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**KEY PERSONNEL
and
TYPICAL PROJECTS**

**THE URBAN SYSTEMS CORPORATION
of**

**Sydney
Southport**

Melbourne

**Perth
Parramatta**

late 1970
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THE URBAN SYSTEMS CORPORATION PTY LIMITED is a multi-disciplinary organisation of approximately 100 personnel, providing comprehensive problem-solving services in:

Urban Development
Conservation
Urban Sociology
Transportation Systems
Analysis and Planning

Industrial, Commercial and Residential
Market and Economic Research
Urban Design
Development Control and Management
City and Regional Planning

The Urban Systems Corporation has evolved from the urban planning and architectural firm of Clarke, Gazzard and Partners, founded in Sydney in 1960, and from URBSEARCH, The Urban Planning and Research Centre, founded in 1961. Clarke, Gazzard and Partners and URBSEARCH, throughout the nineteen sixties, assisted a wide range of National, State and Local Government authorities, institutions, private companies and organisations to prepare and implement plans for urban and regional development.

This work is now being carried on and extended by the Urban Systems Corporation from regional offices throughout Australia.

This brochure contains resumes of Urban Systems Corporation Key Personnel. In addition to its own expert staff resources, USC can call upon the services of a number of both local and international associates for specialised advice and assistance.

This brochure contains a number of brief descriptions of typical jobs by USC for a sample of governmental and private clients.



URBAN SYSTEMS CORPORATION
OFFICES ARE LOCATED AT -

2nd Floor, MLC Building
105 Miller Street, North Sydney
New South Wales 2060 Australia
Telephone : 929.0855

3A Queens Road, Melbourne
Victoria 3004
Telephone : 267.2077

56 Kings Park Road, West Perth
Western Australia 6005
Telephone : 21.5447

SGIO Building, Nerang Street
Southport Queensland 4215
Telephone : 32.1666

33 Smith Street, Parramatta
New South Wales 2145
Telephone : 635.8484



Name	Qualifications	Length of Professional Experience	Fields of Special Competence
Walter George CLARKE	B. Arch (Syd) Dip. TP (London) Master of City Planning (MIT), FRAPI, MTPI, ARAIA, ARIBA, Architect, Chartered and Certificated Town Planner	20 years	Strategic and action planning processes; organizational and managerial techniques for planning administration; urban project design and implementation; interest-group participation techniques to ensure implementation.
Donald GAZZARD	FRAIA, ARIBA Architect	20 years	Architectural and large-scale civic design; job programming, co-ordination and cost control techniques; contract documentation and construction supervision.
Ian Robert ARNOLD	BE (NSW) ASTC (Mech. Eng) MIE (Aust.) AFAIM, AM(Aust) IMM. Fellow Institute of Directors.	15 years	Organisation and Administration of Industrial and Commercial Enterprises, Market Research, Research and Development and Industrial Engineering.



Name	Qualifications	Length of Professional Experience	Fields of Special Competence
Richard YOUNG	ASTC, ARAIA Architect	21 years	Contract documentation, job programming and co-ordination for large-scale development and redevelopment projects.
John Marshall FLOWER	A. Arch (PTC): ARAIA, Architect	11 years	Architectural and civic design; housing, retail and community buildings; office buildings.
Andris STENDERS	B. Arch (Hons) (Qld), Master of Civic Design (L'pool), MRAPI Planner and Architect	12 years	Urban planning; development of three-dimensional illustrative and analytical methodology for urban framework establishment and public involvement; urban environmental and large-scale civic design.
Ronald Kenneth W. BURLING	ARAIA, Architect	21 years	Residential and commercial design and contract documentation and administration.
J. Eric JACKSON	Dip. TP (London) AMI Mun. E., MTPI, MRAPI Engineer and Planner	25 years	Pre-investment and development evaluation; project planning methods and practice.



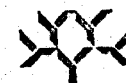
Name	Qualifications	Length of Professional Experience	Fields of Special Competence
William Arthur DALE	BA (Melb), BE (Syd), Dip. TRP (Melb), FIE (Aust) MRAPI, Certificated Town Planner	42 years	Local Government administration; planning implementation; civil engineering.
Colin Keith ATKINS	Civic Eng. Dip. (Gordon Inst), M.Sc (Traffic and Transportation) (Birm), MIE (Aust) AM Inst. HE, CE. Traffic and Trans- portation Engineer.	16 years	Urban transport systems; traffic and transportation research and planning; Land use generation characteristics; economic and policy research on public and private transport and parking.
Ron DEVINE	B. Arch (NSW), MTCP (Syd), ARAIA, MRAPI Planner and Architect	14 years	Metropolitan and City Planning Large-scale urban development planning; civic and environmental design. Sociological studies in planning including public participation.



Name	Qualifications	Length of Professional Experience	Fields of Special Competence
Gavan McDONELL	BE (Civ) (Qld) MA (Econ.) (John Hopkins), FIE Aust, FRGS, AMICE Engineer and Economist	14 years	Land, sea and air transport policy and planning; investment and financial analysis, regional economic planning; project scheduling and control.
Darrel CONYBEARE	B. Arch (Syd). (Hons) M. Arch (Penn) Master of City Planning (Penn), ARAIA, Planner and Architect.	9 years	Metropolitan and city planning; urban design; program and exhibition design and visual communication techniques; architectural design.
Peter CASEY	BE (NSW) M. Eng. Sc. (Traffic) (NSW) Dip. TCP (Syd), MIE Aust. AMITE Traffic and Transportation Engineer and Town Planner.	16 years	Urban road network planning; traffic and transportation engineering and land use/transportation matrix design.
Neil INGHAM	Dip. TCP (Syd) MRAPI, Registered Surveyor	16 years	Public Utility Services planning and general engineering development work.



Name	Qualifications	Length of Professional Experience	Fields of Special Competence
Ken HATTEN	BE (NSW). M. Eng. Sc. (Traffic) (NSW) Traffic and Transportation Engineer	6 years	Urban Traffic and transportation studies; market analysis; business administration.
Max HIPKINS	B. Arch (Melb), Bachelor of Town and Regional Planning (Melb), MRAPI, AMTPI, ARAIA, Architect and City Planner.	7 years	Central city transportation and development planning.
Frank DUFFY	MRAPI, Certificated Town Planner	15 years	Local Government planning and developmental control
Doug MARCH	BA (New Eng). MA (Newcastle)	12 years	Economic performance analysis; development feasibility studies
Ken SHORT	BA (New Eng.) MA (Newcastle)	9 years	Market research surveys; retail market analysis; development programming; demographic studies.



Name	Qualifications	Length of Professional Experience	Fields of Special Competence
Carleen BENNETT	BA (Syd), Dip. TCP (Syd)	7 years	Urban land economics; market research; economic feasibility studies; workforce analysis.
Sonja LYNEHAM	BA (Syd) MTCP (Syd)	3 years	Urban systems analysis; central area distribution economics; optimization and threshold analysis.
Michael BREAKELL	BA (Geog) (Hons), Dip. TP (London), M.Sc. (Urban and Regional Planning), (Wisconsin), AMTPI.	8 years	Economic geography, recreational and tourist planning.
Ian BREDEN	B. Arch (NSW), Planner and Architect.	8 years	Large-scale development and town layouts; civic and environmental design.
Geoffrey David WILMOTH	B. Ec (1st class Hons.) (Qld.)	1 year	Retail research studies; tourist development studies; urban development economics.



Name	Qualifications	Length of Professional Experience	Fields of Special Competence.
Bruce HYLAND	ASTC (Hons) Dip. TCP (Syd), Master of Regional Planning (Cornell), MRAPI, Architect and Certificated Town Planner	21 years	Urban development and redevelopment project evaluation, planning and implementation; zoning and development control techniques; practical negotiations with developers.
Walter Geoffrey FAITHFULL	Dip. TCP (Syd) MIE (Aust), FRAPI, Honorary Fellow of the Philippine Inst. of Architects, Certificated Town Planner.	27 years	National, regional and city planning techniques; planning organization and administration; planning implementation.



CITY OF SYDNEY STRATEGIC MASTER PLAN

A SYSTEMATIC APPROACH TO A STRATEGIC PLAN DIRECTED TO THE SOLUTION OF THE COMPLEX PROBLEMS ARISING OUT OF GROWTH, MOVEMENT, CONGESTION AND ENVIRONMENTAL DEGRADATION NOW FACING THE CITY

for the Council of the City of Sydney

For 182 years, the City of Sydney has developed with little planning guidance. During this period the problems of growth and change have been overcome without full advantage being taken of the opportunities that offered. During the past twenty years, there has been unprecedented building, financed by public and private investment and this expansion will continue as Sydney emerges as the headquarters city of Australia and Oceania. The Strategic Plan will guide and direct expansion and will show the way for redevelopment of the city, to make it a more efficient and culturally stimulating place in which to live and work.

The concept of Strategic Planning is most suited to the solution of the complex problems of urban growth and change now confronting the city. It will provide for broad flexible measures, rather than rigid detailed controls inherent in all statutory plans.

The structural basis of the plan is an analysis of the movement, management and activity systems in the city. It will provide action planning programs on both short and long term bases.

The Strategic Plan is in the process of preparation. Basic data has been collected and evaluated to define critical problems. Objectives, policies, principles, programmes and priorities are being formulated with citizen participation. The first interim report is in the process of compilation.



GOLD COAST URBAN REGION STRATEGIC AND ACTION MASTER PLANS

SHORT AND LONG TERM PLANNING FOR TOURIST RESORT AND URBAN DEVELOPMENT PLANNING TO ACCOMMODATE 200,000 PEOPLE BY 1990

for the Council of the City of Gold Coast

The Gold Coast has exhibited the second-fastest rate of growth of any urban area in Australia (after Canberra) and by 1968, the problems of pre-planning and controlling urban development could only be adequately dealt with by a crash program of simultaneous strategic and action planning, to identify critical difficulties and produce realistic operational solutions to the region's problems. These problems are aggravated by the fact that the urban region spills over the boundaries of two States and three local government areas.

The USC work involved a practical assessment of the existing permanent and tourist population structure and the physical character of the region, a review of important current proposals, such as the Gold Coast Freeway, a demographic, geographic land use and transportation analysis of future needs, and the preparation of a regional physical plan to illustrate the strategic principles of development, and the action planning program which would be necessary to implement them.

The Gold Coast Urban Region Strategic Master Plan was adopted by Council in March 1969 and is now being implemented. Three of the several detailed action plans for portion of the 50 square miles of Coast, together with the Codes for Multi-Unit Residential development were adopted by Council in late 1969 and early 1970. The Gold Coast Traffic and Transportation Plan and Draft Statutory Planning Scheme have been completed and, together with the remaining action plans, await adoption by Council.



MELBOURNE NORTH AND WEST SECTORS SATELLITE CITIES STRATEGIC PLAN

A STUDY TO EVALUATE THE POTENTIAL OF SATELLITE CITIES ON THE EDGE OF THE METROPOLITAN URBAN REGION

For the Melbourne and Metropolitan Board of Works

As a result of the administrative changes provided for in the Town and Country Planning (Amendment) Act 1968, the Melbourne and Metropolitan Board of Works was given control over an enlarged portion of Melbourne Region. One of the Board's proposals was to provide for population overspill in new satellite cities to the North and West, and the project undertaken by USC established procedures for testing the economic and social feasibility of such cities, as part of the strategic planning process.

The evaluation work covered land use, transportation, and services planning, real estate and market analysis, and inducement cost studies. An investigation of computer-assisted systems analysis applications, and study of administrative and financial implications were undertaken.

Recommendations of the suitability of available techniques for application to the problem discussion of the principles of threshold analysis and optimisation techniques were presented in report form.

The report is being considered by the Melbourne and Metropolitan Board of Works for inclusion in its Strategic Planning Program for the Metropolitan Region.



YANCHEP LEISURE REGION STRATEGIC MASTER PLAN AND REDEVELOPMENT PROGRAM

MARKET RESEARCH AND FEASIBILITY STUDIES, PRELIMINARY TOWN DESIGNS.
AND PROJECT MANAGEMENT FOR A LINEAL SERIES OF NEW COASTAL URBAN
CENTRES TO THE NORTH OF PERTH, TO ACCOMMODATE 200,000 TO 250,000
PEOPLE EARLY IN THE TWENTY FIRST CENTURY.

for Taylor Woodrow Bond Pty. Ltd.

Taylor Woodrow Bond Pty Ltd is the owner of 20,000 acres of land, along a 10 miles of coastline, approximately 26 miles north of Perth. USC proposes to develop the land with a wide range of residential accommodation and resort activities, providing for generous open space reservations and integrating the design with the adjoining Yanchep National Park.

Detailed investigations are being made of geological, hydrographic and meteorological criteria to be observed in the conservation and development of the coastline, and all design work will be carried out with the preservation of existing landscape forms as a prime concern.

Conceptual plans have been completed by USC and negotiations with authorities are proceeding concurrently with Market Research, Engineering and Economic Feasibility Studies.



EDGECLIFF REDEVELOPMENT PROJECT

A LARGE-SCALE REDEVELOPMENT PROJECT AT EDGECLIFF, NEAR THE FRINGE OF SYDNEY'S CENTRAL BUSINESS DISTRICT.

for the Glebe Administration Board of the Church of England in Australia

This project represents what is, in effect, the first large-scale urban renewal proposal in Sydney to be actually implemented (other than Housing Commission projects). It covers an area of 29 acres, at present built-up with small-scale obsolete housing served by an inadequate and unsuitable road pattern. It is intended to redevelop the entire area with mixed high-density residential and commercial uses, integrated with automobile parking, a bus interchange and an underground railway station.

The intention of the project is to provide high-quality inner-suburban residential accommodation, with a full range of services and observing the highest environmental standards. In addition, the location of the project on top of the Edgecliff Station of the Eastern Suburbs Railway will be exploited to create a retailing/office employment node as a commercial centre.

The \$45 million project is seen, in civic design terms, as providing a link between the small-scale, historically important residential area of Paddington and the rapidly redeveloping high-density residential area of Darling Point.

The Planning and Marketing Proposals made by USC have been adopted by the client and are now being implemented. Project Controls have been adopted by the Minister for Local Government and incorporated in determinations of City of Sydney Statutory Planning Scheme. Agreement on Planning proposals has been reached with Department of Main Roads, Department of Railways and Department of Transport. The first two buildings have been completed and third is under construction; feasibility studies and negotiations with Authorities and developers are proceeding on the next buildings to be erected.



ARTARMON, SYDNEY REDEVELOPMENT ACTION PLAN

REDEVELOPMENT PLAN FOR 105 ACRES OF RESIDENTIAL LAND ADJOINING ARTARMON RAILWAY STATION, SIX MILES NORTH OF THE SYDNEY CENTRAL BUSINESS DISTRICT.

for the Willoughby Municipal Council.

The Artarmon Study Area is well defined by the railway line to the east, a proposed expressway and Country Road (Pacific Highway) extension to the south and west respectively, and a major secondary distributor (Mowbray Road) to the north. Consequently, it has lent itself to being planned as a district neighbourhood unit.

Council appointed Clarke Gazzard Planners Pty Ltd, (a Division of USC) to demonstrate how future redevelopment could be controlled in order to maintain and improve the quality of the area. As a prerequisite to formulating a plan, studies were made of the topography, street pattern, socio-economic characteristics, services and land market characteristics of the area. At the same time, a market survey was carried out to determine the future of the shopping centre. During all these investigations, close contact was maintained with local organisations, while an intensive program of involving the local citizens in the planning process was undertaken. The analysis of both primary and secondary data led to the definition of development control and civic design objectives for the area.

In light of these objectives, codes and regulations were drawn up to control future development throughout the area; to define where multi-storey buildings could be located; to rationalise the road system and shopping centre, and to provide a network of open spaces and pedestrian ways throughout the neighbourhood. All of these proposals were incorporated in Statutory development control documents.

The Redevelopment plan has been adopted by the Council and now forms part of Council's Planning Scheme. Implementation is proceeding.



DARLING POINT REDEVELOPMENT ACTION PLAN

DETAILED DEVELOPMENT GUIDANCE AND CONTROL PLAN FOR THE INNER-SUBURBAN PRECINCT OF DARLING POINT

for Woollahra Municipal Council

This area of Woollahra, approximately 200 acres of prime residential land on a peninsula in Sydney Harbour, has seen substantial residential flat development since 1961, with an accelerated rate of building since 1966. High-rise flat buildings have sprung up in an uncontrolled way, spoiling prized harbour views and causing wide social discontent.

The Council therefore commissioned Clarke Gazzard Planners (a Division of USC) to prepare a Detailed Plan to guide and control future development. Work on this project involved interim development control formulation; detailed investigations into population structure and other socio-economic factors; investigations of all service utilities in the area; analysis and tabulation of all development since 1961; analysis and review of existing development control procedures and codes; design of a questionnaire study of the characteristics of the population and ascertain the residents' attitudes, desires and needs; at-home discussions with the residents, based on a random sample of 450 households; solicitation of written opinions by the residents; interviews with all interested church, school and social organisations in the area; discussion groups with interested residents; computer analysis of completed questionnaires and related data; physical development control proposals based on the above studies.

An Interim Code has been adopted by Council, to prevent undesirable development while the final plan is being formulated. Studies have been made of the physical characteristics and townscape elements of Darling Point; the questionnaire survey has been computer-analysed; interviews and discussions with interested groups are complete; a review of existing controls is being made, and new development control proposals are being formulated and tested.



BATTERY POINT, TASMANIA : DETAIL PLANNING FOR REDEVELOPMENT AND CONSERVATION

DETAIL PLAN FOR A 238 ACRES HISTORIC AREA ON FRINGE OF HOBART CENTRAL
BUSINESS DISTRICT

for Hobart City Council

Battery Point is an environmental area of distinctive character and unique value in Australia. It was one of the first settled areas of Hobart and contains a community of buildings of historic or architectural merit. There has recently been a trend towards high-density residential building in some parts of the area, and the City Council commissioned Clarke Gazzard Planners (a Division of USC) to prepare a detailed plan for the reconciliation of further redevelopment with the area's historic character.

Studies were made of the topography, street pattern, the imageability of the area, and the economics of development and preservation. An intensive programme of citizen involvement was also undertaken. This led to the definition of civic design and townscape objectives for the area. In the light of these objectives, policies, plans and procedures were devised to control the form and intensity of development in different parts of the area, and model developments were tested for economic and practical feasibility. Detailed proposals for landscaping works, the creation of pedestrian malls and pathways, and the protection of historic buildings were prepared, and incorporated in statutory development control documents.

The redevelopment plan has been approved by Council and by the Town Planning Commissioner of Tasmania.



LAUNCESTON CIVIC AND GOVERNMENTAL CENTRE BLOCK REDEVELOPMENT

DEVELOPMENT OF A CIVIC CENTRE FOR LOCAL, STATE AND COMMONWEALTH
GOVERNMENT OFFICES AND FOR CULTURAL, ENTERTAINMENT AND
COMMUNITY FACILITIES

for The Launceston City Council, Tasmania

Launceston City Council owns or is acquiring a substantial area of land in the central business district of Launceston, with the intention of establishing a Civic Centre which will accommodate all the important public offices and community, cultural and entertainment facilities needed to service the Tamar region. Before commissioning architectural designs, it was decided to carry out a market investigation and outline feasibility study to estimate the extent of demand and provide a strategic planning framework for the long-term development of the project.

In the course of this study, discussions were held with all appropriate government and semi-government bodies, to assess their space needs and the appropriateness of their location in the Civic Centre. Estimates were made of the site, to ensure that land acquisitions and construction staging could proceed on an efficient and rational basis.

USC's first stage report has been adopted by Council and the Tasmanian State Government. Second stage investigations and negotiations are now proceeding to refine architectural brief for initial building program and to obtain commitments from prospective occupants. Third stage work will cover architectural documentation and construction supervision.



HERDSMAN LAKE RESIDENTIAL DEVELOPMENT

A COMPREHENSIVE DEVELOPMENT FOR 3,000 FLATS ON A 121 ACRE SITE
FOUR MILES FROM PERTH CBD, WESTERN AUSTRALIA

for T.S. Plunkett Pty Limited

The Herdsman Lake Project involved the amalgamation of a series of lots into a consolidated site of 121 acres. The site is four miles from the Central Business District of Perth and two miles from City Beach.

The first phase of the Study involved a market research survey of flat development in Perth generally, and in the north west sector of Perth in particular, in order to establish the viability of the project. This study included estimates of the future demand for flat types, tenure structure, expected rental and sales values and the degree of market penetration likely to be achieved by the project.

The second phase of the Study was a three dimensional layout of the development. Acceptance in principle by the Metropolitan Region Planning Authority of a modification of the location of the development area and the surrounding Regional Open Space to permit the creation of a more desirable residential environment, was obtained.

A system of artificial Lakes were developed on the site and a combination of low-rise flat buildings and town houses were planned around the Lakes. A road layout, parking system and pedestrian network, community facilities and a small shopping centre, were an integral part of the planning process.

Architectural sketch plans were prepared, together with total cost estimates and anticipated return on investment. The total project is expected to be phased over 10 years and is estimated to cost approximately 36 million dollars.



ROYAL PRINCE ALFRED HOSPITAL

A COMPREHENSIVE REDEVELOPMENT PROGRAM FOR THE LARGEST HOSPITAL COMPLEX IN AUSTRALIA ON A 45 ACRES SITE WITHIN THE CITY OF SYDNEY

for the Board of Directors, Royal Prince Alfred Hospital

Royal Prince Alfred Hospital has developed over the years into Sydney's largest teaching hospital. However, haphazard processes of building and growth over 80 years and the difficulties of the site have brought about a situation where the hospital is facing critical limitations on operational efficiency.

Many of the buildings are at the end of their useful life, but before any rebuilding was planned, URBSEARCH (a Division of USC), was commissioned to prepare a long-term strategic redevelopment plan to guide development decision making, budgeting and work programming activities, and a shorter term action plan, to provide an architectural design framework for implementation of the first-stage of the redevelopment.

The first phase of the study has now been completed and work is proceeding concurrently on the building program and on a more detailed study of the long term strategic plan.

The work undertaken for this \$40 million project involved surveys and analyses of traffic and patient movements; negotiations and submissions to Authorities on statutory planning provisions; outline conceptual designs; strategic planning to guide long term redevelopment; short term action planning; computer analysis to develop an optimal three-dimensional development plan; first stage architectural design, costing and construction program.

The redevelopment plan and program has been adopted in principle by the Hospital Board. Budget and further action proposals have been submitted to the Hospitals Commission with a request for funds.

ROCKINGHAM PARK NEW SATELLITE TOWN



A SATELLITE CITY, ABOUT 30 MILES SOUTH OF PERTH, WHICH IS BEING DEVELOPED BY A PRIVATE COMPANY IN CONJUNCTION WITH THE 7,000 ACRES KWINANA INDUSTRIAL AREA.

for Rockingham Park Pty Ltd, Western Australia

Rockingham Park covers 4,000 acres of land near the coastal resort area of Rockingham and is intended to be developed on a staged basis to provide a full range of residential accommodation for 50,000 - 60,000 people and all community facilities. The city centre will serve a regional population of about 100,000 people and will include the local government offices, regional offices of State government departments and a sub-metropolitan shopping and office complex, planned to be next in size following the Perth and Fremantle central business districts.

USC work on this \$400 million project involved market research and initial negotiations with local and state authorities; strategic master planning and pre-investment feasibility studies; detailed town design and precinct action planning; landscaping, house and site designs; detailed planning and design of the city centre; and general advice on staging and marketing of the project.

The Strategic Master Planning Proposals have been adopted by client and authorities and incorporated in Shire of Rockingham Statutory Planning Scheme. Precinct one has been constructed in accordance with action plan; action plan for precinct two has been adopted, engineering and landscaping works have been carried out, and housing is under construction. Action plan for next precinct is now in course of preparation; action plan for Regional Centre has been adopted and is now being implemented; and development applications for first Regional Centre buildings have been lodged and architectural design is at an advanced stage.



ORO BAY NEW TOWN

A SATELLITE TOWN, WITH NEW PORT FACILITIES, TO BE CONSTRUCTED
ON THE NORTHERN COAST OF PAPUA, NEAR POPONDETTA

for the Department of Lands, Port Moresby, Territory of Papua and New Guinea

As part of the Administration's regional development programme, it is proposed to construct port facilities at Oro Bay and to encourage associated industrial and urban development. Because of land ownership problems, only an extremely restricted site could be made available for the town area, and this site was further limited by difficult topography and problems of access.

As a result of preliminary investigations, it was concluded that the site was inadequate, and recommendations have been made for the acquisition of additional land. While purchase negotiations are being carried on, planning and engineering design work is proceeding on the residential, town centre and industrial areas. The anticipated population of the new town is expected to be about 10,000 people.

Work on this project to date by USC has included regional economic analysis; projections of population numbers and socio-economic characteristics; estimates of land use requirements; site evaluation studies; strategic and master planning; and engineering feasibility studies.

Outline design work has been completed, and preliminary engineering studies have been made; the current phase of the work covers detailed land use and subdivision layout.



COLEAMBALLY NEW TOWN

A NEW TOWN - RURAL SERVICE CENTRE - IN THE COLEAMBALLY IRRIGATION
AREA OF SOUTH WESTERN NEW SOUTH WALES.

for the Murrumbidgee Shire Council

Coleambally is the first new town sponsored by the New South Wales State Government for many years, intended to provide service centre facilities for the rural population of the Coleambally Irrigation Area. The plan of the town adapts current urban planning practices to the scale and life-style of a small Australian country town and is closely integrated with the topography and landscaping of the site. Detailed investigations were made of tree coverage and ground slopes, and the design of the road centre-lines was actually carried out on the site to ensure minimum interference with existing vegetation.

The town provides for a probable population of about 2,500 people and includes areas to be developed for all business and community purposes. Provision has also been made for industrial development which will probably be of a service or primary processing character.

Civic design aspects of the town plan, and the architectural design of the water tower, have been commended by the Royal Australian Institute of Architects.

USC work on this project involved economic base studies and population estimates; strategic and action planning; capital budgeting; detailed design and construction supervision of the first stage-works.

The plan has been adopted by Murrumbidgee Shire Council, the State Planning Authority and the Minister for Local Government. The first-stage plan has been gazetted as interim development order; community buildings and shops are completed, and housing development is proceeding.



KAWERONG and ARAWA NEW TOWNS, NEW GUINEA

NEW URBAN SETTLEMENT BEING DEVELOPED ON BOUNGAINVILLE ISLAND ALONG WITH THE CRA COPPER-MINING PROJECT

for Conzinc Riotinto of Australia and Bougainville Copper Pty Ltd

Kawerong is located in high mountainous terrain and will accommodate 2,500 people. Arawa will be on the coast and is planned to accommodate 12,000 people. Because of the area's isolation and because of the shortage of Administration funds, CRA will initially provide all community facilities and services for both towns and will make provision for the Administration to establish the Arawa township.

One of the most difficult design problems associated with these developments was to produce a physical layout which could adapt to the gradual change of population from a largely expatriate character in the early years to a fully indigenous occupancy in the long term, while reinforcing a conscious CRA program of integration at all stages of development. This has been done by the careful distribution of housing types and the studied arrangement of pedestrian and vehicular movement patterns.

On this \$20 million project, USC work included outline planning and urban design; architectural design and documentation of all community buildings; design of housing and advice on construction techniques.

All town development work is in hand and the building construction program is well advanced; all first-stage architectural documentation will be completed in 1970.



SOUTH MELBOURNE FEASIBILITY STUDY

A FEASIBILITY STUDY FOR THE REDEVELOPMENT OF A SITE OF ABOUT SIX ACRES IN SOUTH MELBOURNE, OPPOSITE FLINDERS STREET STATION.

for Australian Paper Manufactures Ltd.

The study involved an evaluation of the expansion of the Melbourne Metropolitan Region and of the effect of this expansion on the Central Area of Melbourne. The redevelopment site is very favourably located relative to the central business district, because of its proximity to it in both distance and time. However, it offers many advantages not available in the CBD proper.

Various potential land and building use categories were studied and a recommended marketing policy was advanced to the client. The suitability of the redevelopment site for various types of structure was assessed, including considerations of foundation geology, accessibility and land tenure. Preliminary architectural drawings of proposed redevelopment alternatives were prepared, and alternative financing plans and economic feasibility studies were advanced.

After consultation with the client, a final budget and stage development program was prepared and recommended.

The report prepared by USC has been adopted by client and is being used in negotiations with government authorities and sources of finance.



MULTI-UNIT RESIDENTIAL DEVELOPMENT

A STUDY OF PAST AND CURRENT BUILDING TRENDS IN THE REDEVELOPING OF THE INNER NORTH SHORE SUBURBS OF SYDNEY.

for a Private Development Company

The study involved a detailed evaluation of statistics published by the Commonwealth Bureau of Census and Statistics, and of the requirements of the various Local Government Multi-Unit Residential Codes. The results of this evaluation and analysis were then used, in conjunction with an analysis of recent land sales, to determine the likely movements of both the multi-unit housing market and the redevelopment land market.

A detailed study was undertaken of the factors affecting the demand for unit residential dwellings in the municipalities on the inner North Shore. Also, land sales trends were analysed and the potential value of redevelopable land assessed.

Based on this information, and on architectural and economic evaluation of the restrictions imposed by the various Local Government Codes, the potential market for unit residential dwellings was predicted for the six year period from 1969 to 1975.

This market analysis and survey was used as a basis for the recommendations as to areas suitable for redevelopment, the types of redevelopment that would provide an economic return to the investor, and a time schedule for redevelopment activity in different Local Government areas and specific parts of them.

The report and its recommendations prepared by USC has been adopted by the Client and is being used to guide land acquisition and development decisions.



WESTERN AUSTRALIAN RESIDENTIAL DEVELOPMENT REGULATIONS

INTEGRATED CONTROL CODES FOR ALL FORMS OF RESIDENTIAL DEVELOPMENT,
COVERING PROVISIONS FOR BUILDING BULK, CAR PARKING, RECREATION SPACE
AND RELATIONSHIPS BETWEEN BUILDINGS.

for the Town Planning Commissioner, Western Australia and the Metropolitan Region
Planning Authority, Perth.

The Western Australian Residential Codes represent the first attempt in Australia to produce a fully integrated set of development controls which relates all the physical characteristics of sites and building to one another. The controls provide for different ranges of densities in different zones and for a sliding scale of plot ratio related to site size. One of the objectives of the Codes was to foster amalgamation of sites so that better environments could be produced through large-scale design. Another objective was to set down performance standards which would allow the compatible development of different residential accommodation types in association.

Because of the care taken in the preparation of the basic Codes and the full program of participation to engage governmental, professional and business support, the regulations were gazetted within five months of report submission and have gained almost universal acceptance.

USC work involved comprehensive research and investigation; public participation program; negotiations with professional and business organisations and local authorities; feasibility testing of proposals.

The Residential Codes were gazetted as part of the Western Australian Uniform Building Bylaws on 11 March, 1966. The Australian Institute of Urban Studies, in February, 1970 commissioned USC to carry out a comprehensive review and expansion of the codes to incorporate refinements which may be desirable after four years' operating experience.



VICTORIAN STATE PLANNING ORGANISATION

AN ANALYSIS OF METROPOLITAN GROWTH IN VICTORIA AND RECOMMENDATIONS
ON METHODS OF ORGANISATION FOR STRATEGIC PLANNING AT STATE, REGIONAL
AND LOCAL LEVELS.

for the Town and Country Planning Board of Victoria

The project involved preparation of a Strategic Plan for 5 million population in the Melbourne Metropolitan Region, together with an assessment of the administrative problems involved in controlling and guiding the growth of Melbourne and of other urban centres within the State. The final report set out proposals for a planning structure which would allow strategic, action and detailed planning to be carried out at the appropriate levels in the governmental and community structure, and to provide for the vertical integration of various planning processes.

USC undertook comparative studies of alternative proposals; held conferences with relevant authorities; and made recommendations on legislative and administrative reorganisation.

The recommendations made by USC were adopted by the Town and Country Planning Board and published as the report, Organisation for Strategic Planning which was submitted to the Minister for Local Government in 1967; the recommendations were incorporated in the Town and Country Planning (Amendment) Act 1968; All administrative arrangements have now been made, and the recommended new state regional authorities have been set up, and are operating. State Cabinet adopted the recommended Metropolitan Corridor and Metro-Town Plan for Melbourne as State Government Policy, enunciated in parliament, and conveyed as a policy guide to relevant authorities.



CAPITAL CITIES SHOPPING CENTRES SURVEY

RESEARCH AND PLANNING FOR THE DEVELOPMENT AND EXPANSION OF A
CHAIN OF DEPARTMENT STORES IN SYDNEY, PERTH, ADELAIDE AND BRISBANE
FOR ONE OF AUSTRALIA'S LARGEST RETAILING ORGANISATIONS

for Myer Shopping Centres Pty Ltd, Melbourne

Myer Shopping Centres Pty Ltd are already well represented in central area and suburban area shopping centres but have no discount store organisation to give full retailing coverage of the potential market. As a result of a policy decision to enter this field, URBSEARCH (a Division of USC) was commissioned to undertake a full evaluation of the development potential of Sydney, Perth, Adelaide and Brisbane for this type of outlet and to prepare a seven-years development program for the establishment of a chain of discount stores.

The survey covered research into metropolitan growth and retailing trends; preparation of an inventory of existing shopping centres and potential sites; evaluation of development potential of these centres and sites; comprehensive investigations into population changes, socio-economic changes, urban densities and housing trends in each of the metropolitan regions at the local government area and census collector's district levels; projection of retail sales trends in each metropolitan region for sites and centres where expansion and development were apparently feasible; recommendations as to centres and sites suitable for development; program of development strategy, timing and investment staging for the seven-years period 1969-75/76.

Shortly after the completion of the study, the client announced plans for a \$100 million expansion program, involving 25 new stores spread through the major metropolitan cities of Australia. Currently, the development program for a new national chain of discount stores is being implemented.



MARTIN PLACE PEDESTRIAN PLAZA

PRELIMINARY DESIGN NEGOTIATIONS WITH AUTHORITIES AND
INTERESTED PARTIES, STREET FURNITURE DESIGN AND
DOCUMENTATION ARCHITECTURAL DOCUMENTATION AND
COSTING, AND PROGRAM ORGANISATION FOR CONVERSION OF
WESTERN END OF MARTIN PLACE TO PEDESTRIAN TRAFFIC

for the Council of the City of Sydney

This important project is one of the first steps by the City Council to improve downtown amenity for workers and visitors in the central business district. Creation of the proposed pedestrian plaza will enhance the significance of the cenotaph and will allow the facade of the General Post Office to be fully appreciated for the first time in many years, as well as providing a useful civic space, unique in Sydney.

Conversion of the space will involve complete repaving of the area and the replacement of existing street furniture with new and appropriate designs, at an estimated cost of \$250,000.

Detailed engineering, street furniture and architectural design and documentation has been authorised by Council and is proceeding. The street is being closed to vehicular traffic for a six months' trial period from September 1, 1970.



TULLAMARINE INDUSTRIAL PARK

AN AIRPORT INDUSTRIAL PARK TO BE DEVELOPED IN ASSOCIATION WITH THE
TULLAMARINE INTERNATIONAL JETPORT, AT MELBOURNE, VICTORIA.

for the Department of Civil Aviation

The concept of an airport industrial park was developed to utilise land which was adjacent to the airport and basically unsuitable for residential usage. Furthermore, the close proximity to a major air terminal was expected to encourage specialised industries to take maximum advantage of the location. The industries recommended as being suitable were carefully reviewed and a marketing program was drawn up, oriented to those operations which have an import-export function in capital intensive industries producing goods with high value per unit bulk weight.

USC work involved comprehensive investigations of the industrial land market in the Melbourne Metropolitan Region; research into the transport requirements of high value per unit bulk or weight goods producers; estimates of growth of air freight demand; assessment of the competitive effects of nearby employers on the labour market at Tullamarine; research into industrialists' requirements for various categories and sizes of industrial lots; preparation of detailed subdivisional plans; and staging program and budget.

Implementation of the plan is being investigated by the Department of Civil Aviation, in the light of consultant's warning that the project was premature.



IRANIAN NATIONAL PLANNING ORGANISATION

A STUDY OF EXISTING ARRANGEMENTS FOR REGIONAL AND URBAN STRATEGIC AND ACTION PLANNING IN IRAN, AND A REPORT ENTITLED ESTABLISHMENT OF A PRACTICAL SYSTEM FOR THE GUIDANCE OF URBANISATION AND THE CONTROL OF LAND DEVELOPMENT THROUGHOUT IRAN.

for the Government of Iran National Economic Plan Organisation, Tehran.

The report was based on international comparative studies of the various alternative administrative and legal procedures used to control guide and stimulate the urbanisation process, and the redevelopment of decayed or congested central city areas.

Iran has only recently entered a phase of rapid and extensive industrialisation and urbanisation. There are complementary continuous changes in the distribution of population. The population shift to major centres has caused many social problems, and the recommendations of the report were designed to put urban and regional land development control on a rational and efficient basis and to provide an effective means of integrating economic and physical planning.

The recommendations made have been adopted by the National Plan Organisation, and administrative organisations are being set up; Investigations are now being made into systems of recording cadastral information and dealing with the problems of property titles.

MAURITIUS ECONOMIC DEVELOPMENT and INVESTMENT SURVEY



EVALUATION OF ECONOMIC GROWTH POTENTIAL OF MAURITIUS AND RECOMMENDATIONS ON PREFERRED INVESTMENT FIELDS.

for the Anglo-Mauritius Assurance Society, Port Louis, Mauritius.

The Anglo-Mauritius Assurance Society is a subsidiary of the London-based Anglo-Ceylon and General Estates Ltd., and is the largest private financial institution in Mauritius. Until recently, it was the Society's policy to make its capital investments in the United Kingdom, but, it is now forced to look for avenues of investment in Mauritius itself. Before embarking on an investment program, it commissioned URBSEARCH (a division of USC) to carry out a comprehensive evaluation of the range of possibilities, with particular emphasis on urban development opportunities.

The study involved comprehensive reviews of trends in the Mauritian economy and in socio-economic characteristics of the population, together with property and ownership surveys to assist in predicting likely directions of urban growth. Information was obtained on services, transportation and other factors affecting development policies, and discussions were held with authorities, developers and financial institutions to assist in making feasibility studies of potential projects. The results were presented in the form of a program for land acquisition and development on a staged basis.

The recommendations made by URBSEARCH have been adopted by the company, and the first development site has been acquired.