



## THE HONG KONG HOUSING AUTHORITY

### Memorandum for the Building Committee

#### Proposed Master Layout Plan and Project Development Budget For HOS Development at Welfare road, Aberdeen

#### PURPOSE

To seek Members' approval to the proposed Master Layout Plan and Project Development Budget for the Home Ownership Scheme (HOS) development at Welfare road, Aberdeen.

#### BACKGROUND

2. The **architectural consultant** for this project is Messrs. WCWP International Ltd. The appointment of their consultancy services was approved by Members vide Paper No. BC 85/2000 on 22 June 2000.
3. The site is located to the south of Welfare Road in Aberdeen and occupies a prime position overlooking the Aberdeen Channel and the Marina Club.
4. The site was originally zoned "Open Space" and has been rezoned to "Residential (A)" on the Outline Zoning Plan No. S/H15/11. It is currently used as a temporary carpark under a short term tenancy.
5. Past events relevant to the project are as follows –

Date	Event
(a) 29 December 1999	Approval on the Planning Parameters by Hong Kong District Planning Conference. (Dip Con Paper No. 5/99 refers)
(b) 7 January 2000	Approval to include the project into the PHDP and endorsement of the Development Parameters and Project Development Cost Ceiling by the Strategic Planning Committee (SPC). (Paper No. SPC 8/2000 refers).

## MASTER LAYOUT PLAN

6. The proposed Master Layout Plan generally follows the endorsed Development Parameters. Explanatory notes and drawings attached as **Part I** of the **Annex** illustrate the disposition of building blocks, location of accommodation and facilities, vehicular and pedestrian access.

7. The development is proposed to be Group Two HOS under the newly adopted Flexible Housing Production Strategy in view of its prominent seafront and prime location.

8. The proposed development adopted a non-standard design comprises -

- (a) 3 domestic blocks with 40 domestic storeys for HOS providing 822 flats (480 nos. 3B and 342 nos. 2B);
- (b) 2-storey semi-basement providing 104 nos. private carpark and 12 motorcycle parking;
- (c) a GMB layby; and
- (d) widening of Welfare Road and its turning head as required in the Traffic Impact Assessment (TIA) carried out by the Transport Department.

9. The main features of the design are -

- (a) As a site-specific design, the disposition of building has responded to the site opportunities by maximizing flat number having sea view and south orientation.
- (b) Typical floor plan of tower blocks is carefully designed to constitute a high zone (8 flats per floor) and a low zone (6 flats per floor) to ensure all flats facing north to enjoy the view to hilly terrain and to avoid direct overlooking into the Rehabilitation Centre across Welfare Road. Simultaneously, visual openings are formed between blocks to reduce wall effect in profile terms.
- (c) Location of blocks takes advantage of existing platform at top of site and reduces structural intrusion into sloping areas.
- (d) Landscaped decks are located at ground and basement levels to capture the panoramic sea view.

## PROJECT DEVELOPMENT BUDGET

10. The proposed Project Development Budget of HOS Development at Welfare Road, Aberdeen is estimated to be **\$528.944M**. The breakdown of the proposed Project Development Budget is given in **PART II** of the **Annex** and the key elements are tabulated as follows –

	<b>Cost Heads</b>	<b>Work Elements</b>	<b>Budget Cost (\$M)</b>
(a)	<b>Site Development Cost</b>	Site Formation	-
		Demolition	-
		Sub-total :	-
(b)	<b>Construction Cost</b>	Foundation	48.125
		Building	414.053
		Soft Landscape and Others	0.833
		Sub-total :	463.011
(c)	<b>Other Project Costs [2% on (a) &amp; (b)]</b>	Civil engineering and geotechnical studies, site investigation, material testing and the like	9.260
(d)	<b>Total Site Development &amp; Construction Costs [(a) + (b) + (c)] :</b>		472.271
(e)	<b>Project Management Cost [12% on (d)]</b>	Professional Services and Overheads, Consultation Fees and Consultant Site Staff	56.673
(f)	<b>Project Development Budget [(d) + (e)] :</b>		<b>528.944</b>

Note: Development contingencies of \$22.048M for non-standard block/building and elements are included in the Site Development and Construction Costs. These contingencies are allowed in accordance with Paper No. SPC 45/2000 to cover the unforeseen development risks and change in client's requirements.

## PROJECT DEVELOPMENT COSTS

11. The proposed Project Development Costs of HOS Development at Welfare Road comparing with the Project Development Cost Ceilings as approved in Paper No. SPC 8/2000 are shown as follows –

	(a)	(b)	(c)	(d)	(e)
	<b>Proposed Project Development Cost</b>	<b>Project Development Cost Ceiling</b>	<b>Unit Construction Cost</b>	<b>June 2000 Construction Cost Yardsticks (Based on NCB + 10%)</b>	<b>June 2000 Construction Cost Yardstick Adjusted to Tender-In-Date</b>
	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)
Domestic (HOS)	8,207	8,923	6,686	6,284	6,594
Private Carpark	8,066	8,924	6,564	5,831	6,111

Note: For comparing with the Construction Cost Yardstick, external works, soft landscaping and other sundry costs such as drainage, utility connections, other project costs and project management costs, etc. have been excluded from the Unit Construction Cost. However, the costs of piling, substructure, superstructure, including fluctuation and transfer plate have been included in the Construction Cost. The Cost Yardstick has been adjusted to the price level at the time of tender. Project Development Cost Ceiling at Para. 11(b) approved by SPC has been updated based on June 2000 yardsticks.

Note: Cost Yardstick for Group 2 Non-standard Design project to be New Cruciform Block +10% according to Paper No. SPC 64/2000.

12. The proposed Project Development Costs are below the Project Development Cost Ceilings approved by the SPC vide Paper No. SPC 8/2000.

13. The proposed Project Development Cost for domestic (HOS) building can be further broken down into the cost per flat as follows –

<b>Flat Type</b>	<b>Proposed Project Development Cost per Flat</b>	<b>Construction Cost per Flat</b>	<b>June 2000 Construction Cost Yardstick for NCB + 10%</b>	<b>June 2000 Construction Cost Yardsticks Adjusted to Tender-In-Date</b>
	(\$)	(\$)	(\$)	(\$)
<b>3B – A &amp; B</b>	666,655	543,104	510,449	535,631
<b>2B – C &amp; D</b>	446,379	363,652	341,787	358,648
<b>3B – E &amp; H</b>	698,908	569,380	535,145	561,545
<b>2B – F &amp; G</b>	462,711	376,957	354,292	371,770
<b>3B – I &amp; J</b>	706,294	575,397	540,801	567,480

Note: For comparing with the Construction Cost Yardstick, external works, soft landscaping and other sundry costs such as drainage, utility connections etc. have been excluded from Construction Cost per Flat.

14. The difference between the Unit Construction Cost (excluding external works and others) and the June 2000 Cost Yardsticks for New Cruciform Block plus 10% adjusted to the time of tender by 1.4% for Domestic (HOS) and 7% for private carpark is mainly attributable to the following -

**Domestic (HOS)**

- Provision of second bathroom to 3B flats 1.4%

**Private Carpark**

- Semi-basement construction 5%
- Extra cost for congested site 1%
- Extra cost for Non-standard design 1%

**AVAILABILITY OF FUNDS**

15. The estimated yearly expenditure of the proposed Budget is shown below and would be included in the next capital budget updating of the Authority -

	Estimated Yearly Expenditure (\$M)			
	2000/01	2001/02	Post 2001/02	Total
Estimate	2.800	19.918	506.226	528.944

**DEVELOPMENT PROGRAMME**

16. Details of the development programme are in Part III of the Annex. The key dates are as follows -

(a)	Scheme Design	PDRC(2)	10/00
(b)	Master Layout Plan and Project Development Budget	BC	12/00
(c)	Detail Design	DDRP	03/01
(d)	Piling	Commencement Completion	08/01 07/02
(e)	Building	Commencement Completion	07/02 01/05

## RECOMMENDATION

17. It is recommended that the proposed Master Layout Plan and Project Development Budget of \$528.944M for the HOS Development at Welfare Road, Aberdeen as described above and in the Annex to this Paper be approved.

## DISCUSSION

18. At the next meeting of Building Committee Meeting to be held on 21 December 2000, Members will be invited to approve the recommendation in paragraph 17 above.

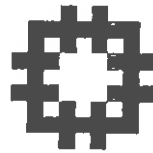
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File Ref : HD(PM1) HK33/DSN

Date : 14 December 2000

**Proposed Master Layout Plan and Development Cost Budget for  
HOS Development at Welfare Road, Aberdeen  
BC Submission**

Issue No.1  
21 December 2000



Development and Construction Branch  
Housing Department

# CONTENTS

## **PART I MASTER LAYOUT PLAN**

### **A. Introduction**

- A.1 Location Plan
- A.2 Site Description
- A.3 Background

### **B. Evaluation of Master Layout Plan**

- B.1 Site opportunities and Constraints
- B.2 Built Form
- B.3 Pedestrian and Vehicular Circulation
- B.4 Open Space
- B.5 Programme and Implementation

### **C. Master Layout Drawings**

**Appendix I - Schedule of Management Accommodation for Ancillary Facilities**

**Appendix II – Finishes Standard/Provisions for the Domestic Blocks**

## **PART II DEVELOPMENT COST BUDGET**

### **A. Summary of Calculation of Site Development and Construction Cost**

### **B. Summary of Project Development Budget**

### **C. Summary of Unit Cost per Flat for Domestic (HOS)**

## **PART III DEVELOPMENT PROGRAMME**

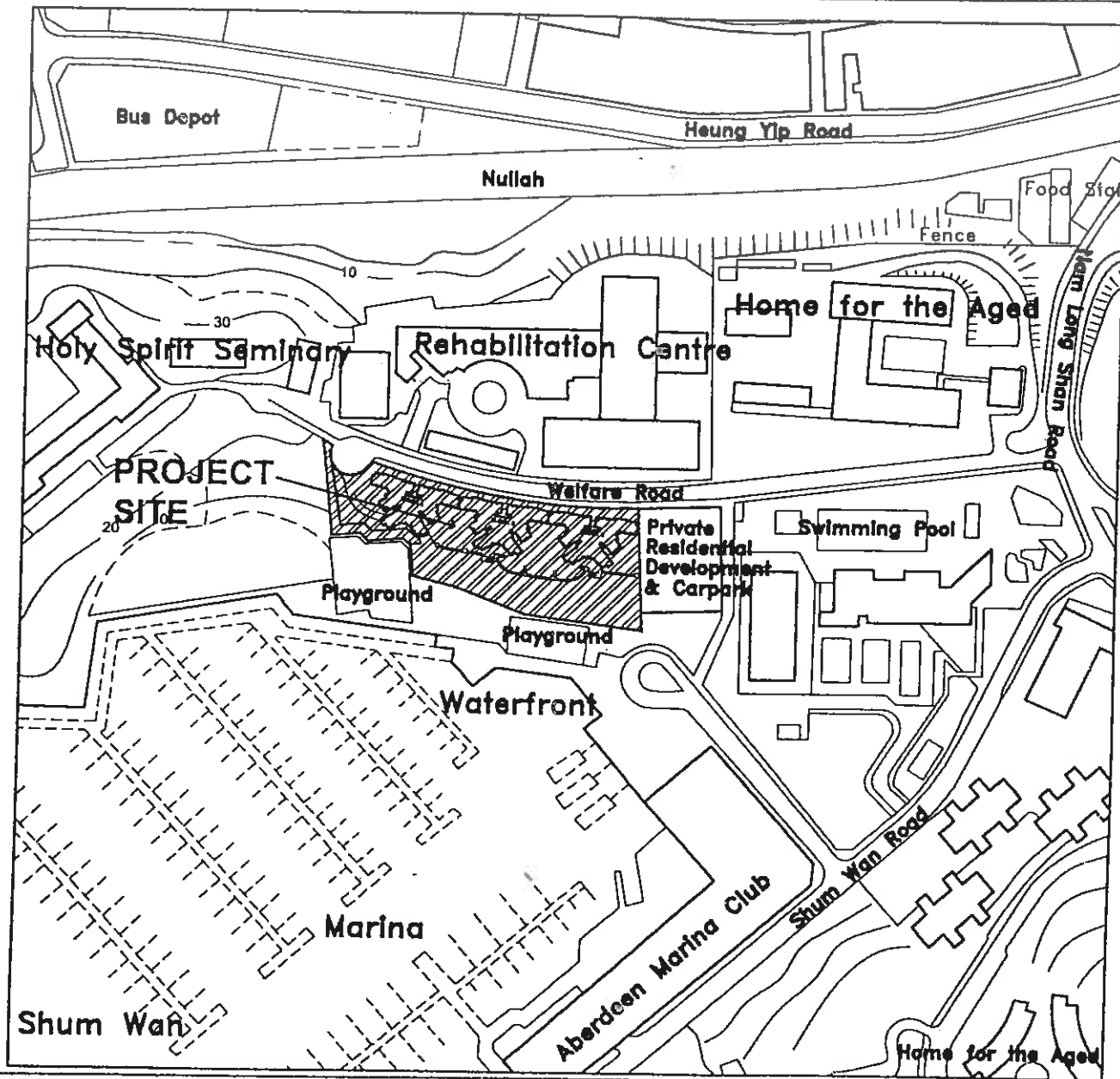
### **AMENDMENT RECORD SHEET**



# PART I MASTER LAYOUT PLAN

## A. Introduction

### A.1 Location Plan



SCALE 1:3000

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p><b><u>A. Introduction</u></b></p> <p><b><u>A.2 Site Description</u></b></p> <p>(1) <u>Land Status of the Site</u></p> <p>The site is located to the south of Welfare Road in Aberdeen overlooking the Aberdeen Channel and the Marina Club. The site is currently used as a temporary carpark under a short term tenancy.</p> <p>(2) <u>Site Area</u></p> <p>The site occupies a gross area of approximately 0.65 hectares.</p> <p>(3) <u>Surrounding Land Use</u></p> <p>Uses including a Rehabilitation Complex at north, a private residential development at east and open space at south side of the Site.</p>	<p>Optimize development potential of the site in response to its prime location and seaview.</p> <p>Adverse environmental impact to neighborhood shall be avoided.</p>	<p>The design criteria have been incorporated in the proposed Master Layout Plan.</p> <p>Site specific design is proposed to maximize the flats with seaview.</p> <p>The site occupies a gross area of approximately 0.65 hectares.</p> <p>Road widening of Welfare Road will be carried out to cater for the increased traffic loading.</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p>(4) <u>Site Topography</u></p> <p>The site is formed generally to level +17.0m PD.</p> <p>(5) <u>Site Access</u></p> <p>Both vehicular and pedestrian can be accessed to the site at ground floor level from Welfare Road.</p> <p>(6) <u>Airport Height Restriction (AHR)</u></p> <p>The site is governed by the Airport Height Restriction (AHR) prescribed under the Hong Kong Airport (Control of Obstruction)(No.2) Order 1997.</p> <p>(7) <u>Geotechnical</u></p> <p>The existing slope at south side of the Site is categorized by Geotechnical Engineering Office as substandard with reference to current safety standard.</p>	<p>AHR limit is + 200mPD.</p> <p>Extent of slope work shall be minimized.</p>	<p>The proposed development will adopt +17.0m PD as the ground floor deck level.</p> <p>Same as Concept Proposal.</p> <p>The maximum proposed building height of +139mPD is within the AHR limit.</p> <p>Detailed ground investigations will be carried out before the piling tender. The foundation design, building design and landscape design will take into the account of the existing slope conditions.</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p><b>A.3 Background</b></p> <p>The Welfare Road site was originally zoned "Open Space" and had been rezoned "Residential (A)" on the Outline Zoning Plan No. S/H15/11 gazetted in May 1999. During the rezoning process, the Southern Provisional District Board (STPDB) objected to the rezoning proposal on the grounds that it would generate additional traffic. After further deliberation, Town Planning Board decided that the site was suitable for residential use and was once considered for Sandwich Class Housing.</p> <p>The site was subsequently included in the HOUSCOM's Control List for providing 510 flats by March 2005. HOS development is proposed for this site in view of its prime location which will also provide an attractive home purchase option for the affected tenants in Wong Chuk Hang Estate.</p>	<p>Maximize the development potential for HOS.</p>	<p>The proposed scheme has been developed to fully utilize the site potential to meet client's requirement.</p> <p>With the introduction of a private street/ footpath, the site is categorized as Class B in accordance with Building (Planning) Regulations for calculation of plot ratio. Maximum permissible domestic plot ratio for the site is 9. The proposed scheme will result in domestic plot ratio of 8.985.</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p><b>B. Evaluation of Master Layout Plan</b></p> <p><b>B.1 Site Opportunities and Constraints</b></p> <p><b>(1) Waterfront Location</b></p> <p>Due to its prominent waterfront location, the site has a very good view overlooking the Aberdeen Channel and the Marina Club.</p> <p><b>(2) Site configuration and slope</b></p> <p>The site has a linear and narrow configuration. The preferred building area is further restricted by sub-standard slope at southern side of the site.</p> <p><b>(3) Environmental Considerations</b></p> <p>A preliminary Environmental Assessment Study had been carried out and the result revealed that there would be neither major noise impact nor air quality problem on the development. No adverse water quality and waste impacts are anticipated during the operation of the proposed development. Environmental Impact Assessment is not required.</p>	<p>Site specific design to maximize the number of sea view flats is required.</p> <p>Stabilization work for slope shall be minimized for cost concern. Stabilization work at lower portion of site inside Marina Club area shall be avoided as far as possible.</p>	<p>The proposed scheme results in 720 flats (88%) out of total 822 flats have view overlooking the Aberdeen Channel and the Marina Club.</p> <p>Further investigation work are carried out to check in detail the existing slope conditions. Blocking and carpark layout are designed to locate as far as possible from the slope to minimize technical difficulties and cost for carrying out of future construction work.</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p>(4) <u>Road Widening and GMB Layby</u></p> <p>Road widening and provision of a GMB layby are required at Welfare road by Transport Department to cater for the increased traffic loading.</p> <p><b>B.2 Built form</b></p> <p>(1) <u>Plot Ratio and Flat Mix</u></p> <p>Maximum permissible Domestic and Non-domestic Plot Ratio under Building (Planning) Regulations are 9 and 15 respectively.</p>	<p>Maximizing the site potential is required. This project is categorized as Group 2 HOS under the Flexible Housing Production Strategy.</p>	<p>Road widening and provision of a GMB layby are proposed at Welfare road to cater for the increased traffic loading.</p> <p>After introducing a private street/footpath into south-west side of the site, it is classified as Class B site in accordance with Building (Planning) Regulations. Consequently, the maximum permissible Gross Floor Area for domestic is increased from 8 to 9.</p> <p>The total flat number is increased to 822 instead of 640 as approved at PDRC(1) and SPC. The total Gross Floor Area for domestic portion are 54,499.49m<sup>2</sup>. 3 identical blocks of 40 domestic storeys are proposed. Each block constitutes a low zone (23 storeys of 6 flats) and a high zone (17 storeys of 8 flats).</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p>(2) Household size and Population</p> <p>The design population is 2,560.</p> <p>Average Household size is 3.2.</p> <p>(3) Elevation and Orientation</p>	<p>The project is categorized as Group 2 HOS.</p> <p>Flat sizes are –            3B – up to 54m<sup>2</sup> IFA            2B – up to 40m<sup>2</sup> IFA.</p>	<p>The development will provide a total of 822 flats comprising 480 nos. of 3-bedroom units and 342 nos. of 2-bedroom units.</p> <p>3B to 2B flat ratio is 58:42. Client's requirement on flat size is strictly followed.</p> <p>The Efficiency Ratio (Saleable Area / Gross Floor Area) for the development is 84%.</p> <p>The design population is 2,631.</p> <p>Average Household size is 3.2.</p> <p>Flat sizes are:            3B = 76m<sup>2</sup> to 82m<sup>2</sup> (GFA), 58m<sup>2</sup> to 62m<sup>2</sup> (IFA)            2B = 52m<sup>2</sup> (GFA), 39m<sup>2</sup> (IFA)</p> <p>Due to its prominent waterfront location, the site has a very good view overlooking the Aberdeen Channel and the Marina Club. The proposed scheme is therefore designed to maximize the number of flats (720(88%) out of total 822 flats) facing the Aberdeen Channel and the Marina Club.</p> <p>Moreover, the remaining 102 flats located at high zone (24/F to 40/F) will enjoy view on hilly terrain</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p>(4) <u>Construction</u></p> <p><b>B. 3 Pedestrian and Vehicular Circulation</b></p> <p>(1) <u>Vehicular Ingress/Egress</u></p> <p>Ingress/egress is from the Welfare Road.</p> <p>(2) <u>Car Parking Provision</u></p> <p>Adequate parking provision shall be allowed.</p> <p>(3) <u>Loading /unloading Provision</u></p> <p>Adequate loading /unloading provision shall be allowed.</p>	<p>Large panel non-timber formwork is preferred but small panel non-timber proprietary systems may be used. Precast facades and staircases are a minimum requirement.</p> <p>Parking provision of 1 space per 8 flats shall be allowed.</p> <p>1 loading /unloading space per block shall be provided.</p>	<p>and openness at northern side of the Site.</p> <p>Cross ventilation to living/dining area is provided as far as practicable.</p> <p>A combination of precast concrete facade, large panel metal formwork, small aluminium panel system formwork, precast staircase and dry wall panels will be utilized to form an optimized solution.</p> <p>Same as Concept proposal.</p> <p>104 carparks are provided. 12 motorcycle parkings are provided.</p> <p>3 loading /unloading spaces for domestic block are proposed.</p>



**PART I MASTER LAYOUT PLAN**

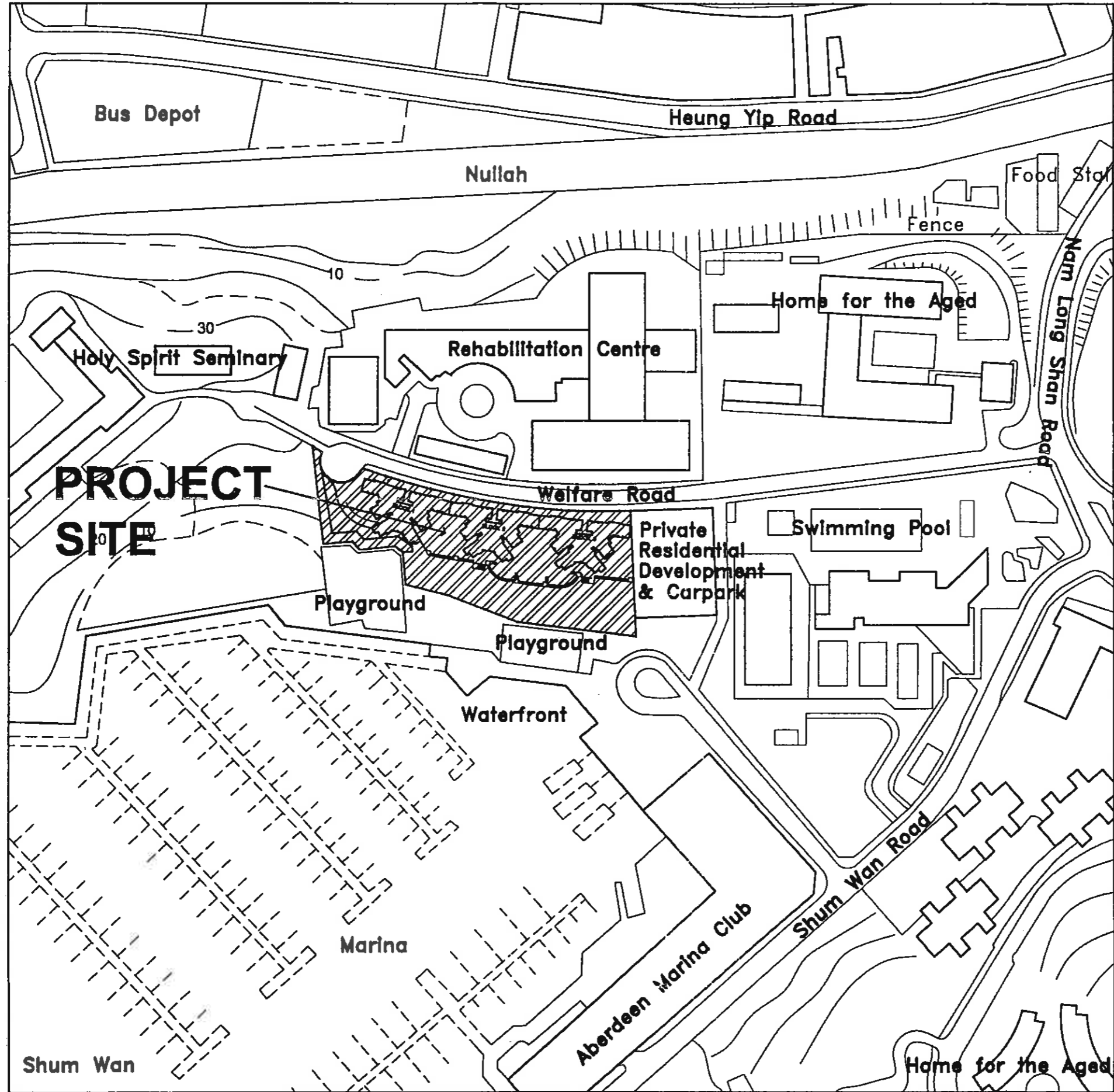
CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN
<p>(4) <u>Pedestrian Circulation</u></p> <p>Pedestrian is expected to enter from the Welfare Road.</p> <p>(5) <u>Refuse Collection</u></p> <p><b>B. 4 Open Space</b></p> <p>Adequate open space provision shall be allowed.</p>	<p>No automatic refuse collection system (ARCS) is required.</p> <p>1m<sup>2</sup> per person of open space shall be provided. A proper ratio between active and passive open space shall be allowed.</p> <p>Not less than 205m<sup>2</sup> of children play area shall be provided.</p>	<p>Pedestrian entrance is proposed at Welfare Road side. Covered walkway connecting all blocks is proposed.</p> <p>Refuse Collection Point (RCP) is proposed to minimize disturbance to residence in terms of noise and air quality. Refuse collection route from towers to RCP is designed to avoid intrusion into landscaped area.</p> <p>Open space are proposed at ground level deck and Basement 2 (B2) level. Not less than 2,631m<sup>2</sup> of open space are proposed. Seaview promenade along edge of ground floor deck and landscaped area at B2 level is proposed.</p> <p>Not less than 205m<sup>2</sup> of children play area is proposed at ground level deck.</p>

**PART I MASTER LAYOUT PLAN**

CONCEPT PROPOSAL	CLIENT REQUIREMENTS	MASTER LAYOUT PLAN																																																												
<p><b>B. 5 Programme and Implementation</b></p> <p>The key programme dates are highlighted as follows:</p> <table data-bbox="224 414 672 1053"> <tr> <td>PDRC(1)</td> <td>10/99(actual)</td> </tr> <tr> <td>SPC</td> <td>01/00(actual)</td> </tr> <tr> <td>PDRC(2)</td> <td>04/00</td> </tr> <tr> <td>BC</td> <td>06/00</td> </tr> <tr> <td>DDRP</td> <td>09/00</td> </tr> <tr> <td colspan="2"><b>Foundation</b></td> </tr> <tr> <td>-Invitation</td> <td>09/00</td> </tr> <tr> <td>-Award</td> <td>12/00</td> </tr> <tr> <td>-Commencement</td> <td>01/01</td> </tr> <tr> <td>-Completion</td> <td>10/01</td> </tr> <tr> <td colspan="2"><b>Building</b></td> </tr> <tr> <td>-Invitation</td> <td>06/01</td> </tr> <tr> <td>-Award</td> <td>09/01</td> </tr> <tr> <td>-Commencement</td> <td>10/01</td> </tr> <tr> <td>-Completion</td> <td>03/04</td> </tr> </table>	PDRC(1)	10/99(actual)	SPC	01/00(actual)	PDRC(2)	04/00	BC	06/00	DDRP	09/00	<b>Foundation</b>		-Invitation	09/00	-Award	12/00	-Commencement	01/01	-Completion	10/01	<b>Building</b>		-Invitation	06/01	-Award	09/01	-Commencement	10/01	-Completion	03/04		<p>The key programme dates are highlighted as follows:</p> <table data-bbox="1545 414 1993 1053"> <tr> <td>PDRC(1)</td> <td>10/99(actual)</td> </tr> <tr> <td>SPC</td> <td>01/00(actual)</td> </tr> <tr> <td>PDRC(2)</td> <td>10/00</td> </tr> <tr> <td>BC</td> <td>12/00</td> </tr> <tr> <td>DDRP</td> <td>03/01</td> </tr> <tr> <td colspan="2"><b>Foundation</b></td> </tr> <tr> <td>-Invitation</td> <td>04/01</td> </tr> <tr> <td>-Award</td> <td>07/01</td> </tr> <tr> <td>-Commencement</td> <td>08/01</td> </tr> <tr> <td>-Completion</td> <td>07/02</td> </tr> <tr> <td colspan="2"><b>Building</b></td> </tr> <tr> <td>-Invitation</td> <td>03/02</td> </tr> <tr> <td>-Award</td> <td>06/02</td> </tr> <tr> <td>-Commencement</td> <td>07/02</td> </tr> <tr> <td>-Completion</td> <td>01/05</td> </tr> </table> <p>Detailed development programme refer to <b>PART III</b>.</p>	PDRC(1)	10/99(actual)	SPC	01/00(actual)	PDRC(2)	10/00	BC	12/00	DDRP	03/01	<b>Foundation</b>		-Invitation	04/01	-Award	07/01	-Commencement	08/01	-Completion	07/02	<b>Building</b>		-Invitation	03/02	-Award	06/02	-Commencement	07/02	-Completion	01/05
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-Completion	01/05																																																													

**PART I MASTER LAYOUT PLAN**

**C. Master Layout Drawing**



NOTES:

NO.	DATE	DESCRIPTION	INITIAL
REVISION			

ARCHITECT  

**WCWP INTERNATIONAL LIMITED**  
 鴻興建築師事務所(國際)有限公司  
ARCHITECTURAL, ENGINEERING, INTERIOR DESIGN, PLANNING

STRUCTURAL CONSULTANT  
**Wong & Cheng**  
Consulting Engineers Ltd.

M & E CONSULTANT  
**Rankine & Hill**  
Hong Kong Ltd.

QUANTITY SURVEYORS  
**WIDNELL Ltd.**

	NAME	INITIAL	DATE
AUTHORISED	BFW	ORIGINAL SIGNED	20/10/00
CHECKED	LKT	ORIGINAL SIGNED	20/10/00
CHECKED	JC	ORIGINAL SIGNED	20/10/00
DRAWN	JL	ORIGINAL SIGNED	20/10/00


PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

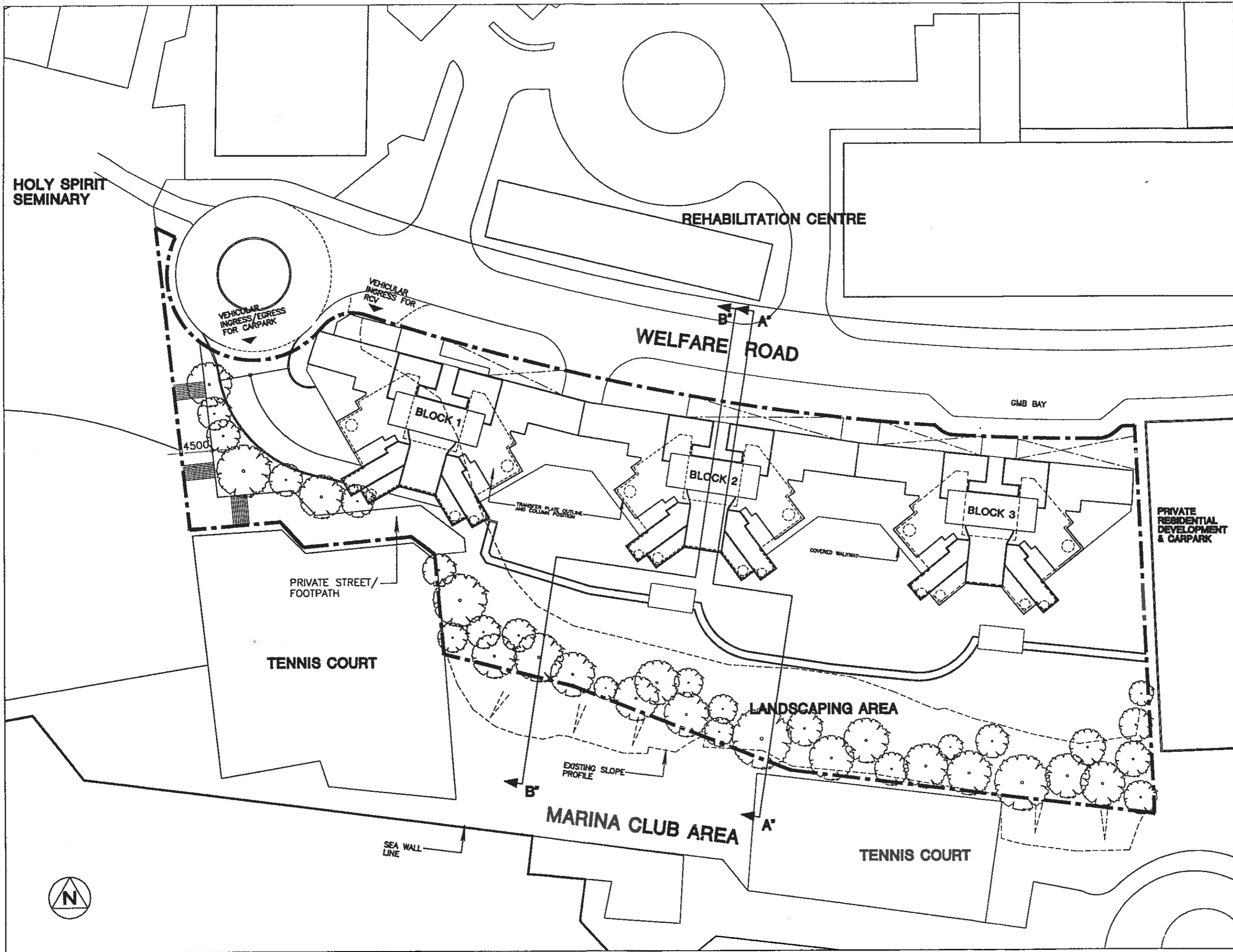
DRAWING TITLE  
**SITE LOCATION PLAN**

SCALE 1:2000

DRAWING NO  
**Y0023/201000/S01/A**

SOURCE


**D & C BRANCH**  
**HOUSING DEPARTMENT**



NOTES:

NO.	DATE	DESCRIPTION	INITIAL
1		ARCHITECT	
ARCHITECT WCWP INTERNATIONAL LIMITED 鴻興建築設計(國際)有限公司 ARCHITECTS, DESIGNERS, ENGINEERS, PLANNERS			
STRUCTURAL CONSULTANT <b>Wong &amp; Chong</b> Consulting Engineers Ltd.			
M & E CONSULTANT <b>Rankine &amp; Hill</b> (Hong Kong) Ltd.			
QUANTITY SURVEYORS <b>WIDNELL Ltd.</b>			

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DRAWN	JL	ORIGINAL	20/10/00

PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE  
**BLOCK PLAN**

SCALE  
 1:500

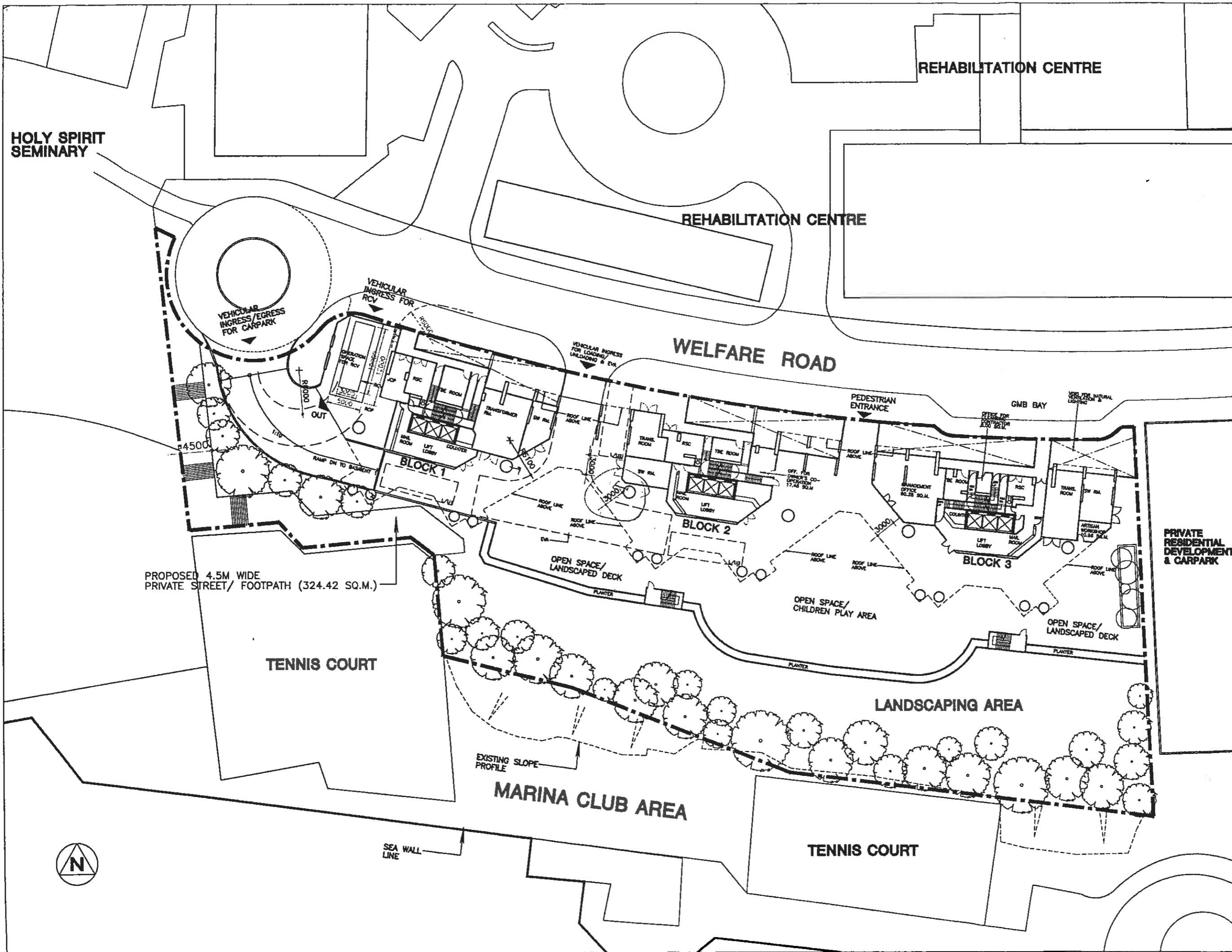
DRAWING NO  
**Y0023/201000/S02/A**

SOURCE



**D & C BRANCH**  
**HOUSING DEPARTMENT**





NOTES:

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**Rankine & Hill**  
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PROJECT

**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE

**PLAN FOR PODIUM LEVEL**

SCALE 1:500

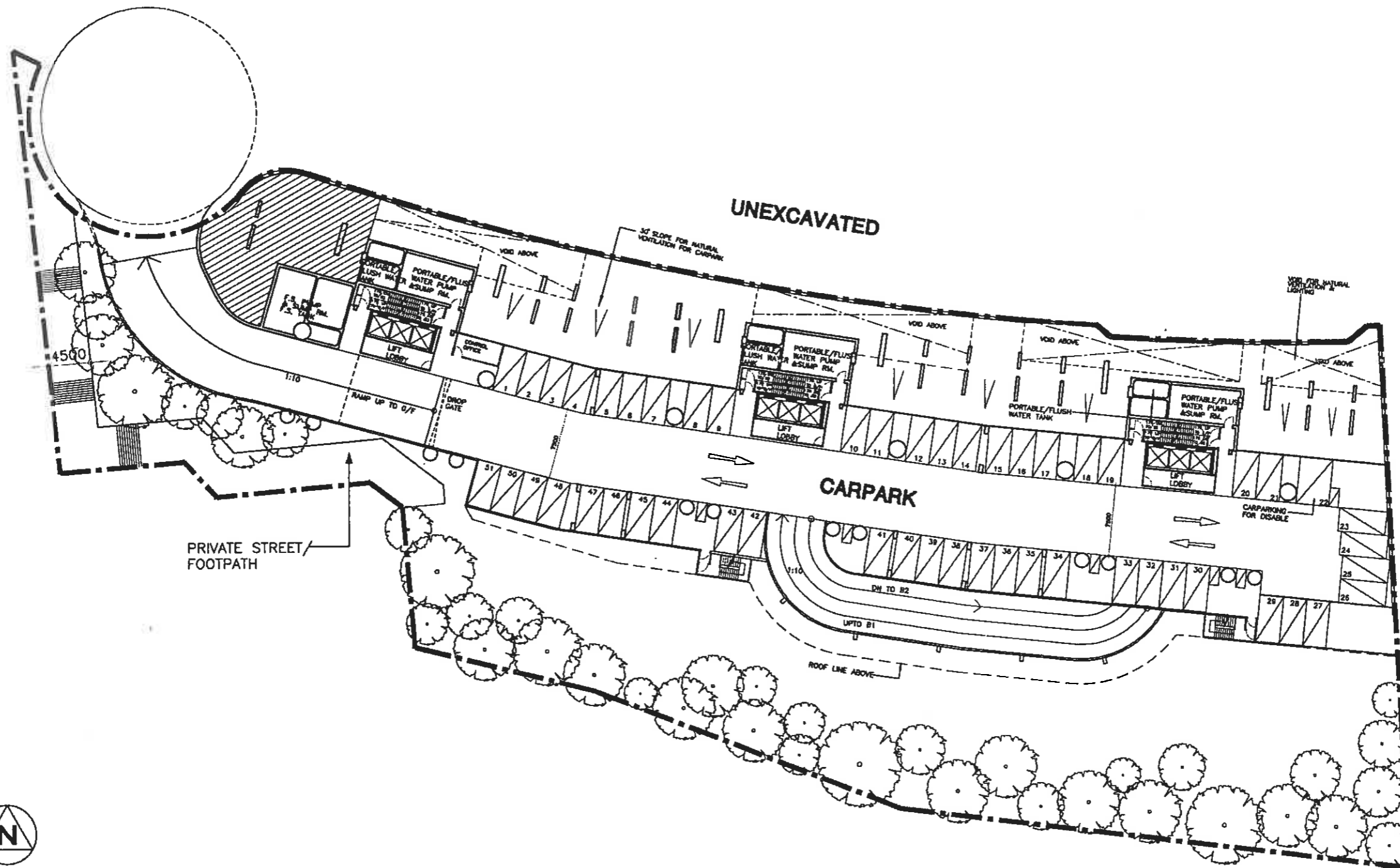
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**Y0023/201000/S03/A**

SOURCE

**D & C BRANCH HOUSING DEPARTMENT**





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DRAWN	JL	ORANGE-SIGNED	20/10/00

PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

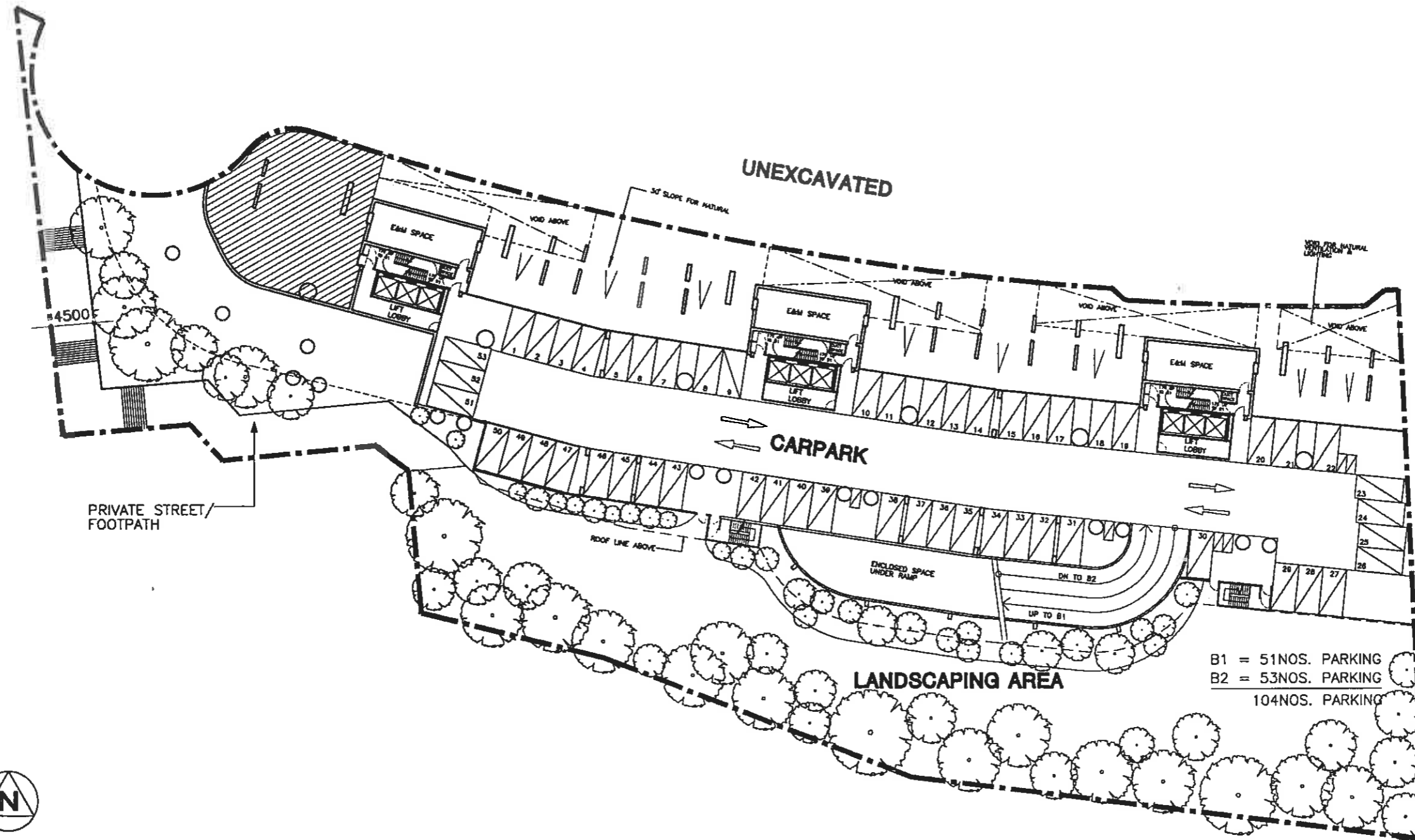
DRAWING TITLE  
**PLAN FOR BASEMENT 1**

SCALE 1:500

DRAWING NO  
**Y0023/201000/S04/A**

SOURCE


**D & C BRANCH HOUSING DEPARTMENT**



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DRAWN	JL	ORIGINAL SIGNED	20/10/00


PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE  
**PLAN FOR BASEMENT 2**

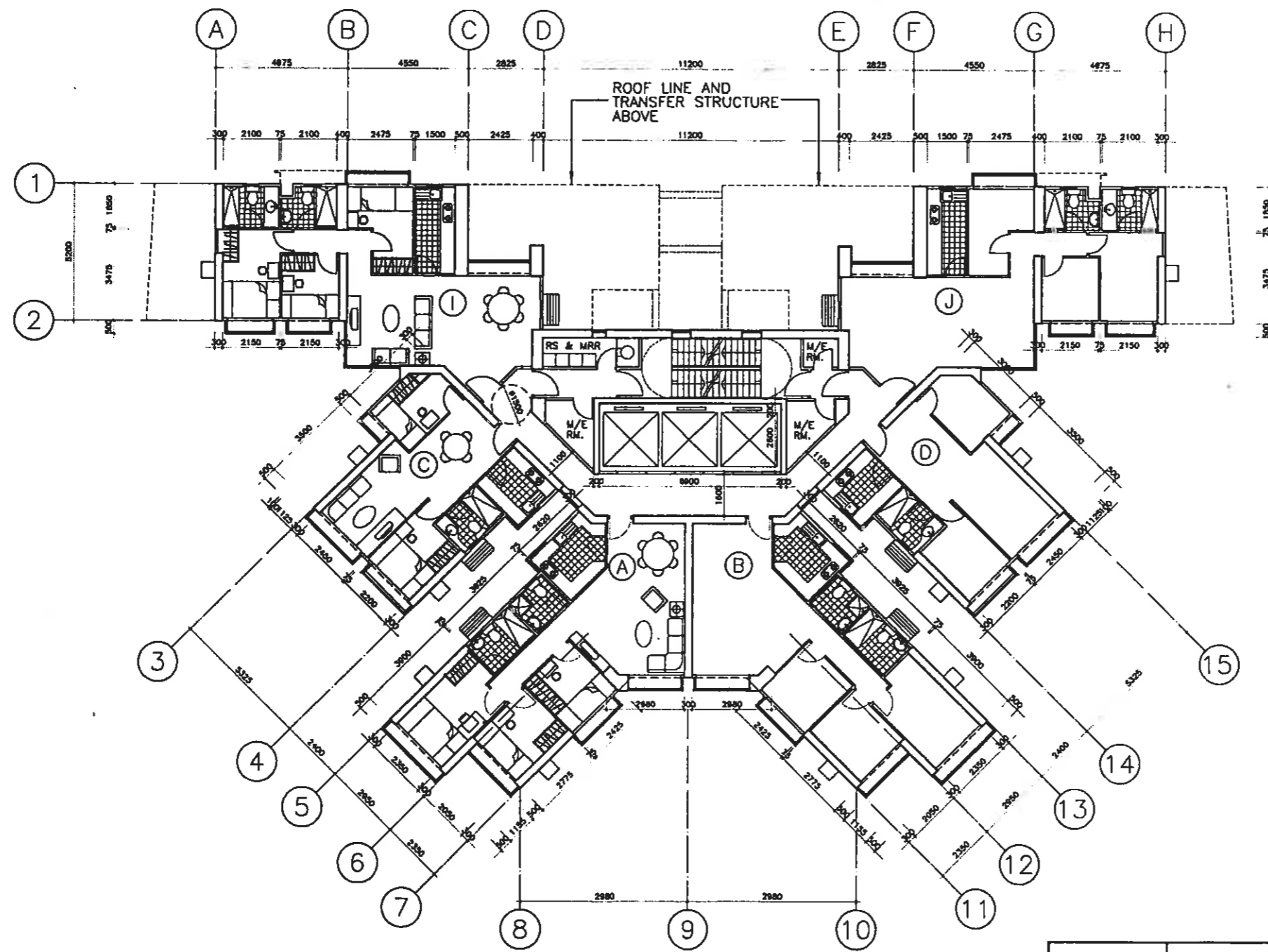
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DRAWING NO  
**Y0023/201000/S05/A**

SOURCE


**D & C BRANCH HOUSING DEPARTMENT**





UNIT	S.A.(M <sup>2</sup> )	I.F.A.(M <sup>2</sup> )
A&B	64.87	58.13
C&D	44.08	38.92
I&J	68.97	61.59

NOTES:

NO.	DATE	DESCRIPTION	INITIAL

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WCWP INTERNATIONAL LIMITED  
 香港房屋發展(國際)有限公司  
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M & E CONSULTANT

**Rankine & Hill**  
 Hong Kong Ltd.

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**WIDNELL Ltd.**

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CHECKED	JC	ORIGINAL SIGNED	20/10/00
DRAWN	JL	ORIGINAL SIGNED	20/10/00

PROJECT

**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE

**TYPICAL FLOOR PLAN (LOW ZONE) (1/F - 23/F)**

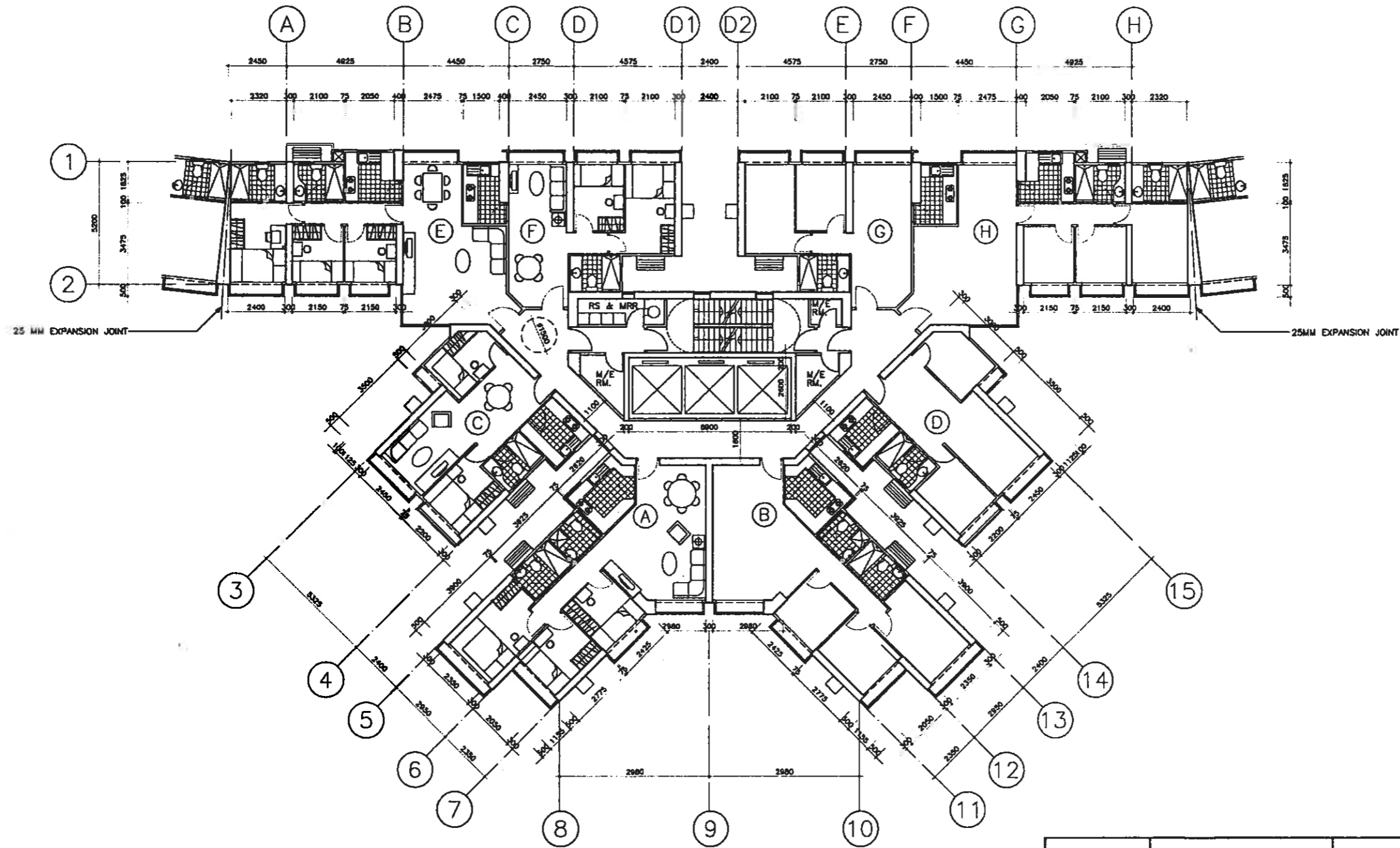
SCALE 1:200

DRAWING NO

**Y0023/201000/S06/A**

SOURCE

D & C BRANCH HOUSING DEPARTMENT



UNIT	S.A. (M <sup>2</sup> )	I.F.A. (M <sup>2</sup> )
A&B	64.87	58.13
C&D	44.08	38.92
E&H	64.93	60.94
F&G	44.12	40.35

NOTES:

NO.	DATE	DESCRIPTION	INITIAL

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STRUCTURAL CONSULTANT

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 Consulting Engineers Ltd.

M & E CONSULTANT

**Rankine & Hill**  
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**WIDNELL Ltd.**

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CHECKED	JC	ORIGINAL SIGNED	20/10/00
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PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

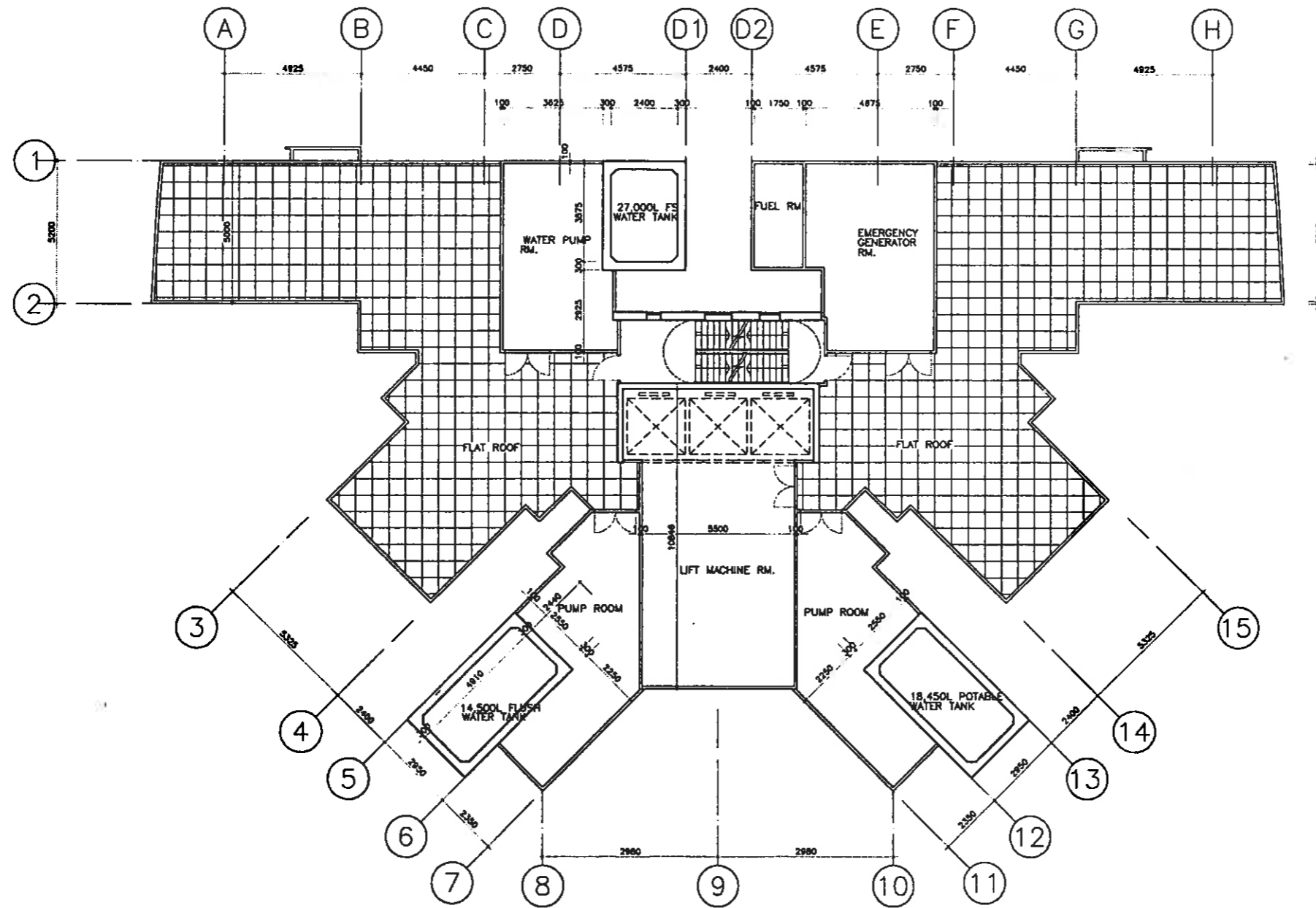
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**TYPICAL FLOOR PLAN (24/F - 40/F)**

SCALE 1:100

DRAWING NO  
**Y0023/201000/S07/A**

SOURCE

 **D & C BRANCH HOUSING DEPARTMENT**



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ARCHITECTURE, ENGINEERING, DESIGN, PROJECT MANAGEMENT

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DRAWN	J.L.	ORIGINAL SIGNED	20/10/00

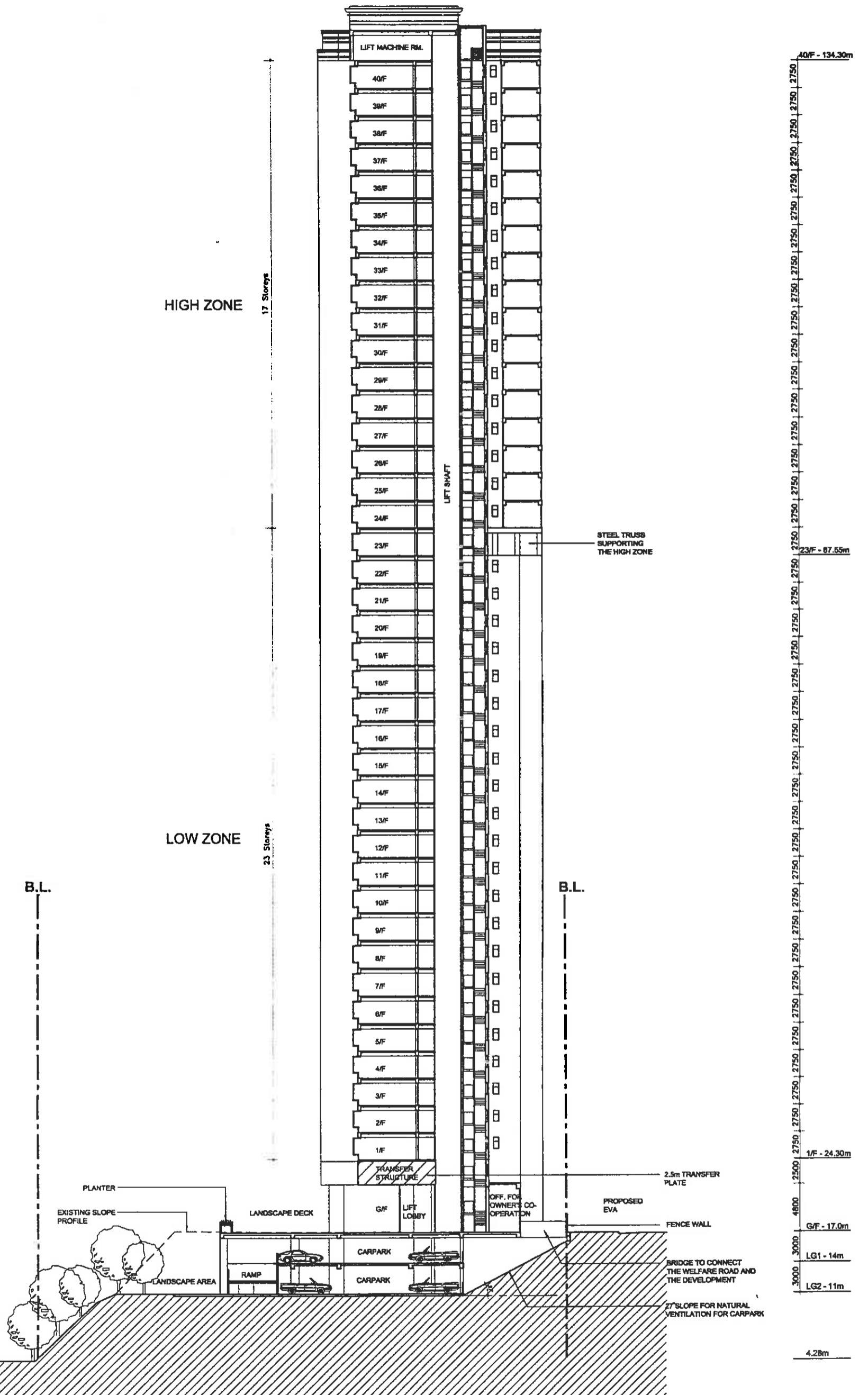
PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE  
**ROOF PLAN**

SCALE 1:500  
 DRAWING NO  
**Y0023/201000/S11/A**

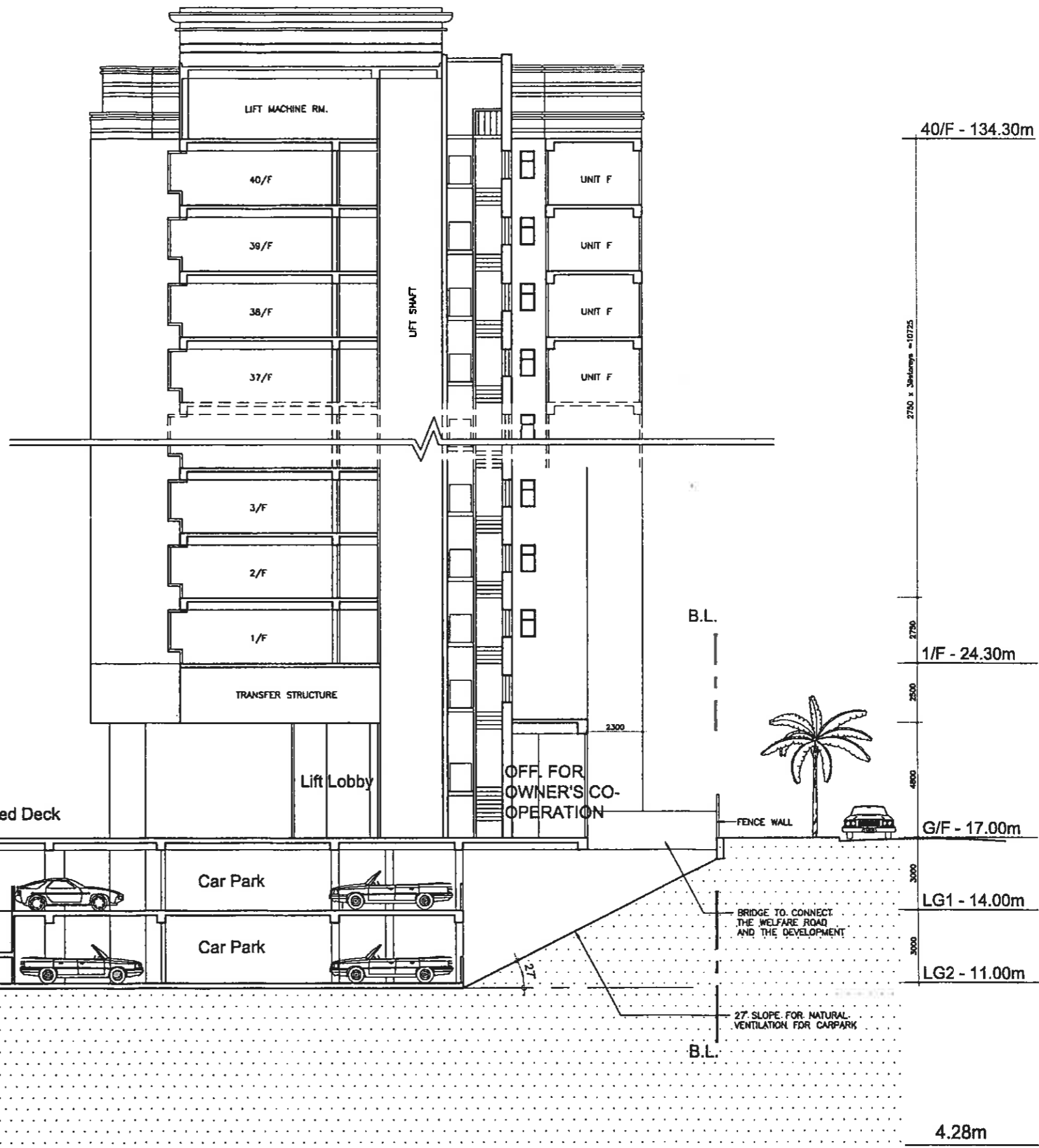
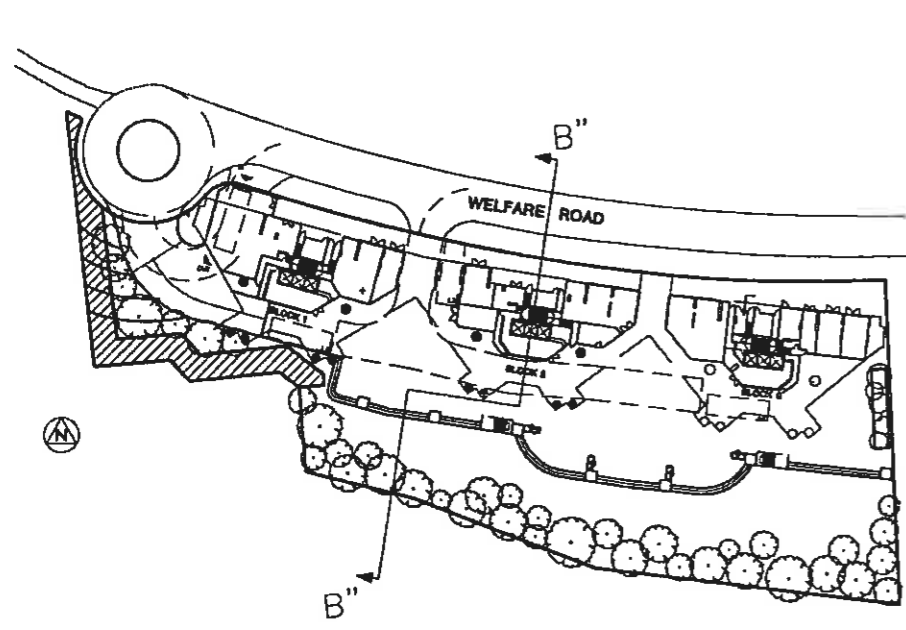
SOURCE

 **D & C BRANCH HOUSING DEPARTMENT**



<p>40/F - 134.30m</p> <p>23/F - 87.65m</p> <p>1/F - 24.30m</p> <p>G/F - 17.0m</p> <p>LG1 - 14m</p> <p>LG2 - 11m</p> <p>4.28m</p>																					
<p>NOTES:</p> <p>1. DATE: _____</p> <p>2. REVISION: _____</p> <p>3. ARCHITECT: _____</p> <p>4. ENGINEER: _____</p>																					
<p>WONG &amp; CHENG CONSULTANTS</p> <p>WONG &amp; CHENG CONSULTANTS</p> <p>WONG &amp; CHENG CONSULTANTS</p>																					
<p>QUANTITY SURVEYORS</p> <p>WIDNELL LTD.</p>																					
<p>PROJECT: HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN</p>																					
<p>SECTION A-A'</p>																					
<p>SCALE: 1:400</p> <p>DRAWING NO: Y0023/201000/S13/A</p> <p>SOURCE: D &amp; C BRANCH HOUSING DEPARTMENT</p>																					
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NOTES:



NO.	DATE	DESCRIPTION	INITIAL
1		ARCHITECT	

WCWP INTERNATIONAL LIMITED  
 鴻興建築設計(國際)有限公司  
 ARCHITECT

STRUCTURAL CONSULTANT  
**Wong & Chong**  
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M & E CONSULTANT  
**Rankine & Hill**  
 Group (Hong Kong) Ltd.

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**WIDNELL, Ltd.**

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PROJECT  
**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE  
**Section B-B'**

SCALE 1:300

DRAWING NO.  
**Y0023/201000/S14/A**

SOURCE





ROOF  
 F40  
 F39  
 F38  
 F37  
 F36  
 F35  
 F34  
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 F32  
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 F6  
 F5  
 F4  
 F3  
 F2  
 F1  
 TRANSFER STRUCTURE  
 5000  
 G/F  
 B1  
 B2



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STRUCTURAL CONSULTANT

**Wong & Cheng**  
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QUANTITY SURVEYORS

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PROJECT

**HOS DEVELOPMENT AT WELFARE ROAD ABERDEEN**

DRAWING TITLE

**SOUTH ELEVATION**

SCALE 1:600

DRAWING NO

**Y0023/201000/S12/A**

SOURCE

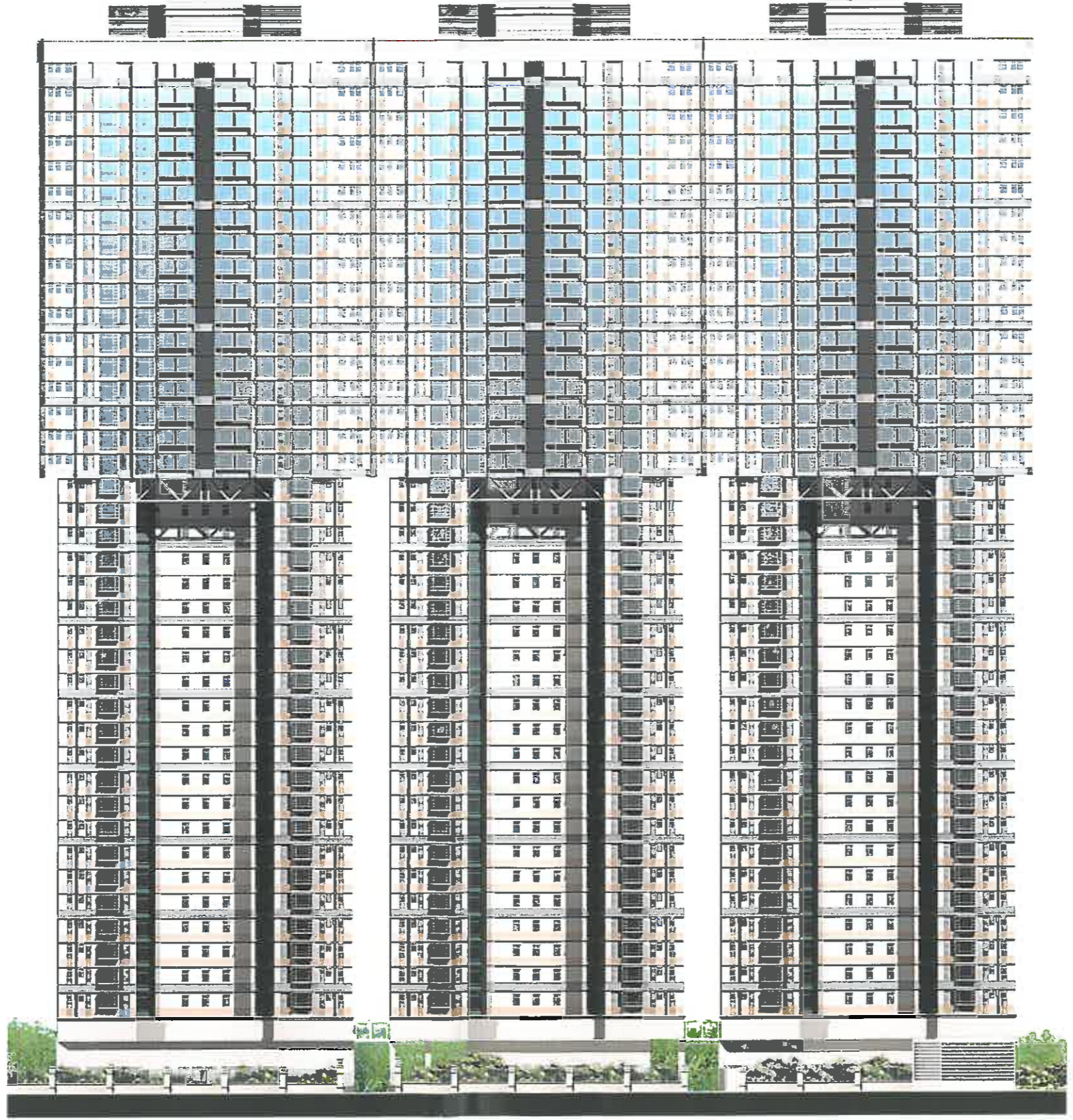


**WORKS GROUP HOUSING DEPARTMENT**



NOTES:

ROOF  
 F40  
 F39  
 F38  
 F37  
 F36  
 F35  
 F34  
 F33  
 F32  
 F31  
 F30  
 F29  
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 F7  
 F6  
 F5  
 F4  
 F3  
 F2  
 F1  
 TRANSFER STRUCTURE  
 4800  
 G/F



NO.	DATE	DESCRIPTION	INITIAL
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STRUCTURAL CONSULTANT			
<b>Wong &amp; Chong</b> <small>Consulting Engineers Ltd.</small>			
M & E CONSULTANT			
<b>Rankine &amp; Hill</b> <small>(Hong Kong) Ltd.</small>			
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<b>WIDNELL Ltd.</b>			
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ARCHITECTURAL, ENGINEERING, INTERIOR DESIGN, PLANNING

STRUCTURAL CONSULTANT

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Consulting Engineers Ltd.

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Rankine & Hill

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CHECKED JC ORIGINAL SIGNED 20/10/00

DRAWN JL ORIGINAL SIGNED 20/10/00

PROJECT

HOS DEVELOPMENT AT WELFARE ROAD

ABERDEEN

DRAWING TITLE

NORTH ELEVATION

SCALE 1:600

DRAWING NO

Y0023/201000/S15

SOURCE

WORKS GROUP HOUSING DEPARTMENT

## Appendix I – Schedule of Management Accommodation for Ancillary Facilities

### Standard Provision for HOS Court Project: Welfare Road Aberdeen

**(a) Management Office**

- For workload of 800 flats
- Office to be located within HOS court
- Reference should be made to BTG-CF-106

**(b) Office for Owners' corporation (18-40m<sup>2</sup>)**

One for each court.  
Reference should be made to BTG-CF-106.

<u>Office/Room</u>	<u>Area Entitled (m<sup>2</sup>)</u>	<u>No. of Staff</u>	<u>Area Required (m<sup>2</sup>)</u>
<u>Manager's Office</u>			
EM	6.6	1/2 )	
AEM	6.6	1/2 )	6.6
Gen. Office			
EO/Clerk	4.4	2	8.8
Filing/Office Equipment	-	-	16
Security control Room	2	4	8
Other Rooms	-	-	
Conference Rm.	-	-	10
Shroff	-	-	6
Male W.C.	-	-	3
Female W.C.	-	-	3
Waiting Hall	-	-	10
Storeroom	-	-	6
Pantry	-	-	4
			81.4
Add 10 % for circulation			8.14
			89.54
Proposed Range			90-110

**(c) Office for Cleansing Contractor (6-10m<sup>2</sup>)**

One for each court.  
Reference should be made to BTG-CF-106.

**(d) Artisan Workshop (10m<sup>2</sup>)**

One for each court  
Reference should be made to BTG-CF-106



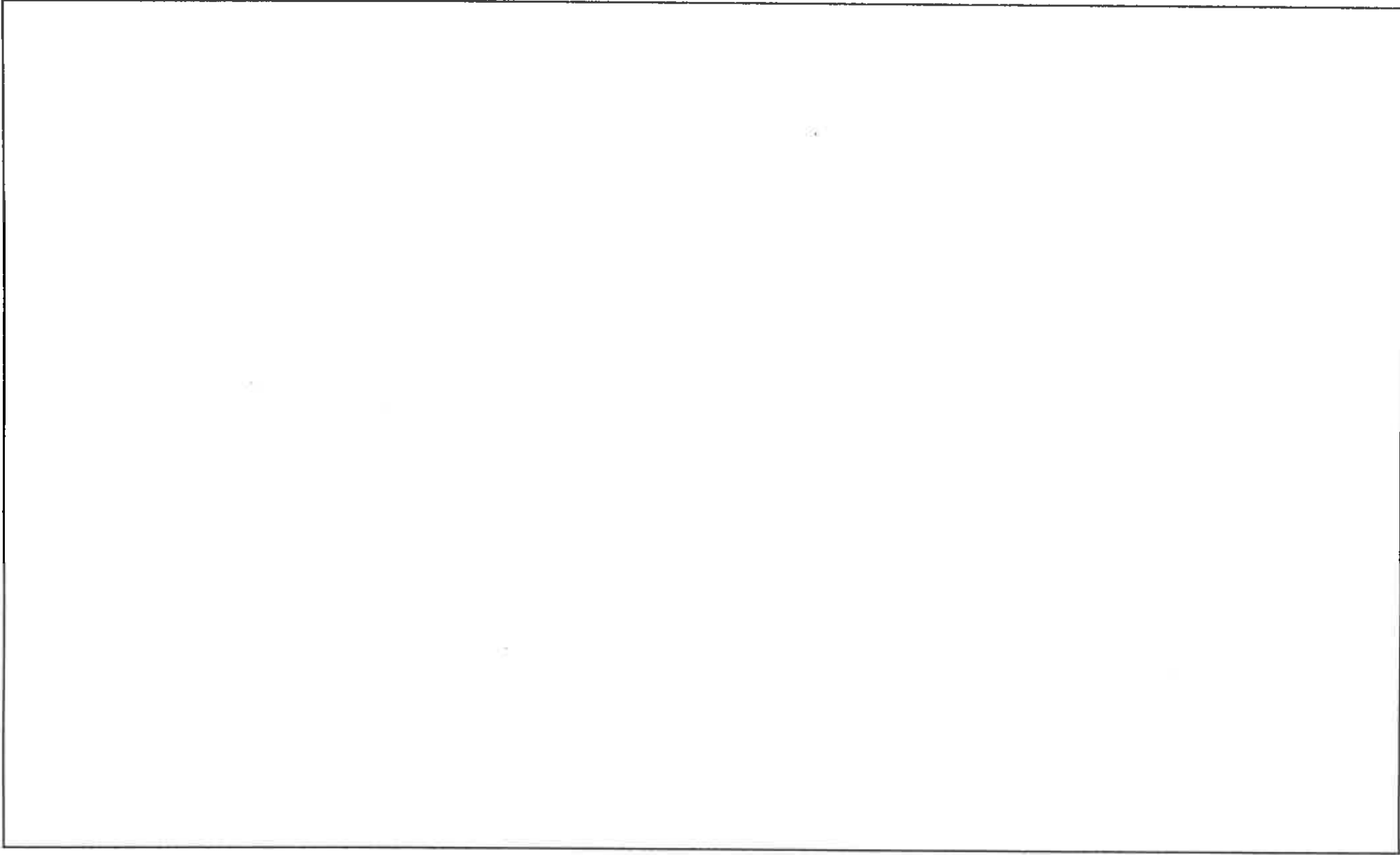
## Appendix II – FINISHES STANDARD/PROVISIONS FOR THE DOMESTIC BLOCK

The finishes standard/provision for Welfare Road development are generally same as the NCB provisions, the comparisons between NCB and Welfare Road are highlighted as follows :-

	NCB	Welfare Road
i) Burglar grilles for windows	Not provided	Not provided
ii) Door curb finishes for kitchens and bathrooms	Tile finish	Same
iii) Door for hose reel cabinet	Stainless steel	Same
iv) Ceiling height	2.75m	2.75m
v) Shower space with insitu concrete curb	Provided	Provided
vi) Door gatesets	Not provided	Not provided
vii) Wall partitions and doors to bedrooms	Provided	Provided
viii) Additional bathroom to 3B flats	Not provided	Provided
ix) Entrance lobby	600 x 600 granite tiles	Same
x) Finishes at typical floor lift corridor	300 x 300 homogeneous tiles	Same
xi) Kitchen cabinet unit	Provided	Provided
xii) Bathroom cabinet and vanity top	Provided	Provided
xiii) External wall finishes	20 x 20 Glass mosaic wall tiles to façade wall, multi-layer acrylic paint on fair face concrete	95 x 45 x7 mm Glazed ceramic wall tiles to façade wall, multi-layer acrylic paint on fair face concrete
xiv) Mail Room at G/F Lobby	Provided	Provided

**PART II**

**DEVELOPMENT COST BUDGET**



**SUMMARY OF SITE DEVELOPMENT & CONSTRUCTION COST BUDGET NO. 2**

PROJECT : HQS Welfare Road, Aberdeen PHASE : - PHDP Code : HK33NH

	<b>COST HEADS</b>	<b>WORK ELEMENTS</b>	<b>BUDGET COST (\$M)</b>
(a)	<b>Site Development Cost</b>	Site Formation Demolition  Sub-total :	- - -
(b)	<b>Construction Cost</b>	Foundation Building Other separate contracts  Sub-total :	48.125 414.053 0.833 463.011
(c)	<b>Other Project Cost (2% on (a) &amp; (b))</b>	Civil engineering and geotechnical studies, site investigation, material testing and the like	9.260
(d)		<b>Total Site Development and Construction Cost (a)+(b)+(c) :</b>	<b>472.271</b>

**Notes :**

- (1) All prices are at June 2000 price level and adjusted for tender price inflation to tender in dates of contracts based on 1.2% p.a. for year 2000 and 3% p.a. for year 2001 onwards.
- (2) Apportionment of the Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMBI.
- (3) Reasons for Cost Difference from Standard Cost Yardsticks shall be highlighted.
- (4) The costs for softlandscaping works, utilities connections, diversion works by Government Departments or Utility Companies, and minor works carried out specifically for the project, eg. roadworks or slopeworks outside site boundaries under separate contracts but charged to the project shall be grouped under Other Separate Contracts.
- (5) The fluctuation provisions shall be worked out based on the formula as shown on the Guidance Notes for Standard Cost Yardsticks.
- (6) Development contingencies of \$ 22.048 M for non-standard blocks/buildings and non-standard elements such as civil engineering works (site formation, slope protection, etc.) demolition, foundation, external works and underground drainage, etc. are included in the Site Development and Construction Cost.

**Exclusions :**

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees and Consultant Site Staff.
- (2) Publicity cost, financing and legal costs/expenses, etc.

**Basis of the Budget :**

- (1) Project information included in the following documents/drawings
  - WCWP's fax, we received on 20/10/2000 regarding Flat Size and Flat Mix.
  - Wong & Cheng's fax dated 17/10/2000 regarding transfer steel truss.
  - Wong & Cheng's letter dated 14/9/2000 for structural member size and steel ratio.

Prepared by : Ringo Wong (Widnell Ltd.)

Date : 28/11/2000

**SUMMARY OF SITE DEVELOPMENT & CONSTRUCTION COST ( EXCLUDING OTHER PROJECT COSTS) BUDGET NO. 2**

PROJECT : HOS Welfare Road, Aberdeen PHASE : - PHDP Code : HK 33NH

COST PORTIONS	COST PORTIONS								Common Items		Total (incl. fluctuation)
	PRH	HOS	CC	CP	WEL	UN	GN	TS	EW		
CFA of Cost Portions (m2)		58,862	40	5,512		130					64,544
<b>COST ITEMS</b>	<b>Estimated Cost in \$,000</b>										<b>\$,000</b>
<b>A. Cost Budget At June 2000</b> <i>(Excluding Other Project Costs &amp; Tender Price Inflation)</i>											
<b>1.0 Site Development Costs</b>											
1.1 Demolition Contract	-	-	-	-	-	-	-	-	-	-	-
1.2 Site Formation Contract	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>											
2.1 Foundation Contract		41,596	28	5,531		95					47,250
2.2 Building Contract											
2.21 Building (excl. building services)		287,876	192	24,113		1,328					313,509
2.22 Building Services		45,588	33	4,948		116					50,685
2.23 Transfer Structures		-	-	-		-					-
2.24 Public Transport Interchange		-	-	-		-					-
2.25 External Works for commonly shared elements		27,146	18	2,542		60					29,766
2.26 External Works for Specific Businesses		-	-	-		-					-
2.27 Automated Refuse Collection System		-	-	-		-					-
2.3 Other Separate Contracts (incl. Soft/landscape)		722	1	68		2					793
<b>Cost Budget At June 2000, Price Level</b>	<b>(A)</b>	<b>402,928</b>	<b>272</b>	<b>37,202</b>	<b>-</b>	<b>1,601</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>442,003</b>
<b>B. Cost Budget Projected To Proposed Dates of Tenders</b> <i>(Cost in Item (A) plus Cost x (v), (w), (y) or (z))</i>											
<b>1.0 Site Development Costs</b>	<b>Total (\$'M)</b>										
1.1 Demolition Contract	\$ N/A	-	-	-	-	-	-	-	-	-	-
1.2 Site Formation Contract	\$ N/A	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>											
2.1 Foundation Contract	\$ 48,125	42,366	29	5,633		97					48,125
2.2 Building Contract	\$ 414,053										
2.21 Building (excl. building services)		302,558	202	25,343		1,396					329,499
2.22 Building Services		47,913	35	5,200		122					53,270
2.23 Transfer Structures		-	-	-		-					-
2.24 Public Transport Interchange		-	-	-		-					-
2.25 External Works for commonly shared elements		28,530	19	3,672		63					31,284
2.26 External Works for Specific Businesses		-	-	-		-					-
2.27 Automated Refuse Collection System		-	-	-		-					-
2.3 Other Separate Contracts (incl. Soft/landscape)	\$ 0,833	759	1	71		2					833
<b>Cost Budget Projected To Proposed Dates Of Tenders</b>	<b>(B)</b>	<b>422,126</b>	<b>286</b>	<b>38,919</b>	<b>-</b>	<b>1,680</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>463,011</b>

Types of Contract	Tender In Dates	Adjustment for months after December 2000	
Demolition	-	-	Months x # % / 12 = N/A (v)
Site Formation	-	-	Months x # % / 12 = N/A (w)
Foundation	May 2001	11 months : (8x1.2%/12+5x3%/12) = 0.0185 (y)	
Building ( for inflation adjustment, "Other Separate Contracts"	June 2002	24 months : (8x1.2%/12+16x3%/12) = 0.051 (z)	
Tender-In Dates to be taken the same as "Building")			

**Legend for Cost Portions:**

PRH - Public Rental Housing	CP - Carpark	UN - Unallocable
HOS - Home Ownership Scheme	WEL - Welfare & Community Facilities	TS - Transfer Structure
CC - Commercial (Shopping) Centre	GN - Government Non-reimbursable	EW - External Works

Construction Cost Budget No. 2 ( Domestic Blocks: HOS Portion)

Project : HOS Welfare Road, Aberdeen Phase - (PHDP Code : HK33NH)

Cost at June 2000 Price Level	No. of Flats	Cost per Flat			TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)		
			Builder's Works	Building Services	
<b>1.0 Standard Blocks</b>					
<b>Cost per Flat x Flat No. = Sub-Total (A)</b> (Total CFA = _____ m2)					(\$ _____/m2 CFA) (\$ _____ per flat)
<b>2.0 Adjustments to Item 1.0 Above</b>					
<b>Sub-Total (B)</b>					(\$ _____/m2 CFA) (\$ _____ per flat) _____ % over/under that calculated based on Standard Yardsticks
<b>3.0 Non-standard Blocks</b>					
(a) <u>3</u> Blocks (Block No. 1,2 &3, total 822 Flats) <u>40</u> Storeys  3 B (2 Bath) - A & B      81.23 m2 CFA per Flat      240      55      378      60      118,305 3 B (2 Bath) - E & H      85.16 m2 CFA per Flat      102      57      397      63      52,712 2 B (1 Bath) - C & D      54.39 m2 CFA per Flat      240      37      253      40      79,215 2 B (1 Bath) - F & G      56.38 m2 CFA per Flat      102      38      263      42      34,898 3 B (2 Bath) - I & J      86.06 m2 CFA per Flat      138      58      401      63      72,070					
<b>Cost per Flat x Flat No. = Sub-Total (C)</b> (Total CFA = 58,862 m2)		39,615	274,168	43,417	357,200 (\$6,068/m2 CFA) (\$434,550 per flat)
<b>4.0 Development Contingency</b>					
(a) All standard blocks superstructure only		-	-	-	-
(b) All non-standard blocks and all standard block elements other than superstructure		1,981	13,708	2,171	17,860
<b>Sub-Total (D)</b>		1,981	13,708	2,171	17,860 (\$ 303/m2 CFA) (\$ 21,727 per flat)
<b>Total Cost of Domestic Block - HOS Portion at June 2000 Price Level = (A) + (B) + (C) + (D)</b> (including Provisions for Contract Fluctuations)		41,596	287,876	45,588	375,060 (\$ 6,372 /m2 CFA) (\$ 456,277 per flat)

**Construction Cost Budget No. 2 (Commercial Centre Portion)**

Project : HOS Welfare Road, Aberdeen Phase - (PHDP Code: HK33NH)

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
←-----\$'000----->				
<b>1.0 Commercial Centre (Annexed to Domestic Building) based on Actual Design</b>				
(a) Owners' Corporation Office (no fitting out included)	40	27	183	210
(b) Building Services		-	31	31
<b>2.0 Development Contingency</b> (GN: Development Contingency allowance - 5% for non-standard works/elements)		1	11	12
<b>Total Cost of Commercial Centre Portion at June <u>2000</u> Price Level = Total of Items in 1.0 to 2.0 (including Provisions for Contract Fluctuations)</b>		28	225	253
				(\$6.325/m2 CFA) 50% under that calculated based on Standard Yardsticks

<b><u>Difference between Actual Design (item 1.0 above) and Cost Yardsticks due to the following :-</u></b> (The price levels of item 1.0 and the June Cost Yardstick should be the same)	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
←-----\$'000----->			
(a) Deduction for adjustment on Cost of Foundations due to saving in piling in high rock head level	10	-	10
(b) Deduction for adjustment on Cost of BS Installations due to small office area only	-	84	84
(c) Deduction for adjustment on Cost of fitting out	-	147	147

**Construction Cost Budget No. 2 (Carpark Portion)**

Project : HOS Welfare Road, Aberdeen Phase - (PHDP Code: HK33NH)

Cost at June 2000 Price Level	Space (No.)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Carpark (Podium in an integrated Domestic/Carpark Building) based on Actual Design</b>				
(a) Carpark Portion				
Private (52 m2 CFA per space)	104	49,698	216,651	266,349
Motorcycle (9 m2 CFA per space)	12	8,283	36,108	44,391
	116			
(b) Building Services		.	40,624	40,624
<b>Sub-total (A) :-</b>		5,268	27,677	32,945
(Total CFA based on Actual Design = <u>5,512</u> m2 & Average CFA per carparking space = <u>47.52</u> m2)		(\$5,977/m2 CFA) (\$284,009 / space) 7% over that calculated based on Standard Yardsticks		
<b>2.0 Development Contingency</b> (GN: Development Contingency allowance - 5% for non-standard works/elements)				
		263	1,384	1,647
<b>Total Cost of Carpark Portion at June 2000 Price Level = (A) + Item 2.0 (including Provisions for Contract Fluctuations)</b>		5,531	29,061	34,592 (\$6,276/m2 CFA) (\$298,207/ space)

<b>3.0 Difference between Actual Design (Item 1.0 above) and Cost Yardsticks/Cost Ceiling/Budget due to the following :-</b> (The price levels of item 1.0 and the June Cost Yardstick should be the same)	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
(a) Ddt for Adjustment on Cost of foundation due to raft footing to replace piling in high rock head level	-1,340	-	-1,340
(b) Add for basement excavation, shoring and strutting	1,699	-	1,699
(c) Add for underground screen wall and waterproofing	-	1,514	1,514

**Notes**

- 1 Cost per Space in the Total Column represents the average cost per space including private and motorcycle spaces.
2. Noted that the Cost per Space in the Total Column represents the average cost per space including private and motorcycle spaces.

**Construction Cost Budget No. 2 ( Unallocable Portion)**

**Project :** HOS Welfare Road, Aberdeen Phase - (PHDP Code: HK33NH )

Cost at June 2000 Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
←-----\$'000----->				
<b>1.0 Ancillary Facilities in Domestic Block (G/F)</b>				
(a) Ancillary facilities (no fitting out included)	130	90	1049	1139
(b) Fitting Out for Ancillary/Welfare Facilities (Total area to be fitted out = 119 m2 GFA)	-	-	326	326
<b>2.0 Other Adjustments for Item 1.0 Above</b>	-	-	-	-
Nil	-	-	-	-
<b>3.0 Development Contingency</b> (GN: Development Contingency allowance - 5% for non-standard works/elements)		5	69	74
<b>Total Cost of Unallocable Portion at June 2000 Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		95	1,444	1,539 ( <u>\$11,838/m2</u> CFA)

**Remarks**

- 1 Unallocable Portion includes the following :

Estate Management Office	110	m2 CFA
Artisian Workshop/Office for cleansing contractor	20	m2 CFA
Total	130	m2 CFA
- 2 40 m2 Owners' Corporation Office grouped to Commercial Portion

+



Construction Cost Budget No. 2 ( External Works - Charged to Specific HA Businesses)

Project : HOS Welfare Road, Aberdeen Phase - (PHDP Code: HK33NH )

Cost at June <u>2000</u> Price Level	COST PORTIONS					TOTAL
	PRH	HOS	CC	CP	UN	
<b>1.0 External Works based on Actual Design (incl. Contract Fluctuation)</b>	\$,000.00					
(a) Podium Garden		2,873	2	269	6	3,150
(b) Soft Landscape & others		1,863	1	174	5	2,043
(c) Other Hard Landscape Work		2,830	2	265	6	3,103
(d) Underground Drainage		3,767	2	352	9	4,130
(e) Add for Contract Fluctuation		553	0	52	2	607
<b>Sub-Total (A)</b>		11,886	7	1,112	28	13,033
<b>2.0 Special External Works based on Actual Design (incl. Contract Fluctuation)</b>	\$,000.00					
(a) 4.5m Wide Private Street		1,736	1	163	4	1,904
(b) Landscape to Slope		158	1	15	0	174
(c) Retaining Wall		2,252	1	211	5	2,469
(d) Pedestrian Walkway		4,459	3	418	10	4,890
(e) Contingency for Geotechnical Work		2,736	2	256	6	3,000
(f) Road Widening and Improvement		2,632	3	247	5	2,887
(g) Add for Contract Fluctuation		682	0	64	1	747
<b>Sub-Total (B)</b>		14,655	11	1,374	31	16,071
<b>3.0 Development Contingency</b> <i>(GN: Development Contingency allowance - 5% for non-standard works/elements)</i>	\$,000.00					
		1,327	1	124	3	1,455
<b>Sub-Total (C)</b>		1,327	1	124	3	1,455
<b>Total Cost of External Works Charged to Specified HA Businesses at June 2000 Price Level = (A) + (B) + (C) (including Provisions for Contract Fluctuations)</b>	\$,000.00					
		27,868	19	2,610	62	30,559

\* Delete as appropriate

## EXTERNAL WORKS - ESTIMATE

\* Elemental cost estimate at June 2000 tender prices.

Standard Construction Cost Yardsticks at June 2000 Price Levels are shown in brackets ( ) for comparison.

Project Title : HOS Welfare Road, Aberdeen		Phase Code (PHDP) : -					
Project Code (PHDP) : HK33NH							
Gross Site Area (GSA)	6,921 m <sup>2</sup>	Ratio GSA : GEA	= 1 : 0.88 (1:0.90)				
Gross Estate Area (GEA)	6,122 m <sup>2</sup>	Ratio GEA : LAA	= 1 : 0.87 (1:0.75)				
Landscape Area (LAA)	5,300 m <sup>2</sup>	Ratio GEA : CFA	= 1 : 10.54 (1:6.00)				
Plant Bed Area (PBA)	131 m <sup>2</sup>	Ratio GSA : PBA	= 1 : 0.02 (1:0.17)				
CFA of All Buildings Within GEA	64,544 m <sup>2</sup>	Ratio LAA : PBA	= 1 : 0.02 (1:0.22)				
ELEMENT	Total Cost	Unit Costs/m <sup>2</sup>					
		Gross Estate Area	CFA of All Buildings	Landscape Area			
	\$,000.00	\$/m <sup>2</sup>	\$/m <sup>2</sup>	\$/m <sup>2</sup>			
<b>1. Hard Landscape Works</b>							
1.1 Site works (levelling/clearance)	- (67)	- (11)	- (89)	-			
1.2 Walls (screen/toe/planter)	270 (125)	44 (21)	4 (167)	51			
1.3 Estate roads	82 (68)	13 (11)	1 (91)	15			
1.4 Open carparking spaces on estate roads	- (4)	- (1)	- (5)	-			
1.5 Paving (inc. emergency access & safety mat)	1,550 (308)	253 (51)	24 (411)	292			
1.6 Pavilions/pergolas/shelters	- (50)	- (8)	- (67)	-			
1.7 Water feature/pond	- (6)	- (1)	- (8)	-			
1.8 Covered walkways (paving inc. in item 1.5)	750 (245)	123 (41)	12 (327)	142			
1.9 Play equipment	230 (37)	38 (6)	4 (49)	43			
1.10 Fencing/railings/guard house/drop gate	2,110 (48)	345 (8)	33 (64)	398			
1.11 Estate amenities (ball courts, seating etc.)	500 (81)	82 (14)	8 (108)	94			
1.12 Amphitheatre/estate entertainment	- (16)	- (3)	- (21)	-			
1.13 Refuse collection area/junk points	260 (44)	42 (7)	4 (59)	49			
1.14 BS installations							
(a) External lighting	500 (81)	82 (14)	8 (108)	94			
(b) Water pumps (for water feature/pond)	- (3)	- (1)	- (4)	-			
(c) Others .....(specify)	- (8)	- (1)	- (11)	-			
1.15 Sundries							
(a) ..... (specify major items)	- (50)	- (8)	- (67)	-			
(b) Miscellaneous	-	-	-	-			
<b>Sub-total</b>	<b>6,252</b>	<b>(1241)</b>	<b>1,022</b>	<b>(207)</b>	<b>97</b>	<b>(1656)</b>	<b>1,180</b>
<b>2. Soft Landscape</b>	<b>400</b>	<b>(65)</b>	<b>65</b>	<b>(11)</b>	<b>6</b>	<b>(87)</b>	<b>75</b>
<b>3. Other External Works</b>							
3.1 Mains/sub-mains etc.	700	(113)	114	(19)	11	(151)	132
3.2 Irrigation	55	(9)	9	(2)	1	(12)	10
3.3 Builder's work in connection with BS installation/services	570	(93)	93	(16)	9	(124)	108
3.4 Connection works by Government Depts/Utility Co.	320	(52)	52	(9)	5	(69)	60
<b>Sub-total</b>	<b>1,645</b>	<b>(267)</b>	<b>269</b>	<b>(46)</b>	<b>25</b>	<b>(356)</b>	<b>310</b>
<b>Total 1, 2 &amp; 3</b>	<b>8,297</b>	<b>(1573)</b>	<b>1,356</b>	<b>(264)</b>	<b>128</b>	<b>(2099)</b>	<b>1,565</b>

**EXTERNAL WORKS - ESTIMATE (Cont'd)**

Project Code : HK33NH

Phase Code : -

ELEMENT	Total Cost	Unit Costs/m <sup>2</sup>		
		Gross Estate Area	CFA of All Buildings	Landscape Area
4. <u>Underground Drainage</u> (inc. all U/G soil and surface water drainage and channels and gullies)	\$,000.00 4,130	\$/m <sup>2</sup> ( 674 ) 675	\$/m <sup>2</sup> ( 112 ) 64	\$/m <sup>2</sup> ( - ) 779
Total 1, 2, 3 & 4	12,427	( 2247 ) 2,031	( 376 ) 193	( - ) 2,344
5. <u>Special External Works</u>				
5.1 4.5m wide private street	1,902	311	29	359
5.2 Landscape to slope	173	28	3	33
5.3 Retaining walls	2,470	403	38	466
5.4 Pedestrian walkway	4,888	798	76	922
5.5 Contingency for geotechnical work	3,001	490	46	566
5.6 Road widening and improvement	2,888	472	45	545
Sub-total	15,322	2,503	237	2,891
Total 1, 2, 3, 4 & 5	27,749	4,534	430	5,235

- Inclusions**
- (a) All elemental costs are inclusive of contingencies of 5% and preliminaries 20%
  - (b) Podium landscape areas of 2,987 m<sup>2</sup> and costs about \$3.6 million

- Exclusions**
- (a) Demolition/site formation not in building contract.
  - (b) Fluctuations in labour and materials.
  - (c) Fees & on costs.
  - (d) Automatic refuse collection system (ARCS) including associated builder's work.

Prepared by : Widnell Ltd

Date: 28/11/2000

## PART II DEVELOPMENT COST BUDGET

### B. Summary of Project Development Cost

The proposed Project Development Costs of HOS Development at Welfare Road comparing with the Project Development Cost Ceilings as approved in Paper No. SPC8/2000 are shown as follows -

	(a)	(b)	(c)	(d)	(e)
	Proposed Project Development Cost	Project Development Cost Ceiling	Unit Construction Cost	June 2000 Construction Cost Yardsticks (Based on NCB + 10%)	June 2000 Construction Cost Yardstick Adjusted to Tender-In-Date
	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)	(\$/m <sup>2</sup> CFA)
Domestic (HOS)	8,207	8,923	6,686	6,284	6,594
Private Carpark	8,066	8,924	6,564	5,831	6,111

Note: For comparing with the Construction Cost Yardstick, external works, soft landscaping and other sundry costs such as drainage, utility connections, other project costs and project management costs, etc. have been excluded from the Unit Construction Cost. However, the costs of piling, substructure, superstructure, including fluctuation and transfer plate have been included in the Construction Cost. The Cost Yardstick has been adjusted to the price level at the time of tender.

Note: Cost Yardstick for Group 2 Non-standard Design project to be New Cruciform Block +10% according to SPC Paper No. 64/2000.

## PART II DEVELOPMENT COST BUDGET

### C. Summary of Unit Cost per Flat for Domestic (HOS)

The proposed Project Development Cost for domestic (HOS) building can be further broken down into the cost per flat as follows -

Flat Type	Proposed Project Development Cost per Flat (\$)	Construction Cost per Flat (\$)	June 2000 Construction Cost Yardstick for NCB +10% (\$)	June 2000 Construction Cost Yardsticks Adjusted to Tender-In-Date (\$)
3B - A & B	666,655	543,104	510,449	535,631
2B - C & D	446,379	363,652	341,787	358,648
3B - E & H	698,908	569,380	535,145	561,545
2B - F & G	462,711	376,957	354,292	371,770
3B - I & J	706,294	575,397	540,801	567,480

Note: For comparing with the Construction Cost Yardstick, external works, soft landscaping and other sundry costs such as drainage, utility connections etc. have been excluded from Construction Cost per Flat.

# PART III DEVELOPMENT PROGRAMME

## PROPOSED PROJECT DEVELOPMENT PROGRAMME - WELFARE ROAD, ABERDEEN

**PROJECT NO.**  
**HK33NH**

Activity	1999			2000			2001			2002			2003			2004			2005			Remarks																							
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9		10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6		
1. PLANNING BRIEF																																													
2. CONCEPTUAL LAYOUT/ COST ESTIMATES/SCHEME DESIGN																																													
3. DETAILED DESIGN a) Site Investigation b) Piling Design c) Building Design																																													
4. SITE POSSESSION a) Possession License b) Vacant Possession																																													
5. PILING a) Tender b) Construction																																													
6. Building Design a) Tender b) Construction																																													
7. ORIGINAL PROGRAMME PROPOSED IN SPC SUBMISSION																																													

PM : N.M. CHAN PM/1  
 DPM: H. CHAN, DPM/P1  
 APM: A. HSIEH, APM/A90  
 Programme No.: HK33t.XLS


# AMENDMENT RECORD SHEET

CONTENTS		DATE OF ISSUE			
		Month			
		Year			
<b>PART I MASTER LAYOUT PLAN</b>		<b>ISSUE NUMBER</b>			
A. Introduction					
A.1 Location Plan	1				
A.2 Site Description	1				
A.3 Background	1				
B. Evaluation of Master Layout Plan					
B.1 Site opportunities and Constraints	1				
B.2 Built Form	1				
B.3 Pedestrian and Vehicular Circulation	1				
B.4 Open Space	1				
B.5 Programme and Implementation	1				
C. Master Layout Drawings					
Y0023/201000/S01/A	1				
Y0023/201000/S02/A	1				
Y0023/201000/S03/A	1				
Y0023/201000/S04/A	1				
Y0023/201000/S05/A	1				
Y0023/201000/S06/A	1				
Y0023/201000/S07/A	1				
Y0023/201000/S11/A	1				
Y0023/201000/S12/A	1				
Y0023/201000/S13/A	1				
Y0023/201000/S14/A	1				
Y0023/201000/S15	1				
Appendix I	1				
Appendix II	1				
<b>PART II DEVELOPMENT COST BUDGET</b>					
A. Summary of Calculation of Site Development and Construction Cost	1				
B. Summary of Project Development Budget	1				
C. Summary of Unit Cost per Flat for Domestic (HOS)	1				

**AMENDMENT RECORD SHEET**

<b>PART III DEVELOPMENT PROGRAMME</b>	1			
AMMENDMENT RECORDED SHEET	1			

This Document has been reviewed and approved for design adequacy.

  
\_\_\_\_\_  
Barry F. Will  
Project Director,  
WCWP International Limited.

Issue: 1  
Date: 7 December 2000