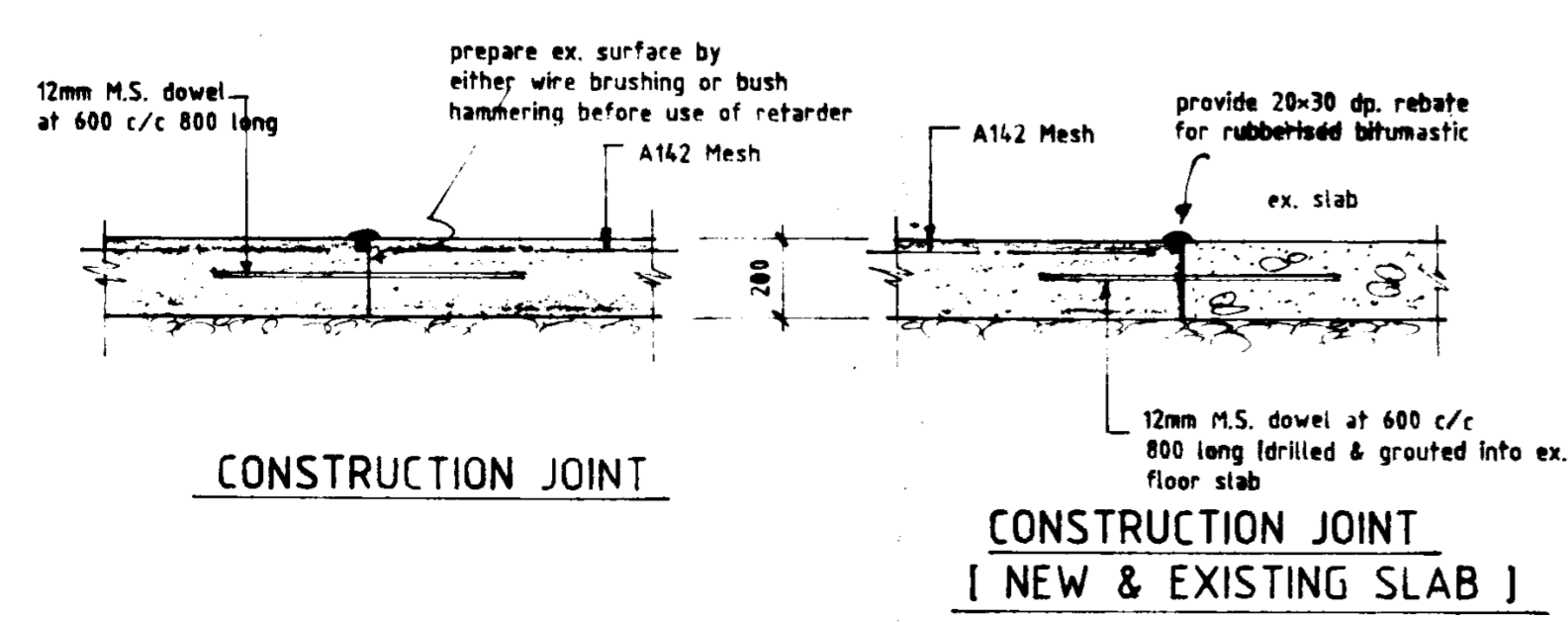


SECTION THRU WALL SHOWING PLANTER BOX, EX. 1/2 600 Ø PIPE



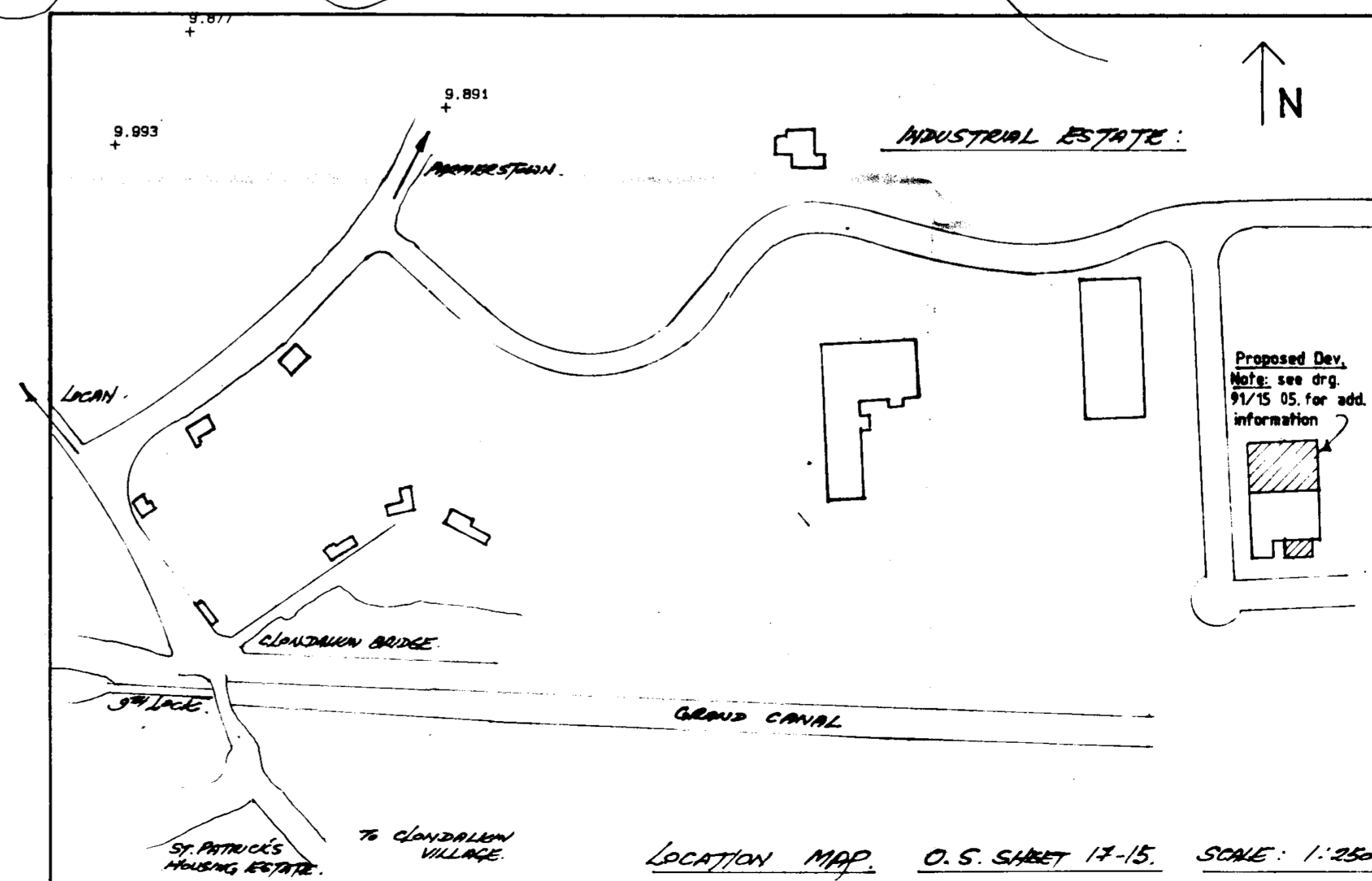
SECTION 1-1

NOTE x indicates position of planter box. (5no thus)



CONSTRUCTION JOINT

CONSTRUCTION JOINT [NEW & EXISTING SLAB]



LOCATION MAP. O.S. SHEET 17-15. SCALE: 1:2500

DUBLIN COUNTY COUNCIL
Planning Dept. Industry Section
APPLICATION RECEIVED
05 MAY 1992
REG No. 91A/84.

E	27.3.92	Car ramp added	(L.D.)
D	20.2.92	NEW levels, gullies & construction joints added	(D.D.)
C	11.2.92	New entrance rev. to DCC requirements	(D.D.)
B	28/28/91	Car spaces 25.26 removed. Bitmac extended. Conc. apron added.	(P.O.K.)
A	2.8.91	size of ext. rev. & car parking add.	(D.D.)
ref	date	amendments	by chkd

ARCHITECT
ANDREW PURCELL

PROPOSED WAREHOUSE FOR NAT ROSS LTD

SITE LAYOUT

scale 1 : 200

Rooney Associates
Consulting Structural and Civil Engineers

Telephone 01 543118 Fax 01 535922
091 63030 Fax 091 65150

date	8.4.91	contract no.	01
drawn	D.D.	draw no.	01
checked		date	91/15