



The
University of
Lethbridge

CONCEPTUAL PLANNING PHASE IV

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LETHBRIDGE, ALBERTA

Library

3. University of Lethbridge Proposed
Library Project - Conceptual
Planning Phase IV

FOREWORD

In May 1990, the University of Lethbridge General Faculties Council and Board of Governors approved the report entitled Space for the 1990's. Using space guidelines from Alberta Advanced Education, the Report concluded that in order to accept an increase of 500 students above the current funded limit of 3,669 Full-Time Equivalent Students, the University will require additional gross building area of at least 20,000 square metres.

The form of the additional space has been approved as a Library building with provision for a main entrance to the campus. Space to be vacated by the Library in University Hall will be converted for academic use. Central administrative offices will be relocated to the main entrance structure, and the space vacated by administrative and support units also will be converted for academic use.

The Library is at full capacity in terms of space to house the growing collection, and the available study space is insufficient for the current numbers of students. It is impractical to expand the Library in its present location because of floor loading capacity. The sizing of the Library provides for expansion beyond the extra increment of 500 FTE students, as library collections grow even though user populations remain constant.

It is estimated that the Library building project envisaged in this document would allow for the longer term Library needs to a maximum total enrolment of 5,000 FTE students.

Growth to that number of students would invariably require additional academic and support facilities, particularly science laboratory space, and such science facilities will be a high priority for future development.



CONCEPTUAL PLANNING PHASE IV

EXECUTIVE SUMMARY

The firm of Watson Horton Ferrari Architects has been commissioned to undertake a conceptual planning study in which options for Phase IV are identified and explored.

Phase IV of the development of The University of Lethbridge will consist of additional and renovated spaces to meet the needs of the 1990's for an envisaged future enrolment figure of 4200 FTE students and a Library with capacity to serve 5000 students.

These needs include; a new Library building, an identifiable "front entrance" to the University, more academic and support space, provision for Art Gallery Expansion, and location of offices and administration near the front entrance.

We are also to provide additional, and less remote, parking and to improve on current circulation inadequacies between floor levels in the University Centre for the Arts.

We have reviewed the Campus Master Plan, and have identified long range development potentials for 1990 onward.

Planning and design options to meet the needs of Phase IV have been studied, and a Preferred Option has been developed which is the subject of this report.

In order to arrive at the optimum solution in terms of planning efficiency and effectiveness, and given the conceptual nature of the exercise, the constraint of budget has not been included in the scope of this study.

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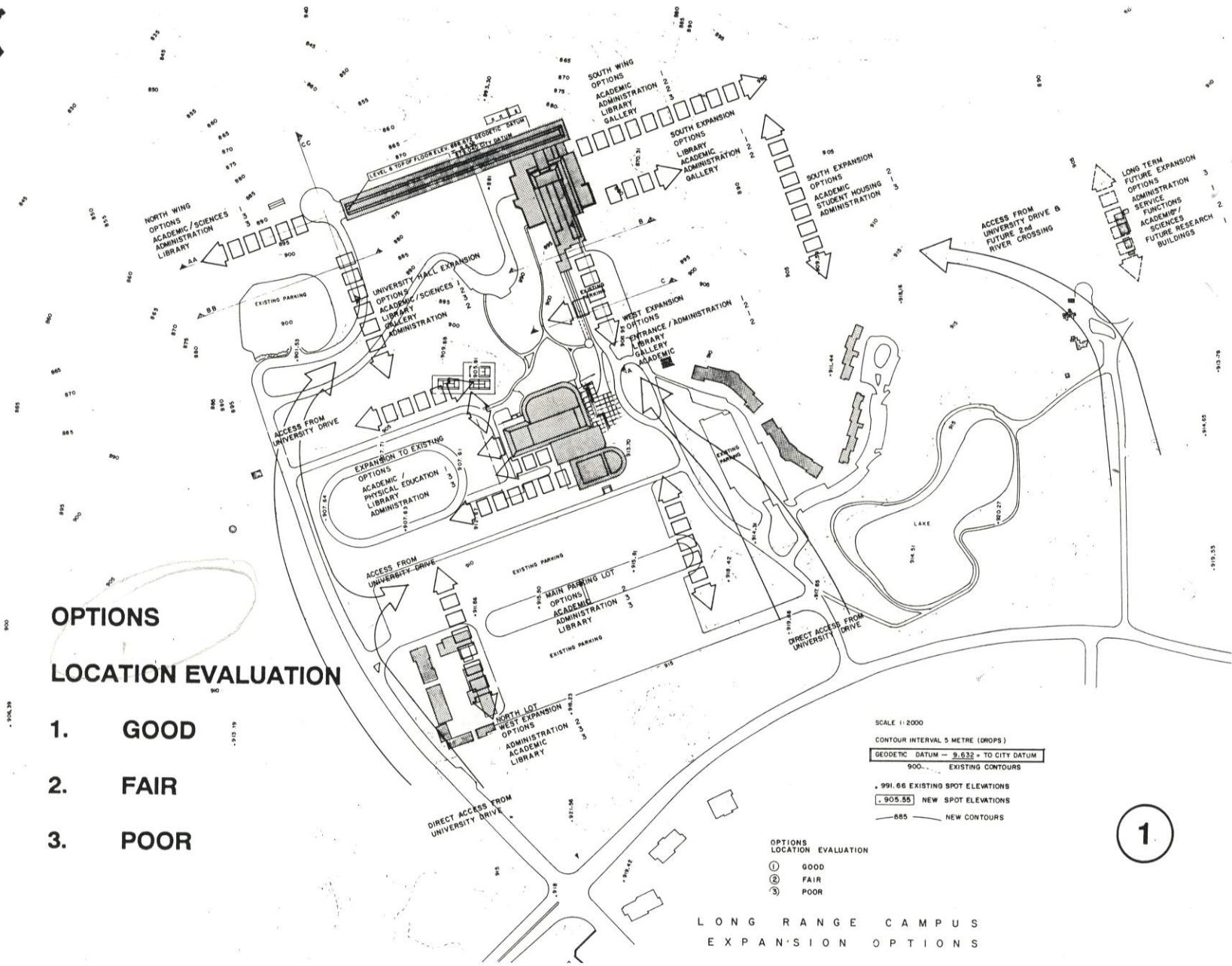
SUMMARY OF RECOMMENDATIONS RESULTING FROM REVIEW OF LONG RANGE PLAN

The Master Plan, prepared by Erickson in the 1960's, foresaw a linear expansion of University Hall to the North and South, and to the West where the Centre for the Arts lies now. Later development of the Phys. Ed. buildings and Student Residences conform in principal to the Plan's concept.

Recognizing that the Plan has provided the essential element of discipline to campus development, it is appropriate that at this time, a review and assessment is carried out, both in respect to Phase IV and also to future identified phases of expansion.

Having reviewed campus building to date, including the Devonian Garden, we see the idea emerging of a 'quadrangle concept' in which the 'Tee' of University Hall and Centre for the Arts can expand in a linear North South and West direction, but with the Phys. Ed. and Students' Union Building forming the west side of the quadrangle and a future wing forming the north side. The quadrangle would form the compact hub of all future expansion, and provide a physical and continuous circulation link.

Having identified the direction and siting of expansion potentials for the future, this study then applied the logic of, selection of each option, as a potential site for Phase IV.



**OPTIONS
LOCATION EVALUATION**

- 1. GOOD
- 2. FAIR
- 3. POOR

- OPTIONS
LOCATION EVALUATION
- ① GOOD
 - ② FAIR
 - ③ POOR

SCALE 1:2000
 CONTOUR INTERVAL 5 METRE (DROPS)
 GEODETIC DATUM - 9.632 - TO CITY DATUM
 900 - EXISTING CONTOURS
 991.66 EXISTING SPOT ELEVATIONS
 905.55 NEW SPOT ELEVATIONS
 885 - NEW CONTOURS

LONG RANGE CAMPUS
 EXPANSION OPTIONS

1

SELECTION OF PREFERRED OPTION FOR PHASE IV

Prior to selection of the preferred option for Phase IV the six potential locations for future campus development identified in the Long Range Plan review were studied and weighed for their appropriateness as Phase IV location.

DESIGN GOALS

Conformance to objectives and spirit of the Campus Master Plan, but not limited to original design parameters.



Maintain the principle of compactness and a continuously linked campus.

Locate Library building to provide most logical and convenient access to users, proximity to available existing services and of a form and plan most appropriate to Library functions, existing campus architecture and the site. The Library location and access is to be central to the major existing (and future) academic core of the campus which is the juncture of University Hall, the Centre for the Arts, and the future South Wing. The floor plan of the Library should approach a square format rather than a long and narrow rectangle which produces a highly functional and efficient layout.

To locate Entrance – Office element to best function as focal point of entry to the University, with ease of public access and adequate visual prominence creating a "front door" to campus.

Provide improved vertical and horizontal circulation linking the Entrance–Office element, Library element, Parking and the existing campus, to better serve the needs of all users. This should also provide improved access to the Theatres, Recital Hall and Art Gallery.

To accommodate expansion of proposed academic programme in the existing library and administration areas when they are vacated.

To accommodate temporary storage facilities for The University of Lethbridge art collection and minor technical service and exhibition space and suggest a suitable site for the future Art Gallery Expansion.

Significantly increase the number of parking spaces available on campus.

Develop Phase IV as an integral part of the Long Range Plan Concept.

IDENTIFIED OPTIONS

1. **South Expansion** – adjacent to the South face of the University Centre for the Arts, and the West end of the Devonian Walkway at Level 9.
2. **West Expansion** – Located at the west end of the University Centre for the Arts and on the site of the adjacent parking lot.
3. **South Wing** – South of the Atrium.
4. **North Wing** – North extension of University Hall.
5. **University Hall Expansion** – Westward expansion at the north end of University Hall.
6. **Main Parking Lot** – North or South end.

COMPARATIVE ANALYSIS OF OPTIONS

Option 6 - Main Parking Lot:

- Provides good parking access, a flat site and prominent locations.
- It is remote from the main body of the Campus, with excessive travel distance and, as a Library location, is considered a poor option.

Option 5 - University Hall Expansion:

- Good access and parking.
- Encloses north perimeter of Devonian Garden Quadrangle.
- Relatively isolated and distant from existing core of Campus.
- Preferred location for future academic expansion, i.e., Sciences Wing.

Option 4 - North Wing:

- Relatively isolated from main body of academic zones for Library use and "front door" entrance.
- Location better suited for future academic expansion.

Option 3 - South Wing:

- Length required to extend across ravine would result in a thin building, not favourable for Library planning.
- Further linear development would increase travel distance for Library users.
- Not central for "front door" function, nor for Public and Administrative Offices.

Option 2 - West Expansion:

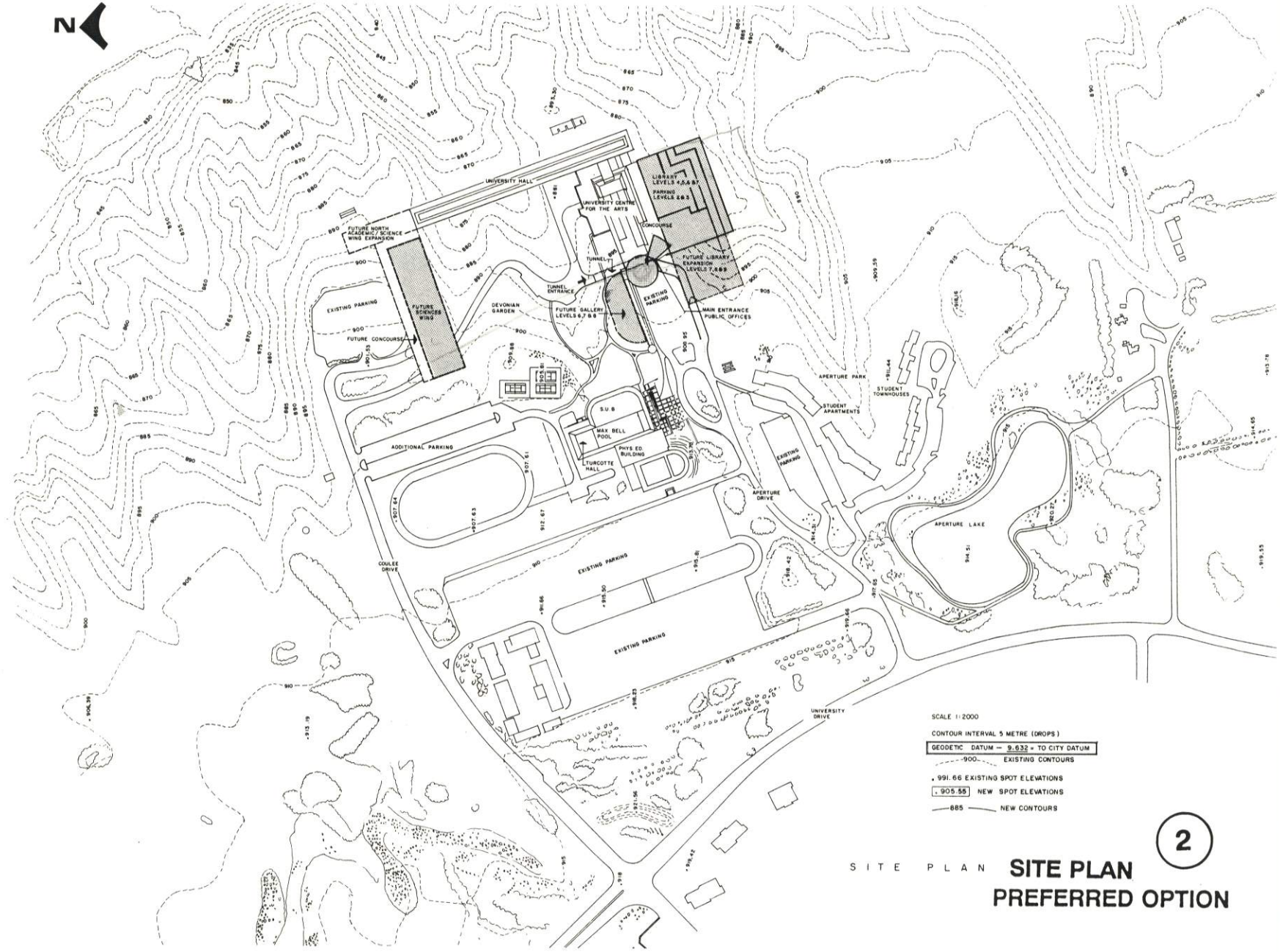
- Logical location for University "front door" and Offices.
- Suitable location for Gallery expansion.
- Elimination of existing surface parking.
- Available site for development would limit the size of the building.
- Conflict with existing pedestrian tunnel.

Option 1 - South Expansion: - Preferred Option

- Central location for Library users at Public Concourse Level 6.
- Front door Entrance at a logical location at the end of Aperture Drive, on Level 9.
- Limited loss of surface parking.
- Introduction of 445 parking spaces immediately accessible to Drama and Music at Level 5, as well as to Library, Administration, Offices, Art Gallery and the campus population in University Hall and University Centre for the Arts.
- Future expansion options available on Level 3, or by expansion westward at Levels 6, 7 and 8.
- Additional elevator and stair access serving Entrance-Office function and Library function, providing, in addition, public and service access at all levels including parking.
- Vehicular access to the lower parking levels would be by a tunnel from the north service road, or by a spiral ramp entering from the west parking lot at Level 8 and leading directly to parking Levels 3 and 2.

**SCHEMATIC DESIGN PROGRAMME AND SPACE ANALYSIS SUMMARY
BASED ON PREFERRED OPTION**

COMPONENT	NET AREA sq. metres	GROSS AREA sq. metres	NET TO GROSS RATIO
1. Library	16,908	24,285	70 %
2. Public Entrance/Public Offices/Administration Including 5 levels of stairwell/elevator core to Level 6.	2,800	4,382	64 %
3. Parking, Spiral ramp or tunnel to enclosed parkade for 445 cars.			
Total Gross Area Levels 2 & 3		19,480	
TOTAL GROSS AREAS (Including Parking)	19,708	48,147	



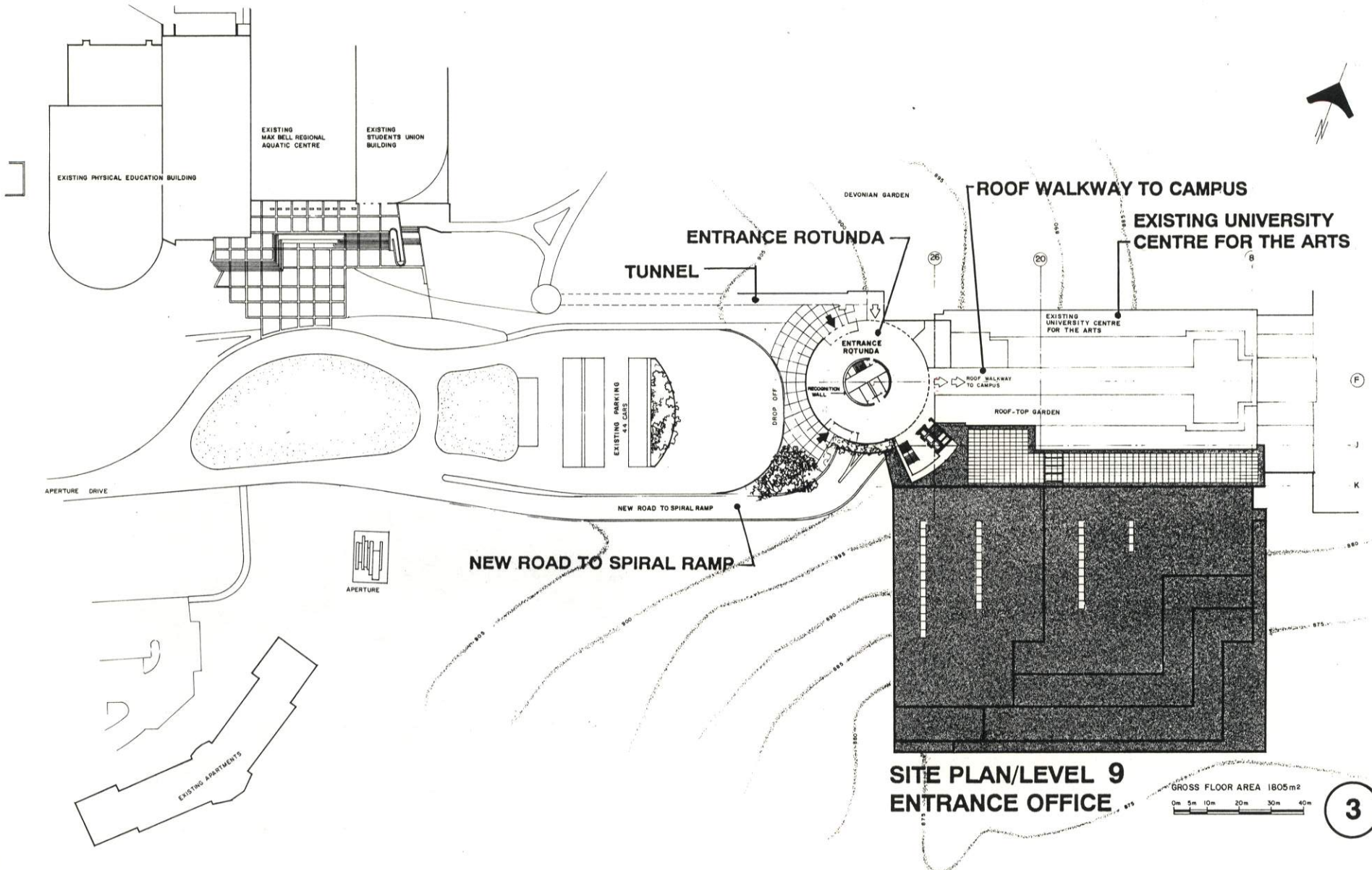
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 .905.55 NEW SPOT ELEVATIONS
 -885- NEW CONTOURS

2

SITE PLAN SITE PLAN
 PREFERRED OPTION

LIST OF DRAWINGS

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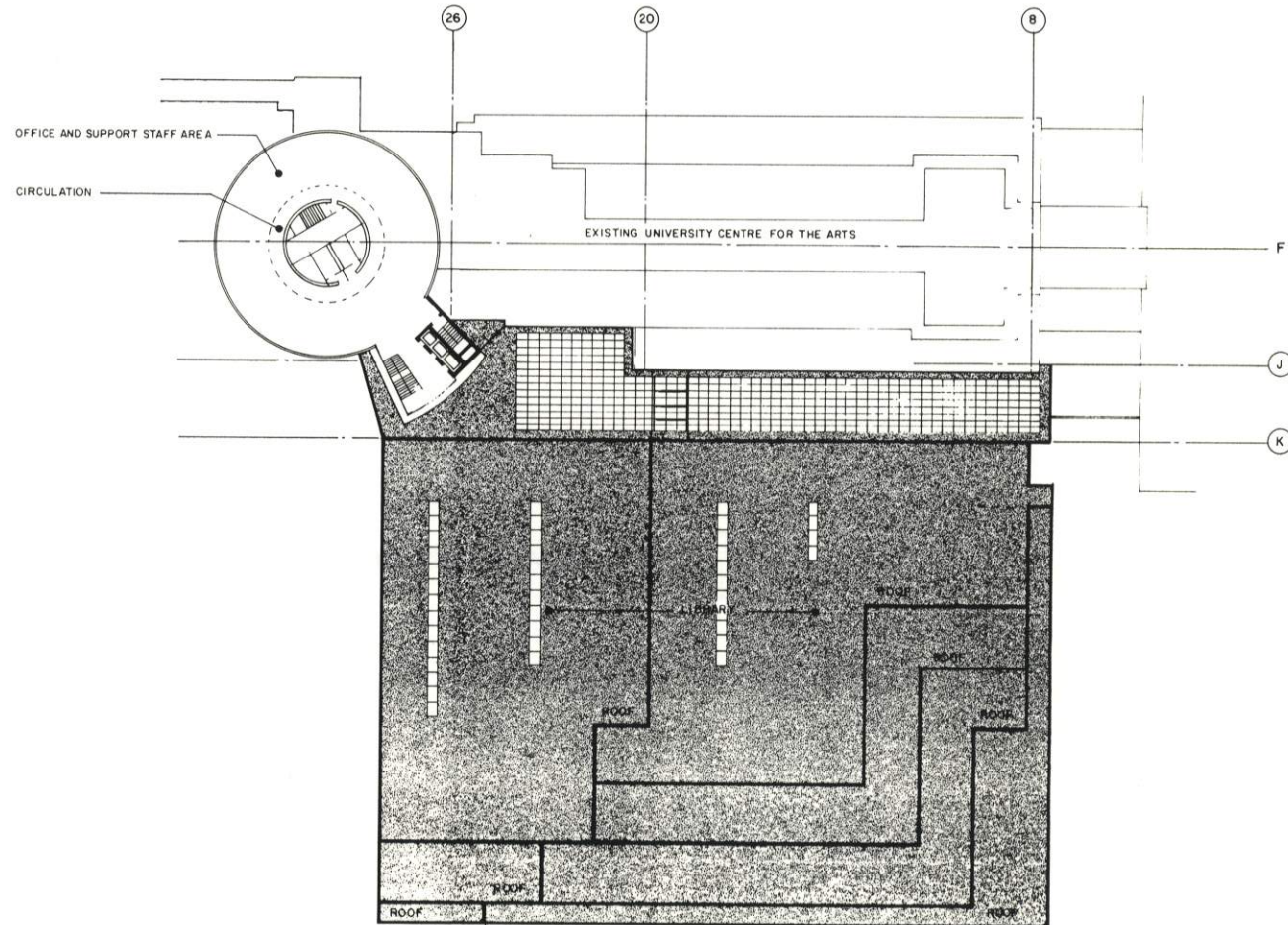


**SITE PLAN/LEVEL 9
ENTRANCE OFFICE**

GROSS FLOOR AREA 1805m²
0m 5m 10m 20m 30m 40m

3

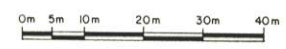
SITE PLAN / LEVEL 9
ENTRANCE / OFFICE



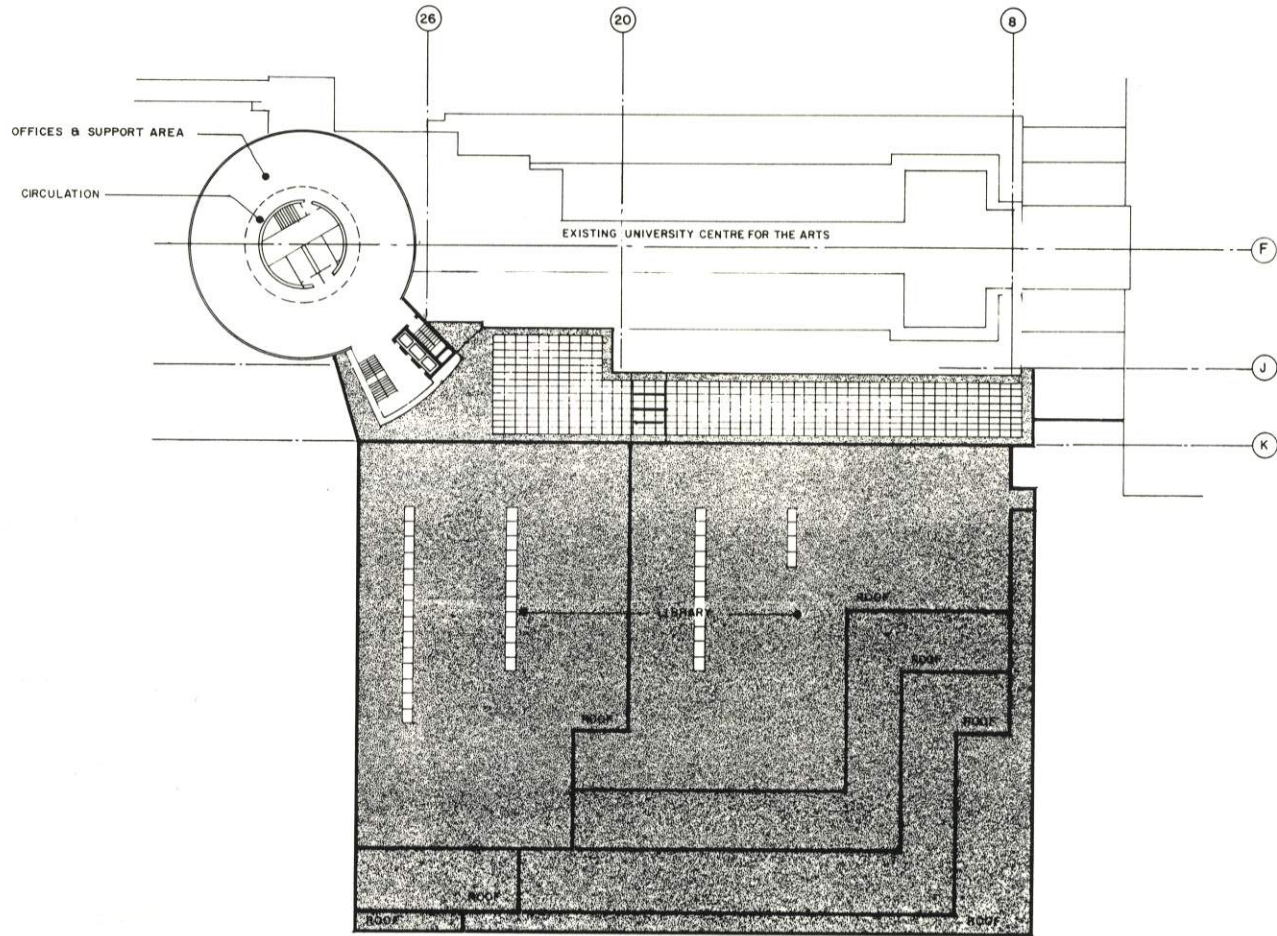
LEVEL 11 ENTRANCE/OFFICES

GROSS FLOOR AREA 1,025 m²

LEVEL 11
ENTRANCE / OFFICES



4



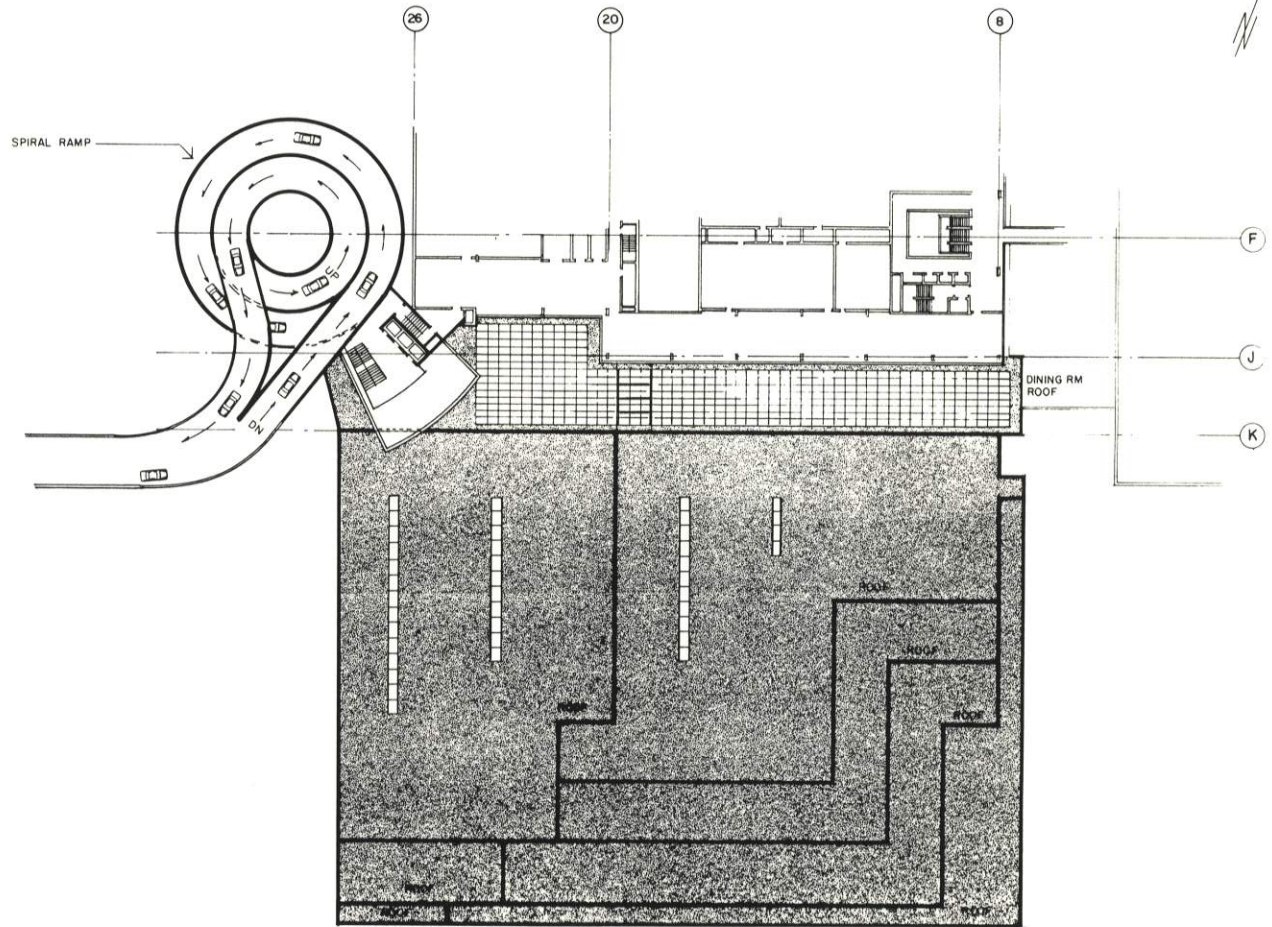
LEVEL 10 ENTRANCE/OFFICES

GROSS FLOOR AREA 1552 m²

LEVEL 10
ENTRANCE / OFFICES



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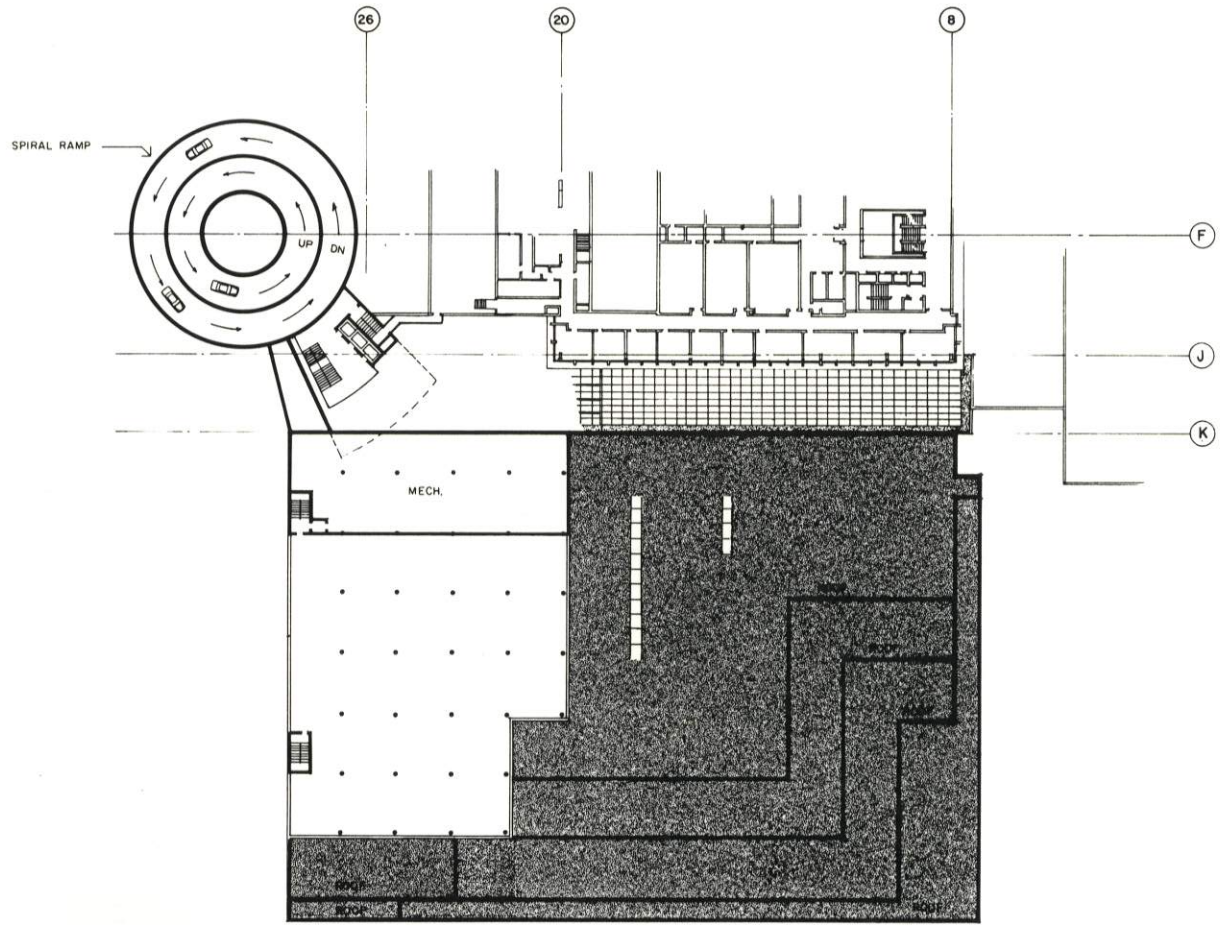


LEVEL 8 SPIRAL RAMP

LEVEL 8
SPIRAL RAMP



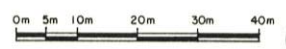
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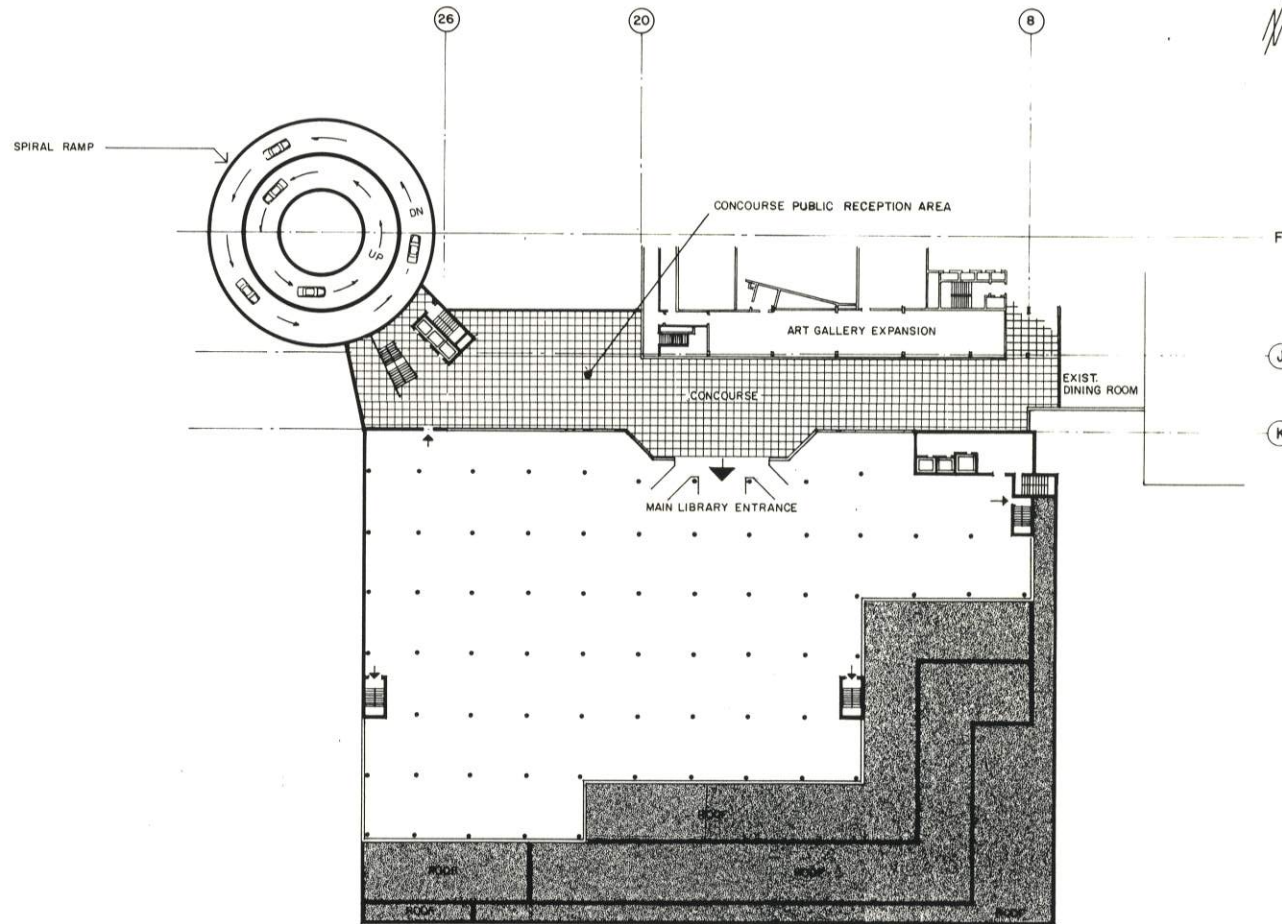
LEVEL 7 LIBRARY

GROSS FLOOR AREA 2968 m²

L E V E L 7 L I B R A R Y



7



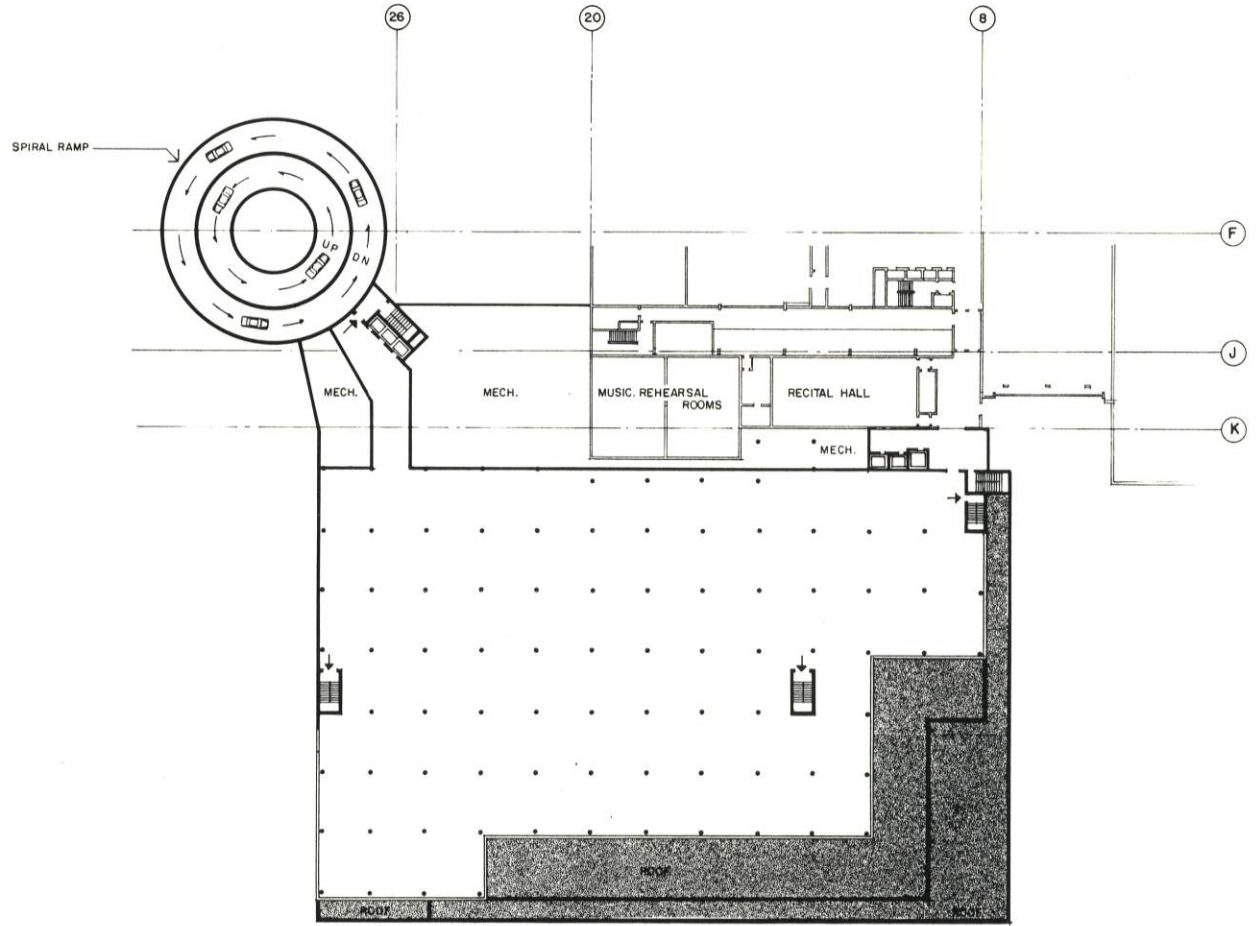
LEVEL 6 LIBRARY

GROSS FLOOR AREA 7166 m²

L E V E L 6 L I B R A R Y



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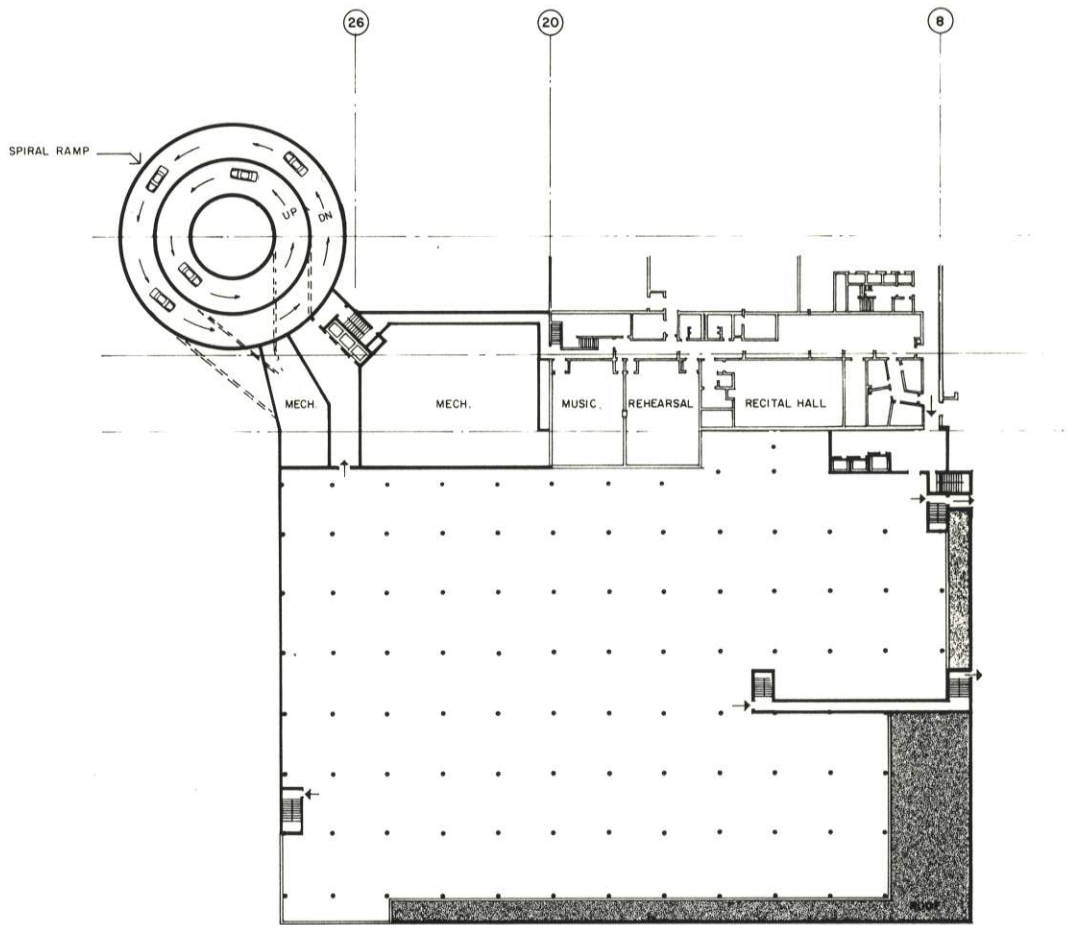
LEVEL 5 LIBRARY

GROSS FLOOR AREA 8329 m²

LEVEL 5 LIBRARY



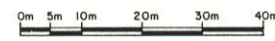
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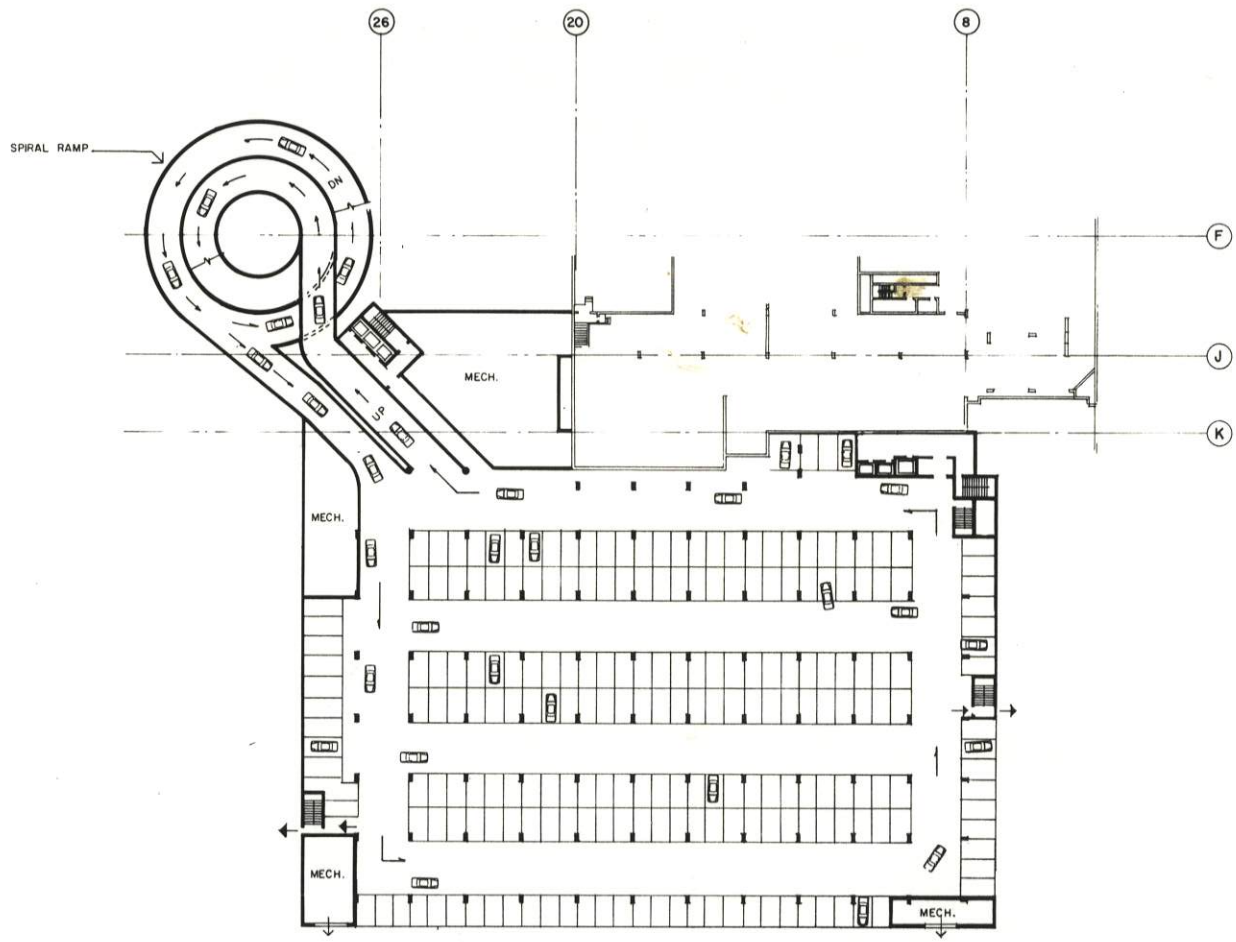
LEVEL 4 LIBRARY

GROSS FLOOR AREA 10119 m²

L E V E L 4 L I B R A R Y

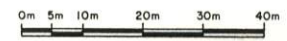


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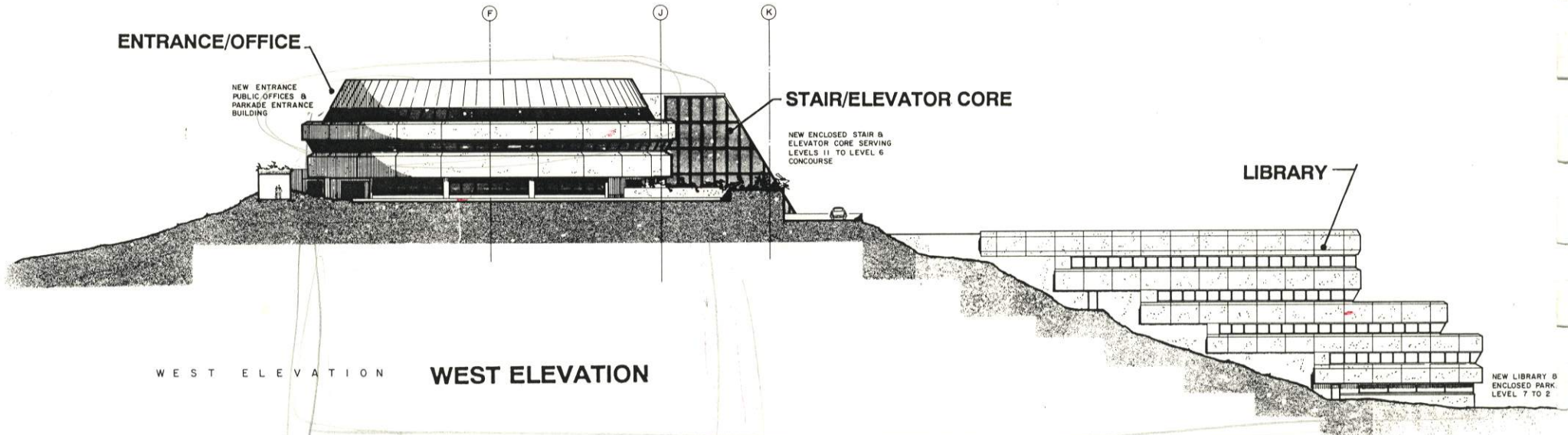


LEVEL 2 & 3 PARKING
PARKING STALLS - TOTAL 445 GROSS FLOOR AREA 9740 m²

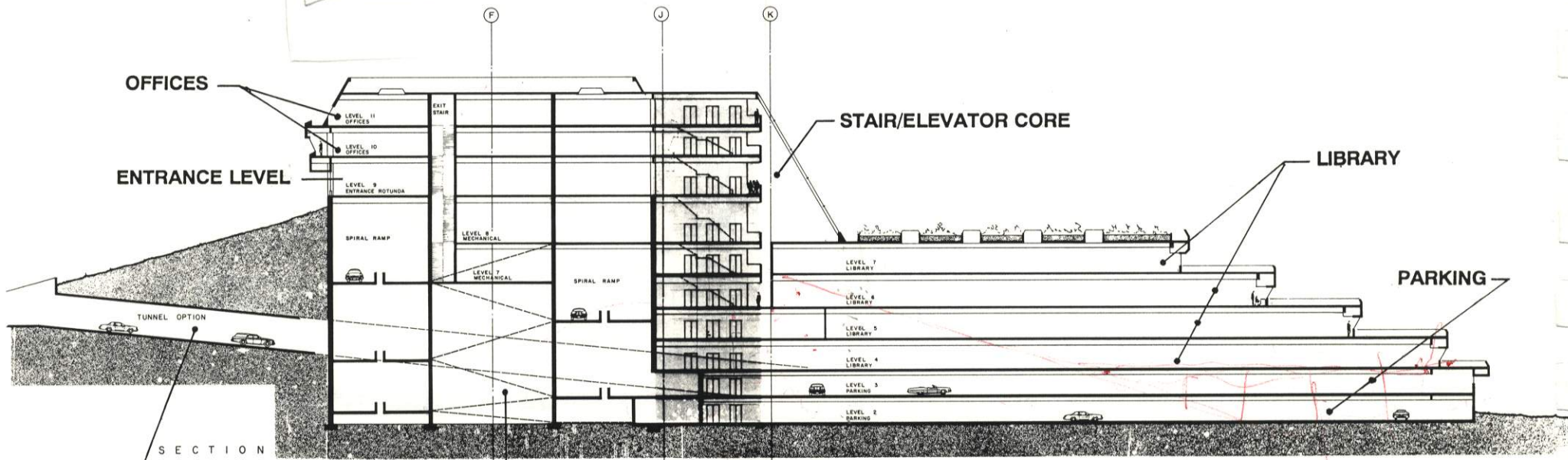
LEVEL 2 & 3 PARKING
LEVEL 2 REPEAT PLAN LAYOUT



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WEST ELEVATION WEST ELEVATION

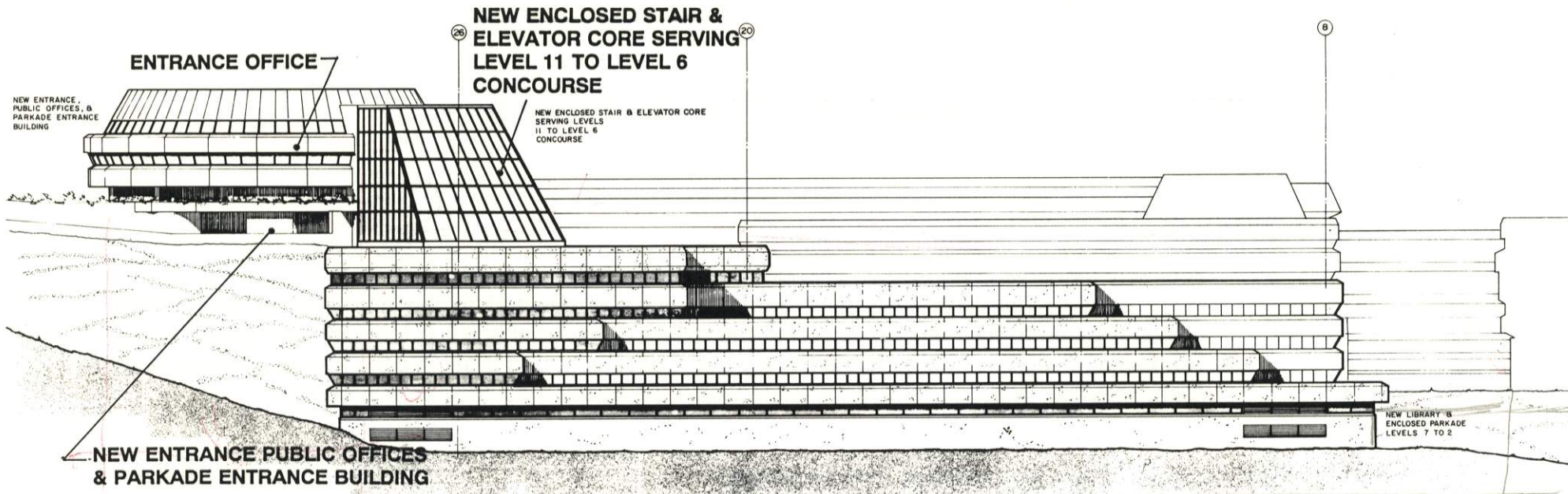


SECTION LOOKING EAST

SECTION LOOKING EAST

TUNNEL OPTION

SPIRAL RAMP

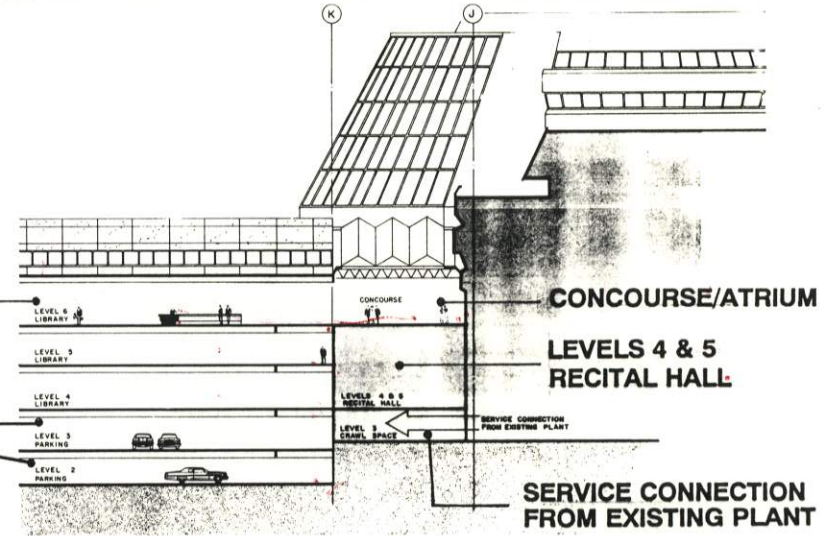


SOUTH ELEVATION
OPTION 1

SOUTH ELEVATION

LEVEL 6 LIBRARY ENTRANCE

NEW LIBRARY & ENCLOSED PARKADE LEVELS 7 TO 2



SECTION
THROUGH CONCOURSE
OPTION 1

SECTION THROUGH CONCOURSE

DESIGN ACHIEVEMENTS OF PREFERRED OPTIONS

IMAGE AND MASSING

- A clearly identifiable and inviting "front door" Public Office complex.
- Approximately one-sixth of total programme area is devoted to the site west of the existing University Centre for the Arts, reducing the extent of the total building footprint and overall mass.
- Remaining Programme area is the Library and Concourse, and is set into the ravine with a terraced form, reducing impact of the large mass within the existing coulee/campus context.

VEHICULAR AND PEDESTRIAN CIRCULATION

- Direct vehicular access to parking from Aperture Drive for the spiral ramp option, or from Coulee Drive for the tunnel option.
- Vehicular drop-off and surface parking at the new Front Entrance for both options.
- An additional vertical circulation route by elevator and stair, connecting all levels of the University Centre for the Arts and Phase IV. Students, staff, faculty, and all other users will be able to circulate freely between the Entrance-Office floors, the Parking Levels, and the Library and Atrium at Level 6. Controlled access to the Library at all levels and also to Levels 8, 7 and 4 of the University Centre for the Arts is also available.
- An additional elevator and stair link will provide direct access between Parking, Shipping and Receiving on Level 4, Music and Drama on Level 5, and Library and Atrium on Level 6.
- Level 5 Concourse serves as an "internal street" and main entrance of the Library. It is centrally located for "public function", and connects University Hall to vertical circulation to all floors (Levels 2 - 11).

PARKING

- Provides 445 enclosed parking spaces directly accessible to all levels including access to the University Centre for the Arts.
- Surface parking at "front door" Level 9 Centre Lot, maintains 44 spaces.

EXPOSURE TO DAYLIGHT AND VIEWS

- Increased perimeter glazing to the Library as a result of the stepped building plan and terraced form will introduce natural light deeper into the building than if the building were more box-like.
- The concept of a glazed stair and elevator core, and skylight over Level 6 Concourse will introduce the welcome ambience of natural light.

LOCATION OF LIBRARY

- Centrally located, adjacent to academic zones and easily and directly accessible on Level 6 Concourse from the Entrance to the west of Parking from below, and the Atrium hub to the east.

FUTURE EXPANSION

- Expansion to the west at Levels 6, 7 and 8 is possible. Parking Level 3 is designed for possible future expansion for Academic or Library functions.

STRUCTURE

- A structural grid for column spacing has been used that suites the needs of both library stacking and car parking.

SERVICES

- Capped-off services exist in the crawl space under the University Centre for the Arts, designed for future development. Location of the Library and Parking in this option will effectively utilize this.

SUMMARY

- This option fulfils all programme area requirements, and provides a bold and visible "front door".
- It provides a logical circulation system solving the vertical movement concerns which currently exist.
- It adds 445 parking spaces with direct close access to Phase IV and the University Centre for the Arts.
- The Library is central, visible and accessible off an internal "street".
- It provides for additional academic space and meets the need for Art Gallery expansion.
- Despite a relatively small cost premium associated with the construction and form of the building, this option is the only one that fully satisfies the programme requirements and solves the parking and vertical access problems.

PRELIMINARY DESIGN AND CONSTRUCTION SCHEDULE *

ACADEMIC PROGRAMME	2 Months
SCHEMATIC DESIGN PHASE	2 Months
DESIGN DEVELOPMENT PHASE	4 Months
CONSTRUCTION DOCUMENTS PHASE	9 Months
TENDER	2 Months
CONSTRUCTION (Based on a lump sum contract)	30 Months
COMMISSIONING BUILDING	2 Months
OCCUPANCY	2 Months

* Length of time for approvals not shown.

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PHOTOGRAPHS

THE UNIVERSITY OF LETHBRIDGE PHASE IV

1. View of Main Entrance.
2. View of Library/Main Entrance.
3. Model showing Library/Main Entrance.

PHOTOGRAPH

THE UNIVERSITY OF CALIFORNIA PHASE IV

1. Low angle photograph
2. High angle photograph
3. Model with reference

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