

REF. NO.: 91A/2369 CERTIFICATE NO.: 14286B  
 PROPOSAL: Extension to Tallaght Sports Bowl  
 LOCATION: Tallaght Sports Bowl rear Main Street Tallaght  
 APPLICANT: Leisure Wooded 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)	€ 255					
B	Domestic Ext. (Improvement/Alts.)	€ 230					
C	Building for office or other comm. purpose <u>380.0m<sup>2</sup></u>	€ 23.50 per M <sup>2</sup> or €70	<u>1330</u>	<u>1274</u>	<u>56</u>		
D	Building or other structure for purposes of agriculture	€ 21.50 per M <sup>2</sup> in excess of 300 M <sup>2</sup> Min. €70					
E	Petrol Filling Station	€ 200					
F	Dev. of prop. not coming within any of the foregoing classes	€70 or €9 per .1 hect. whichever is the greater					

€56 10/4/91  
 N35469

Column 1 Certified: Signed: J. Y... Grade: DHI Date: 22/3/91  
 Column 1 Endorsed: Signed: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_  
 Columns 2,3,4,5,6 & 7 Certified: Signed: Rud Grade: S.O Date: 21/3/91  
 Columns 2,3,4,5,6 & 7 Endorsed: Signed: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Mr. Colm Reid,  
Keane Murphy Duff,  
4 Princes Street South,  
City Quay,  
Dublin 2.

RW/GC

19/3/91


Re; Extension at Tallaght Sportsbowl, rear Main Street, Tallaght for Leisure World Ltd. 91A/0369

Dear Sir,

I refer to your application for planning permission and building bye-law approval in relation to the above which was received in this department on 15/3/91.

I would be grateful for the return of Receipt no. N34548 which has been cancelled and has been replaced by Receipt no. N34575 which is enclosed.

Yours faithfully,



for PRINCIPAL OFFICER

91A/0369

CERTIFICATE NO:

24593

9

PROPOSAL: Extension to Tallaght Sports Bowl  
LOCATION: Tallaght Sports Bowl, off main Street Tallaght  
APPLICANT: Leisure World Ltd

1	2	3	4	5	6	7
DWELLINGS/AREA LENGTH/STRUCT	RATE	AMT. OF FEE REQ.	AMOUNT LODGED	BALANCE DUE	BALANCE DUE	DATE/ RECEIPT NO
Dwellings	€232					
	€216					
	€500 per M <sup>2</sup> in excess of 300M <sup>2</sup> Min. €40					
metres: 380.0m <sup>2</sup>	€21.75 per M <sup>2</sup> of 240	665	637	28		
x .1 hect.	€235 per hect. of 235					
x .1 hect.	€200 per hect. of 200					
x .1 hect.	€200 per hect. of 200					
x metres <sup>2</sup>	€210 per M <sup>2</sup> of 210					
x 1,000M <sup>2</sup>	€215 per 1,000M <sup>2</sup> of 215					
x .1 hect.	€25 per hect. of 25					

€28 10/4/91  
N35176

Column 1 Certified: Signed: J. Young D/H Grade: \_\_\_\_\_ Date: 22/3/91

Column 1 Endorsed: Signed: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Columns 2,3,4,5,6 & 7 Certified Signed: Dull Grade: S e Date: 21/3/91

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

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

ASSESSMENT OF FINANCIAL CONTRIBUTION

REG. REF.: 911/369

CONT. REG.:

SERVICES INVOLVED: WATER/FOUL SEWER/SURFACE WATER

AREA OF SITE:

FLOOR AREA OF PRESENT PROPOSAL: 4086 m<sup>2</sup>

MEASURED BY:

J.Y. 22/3/91.

CHECKED BY:

METHOD OF ASSESSMENT:

TOTAL ASSESSMENT

MANAGER'S ORDERED NO: P/ /  
DATED

ENTERED IN CONTRIBUTIONS REGISTER:

Plot  
Balance  
88A/1107

DEVELOPMENT CONTROL ASSISTANT GRADE

goals not

forwardly  
on the

J. 20/1/91



Bloc 2, Ionad Bheatha na hEirinn,  
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/0369

Date : 26th March 1991

Dear Sir/Madam,

Development : Extension to Tallaght Sportsbowl to accommodate  
"Quasar" game at rear

LOCATION : Main St., Tallaght.

Applicant : Leisure World Ltd.

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Date Recd : 15th March 1991

Your application in relation to the above was submitted with a fee of  
£637.00 .

On examination of the plans submitted it would appear that the  
appropriate amount should be £665.00 .

I should be obliged if you would submit the balance of £28.00  
as soon as possible as a decision cannot be made on this application  
until the correct fee is received.

Yours faithfully,

.....  
PRINCIPAL OFFICER

Keane Murphy Duff,  
4 Princes Street South,  
City Quay,  
Dublin 2.

COMHAIRLE CHONTAE ATHA CLIATH

DUBLIN COUNTY COUNCIL

INCORRECT FEE WITH BYE LAW APPLICATION

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

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

Keane Murphy Duff,  
4 Princes Street South,  
City Quay,  
Dublin 2.

27th March, 1991

REG. REF.: 91A/0369

RE: Proposed extension at Tallaght Sportsbowl, Tallaght for Leisure World Ltd.

Dear Sir/Madam,

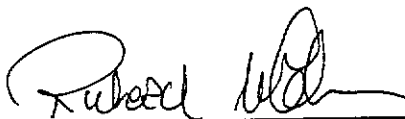
I refer to your application for Bye Law approval in respect of the above proposal. I wish to inform you that the Planning Authority will not commence to consider the application until the appropriate fee is paid. If no fee or a fee less than the appropriate fee has been received by the County Council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

The correct fee for the above mentioned application is £ 1330.00.  
Please quote the Register Reference No. stated above when submitting the fee.

Yours faithfully,

Amount Received = £1274.00

Amount Due = £56.00



for PRINCIPAL OFFICER

13 MAY 1991

DUBLIN COUNTY COUNCIL

REG. REF: 91A/369.  
 LOCATION: Main Street, Tallaght.  
 APPLICANT: Leisure World Ltd.  
 PROPOSAL: Ext. to Tallaght Sportsbowl.  
 DATE LODGED: 15.3.91.

PLANNING DEPT.	
DEVELOPMENT CONTROL OFF	
Date	14.4.91
Time	

This application is for full permission for extension to Tallaght Sportsbowl at Main Street, Tallaght.

The proposal involves an extension of floor area (approximately 364m<sup>2</sup>) with a consequent loss of 19 spaces now present.

The proposal itself requires about 12 car spaces. A significant history relating to this site originates with an application for "a Cinema, Bowling Alley, Health Club, 6 Shops, Market Stalls, 2 Restaurants, Clinic, Ancillary car parking and alternative access" under Reg. Ref: 87A/658. The outline application was granted by the Council on 20.7.87 and by An Bord Pleanala on 24.8.88. Full permission was later granted for the development minus the cinema and with an alternative access to the "Foxes Covert," on 17.2.89 under Reg. Ref: 88A/1707.

Subsequent minor applications relating to the site were later submitted 89A/1861, 90A/264, 90A/2177. Parking requirements for the development was a contentious issue throughout the applications. Under 87A/658 a strict shortfall of 199 spaces (286 provided and 485 required) was later reduced to a compromise shortfall of 112 spaces taking phased car park demand into account.

The plans submitted under 88A/1909 required a parking quota of 356 spaces. A total of 317 spaces was proposed leaving a shortfall of 39 spaces.

The applicant has now stated the option of providing additional spaces in a designated area to the east of the existing car park. Roads require the 12 spaces required by this development and the 19 spaces lost to be accommodated in this area. The layout to be agreed with Roads Department.

MA/BMcC  
8.5.91.

SIGNED: \_\_\_\_\_

DATE: \_\_\_\_\_

ENDORSED: *E. Waddell*

DATE: *8<sup>th</sup> May '91*

Register Reference : 91A/0369

Date : 5th April 1991

.....  
ENDORSED \_\_\_\_\_ DATE \_\_\_\_\_

WATER SUPPLY. Available for zone during 24 hours  
stoppage to be provided with water to be  
discharged from underneath proposed extension -  
as agreed with Water Dept (Pottery).  
defects etc.

*[Signature]*  
7/5/91

ENDORSED *[Signature]* DATE 8/5/91

PLANNING DEPT.  
DEVELOPMENT CONTROL SECT  
Date 14/4/91  
Time .....



SS only.

18

Register Reference : 91A/0369

Date : 5th April 1991

Development : Extension to Tallaght Sportsbowl to accommodate "Quasar" game at rear

LOCATION : Main St., Tallaght.

Applicant : Leisure World Ltd.

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Planning officer : M.DARLEY

Date Recd. : 15th March 1991

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

Yours faithfully,

Co. DU...  
 18 APR 1991  
 SAN SERVICE

DUBLIN  
 SANITARY SERVICES  
 PRINCIPAL OFFICER  
 15 MAY 1991  
 Returned *JG*

Date received in Sanitary services .....

FOUL SEWER

*No foul sewer requirements indicated.*

PLANNING DEPT.  
 DEVELOPMENT CONTROL SECT  
 Date *14.4.91*  
 Time .....

SURFACE WATER

*Available.*

*W. Sullivan 9/5/91.*

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

*J. Liu  
 10/5/91*

JK.

MP

DUBLIN COUNTY COUNCIL

REF: 91A/369.

LOCATION: Main Street, Tallaght.

APPLICANT: Leisure World Ltd.

PROPOSAL: Ext. to Tallaght Sportsbowl.

DATE LODGED: 15.3.91.

This application is for full permission for extension to Tallaght Sportsbowl at Main Street, Tallaght.

The proposal involves an extension of floor area (approximately 364m<sup>2</sup>) with a consequent loss of 19 spaces now present.

The proposal itself requires about 12 car spaces. A significant history relating to this site originates with an application for "a Cinema, Bowling Alley, Health Club, 6 Shops, Market Stalls, 2 Restaurants, Clinic, Ancillary car parking and alternative access" under Reg. Ref: 87A/658. The outline application was granted by the Council on 20.7.87 and by An Bord Pleanala on 24.8.88. Full permission was later granted for the development minus the cinema and with an alternative access to the "Foxes Covert," on 17.2.89 under Reg. Ref: 88A/1707.

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The plans submitted under 88A/1909 required a parking quota of 356 spaces. A total of 317 spaces was proposed leaving a shortfall of 39 spaces.

The applicant has now stated the option of providing additional spaces in a designated area to the east of the existing car park. Roads require the 12 spaces required by this development and the 19 spaces lost to be accommodated in this area. The layout to be agreed with Roads Department.

**PLANNING DEPT.**  
**DEVELOPMENT CONTROL SECT**  
 DATE ..... 28/05/91 .....  
 TIME ..... 12:00 P.M. ....

MA/encd  
8.5.91.

SIGNED: \_\_\_\_\_

ENDORSED: *E. W. Adair*

DATE: \_\_\_\_\_

DATE: *8<sup>th</sup> May 91*

# COMHAIRLE CHONTAE ÁTHA CLIATH

## Record of Executive Business and Manager's Orders

ON 3256 III  
 Board: 6900  
 Roads: P. Cane  
 S Sers: 88A/179  
 Open Space:  
 Other:  
 SECURITY  
 Bond:  
 Cash:

Proposed extension to Tallaght Sportsbowl to accommodate "Quasar" game at rear Main Street, Tallaght for Leisure World Ltd.

Keane Murphy Duff,  
4, Princes Street South,  
City Quay,  
Dublin 2.

Reg. Ref. 91A-0369  
 Appl. Rec'd: 15.03.1991  
 Floor Area: 364 sq. m. approx.  
 Site Area:  
 Zoning: A

Report of the Dublin Planning Officer, dated 9 May 1991

This is an application for PERMISSION for an extension to Tallaght Sportsbowl to accommodate "Quasar" Game at rear Main Street, Tallaght.

The site of the proposed development is located in an area zoned "to protect and/or improve residential amenity" in the Development Plan.

There is a long Planning History on the site of this development. This is set out as follows:

By order No. P/1729/79, dated 4th May, 1979, Reg. Ref. SA 355 permission was refused for a filling station on a portion of the current site, adjoining the Tallaght By-Pass on the grounds of zoning, traffic hazard and prematurity.

By order No. PA/2086/80, dated 30th September, 1980, Reg. Ref. TA 1458 permission was refused for the retention of a builders supply yard on part of this site on the grounds of zoning and traffic hazard.

By order No. PA/16./82, dated 21st December, 1982, Reg. Ref. WA 2056 it was decided to give "no further consideration" to an application which had been withdrawn for 'local shopping, garden centre, squash courts, restaurant, theatre and ancillary parking on this site.'

By PL 6/5/63269 dated 14th February, 1985, Reg. Ref. YA 288 permission was granted on appeal for a bank and neighbourhood shops on portion of the site of the current application.

By P/4737/86, 17th December, 1986, Reg. Ref. 86A-0539, permission was granted for new facade, stores/lobby at front of 'Foxes Covert', Main Street, Tallaght.

By order No. P/3956/86, dated 9th July, 1986, Reg. Ref. 86A-0922, permission was granted for '80 metres of access road and site development works' to serve the bank site at Old Bawn Road, Tallaght for Southside Taverns Ltd.

By order No. P/445/87, dated 6th February, 1987, Reg. Ref. 86A-0954, permission was granted for a revised 2 storey bank and 29 associated car parking spaces at Old Bawn Road. The shops approved by PL 6/5/63269 on this site were omitted from this application.

(Continued)

# COMHAIRLE CHONTAE ÁTHA CLIATH

## Record of Executive Business and Manager's Orders

Proposed extension to Tallaght Sportsdown to accommodate "Quasar" game at rear Main Street, Tallaght for Leisure World Ltd.

(Continued)

Outline permission was granted by An Bord Pleanála, Ref. PL 6/5/74409, dated 24th August, 1988, Reg. Ref. 87A-0658, for "development comprising the erection of a cinema, bowling alley, health club, six local shops, market stalls, two restaurants (one a take-away), clinic and the provision of ancillary car parking and alternative access to "The Foxes Covert" on lands which include the site of the current proposal.

By order No. P/1105/89 (88A-1707) permission was granted for bowling alley, health club, six local shops, two restaurants, car parking and access.

By order No. P/320/89 (89A-1861) permission was granted for six lighting standards in car park.

The extension now proposed comprises 364 square metres, and would be located on the eastern side of the existing building. Externally the extension will match the existing building in detailing and finishes, while internally it will be constructed as a shell for subsequent specialist fitting. "Quasar" is a modern "quest" game using lasers, strongly attractive to young people.

356 car parking spaces were shown with the original development (88A-1707). 70 of these are for the "Foxes Covert" public house. There would have been a reduction in the ~~number~~ of the car park because of conditions requiring landscaping.

The proposed extension would cause the elimination of 19 spaces. I have spoken to the architect acting for the developer. He has informed me that the existing car park is not fully utilised. 180 spaces are dedicated to the "Super Bowl". They have surveyed the use of the car park and found that the highest number of cars recorded is 70.

R.C. Roads Department indicate that they require these spaces to be reinstated, plus another 12 to serve the proposed development. Having spoken to the current authority, I consider that this is not a reasonable case for parking in the car park. Sanitary Services Department Report has not been received.

Taking all of the above into consideration,

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

(Continued)

# COMHAIRLE CHONTAE ÁTHA CLIATH

## Record of Executive Business and Manager's Orders

Proposed extension to Tallaght Sportsbown to accommodate "Quasar" game at rear Main Street, Tallaght for Leisure World Ltd.

### CONDITIONS

### REASONS FOR CONDITIONS

1. The development to be carried out in its entirety in accordance with the plans, particulars and specifications lodged with the application, save as may be required by the other conditions attached hereto.

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

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

4. ~~That a financial contribution in the sum of £ be paid by the proposer to the Dublin County Council towards the cost of improvements of roads in the area of the proposed development and which facilitate this development; this contribution to be paid before the commencement of development on the site.~~

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

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

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

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

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

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

4. ~~In the interest of the proper planning and development of the area.~~

3 5. In the interest of safety and the avoidance of fire hazard.

4 6. In the interest of health.

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

# COMHAIRLE CHONTAE ÁTHA CLIATH

## Record of Executive Business and Manager's Orders

Proposed extension to Tallaght Sportsdown to accommodate "Quasar" game at rear Main Street, Tallaght for Leisure World Ltd.

CONDITIONS

REASONS FOR CONDITIONS

6 ~~8.~~ That all external finishes harmonise in colour and texture with the existing premises.

6 ~~8.~~ In the interest of visual amenity.

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

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

8 ~~10.~~ That the applicant submit to the Planning Authority specific proposals for the extensive use of Pavior Setts in the proposed development, adjacent to the building, prior to the commencement of development.

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

9 ~~11.~~ That no music or other amplified sound shall be broadcast from the premises proposed in such a manner as to cause nuisance to the occupants of adjoining/nearby premises.

9 ~~11.~~ In the interest of residential amenity.

10 ~~12.~~ That adequate refuse and waste disposal facilities, including litter and waste bins be provided.

10 ~~12.~~ In the interest of the proper planning and development of the area.

~~13. That the 19 car parking spaces eliminated by the proposal be provided when required by the Planning Authority. Details of their location to be agreed with the Planning Authority prior to the commencement of development.~~

~~13.~~ In the interest of the proper planning and development of the area.

11 That arrangements be made with regard to the payment of the balance of the proposed contribution of the sum of £6,900 as required by condition 103 of planning permission granted under Ref. PPA/1757. The arrangements to be made prior to commencement of the project.

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

~~12. Each condition 11~~

*[Handwritten signature]*

# COMHAIRLE CHONTAE ÁTHA CLIATH

## Record of Executive Business and Manager's Orders

Proposed extension to Tallaght Sportsdown to accommodate "Quasar" game at rear Main Street, Tallaght for Leisure World Ltd.

(Continued)

GB  
(GB/DK)

Endorsed:- [Signature]  
for Principal Officer

Richard Connors SEP  
For Dublin Planning Officer

10.5.91

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 (//) conditions set out above is hereby made.

Dated: 17 May, 1991.

K. O'Sullivan  
Assistant City and County Manager

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

# DUBLIN COUNTY COUNCIL

Tel. 724755 (ext. 262/264)

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

Notification of Decision to Grant Permission/~~Approval~~  
Local Government (Planning and Development) Acts, 1963-1983

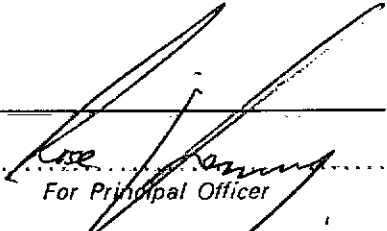
To... Keane Murphy Duff, ..... Decision Order No. and Date 5/2106/91 - 13.05.1991  
 ..... 4, Princes Street South, ..... Register Reference No. 91A-0369  
 ..... City Quay, ..... Planning Control No. ....  
 ..... Dublin 2. ..... Application Received on 15.03.1991  
 Applicant..... Leisure World Ltd. ..... Floor Area: 364 sq. m. approx.

In pursuance of its functions under the above-mentioned Acts, the Dublin County Council, being the Planning Authority for the County Health District of Dublin, did by Order dated as above make a decision to grant Permission/~~Approval~~ for:-  
 ..... extension to Tallaght Sportsbowl to accommodate "Quasar" game at  
rear Main Street, Tallaght.

SUBJECT TO THE FOLLOWING CONDITIONS

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

(Continued)

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

Date..... 11th May, 1991.

IMPORTANT: Turn overleaf for further information



40 Fitzwilliam Place  
Dublin 2 Ireland  
Telephone (01) 762594  
Fax (01) 762310

Architect  
and Town Planner

**Fergal MacCabe**

BArch DipTp MRBAI MPl

Mr Richard Cremins,  
Dublin County Council,  
Planning Department,  
Irish Life Centre,  
Lower Abbey Street,  
DUBLIN 1

RE Lands at rear Main Street, Tallaght and Oldbawn Road

*Tallaght Village*

Date 22nd April 1991

Ref

FMacC/613

Dear Mr Cremins

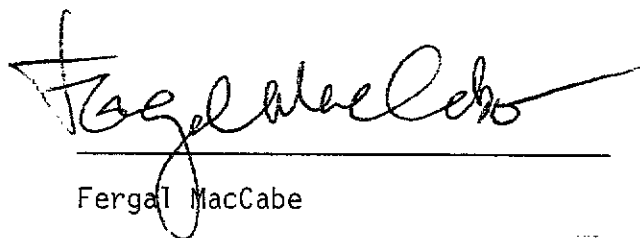
I enclose herewith for your information a copy of a recent survey of the usage of the existing car parks at the above.

The general picture is of substantial under-utilisation and at no time were the available spaces ever entirely filled. The most intensive period of usage occurred only in the upper car park relating to the 'Foxe's Covert' when on Wednesday 10th April, it was almost fully occupied due to a karaoke competition. This is a rather unusual event and as you can see, wasn't repeated. The lower car park on the other hand, even at peak, never reached 50% occupancy.

My client observes that his customers are almost exclusively from the adjoining neighbourhood and don't travel by car.

Whilst I realise that proposed developments and unimplemented consents will place additional loadings on the presently surplus spaces, nevertheless, it would appear that the existing car parking provision is substantially under-utilised.

Yours faithfully



Fergal MacCabe

SURVEY AT FOXES' COVERT CAR PARK

NUMBER OF CARS - HOURLY CHECK

CAR PARK NUMBER 1 - (UPPER CAR PARK AT FOXES COVERT)

DATE	A.M.												P.M.												A.M.		
	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00		12.00	
APRIL	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00													1.00
9	26	24	20	24	22	20	23	30	20	25	33	45	65	20													
10	28	27	31	38	40	38	36	36	17	24	25	40	60	75													
11	26	18	25	29	46	30	31	34	36	35	32	48	66	69													
12	24	26	22	36	44	34	36	43	54	49	54	51	58	73													
13	22	19	20	41	47	39	46	37	29	39	33	44	50	45													
14	27	25	24	48	70	60	23	38	39	37	40	57	70	30													
15	29	27	28	30	27	25	22	34	37	35	37	40	66	40													

CAR SPACES - 77

DATE	A.M.												P.M.												A.M.	
	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00		12.00
APRIL	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00												1.00
9	17	18	20	16	20	18	21	19	25	30	29	35	55	15												
10	15	17	16	17	22	23	19	17	21	38	50	41	35	28												
11	18	23	26	17	17	16	15	26	35	32	40	51	78	55												
12	22	20	24	15	19	20	24	38	42	47	58	40	49	35												
13	16	13	22	41	44	36	36	29	35	31	37	50	31	20												
14	14	15	25	48	57	30	16	25	31	34	35	36	30	21												
15	12	17	27	30	36	32	20	18	30	33	39	40	32	22												

TOTAL CAR SPACES - 180

OVERALL TOTAL 257

# KEANE MURPHY DUFF

Chartered Architects, Designers & Project Managers

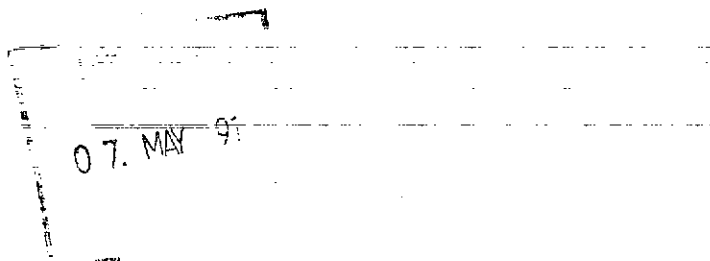


4 Prince's Street South, City Quay, Dublin 2. Telephone: 770077 Fax: 771186

Ref: CR/MQ

6th May, 1991.

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



Att: Ms. Geraldine Boothman

Re: Extension To Tallaght Sportsbowl Reg. Ref. 91A/0369/ Unsolicited Information  
Re. Car Park Usage.

Dear Sirs,

I refer to our telephone conversation today.

I enclose copy of survey of Car Park usage carried out at the above site as promised.

Do not hesitate to contact me if you have any queries.

Yours faithfully,

Colm Reid,  
KEANE MURPHY DUFF.

C.C. Mr. Fergal McCabe ( & encls. ).

91A/0369

1.0.0.1

und A.1.

SURVEY AT FOXES' COVERT CAR PARK  
NUMBER OF CARS - HOURLY CHECK

CAR PARK NUMBER 1 - (UPPER CAR PARK AT FOXES COVERT)

DATE	A.M.												A.M.		
	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00		11.00	12.00
APRIL	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00	1.00
9	26	24	20	24	22	20	23	30	20	25	33	45	65	20	
10	28	27	31	38	40	38	36	36	17	24	25	40	60	75	
11	26	18	25	29	46	30	31	34	36	35	32	48	66	69	
12	24	26	22	36	44	34	36	43	54	49	54	51	58	73	
13	22	19	20	41	47	39	46	37	29	39	33	44	50	45	
14	27	25	24	48	70	60	23	38	39	37	40	57	70	30	
15	29	27	28	30	27	25	22	34	37	35	37	40	66	40	
TOTAL	CAR SPACES - 77														

DATE	A.M.												A.M.		
	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00		11.00	12.00
APRIL	10.00	11.00	12.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	11.00	12.00	1.00
9	17	18	20	16	20	18	21	19	25	30	29	35	55	15	
10	15	17	16	17	22	23	19	17	21	38	50	41	35	28	
11	18	23	26	17	17	16	15	26	35	32	40	51	78	55	
12	22	20	24	15	19	20	24	38	42	47	58	40	49	35	
13	16	13	22	41	44	36	36	29	35	31	37	50	31	20	
14	14	15	25	48	57	30	16	25	31	34	35	36	30	21	
15	12	17	27	30	36	32	20	18	30	33	39	40	32	22	
TOTAL	CAR PARK NUMBER 2 - LOWER CAR PARK AT TALLAGHT SPORTSBOWL														

TOTAL SPACES - 180  
OVERALL TOTAL 257

# KEANE MURPHY DUFF

Chartered Architects, Designers & Project Managers



4 Prince's Street South, City Quay, Dublin 2. Telephone: 770077 Fax: 771186

Ref: CR/MQ 26th April, 1991.

Mr. John Kearney,  
Dublin County Council,  
Building Control Section,  
Liffey House,  
Tara Street,  
Dublin 2.

91A/0369

LLO

Marl K. I.

**Re: Extension To Tallaght Sportsbowl Reg. Ref. No. 91A/0369**

Dear Sir,

Further to recent telephone conversation with Mr. P. Harty of the Engineering Department, I enclose two copies of our drawing no. 91002/20A revised to show existing ring water main diverted to run outside perimeter of proposed extension.

Yours faithfully,

Colm Reid,  
KEANE MURPHY DUFF.

30 APR '91

C.C. Mr. R. Cremins - Dublin County Council, Planning Department (and drawing),  
Mr. P. Harty - Dublin County Council, Engineering Department (Water Design)  
and drawings.

Encls.

# MHAIRLE CHONTAE ÁTHA CLIATH

DUBLIN COUNTY COUNCIL

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

BYE LAW APPLICATION.

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

REC. No. N 35469

*Balance*

£56.00

Received this 11<sup>th</sup> day of April 1991

from Leisure World Ltd,  
23 Fitzwilliam Square

D.2

the sum of fifty six Pounds

Pence being balance

of fee on 91A/369

Mabel O'Connell Cashier

S. CAREY  
Principal Officer

*Bal.*  
*(S)*

KEANE MURPHY DUFF

Chartered Architects, Designers & Project Managers



4 Prince's Street South, City Quay, Dublin 2. Telephone: 770077 Fax: 771186

Ref: CR/MQ

3rd April, 1991.

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

10 APR 91

Re: Extension To Tallaght Sportsbowl For Quasar Game Reg. Ref. No. 91A/0369

Dear Sirs,

Further to your letters dated 26th and 27th March 1991, we enclose two cheques in the amounts of £28.00 and £56.00 for balance of Planning fee and Bye-Law fee respectively.

Yours faithfully,

Colm Reid,  
KEANE MURPHY DUFF.

Encls.

4 Prince's Street South, City Quay, Dublin 2. Telephone: 770077 Fax: 771186

Ref: CR/MQ

22nd March, 1991.

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

**Re: Extension To Tallaght Sportsbowl At Rear Main Street, Tallaght, Dublin 24,  
Req. Ref. No. 91A/0369.**

Dear Sirs,

I refer to your letter dated 19th March 1991.

I am advised that the applicant has a leasehold interest in the above site.

Yours faithfully,



Colm Reid,  
KEANE MURPHY DUFF.

27. MAR 91



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

Register Reference : 91A/0369

Date : 19th March 1991

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

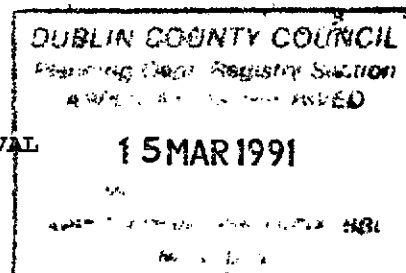
Dear Sir/Madam,

DEVELOPMENT : Extension to Tallaght Sportsbowl to accommodate  
"Quasar" game at rear

LOCATION : Main St., Tallaght.

APPLICANT : Leisure World Ltd.

APP. TYPE : PERMISSION/BUILDING BYE-LAW APPROVAL



With reference to above, I acknowledge receipt of your application received on 15th March 1991.

Yours faithfully,

.....  
PRINCIPAL OFFICER

Keane Murphy Duff,  
4 Princes Street South,  
City Quay,  
Dublin 2.

If there is any query with regard to the information contained in  
newspaper notice we would be glad if you could advise us  
to this effect.



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 Tallaght Sportsbowl, Rear Main Street, Tallaght, (Off Old Bawn Rd)  
(If none, give description Tallaght, Dublin 24.  
sufficient to identify)

3. Name of applicant (Principal not Agent) Leisure World Ltd  
Address 23 Fitzwilliam Square, Dublin 2. Tel. No 762205

4. Name and address of Keane Murphy Duff, 4 Princes Street South, City Quay,  
person or firm responsible Dublin 2. Tel. No 770077  
for preparation of drawings

5. Name and address to which Keane Murphy Duff, 4 Princes Street South, City Quay,  
notifications should be sent Dublin 2.

6. Brief description of Extension to accommodate Quasar game  
proposed development

7. Method of drainage Public sewer 8. Source of Water Supply Public mains

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

DUBLIN COUNTY COUNCIL  
Leisure World Ltd. wish to apply  
for planning permission for  
extension to Tallaght Sportsbowl  
to accommodate "Quasar" game  
at rear Main St., Tallaght.  
DUBLIN 24

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

*Grid  
Plan  
12/3/91*

11.(a) Area of Site Unknown 4637 Sq. m. 15/3  
(b) Floor area of proposed development Approximately 364 N 34231  
(c) Floor area of buildings proposed to be retained within site Approximately 3250 Sq. m.

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

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:  
(See covering letter)

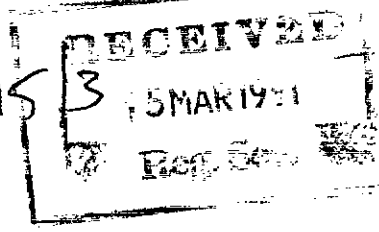
15. List of documents enclosed with Arch. drawings nos. 91002/20...25 (4 copies) Arch Spec. (2 copies)  
application. Engineers Drawings nos. KM/01/200, 201 (4 copies), Engineers Spec. and  
Calculations (2 copies), Application form, Planning Ad, Fee Cheques.

16. Gross floor space of proposed development (See back) Approximately 364 Sq. m.

No of dwellings proposed (if any) 4 and C Class(es) of Development  
Fee Payable £ 1911.00 Basis of Calculation 364 sq.m. at £1.75 = planning 364 sq.m. at £3.50  
If a reduced fee is tendered details of previous relevant payment should be given Bye-Laws.

Signature of Applicant (or his Agent) [Signature] KMD Date 15th March 1991

Application Type P/BBL FOR OFFICE USE ONLY  
Register Reference 91A/0369  
Amount Received £ £521.12 1.30.6.  
Receipt No 153  
Date 15 MAR 1991



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 m <sup>2</sup> (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 m <sup>2</sup> (min. £70.00)
D	Agricultural Buildings/Structures	£1.00 per m <sup>2</sup> in excess of 300 sq. metres (min. - £70.00) (Max. - £300.00)
E	Petrol Filling Station Development or	£200.00
F	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.

COMHAIRLE CHONTAE ÁTHA CLIATH

PAID BY — DUBLIN COUNTY COUNCIL

CASH  
CHEQUE ✓  
M.O.  
B.L.  
I.T.

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 34231

£637.00

Received this 21st day of March 1991

from Leisure world Ltd  
23 Fitzwilliam square,  
D.2

the sum of six hundred and thirty seven Pounds

Pence, being 60 pence  
application at Tallist sportsbar, Rose Main St, Tallist

Michael O'Keefe

Cashier

S. CAREY  
Principal Officer

Class 4



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/0369

Date : 19th March 1991

Dear Sir/Madam,

Development : Extension to Tallaght Sportsbowl to accommodate  
"Quasar" game at rear

LOCATION : Main St., Tallaght.

Applicant : Leisure World Ltd.

App. Type : PERMISSION/BUILDING BYE-LAW APPROVAL

Date recd. : 15th March 1991

I refer to your planning application in connection with the above.  
You have omitted to state your/your client's legal interest in this  
property, (i.e. whether freehold, leasehold etc.).  
This information is required to comply with Article 17 of the Local  
Government (Planning and Development) Regulations 1977.

Please submit this information at your earliest convenience.

Yours faithfully,

.....

PRINCIPAL OFFICER

Keane Murphy Duff,  
4 Princes Street South,  
City Quay,  
Dublin 2.

# KEANE MURPHY DUFF

Chartered Architects, Designers & Project Managers

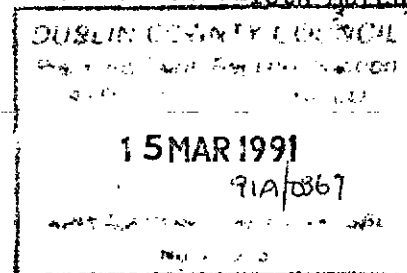


4 Prince's Street South, City Quay, Dublin 2. Telephone: 770077 Fax: 771186

Ref: CR/MQ

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

15th March, 1991.



**Re: Extension To Tallaght Sportsbowl At Rear Main Street, Tallaght, Dublin 24.**

Dear Sirs,

We wish to apply for Planning Permission and Bye-Law Approval for an extension to Tallaght Sportsbowl to provide a Quasar Game Area. The proposal involves the construction of approximately 364 sq.m. of additional space at the Tallaght Sportsbowl. Externally the extension will match the existing building in detailing and finishes, while internally it will be constructed as a shell for subsequent specialist fitting out.

The proposal also involves the loss of 19 car spaces. Our Clients are of the opinion that the existing car parking provision is more than adequate in practice, having operated the Sportsbowl since May 1990. However, should additional car parking prove necessary, there is an area available to the east of the site which can be laid out to accommodate it.

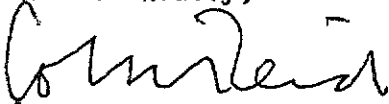
Finally, we enclose the following;

1. Architectural drawings nos. 91002/20, 21, 22, 23, 24 and 25 (4 copies).
2. Specification of materials and workmanship (2 copies).
3. Engineering drawings nos. KM/01/200, 201. <sup>300 2</sup> (4 copies).
4. Engineering specification and calculations. (2 copies).
5. Fee cheques.
6. Planning add.
7. *Application Form* Contd/.....

*Directors:* Ian Duff, B.Arch., Dip.A.F., M.R.I.A.I. Noel Murphy, Dip.Arch., A.R.I.B.A., M.R.I.A.I. J. F. Reynolds, B.Arch., M.R.I.A.I., R.I.B.A., Dip. Proj. Man.  
Michael J. Kinsella, B.Arch., M.R.I.A.I., R.I.B.A., Dip. Proj. Man., HNC (B.S.). Eugene F. Dunne, B.Arch., M.R.I.A.I., R.I.B.A.  
*Consultant:* David Keane, B.Arch., F.R.I.A.I., R.I.B.A., A.C.I.Arb., Barrister-at-Law.  
*Associates:* D. O'Doherty, R.I.A.I. (Tech). Niall Phelan, R.I.A.I. (Tech), M.B.L.A.T. Colm Reid, B. Arch., M.R.I.A.I., R.I.B.A.  
KEANE MURPHY DUFF LIMITED.  
Company Registration Number: 155935

Do not hesitate to contact us if you have any queries.

Yours faithfully,



Colm Reid,  
KEANE MURPHY DUFF.

N.B. It is the practice of this Office to take account of the Proposed Building Regulations as issued by the Minister of the Environment, but this is not to be interpreted as a guarantee that the provisions of the Proposed Building Regulations have been implemented in full or in any particular in this proposal.


DUBLIN COUNTY COUNCIL  
15 MAR 1991  
91P/0569





S.W. MANHOLE	COVER LEVEL	INVERT LEVELS
1	24.00	22.53
2	22.75	22.00
3	23.50	22.17
4	22.75	21.84
5	23.50	22.16
6	22.50	21.58
7	23.25	21.88
8	22.25	21.38
9		<del>22.44</del>

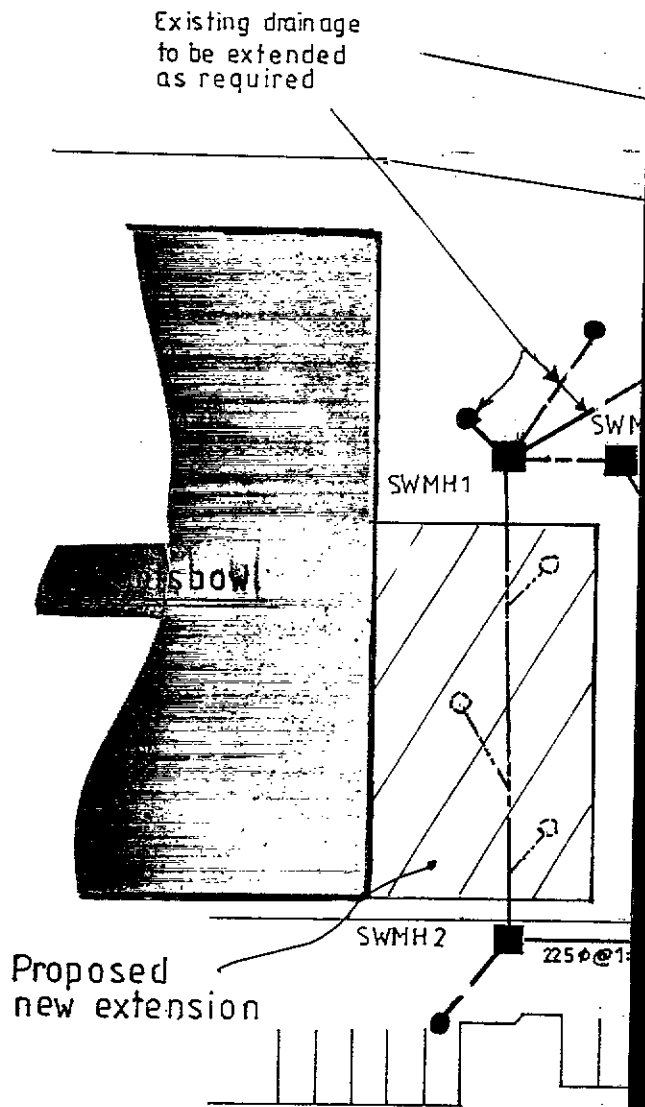
**NOTE:-**

All gully connections to be 100  $\phi$   
All falls to be minimum falls.

EXISTING 

NEW 

EXISTING  
DRAINS MADE  
REDUNDANT &  
GROUTED UP. 



DRAWN A. R.

PAGE

DATE MAR. 91

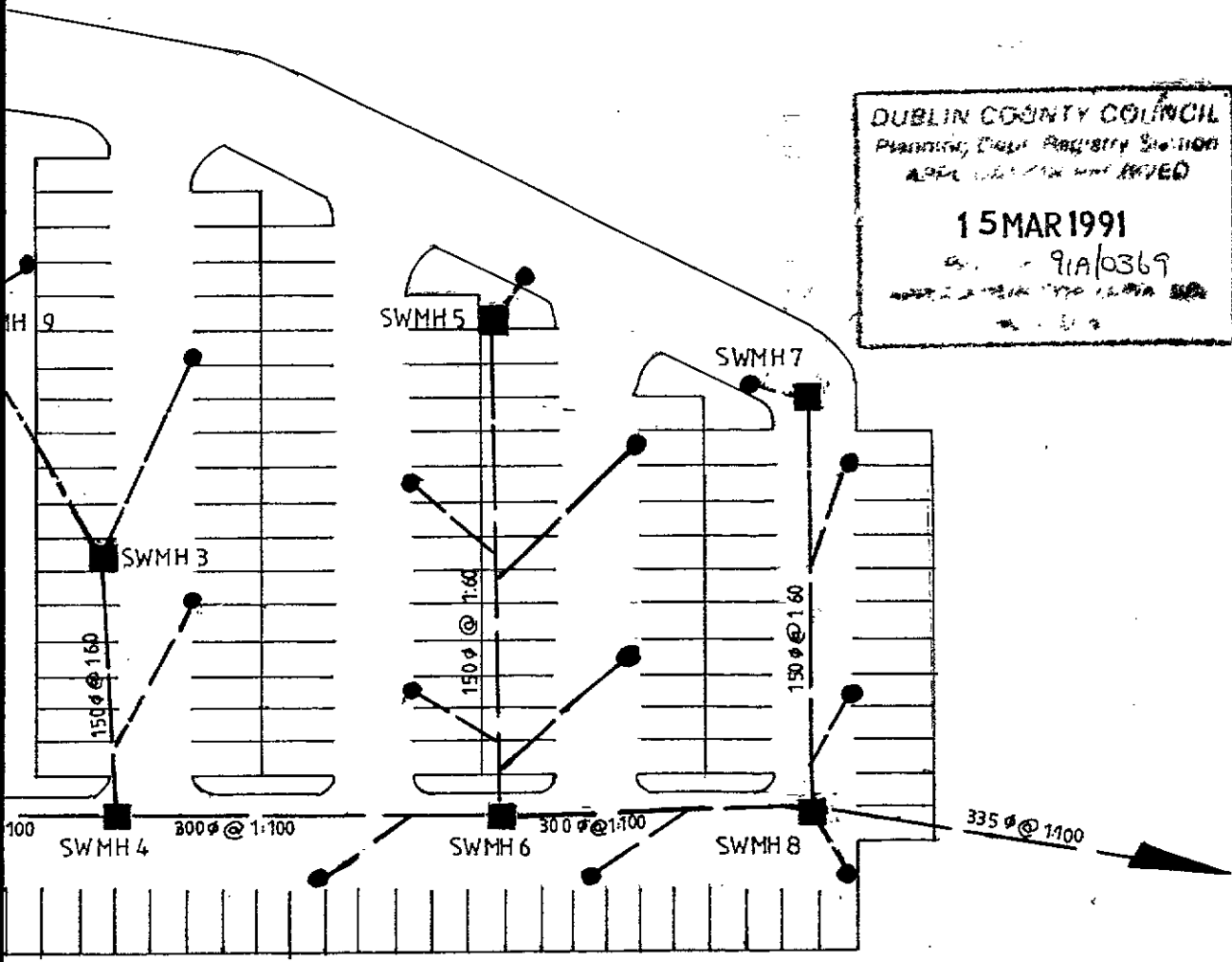
SCALE 1:500

CHKD

DRG. No. KM/01/300

REV	DATE	BY	DESCRIPTION

DUBLIN COUNTY COUNCIL  
 Planning, Design, Registry Section  
 APPROVED FOR THE PLAN  
 15 MAR 1991  
 91A/0369



PARK PLAN

STRUCTURAL STEELWORK SPECIFICATION

TALLAGHT SPORTSBOWL EXTENSION

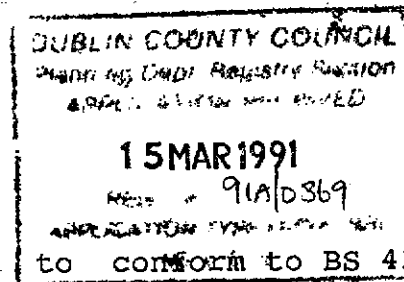
KM/01

1.0 General

1.1 Standards

Where standards are referred to the most recent editions of the standards shall be deemed to apply. Where a standard has been superseded the new standard shall be deemed to apply.

1.2 Notwithstanding the following, all steelwork shall be fabricated and erected in accordance with the National Structural Steelwork Specification for Building Construction published by the B.C.S.A.



2.0 Materials

2.1 Steelwork

Materials shall be mild steel to conform to BS 4360 or approved equal.

2.2 Welding

Metal arc welding shall be in accordance with BS 5135 or approved equal.

2.3 Electrodes for welding shall comply with BS 639.

2.4 Nuts and Bolts

Unless otherwise shown Bolts and Nuts shall be black bolts and nuts to BS 916 or approved equal. Bolts with designation 4.6 shall be used. Tapered washers to tapered surfaces shall comply with BS 3410 or approved equal.

2.5 Steelwork Rolled Sections shall conform to BS 4.

Grade 43 steel shall be used throughout.

2.7 All steelwork shall be free from laminations edge defects and inclusions.

### 3.0 Workmanship

#### 3.1 Shop Drawings

The steelwork contractor shall prepare and submit two copies of shop drawings for approval at least three weeks before required fabrication work is due to commence.

#### 3.2 Erection Programme

A programme for the erection of the works shall be prepared and submitted by the contractor on appointment for the execution of the work.

#### 3.3 Tolerances

The permissible dimensional deviations for structural steel elements above foundations shall be as follows:

For any nominally horizontal surface measured from the nearest reference level  $\pm 3$ mm.

For any nominally vertical surface measured from the nearest level  $\pm 3$ .

#### 3.4 Quality Control

A provisional sum is included for testing and such tests as are required shall be carried out by an approved body. The contractor will be required to provide attendances for testing.

3.5 All steel is to be fabricated in accordance with BS 449.

3.6 The contractor shall give one week's notice of commencement of steelwork fabrication.

### 3.7 Cleat Projections

Cleats shall be fixed to project 3mm beyond the end of simply supported members.

### 3.8 De-Burring

All burrs and sharp arises shall be removed.

### 3.9 Splicing

Splices shall not be used except where shown on the drawings.

3.10 Each element of fabricated steelwork shall be marked in accordance with an assembly drawing before delivery to site.

## 4.0 Erection

4.1 All structural steelwork shall be erected in accordance with BS 449.

### 4.2 Flame Cutting

Flame cut edges which will be subjected to substantial stress or which are to have weld metal deposited on them shall be reasonably free from gouges. Occasional notches or gouges not more than 3mm deep shall be permitted. Gouge marks greater than 3mm that remain from cutting shall be removed by grinding. All re-entrant corners shall be shaped to a radius of at least 15mm. Flame cutting equipment shall not be used on site without prior approval.

4.3 The lengths of tack welds which shall be incorporated in the finished work shall be not less than four times the thickness of the thicker plate or 50mm, whichever is the smaller.

### 4.4 Qualification of Welders

All welders shall hold an approved proficiency certificate or approved qualification, appropriate to the class of work on which they are to be engaged. Copies of proficiency tests shall be supplied on request. Where proficiency certificates are not available a welder's competence shall be ascertained by some other agreed method.

## 5 Bolting

Drift holes which are one third diameter or more off centre shall not be used.

### 4.6 Washers

Washers are to be placed under black bolts and nuts of all bolts connecting metal coated steel.

## 5.0 Protection of Steelwork

### 5.1 Generally

The references in brackets in clauses in this specification are to numbers of clauses and sub-clauses in British Standard Code of Practice BS5493 - Protective Coating of Iron and Steel Structures against corrosion. The recommendations of any clause or sub-clause so referred to are requirements of this specification.

All stages of preparation and protection of the works shall be carried out in workshops with suitable lighting, heating and ventilation and in accordance with Cl. 22.26.

All steelwork surfaces shall be blast cleaned to remove all millscale, rust and other contaminations to a minimum standard of SA2-1/2 according to Swedish Standard STS055900.

The abrasive used during blast cleaning shall be steel, malleable iron or chilled iron shot of a grading suitable to give a maximum surface amplitude of 100 microns.

All surface defects likely to be detrimental to the protective system, such as cracks, surface laminations and deep pitting, shall be removed in accordance with BS 4360. Fabrication surface defects, such as fins at saw cuts and burrs, shall be similarly removed.

All dirt and debris shall be removed from surfaces after blasting by vacuum cleaner, airline or brush. If any residues are trapped in the paint, the affected area shall be reblasted and recoated.

After blast cleaning, tests shall be made to detect soluble rust-producing salts, in accordance with Appendix 'G' BS5493 and, if found to be positive, the steel shall be cleaned with a suitable solvent and washed with clean warm water and then dried immediately using hot air.

All shop weld areas and shop bolted or riveted connections shall be blast cleaned to the same standard as adjacent steel. All weld slag and spatter shall be removed.

Blast cleaned surfaces shall be overcoated as soon as possible after cleaning, but in any event within four hours from the start of cleaning, and the steel shall be kept indoors in a clean, dry, controlled environment during this period.

## 5.2 Secondary Painting Preparation

Any contamination of the treated steelwork surface shall be removed before further protective coatings are applied. Where spirit or naphtha may be used to clean the steelwork followed by scrubbing with a 22% solution of Teepol and a thorough rinsing with clean water.

Where the contamination (e.g. oil or grease) cannot be removed completely by white spirit or naphtha, a suitable solvent shall be obtained from the paint manufacturer and used, followed by scrubbing and washing as above.

Where the surface has become dirty, as opposed to contaminated, or has been exposed in the open for more than two days, it shall be scrubbed down with a 2% solution of Teepol and hosed with clean water.

## 5.3 Removal of Zinc Salts

Where zinc coatings, whether flame-sprayed, hot-dip galvanised or zinc-rich paints, have been exposed to the weather for more than one week they shall be wired brushed and washed with clean, warm water to remove the zinc salts formed, before coatings.

## 5.4 Drying

Paint shall not be applied to wet or damp surfaces.

## 5.5 Ambient Conditions (23.2) (23.3) (23.4)

The ambient conditions during painting shall be such as to ensure that there is no condensation on the steel and that the temperature and humidity are suitable for the application of the particular paint (see manufacturer's instructions).

## 5.6 Inaccessible Areas

Areas of steel inaccessible after erection shall be treated during fabrication and erection so that they receive the full treatment specified.

## 5.7 Paint Application (22.2.6)

Paints shall be applied by the methods stated in accordance with the manufacturers instructions, so as to give an even, uniform coating.

## 5.8 Strip Coats (18)

An extra strip coat of primer shall be applied to all edges and corners of steelwork which will be exposed externally in the finished structure.

## 5.9 Minimum Dry Film Thickness (19)

Each coat of paint shall be applied at a spreading rate to give the required minimum dry film thickness.

## 5.10 Drying & Overcoating Period

The maximum and minimum overcoating period and drying periods before exposure to weather or to being transported shall be those stated by the paint manufacturer.

## 5.11 Remedial Work (32)

Any damaged areas of paint shall be cleaned and made good within 14 days, to a standard equivalent to that of the adjacent paintwork. If damage has exposed parent metal local reblasting may be required to prepare the steel for remedial painting. The maximum time lag between cleaning steel and applying primer shall be not more than two hours.

## 5.12 Standard of Protection to Connections

Joints shall be painted with the specified materials to give the standard of protection achieved on adjacent steel. Strip coats shall be used, particularly to seal all edges of steel and gaps between adjacent steel surfaces.



Preparation Specification A

5.13 Concrete Encased Steelwork & Steelwork to be Fire Encased

All steelwork which is to be encased in concrete shall be blast cleaned and left unpainted.

5.14 Site Welds (25.4)

Site welds, if used, and adjacent areas shall be cleaned to remove all welding slag, spatter and flux residues by chipping, blast cleaning and washing before painting commences.

5.15 Cleaning of Jointing Bolts (25.2)

Bolted joints shall be thoroughly cleaned to remove all oils and grease, before painting.

Plated bolts and nuts shall be primed with an etch primer suitable for use on the particular type of surface.

Preparation Specification A

5.16 Steelwork Generally

The whole shall be dusted down and immediately painted with two coats of Berger Paints MP199 High Build Zinc Phosphate Primer at 100 microns d.f.t. or HGW approved alternative at works. Contact surfaces using high strength friction grip bolted connections should not be painted or oiled.

Surfaces in permanent contact before delivery shall be brought into permanent contact whilst the paint is still wet.

Following completion of erection, all steelwork shall be thoroughly inspected and all damaged paint and rust removed down to bright metal by the Contractor, and repainted with primer to the Engineer's satisfaction. All site connections including site bolts shall be thoroughly cleaned and repainted with one coat MP100 primer by the Contractor.

Where steelwork is to be temporarily subjected to external exposure conditions after erection, one coat of Berger M.1.0 Phenolic High Build AL180 at 75 microns d.f.t. shall be applied on site by the Contractor.

Following completion of erection all steelwork shall be thoroughly cleaned down.

Where steelwork is to be encased in brickwork, all concealed surfaces should receive a protective finishing coat of bitumen-based paint applied by the Contractor.

Where steelwork is to be encased in concrete all painting should be deleted.

DEVELOPMENT AT TALLAGHT

EXTENSION AT TALLAGHT SPORTSBOWL,

OLD BAWN ROAD, TALLAGHT, DUBLIN 24.

OUTLINE SPECIFICATION

GENERAL:

The extension is single-storey 364 square metres in floor area. It will be constructed as a shell with structure and external envelope to match the Sportsbowl building.

SUB-STRUCTURE:

Reinforced concrete ground beams on reinforced concrete stub columns and pads.

FLOORS:

In-situ reinforced concrete floor slab with powerfloated finish.

SUPER-STRUCTURE:

DUBLIN COUNTY COUNCIL  
PLANNING DEPT. REGISTRY SECTION  
APPLICANT: [REDACTED]  
**15 MAR 1991**  
FILE NO. 91A/0369  
APPLICATION TYPE: OTHER  
NO. L. U. S.

In-situ reinforced concrete columns supporting steel lattices and purlins.

WALLS:

External walls are cavity construction with clay brick outer skin and solid concrete block inner skin. The upper part of the wall is finished externally with rough cast dry-dash.

ROOF:

perimeter pitched roof covered with concrete roof tiles on timber battens and rafters.

Flat roof single skin water proof membrane on metal deck spanning between purlins.

## GENERAL DESCRIPTION OF MATERIALS AND WORKMANSHIP

### STRUCTURAL WORK AND SITE WORKS

See Structural Engineer's Specification

### BRICKWORK AND BLOCKWORK

#### Concrete Blocks

All concrete blocks shall be approved factory manufactured and shall comply with Irish Standard Specification 20:1974 and shall be supplied by an approved manufacturer. NOTE: The use of damaged blocks will not be permitted and special attention should be given to storing, stacking and placing blocks.

The blockwork throughout shall be properly bonded with all necessary closers and shall be toothed and bonded to cross walls, etc. The walls are to be carried up evenly all round, no part exceeding the general level by more than 1200 mm.

#### Facing Bricks

The facing bricks shall be clay bricks as manufactured by an approved manufacturer. All bricks shall have sharp edges and clean corners and no broken or mis-shapen bricks shall be permitted.

#### Samples

The Contractor shall supply the Architect with samples of the various concrete blocks and bricks.

#### Mortars

Gauged mortar shall consist of one part cement, one part hydrated lime or lime putty prepared from non-hydraulic lime and six parts sand.

Cement mortar shall consist of one part Portland cement to three parts of sand.

Alternatively, mortar for brickwork and blockwork shall incorporate an approved plasticiser used strictly in accordance with the manufacturer's instructions. Mortar for external brickwork and blockwork shall be in the proportions of one part cement to six parts sand. The proportions for internal work shall be one part cement to nine parts sand.

All mortar containing cement shall be used immediately. None shall be re-worked once initial set has commenced.

#### Bond

Unless otherwise stated, bricks and blocks shall be laid in stretcher bond.

Recessed  
Jointing.

Jointing shall be formed with the edge of a 9 mm. round steel bar along a straight edge, pressed in to give a 6 mm. deep recessed joint.

Damp-Proof  
Course

Bitumen damp-proof courses shall be first quality of pure bitumen on jute fabric base (B.S.743 : 1966) lapped 225 mm. at all joints and properly solutioned.

Protection

Exposed brickwork and blockwork shall be protected as necessary to avoid staining or splashing.

CARPENTRY AND JOINERY.

Timber

All timber shall be prime selected first quality, sound and well seasoned, free from sap, shakes, waney edges, large loose or dead knots and any other defects.

The timber shall be cut into the scantlings as required immediately after signing the Contract, so that any shrinkage may take place before being fixed in the building.

Red Deal

Timber for Joiner's work shall be first quality red deal, unless otherwise specified and obtained from an approved merchant. The timber shall be specially selected.

White Deal

All timber for carpentry shall be best quality selected white Norway unless otherwise specified.

Ash

Ash shall be best quality, free from defects and from an approved merchant.

Plywood

All plywood shall be obtained from a manufacturer approved by the Architect, WBP standard, resin bonded and must be guaranteed.

Joinery

All work described as 'framed' shall be framed up in the best possible manner.

Joinery shall be put in hand immediately on signing the Contract and left for seasoning before being wedged up.

Any work which warps, shrinks, develops shakes or other defects shall be removed and replaced with new. All external joinery shall be framed and jointed with a mixture of white and red lead and boiled oil.

No woodwork shall be stopped or primed until it has been delivered on the job and passed by the Architect.

Mouldings

No stock mouldings will be allowed. All mouldings shall be in accordance with the detail drawings.

Fixing  
Grounds

Where timber is described hereinafter as being fixed to concrete or concrete blockwork the Contractor shall include in his prices for all necessary hardwood grounds or plugs, or for fixing with 'Hilti' or approved percussion driven masonry nails.

Treated  
Timber

All timber for carpentry work and for joinery in contact with walls shall be pressure tanalised in accordance with the manufacturer's instructions. The timber shall be purchased in a treated condition and all cut and tenoned ends, mortices, etc. subsequently formed must be retreated before the timber is fixed or assembled.

Secret  
Fixings

Where items are described as being 'secretly fixed' the fixings must be countersunk and neatly pelltated.

MECHANICAL  
AND ELECTRICAL INSTALLATIONS

Mechanical

No heating is required. Mechanical ventilation will be provided with roof mounted extract fans.

Electrical

Electrical installation will conform with the current regulations of the E.S.B. , I.E.E. and E.T.C.I. where applicable. Fire detection and alarm system will be installed to conform with B.S. 5839 Part 1 where applicable. Emergency lighting will be installed to conform with I.S. 3217 1989.

PLASTERWORK

Cement

Cement to be as described for concrete work.

Gypsum  
Plasters

Gypsum plasters shall be from an approved manufacturer and shall comply with I.S. 27.

### Sand

Sand for all plastering shall be clean sharp and washed, free from loam and other impurities. Sand shall be riddled through 6 mm. mesh, but it must not pass a 3 mm sieve. It is the intention to include the larger grains which pass the 6 mm. mesh but which would be excluded by the 3 mm sieve. If the sand is initially deficient in these coarse grains, the deficiency shall be made up with fine stuff to pass 6 mm. mesh from coarser silicious aggregate.

### Finish

Plastering shall be executed in such a manner as to avoid any irregularity occurring at the point or place where one section is joined to another, particularly where it occurs at scaffold heights on walls. The whole of the plastering shall be finished to a perfectly true and level surface and shall be to uniform colour throughout.

### Sample Patches

The Architect may require sample patches of plastering and wall finishes to be executed.

### Scudding

All walls to be plastered shall be scudded with material composed of small pebbles and cement gauged four-to-one, before any plastering is done.

### Cement Plastering

Rendering, floated and setting coats shall be composed of one part cement to three parts sand.

## ROOFING

### Rafters

Trussed rafters to be pre-fabricated and erected in accordance with I.S. 193. Loose rafters to be as shown on drawings.

### Sarking Felt

Untearable sarking felt to I.S. 36 shall be laid under all slates and tiles, lapped horizontally not less than 75mm for pitches greater than 25° and 150mm for lesser pitches, carried down into eave gutters. Side lap shall not be less than 150mm for pitches over 25° and 500mm for lesser pitches. Felt to be carried fully over ridge board.

### Laths or Battens

Laths or battens shall be 44mm for rafter spacings not greater than 400mm. For spacing up to 600mm battens not less than 44mm x 44mm shall be used. Tilting fillet to be provided at eaves where necessary.

### Concrete tiles (low pitch - under 30°)

Low pitch concrete tiles shall be laid in accordance with Manufacturers instructions and to the minimum pitches.

### General

Slates and tiles to be neatly trimmed where necessary. Part tiles and slates to be adequately secured.

Drip overhang to be provided at eave and valley gutters.

At verges slates or tiles shall oversail wall face or barge, by at least 25mm in the case of slates and 50 mm in the case of tiles, and shall be neatly pointed in suitably coloured sand / cement mortar.

Ridge and hip tiles shall be bedded in gauged mortar and pointed with cement mortar, suitably coloured; bedding and pointing to be done in one operation.

Provide suitable hip hooks, screwed to end of hip rafters. In industrial atmospheres special nails may be necessary. Over party walls the space between battens shall be filled with mortar to complete fire stop.

#### Flashings

Valley gutters, cover flashings and flashings to chimneys shall be

No. 5 lead to B.S. 1178

To chimney, flashing shall consist of aprons, soakers and cover flashings. The latter shall be secured in a chase in concrete block chimneys, wedged and pointed in with cement fillet formed over. To brick chimneys cover flashings shall be stepped, wedged and pointed into brick joints. Saddle pieces shall be provided at all ridges and roof intersections. Valley gutters shall be laid on felt on 20mm x 225mm wrot boarding treated with wood preservative, and turned up at edges under roof felt tiles or slates.

#### Flat Roof

Flat roofs shall be constructed of single-skin p.v.c. waterproof membrane with welded joints on 50mm polyurethane insulation on vapour barrier on galvanised steel metal deck to Structural Engineers details. Waterproof membrane shall be mechanically fixed to deck with patent anchor discs and shall be laid at 1:60 minimum falls.

### DRAINAGE

#### Trenches

Trenches shall be excavated to the necessary depths, widths and falls to allow the drains to be properly laid. The water service shall be in a separate trench from the drain.

#### Drain

The main and branch drains shall be 100mm diameter laid to continuous falls of not less than 1 in 60 with bends and junctions, splayed in the



direction of flow, where required, and laid in straight lines from manhole to manhole. The drain shall be U.P.V.C. to B.S. 4660,1973 with patent flexible joint system laid on continuous concrete bed 100mm thick x 300mm wide for full length of each pipe and haunched half way up the pipe after testing.

Back filling

Immediately over pipes back fill in fine material and fill remainder of trench in selected excavated material, well rammed and remove surplus spoil.

Drains Under Roads and Buildings

Where drains pass under roadways or are likely to be subjected to heavy traffic, they should be fully encased in 150mm concrete. Drains shall not be taken under any buildings unnecessarily, but where this is unavoidable pipes shall be cast iron, or encased in 150mm of concrete or otherwise to local authority requirements and laid in straight lines. Form ducts through rising walls or foundations as necessary to avoid damage to drains.

A.J.s, Manholes, Drop-Manholes

Armstrong junctions or manholes as suitable shall be provided at each change in direction or gradient of drain and of such dimensions and spacing as to permit easy cleaning of the system. Manholes shall be built in 225mm concrete walls on 150mm thick concrete floor with glazed channels, bends and braches, suitably benched. Benching and internal walls to be finished smooth in cement mortar. Fit cast iron, reinforced concrete, or hot dipped galvanised steel frame and cover. Covers to have provision for lifting. Where required by local authority, outall manholes shall be formed, with interceptor trap, stoppered cleaning eye and air inlet.

Gullies & A.J.s

Gullies and Armstrong junctions to be set level, supported on 150mm concrete bed, and connected to drain as previously specified. Armstrong junctions shall have frame and cover of cast iron, aluminium or galvanised steel.

Gully Traps

Gully traps shall be set in dished concrete surround, to take wastes from bath, sink and wash hand basin and discharge from rain water pipes, and shall be fitted with cast iron, aluminium, or other suitable grid.

Vent shaft

At head of drain, carry up 50mm minimum diameter vent pipe over eave level or to 1m over head of highest window within 4m of vent, secured with proper brackets and fitted with cowl or cage.

Single  
Stack  
Drainage

Single stack drainage, where provided, must be in accordance with British Standard Code of Practice No. 304 (1968).

Testing

Test plumbing and drainage on completion to ensure water tightness and efficient working of the system, and as may be required by the local authority.

GLAZING

Glass

The glass throughout to be the best of the kind specified, free from bubbles, specks and other defects and in accordance with the latest edition of B.S.S. 952: 1964.

Glass in timber screens, etc., is to be bedded in approved glazing tape and secured with glazing geads.

All the glass shall be well cleaned down both sides on completion.

PAINTING

Paints

All paints, varnishes, distempers etc., to be best quality used in accordance with the manufacturer's instructions without the addition of any oil, turpentine or any other materials. Brands of manufacturers and tints shall be selected by the Architect.

All oiling and polishing materials to be of the best quality procurable.

Each coat of paint and distemper is to be of a distinctive tint as selected.

No work shall be primed or painted until such time as it has been inspected and approved by the Architect.

Cleaning  
down etc.

All work shall be cleaned down properly preparatory to painting etc.

The ironwork shall be scraped, wire brushed and thoroughly cleaned before being painted.

LANDSCAPING

Landscaping

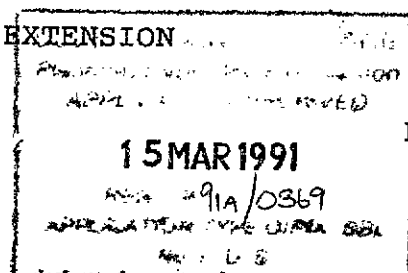
Landscaping shall be carried out by a Nominated Sub-Contractor.

KEANE MURPHY DUFF

MARCH 1991

## CONCRETE SPECIFICATION

TALLAGHT SPORTSBOWL EXTENSION



KM/01

### 1.0 Concrete Work

The materials, labour and workmanship in and connected with the execution of the concrete work shall be the best of their kind without regard to any trade terms and the contractor shall employ a duly qualified person experienced in reinforced concrete construction to supervise the work. The quality of materials and the standard of workmanship for the reinforced concrete shall comply with the relevant clauses of BS 8110 Part 1 in regard to all requirements not otherwise described in this Specification.

The amount of water shall be measured by volume or by weight. Any solid admixtures to be added shall be measured by weight only, but liquid or paste admixtures shall be measured by volume or by weight.

The batch weights of aggregates shall be adjusted for the moisture content of the aggregates being used. The quantity of water contained in the aggregates shall be determined by the contractor in accordance with a method approved by the Architect, and the quantity of water contained in the aggregates being used.

The accuracy of all measuring equipment shall be within 3% of the quantity of cement, water or total aggregates being measured and with 5% of the quantity of any admixture being used. All measuring equipment shall be maintained by the Contractor in a clean, serviceable condition.

The mixer shall comply with the requirements of BS 1305 or BS 4251 where applicable. The mixing time shall not be less than two minutes or the time necessary to ensure compliance with the required strength. When the mixer complies with BS 4251 no water shall be added at the batching plant or in transit to site.

### 2.0 Transporting & Pumping Concrete

The concrete shall be transported from the mixer to the formwork or place of deposit as rapidly as practicable by method which shall prevent the segregation or loss of any of the ingredients and shall maintain the required workability.

### 3.0 Placing & Compaction of Concrete

The concrete shall be evenly placed in its final position and shall not be worked or allowed to flow in a horizontal direction. The concrete shall be deposited in layers to a compacted depth not exceeding 450mm where internal vibrators are used or 300mm in all other cases. The concrete required for one construction unit shall be placed in one continuous operation.

The concrete shall not be dropped from a height exceeding 1800mm unless approved by the Architect.

The concrete shall be thoroughly compacted and worked around the reinforcement and embedded fixtures, and into corners of the formwork to form a solid dense mass, free from voids, and which shall have the required surface finish when the formwork is removed. Unless otherwise approved by the Architect compaction shall be achieved using vibrators.

The number and method of use of vibrators shall be such as to ensure uniform compaction.

The heads of immersion vibrators shall be sufficiently small to pass freely between the reinforcing bars. Vibrators shall not be applied via the reinforcement or embedded fixtures.

External vibrators shall be used in such a manner as to ensure efficient compaction without surface blemishes, hollows or bulges.

The concrete shall not be vibrated after setting has commenced and shall not be subsequently disturbed.

### 4.0 Construction Joints

Construction joints shall be located in the positions shown on the drawings and the position and detail of any construction joints not described in the contract shall be subject to the approval of the Architect.

Longitudinal joints shall be provided by means of steel roar forms braced in true vertical alignment, with provision made for the dowels between pours.

In no case shall concrete be formed or run to a feather edge.

## 5.0 Concreting in Cold Weather

All concreting work shall be entirely suspended when the temperature in the shade is below 2°C, and concrete shall not be mixed when the temperature in the shade is below 4°C.

The Contractor shall provide a maximum and minimum thermometer of approved design for the purpose of measuring the shade temperature of the outside air.

The temperature of concrete measured at the surface at the most unfavourable position shall not be less than 5°C at the time of placing. Any batch of concrete whose temperature as measured above falls below 5°C shall be removed from the site.

Subsequent to or during cold weather the water and aggregates used in the mix shall be free from snow, ice and frost. Formwork, reinforcement and any other surfaces against which fresh concrete is to be poured shall be free from snow, ice and frost and have a temperature within 2°C of the temperature of the fresh concrete.

Concrete placed in cold weather shall be protected from damage by frost with a covering of suitable insulation material.

All concrete damaged by frost or other weather conditions shall be cut out and replaced with fresh concrete at the contractor's expense.

## 5.1 Concrete in Hot Weather

During hot weather the contractor shall ensure that the constituent materials are sufficiently cool to prevent the concrete from stiffening prematurely. The temperature of mixing water shall be less than 60°C.

## 6.0 Protection of Concrete Foundations

Reinforced concrete foundations, up to a thickness of 300mm shall not require formwork, the concrete being cast against the sides of the excavations. The contractor shall ensure that the footings be kept clear of loose materials from the sides of the excavations. Particular care shall be taken to keep footings clean during the operation of fixing reinforcement and pouring concrete. Subject to the approval of the Architect reinforced concrete foundations of thickness greater than 300mm shall not require formwork.

## 7.0 Curing

The method and duration of curing shall be such that the concrete has satisfactory durability and strength and the member suffers a minimum of distortion, is free of excess efflorescence and does not cause, by its shrinkage, cracking in the structures.

Similar components shall be cured under the same conditions.

The concrete during the curing period shall be protected to prevent rapid changes in temperature at the surface, sudden temperature variations across the section, and excessive loss of water by evaporation due to drying winds or sunshine.

The method of curing and protection shall be approved by the Architect.

The use of accelerating or retarding curing agents or compounds shall be with the written consent of the Architect only.

## 8.0 Loadings

Concrete shall at no time be subjected to loading, including its own weight which will induce a compressive stress in it greater than one-third of the characteristic strength. The assessment of the strength of the concrete and the stresses produced by the load shall be subject to the agreement of the Architect.

## 9.0 Openings

No tampering with the concrete whether by cutting holes or otherwise by other trades shall be allowed without the written consent of the Architect.

All pipes passing through the concrete shall be provided with an approved fibre tube and shall be concreted in position during the course of the work.

## 10.0 Designed Mix

The Contractor shall be responsible for selecting the mix proportions to achieve the specific strength workability and durability.

Before commencement concreting the Contractor shall produce at his own expense, evidence for each grade of concrete showing that the mix proportions and manufacturing method produce concrete of the specific quality.

The following information shall be submitted to the Architect before any mix is supplied or used:-

1. Nature and Source of material
2. Either:-
  - (a) Appropriate existing data as evidence of satisfactory previous performances for target mean strength, current margin, workability and water/cement ratio:
  - (b) Full details of tests of each ingredient per cubic metre of fully compacted concrete.

The Contractor shall notify the Architect in writing of any change in source of materials and any change in cement content which results in a difference greater than 20 Kg/m<sup>3</sup> from the cement content previously used.

#### 10.1 Strength of Concrete

The grades of concrete shall be as follows:-

Grade	Characteristic Strength Mix N/mm <sup>2</sup>	Compliance Strength in N/mm <sup>2</sup> assuming a current margin of 15 N/mm <sup>2</sup> at :	
		7 days	28 days
Leanmix			
C10	10	11.5	17.5
C20	20	18.0	27.5
C25	25	21.5	32.5
C30	30	25.0	37.5
C37.5	37.5	30.0	45.0

Compliance with the specified characteristic strength shall be judged by test made on cubes at 7 days and at 28 days.

The rate of sampling shall be one sample from a randomly selected batch representing an average volume of not more than 7 M<sup>3</sup> or 7 batches whichever is smaller for suspended slabs, beams and exposed architectural concrete: the lesser of 15 M<sup>3</sup> or 15 batches for walls and floating slabs. Higher rates of sampling and testing shall be carried out on the Architects instructions.

Each cube shall be made from a single sample taken from a randomly selected batch of concrete.

Compliance with the specified characteristic strength shall be assumed only if :

1. The average strength determined from any group of four consecutive test cubes exceeds the specified characteristic strength by not less than 0.5 times the current margin, and
2. Each individual test result is greater than 85% of the specified characteristic strength.

The current margin shall be taken as 15 N/mm<sup>2</sup> unless a smaller margin has been established (under 6.7.6.2 of CP 119 Part 1: 1972) to the satisfaction of the Architect.

## 10.2 Test Cubes

The strength of the concrete shall be verified by means of 150mm test cubes, made under the supervision of the Clerk of Works.

The cubes shall be made, compacted by hand and stored in the manner specified in BS Code of Practice 8110. The concrete sample for the making of the test cube shall be obtained at the place of deposition of the concrete. The cubes shall be given an identification mark and an accurate register of the location and dates of each cube sample shall be kept on site, so that the location of the concrete from which the cube was made may be ascertained at any time.

The Contractor shall provide a sufficient number of machined steel or cast iron cube moulds to carry out the sampling required by the specified method of quality control.

The action to be taken in respect of concrete which is represented by test cubes which fail to meet either of the compliance criterion shall be determined by the Architect.

## 11.0 Striking of Formwork

The minimum period for retaining formwork in position before striking shall not be less than indicated in the following table.



Type of Formwork	Cement Type			
	Normal Portland Cement		Rapid Hardening Portland Cement	
	Mean Air Shade Temperature		Mean Air Shade Temperature	
	7°C	16°C	7°C	16°C
Vertical facing to columns, walls and beams	12 hrs	12 hrs	12 hrs	12 hrs
Soffit facing to slabs	5 days	3 days	4 days	2 days
Supports to slabs	12 days	10 days	10 days	8 days
Soffit facing to beams	5 days	3 days	4 days	2 days
Supports to beams	18 days	15 days	15 days	12 days

Periods during which the air shade temperature remains below 3°C shall not be taken into account. Provided always that the minimum periods before striking are as in the above table, the actual times of striking shall remain the responsibility of the Contractor.

Where the Contractor can submit evidence that the performance of the structure will not be adversely affected by reducing the specified periods before striking, reduced striking times may be approved.

Re-propping shall not be permitted unless approval is obtained.

## 12.0 Classes of Concrete

Mixes for the various classes shall be denoted by the grade in N/mm<sup>2</sup> and maximum aggregate sized in mm, e.g. 30/20 denotes a grade 30 concrete with 20mm maximum aggregate size.

## 12.1 Minimum Cement Content for reinforced concrete.

The nominal cover to all reinforcement (including links) and minimum cement content to meet durability requirements shall be as follows :-

	Nominal Cover (to all Reinforcement)				
	mm	mm	mm	mm	mm
Mild	20	20	20	20	20
Moderate	-	40	30	25	20
Severe	-	-	40	30	25
Very Severe	-	-	50	40	30
Extreme	-	-	-	60	50
<b>Concrete Properties</b>					
Maximum free water/cement ratio	0.65	0.60	0.55	0.50	0.45
Minimum cement content (kg/m <sup>3</sup> )	275	300	325	350	400
Characteristic strength N/mm <sup>2</sup>	30	35	37.5	40	42.5

This table relates to normal weight aggregate of 20mm nominal maximum size.

Mildly exposed concrete shall be completely protected against weather, or aggressive conditions.

Moderately exposed concrete is defined as concrete sheltered from severe rain and against freezing whilst saturated with water. Buried concrete and concrete continuously under water shall be deemed moderately exposed.

Severe exposure is defined as exposure to driving rain, alternate wetting and drying and to freezing whilst wet, and subject to heavy condensation or corrosive fumes.

## 12.2 Maximum Cement Content

The cement content of concrete shall not be greater than 550 kg/m<sup>3</sup>

## 13.0 Placing Bending Reinforcement

All bar reinforcement shall be bent and cut in accordance with BS 4466. Particular care shall be taken to ensure that the radius of bend of reinforcement projects from concrete is not less than that specified in BS 4466.

Bars shall not be reshaped or rebent without the written permission of the Architect.

Reinforcement shall be accurately placed as shown on the drawings and secured against displacement by tying wire and shall be supported on an adequate number of small precast concrete blocks with tying wire cast in, or metal spacers or plastic spacers, or metal hangers.

All joints in round mild bar reinforcement shall have overlaps of at least 50 diameters of the smallest of the overlapping bars and in deformed high tensile bar reinforcement lapps of at least 40 diameters of the smaller of the overlapping bars.

Laps in fabric reinforcement shall be as follows:-

Oblong mesh : 450mm along longitudinal wires and 75mm along transverse wire.

Square mesh : 300mm both ways

Reinforcement shall not be surrounded by concrete unless it is free from mud, oil, paint, retarders, loose rust, loose mill scale, snow, ice, grease or any other substance which will affect adversely the steel or concrete chemically, or reduce the bond between steel and concrete.

All reinforcement shall be bent cold and no heating or welding will be permitted. When the temperature of the steel is less than 5°C, the speed of bending shall be reduced.

#### 14.0 Workability

Workability shall be determined by means of the slump test, compacting factor test or VB consistometer test. The contractor shall keep on site the necessary equipment in good working order for carrying out one of these.

A plasticizer additive shall not be used without the approval of the Architect.

Concrete with slumps greater than 50mm or a reading greater than 0.91 in the compacting factor test shall not be permitted.

## 15.0 Formwork

All formwork whether of wood, metal or glass reinforced plastic shall in every respect be adapted to the structure and to the surface finish of the concrete. All formwork shall be fixed in perfect alignment and be securely braced to withstand displacement, deflection or movement of any kind, the weight of forces exerted by the wet concrete, the movement of persons, material or plant and the effects of mechanical vibrators. Notwithstanding approval by the Architect the strength and adequacy of the shuttering shall remain the responsibility of the Contractor.

Formwork defined as wrought shall be lined with an approved smooth non-absorbent lining, or rendered non-absorbent by means of polyurethane based paint or varnish.

All pipes, angles and inserts of any kind shall be firmly fixed to the formwork which shall be neatly and accurately cut around them.

### 15.1 Joints in formwork

All joints shall be sufficiently close and tight to prevent the leakage of grout.

Joints in forms shall be horizontal or vertical, and perfect alignment of joint pattern shall be maintained consistent with the first pour of concrete. Where concrete is vibrated all joints are to be tongued and grooved or the boards shall have straight parallel edges planed perpendicularly to the board edge. If necessary joints are to be caulked or sealed with approved compound or material.

Where steel or glass reinforced plastic formwork is used all joints and holes in the formwork shall be sealed with tape and approved adhesive.

### 16.0 Cast in Items and Holes

Anchor bolts for roof trusses and holding down bolts for portal frames shall be set accurately and templated and held firmly in position. During the placing of concrete the positions of all embedded shall be fully checked by an approved means to ensure the correct location. Holding down bolts in foundations shall be set with sleeves in accordance with the drawings to allow for minor adjustments.

All sleeves for pipes or other materials that pass through concrete shall be accurately set and securely held in position. Reinforcement shall not be relocated or cut. If reinforcement is found to clash with the position of any hole or sleeve the Architect shall be consulted. Sleeves shall be adequately blocked or filled with sand to prevent concrete from entering. No sleeve, pipe or chase shall intercept a structural member unless the member has been specifically designed therefore.

#### 17.0 Ground Floor Grade Slabs

Blinded hardcore shall be placed and compacted under floor slabs in thicknesses as detailed on drawings.

#### 17.1 Damp Proof Membrane

Before concreting begins blinding shall be cleaned down and levelled and covered with a layer of 1000 gauge polythene roll jointed at the edges.

Polythene shall be protected when laid and shall not be incorporated in the works if perforated in any way.

Polythene shall be turned up at the edges of slabs and placed under wall D.P.C.

Joints in floor slabs shall be constructed in accordance with the drawings. Joint fillers in isolation joints shall be synthetic inorganic rigid board.

Specified reinforcement meshes shall be placed so that they lie 50mm under the finished floor level when cast.

#### 17.2 Finish to Slab

Concrete floors shall be power float finished. Variations in level measured with a 2 metre long steel "Straight edge" shall not exceed 3mm.

Floors shall be laid and finished within rooms in a single operation so that an integral finish is achieved.

The slab shall be levelled, between screeds to a true level plane surface by means of screeding beams immediately after laying.

STRUCTURAL CALCS

for

EXTENSION

to

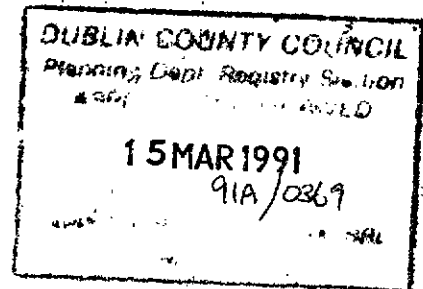
TALLAGHT SPORTSBOWL

for

SOUTHSIDE TAVERNS

at

TALLAGHT, CO. DUBLIN



HORGAN LYNCH & PARTNERS  
Consulting Engineers,  
58 North Great Charles Street,  
Mountjoy Square,  
Dublin 1.

JOB REF : KM/01  
DATE : March 1991

Design Information

Client	Southside Taverns	Engineer responsible
Architect	Keane Murphy Duff	A.W. Holmes
	Dublin County Council	Building Regulation Authority or other
	D.O.E. Building Regulations	Relevant Building Regulations and Design Codes
	Concrete BS 8110 / IS 326 : 1988	
	Steel BS 449	
	Loadings BS 6399	
	Sports Centre	Intended use of structure
	As per Fire Officer Requirements	Fire resistance requirements
	Imposed Roof $0.75 \text{ KN/M}^2$	General loading conditions
Speed	as per BS CP 3 chapter V 46 m/s	Wind loading conditions
Factors	S1 = 1.0	
	S2 = 0.62      S3 = 1.0	
		Exposure conditions
	Bearing capacity $150 \text{ KN/M}^2$	Subsoil conditions
	Formation at depths indicated on drgs. on brown boulder clay	
	Pad foundations at varying levels with plinth and ground beams	Foundation type
Concrete	fw $30 \text{ N/mm}^2$ for general structure	Material data
	$37.5 \text{ N/mm}^2$ for pads/plinths and ground beams	
Reinforcement	$460 \text{ N/mm}^2$ and $250 \text{ N/mm}^2$	
		Other relevant information

THESE CALCS ARE TO BE READ IN CONJUNCTION WITH CALC SHEETS KM/01/1-126 PREVIOUSLY SUBMITTED WITH RESPECT TO THE ORIGINAL BUILDINGS.

LOADINGS

	KN/m <sup>2</sup>
ROOF : IMPOSED	= 0.75
CHIPPINGS + FELT	= 0.30
DECKING	= 0.12
INSULATION	= 0.03
TRUSSES + PURLINS	= 0.20
CEILING + SERVICES	= 0.40
	1.80

PURLINS  
1.55 KN/m<sup>2</sup>

TRUSSES  
1.80 KN/m<sup>2</sup>

$$\text{DESIGN LOAD} = 1.4 \times 1.05 + 1.6 \times 0.75 = 2.7 \text{ KN/m}^2$$

WALLS : 215 BLOCK	= 4.30
100 BRICK	= 2.10
PLASTER + INSULATION	= 0.30
	6.70

WALLS  
6.7 KN/m<sup>2</sup>

$$\text{DESIGN LOAD} = 1.4 \times 6.7 = 9.4 \text{ KN/m}^2$$

GRD. BEAM : 600 x 400 RC	= 5.8 KN/m
	DESIGN LOAD = 1.4 x 5.8 = 8.1 KN/m <sup>2</sup>

WIND :

$$V = 46 \text{ m/s}$$

$$S_z = 0.62$$

$$V_s = 46 + 0.62 = 28.5 \text{ m/s}$$

$$q = 0.613 \times 28.5^2 / 10^3 = 0.5 \text{ KN/m}^2$$

WORST CASE COEFF  $C_{pe} = +0.7$ ,  $C_{pi} = -0.3$

$$\Rightarrow F = 0.5 \times [+0.7 - (-0.3)] = 0.5$$

WIND  
0.5 KN/m<sup>2</sup>



PURLINS SPAN = 6.0 m @ 2.6 m c/c MAX

LOAD = 1.55 + 2.6 + 0.25 OW = 4.3 kN/m

BM = 4.3 \* 6.0<sup>2</sup> / 8 = 19.4 kNm

Z<sub>reqd</sub> = 19.4 \* 10<sup>3</sup> / 165 = 117 cm<sup>3</sup>

Try 203 x 76 C, 2 pnos = 192 cm<sup>3</sup> o.k.

Δ L.L. ONLY = 5 + 2.25 \* 6000<sup>4</sup> / 384 \* 210 \* 10<sup>3</sup> \* 1950 \* 10<sup>4</sup> = 9.3 mm o.k.

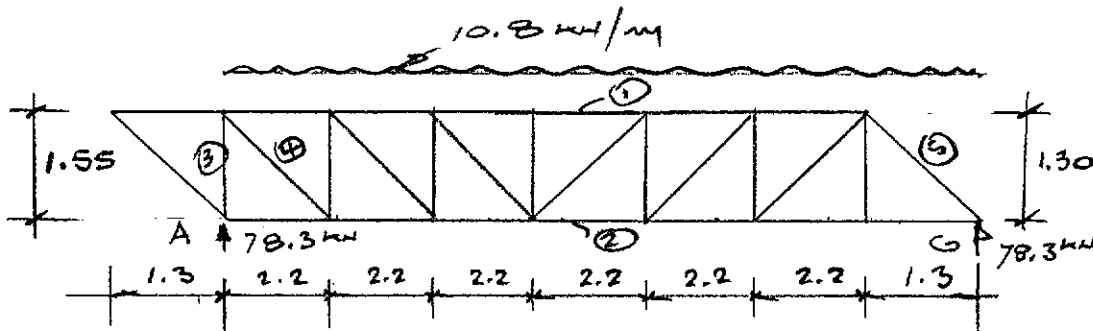
USE 203 x 76 C

TRUSS MK9 SPAN = 14.5 m @ 6.0 m c/c

LOADING = 1.8 kN/m<sup>2</sup>, RL = RR = 78.3 kN

UDL = 1.8 \* 6.0 = 10.8 kN/m

PURLIN P.L. = 4.3 \* 6.0 = 25.8 kN

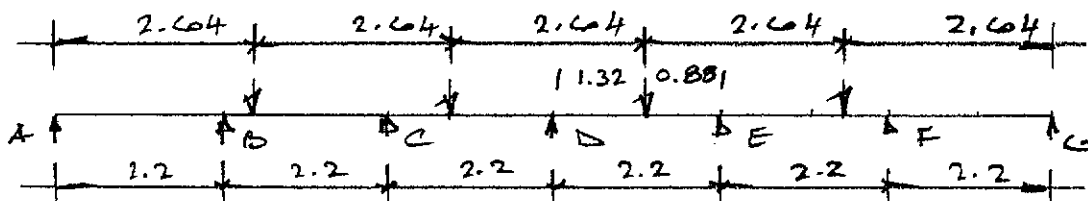


BM = 10.8 \* 14.5<sup>2</sup> / 8 = 283.8 kNm

TOP CHORD 1

AT MID-SPAN

F<sub>C</sub> = 283.8 / 1.425 = 199.2 kN



BM Δ-E = 25.8 \* 2.2 + 0.1664 = 6.0 kNm

BM COEFF = 0.1164 (STEEL DESIGNERS MANUAL)

TOP CHORD (CONT)

TRY 150 x 150 x 12 L, A = 34.8 cm<sup>2</sup>  
Z = 67.7 cm<sup>3</sup>, r<sub>xx</sub> / r<sub>yy</sub> = 4.6 cm,

TOP CHORD IS FULLY RESTRAINED ABOUT  
Y-Y AXIS.

$l/r_x = 220 \times 0.7 / 4.6 = 33$

$P_c = 142 \text{ N/mm}^2$

$f_c = 199.2 \times 10^3 / 34.8 \times 10^2 = 57 \text{ N/mm}^2$

$f_{lc} = 6.6 \times 10^3 / 67.7 = 97 \text{ N/mm}^2$

$97/165 + 57/142 = 0.99 < 1.0 \text{ o.k.}$

USE

150 x 150  
x 12 L

BTM CHORD

FT = 199.2 kN  
TRY 120 x 120 x 12 L, A = 27.5 cm<sup>2</sup>  
ONE LEG OF ANGLE CONNECTED TO GUSSET

EFFECTIVE AREA = 27.5 x 7/8 = 24.1 cm<sup>2</sup>

$f_t = 199.2 \times 10^3 / 24.1 \times 10^2 = 83 \text{ N/mm}^2$

$P_t = 155 \text{ N/mm}^2$

o.k.

USE

120 x 120  
x 12 L

INTERNAL STUITS (3)

$F_c \text{ Max} = 78.3 \text{ kN}$

TRY 90 x 90 x 8 L, r<sub>min</sub> = 1.76 A = 13.9 cm<sup>2</sup>

$l/r_{min} = 155 \times 0.85 / 1.76 = 75$

$P_c = 110 \text{ N/mm}^2$

$f_c = 78.3 \times 10^3 / 13.9 \times 10^2 = 56 \text{ N/mm}^2$

o.k.

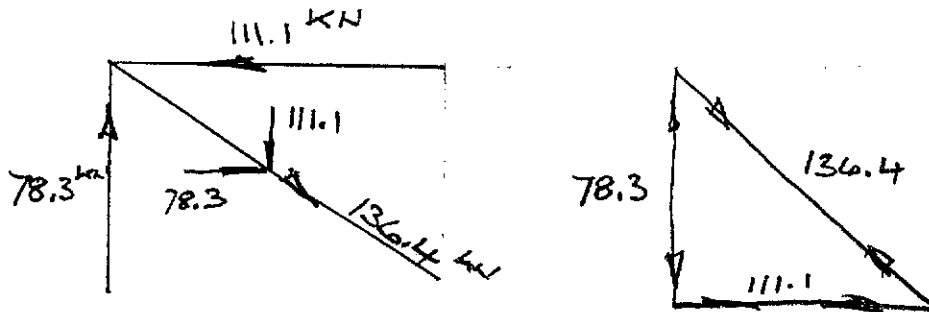
USE

90 x 90 x 8 L

GTS

INTERNAL TIE (4)

RESOLUTION OF FORCES AT SUPPORT A.



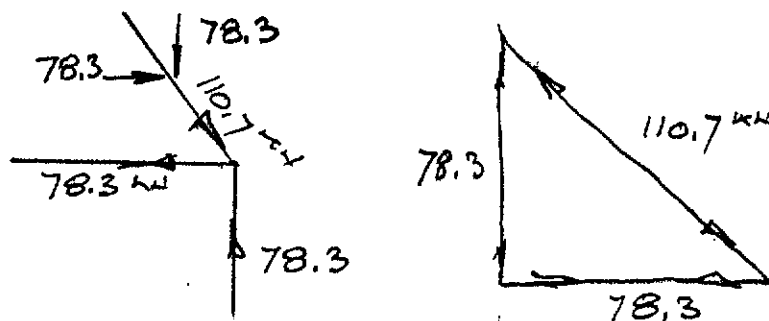
FC  
Try 90 x 90 x 8L, A  
Effective Area = 13.9 x 7/8  
FC = 136.4 x 10<sup>3</sup> / 12.2 x 10<sup>2</sup>

= 136.4 kN  
= 13.9 cm<sup>2</sup>  
= 12.2 cm<sup>2</sup>  
= 112 N/mm<sup>2</sup>  
o.k.

USE  
90 x 90 x 8L

RAFTER (5)

CHECK COMPRESSION MEMBER AT SUPPORT G.



FC = 110.7 kN < 199.2 kN o.k.

USE  
150 x 150  
x 12 L

GROUND BEAMS SPAN = 6.0 m

LOADING : kW/m

$$\begin{array}{r} \text{WALL} \\ \text{BEAM} \end{array} = 9.4 \times 4.5 \quad = 42.3 \\ \quad \quad \quad \quad \quad \quad \quad \quad = 8.1 \\ \quad \quad \quad \quad \quad \quad \quad \quad \hline \quad \quad \quad \quad \quad \quad \quad \quad 50.4$$

$$R = 50.4 \times 6.0 / 2 = 151.2 \text{ kW}$$

$$\text{BM} = 50.4 \times 6.0^2 / 10 = 181.4 \text{ kNm}$$

Try 400W x 600 DP RC BEAM, d = 530

$$K = 181.4 \times 10^6 / 400 \times 530^2 \times 30 = 0.08$$

$$A_s = 181.4 \times 10^6 / 400 \times 0.87 \times 530 \times 0.9 = 950 \text{ mm}^2$$

Try 2T25,  $A_{s \text{ prov}} = 982 \text{ mm}^2$

$$\nu = 151.2 \times 10^3 / 400 \times 530 = 0.71 \text{ N/mm}^2$$

$$\rho_{\text{min}} = 100 \times 982 / 400 \times 530 = 0.46, \nu_c = 0.51 \text{ N/mm}^2$$

Not Links

40 COVER  
TO LINKS

2T25T#B  
+  
R10 LINKS  
@ 200 c/c

COLUMNS

a) EXTCO COLUMNS (G.L. 21)

LOADINGS:

	<u>KN</u>	
ROOF = $88.5 \text{ m}^2 \times 2.7$	= 239.0	
COL. CW: $0.3 \times 0.3 \times 24 \times 1.4 \times 4.2$	= 12.7	
	251.7	

AS PROV. (EXTCO COLS) = 4T20  $\Rightarrow$  1260 mm<sup>2</sup>

$$\text{CAPACITY} = \frac{(0.35 \times 30 + 300 \times 300) + (0.67 \times 460 \times 1260)}{10^3}$$

$$= 1333 \text{ KN} > 252 \text{ KN} \quad \text{O.K.}$$

EXTCO. COLS ADEQUATE.

(2-) NEW COLS.

PROVIDE 4T20 AS EXTCO.

4T20  
+  
R10 LINKS  
@  
200<sup>a/c</sup>.

BASES

a) EXTG BASES (G.L. 21)

LOADINGS:

	$m^2$	<u>kN</u>
ROOF	$= 88.5 \times 1.80$	$= 159.3$
COL		$= 8.6$
GRD BEAM	$= 32.6 + 6.0$	$= 195.6$
BASE o.w.	$= 1.6 \times 1.6 \times 0.4 \times (24-16)$	$= 8.2$
		<u>371.7</u>

EXTG BASES 1600 x 1600

G.B.P. =  $371.7 / 1.6^2 = 145 \text{ kN/m}^2$   
O.K.

EXTG BASES  
ADEQUATE.

b) NEW PADS ON (TYPE A)  
GRID LINE 27

1600 x 1600  
x 400 DP

LOADINGS:

		<u>kN</u>
ROOF	$= 43.5 + 1.8$	$= 78.3$
COL		$= 8.6$
GRD BEAM		$= 195.6$
BASE o.w.		$= 8.2$
		<u>290.7</u>

G.B.P. =  $290.7 / 1.6^2 = 114 \text{ kN/m}^2$

FACTORED LOAD =  $290.7 \times 1.5 = 436 \text{ kN}$

BM =  $(436 / 8 \times 1.6) \times (1.6 - 0.3)^2 = 57.6 \text{ kNm}$

AS =  $57.6 \times 10^6 / (460 \times 0.87 \times 340 \times 0.9) = 470 \text{ mm}^2$

NOY REINF

7 T20 @  
250 B CW.