PLANNING DEPARTMENT

R Gernon

BOOK FOLIO

1

(1) Date Lodged
21.11.91

LOCATION: Orlagh Estate, Scholarstown Road, Dublin 16 REG.REF. 91A/616

APPLICANT: Gannon Homes Ltd.

PROPOSAL: Single storey extension to rer of newsagent/grocery unit

APPLICATIONS TO BE CIRCULATED TO THE FOLLOWING:

ROADS

SANITARY SERVICES

CHIEF MEDICAL OFFICER

DEVELOPMENT PLAN TEAM

FIRE PREVENTION OFFICER

PARKS SUPERINTENDENT

VETERINARY OFFICER

NOTES N.O.S. Compliance on wall to side (C.F.)

REFER TO:

Senior Executive Development Controller R.C. 15-1-92

PLANNING DEPARTMENT BOOK FOLIO

(1) Date Lodged 21.11.91

LOCATION: Orlagh Estate, Scholarstown Road, Dublin 16 REG.REF. 91A/616

APPLICANT: Gannon Homes Ltd.

PROPOSAL: Single storey extension to rear of newsagent/grocery unit

(2) Date referred

ROADS DEPARTMENT OBSERVATIONS:

(for use by Planning Control Section)

(3) Rec'd Roads Department:

1) Application logged on Control Sheets....YES O/S

2) Type of application

a) full permission b) outline c) approval
d) added information e) compliance with conditions

(4) Dispatched by Roads Dept:

3) Details provided

a) North point, b) Adequate location map, c) Site outlined

4) Effect on proposal by road reservations

a) Site affected by road reservations. Directly/Indirectly

b) Reservation(s) shown. Correctly/Incorrectly/Approx.

(5) Rec'd Planning

c) Details of other roads proposals nearby

5) Previous planning history

a) Applications to Local Authority:

Reg.Refs.:

Date Lodged:

(6) Date to Planner

b) Applications to An Bord Pleanala

Reg.Refs.:

Decision Dates:

(7) D.P.O. report to be submitted before:

Site observations Access.....

Margin width: Front.....Side.....

(9) Decision due:

Carriage width.....Footpath.....

Relocate poles/service Pipe Ditches

Construct footpath.....Kerbs.....

(8) D.P.O. Report submitted to S.A.O.:

Endorsed; DATE:

COMMENTS:.....

.....

.....

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

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

Telephone: 773066

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

Telephone: 724755
Extension: 231/234

22nd November, 1991

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

LOCATION: Orlagh Estate, Scholarstown Road, Dublin 16

PROPOSED DEVELOPMENT: Single-storey extension to rear of newsagent/grocery unit

APPLICANT: Gannon Homes Ltd.

PLANNING REG.REF.: 91A/616

DATE OF RECEIPT OF SUBMISSION: 21st November, 1991

A Chara,

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

Compliance with Conditions

Mise, le meas

A. Smith

PRINCIPAL OFFICER

Conroy Crowe Kelly, Architects,
26 Kingram Place,
Fitzwilliam Square,
Dublin 2.

C O N R O Y C R O W E K E L L Y
A R C H I T E C T S
26 KINGRAM PLACE, FITZWILLIAM SQUARE, DUBLIN 2 613990 613991 Fax 765715

BARRY CONROY Dip Arch
MICHAEL CROWE BArch
DANIEL KELLY BArch

91A/616
1.2.6
Lemk

Our Ref: 9002 DK/AK.

Planning Office,
Dublin County Council,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

URGENT: ATTENTION: MS. MARJORIE O'SHEA.

20th November, 1991.

RE: COMPLIANCE WITH CONDITION.

SINGLE STOREY EXTENSION TO REAR OF NEWSAGENT / GROCERY UNIT
AT ORLAGH ESTATE, SCHOLARSTOWN ROAD, DUBLIN 16.
REGISTER REF: 91A/0616

Dear Ms. O'Shea,

We wish to make a submission to comply with Condition 07 of the above permission. We enclose the following information in quadruplicate:

1. Architects drawing : 9002 D 117.

2. Engineers drawing : E-223-SK-02.

The condition calls for an increase of the existing low garden wall to 2 meters in height. As this wall is only 100mm thick, this is not possible for structural reasons and as such we propose to build a new 215mm thick wall against it on our side on suitable foundations. We consider that this can be done successfully.

The new 2 meter high section has been increased in length somewhat from the 5 meter length suggested. This is to maximize the screening effect to No. 5 Orlagh Grove while maintaining visibility for cars leaving the carpark.

We trust the above is satisfactory.

Yours sincerely,

Daniel Kelly

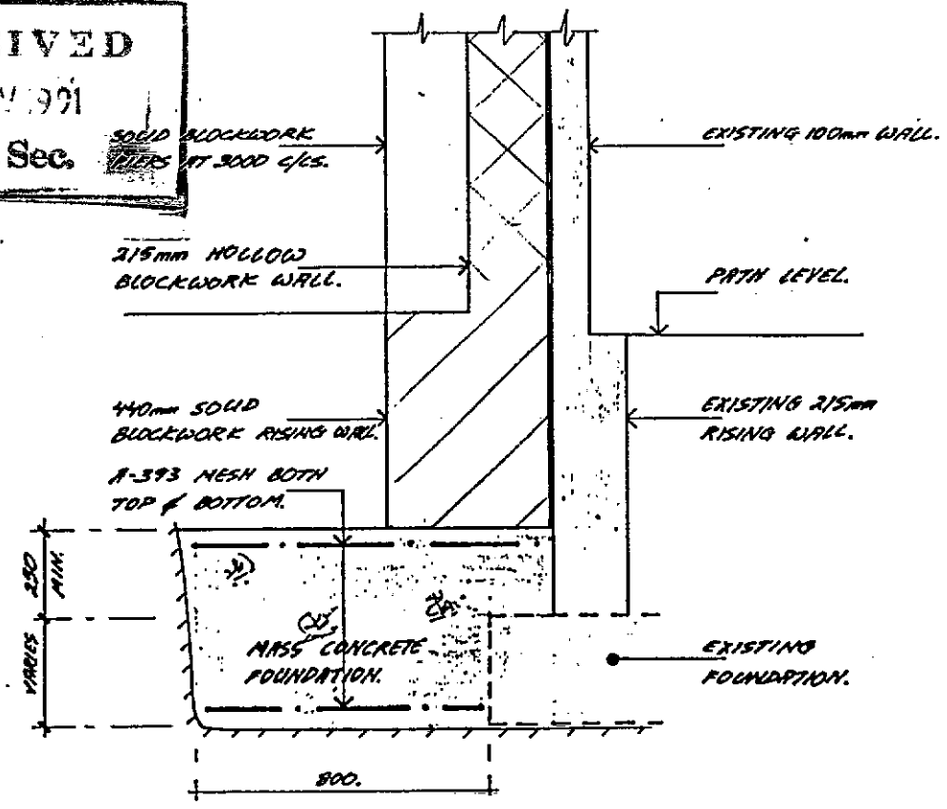
Daniel Kelly.

CONROY CROWE KELLY ARCHITECTS.

Encs

91A/616

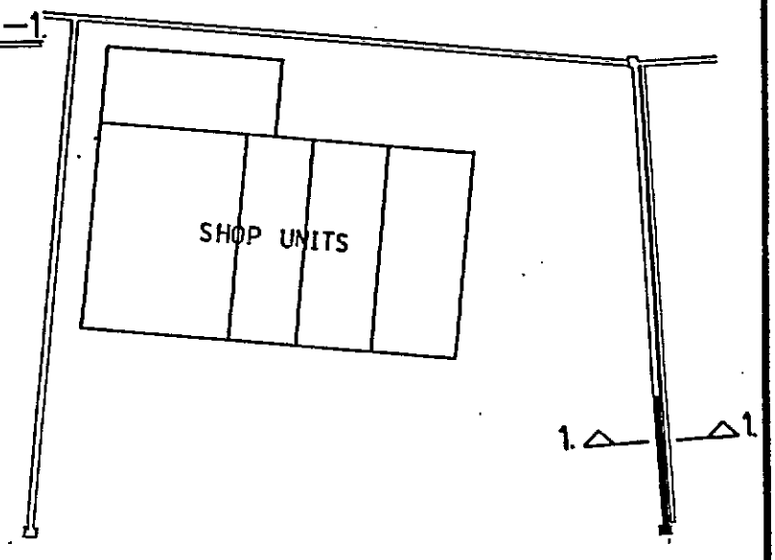
RECEIVED
29 NOV 1991
Reg. Sec.



SECTION 1–1

NOTES

1. CONCRETE TO BE GRADE 30N/20.
2. 450mm RISING WALL TO BE BUILT TIGHT AGAINST EXISTING RISING WALL, ANY GAP BETWEEN NEW AND EXISTING TO BE FULLY GROUTED.
3. COVER TO REINFORCEMENT TO BE 50mm.
4. FOR DETAILS OF BOUNDARY WALL SEE (OPTION 1) ON DRG NO. E-223-08.



SCHOLARSTOWN ROAD

KEY PLAN

JOHN MOYLAN & ASSOCIATES CONSULTING ENGINEERS 79 MERRION SQUARE, DUBLIN 2 TEL. NO. 615337/612475 FAX NO. 610255	PROJECT: PROPOSED SHOP UNITS AT SCHOLARSTOWN ROAD.		SCALE: 1:500, 20.
	TITLE: BOUNDARY WALL DETAILS.		DATE: NOV. 91.
	JOB NO: E-223.	SKETCH NO: 02.	DRAWN:

Dublin County Council Comhairle Chontae Atha Cliath **Planning Department**

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

NOTIFICATION OF DECISION TO GRANT PERMISSION
LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT)ACTS 1963-1990.

Decision Order Number : P/ 2616 /91 Date of Decision : 12th June 1991

Register Reference : 91A/0616 Date Received : 18th April 1991

Applicant : Gannon Homes Ltd

Development : Single storey store/toilets extension to the rear of the Newsagent/Grocery in the already approved shopping development

Location : Orlagh Estate, Scholarstown Road, Rathfarnham

Time Extension(s) up to and including :

Additional Information Requested/Received : //

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 in respect of the above proposal.

Subject to the Conditions on the attached Numbered Pages.

NUMBER OF CONDITIONS:- 10 ATTACHED.

Signed on behalf of the Dublin County Council.....
for Principal Officer

Date: 13/6/91

Conroy Crowe Kelly,
26 Kingram Place,
Dublin 2.

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

Reg.Ref. 91A/0616
Decision Order No. P/ 2616 /91

C O N D I T I O N S / R E A S O N S

01 That a development to be carried out in its entirety in accordance with the plans, particulars and specification lodged with the application, as amended by submission received on 23rd April, 1991, save as may be required by the other conditions attached hereto.
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 Acts, 1878-1964.

03 The development shall be carried out in conformity with conditions nos. 4 to 8 (inclusive) of planning permission granted under Ref. PL 6/5/82396 Reg. Ref. 89A-0236, dated 9th January, 1991, save as amended conform with the revisions indicated in the plans lodged with the Dublin County Council in connection with this application.

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

04 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.

05 That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.
REASON: In the interest of health.

06 That 3 no. additional off street car parking spaces be provided at the front of the proposed development so that a total of 20 no. off street car parking spaces are provided in connection with the proposed development.

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

07 That the existing boundary wall (c. 3 feet in height) which forms part of the existing southern boundary of the site is to be increased in height to 2 metres and for approx. 5 metres and then gradually reduced from 2 metres to the height of the existing front boundary wall, as it approaches the front boundary wall. This wall is to match the existing 2 metre high wall which forms part of this boundary and is to be suitably capped and rendered. Details are to be agreed with the Planning Department prior to the commencement of development.

07 REASON: In the interest of the proper planning and development of the

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

area.

08 The proposed store not to be used for retail purposes.
REASON: To prevent overdevelopment of the site.

09 That arrangements be made with regard to the payment of the financial contribution in the sum of £3,000 required by condition no. 2 of the planning permission granted under Reg. Ref. 89A-0236. The arrangements to be made prior to the commencement of this proposal.

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

10 That arrangements be made with regard to payment of the financial contribution in the sum of £3,400 as required by condition no. 3 of the planning permission granted under Register Reference 89A-0236. The arrangements to be made prior to the commencement of this proposal.

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

NOTE: Compliance with one or more of the conditions of this permission may result in material alterations to the development as initially proposed and, accordingly, may require the submission of a further planning application.

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

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

Telephone: 773066

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

Telephone: 724755
Extension: 251/234

29 May 1991

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

LOCATION: Orlagh Estate, Scholarstown Road

PROPOSED DEVELOPMENT: Extension to rear of newsagent, grocery and minor alterations to butcher

APPLICANT: Gannon Homes

PLANNING REG.REF.: 91A/0616

DATE OF RECEIPT OF SUBMISSION: 14 May 1991

A Chara,

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

Building Bye Law Approval.

Mise, le meas

A. Smith

PRINCIPAL OFFICER

Conroy Crowe Kelly,
26 Kingram Place,
Dublin 2.

Dublin County Council
Comhairle Chontae Atha Cliath

~~Planning Application For~~
Bye - Law Application For

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

1. Application for Permission ☐ Outline Permission ☐ Approval ☑ Place / in appropriate box. BYE LAWS.
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 ORLAGH ESTATE. SCHARSTOWN ROAD
(If none, give description sufficient to identify) DUBLIN 16

3. Name of applicant (Principal not Agent) GANNON HOMES

Address 68 AMIENS STREET DUBLIN 1 Tel. No. 366800

4. Name and address of person or firm responsible for preparation of drawings CONROY CROWE KELLY, 26 KINGRAM PLACE, DUBLIN 2 Tel. No 613990

5. Name and address to which notifications should be sent AS No 4.

6. Brief description of proposed development SINGLE STOREY EXTENSION TO REAR OF NEWSAGENT GROCERY. AND MINOR INTERNAL ALTERATIONS TO BUTCHER.

7. Method of drainage PUBLIC MAIN 8. Source of Water Supply PUBLIC MAIN.

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

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 1620 Sq. m.

(b) Floor area of proposed development ~~N/A.~~ 59.6. Sq. m.

(c) Floor area of buildings proposed to be retained within site / Sq. m.

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

BYE LAW APPLICATION:
REC. No. N 39277

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

£ 278.60

14. Please state the extent to which the Draft Building Regulations have been taken in account in your proposal:
AS FAR AS PRACTIBLE

15. List of documents enclosed with application.
SEE ACCOMPANYING LETTER.

16. Gross floor space of proposed development (See back) 59.6 Sq. m.

No of dwellings proposed (if any) NONE Class(es) of Development 4

Fee Payable £ 278.60 Basis of Calculation 59.6 x 3.5 + £70 for alteration to Butcher unit

If a reduced fee is tendered details of previous relevant payment should be given

Signature of Applicant (or his Agent) Daniel P. Hall Date 12/05/1991.

FOR OFFICE USE ONLY

Application Type

Register Reference 91A/0616

Amount Received £ 14/5

Receipt No 2.1622

Date BBL

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.

PLANNING APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
1.	Provision of dwelling — House/Flat.	£32.00 each
2.	Domestic extensions/other improvements.	£16.00
3.	Provision of agricultural buildings (See Regs.)	£40.00 minimum
4.	Other buildings (i.e. offices, 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 m² (min £40.00)
10.	Electricity transmission lines.	£25.00 per 1,000m (Min. £40.00)
11.	Any other development.	£5.00 per 0.1 ha (Min. £40.00)

BUILDING BYE-LAW APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
A	Dwelling (House/Flat)	£55.00 each
B	Domestic Extension (improvement/alteration)	£30.00 each
C	Building — Office/ Commercial Purposes	£3.50 per m² (min. £70.00)
D	Agricultural Buildings/Structures	£1.00 per m² in excess of 300 sq. metres (min. - £70.00) (Max. - £300.00)
E	Petrol Filling Station	£200.00
F	Development or Proposals not coming within any of the foregoing classes.	£9.00 per 0.1 ha (£70.00 min.)
		Min. Fee £30.00
		Max. Fee £20,000

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 ÁTHA CLIATH

PAID BY — DUBLIN COUNTY COUNCIL
46/49 UPPER O'CONNELL STREET,
DUBLIN 1.

BYE LAW APPLICATION.

CASH
CHEQUE
M.O.
B.L.
I.T.

REC. No. N 39277

£278.60

Received this 14th day of May 1991

from Gannon Homes Ltd

58 Amiens Street, Dublin 1

the sum of two hundred and seventy eight Pounds

sixty Pence, being Bye Law

application at Oldtown Estate Skerries road

Michael O'Hora Cashier

S. CAREY
Principal Officer

CONROY CROWE KELLY
ARCHITECTS
26 KINGRAM PLACE, FITZWILLIAM SQUARE, DUBLIN 2 613990 613991 Fax765715

BARRY CONROY Dip Arch
MICHAEL CROWE B.Arch
DANIEL KELLY B.Arch

Our Ref: 9002 DK/AK.

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

13th May, 1991.

RE: PROPOSED SINGLE STOREY EXTENSION TO REAR OF NEWSAGENT/GROCERY UNIT IN PREVIOUSLY APPROVED DEVELOPMENT AT ORLAGH ESTATE, SCHOLARSTOWN ROAD, RATHFARNHAM, DUBLIN 16 FOR GANNON HOMES LTD. MINOR INTERNAL ALTERATION TO BUTCHER'S UNIT.

REGISTER REFERENCE RELATING TO THIS APPLICATION: 91A/616.
PREVIOUS REGISTER REFERENCE: 89A/236.

Dear Sirs,

On behalf of our clients Gannon Homes Ltd., we wish to apply for Building Bye Law Approval for the single storey extension to the rear of the newsagents/grocery unit at the above development. We also wish to apply for minor alterations to Butcher's unit (omitting wall and substituting R.C. beam between shop and store).

We enclose the following information in duplicate.

Architects Drawings:

9002 D 100 Rev. B 9002 D 110 Rev. A
9002 D 105 Rev. C 9002 D 111 Rev. A

RECEIVED
14 MAY 1990
91A/0616

Engineers Drawings:

E223 101 E223 103
E223 102 E223 107.

Civil and Structural Specification.

Outline Structural Calculations.

Engineers Certificate.

Cont'd/.....

Application fee in the sum of £208.60 relating to the extension.

Application fee in the sum of £70 relating to the alterations to the Butchers shop.

Completed Application Form.

If you need any further clarification please phone.

Yours faithfully,

Daniel Kelly.

CONROY CROWE KELLY ARCHITECTS.

cc Gannon Homes Ltd.
John Moylan & Associates.

JOHN MOYLAN & ASSOCIATES Consulting Engineers

79 Merrion Square,
Dublin 2.

Telephone: (01) 615337/612475.
Facsimile: (01) 610255.

The Chief Planning Officer
Dublin Co. Council,
Block 11,
Irish Life Centre,
Lower Abbey Street,
Dublin 1.

Your Ref.

Our Ref E-223/JM

10th May 1991

Re: Proposed Shop Units at Scholarstown Road, Rathfarnham
For Gannon Homes Ltd.

Dear Sirs,

We wish to advise that we have been appointed civil and structural consulting engineers in connection with the above development.

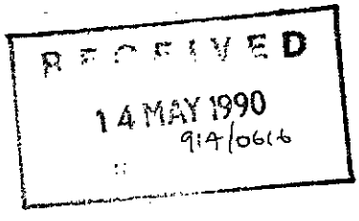
We confirm that all works of a civil and structural content will be designed at this office in accordance with the relevant updated Irish and British Standards and Codes of Practice.

If the job proceeds and if we are engaged to do so the structural works will be supervised by periodic visits to the site in the manner normal to consulting engineers. The frequency of such visits will depend on the apparent need for supervision as the job proceeds.

Yours faithfully,

John Moylan

John Moylan
John Moylan & Associates.



PROPOSED SHOP UNITS

AT

SCHOLARSTOWN ROAD, RATHFARNHAM

CO. DUBLIN

FOR

[illegible]NNON HOMES LTD.

OUTLINE STRUCTURAL CALCULATIONS

John Moylan & Associates,
Consulting Engineers,
79, Merrion Square,
Dublin 2.

Tel Nos. (01) 615337/612475
Fax No. (01) 610255

May 1991

CONTRACT: SCHOLARSTOWN MAO			JOB NO : 6223
CALCULATION INDEX			SHEET NO : 02
DRG NO :	DESIGN :		DATE :

DESIGN INFORMATION

CLIENT	GANNON HOMES
ARCHITECT	CONROY CROWE KELLY
ENGINEER	JOHN MAYCAN & ASSOCIATES
DESIGN CODES	BS 8110, IS 325, IS 193
INTENDED USE OF STRUCTURE	SHOPS AND OFFICES
FIRE RESISTANCE REQUIREMENTS	AS PER ARCHITECTS REQUIREMENTS
GENERAL LOADING CONDITIONS	FLOOR LIVE — 5.0 kN/m^2
WIND LOADING CONDITIONS	BASIC WIND SPEED 44 ms^{-1}
EXPOSURE CONDITIONS	EXTERNAL MODERATE INTERNAL MILD
SUBSOIL CONDITIONS	BEARING PRESSURE OF 150 kN/m^2
FOUNDATION TYPE	PAD AND STRIP FOOTINGS
CONCRETE REINFORCEMENT	f_{cu} = 30 N/mm^2 f_y = 460 N/mm^2

CONTRACT: SCHOLARSTOWN RD			JOB NO : E223
			SHEET NO : 02
DRG NO :	DESIGN :		DATE :

STRUCTURAL PROPOSAL

THE BASIC STRUCTURAL FORM OF THE PROPOSED DEVELOPMENT CONSISTS OF PREFABRICATED PRE-STRESSED ON LOAD BEARING BLOCKWORK AT PODIUM LEVEL WITH PRECAST FLOOR UNITS AT FIRST FLOOR AND GROUND FLOOR LEVEL AGAIN SUPPORTED ON LOAD BEARING BLOCKWORK. REINFORCED CONCRETE BEAMS AND COLUMNS ARE USED WHERE APPROPRIATE TO FRAME OUT AREAS OF BLOCKWORK OPENED UP FOR SHOP FRONTS AND ACCESS TO AN ENLARGED SHOPPING AREA IN THE NEWSAGENT / GROCERY UNIT.

A SUSPENDED GROUND FLOOR SLAB WAS SPECIFIED TO AVOID DEEP FILLING UP TO THE FLOOR LEVEL REQUIRED FOR DRAINAGE / MANHOLE LEVELS.

ALL STRUCTURAL ELEMENTS WILL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE RELEVANT CODES OF PRACTICE TO ENSURE A ROBUST AND TOTALLY INTEGRATED STRUCTURE.

CONTRACT: SHOP UNITS SCHOLARSTOWN ROAD.	JOB NO: E223.
LOADING	SHEET NO: 08
DRG NO: / DESIGN:	DATE:

GROUND FLOOR

DEAD	kN/m²		kN/m²
250 SLAB	3.6	200 SLAB	2.8
75 SCREED	1.8		1.8
LEVELLING SCREED	0.3		0.3
TOTAL DEAD	5.7		4.9
LIVE	5.0		5.0
TOTAL DEAD + LIVE	10.7		9.9

FOR SLAB DESIGN – DEDUCT SLAB SELF WT.

APPLIED D+L	7.1		7.1

FIRST FLOOR

AS ABOVE BUT INCLUDE AN ADDITIONAL 0.3 FOR CEILING & SERVICES.

	250 DEEP kN/m²	200 DEEP kN/m²
DEAD	6.0	5.2
LIVE	5.0	5.0
TOTAL D+L	11.0	10.2
APPLIED D+L (EXC. SLAB SELF WT)	7.4	7.4

CONTRACT:		JOB NO:
SHOP UNITS - SCHOLARSTOWN ROAD		E223
CLADDING CONTR. + SLAB DESIGN.		SHEET NO: 01
DRG NO:	DESIGN:	DATE:

AT FIRST FLOOR LEVEL -

EXTERNAL WALL AREA

SAY TOTAL LOAD IS AS

FOR TYPICAL FLOOR.

PRECAST FLOOR SLAB DESIGN

REFERENCE TO BRETON SPAN LOAD TABLES.

(1) 250 DEEP SLABS.

MAX SAFE LOAD FOR 9.5 m SPAN 8.4 kN/m²

MAXIMUM SPAN 9.45 m

REQUIRED LOAD 7.4 kN/m²

⇒ 250 DEEP SLAB IS OK.

(2) 150 DEEP SLABS.

MAX SAFE LOAD FOR 6.0 m SPAN 6.8 kN/m² WITHOUT SCREED

MAXIMUM SPAN 5.9 m 9.2 kN/m² WITH 50 STRUCTURAL SCREED

REQUIRED LOAD 7.1 kN/m²

⇒ 150 DEEP SLABS IS OK.

(3) 200 DEEP SLABS

BY SELECTION FROM 150 SLABS ABOVE

THE 200 DEEP SLABS ARE ALSO OK.

UNIT DEPTH	STRUCTURAL SCREED DEPTH IN MM	ULTIMATE BENDING MOMENT KNm	ULTIMATE SHEAR KN	SAFE SUPERIMPOSED (SERVICE LOADS) Kn/mm2 (EXCLUDING SELF WEIGHT)														
				SPANS IN METRES														
				3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
110	--	41.7	85.5	16.8	11.8	8.5	6.3	4.7	3.6									
110	50	67.6	85.5			13.0	9.5	6.5	4.5	2.5								
150	--	76.3	93.2			17.5	13.6	10.7	8.5	6.8	5.5	4.4						
150	50	106.1	93.2				18.5	14.6	11.5	9.2	7.2	5.5	4.0					
200	--	143.9	96.7					17.8	16.0	13.7	11.3	9.5	8.0	6.7	5.7	4.8		
200	50	184.8	96.7							13.4	12.0	11.0	10.0	8.7	7.3	6.0	5.2	4.3

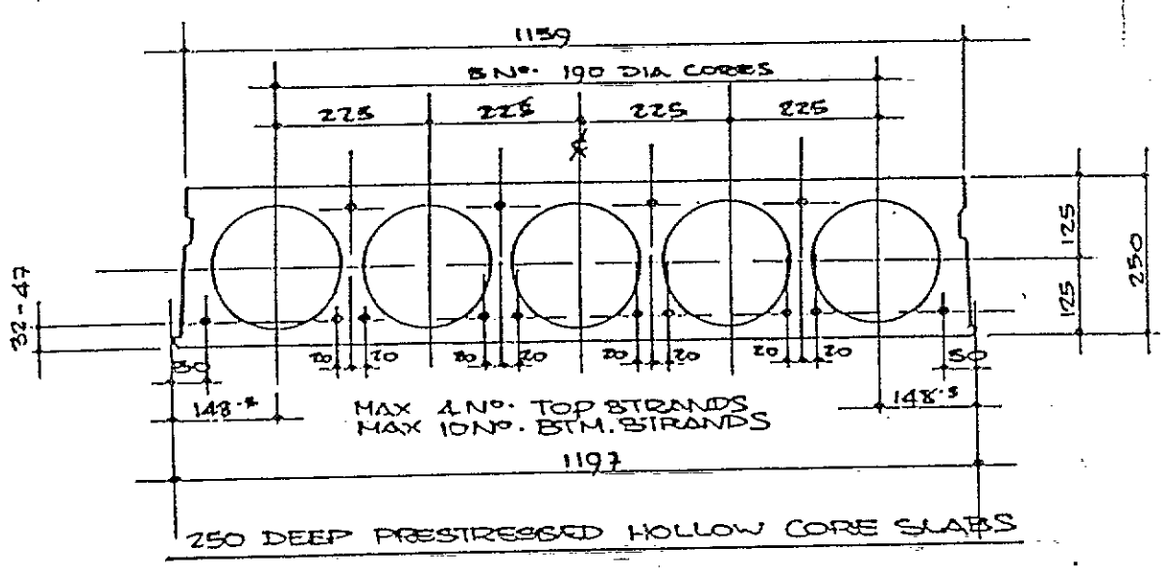
NOTES: 1) Ultimate moment and shear capacities are calculated for a standard unit 1200mm wide.

2) When the screed is acting compositely with the precast unit the self weight allowed for in above tables includes the weight of the screed.

250mm HOLLOWCORE SLABS.

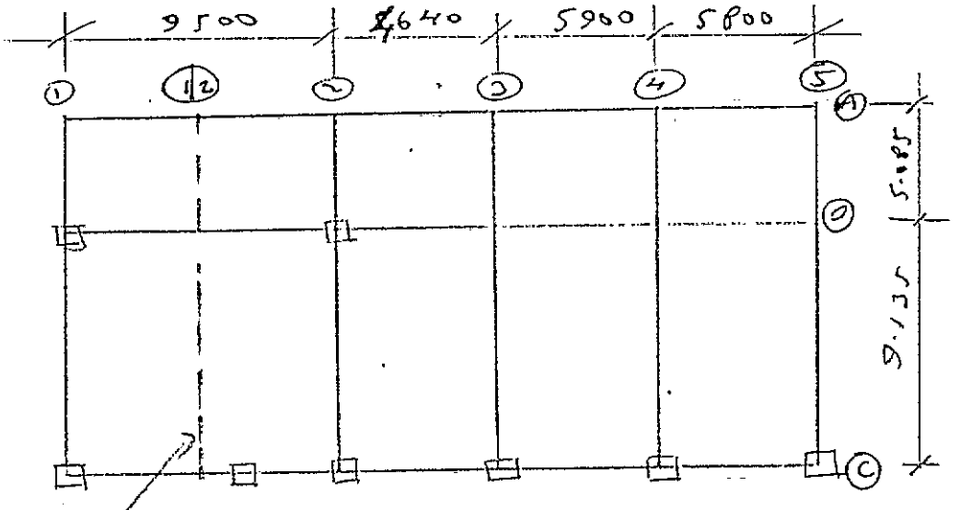
(ALLOWABLE) SUPERIMPOSED SERVICE LOADS (kN/m)

TYPE	EFFECTIVE SPAN ALLOWING FOR S/W 5.22 kN/m²																					
	7.0	7.25	7.5	7.75	8.0	8.25	8.5	8.75	9.0	9.25	9.5	9.75	10.0	10.25	10.5	10.75	11.00	11.25	11.5
	5.4	4.8	4.3	3.9															
	8.0	7.2	6.4	6.0	5.5	5.0	4.5	4.1	3.7										
	10.6	9.7	8.9	8.2	7.5	6.9	6.3	5.9	5.3	4.9	4.5	4.1	3.8						
	12.4	11.4	10.5	9.6	8.9	8.2	7.6	7.0	6.4	6.0	5.5	5.1	4.7	4.3	4.0	3.7			
	14.2	13.1	12.1	11.1	10.3	9.5	8.8	8.1	7.5	7.0	6.5	6.0	5.4	5.2	4.8	4.5	4.1	3.8	3.5
	15.4	13.7	12.8	11.8	11.3	10.5	9.7	9.0	8.4	7.8	7.2	6.7	6.3	5.8	5.4	5.1	4.7	4.4	4.1
		14.3	13.8	12.9	11.9	11.3	10.5	9.7	9.0	8.4	7.9	7.3	6.8	6.5	6.0	5.6	5.3	4.9	4.4
		15.0	14.3	13.3	12.3	11.2	11.2	10.4	9.6	9.0	8.4	7.9	7.3	6.8	6.5	6.1	5.7	5.4	5.0

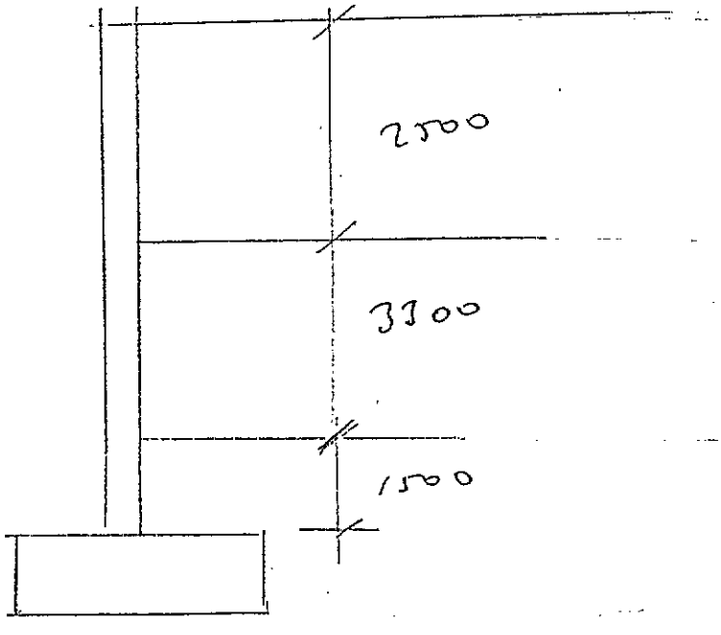


CONTRACT: SHOP UNITS – SCHOOLASTOWN ROAD	JOB NO: E223
FOUNDATION DESIGN.	SHEET NO: 07
ORG NO:	DESIGN: P.M.
	DATE: MARCH '91

TYPICAL LAYOUT PLAN.



RETAINING WALL AT FOUNDATION LEVEL FOR SUPPORTING GROUND FLOOR SLAB



CONTRACT: Shop units - Schaansbown Road	JOB NO: E223
Foundation design	SHEET NO: 09
DRG NO: / DESIGN: R.M.Y.	DATE: March 91

Party wall between grocery and chemist. - Grid ②

Wall

Rising wall $0.325 \times 1.5 \times 20$ — 9.75

Wall G-1st $0.35 \times 3.3 \times 20$ — 23.1

Ground floor load

$\left(\frac{4.75+4.64}{2}\right) \times 4.9$ — 23.0

Ground floor live
First floor live
$\left(\frac{4.75}{2} + \frac{4.64}{2}\right) \times 5.0 \times$
$\frac{9.5}{2} + \frac{4.64}{2} \times 5.0$ — 58.8

1st floor load

$\frac{9.5}{2} \times 6.0$ — 28.5
$\frac{4.64}{2} \times 5.2$ — 12.1

96.5 — 58.8

Service load + live

155.25

On strip footing 1.0 m
Line bearing pressure = 155 kN/m²
Say OK.

CONTRACT:			JOB NO : E727
SCHOLARSTOWN ROAD			SHEET NO : 10
DRG NO :	DESIGN :		DATE :

PARTY WALL ON GRID (3)

WALL	$7.3 \times 0.275 + 20$	34.3	
	$1.5 \times 0.215 + 20$	6.45	
GR-FL. ROOF	$\left(\frac{5.90 + 4.64}{2}\right) \times 4.9$	25.8	
1ST FL. ROOF	5.27×5.2	27.4	
LINE	$5.27 + 5 \times 2$		52.7
		94	52.7

WALL ON GRID 5

GABLE WALL	$0.45 \times 20 \times 1.5$	13.5	
	$0.35 \times 20 \times 7.5$	52.5	
GR FL. FIRST FL. ROOF	$\frac{5.8}{2}(4.9 + 5.2)$	29.3	
LINE	$\frac{5.8}{2} \times 5.0 \times 2$		29
		95.3	
		124.3	

CONTRACT:		JOB NO : E223
		SHEET NO : 11
DRG NO :	DESIGN :	DATE :

LOAD ON GRID (4)

RISING WALL	0.215 + 1.5 + 2	6.45	
WALL GR. TO FIRST	7.3 + 0.235 + 2	15.51	
GR. FLOOR	5.85 (4.9 + 5.2)	59.1	
FIRST FLOOR	2		
FIRST FLO	5.85 + 5 + 2		58.5
		81.06	
		139.6	KN.

ALL LOAD WHICH IS LOAD BEARING WALLS ARE LESS THAN THAT FOR LOAD ON GRID (2) — SEE PAGE 09

⇒ 1.0 WIDE STRIP FOOTING WILL BE FOR INTERNAL LOAD BEARING WALLS GIVING A BEARING PRESSURE OF 139 KN/m².

FOUNDATION PAD TO COLUMN.

LINE LOAD ON ~~COLUMN~~ BEAM.

		kN/m
DEAD.		
Self wt	$0.55 \times 0.2 \times 24$	4.0
SAY 1.0m	WIDTH OF FLOOR	6.1
WALL	2.5×4.5	11.25
ROOF	1.0×5.5	5.5
		26.85
	$\gamma = 1.4$	37.6
LIVE.		
ROOF	1.0×5.5	5.5
SAY 1.0m	WIDTH OF FLOOR	5.0
		10.5
	$\gamma = 1.6$	16.8
		54.5

TOTAL SERVICE LOAD ON TYPICAL COLUMN.

① $37.5 \times \left(\frac{7}{2} + 2.\frac{75}{2}\right)$ ~~3675~~ 183 kN

② $37.5 \times (5.9)$ 221.25 kN

COLUMN self wt $0.3 \times 0.3 \times 24 \times 4$ 8.64

230 kN.

USING ITS ALLOWABLE BEARING PRESSURE

MIN PAD SIZE $\frac{230}{150} = 1.53$ $1.25 \times 1.25 = 1.56$ m²

REINFORCED CONCRETE DESIGN.

300 × 300 COLUMN

WITH 1% REINFORCEMENT SAFE LOAD 1213 kN

ESTIMATE OF ULTIMATE LOAD

$54.5 \times 5.3 + 9 \times 1.4$ 334 kN

⇒ 1.0% IN COLUMN OF

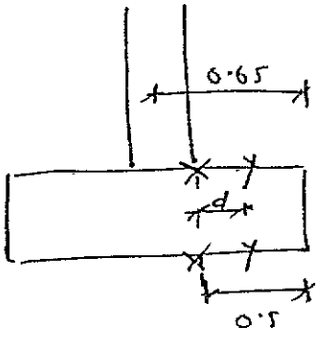
$1.0 \times 300 \times 3$ 900 mm^2

4T20 = 1256

R8 LINKS @ 225 CRS

PAD FOUNDATION

CHAR. BEARING PRESSURE. $1.5 \times 150 = 225$ kN/m²



$b = 1000$ $h = 400$

$d = 400 - 60 = 340$

$f_{cu} = 30$

B.M $\frac{225 \times 0.5^2}{2} = 28.2$ kNm

SHEAR $225(0.5 - 0.25) = 56.25$ kN.

$\frac{M}{bd^2 f_{cu}} = 0.008 \Rightarrow J = 0.95$ $A_s = \frac{28.2 \times 10^6}{0.87 \times 460 \times 0.95 \times 340}$

$= 218\ mm^2$

MIN STEEL $0.13 \times 10 \times 400 = 570 \text{ mm}^2$

USE T12-200 CRS $\equiv 566 \text{ mm}^2$ IN BOTH DIRECTIONS

CHECK SHEAR $V = 56.25$

$N = \frac{V}{60} = \frac{56.25}{340} = 0.165$ < MIN

⇒ SHEAR N OK.

DESIGN OUTPUT:

PADS $1.3 \times 1.3 \times 0.4$

T12-150 IN BOTH DIRECTIONS

4 T20 STARTER BARS RB LINTEL @ 225 CRS

STRIP FOOTINGS A393 MESH

MIN STEEL $0.13 \times 1 \times 310 = 390 \text{ mm}^2$ ⇒ A393 MESH

CONTRACT: SCHOLARSTOWN ROAD			JOB NO : E223
TYPICAL BLOCKWORK DESIGN.			SHEET NO : 15
DRG NO :	DESIGN :		DATE :

CANTILEVER LOAD CASE ON GRID ②

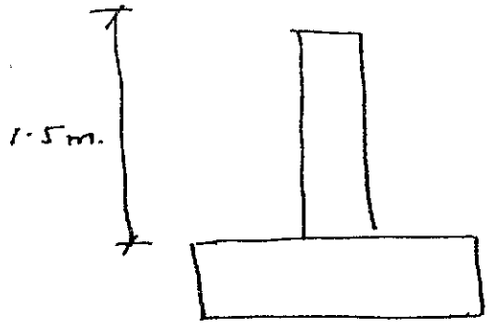
ULTIMATE LOAD CASE 1.4×96.5

1.6×58.8

229.2 KN.

BLOCKWORK DESIGN TO IS 325.

RISING WALL.



FOR DESIGN PURPOSES CHECK CAPACITY OF A 215 WALL.

$\frac{l}{t} = \frac{1500}{215} = 7.0$

ECCENTRICITY = $0.05\,t$ γ_m = 3.1

$\Rightarrow \beta = 1.0$. f_k = 3.6 — 5 N. BLOCKWORK

ULTIMATE CAPACITY = $\frac{1.0 \times 215 \times 3.6}{3.1} = 249.7$ KN.

THE ACTUAL WALL THICKNESS ON THIS GRID LINE IS 325 $\Rightarrow$ NOT 5.0 N BLOCKWORK IS OK.

CONTRACT:			JOB NO : F227
TYPICAL SUBSTRUCTURE DESIGN.			SHEET NO : 16
DRG NO :	DESIGN :		DATE :

ATTACK WALL CAPACITY FROM GROUND TO FIRST.

$\frac{l}{t} = \frac{3000}{215} = 14.$

$\beta = 0.89.$

$\Rightarrow$ ULTIMATE CAPACITY $= \frac{0.89 \times 215 \times 3.6}{3.1} \Rightarrow 222.2$ kN

LOAD AT GROUND FLOOR LEVEL

DEAD 96.5
− 23.0
− 9.75
− 63.75 × 1.4

LIVE 58.8
− 23.4
35.3 × 1.6

145.7 kN

< 222.2 kN

$\Rightarrow$ OK

SUBSTRUCTURE IS OK.

CONTRACT: SCHOLARSTOWN ROAD			JOB NO : 6223
R.C. DESIGN OF BEAMS.			SHEET NO : 17
DRG NO :	DESIGN :		DATE :

FROM PAGE 12

ULTIMATE UDL ON TYPICAL BEAM = 54.5 kN/m.

TWO BEAM SPANS ARE CONSIDERED.

1) GRID (B) — SPAN 9.5 m — 750 x 300

2) GRID (C) — SPAN 7.0 m — 550 x 300

BEAM (B) BM $\frac{54.5 \times 9.5^2}{8} = 615$ kNm

SHEAR $\frac{54.5 \times 9.5}{2} = 259$ kN

BEAM (C) B.M $\frac{54.5 \times 7^2}{8} = 334$ kNm

SHEAR $54.5 \times \frac{7}{2} \times 1.2 = 229$ kN.

FORMATION CALCS ON PAGES 18 & 19

CONFIRM THAT ABOVE BEAM SIZES ARE OK

R.C. DESIGN TO B.S. 8110

PROJECT SCHOLARSTOWN ROAD JOB. NO. E223

BEAM/SLAB REF. BEAM ON GRID B

LOCATION		SPAN
M.	Kn	615
b.	mm	300
h.	mm	750
Cover		40
No. of Layers		2
Bar Dia.	mm	32

BENDING DESIGN

d.	662
Fcu.	30
Fy.	460
M/bd2	4.677759
k	0.155925
j	0.777037
Z (J*d)	514.3986
Mu.	615.2945
dl	56
ASc.	0
ASt.	2987.433

DEFLECTION DESIGN

BASIC L/d	20
L	9500
Min. M.F.	0.717522
Max. Fs.	288
Actual M.F.	0.832371

BENDING/DEFLECTION DESIGN OUTPUT

ASc.	0
ASt. (Bending)	2987.433
ASt. (Deflection)	2987.433
% AS	1.504246

	ASt.	ASc.
Bar Dia.	32	25
Number	4	2
Centres	0	0
ASt. Provided	3216.990	981.7477
AS Prov / AS Req	1.076841	ERR

SHEAR DESIGN

		x
V	259	259
v	1.304128	1.304128
ASt. (Support)		
Bar Dia.	32	
Number	2	
Centres	0	
ASt. Provided	1608.495	
%ASt. (Support)	0.807917	
vc	0.626024	
d (shear)	400	
v (max)	4.381780	

MAX SHEAR STRESS IS NOT EXCEEDED - DESIGN IS O.K

NOMINAL SHEAR LINKS

Fys	460
Asv/Sv (nom.)	0.299850

No.	Dia.	C/C	Asv/Sv
1	10	250	0.628318

V (nom.)	203.7683
Design U.D.L.	54.5
x	1.013424
Asv/sv	0.508324 0.508324

No.	Dia.	C/C	Asv/Sv
1	10	250	0.628318

R.C. DESIGN TO B.S. 8110

PROJECT SCHOLARSTOWN ROAD JOB. NO. E223

BEAM/SLAB REF. BEAM ON GRID C

LOCATION		SPAN
M.	Kn	334
b.	mm	300
h.	mm	550
Cover		40
No. of Layers		1
Bar Dia.	mm	32

BENDING DESIGN

d.	494
Fcu.	30
Fy.	460
M/bd2	4.562168
k	0.152072
j	0.784659
Z (J*d)	387.6215
Mu.	342.6265
d1	56
ASc.	0
ASt.	2153.086

DEFLECTION DESIGN

BASIC L/d	20
L	7000
Min. M.F.	0.708502
Max. Fs.	288
Actual M.F.	0.838347

BENDING/DEFLECTION DESIGN OUTPUT

ASc.	0
ASt. (Bending)	2153.086
ASt. (Deflection)	2153.086
% AS	1.452824

	ASt.	ASc.
Bar Dia.	32	25
Number	3	2
Centres	0	0
ASt. Provided	2412.743	981.7477
AS Prov / AS Req	1.120597	ERR

SHEAR DESIGN

	0	K
V	229	229
v	1.545209	1.545209
ASt. (Support)		
Bar Dia.	32	
Number	2	
Centres	0	
ASt. Provided	1608.495	
%ASt. (Support)	1.085354	
vc	0.670189	
d (shear)	400	
v (max)	4.381780	

MAX SHEAR STRESS IS NOT EXCEEDED - DESIGN IS O.K.

NOMINAL SHEAR LINKS

Fys			460	
Asv/Sv (nom.)			0.299850	
	No.	Dia.	C/C	Asv/Sv
	1	10	250	0.628318
V.(nom.)			161.5660	
Design U.D.L.			54.5	
x			1.237320	
Asv/sv			0.640944	0.640944

No.	Dia.	C/C	Asv/Sv
1	10	150	1.047197

PROPOSED SHOP UNITS

AT

SCHOLARSTOWN ROAD, RATHFARNHAM

CO. DUBLIN

FOR

GANNON HOMES LTD.

CIVIL AND STRUCTURAL SPECIFICATION

John Moylan & Associates,
Consulting Engineers,
79, Merrion Square,
Dublin 2.

Tel Nos. (01) 615337/612475
Fax No. (01) 610255

May 1991

C O N T E N T S

PREAMBLE

1. DEFINITIONS.

The following terms whenever used in this specification shall be taken to have the meanings indicated below:

"The Engineer" shall mean

John Moylan & Associates,
79, Merrion Square,
Dublin 2.

"Approved"or "Approval" shall mean
aproved by the Engineer in writing.

2. RESPONSIBILITY

No approval by the Engineer shall in any way relieve the Contractor of his responsibility for the quality of materials and the standard of workmanship in the finished works and for the strength and durability and appearance of the finished concrete works.

3. VARIATIONS.

No variations to this specification may be made unless approved by the Engineer.

4. DEFECTIVE WORK.

Where in the opinion of the Engineer any of the finished works or the materials or workmanship in any part of the works do not comply with all the relevant parts of this specification, that part of the works shall be classed as defective work.

All such work shall be cut out and replaced to the satisfaction of the Engineer.

The extent of the work to be removed and the methods to be used in removal and replacement of this work shall be in accordance with the directions of the Engineer.

5. DESIGN

The reinforced concrete works have been designed generally in accordance with the recommendations contained in British Codes of Practice BS 8110. In regard to concrete materials, specification and construction, the Contractor shall comply with the recommendations made in section 6 of BS 8110 together with Road Note No. 4 prepared by the Department of Scientific and Industrial Research (Design of concrete mixes) unless specifically excluded or modified hereafter.

SECTION B

EXCAVATION, AND EARTHWORKS

1.1. Nature of Ground

The Contractor shall visit the site and satisfy himself as to the general nature of the ground. It is assumed that foundations can be founded on suitable ground at depths not exceeding 1500mm below reduced ground level following general excavation of the site.

Only when the actual foundations have been excavated can the foregoing assumptions be confirmed, and it is, of course, possible that the design of the foundations may have to be altered if unexpected ground conditions are met.

1.2. Excavation

Excavation shall be to the dimensions and levels shown on the drawings or to such other dimensions and levels as required by the Engineers. Any excavation in excess of that required shall be backfilled with lean mix concrete or such other material, which may be approved by the Engineers, and compacted to their satisfaction.

Excavations for foundations in positions adjacent to existing buildings, roads, sewers and pathways shall be carried out in such a manner and in a sequence that any any time these buildings, roadways, sewers and pathways are not endangered by the excavation. Hand excavation shall be included for in the rates. All propping, shoring and methods of excavation must be discussed with the Engineers and have their approval prior to commencement of the work. Such approval by the Engineers will not relieve the Contractor in any way of his responsibility to ensure the safety of the workings and of adjacent buildings.

1.3. Additional Excavation

Any additional excavation required to accommodate the temporary support of sides of excavations shall be provided and backfilled at the Contractor's expense.

1.4. Strip Topsoil

Topsoil shall be excavated in the areas and to the depths required. Note that these depths vary over the site. The volume of topsoil to be preserved for re-use shall be stockpiled in temporary spoil heaps where directed. Topsoil shall be kept separate from other materials. Surplus topsoil shall be removed from site and taken either to the Contractors own tip or to an area selected by the Client.

1.5. Classification of Excavation

Excavation shall be classified as:-

(a) Excavation in any material except solid rock.

(2) Excavation in solid rock.

Rock shall mean natural rock formation which can be removed properly only by means of explosives, boring or wedging or some other recognised method of quarrying solid rock. It shall also include solid boulders of 1 cubic metre or more, in volume. The Engineer shall be sole judge as to when the material excavated comes under the heading of rock. Where rock is encountered it will be measured up and included in the amount of ordinary excavation in the tender where it occurs and it will also be measured up and paid for at the EXTRA price over ordinary excavation as scheduled for rock in the tender.

1.6. Use of Explosives

Explosives shall not be used without the permission of the Engineer and then only in the manner and to the extent he may prescribe.

1.7. Obstructions

Any obstructions at or below formation level shall be reported to the Engineers and shall be dealt with as directed by them.

1.8. Formation

To minimise moisture softening the formation shall be exposed for as short a time as possible. The last 250m.m. of excavation shall not be taken out until concrete is almost ready to start. The formation shall be lightly rammed. Before any concrete is placed the Contractor shall call on the Engineers or their representative to inspetct the formation. Formwork and excavation shall be clean and free from water at the time of placing concrete.

1.9. Planking and Strutting

The sides of excavations shall be planked and strutted in accordance with statutory requirements and to the approval of the Engineer.

1.10. Propping and Shoring

The Contractor will be held entirely responsible for the strength, adequacy and stability of any necessary propping, shoring, strutting and the like, and shall be responsible for making good any loss or damage resulting from any failure in this respect.

1.11. Pumping

The Contractor shall provide all pumping equipment and other works necessary to keep the excavation free of water and to prevent the direct access of water to the formation.

Excavation shall be so arranged that any water entering the cut is immediately drained away to a sump or other point from which it can be pumped or otherwise disposed of. Before any pumping takes place, especially near existing structure, the approval of the Engineers shall be sought, but this approval will not absolve the Contractor from his responsibility for the safety of existing structures. If the Contractor pumps or otherwise puts water into a drain, he shall be responsible for seeking all permissions and for removing from the system all deposits caused thereby.

1.12. Filling

Except under foundations, layers of approved filling material consolidated to the satisfaction of the Engineers shall be placed below all ground slabs, on top of which a layer of lean mix shall be placed, all to receive a 1000 g. Visqueen waterproof membrane placed as shown on the drawings. This fill shall be applied only when the formation level is free of mud and slurry, the formation left shall be exposed for as short a time as possible between removing unsuitable soil and applying the fillings. The formation level shall be lightly rammed and generally levelled before filling commences. Backfilling around pads, strip footings and retaining walls shall also be in this approved fill material.

Granular filling where specified shall comprise either of:-

gravels, crushed rock or crushed concrete, to the following gradings (by weight).

SIZE	GRAVELS (% passing)	CRUSHED ROCK/CONCRETE (% passing)
75m.m.	100%	100%
40m.m.	85-100	85-100
10m.m.	45-100	40-70
5m.m.	25-85	25-45
600 Microns	8-45	8-22
75 Microns	0-10	0-2

The Contractor shall supply a grading analysis, done by an independent testing authority, indicating compliance of the proposed filling material with this specification.

The filling shall be deposited in layers not exceeding 250m.m. when compacted and shall be at a moisture level content within the range of 5 -8% for gravel and not exceeding 5% for the crushed stone or concrete.

Each layer shall be compacted to the satisfaction of the Engineers with approved mechanical equipment.

1.13. Underpinning of Existing Walls

The Contractor shall be responsible for ensuring that his operations do not in any way impair the safety or conditions of existing structures or existing supports and shoring to them. He shall provide any temporary supports required for this purpose, and shall carefully inspect the condition of the structure both before and during execution of the work, and immediately inform the Engineer if he considers that any more stringent procedure than that specified is necessary.

Underpinning is to be carried out to the satisfaction of the Engineer and Local Authority in short sections generally not exceeding 1000 m.m. in length, in such a manner that adequate support is at all times maintained to the underside of the wall for at least three-quarters of its length and that sections of work in progress at any one time are separated by a distance of at least 4000 m.m.

Projecting portions of the existing brick and/or concrete footings are to be carefully cut off where directed, and the underside of the footings are to be cleaned and hacked free of any dirt, soil or loose material before underpinning.

The body of the underpinning is to be constructed in mass concrete mix Type A using Rapid Hardening Portland Cement, and is to be cast to the widths and depths shown on the drawings. The bottoms of excavations are to be prepared as specified for foundations generally.

Excavation and concreting of any section of underpinning shall be carried out on the same day.

The mass of the concrete shall be poured to a level which shall be a minimum of 225 m.m. above the underside of existing foundation. The concrete below the existing foundation shall be well compacted with a bent podger or other means so that the concrete penetrates all the gaps of the underside of the existing footing.

Any 'letterboxes' or similar used by the Contractor to place concrete in this fashion shall be removed after one day as may be necessary to achieve a flush outside surface. Such removal shall be effected without damage to the body of the underpinning concrete.

Alternatively -

The mass of the concrete shall be poured to a level 75m.m. below the underside of existing foundation. The concrete shall be well compacted with a bent podger or other means so that the concrete penetrates all the interstices of the underside of the existing footing. When the mass concrete has set, the final pinning up shall be carried out with a damp stiff Grade 30 concrete mix (using REPC) well rammed into the 15m.m. gap.

Excavation to any section of underpinning shall not be commenced until at least 48 hours after completion of any adjacent sections of the work.

The Contractor shall keep a record on site of the sequence and dimensions of underpinning as actually executed, including the dates of starting excavation, casting concret and pinning up for each section.

1.14. Protection

Protect as necessary, all work described in this section during the progress of the works and clean down and leave perfect on completion.

SECTION C.

CONCRETE

1. FORMWORK AND SURFACE FINISH.

1.1. Construction

1 Formwork shall include all temporary or permanent forms required for forming the concrete together with all temporary construction required for their support.

2 All formwork shall be so constructed that there shall be no loss of material from the concrete.
After hardening the concrete shall be in the position and of the shape, dimensions and surface finish described in the Contract.

3 Where internal metal ties are permitted, they or their removable parts shall be extracted without damage to the concrete and the remaining holes filled with mortar. No permanently embedded metal part shall have less than 35mm cover to the finished concrete surface.

1.2. Formed Surfaces - Classes of Finish.

1 The requirements extra to those given in Clause 1.1.to provide the class of finish described in the Contract shall be:

Class F1 Nil

Class F2 The irrigularities in the finish shall be no greater than those obtained from the use of wrought thicknessed square edged boards arranged in a uniformed pattern. The finish is intended to be left as struck but imperfections such as fins and surface discolouration shall, if required, be made good by methods approved by the Engineer.

Class F3 The formwork shall be lined with a material approved by the Engineer to provide a smooth finish of uniform texture and appearance. This material shall leave no stain on the concrete and shall be so joined and fixed to its backing, that it imparts no blemishes. It shall be of the same type and obtained from only one source throughout any one structure. The Contractor shall make good any imperfections in the resulting finish; as required by the Engineer. Internal ties and embedded metal parts will be allowed only with the Engineer's specific approval.

2 The Contractor shall ensure that permanently exposed surfaces to Class F2 and F3 finish are protected from rust marks, spillage and stains of all kinds.

1.3. Preparation of Formwork before Concreting.

1 The inside surfaces of forms shall, except for permanent formwork, or unless otherwise agreed by the Engineer, be coated with an approved material to prevent adhesion of the concrete. Release agents shall be applied strictly in accordance with the manufacturer's instructions and shall not come into contact with the reinforcement or prestressing tendons and anchorages. Different release agents shall not be used in formwork to concrete which will be visible in the finished Works.

2 Immediately before concreting, all forms shall be thoroughly cleaned out.

1.4. Removal of Formwork.

1 The Engineer shall be informed in advance when the Contractor intends to strike any formwork.

2 Attention is drawn to the provisions of Clause 1.4.4

3 The time at which the formwork is struck shall be the Contractor's responsibility, but the minimum periods between concreting and the removal of forms shall be as follows:-

Sides of beams, walls columns and piles	24 hours.
Soffits of beams and slabs.	7 days.

4 The periods stated above are based on a constant surface temperature of the concrete of 16°C and the use of ordinary Portland cement. They shall be increased during cold weather as directed by the Engineer, and may be changed if other types of cement are used, subject to the Engineer's agreement.

5 Formwork shall be constructed so that the side forms of members can be removed without disturbing the soffit forms and, if props are to be left in place when the soffit forms are removed, these props shall not be disturbed during the striking.

6 For prestressed units the side forms shall be eased as early as possible and the soffit forms shall permit deformation of the member when the prestress is applied.

7 All formwork shall be removed without damage to the concrete.

8 Where it is intended that formwork is to be re-used, it shall be cleaned and made good to the satisfaction of the Engineer.

1.5. Unformed Surfaces - Classes of Finish.

1 Class U1 The concrete shall be uniformly levelled and screeded to produce a plain or ridged surface as described in the Contract. No further work shall be applied to the surface unless it is used as the first stage for a Class U2 or Class U3 finish.

2 Class U2 After the concrete has hardened sufficiently, the concrete Class U1 surface shall be floated by hand or machine sufficiently only to produce a uniform surface free from screed marks.

3 Class U3 When the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, a Class U1 surface shall be steel-trowelled under firm pressure to produce a dense smooth uniform surface free from trowel marks.

1.6. Remedial Treatment of Surfaces.

1 Any remedial treatment to surfaces shall be agreed with the Engineer following inspection immediately after removing the formwork and shall be carried out without delay.

2 Any concrete, the surface of which has been treated before being inspected by the Engineer, shall be liable to rejection.

1.7. Tolerances.

On all setting out dimensions 3.00 metres and over a tolerance of plus or minus 6mm will be allowed. On all setting out dimensions under 3.00 metres a tolerance of plus or minus 3mm will be allowed. A tolerance of plus or minus 3mm will be permitted on the cross-section dimensions of structural members, unless otherwise required by the drawings. Columns and walls shall not be more than 6mm out of plumb in their storey height and not more than 19mm out of plumb in their full height. The Contractor will be responsible for the cost of all corrective measures required by the Engineer to rectify work which is not constructed within the tolerances set out above.

2. STEEL REINFORCEMENT.

2.1. GENERAL

1 Steel reinforcement shall be stored in clean conditions. It shall be clean and free from loose rust and loose mill scale at the time of fixing in position and subsequent concreting.

2.2. BENDING OF REINFORCEMENT.

1 Reinforcement shall be bent to the dimensions given in the Bar Schedules.

2 All reinforcement shall be bent at temperatures in the range of 5°C and 100°C.

3 Cold worked and hot rolled bars shall not be straightened or bent again once having been bent. Where it is necessary to bend mild steel reinforcement already cast in concrete, the internal radius of bend shall not be less than twice the diameter of the bar.

2.3. PLACING OF REINFORCEMENT.

1 Reinforcement shall be placed and maintained in the position shown in the Contract. Unless otherwise permitted by the Engineer all intersecting bars shall be tied together and the end of the tying wire shall be turned into the main body of concrete.

2 No splices shall be made in the reinforcement except where described in the Contract or where approved by the Engineer.

2.4. COVER BLOCKS.

1 Cover blocks required for ensuring that the reinforcement is correctly positioned, shall be as small as possible consistent with their purpose, of a shape acceptable to the Engineer, and designed so that they will not overturn when the concrete is placed. They shall be made of concrete with 10mm maximum aggregate size and the mix proportions shall comply with Table No 1 or 2 of Clause 3.1 to produce the same strength as the adjacent concrete. Wire shall be cast in the block for the purpose of tying it to the reinforcement.

2.5. WELDING OF REINFORCEMENT.

Reinforcement in structures shall not be welded except where permitted in the Contract. All welding procedures shall be subject to the prior approval of the Engineer in writing.

2.6. ATTENDANCE OF STEELFIXER.

During concreting a competent steelfixer shall be in continuous attendance on the concreters to adjust and correct the positions of any reinforcement which may be displaced.

2.7. STANDARDS.

All reinforcement shall comply with the current Irish and/or British Standards:

Mild Steel reinforcement	BS 785
Cold Worked square twisted reinforcement	BS 1144
Hard drawn steel wire fabric mesh.	BS 1221

3. CONCRETE

3.1. CONCRETE MIX DESIGN.

1 Mixes for the classes of concrete shown in Table No 1 shall be designed by the Contractor. Alternatively for Classes 30 and 20, the mixes in Table No. 2 may be used. The class of concrete is denoted by the minimum 28 day works cube strength and the maximum size of aggregate.

2 The cement content in any mix shall not exceed 530kg/M^3 of concrete. The quantity of water used shall not exceed that required to produce a concrete with sufficient workability to be placed and compacted where required.

3.2. CONCRETE FOR ANCILLARY PURPOSES.

1 Class E concrete shall be composed of ordinary Portland cement and aggregates complying with BS 882 including all-in aggregate within the grading limits of Table 3 of the British Standard.

2 The weight of cement mixed with 0.28M^3 of combined or all-in aggregate shall not be less than 50.0kg. The mix shall be proportioned by weight or by volume.

3 The concrete shall be mixed by machine or by hand to a uniform colour and consistency before placing. The quantity of water used shall not exceed that required to produce a concrete with sufficient workability to be placed and compacted where required.

4 The concrete shall be compacted by hand or by mechanical vibration.

3.3. TRIAL MIXES.

1 No structural concrete shall be placed in the Works until the relevant mix has been approved by the Engineer.

2 When the Contractor designs the mix, he shall, at least 35 days before the commencement of concreting, have trial mixes prepared in a laboratory to be approved by the Engineer.

TABLE NO. 1. DESIGNED MIXES

Class	Minimum cement content in concrete	Minimum compressive strength 28 days after mixing	
		Preliminary test	Works test.
$N/mm^2/mm$	Kg/M^3	N/mm^2	N/mm^2
50/40	390	60.0	50.0
50/20	420	60.0	50.0
50/10	470	60.0	50.0
40/40	340	50.0	40.0
40/20	360	50.0	40.0
40/10	390	50.0	40.0
30/40	310	40.0	30.0
30/20	330	40.0	30.0
30/10	360	40.0	30.0
20/40	280	30.0	20.0
20/20	300	30.0	20.0

TABLE NO. 2. STANDARD MIXES

Class of concrete denoted by 28 day minimum works cube strength	Weight of dry sand per 50 kg. cement	Weight of dry gravel, or crushed rock, coarse aggregate, 50kg.					
N/mm²	Kg.	Maximum size	Maximum size			Maximum size	
Workability		Low only	Low	Medium	High	Low	Medium	High
Slump (m.m.)		0-6	12-25	25-50	50-120	25-50	50-100	100-175
Compacting Factor		.80-.86	.82-.88	.88-.94	.94-.97	.82-.88	.88-.94	.94-.97
30.0	70	100	150	115	90	180	140	115
20.0	90	Not required	190	160	140	225	190	170

NOTES

1 Cement shall comply with IS 1 or BS 12 or BS 146. Aggregate shall comply with IS 5 or BS 882 or BS 1047. The coarse aggregate shall be graded within the terms of the relevant IS or BS.

2 If the specific gravity of either the coarse or the fine aggregate differs significantly from 2.6, the weight of each type of aggregate should be adjusted in proportion to the specific gravity of the materials.

3 The weights are based on the use of a sand having a grading within the limits of grading Zone 2 in BS 882. See Clause 209e of CP114.

4. If a crushed stone sand or a crushed gravel sand is used instead of sand, the weight of the coarse aggregate should be reduced by at least 12 Kg without alterating the weight of sand.

4 The weight of the fine aggregate should be decreased by at least 12Kg if its grading is within the limits of grading Jone 3 of BS 882 and increased by at least 12Kg if its grading is within the limits of grading Zone 1 of BS 882; the weight of coarse aggregate should be increased or decreased respectively, by the same amount so that the total weight of aggregate remains the same.

TRIAL MIXES - continued

The concrete from each mix shall be tested in accordance with Clause 3.8.and must satisfy the strength requirements of Table No. 1.

3 When the mix has been approved, no variations shall be made in the proportions, the original source of the cement and aggregates or in the type, size and grading zone of the latter without the consent of the Engineer who may require further tests to be made.

4 The Engineer may also require practical tests to be made on the Site by filling trial moulds to confirm the suitability of the mix for the Works. In these tests, the type of plant used for mixing, the method of compaction used, and the formwork face to the mould shall be similar in all respects to those intended for use in the Works.

5 When the Contractor intends to purchase factory- made precast concrete units, the Engineer may dispense with trial mixes and laboratory tests, provided that evidence is given which satisfies him that the factory regularly produces concrete which complies with the Specification. The evidence shall include details of mix proportions, water: cement ratio, workability and strengths obtained at 28 days and 7 days.

3.4. ADMIXTURES.

1 Unless agreed by the Engineer neither admixtures nor cement containing additives shall be used.

3.5. DELIVERY AND STORAGE OF MATERIALS.

1 Cement shall be stored in a dry weather-proof shed with a raised wooden floor or in a silo and shall be delivered in quantities sufficient to ensure that there is no suspension or interruption of the work of concreting at any time. If stored in sheds, each consignment shall be kept separate and distinct.

2 Coarse aggregate, unless otherwise agreed by the Engineer, shall be delivered to the Site in separate sizes (2 sizes when the maximum size is 20mm and 3 sizes when the maximum size is 40mm or more).

3 All aggregate brought upon the Site shall be kept free from contact with deleterious matter and in the case of aggregate passing a 5mm sieve they shall be deposited on the site of mixing for not less than 8 hours before use. Aggregates of different sizes shall be stored in different hoppers, or different stockpiles which shall be separated from each other.

3.6. MIXING CONCRETE.

1 The weighing and water-dispensing mechanisms shall be maintained in good order. Their accuracy shall be maintained within the tolerances described in BS 1305 and checked against accurate weights and volumes when required by the Engineer.

2 The weights of cement and each size of aggregate as indicated by the mechanisms employed shall be within a tolerance of $\pm$ 2 per cent of the respective weights per batch agreed by the Engineer. The weight of the fine and coarse aggregates shall be adjusted to allow for the free water contained in them. The water to be added to the mix shall be reduced by the quantity of the free water contained in the fine and coarse aggregates, which shall be determined by the Contractor by a method approved by the Engineer immediately before mixing begins, and further as the Engineer requires.

3 Unless otherwise agreed by the Engineer, concrete shall be mixed in a batch type mixer manufactured in accordance with BS 1305 or in a batch type mixer, a specimen of which has been tested in accordance with BS 3963 and having a mixing performance within the limits of Table 6 of BS 1305. Where appropriate the batch capacity, method of loading, mixing time and drum speed shall conform to the details furnished in accordance with the requirements of BS 3963 for the mix which corresponds most closely to the mix proportions being used. The mixing blades of pan mixers shall be maintained within the tolerances specified by the manufacturer of the mixer and the blades shall be replaced when it is no longer

possible to maintain the tolerances by adjustment.

4 Mixers which have been out of use for more than 30 minutes shall be thoroughly cleaned before any fresh concrete is mixed. Unless otherwise agreed by the Engineer, the first batch of concrete through the mixer shall then contain only two thirds of the normal quantity of coarse aggregate. Mixing plant shall be thoroughly cleaned before changing from one type of cement to another.

5 Concrete shall not be mixed when the air temperature in the shade is below 3°C unless special precautions are taken which have been approved by the Engineer. No frozen material or materials containing ice shall be used.

6 During hot weather the Contractor shall ensure that the constituent materials of the concrete are sufficiently cool to prevent the concrete from stiffening in the interval between its discharge from the mixer and compaction in its final position.

3.7. READY-MIXED CONCRETE.

1 Ready-mixed concrete as defined in BS 1926, batched off the Site, may be used only with the agreement of the Engineer and shall comply with all requirements of the Contract.

2 The concrete shall be carried in purpose made agitators, operating continuously, or truck mixers. The concrete shall be compacted and in its final position within 2 hours of the introduction of cement to the aggregates, unless a longer time is agreed by the Engineer. The time of such introduction shall be recorded on the Delivery Note together with the weight of the constituents of each mix.

3 When truck mixed concrete is used, water shall be added under supervision either at the Site or at the central batching plant as agreed by the Engineer but in no circumstances shall water be added in transit.

4 Unless otherwise agreed by the Engineer, truck mixer units and their mixing and discharge performance shall comply with the requirements of BS 4251. Mixing shall continue for the number and rate of revolutions recommended in accordance with item 9 in Appendix B of BS 4251 or, in the absence of the manufacturer's instructions, mixing shall continue for not less than 100 revolutions at a rate of not less than 7 revolutions per minute.

3.8. SAMPLING

Sampling shall be in accordance with the requirements of BS 1881. Cubes for the works tested shall be made by the Contractor at regular intervals in groups of six. The location and time of such samples shall be agreed with the Engineer.

The Cubes shall be tested by the Nominated Testing Authority, three at 7 days and three at 21 days where Portland cement is used.

3.9. TRANSPORT AND PLACING.

1 The method of transporting and placing concrete shall be to the approval of the Engineer. Concrete shall be so transported and placed that contamination , segregation or loss of the constituent materials does not occur.

2 All formwork and reinforcement contained in it shall be clean and free from standing water, snow or ice immediately before the placing of the concrete.

3 Concrete shall not be placed in any part of the structure until the Engineer's approval has been given.

4 If concreting is not started within 24 hours of approval being given, approval shall again be obtained from the Engineer. Concreting shall then proceed continuously over the area between construction joints. Fresh concrete shall not be placed against in-situ concrete which has been in position for more than 30 minutes unless a construction joint is formed in accordance with Clause 311. When in-situ concrete has been in place for 4 hours no further concrete shall be placed against it for a further 20 hours.

5 Concrete when deposited shall have a temperature of not less than 5°C and not more than 32°C. It shall be compacted in its final position within 30 minutes of discharge from the mixer unless carried in purpose made agitators, operating continuously, when the time shall be within 2 hours of the introduction of cement to the mix and within 30 minutes of discharge from the agitator.

6 Except where otherwise agreed by the Engineer, concrete shall be deposited in horizontal layers to a compacted depth not exceeding 450mm where internal vibrators are used or 300mm in all other cases.

7 Unless otherwise agreed by the Engineer, concrete shall not be dropped into place from a height exceeding 1,800mm When trucking or chutes are used they shall be kept clean and used in such a way as to avoid segregation.

8 No concrete shall be placed inflowing water. Underwater concrete shall be placed in position by tremies, or by pipeline from the mixer. Full details of the method proposed shall be submitted in advance to the Engineer and his approval obtained before placing begins. Where the concrete is placed by a tremie, its size and method of operation shall be in accordance with Civil Engineering Code of Practice 'Foundations'. During and after concreting under water, pumping or dewatering operations in the immediate vicinity shall be suspended until the Engineer permits them to be continued.

3.10. COMPACTION OF CONCRETE.

1 All concrete shall be compacted to produce a dense homogeneous mass. Unless otherwise agreed by the Engineer, it shall be compacted with the assistance of vibrators. Sufficient vibrators in serviceable condition shall be on site so that spare equipment is always available in the event of breakdown.

2 Internal vibrators shall be capable of producing not less than 10,000 cycles per minute, and external vibrators not less than 3,000 cycles per minute.

3 Vibration shall not be applied by way of the reinforcement. Where vibrators of the immersion type are used, contact with reinforcement and all inserts shall be avoided, so far as is practicable.

4 Concrete shall not be subjected to vibration between 4 and 24 hours after compaction.

3.11. CONSTRUCTION JOINTS.

1 The position and detail of any construction joints not described in the Contract shall be subject to the approval of the Engineer, and shall be so arranged as to minimise the possibility of the occurrence of shrinkage cracks. The maximum dimension of any pour shall be approx. 9m.

2 The upper surface of lifts of concrete walls and columns shall be horizontal and if the formwork extends above the joint on the exposed face it shall be cleaned of adhering concrete before the next lift is placed. The concrete placed immediately above a horizontal construction joint shall contain only two thirds the normal quantity of coarse aggregate, shall not be the first batch through the mixer and shall be thoroughly compacted and worked against the existing concrete

3 In the case of vertical surfaces, a 1:1 slurry of cement and concreting sand shall, wherever possible, be well worked into them immediately before the fresh concrete is placed.

4 Where sections of the work are carried out in lifts, the reinforcement projecting above the lift being cast shall be adequately supported so as to prevent movement of the bars during the casting and settling of the concrete.

5 Wherever possible laitance and all loose material shall be removed while the concrete is still green and no further roughening shall then be required. Where this is not possible, it shall be removed by mechanical means provided the concrete has been in position for more than 24 hours. The roughened surface shall then be washed with clean water.

6 Where joints occur in waterproof concrete the stop ends shall be removed within 12 hours after pouring and the laitance removed by compressed air and water jet to the satisfaction of the Engineer. In waterproof structures no pour shall exceed 50 sq. m in area.

3.12. CURING OF CONCRETE.

1 Immediately after compaction and for 7 days thereafter concrete shall be protected against harmful effects of weather, including rain, rapid temperature changes, frost and from drying out. The methods of protection used shall be subject to the approval of the Engineer. When elevated-temperature curing is used, the temperature of the concrete shall not exceed 50°C within 2 hours nor 100°C within 6 hours of the concrete being placed; the rise in temperature within any period of 30 minutes shall not exceed 10°C. The rate of subsequent cooling shall not exceed the rate of heating. The method of curing employed shall prevent loss of moisture from the concrete. Details of the method to be used shall be subject to the approval of the Engineer.

3.13. EARLY LOADING

1 Except as specified for prestressed concrete, concrete shall at no time be subjected to loading, including its own weight, which will induce a compressive stress in it exceeding 0.33 of its compressive strength at the time of loading or of the specified 28 day strength.

2 For the purpose of this clause, the assessment of the strength of the concrete and the stresses produced by the loads shall be subject to the agreement of the Engineer.

3.14. WATERPROOF CONCRETE (i.e. BASEMENT RETAINING/WALLS AND FLOORS DESIGNED IN COMPLIANCE WITH CP 102)

When the use of waterproof concrete is specified, it shall be the Contractor's responsibility to ensure that the resulting construction is watertight. The Contractor shall carry out at his own cost all necessary remedial measures which the Engineer requires.

3.15. INSPECTION

Inspection of reinforcement and formwork prior to concreting: no concrete shall be poured until the reinforcement has been checked in its final position in the formwork by the Engineer. Sufficient notice shall be given to allow such inspection to take place. Before starting to pour concrete all the reinforcement for that pour shall be in position and properly fixed.

SECTION D

BLOCKWORK

1.1. General

The work shall be carried out in accordance with the requirements of the current editions of the following code of practice and British Standard together with the instructions of this Specification and any further instructions deemed necessary by the Engineer:-

B.S. 5628 ; Part 1: 1978 "Structural Use of Masonry".

B.S. 5628 : Part 3: 1985 "Use of Masonry"

I.S. 325 : Part 1: 1986 "The Structural Use of Unreinforced Masonry.

The Contractor's attention is drawn to the fact that Architectural details of the walls shall be as shown on the Architect's drawings and in accordance with his specification. The colour of bricks or blocks to be used shall be selected by the Architect.

1.2. Materials and Properties

1.2.1. Blocks and Bricks

The minimum standards of concrete blocks concrete bricks and clay bricks are set out in clauses 1.2.2., 1.2.3. and 1.2.4. Reference shall be made to the drawings and to table 13 of B.S. 5628 : Part 3: 1985 for higher standard of bricks and blocks required for particular elements of construction as indicated.

1.2.2. Concrete Blocks - Solid and Hollow for General Use.

Concrete blocks shall be of approved manufacture to I.S.S. 20. All blocks, shall hav a minimum guaranteed crushing strength of $5N/mm^2$. Sample blocks shall be tested at a laboratory to be approved by the Engineer. Blocks must be left at least 28 days after casting before being used. All blocks shall be well compacted and true and square in shape.

1.2.3. Concrete Bricks for General Use.

Concrete bricks shall be of approved manufacture to I.S.S. 189. All bricks shall have a minimum guaranteed crushing strength of $15N/mm^2$. Sample bricks shall be tested at a laboratory to be approved by the Engineer. Bricks must be left at least 28 days after casting before being used. All bricks shall be well compacted and true and square in shape.

1.2.4. Clay Bricks for General Use.

Clay bricks shall be of approved manufacture of ordinary quality to I.S.S. 91. They shall have a water absorption of not greater than 12% and a minimum guaranteed crushing strength of $15N/mm^2$.

1.2.5. Mortar

1.2.5.1. General

The mixing and use of mortars shall be in accordance with the recommendations given in B.S. 5390

1.2.5.2. Material for Mortar

a) Cement - The cement used in the mortar shall be in accordance with I.S.S.I. The use of high alumina cement is not permitted.

b) Lime - Lime used in mortars shall be non-hydraulic limes to conform to the requirements of I.S.S.8.

c) Sand - The sand shall be free from deleterious substances and shall comply with the requirement for quality and grading of sand for mortar given in .B.S.S. 1200.

d) Water - Water shall be free from impurities that are harmful to the mortar. Obtain approval from the Engineer of the source of water supply if the supply is not obtained from a public mains supply.
Where the quality of supply is doubtful the water shall be tested in accordance with B.S. 3148 or equivalent.

e) Admixture - Admixtures may be used subject to the Engineer's written approval.

f) Colouring Compounds - Colouring compounds shall be added to the mortar as required by the Architect.

1.2.5.3. Preparation of Mortars

a) Mix Proportions - The following cement-lime mortar shall be used for all walling constructed using masonry units to clauses 1.2.2., 1.2.3. and 1.2.4.

Mix	Cement	Non-hydraulic lime	Clean Washed Siliceous Sand.
1:1:6	50kg.	50kg.	0.213 cu.m

Reference shall be made to tables 13 and 15 of B.S. 5628: Part 3 1985 for mortar mixes to be used in conjunction with higher standard bricks and blocks.

b) Batching of Mortars

The materials for the mortar shall be measured accurately to conform with the above specified mix proportions either by weight batching or by use of gauge boxes. The proportions of sand are based upon the use of dry sand. Adjust the proportions of sand for bulking due to moisture content. If admixtures are used, the proportions should be further adjusted in accordance with the manufacturer's written instructions.

c) Mixing of Mortars

The mortar shall be mixed by machine. Clean the mixer before starting to mix. Mortars containing cement shall be used within one hour of the mixing of the cement and water and any mortar not then used shall be discarded and not retemptered.

d) Ready Mixed Mortar

Ready mixed sand-lime mortar shall comply with the requirements of B.S. 4721 or equivalent.

1.2.6. Reinforcement, Wall Ties and Bonding Ties

a) Bed Joint Reinforcement (Provisional)

Bed joint reinforcement where shown shall be either of expanded metal complying with the requirements of B.S. 405 or of the "tramline" or truss type (such as Brickforce, Dur-O-Wal or similar approved by the Engineer) made from hard drawn steel wire with an effective diameter of between 3 and 5m.m. The reinforcement shall be galvanised if it is to be used in a wall exposed to the weather i.e. outer leaf of cavity wall. The type of reinforcement to be used shall be indicated on the drawings.

b) Cavity Wall Ties

Cavity wall ties shall be vertical twist ties made from austenitic stainless steel strip complying with the requirements of B.S. 1449 : Part 2 and B.S. 970: Part 4, minimum 18/8 composition and excluding free machining specifications with split end anchorage or their equivalent subject to the Engineer's approval and shall conform to the requirements of the Irish Standard for Wall Ties for Cavity Wall construction and/or B.S. 1243, 1978. The Contractor shall supply the Engineer with written evidence from an approved testing authority to show that the wall ties meet the above specification.

c) Bonding Ties

Metal strips for bonding blockwork and brickwork to concrete shall be austenitic stainless steel (material specification as to cavity wall ties) dovetail slot and anchor ties or their equivalent subject to the Engineer's approval. Metal strips for bonding blockwork and brickwork to structural steelwork shall be austenitic stainless steel (material specification as for cavity wall ties) vertical twist ties with one end split and the other end turned down. The turned down end shall be pre-drilled to suit a shot fixing. The type of

shot fixing shall be approved by the Engineer. The ties shall be 2.5M x 20mm min. size. Metal strips for bonding brick to brick or block to block shall be flat austenitic stainless steel (material specification as for cavity wall ties) 2.5mm x 20mm. min long.

1.2.7. Damp Proof Courses

Damp proof courses shall be used in accordance with the latest edition of the British Standard Code of Practice CP 102.

D.P.Cs shall be laid on a smooth bed of fresh mortar. Materials for damp proof courses shall be in accordance with I.S. 57: 1972. In laterally loaded walls subject to wind loading only, a "non -slip" type damp proof course shall be used at the base of the wall.

The details and arrangement of the damp proof courses shall be obtained from the Architect.

1.2.8... Handling and Storage of Materials.

a) Cement

Cement shall be stored in such a manner as to ensure that it is not affected by damp and shall be used in the order of delivery.

b) Lime

Store under weatherproof conditions on a raised floor or in suitable silos.

c) Sand

Sands shall be stored separately according to type so that they will not be contaminated. They shall be stored on a hard self drained area.

d) Metals

Reinforcement and ties shall be protected from becoming contaminated, and reinforcement shall be free from loose mill scale and rust.

e) Blocks

Blocks shall be carefully unloaded so as to avoid damage to the units. All blocks shall be stacked on prepared level areas to ensure that the stack is stable and blocks used for fairfaced work shall be protected to prevent the exposed faces from becoming stained or marked. It is essential that blocks are protected from the rain and sun by covering with a suitable protecting membrane.

1.2.9. Testing

Blocks shall be tested by an approved testing authority. A sum of money shall be provided in the Bill of Quantities for such testing. This sum is provisional and at the disposal of the Engineer.

1.3. Workmanship

1.3.1. General

a) Dimensions

All walling shall be set out and built to the correct dimensions, thickness and heights shown on the drawings.

b) Uniformity

All perpends, quoins, joints etc., shall be kept strictly true and square, and other angles shall be plumbed and the whole properly bonded or tied together and the bed joints levelled as the work proceeds. Build walling in level lifts. Where the walling is raked back no part shall rise more than 1.2m above the general level.

c) Bond

The brickwork and blockwork shall be built to the bond indicated on the Architect's drawings. Where no bond is indicated, the units shall be laid in stretcher bond. Where possible the coursing shall be arranged to allow a full block to be positioned directly beneath a lintel bearing. Leave toothing

to provide for the bonding of future work. Where shown on the drawings, form toothing in existing work to provide adequate bond for new work.

d) Cutting

Blocks used for facing shall be cut with a masonry saw. Where it is necessary to cut the blocks wet they shall be allowed to dry before being built into the wall.

e) Chases, Ducts, Openings etc.

The positions and size of the chasings shall be as indicated on the drawings and shall be carried out neatly using a chasing tool. Form ducts, openings etc. in the walling as the work proceeds.

f) Colour Variaition

Distribute evenly throughout any facing work bricks and blocks of verying shades of the same colour. MIx deliveries which vary in colour to avoid contrast between adjoining lifts.

g) Weather

No block laying shall be carried out when the temperature is at or below $3^{o}C$ unless precautions are taken to ensure a minimum temperature of $4^{o}C$ in the work when laid and thereafter to maintain the temperature above freezing point until the mortar has hardened. Should any walling be damaged by front it shall be pulled down and made good at the Contractor's expense. Keep dry each lift including the top surfaces until the commencement of the next-left or other superimposed work. It is essential that internal blockwork walling be protected from rain until such time as the building has been weathered.

h) Laying

Each block and brick shall be laid and adjusted to its final position while the mortar is still plastic. The maximum height of wall built in any one day shall not exceed 1.5m

1.3.2. Mortar Joints

a) Bedding

All blocks shall be laid on a full mortar bed. Vertical joints shall be filled. All joints are to be nominally 10m.m. thick

b) Excess Mortar

Any mortar which extrudes from the joint of fairfaced units shall be cut away and on no account is mortar to be smeared onto the face of the block .

c) Exposed Joints

Details of the type of finish required in all permanently exposed joints shall be obtained from the Architect.

1.3.3. Control Joints

Control joints shall be constructed as indicated on the Engineer's drawings. Joints need not be continued below the ground floor D.P.C. level. The vertical joints between panels or between a panel and another feature should be straight and be produced by terminating alternative courses in full and half units bedded in the normal way. The subsequent sawing of walling to form a contraction or expansion joint will not be allowed. If the walling is finished with a thick applied finish such as plaster or render, the edge of same shall be either chamfered or alternatively the joint may be covered with an architrave or other strip material; care being taken that the cover strip is fixed to the wall on one side of the joint only to allow relative movement to occur at the joint.

The joint sealing compound shall be an approved polysulphide based sealant such as "Thioflex 600" by Expandide or equal and shall be used strictly in accordance with the manufacturer's recommendations bearing in mind gap width, joint location etc.

Long runs of walling of clay bricks shall be provided with a 10mm wide vertical expansion joint about every 12m or as indicated on

the Engineer's drawings. The stability of the wall at an expansion joint shall be achieved as indicated on the Engineer's drawings without the use of metal ties across the joint. Expansion joints shall be cleaned out to ensure that mortar does not bridge the joint. The gap shall subsequently have a fully compressible material (not fibre-board) inserted into the joint and be pointed up with a joint sealing compoind as described above.

1.3.4. Double Leaf (Cavity) Walls.

a) Wall Ties

The walls shall be built with cavities of the width shown on the drawings and tied together with ties embedded in the mortar at least 50mm. Unless otherwide detailed the ties shall be staggered in alteruate courses and spaced in accordance with the following table.

Least leaf thickness (mm)	Cavity width (mm)	Spacing of ties Horizontally (mm)	Vertically (mm)
65-90	50-75	450	450
90 or more	50-150	900	450

The spacing may be varied provided that the number of ties per unit area is maintained.

Additional ties shall be provided in every course within 225mm of opening and on each sie of control joints. Ties shall be laid falling to the external leaf.

b) Cavities

The cavity and ties shall be kept clear and clean of mortar droppings or other materials during construction and only extruding mortar shall be struck off flush. No cavity shall be sealed off until inspected and approved by the Architect.

c) Weepholes (cavity walls)

Weepholes 10mm wide by 75mm high, spaced at centres not exceeding 900mm and extending through the vertical mortar joints of the outer leaf, shall be provided at ground level and at positions where the cavity is bridged or at alternative locations indicated on the Architect's drawings.

1.3.5. Partition Walls

Partition walls shall not be built on suspended slabs until after the props have been removed. These walls shall be built in accordance with the details shown on the Engineer's drawings.

1.3.6. Reinforcement

a) Bed Joint Reinforcement

Bed joint reinforcement shall have an effective side cover of mortar of not less than 20mm and shall be continuous except at control joints, or where otherwise indicated. Bed joint reinforcement is to be positioned as shown on the drawings. Sufficient mortar shall be used in the joints in which the reinforcement is bedded to ensure that the whole surface of the steel is in contact with mortar to provide adequate bond and protection against corrosion.

1.3.7. Protection

a) Stability

Ensure the stability of walling during erection. Precautions shall also be taken to ensure stability of walls during backfilling and concreting operations.

b) Finished Work

The tops of constructed walls shall be protected from rain and in addition fairfaced work shall be protected against staining from construction activities.

1.3.8. Making Good

At the completion of the work all temporary holes in mortar joints of fairfaced work shall be filled with mortar and suitably tooled. Any damaged walling shall be repaired with approved materials or

replaced to the satisfaction of the Architect.

1.3.9. Tolerances

The permissible deviation for walls shall be as follows:-

a) Level: ± 10mm for dimensions to any nominally horizontal surface measured from the nearest reference level.

b) Position on Plan : ± 10mm for dimensions to any nominally vertical surface at the lower edge measured horizontally from the nearest reference line.

c) Plumbness : ± 5mm in any 1 meter not more than 20mm for plumbness floor to floor.

d) Straightness: ± 10mm measured horizontally

e) Joint Thickness (i) Horizontal joints - joint thickness ± 3mm

(ii) Vertical joints - joint thickness ± 3mm

SECTION E

SPECIFICATION FOR PRE-CAST CONCRETE FLOORS

INDEX

1.0. GENERAL

1.1. PRECAST CONCRETE

In addition to the following requirements the manufacture of all precast concrete units shall be in accordance with the requirements of the General Concrete Works unless specifically stated otherwise.

References in brackets in clause headings in this Specification are to clauses or sub-clauses of B.S. 8110 'Structural use of Concrete.' Unless modified by this Specification Precast Concrete work shall comply with the requirements and recommendations of B.S. 8110. In cases of conflict, this Specification takes precedence over B.S. 8110.

2. DESIGN

2.1. TYPES OF FLOOR

This specification applies to proprietary flooring systems supplied only or supplied and erected by specialist manufacturers which are of the following types:-

Reinforced or prestressed hollow slab.

Reinforced or prestressed beam and infill block.

Reinforced or prestressed solid slab and insitu topping.

The contractor shall prvide the system most suited to the contract, unless any of the above types have been deleted.

2.2. DESIGN RESPONSIBILITY

The constractor shall be responsible for all aspects of the design of the floor and shall satisfy himself that adequate bearing for the units has been provided in the supporting structure. Where the specialist is a Nominated Supplier or Sub-Contractor under the JCT form of contract, he shall indemnify the Main Contractor against design errors and defects.

2.3. COMPLIANCE WITH STANDARDS

The design of the floor shall be in accordance with British Standard BS 8110: Part 1: 1985 "Structural Use of Concrete".

2.4. DRAWINGS

Sufficient Engineers and Architects drawings will be supplied to the contractor to enable the floor to be designed. The contractor shall prepare arrangement drawings of the floor which should include the following information:-

Layout of units and spans.
Unit profiles
Support and edge conditions.
Insitu make up areas and reinforcement.
Pre-formed holes and permissable sizes cut on site.
Loading.
Fire resistance.
Temporary support requirements.

The drawings should be submitted to the Engineer or Architect for approval prior to manufacture.

2.5 CALCULATIONS

The contractor shall provide structural calculations for the floor, which may be manually prepared or in the form of a computer print-out. In either case the information shall be sufficient for submission to checking authorities and should include:-

Service and Ultimate Loading
Section Properties
Material Strengths
Moment and Shear
Span/Deflection Ratio.
Predicted Upward Camber.

A copy of the calculations should be submitted to the Engineer for approval.

2.6. LOADING

The floor shall be capable of supporting the following loads in addition to its self weight:-

Superimposed	kn/m2	
Partitions (Distributed Load)	kn/m2	as noted
Finished	kn/m2	on
Ceiling	kn/m2	the
Services	kn/m2	drawings

Allowances shall be made for block partitions as shown on the drawings. The density of the partitions can be taken as 21 kg/m3. The floor shall be capable of withstanding loads in accordance with British Standard BS 6399: Part 1: 1984 "Design Loading for Buildings."

2.7. FIRE RESISTANCE

The fire resistance of the completed floor slab is to be confirmed in accordance with Tables 4.7 BS 8110 or as determined in tests by the Fire Research Station. The level of fire rating is to be in accordance with the Architects requirements.

2.8. APPROVAL

Approval by the Architect or Engineer indicates correct interpretation of their respective requirements and does not affect the Contractor's responsibility for the structural and dimensional adequacy of the floor.

3.0. MANUFACTURE

3.1. MATERIALS

All materials used in the manufacture of the floor shall be stable, of suitable quality and in accordance with the appropriate British Standards. The contractor shall be responsible for maintaining adequte quality control in the works and shall be required by the Engineer or Architect, to provide test data or samples to demonstrate this. No High Alumina Cement is to be used in the concrete. No additives which may be harmful or reduce the durability of the concrete will be permitted.

3.2. SURFACE FINISH

Moulds and equipment shall be capable of producing a clean hard surface finish to the concrete, free of honeycombing or voids. Special finish requirements will be indicated on the drawings and should be in accordance with Clause 6.10.3 of BS 8110.

3.3. TOLERANCES

Unless otherwise stated on the drawings all dimensions of units shall be within the tolerances defined in Clause 6.11.3 of BS 8110.

3.4. SOLID ENDS

Where solid ends to Hollowcore Units have been specified on the drawings weep holes in each core at the ends of the unit are to be provided.

4.0. ERECTION

4.1. HANDLING AND STORAGE

The contractor responsible for erection shall ensure that equipment and storage facilities are adequate to prevent damage or deterioration of the units on site. The contractor shall provide all necessary lifting equipment and shall be deemed to have satisfied himself that adequate access is available to erect the units.

4.2. PROPPING

Temporary propping is to be carried out in accordance with the drawings and minimum times for removal of props should be adhered to.

4.3. JOINTING

The contractor is to carry out all filling of joints and insitu making up, using concrete of minimum characteristic strength 30 N/mm2 at 28 days. All insitu concrete is to be vibrated.

4.4. HOLES

Holes shown on the drawings which are not formed in the works are to be neatly cut on site without impairing the strength of the floor. Holes through lightweight infill blocks are to be formed by removal of a block and replacement with insitu concrete.

4.5. BEDDING

To ensure uniform bearing for the precast units an approved bedding mortar layer consisting of a low water content 3 to 1 sand cement mix is to be provided on all supports over the full area of the support.

DRAINAGE

1.1. PIPE TYPES

The following pipes and fittings may be used for both foul and surface water sewers and drains:

1. Spigot and socket concrete pipes complying with I.S. 6 or B.S. 556.

2. Asbestos'cement pipes complying with B.S. 3656.

3. Unplasticised P.V.C. pipes complying with the "Provisional Specification for Soil and Waste Pipes, Drains, Sewers and Fittings made of hard P.V.C. issued by the Department of Local Government.

4. Clayware pipes and fittings complying with I.S. 106 or B.S. 65 and 540 and clayware fittings complying with B.S. 539.

   Ogee concrete pipes complying with I.S. 6 or B.S. 556 may be used for surface water sewers and drains only.

1.2. TRENCH WIDTH

The width of trenches shall be in accordance with the schedule on Drg. No. E-std-2. Trench width shall be taken as the trench width at the level of the top of the pipe.

1.3 PIPE LAYING

Two types of pipe bed may be used.

1. Concrete bed as shown on Drawing No. E-Std.-2. Where rigid pipes with flexible joints are used with this bed, vertical movement joints in the concrete bed shall be provided at maximum intervals of 5 m and aligned with the face of a pipe socket. The movement joints shall be 12 mm wide and shall be filled with an approved compressible material. Where rigid support is provided for the pipe before completion of the bed, a layer of bituminous roofing felt complying with I.S. 36 Type 1F shall be provided between the support and the pipe.

2. Granular bed as shown on Drawing No. E-Std-2. Granular bedding Type A shall consist of broken stone or gravel.

contd/.....

All material shall pass a 19 mm B.S.test sieve and be retained on a 4.75 mm B.S. test sieve. Granular material Type B shall consist of gravel graded from 9.5 mm to 4.75mm. Other granular materials may be used subject to approval.

Selected fill shall be free from stones greater than 25 mm in size, building rubbish, tree roots, vegetable matter and lumps of clay greater than 75 mm in size and shall be compacted in 100 mm loose layers.

1.4. JOINTING

All pipes except ogee concrete pipes shall have flexible joints. Flexible joints shall be formed by an approved method recommended by the pipe manufacturers. Rubber sealing rings shall comply with B.S. 2494 Part 2. Ogee concrete pipes shall have mortar joints.

1.5. MANHOLE CONSTRUCTION

Manholes shall be constructed of solid concrete blockwork to I.S. 20, Type A, in situ concrete or precast concrete units. The minimum wall thickness for concrete blockwork and in situ concrete shall be 200 mm. for depths up to 3.3m and 300mm for depths between 3.3m and 6m. Precast concrete manhole units shall comply with B.S. 556. Manholes shall be built on a base of concrete, of minimum thickness 150 mm for depths up to 3.3 m and 225mm for depths between 3.3 m and 6 m. Alternatively approved precast concrete bases may be used.

Manhole roofs shall consist of a reinforced concrete cover slab suitably reinforced to carry all probable dead and live loads and shall be of minimum thickness 150mm. Alternatively, a precast concrete slab complying with B.S.556 may be used.

Blockwork manholes shall be scudded and rendered in two coats externally. Where precast concrete units are used they shall be surrounded with concrete to a minimum thickness of 150 mm to within 1 m of ground level.

contd/.....

1.6. MANHOLE DIMENSIONS

Minimum internal dimensions of manholes shall be as shown on Drg. No. E-215-16.

1.7. CHANNELS AND BENCHING FOR MANHOLES

Channels shall consist of pre-formed channels or pipes cut to form channels. At manholes where there is a change in pipe size between the main pipe entering and that leaving the manhole, the connecting channel shall consist of an approved proprietary taper. Where a suitable taper is not available the channel shall be formed in in-situ concrete finished with a 1:2 cement sand mortar.

Benching shall rise vertically from the top edge of the channel to a height not less than that of the soffit of the outlet, be sloped upwards thence to the wall at a gradient of 1 in 6 and finished in a cement mortar.

In the case of branch drains the benching shall be so shaped as to guide the flow of sewage in the desired direction.

Alternatively, precast base units, incorporating channels and benching, may be used subject to approval.

1.8. MANHOLE COVERS AND FRAMES

Manhole covers and frames shall be as approved and, unless specified otherwise, shall comply with B.S. 497 in all but dimensions. The minimum opening dimensions shall be 600mm rectangular or, if circular, 550 mm diameter. The appropriate grade of cover and frame which shall be used in any location is given in Table 1.1.

TABLE 1.1. MANHOLE COVERS AND FRAMES

B.S. 497 GRADE	LOCATION
GRADE A	CARRIAGEWAYS
GRADE B	FOOTPATHS, VERGES, VEHICULAR ACCESSES
GRADE C	SITUATIONS INACCESSIBLE TO WHEELED VEHICLES

1.9 MANHOLE STEP IRONS

Step irons shall be provided in manholes deeper than 1 m.

Blockwork and in-situ concrete manholes shall be provided with step irons in two vertical runs. The vertical runs shall be 300mm apart centre to centre. The step irons shall be at 300mm intervals in each run and the two runs shall be staggered vertically by 150mm. The top rung shall be a maximum of 450 mm from the ground surface and the bottom rung shall be a maximum of 300mm above benching.

Precast concrete units shall have step irons built in as specified in B.S. 556. Step irons shall comply with B.S. 1247. Ladders shall be used instead of step irons for manholes deeper than 4.5m. Ladders shall be of approved type.

1.10. GULLIES

Gullies for the collection of roof water, waste from waste pipes and for the drainage of small paved areas shall be clayware complying with B.S. 539. Other types, including PVC gullies, may be used subject to approval. Rain water downpipes and waste pipes shall either discharge over an open gully fitted with a grating, or be connected to the back inlet of a back inlet gully. The maximum distance from the finished ground surface to the bottom of the gully shall be 600 mm.

Gullies for the drainage of road carriageways and large paved areas shall be precast concrete complying with B.S. 556 or shall consist of a chamber with minimum internal dimensions of 450mm x 300 mm x 750 mm deep constructed of 100mm solid concrete blockwork and having a 150 mm in-situ concrete floor. The outlet from the gully shall be 150 m m diameter set a minimum of 375 m m above the floor of the chamber. Gully gratings for these gullies shall be as approved and, unless specified otherwise, shall comply with B.S. 497 Grade E.

Gullies connected to a drain or sewer carrying foul water shall be trapped.

1.11. MORTAR

Mortar for use in jointing of brickwork, blockwork, ogee concrete pipes and precast concrete manhole rings shall have 1:3 cement sand dry volume ratio. The sand shall comply with B.S. 1200 having a grading as given in Table 1.2.

TABLE 1.2. GRADING OF SAND TO B.S. 1200

B.S. SIEVE SIZE	PERCENTAGE PASSING
5mm	100
2.36mm	90-100
1.18mm	70-100
600 um	40-100
300 um	5-70
150 um	0-15

Mortar for use in forming manhole inverts and benching shall have a 1:2 cement sand dry volume ratio. The sand shall comply with B.S. 1199 having a grading as given in Table 1.3.

TABLE 1.3. GRADING OF SAND TO B.S. 1199

B.S. SIEVE SIZE	PERCENTAGE PASSING
5mm	100
2.36 mm	90-100
1.18 mm	70-100
600 um	40-80
300 um	5-40
150 um	0-10

In all mortars, other sands, such as zone 3 sand complying with B.S. 882, may be used subject to approval.

1.12. RENDERING

The materials used for scudding and rendering manhole walls shall have a 1:3 cement sand dry volume ratio and shall incorporate an approved waterproofing agent. The sand shall comply with B.S. 1199 and have a grading as given in Table 1.3.

1.13. TESTING OF SEWERS AND DRAINS

Sewers and drains shall be tested by one or other of the following methods.

1. Water Test: Foul sewers and drains shall be tested for a minimum of 30 minutes under a head of not less than 1m of water over the crown at the high point and not more than 2.5 m of water over the crown at low points of the line under test. The maximum allowable loss of water per hour per 100 lineal metres of pipe shall be as given in Table 1.4

TABLE 1.4. MAXIMUM ALLOWABLE WATER LOSS IN LITRES PER HOUR, PER 100 LINEAL METRES OF PIPE

PIPE DIAMETER (mm)	MAXIMUM ALLOWABLE LOSS (l/h)
100	6
150	9
225	13.5
300	18
375	45
450	54
525	63
600	72

Surface water sewers and drains shall be tested for a minimum of 30 minutes and the test head of water shall not be less than 1m over the crown at the high point and not more than 2 m over the corwn at low points of the line under test. Acceptance criteria shall be as for foul sewers unless otherwise approved.

Where either foul or surface water sewers or drains fail the appropriate test, remedial work shall be subject to approval.

2. AIR TEST: Air shall be pumped into the section of

drain under test until a pressure of 100 mm of water is indicated on a U-tube connnected to the system. The air pressure shall not fall to less than 75 mm head of water during a period of 5 minutes without further pumping, after a period of requisite stabilisation.

Failure to pass this test is not conclusive and, when failure does occur, a water test as specified in (1) shall be carried out. Acceptance or rejection of the line under test shall be based on the results of this water test.

1.14. INFILTRATION TEST FOR MANHOLES

Manholes greater than 1m deep shall be tested for infiltration of ground water. Infiltration to manholes shall not exceed 5 litres per hour per manhole.

Infiltration tests shall be carried out when the water table in the ground adjacent to the manhole is at its highest level or at some other approved time.

1.15. CLEANING OF SEWERS AND DRAINS.

At the time of completion of the development works the developer shall ensure to the satisfaction of the Local Authority that all sewers and drains within the site are clean and free from obstructions.

CONROY CROWE KELLY
ARCHITECTS
26 KINGRAM PLACE, FITZWILLIAM SQUARE, DUBLIN 2 613990 613991 Fax 765715

BARRY CONROY Dip. Arch
MICHAEL CROWE B.Arch
DANIEL KELLY B.Arch

Our Ref: 9002 DK/AK.

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

91A/0616
1.8.0
Mrl A.1.

23rd April, 1991.

RE: UNSOLICITED ADDITIONAL INFORMATION:

PROPOSED SINGLE STOREY EXTENSION TO THE REAR OF NEWSAGENT/GROCERY AT SHOPS AT ORLAGH GROVE, SCHOLARSTOWN ROAD, DUBLIN 16.
REGISTER REFERENCE 91A/02616.

Dear Sirs,

We refer to our application for Planning Permission on the 17th of April, 1991. We now enclose for addition to the Planning File the following drawings in quadruplicate:

9002 D 110 Rev. A
9002 D 111 Rev. A.

These drawings indicate minor alterations to the store extension from the drawings already submitted. These amendments involve a change to the internal layout of the store and toilet areas to the shop.

We thank you for your attention in this matter.

Yours faithfully,

Daniel Kelly

Daniel Kelly.

CONROY CROWE KELLY ARCHITECTS.

Enc.

RECEIVED
23 APR 1991
Reg. Sec.

Dublin County Council Comhairle Chontae Atha Cliath **Planning Department**

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/0616 Date : 19th April 1991

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

Dear Sir/Madam,

DEVELOPMENT : Single storey store/toilets extension to the rear of the Newsagent/Grocery in the already approved shopping development

LOCATION : Orlagh Estate, Scholarstown Road, Rathfarnham

APPLICANT : Gannon Homes Ltd

APP. TYPE : PERMISSION

With reference to above, I acknowledge receipt of your application received on 18th April 1991.

Yours faithfully,

.....

PRINCIPAL OFFICER

Conroy Crowe Kelly,
26 Kingram Place,
Dublin 2.

Dublin County Council
Comhairle Chontae Atha Cliath

Planning Application Form/ Bye - Law Application Form

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 ORLAGH, SCHOLARSTOWN ROAD
(If none, give description sufficient to identify) DUBLIN 16

3. Name of applicant (Principal not Agent) GANNON HOMES LTD.
Address 68, AMIENS STREET, DUBLIN 1 Tel. No. 366800

4. Name and address of CONROY CROWE KELLY, 26 KINGRAM PLACE
person or firm responsible for preparation of drawings DUBLIN 2 Tel. No 613990

5. Name and address to which As No 4.
notifications should be sent

6. Brief description of proposed development SINGLE STOREY TO EXTENSION TO NEWSAGENT/GROCERY.

7. Method of drainage 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 or use when last used.
(b) Proposed use of each floor

FEE PAID: 102.50 DATE: 18/4
RECEIPT No. N35278

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

Irish Pres 16/4/91

11.(a) Area of Site 1620 Sq. m.

(b) Floor area of proposed development 58.5 Sq. m.

(c) Floor area of buildings proposed to be retained within site Sq. m.

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:
As far as practible

15. Enclosed with SEE ACCOMPANYING LETTER.

DUBLIN COUNTY COUNCIL
Planning permission sought for single storey store/toilets extension to the rear of the Newsagent/Grocery in the already approved shopping development at Orlagh Estate, Scholarstown Road, Rathfarnham, Dublin 16. Signed: Gannon Homes Ltd.

16. Gross floor space of proposed development (See back) 58.5. Sq. m.

No of dwellings proposed (if any) / Class(es) of Development

Fee Payable £ 102.50 Basis of Calculation 58.5

If a reduced fee is tendered details of previous relevant payment should be given

Signature of Applicant (or his Agent) James R. Kelly Date 12/04/1991

FOR OFFICE USE ONLY

Application Type P
Register Reference 91A/0616
Amount Received £ 22/10 3,24.0
Receipt No
Date

RECEIVED
18 APR 1991
REG. SEC.

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.

PLANNING APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
1.	Provision of dwelling — House/Flat.	£32.00 each
2.	Domestic extensions/other improvements.	£16.00
3.	Provision of agricultural buildings (See Regs.)	£40.00 minimum
4.	Other buildings (i.e. offices, 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 m² (min £40.00)
10.	Electricity transmission lines.	£25.00 per 1,000m (Min. £40.00)
11.	Any other development.	£5.00 per 0.1 ha (Min. £40.00)

BUILDING BYE-LAW APPLICATIONS

CLASS NO.	DESCRIPTION	FEE
A	Dwelling (House/Flat)	£55.00 each
B	Domestic Extension (improvement/alteration)	£30.00 each
C	Building — Office/ Commercial Purposes	£3.50 per m² (min. £70.00)
D	Agricultural Buildings/Structures	£1.00 per m² in excess of 300 sq. metres (min. - £70.00) (Max. - £300.00)
E	Petrol Filling Station	£200.00
F	Development or Proposals not coming within any of the foregoing classes.	£9.00 per 0.1 ha (£70.00 min.) Min. Fee £30.00 Max. Fee £20,000

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

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

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

RECEIPT CODE

COMHAIRLE CHONTAE ÁTHA CLIATH

PAID BY — **DUBLIN COUNTY COUNCIL**

46/49 UPPER O'CONNELL STREET

DUBLIN 1.

Issue of this receipt is not an acknowledgement that the fee tendered is the prescribed application fee.

N 35278

[illegible]H

[illegible]QUE

M.O.

B.L.

I.T.

£ 102.50

Received this 19th day of April 1991

from Bannon Homes Ltd

18 Annes Rd

D.1

the sum of one hundred and two Pounds

fifty Pence, being for the

planning application at Ardagh Scholarstown

Rd.

[illegible] Cashier

S. CAREY
Principal Officer

CONROY CROWE KELLY
ARCHITECTS
26 KINGRAM PLACE, FITZWILLIAM SQUARE, DUBLIN 2 613990 613991 Fax 765715

BARRY CONROY Dip. Arch
MICHAEL CROWE B.Arch
DANIEL KELLY B.Arch

Our Ref: 9002 DK/AK.

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

17th April, 1991.

RE: PLANNING APPLICATION FOR SINGLE STOREY EXTENSION TO REAR OF NEWSAGENTS / GROCERY AT SHOPS AT ORLAGH GROVE, SCHOLARSTOWN ROAD, DUBLIN 16.

PREVIOUS APPLICATIONS:
REGISTER REF: 89A/236 ORIGINAL APPLICATION.
91/A 0283 APPLICATION FOR CHANGE OF USE OF FIRST FLOOR FROM RESIDENTIAL TO OFFICE.

Dear Sirs,

On behalf of our client Gannon Homes Ltd. we wish to apply for full Planning Permission for a single storey extension to the rear of the newsagent/grocery unit at the above development. The following information is included in quadruplicate:

ARCHITECTS DRAWINGS:

9002 D 100	9002 D 110
9002 D 105 Rev. B	9002 D 111
9002 D 107 Rev. A.	

DUBLIN COUNTY COUNCIL
Planning Dept. Registry Section
APPLICATION RECEIVED
19 APR 1991
91A/0616
P/A/BEL

ENGINEERS DRAWINGS:

E 223/06 Rev. D.

Architects Report,

Application fee in the sum of £102.50,

Newspaper advertisement dated 16th April, 1991,

Completed application form.

We trust the above is to your satisfaction and we await your favourable decision.

Yours faithfully,

Daniel Kelly

Daniel Kelly.
CONROY CROWE KELLY ARCHITECTS.

Enc.

C O N R O Y C R O W E K E L L Y
A R C H I T E C T S
26 KINGRAM PLACE, FITZWILLIAM SQUARE, DUBLIN 2 613990 613991 Fax 765715

BARRY CONROY Dip Arch
MICHAEL CROWE B.Arch
DANIEL KELLY B Arch

OUR REF: 9002 DK/AK.

ARCHITECTS REPORT.

EXTENSION TO NEWSAGENT/GROCERY AT PROPOSED LOCAL SHOPS AT ORLAGH ESTATE, SCHOLARSTOWN ROAD, RATHFARNHAM, DUBLIN 16.

1.0 BACKGROUND:

Planning Permission has been granted for a development comprising four shops and four flats in a two storey block by An Bord Pleanala on 31st January, 1991. The reference for this application was 89A/236.

A subsequent application was lodged with Dublin County Council on the 4th of March, 1991 for change of use of first floor area from residential to office use. A decision on this application is still pending. The register reference for this application is 91A/0283.

2.0 PROPOSAL:

It is proposed to build a single storey storage building to the rear of the proposed newsagent/grocery unit.
Access to this store would be via the rear service yard.
The store will not affect the functioning of the service area with regard to the other shop units.

3.0 REASON FOR THE EXTENSION:

This store is required in order to make the newsagent/grocery unit viable. The existing unit as proposed is 1500 square feet. In order to be a viable grocery unit of this type a minimum area of 2100 square feet is required. Thus the extension will provide an additional 600 square feet.

The extension will not be visible from the front of the development and will make minimal impact to the rear of the development.

CONROY CROWE KELLY ARCHITECTS APRIL, 1991.

Councillor T. Boland,
Chairman,
Dublin County Council,
46/49, Upper O'Connell Street,
Dublin 1.

Reg. Ref. 91A-0616

14 June 1991

Re: Proposed single storey store/toilets extension to the rear of the Newsagent/Grocery in the already approved shopping development at Orlagh Estate, Scholarstown Road, Rathfarnham for Gannon Homes Ltd.

Dear Chairman,

I refer to your representations in connection with the above planning application.

I now enclose a copy of the Notification of Decision to Grant Permission by order no. P/2616/91, dated 13th June, 1991, for the above proposal.

Yours faithfully,

for Principal Officer.

DATE: ______ TO: P/Carey

Send copy of decision to Ch T. Boland Chairman

PRINCIPAL OFFICER

BYE LAW APPLICATION FEES

REF. NO.: 914/616 CERTIFICATE NO.: 15016

PROPOSAL: Ext. to newsagents. alts. to butchers

LOCATION: Orlagh Estate, Scholarstown Rd.

APPLICANT: Gannon Homes Ltd.

	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 See 24996 59m²	@ £3.50 per M² or £70	£206.50	£208.60	—	£2.10	overpayment
D	Building or other structure for purposes of agriculture	@ £1.00 per M² in excess of 300 M² Min. £70					
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	£70	£70	—		

Column 1 Certified: Signed: _____ Grade: _____ Date: _____

Column 1 Endorsed: Signed: _____ Grade: _____ Date: _____

Columns 2,3,4,5,6 & 7 Certified: Signed: _____ Grade: _____ Date: _____

Columns 2,3,4,5,6 & 7 Endorsed: Signed: _____ Grade: _____ Date: _____

CERTIFICATE NO: 24996 not for BSE

REF.: 919066

PROPOSAL: Extension

LOCATION: Oylagh, Scholarstown road, D.16

APPLICANT: Cronea Homes Ltd

SS	1 DWELLINGS/AREA LENGTH/STRUCT	2 RATE	3 AMT. OF FEE REQ.	4 AMOUNT LODGED	5 BALANCE DUE	6 BALANCE DUE	7 DATE/ RECEIPT NO.
	Dwellings	£632					
		£616					
		£50 per M² in excess of 300M² Min.£40					
	metres² 58.50m²	£21.75 per M² or £40	103.25	102.50	75p not Sufficient		
	x .1 hect.	£225 per .1 hect. or £40					
	x .1 hect.	£225 per .1 hect. or £40					
	x .1 hect.	£225 per .1 hect. or £100					
		£6100					
	x metres²	£610 per M² or £40					
	M1,000M²	£225 per 1,000M² or £40					
	x .1 hect.	£25 per .1 hect. or £40					

Column 1 Certified: Signed: [signature] Grade: DHI Date: 24/4/91.

Column 1 Endorsed: Signed: _____ Grade: _____ Date: _____

Columns 2,3,4,5,6 & 7 Certified Signed: M. Hart Grade: C/O Date: 23/4

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.: 91A/616

CONT. REG.:

SERVICES INVOLVED: WATER/FOUL SEWER/SURFACE WATER.

AREA OF SITE:

FLOOR AREA OF PRESENT PROPOSAL: 630FT² J.Y. 24/4/91

MEASURED BY:

CHECKED BY:

METHOD OF ASSESSMENT:

TOTAL ASSESSMENT

MANAGER'S ORDERED NO: P/ /
DATED

ENTERED IN CONTRIBUTIONS REGISTER:

Contributions as on 91A/236

DEVELOPMENT CONTROL ASSISTANT GRADE

add loads contribution as applicant required To provide the extra 3 places. See Condition NO 6

10/6/91

Ridland – Can you speak to Roads Dept. about this

The Roads Dept should be asked if they have any objection to this WALL as built. The wall as built is not as prop. in the Sub. lodged As a COMPLIANCE

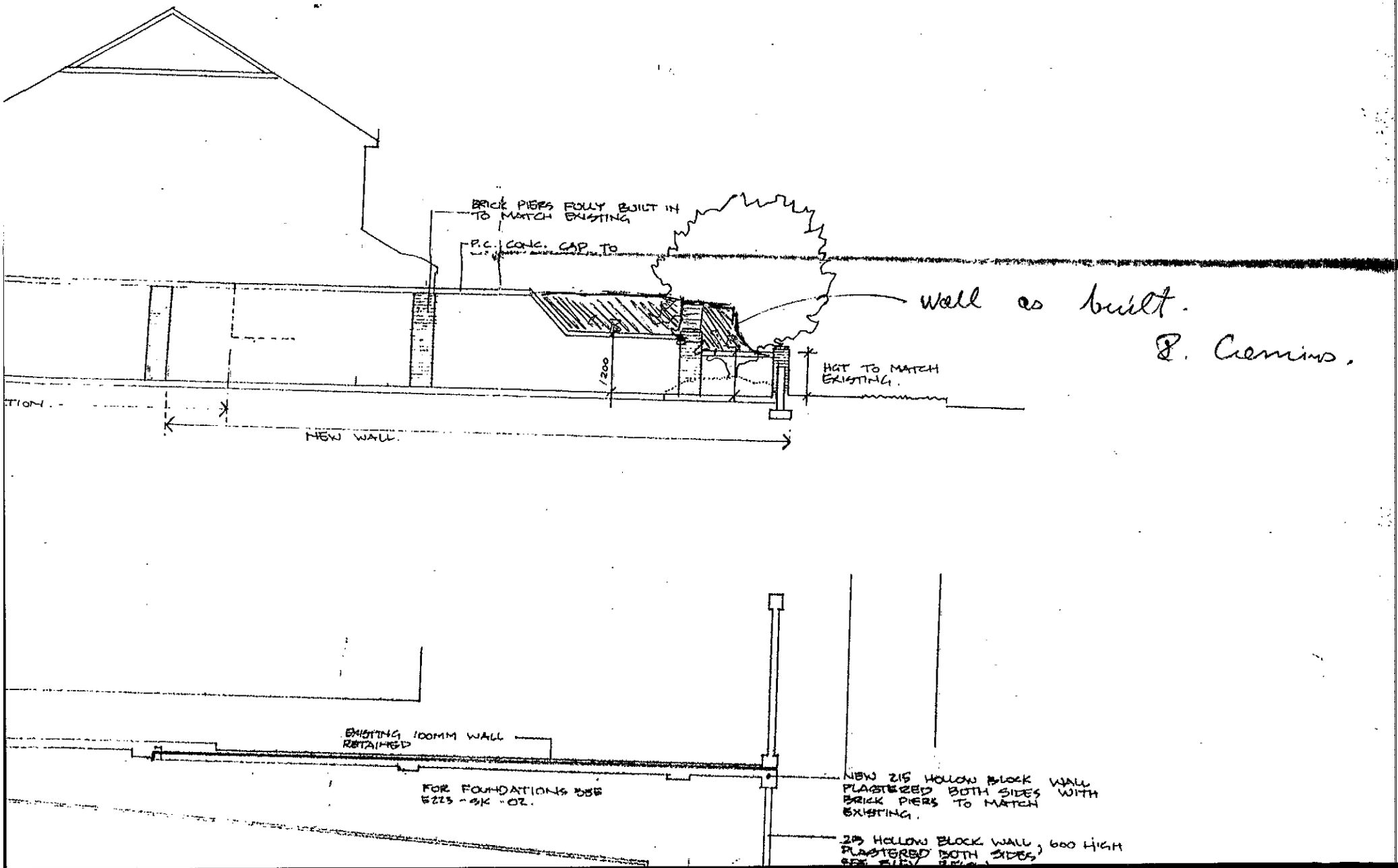
22nd July '92

The wall as built does not reduce the existing vision at the access, Therefore the Roads Dept would not object to retention of same.

E. Madden A/SEE
Roads Planning Div.

Wall as built is different to lodged compliance (see attached drawing) However, as it is acceptable to the Roads Dept. no further action is considered necessary.

R. Cremins SEP
23/7/92


BRICK PIERS FULLY BUILT IN TO MATCH EXISTING
P.C. CONC. CAP TO
Wall as built.
S. Cremins.
1200
HGT TO MATCH EXISTING.
NEW WALL.
EXISTING 100MM WALL RETAINED
FOR FOUNDATIONS SEE E223 - SK - 02.
NEW 215 HOLLOW BLOCK WALL PLASTERED BOTH SIDES WITH BRICK PIERS TO MATCH EXISTING.
215 HOLLOW BLOCK WALL, 600 HIGH PLASTERED BOTH SIDES,

P/2616/91

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Register Reference : 91A/0616 Date Received : 18th April 1991

Correspondence Name and Address : Conroy Crowe Kelly, 26 Kingram Place, Dublin 2.

CN0562II

Development : Single storey store/toilets extension to the rear of the Newsagent/Grocery in the already approved shopping development

Location : Orlagh Estate, Scholarstown Road, Rathfarnham

Applicant : Gannon Homes Ltd

App. Type : Permission

Zoning :

CONTRIBUTION
Standard £3000
Roads £1400
S. Sers
Open Space
Other.
SECURITY:
Bond / C.I.F.:
Cash:

(MOS/DK)

Report of the Dublin Planning Officer dated 5th June, 1991.

This application is for PERMISSION. The proposed development consists of a single storey store/toilets extension to the rear of the newsagent/grocery in the already approved shopping development at Orlagh Estate, Scholarstown Road, Rathfarnham. The applicant is Gannon Homes Ltd.

Under Reg. Ref. 89A-0236, permission was granted by An Bord Pleanala for 4 no. shops and 4 no. flats overhead (order dated 9th January, 1991).

A subsequent application lodged under Reg. Ref. 91A-0283 was for the proposed change of use from residential use to office use of first floor and subsequent alterations to previously approved two-storey shops and flat development was withdrawn and, therefore, never determined.

Seventeen car parking spaces were provided for in connection with the development approved under Reg. Ref. 89A-0236, which was less than what would normally be required by Development Plan standards (i.e. 23 no. car parking spaces) for a development of this size.

Unsolicited additional information received in this department on 23rd April, 1991, seeks to modify the drawings originally submitted as part of this application in a minor way.

The floor area of the proposed extension to the approved development is c. 64 sq. m. The proposed development would generate a demand for 3 additional off street car parking spaces applying Development Plan standards. Construction has commenced on the site (site inspection 28th May, 1991). The

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/0616

Page No: 0002

Location: Orlagh Estate, Scholarstown Road, Rathfarnham

proposed development is considered acceptable subject to the applicant providing 3 additional off street car parking spaces on the site. The applicant should also be conditioned to provide adequate screening along the southern boundary of the site where it adjoins residential houses.
The Roads report dated 21/6/91 has been noted
I recommend that a decision to GRANT PERMISSION be made under the Local Government (Planning and Development) Acts, 1963-1990 subject to the following (10) conditions:-

C O N D I T I O N S / R E A S O N S

01 That a development to be carried out in its entirety in accordance with the plans, particulars and specification lodged with the application, as amended by submission received on 23rd April, 1991, save as may be required by the other conditions attached hereto.
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 Acts, 1878-1964.

03 The development shall be carried out in conformity with conditions nos. 4 2 to 8 (inclusive) of planning permission granted under Ref. PL 6/5/82396, Reg. Ref. 89A-0236, dated 9th January, 1991, save as amended to conform with the revisions indicated in the plans lodged with the Dublin County Council in connection with this application.

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

04 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.

05 That the requirements of the Supervising Environmental Health Officer be ascertained and strictly adhered to in the development.
REASON: In the interest of health.

06 That 3 no. additional off street car parking spaces be provided at the front of the proposed development so that a total of 20 no. off street car parking spaces are provided in connection with the proposed development.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg. Ref.: 91A-0616

Page No.: 0003

Location: Orlagh Estate, Scholarstown Road, Rathfarnham.

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

07 That the existing boundary wall (c. 3 feet in height) which forms part of the existing southern boundary of the site is to be increased in height to 2 metres for approx. 5 metres and then gradually reduced from 2 metres to the height of the existing front boundary wall, as it approaches the front boundary wall. This wall is to match the existing 2 metre high wall which forms part of this boundary and is to be suitably capped and rendered. Details are to be agreed with the Planning Department prior to the commencement of development.

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

08 The proposed store not to be used for retail purposes.

08 REASON: To prevent overdevelopment of the site.

09 That arranagments be made with regard to the payment of the financial contribution in the sum of £3,000 required by condition no. 2 of the planning permission granted under Reg. Ref. 89A-0236. The arrangements to be made prior to the commencement of this proposal.

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

10 That arrangements be made with regard to payment of the financial contribution in the sum of £3,400 as required by condition no. 3 of the planning permission granted under Register Reference 89A-0236. The arrangements to be made prior to the commencement of this proposal.

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

NOTE: Compliance with one or more of the conditions of this permission may result in material alterations to the development as initially proposed and, accordingly, may require the submission of a further planning application.

COMHAIRLE CHONTAE ÁTHA CLIATH

Record of Executive Business and Manager's Orders

Reg.Ref: 91A/0616

Page No: 0004

Location: Orlagh Estate, Scholarstown Road, Rathfarnham

Endorsed:-.....
for Principal Officer

.....
for Dublin Planning Officer 7.6.91

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 (10) conditions set out above is hereby made.

Dated : ....12 June 1991.

.....
~~ASSISTANT CITY AND COUNTY MANAGER~~ Authorised Officer

to whom the appropriate powers have been delegated by order of the Dublin City and County Manager dated ~~26th April~~ 12th June, 1991.

DUBLIN COUNTY COUNCIL

REG. REF: 91A/616.

LOCATION: Orlagh Estate, Scholarstown Road.

APPLICANT: Gannon Homes Ltd.

PROPOSAL: Store/toilets ext.

DATE LODGED: 18.4.91.

This proposal will increase commercial floor area by $60m^2$ approximately. No Roads objection subject to:-

1. Applicant to submit to Roads for approval a car parking layout for 22 cars on site to cater for existing and proposed parking need.

2. Applicant to make an additional contribution of £1,350 towards Road Improvements in the area which facilitate the development.

TR/BMcC
4.6.91.

PLANNING DEPT.
DEVELOPMENT CONTROL SEC.
Date 12.06.91
Time 12.25

SIGNED: Tomás Rogers DATE: 4/6/91

ENDORSED: E. Madden DATE: 4th June '91

Marjorie.

DUBLIN COUNTY COUNCIL

REG. REF: 91A/616.

LOCATION: Orlagh Estate, Scholarstown Road.

APPLICANT: Gannon Homes Ltd.

PROPOSAL: Store/toilets ext.

DATE LODGED: 18.4.91.

This proposal will increase commercial floor area by 60m^2 approximately. No Roads objection subject to:-

1. Applicant to submit to Roads for approval a car parking layout for 22 cars on site to cater for existing and proposed parking need.

2. Applicant to make an additional contribution of £1,350 towards Road Improvements in the area which facilitate the development.

PLANNING DEPT.
DEVELOPMENT CONTROL SECT
Date 4.06.91
Time 4.45.

TR/BMcC
4.6.91.

SIGNED: Teresa Fyfe DATE: 4/6/91

ENDORSED: E. Madden DATE: 4th June '91