

# INDUSTRIAL

A photograph of an industrial building at night. The building has a prominent glass facade on the left side, reflecting the ambient light. To the right, there is a large, cylindrical structure, possibly a storage tank or part of a processing unit, which is illuminated from below. The entire scene is bathed in a cool blue light, with some warmer yellow lights visible through the glass and from below the cylindrical structure. A yellow square graphic element is positioned to the right of the word 'INDUSTRIAL'.

# SPACES

VOLUME 1

A PICTORIAL REVIEW



# **INDUSTRIAL SPACES**

## **Volume 1**

### **A Pictorial Review**

**(International Spaces)**

**INDUSTRIAL SPACES , Volume 1 - A Pictorial Review**  
**(International Spaces)**

By **Images Publishing Group**

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## **Introduction:**

Industrial Spaces features designs derived from the need of various industries to provide efficient, safe and workable spaces for both operations and administration, while at the same time complying with rigorous industry standards and incorporating the latest technology.

The setting of the industry itself also influences such space, whether it be on an industrial estate, on the city fringe, in a rural precinct, or an inner urban area. This book with its 400 color images will depict how these industrial space designs are a far cry from the utilitarian constructions of the past. These industrial spaces are award-winning architectural masterpieces.

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57. Sheet Metal Workers Training Center Gresham, Oregon, USA
58. Cummins Engine Company, Perth, Western Australia, Australia
59. Water Supplies Department Southwest Regional Depot, Cheung Sha Wan, Hong Kong, SAR, PRC
60. Chesapeake Waynoka Field Office Waynoka, Oklahoma, USA
61. Customer and Technology Center, Farmington, Connecticut, USA
62. Nortel Networks - Photonics Botany, New South Wales, Australia

**Production and Office Facility**  
**Baar, Switzerland**  
Barkow Leibinger Architects  
1 West elevation  
2 Production hall west façade  
3 Main entrance, east façade  
Photo credit: Margherita Spiluttini



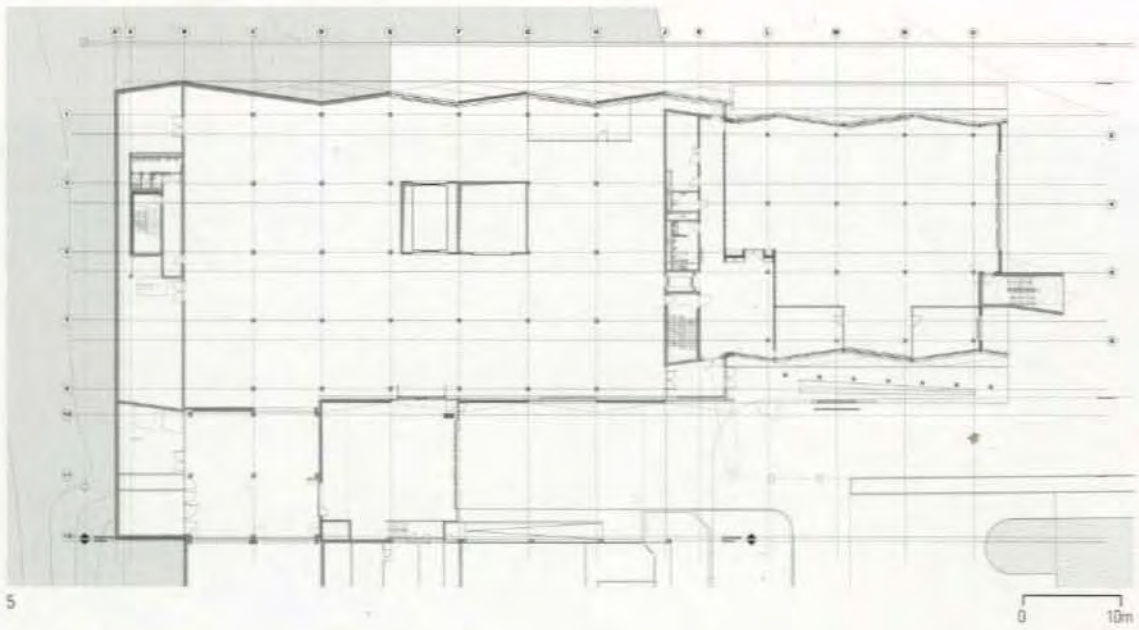












**Production and Office Facility  
Baar, Switzerland**

Barkow Leibinger Architects

Opposite:

Detail of west façade with copper  
standing seam cladding

5 Floor plan, level 01

6 Detail of transparent and translucent  
glass, office spaces

Photo credit: Margherita Spiluttini









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1

**Tyre-Fitting Shop/Art Exchange**  
**Zurich, Switzerland**

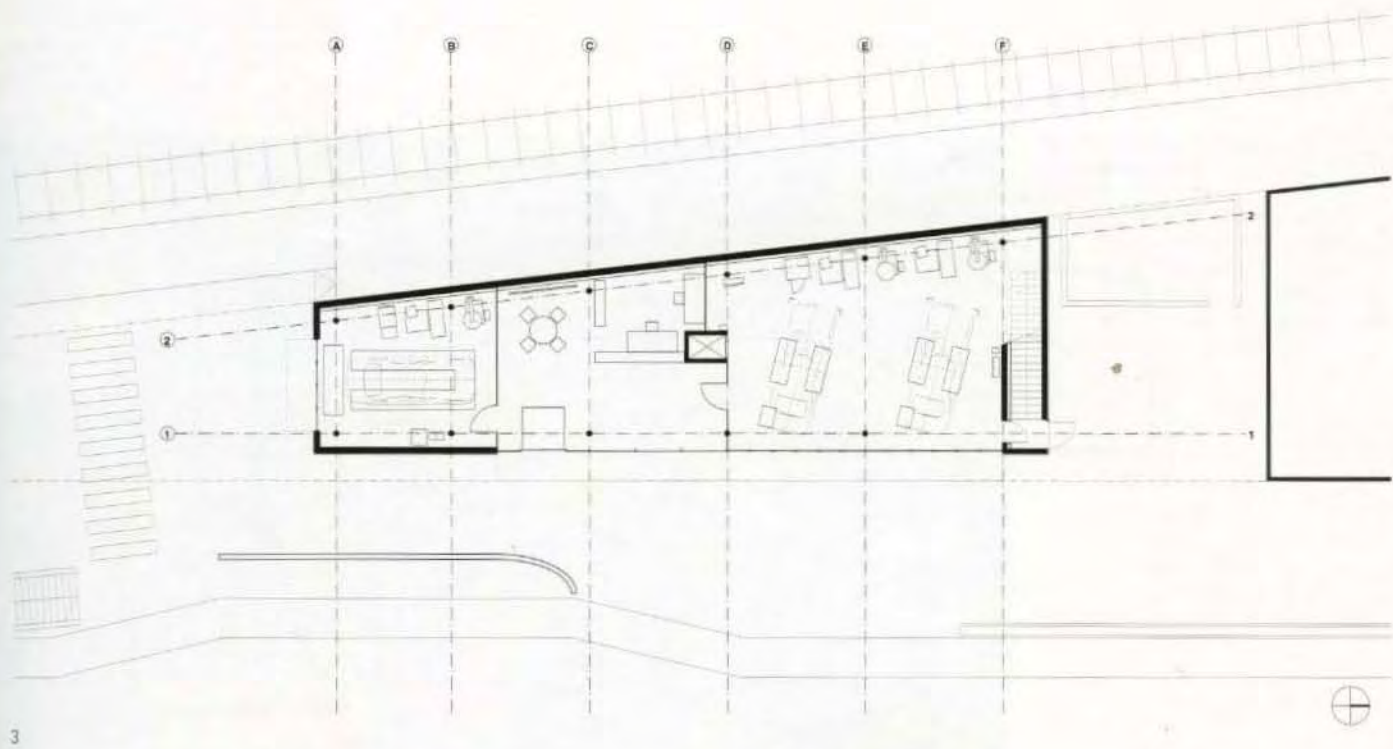
Camenzind Gräfensteiner

- 1 Building acts as a drive-by art gallery
- 2 Contextual view at night
- 3 Ground floor plan – workshop
- 4 Exterior, showing tyre-fitting workshop

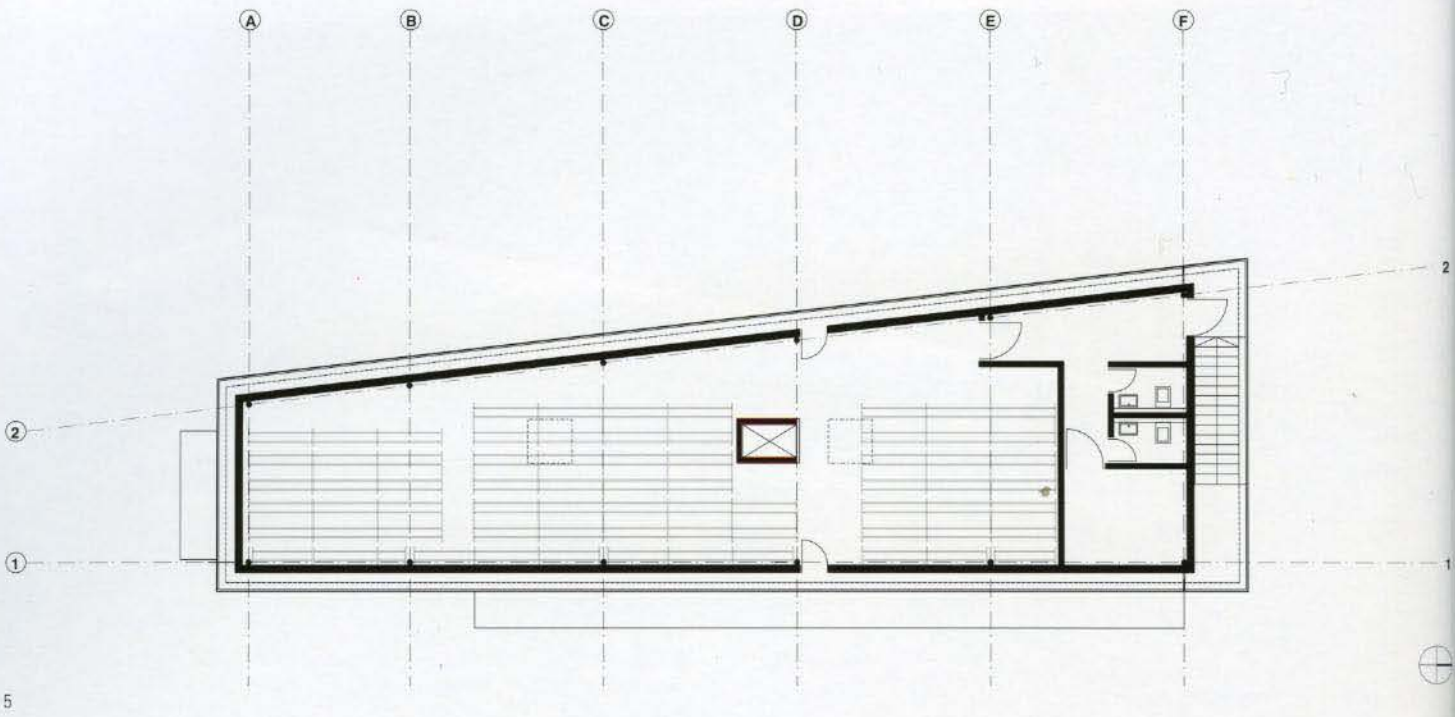
Photo credit: Martina Issler (1);  
 Peter Würmli (2,4)



2











**Tyre-Fitting Shop/Art Exchange**  
**Zurich, Switzerland**  
 Camenzind Gräfensteiner

- 5 First floor plan – tyre storage
- 6 Exhibition space 'cavity' on first floor
- 7 View from railway platform at dusk
- 8 View from railway platform at night
- 9&10 Interior of tyre-fitting workshop

Photo credit: Martina Isler (6,9,10);  
 Peter Wüfli (7,8)



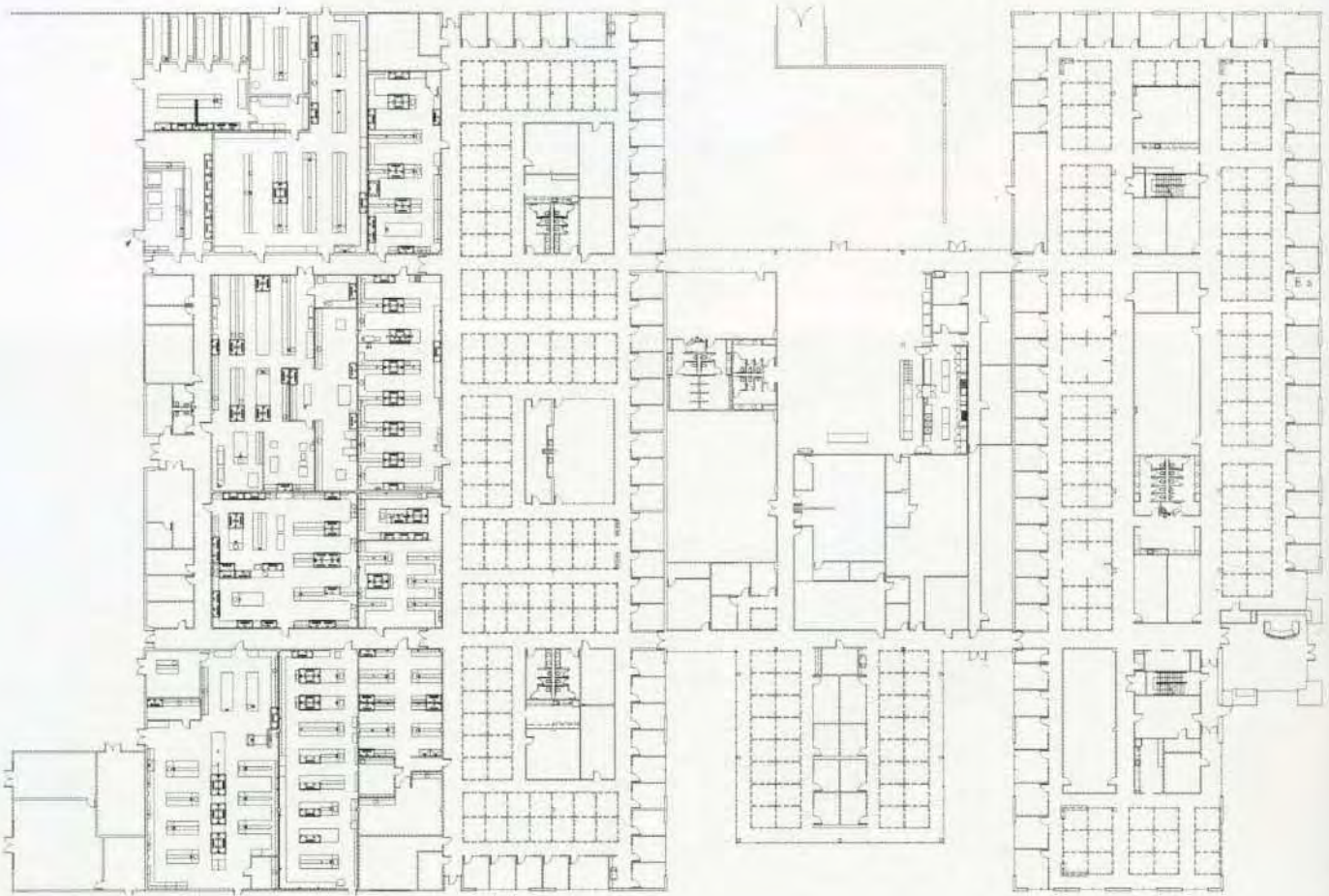




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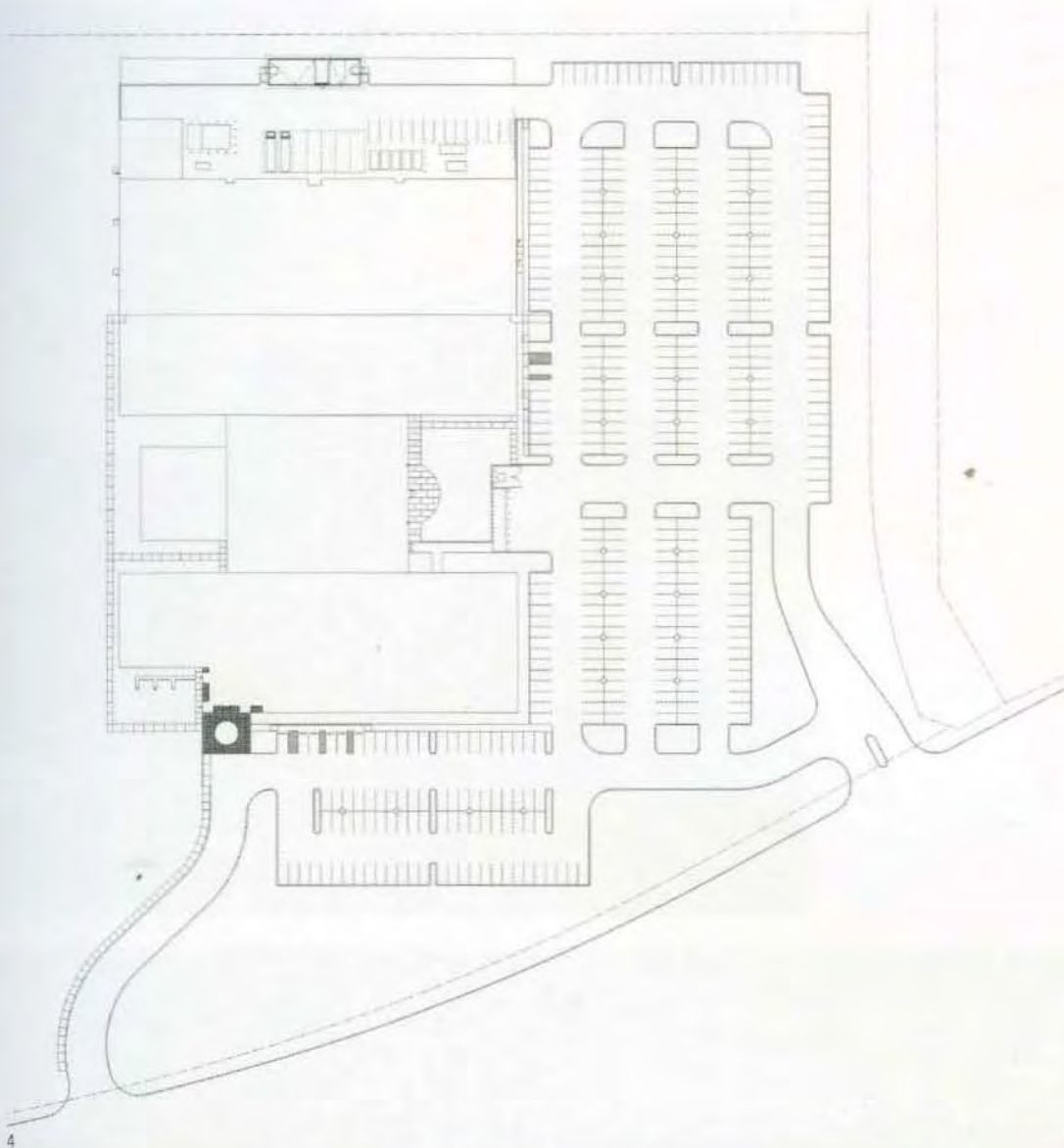
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**Baker Petrolite**  
**Sugar Land, Texas, USA**  
Kirksey Architecture

- 1 Exterior entryway
- 2 Data processing room
- 3 Floor plan
- 4 Site plan

5&6 Assessment Laboratory  
Photo credit: Aker/Zvonkovic Photography





4



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6



**Addition to Haas-Laser Factory**  
**Schramberg, Germany**  
Barkow Leibinger Architects  
1 View into central courtyard  
2 West elevation  
3 Site plan  
4 South elevation  
Photo credit: Margherita Spiluttini

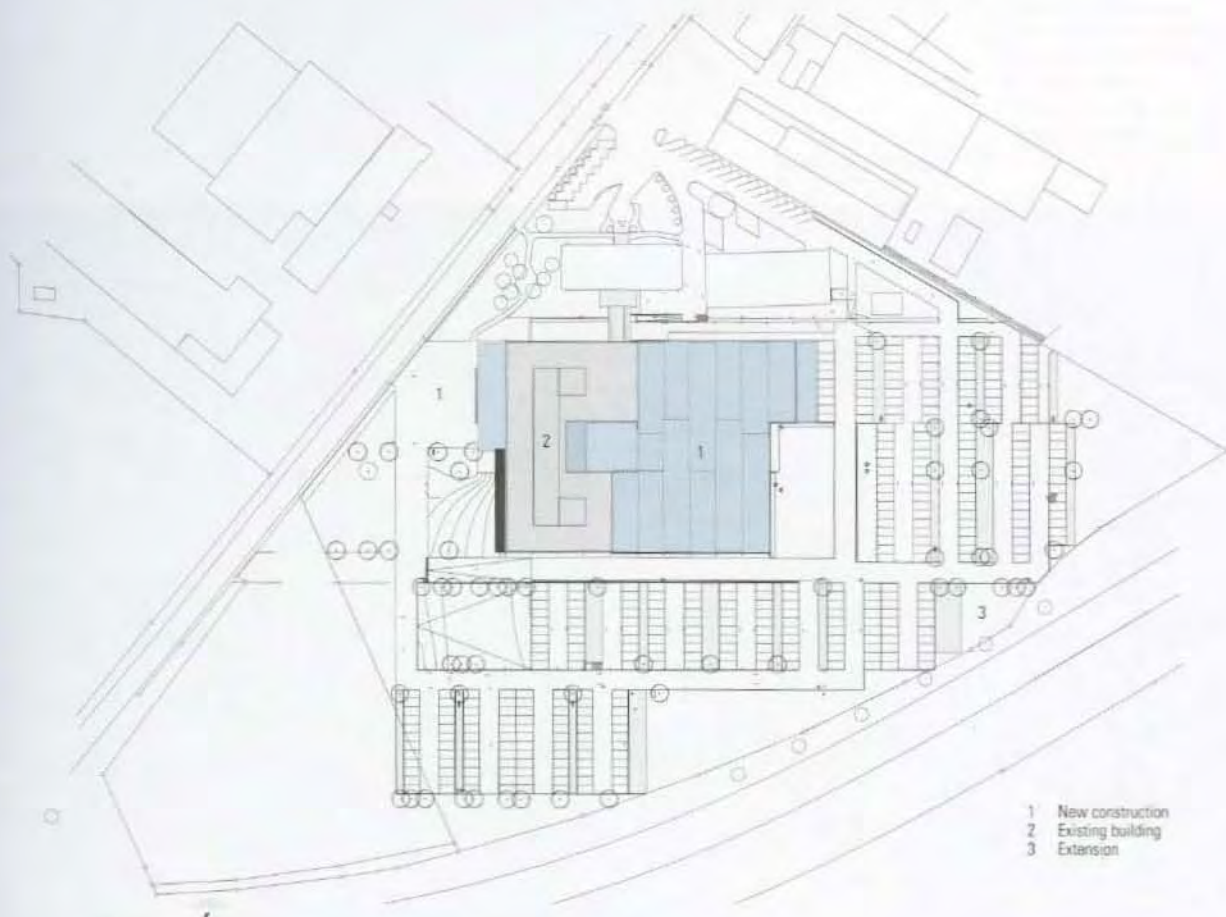


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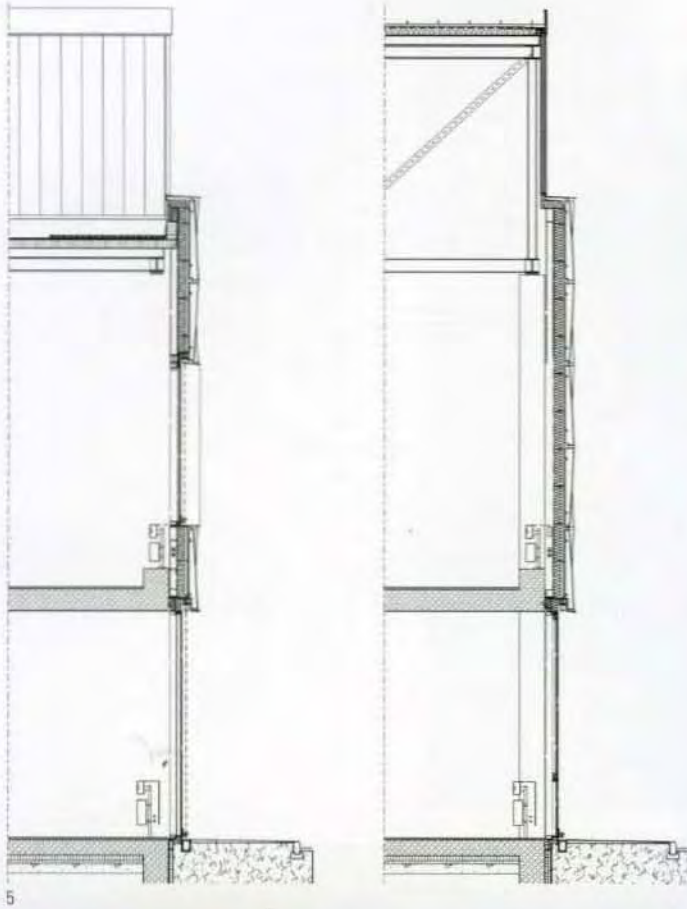


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**Addition to Haas-Laser Factory**

**Schramberg, Germany**

Barkow Leibinger Architects

5 Vertical section through exterior façade

6 Main staircase

7 South elevation, delivery area

Photo credit: Margherita Spiluttini



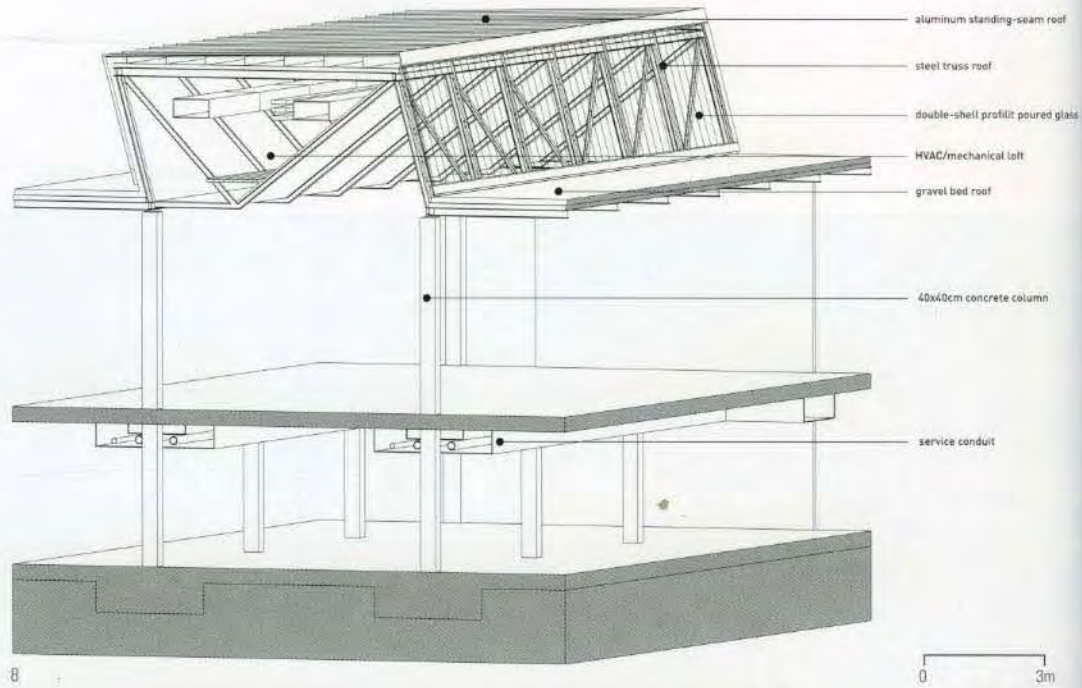


**Addition to Haas-Laser Factory  
Schramberg, Germany**

Barkow Leibinger Architects

- 8 Construction axonometric
- 9 Corridor with view into laboratories
- 10 Laboratories
- 11 Corridor with central courtyard
- 12 Axonometric diagram of steel construction

Photo credit: Margherita Spiluttini

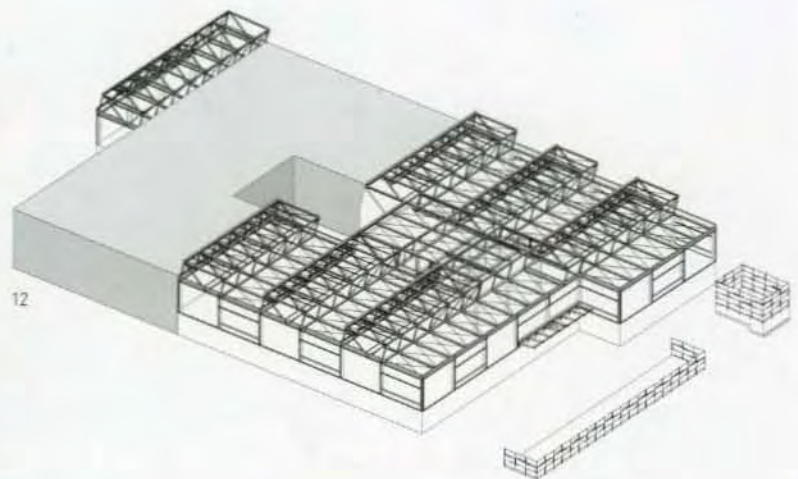


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**SIMEC: Siemens Microelectronics Center  
Dresden, Germany**  
ATP Achammer-Tritthart & Partner,  
architects and engineers

1 Aerial view from northwest showing  
administration block, central spine and  
two cleanrooms

2 Administration block (left) and cleanroom  
(right)

3 Southwest elevation of cleanroom

Photo credit: Dieter Leistner









**SIMEC: Siemens Microelectronics Center**  
**Dresden, Germany**  
ATP Achammer-Tritthart & Partner,  
architects and engineers  
4 Atrium of administration block  
5 Main entrance to central spine and  
administration block  
Photo credit: Dieter Leistner



4







**Maintrain Presentation Shop**  
**Auburn, New South Wales, Australia**  
HBO + EMTB

- 1 East view of facility
- 2 External exhaust flue for 52-meter-long spray booth

Photo credit: Andrew Worssam







3



**Maintrain Presentation Shop**  
Auburn, New South Wales, Australia  
HBO + EMTB

3 Exterior

4 Soda wash booth (for graffiti removal)  
and final detailing road

Photo credit: Andrew Worssam

4





**Rochester Institute of Technology  
Center for Integrated Manufacturing Studies  
Rochester, New York, USA  
SWBR Architects & Engineers, P.C.**

- 1 Typical manufacturing bay
- 2 Manufacturing lab

Photo credit: courtesy SWBR Architects (1);  
Tim Wilkes (2)



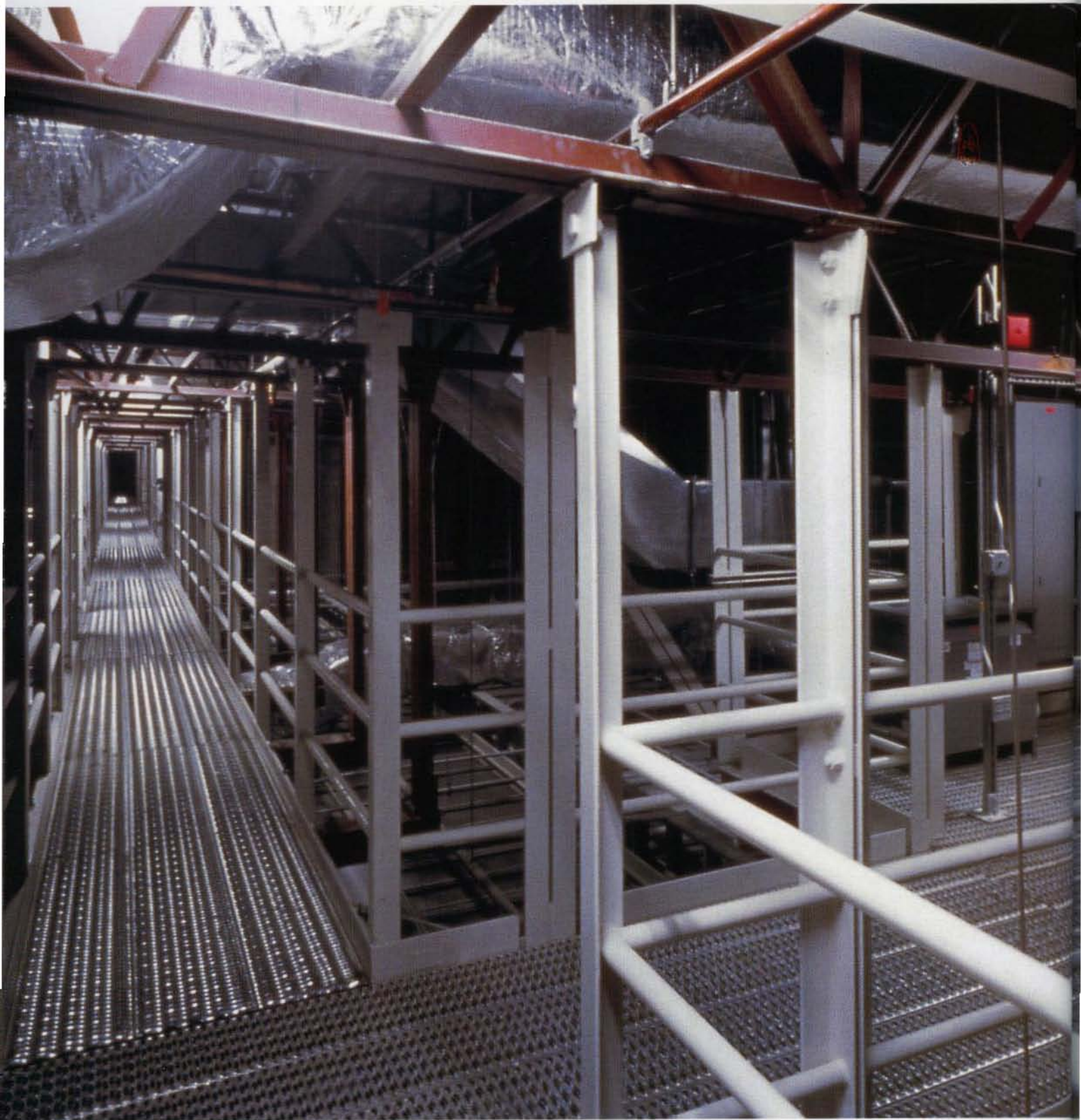




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**Streck Laboratories**  
**Omaha, Nebraska, USA**  
DLR Group

- 1 Aerial view
  - 2 Clean laboratory
  - 3 Catwalk – all electrical and mechanical units, and reverse osmosis equipment are accessed via catwalk
  - 4 25,000-square-foot warehouse is located between shipping and receiving areas
- Photo credit: Tom Kessler





**Bangkok Motor Works**  
**Greater Bangkok, Thailand**  
SJA 3D Co., Ltd.

- 1 Front of factory showing office sunshades
- 2 Main entrance hall seen from reflecting pool
- 3 Interior view of factory
- 4 Canopy at entrance
- 5 Detail of sunshades

Photo credit: courtesy SJA 3D Co., Ltd.



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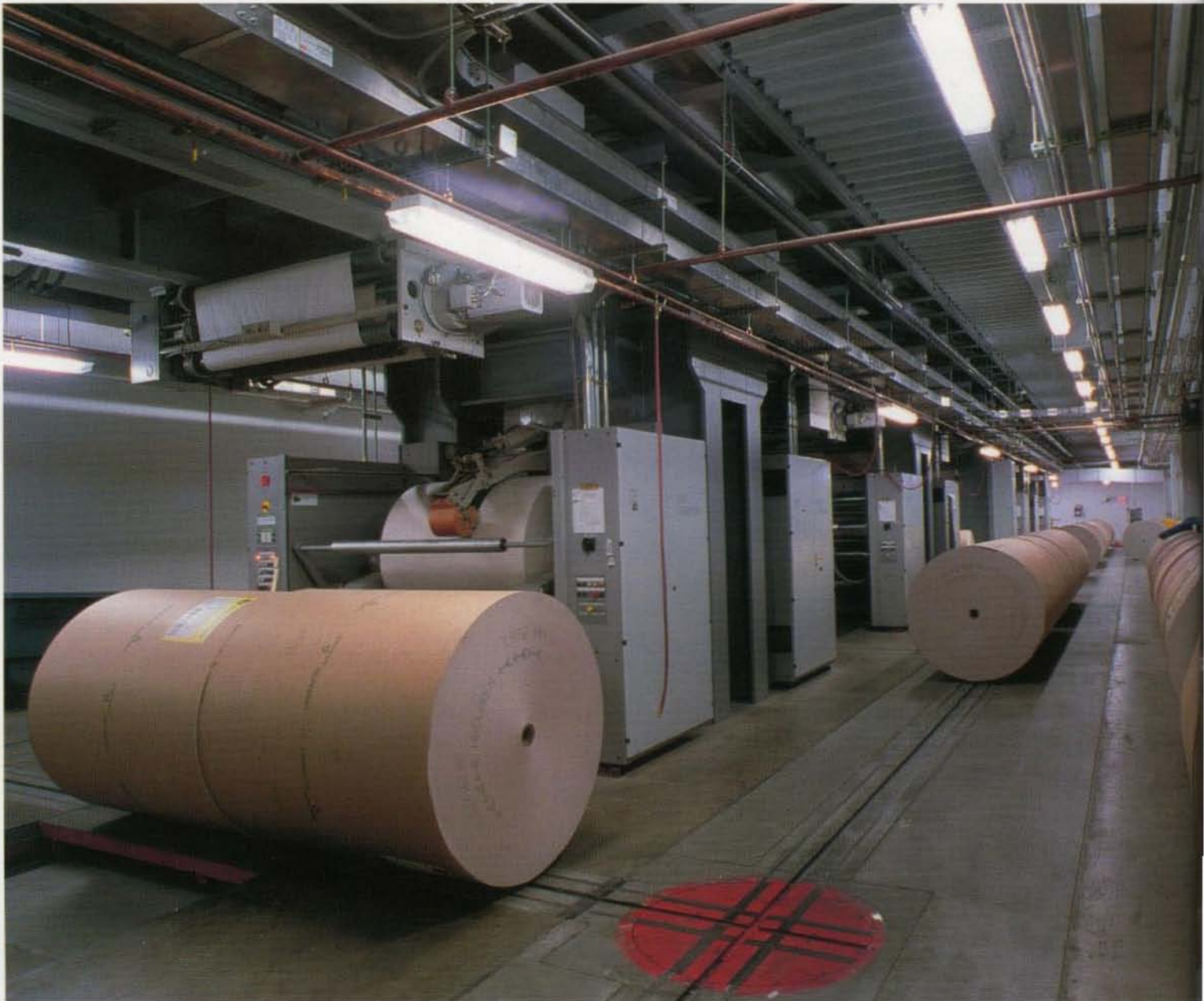


**Gannett Rochester Newspapers Production Facility**  
**Rochester, New York, USA**  
SWBR Architects & Engineers, P.C.

- 1 Press bay
  - 2 Paper loading area
- Opposite:  
Operator control room
- Photo credit: John Griebisch



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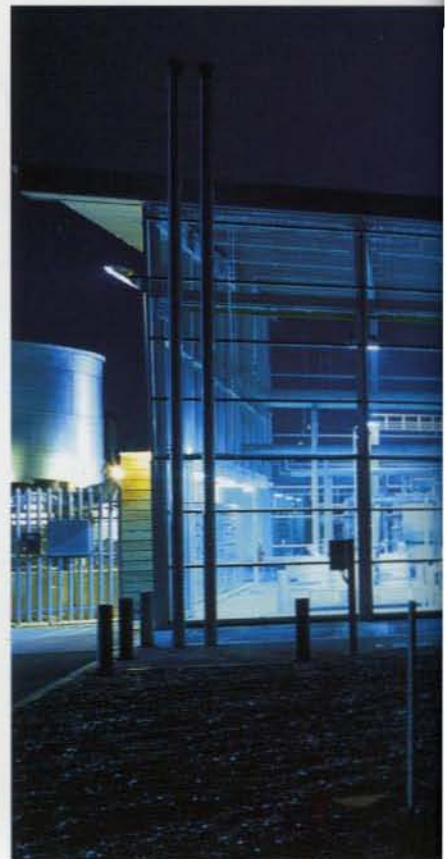
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**Water Treatment Plant  
(part of the Water Reclamation and  
Management Scheme)  
Olympic Park, Sydney,  
New South Wales, Australia**  
Woods Bagot Pty Ltd

- 1 View of pavilion and reflecting pool
- 2 Night view of external tank area, pavilion and reflecting pool
- 3 Night view demonstrating transparency of pavilion
- 4 Day view of visitor information 'box', projecting box gutter and reflecting pool

Following pages

Night view of pavilion with Olympic Park and the Olympic Flame visible in background

Photo credit: Martin van der Wal, Dyarchy Pty Ltd







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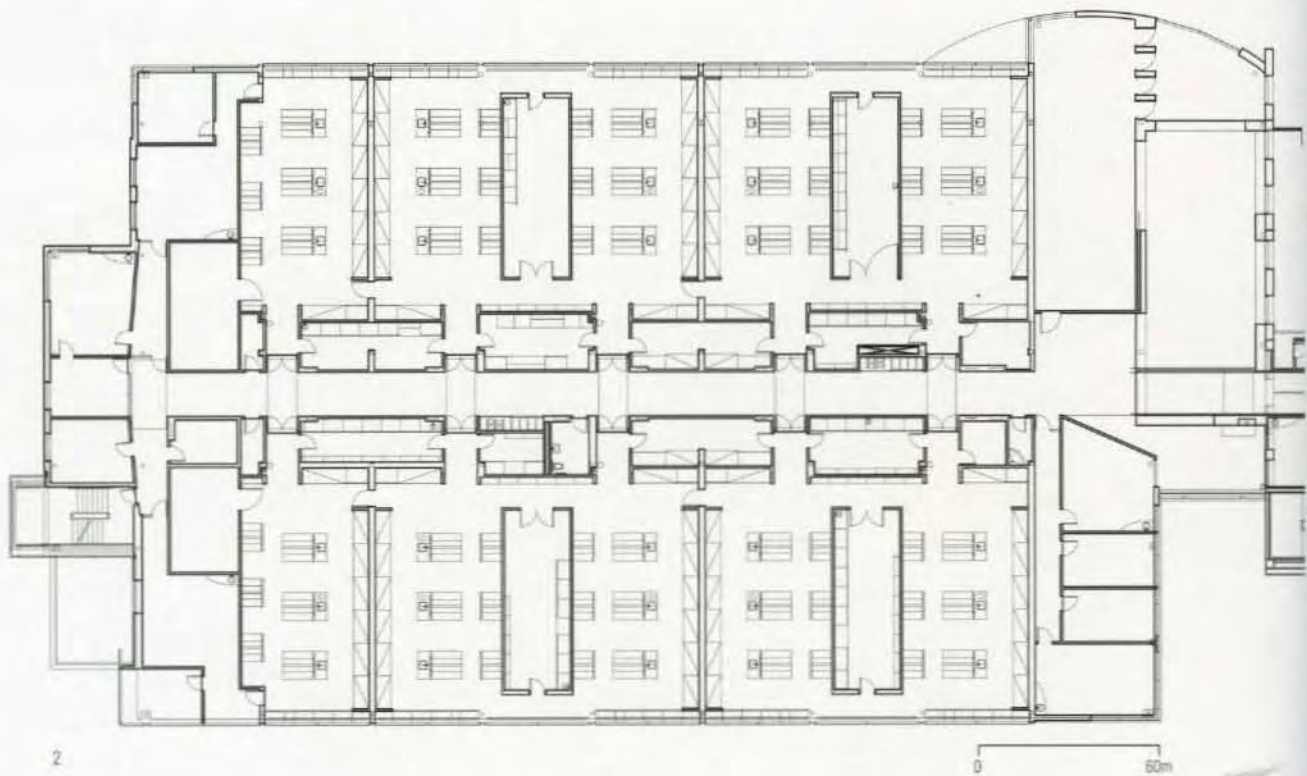
**Water Treatment Plant  
(part of the Water Reclamation and  
Management Scheme)  
Olympic Park, Sydney,  
New South Wales, Australia  
Woods Bagot Pty Ltd**

- 6 Night view from reflecting pool looking towards Olympic Stadium
- 7 Water recycling equipment
- 8 Water recycling equipment allows views through pavilion
- 9&10 Color-coded equipment in water treatment plant defines water recycling process back to viewer

Photo credit: Martin van der Wal, Dyarchy Pty Ltd











4



**Lash Miller Chemistry Building, Davenport Wing**  
**University of Toronto**  
**Toronto, Ontario, Canada**  
 Diamond and Schmitt Architects Incorporated  
 1 South entry with view to Knox College  
 2 Floor plan  
 3 South entry  
 4 Typical stair  
 5 Research laboratory  
 Photo credit: Steven Evans





1



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3



4



5

**Honeywell – Garrett M3 Building**  
**Mexicali B.C., Mexico**

Taller de Arquitectura PEVI

- 1 Main entrance view
- 2&3 Main entrance detail
- 4 Loading docks and equipment areas render
- 5 Employee entrance render view
- 6&7 Façade details

Photo credit: Francisco Arce





6



7



**Honeywell – Garrett M3 Building**  
**Mexicali B.C., Mexico**

Taller de Arquitectura PEVI

8 Day care center render view

9 Aerial view render

10 Interior lobby view

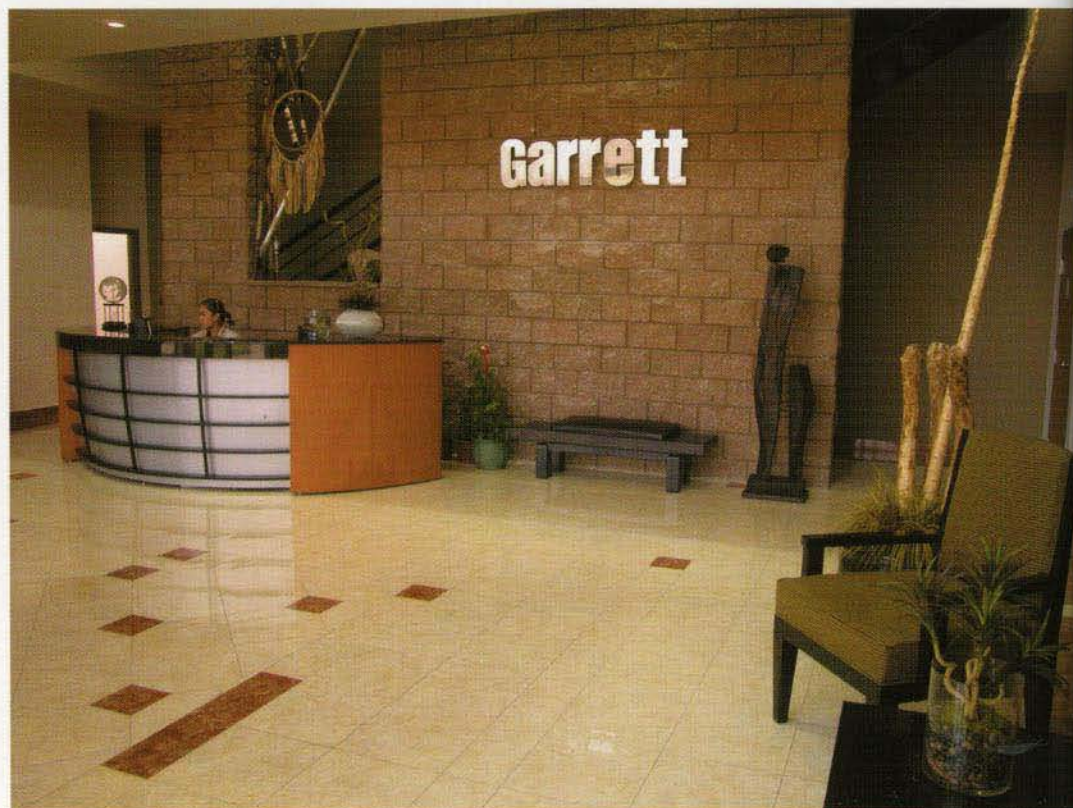
Photo credit: Francisco Arce



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**Standard Factory in Science-based Industrial Park  
Hsinchu, Taiwan**

J.J. Pan & Partners, Architects and Planners

1 Night view

2 General front and plaza view

Photo credit: Min-Shiung Tsien (1); David Chen (2)





**Standard Factory in Science-based Industrial Park**

**Hsinchu, Taiwan**

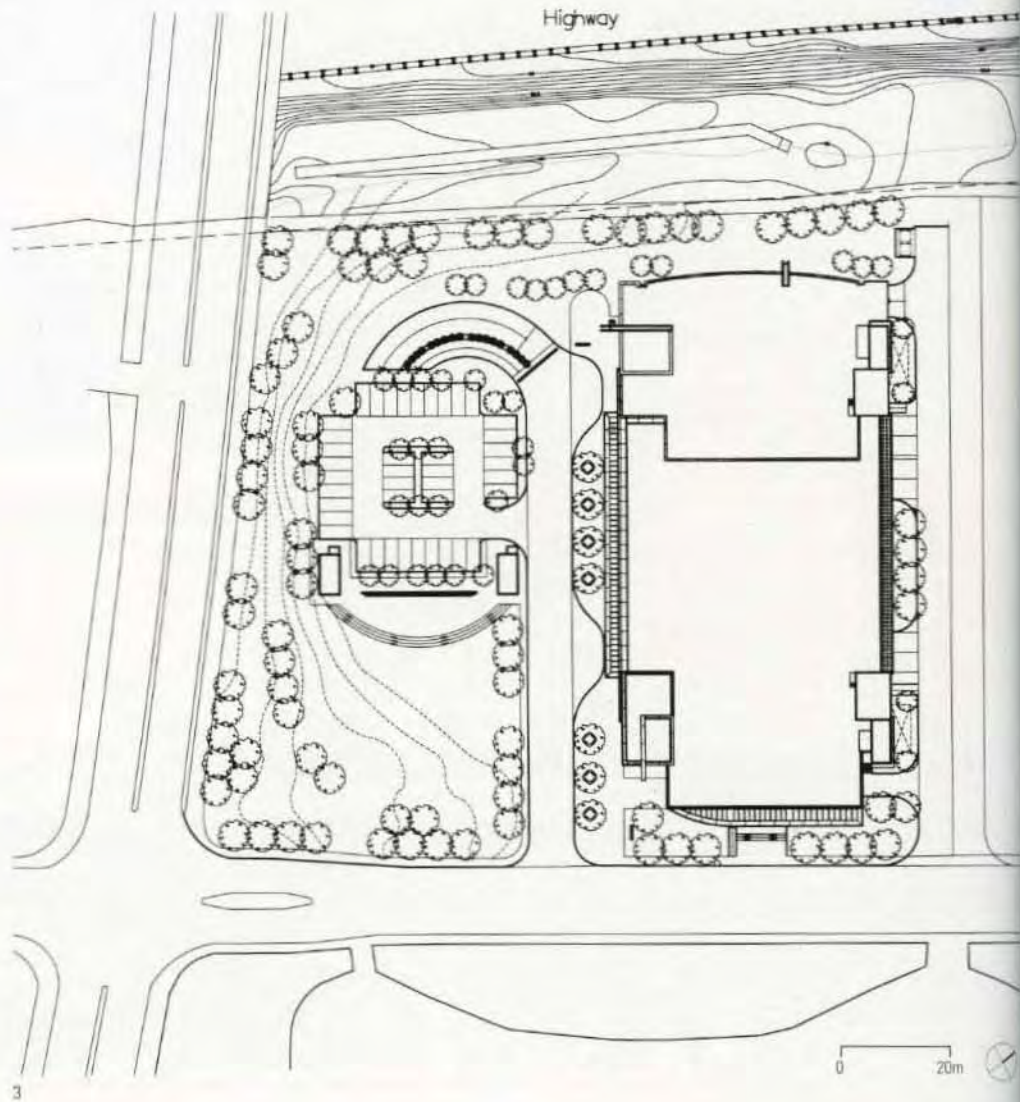
J.J. Pan & Partners, Architects and Planners

3 Site plan

4 Entry canopy

5 General front view

Photo credit: David Chen (4), Min-Shiung Tsien (5)







2



4

**Heinrich Nölke GmbH & Co Meat Processing Plant  
Vermold, Germany**

ATP Achammer-Tritthart & Partner, architects and engineers

- 1 Aerial view showing administration block (left), processing block (right) and triple-story distribution spine
- 2 Main entrance to administration block
- 3 First section of triple-story distribution spine
- 4 Goods access

Photo credit: Akzente Telgte, Claudia Franz



**Embonor S.A / Coca Cola**  
**Viña del Mar, Chile**

Guillermo Hevia & Asociados/Arquitectos

- 1 Bow window detail
- 2 Detail of side façade, sugar warehouse
- 3 Curved revetments/supported reticular beam
- 4 Transverse section
- 5 Site plan
- 6 Factory building/piping detail
- 7 Factory building
- 8 Elevation

Photo credit: courtesy Guillermo Hevia



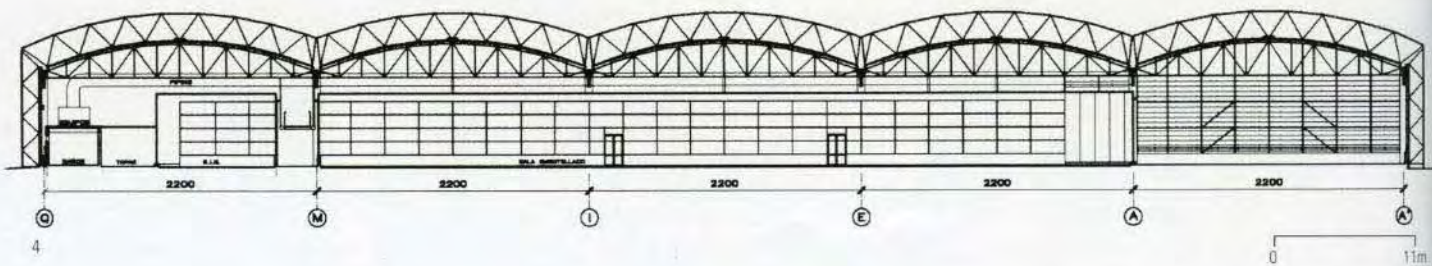
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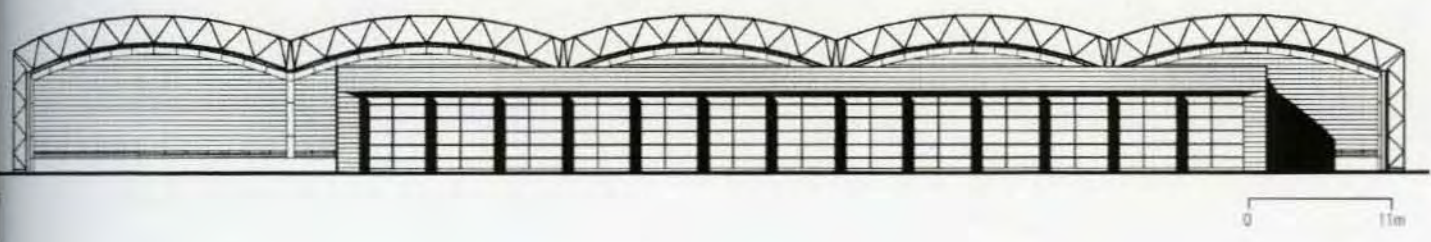




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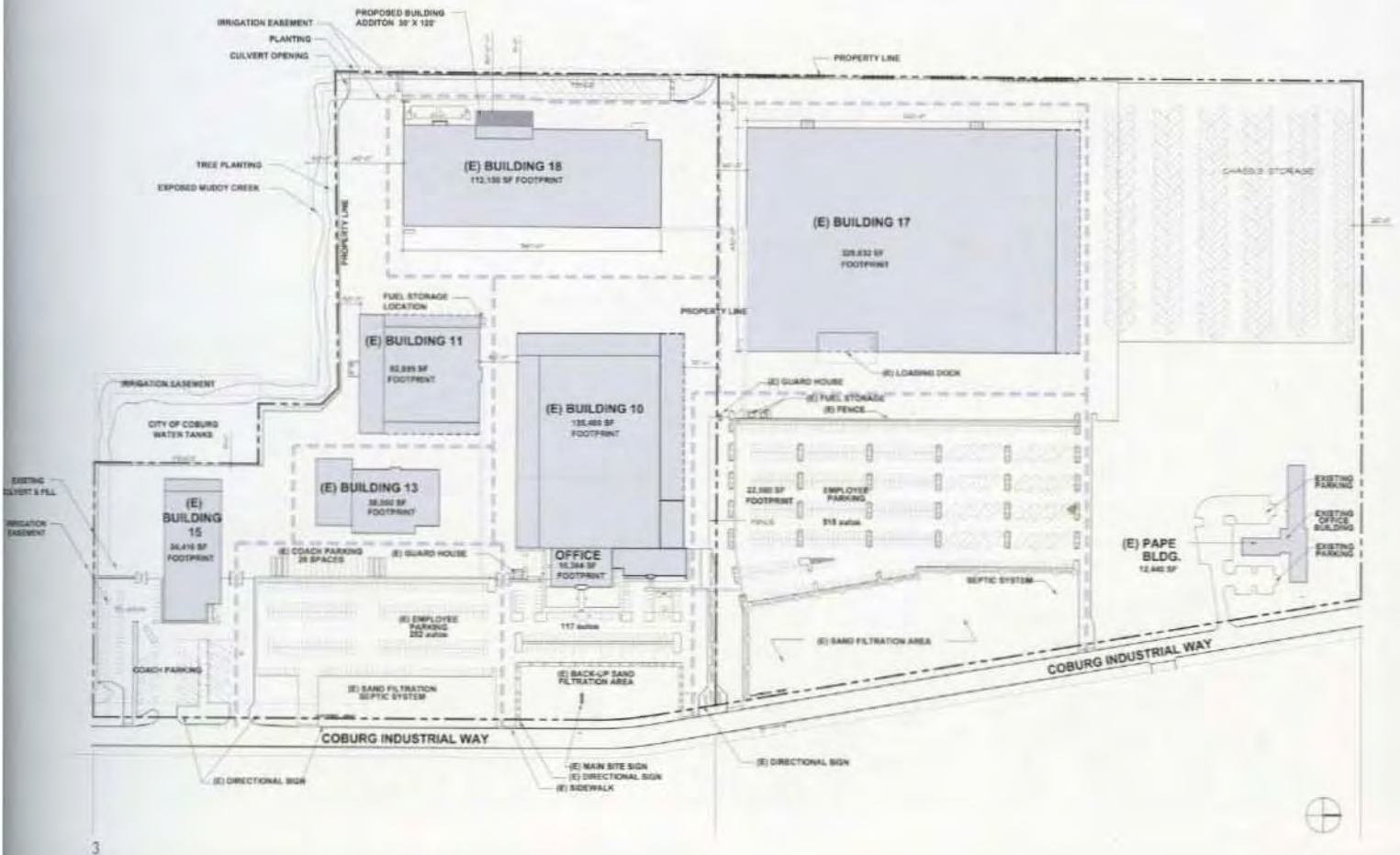
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**Monaco Coach Corporation**

**Coburg, Oregon, USA**

WBGS Architecture & Planning, PC

1 Exterior view, utility building (see site plan, 18)

2 Gas products building (see site plan, 17)

3 Site plan

4 Paint booth exhaust system (see site plan, 18)

Following page:

5 Main production plant (see site plan, 10)

6 Final finish line (see site plan, 18)

Photo credit: Steve Smith, Photoregon





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6



**Kurita Water Industries Business &  
Technology Development Center**

**Tochigi, Japan**

Shimizu Corporation

1 Main entrance

2 View of the courtyard symbolizing water

Photo credit: Shinkenchiku-sha





**Kurita Water Industries Business  
& Technology Development Center  
Tochigi, Japan**

Shimizu Corporation

3 Night view

4 Green promenade

Opposite:

General view

Photo credit: Enekkis (3,opposite);

Shinkenchiku-sha (4)



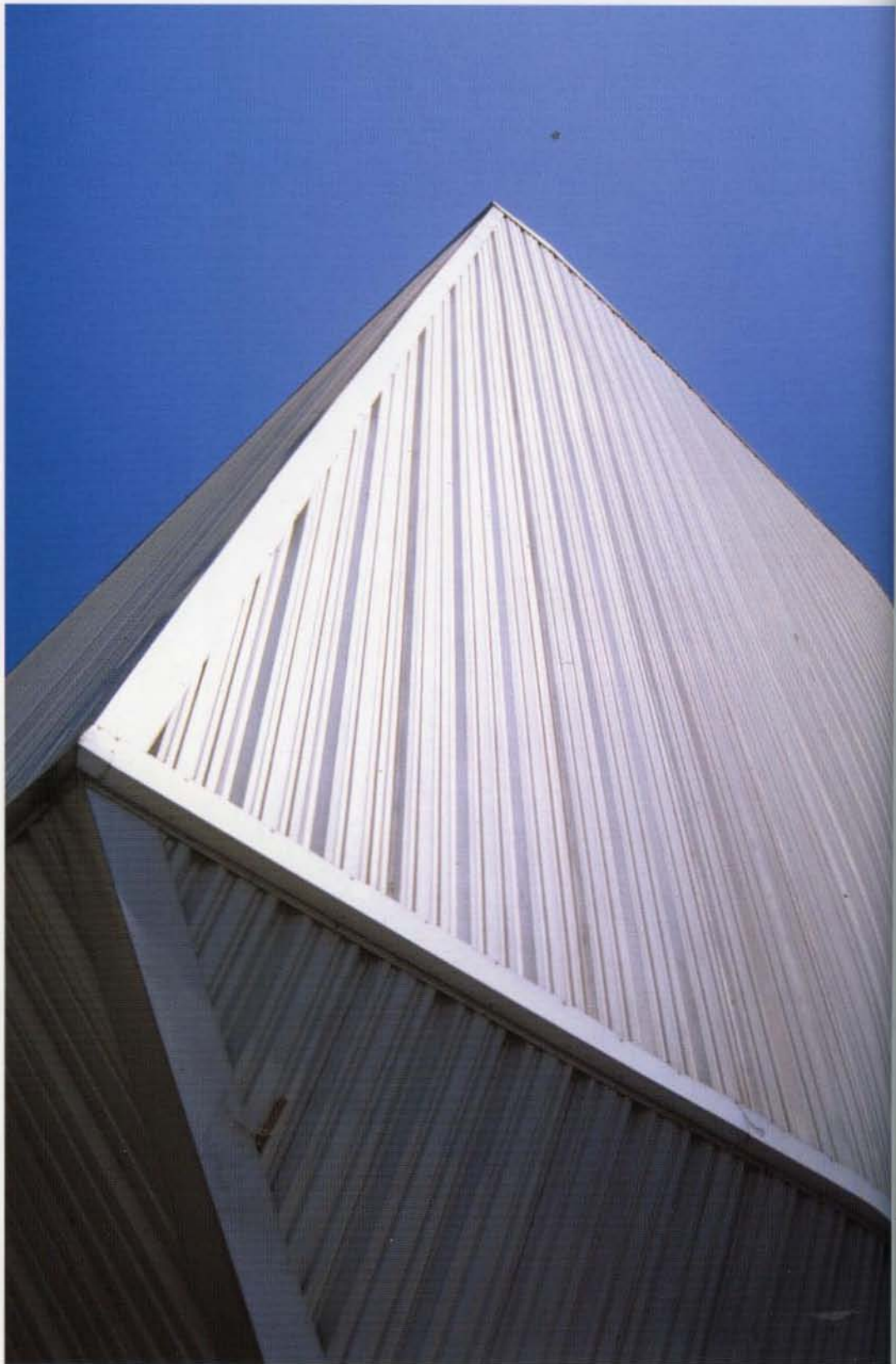
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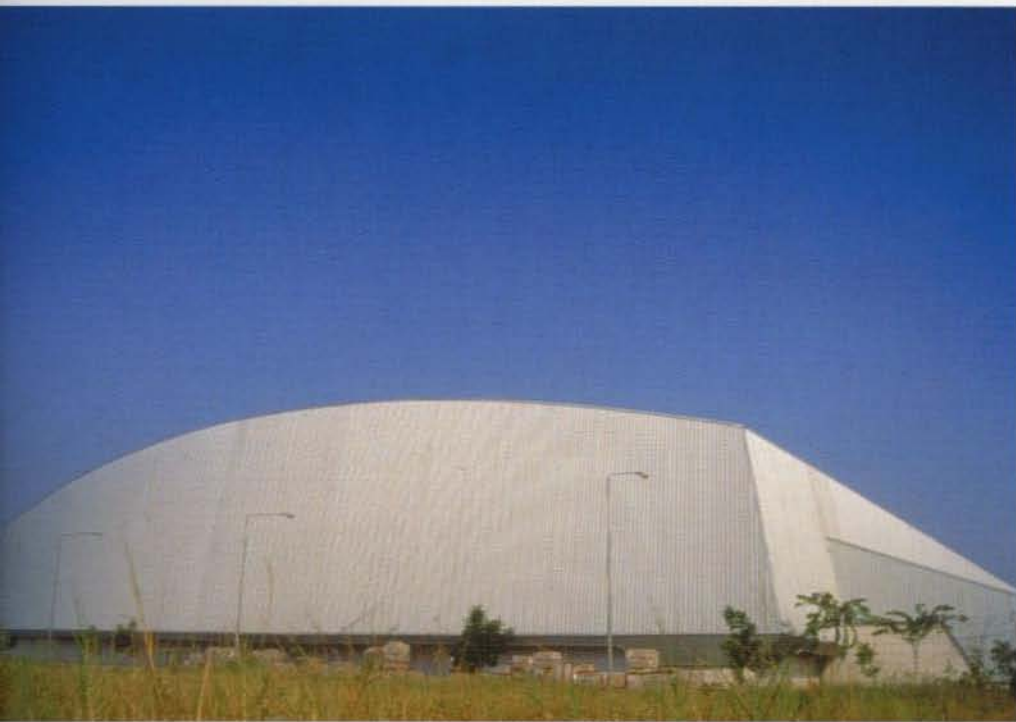








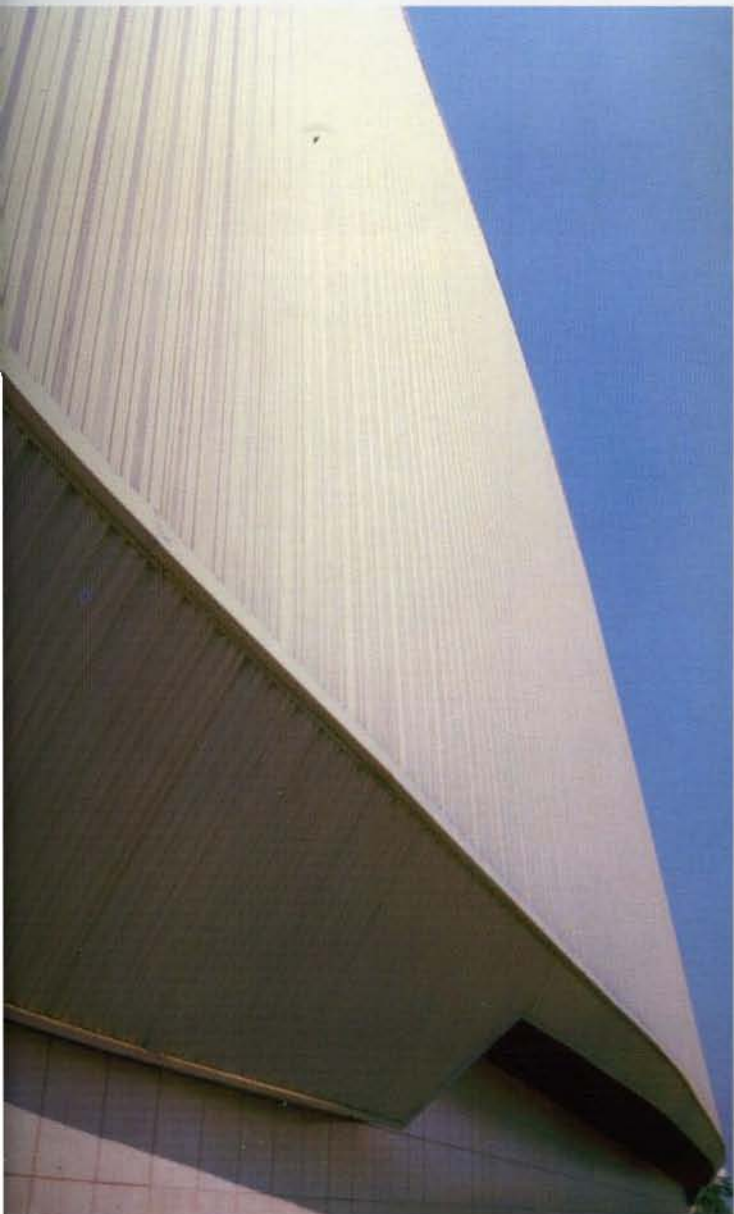




**Thai German Ceramics Factory**  
**Saraburi Province, Thailand**  
SJA 3D Co., Ltd.

- 1 Aerial view
- 2 Cladding detail
- 3 Exterior
- 4 Ventilation aperture detail
- 5 South façade
- 6 Production line

Photo credit: courtesy SJA 3D Co., Ltd (1,2,4,6);  
Art4d (3,5)



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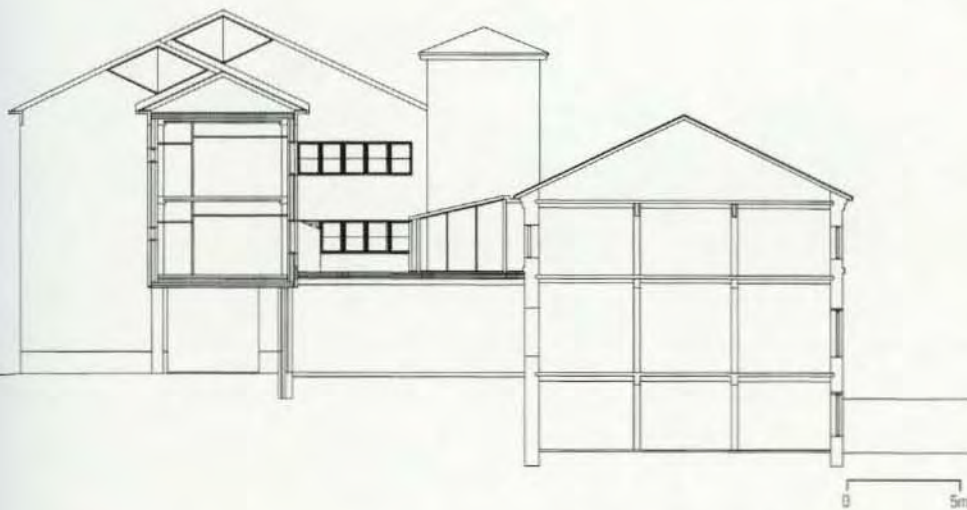


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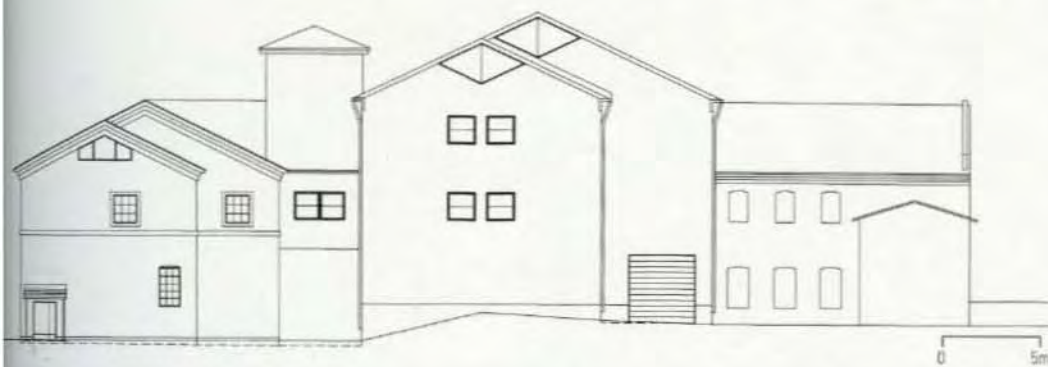
**Enso Research Institute  
Imatra, Finland**

Juhani Katainen Architects

- 1&3 Laboratories
- 2 Courtyard between existing building and new extension
- 4 Section
- 5 Elevation

Following pages:  
Laboratory

Photo credit: Hannu Koivisto















1



66

2



**Will Rogers Airport Snow Barn**  
Oklahoma City, Oklahoma, USA  
Elliott + Associates Architects

- 1 North elevation
- 2 Southwest corner
- 3 West elevation
- 4 West elevation detail

Photo credit: Robert Shimer/Hedrich-Blessing











**Will Rogers Airport Snow Barn**  
**Oklahoma City, Oklahoma, USA**

Elliott + Associates Architects

Opposite:

Northwest corner service door

6 Training room

Photo credit: Robert Shimer/Hedrich-Blessing



**Will Rogers Airport Snow Barn**  
**Oklahoma City, Oklahoma, USA**  
Elliott + Associates Architects

7 Equipment storage area looking south

8 Section

9 Equipment storage area looking west

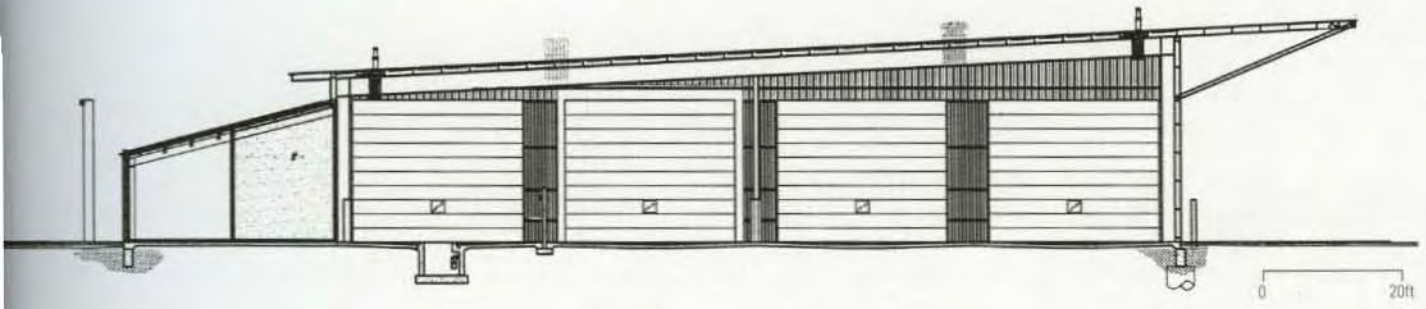
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Looking north from equipment storage area towards offices and tire change area

Photo credit: Robert Shimer/Hadrich-Blessing



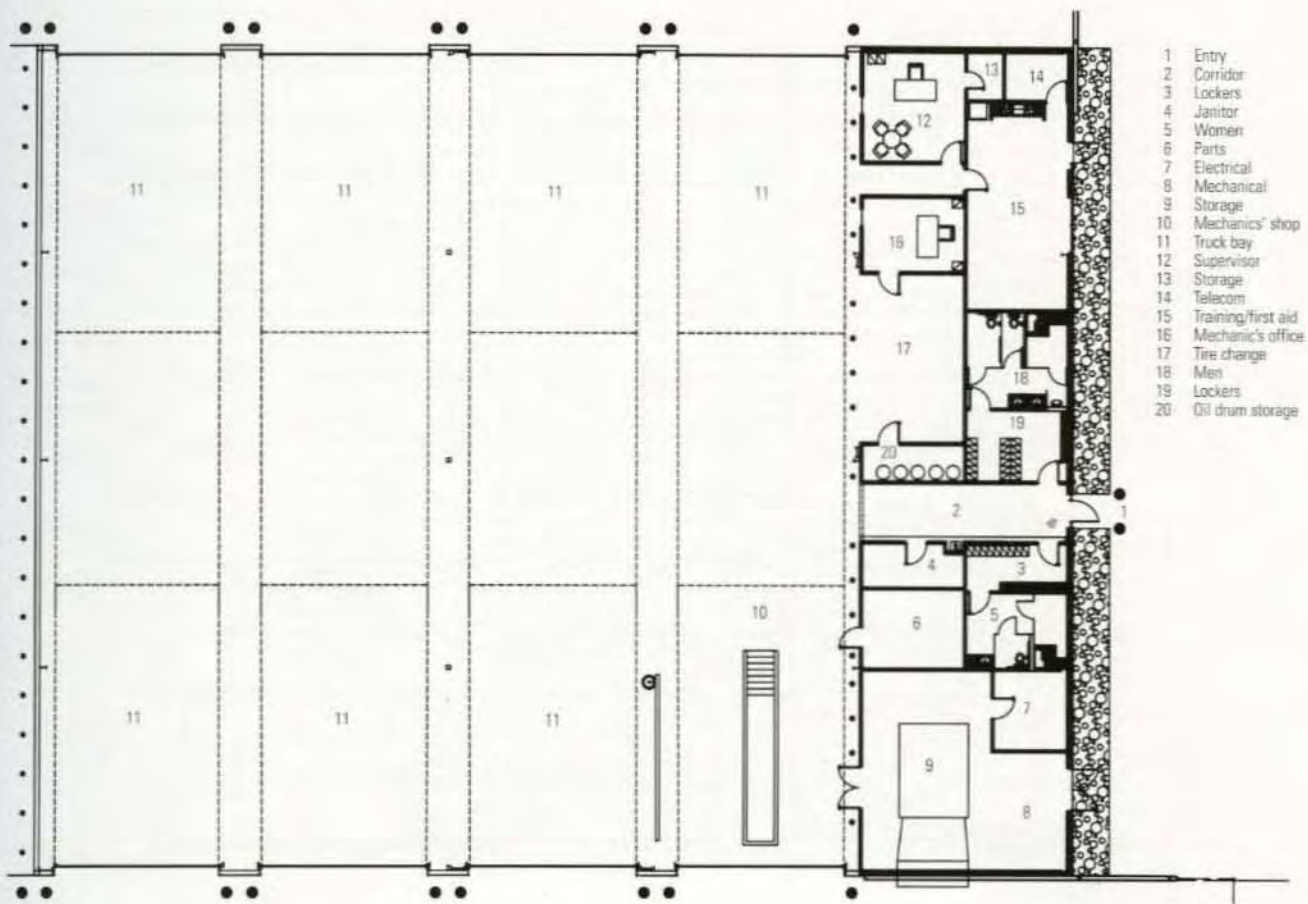












- 1 Entry
- 2 Corridor
- 3 Lockers
- 4 Janitor
- 5 Women
- 6 Parts
- 7 Electrical
- 8 Mechanical
- 9 Storage
- 10 Mechanics' shop
- 11 Truck bay
- 12 Supervisor
- 13 Storage
- 14 Telecom
- 15 Training/first aid
- 16 Mechanic's office
- 17 Tire change
- 18 Men
- 19 Lockers
- 20 Oil drum storage

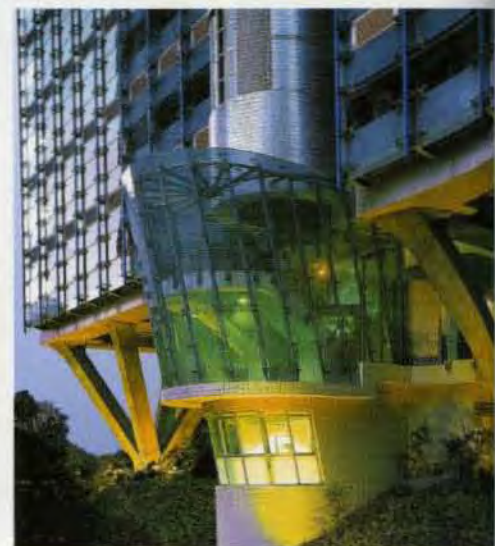
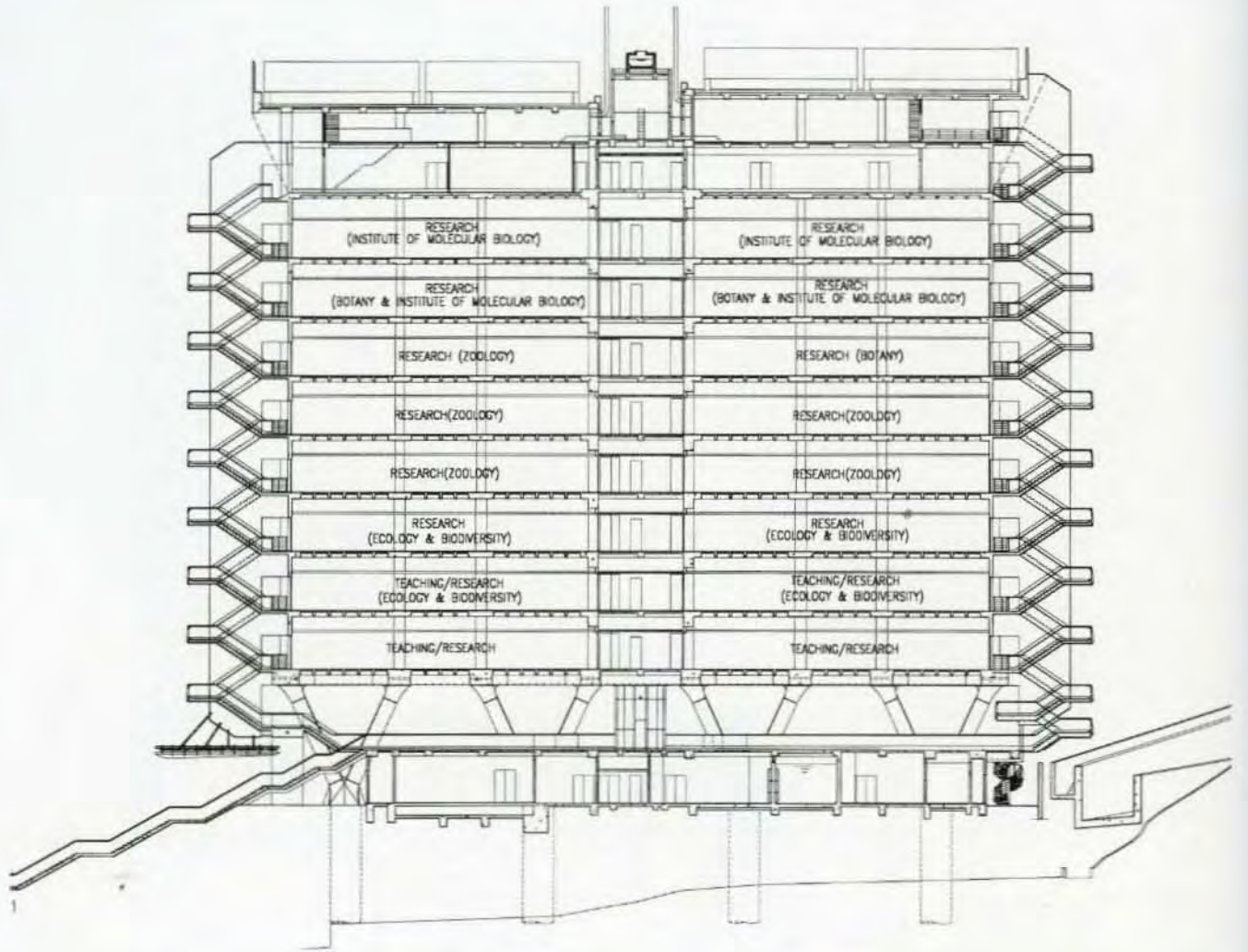


**Will Rogers Airport Snow Barn  
Oklahoma City, Oklahoma, USA**  
Elliott + Associates Architects

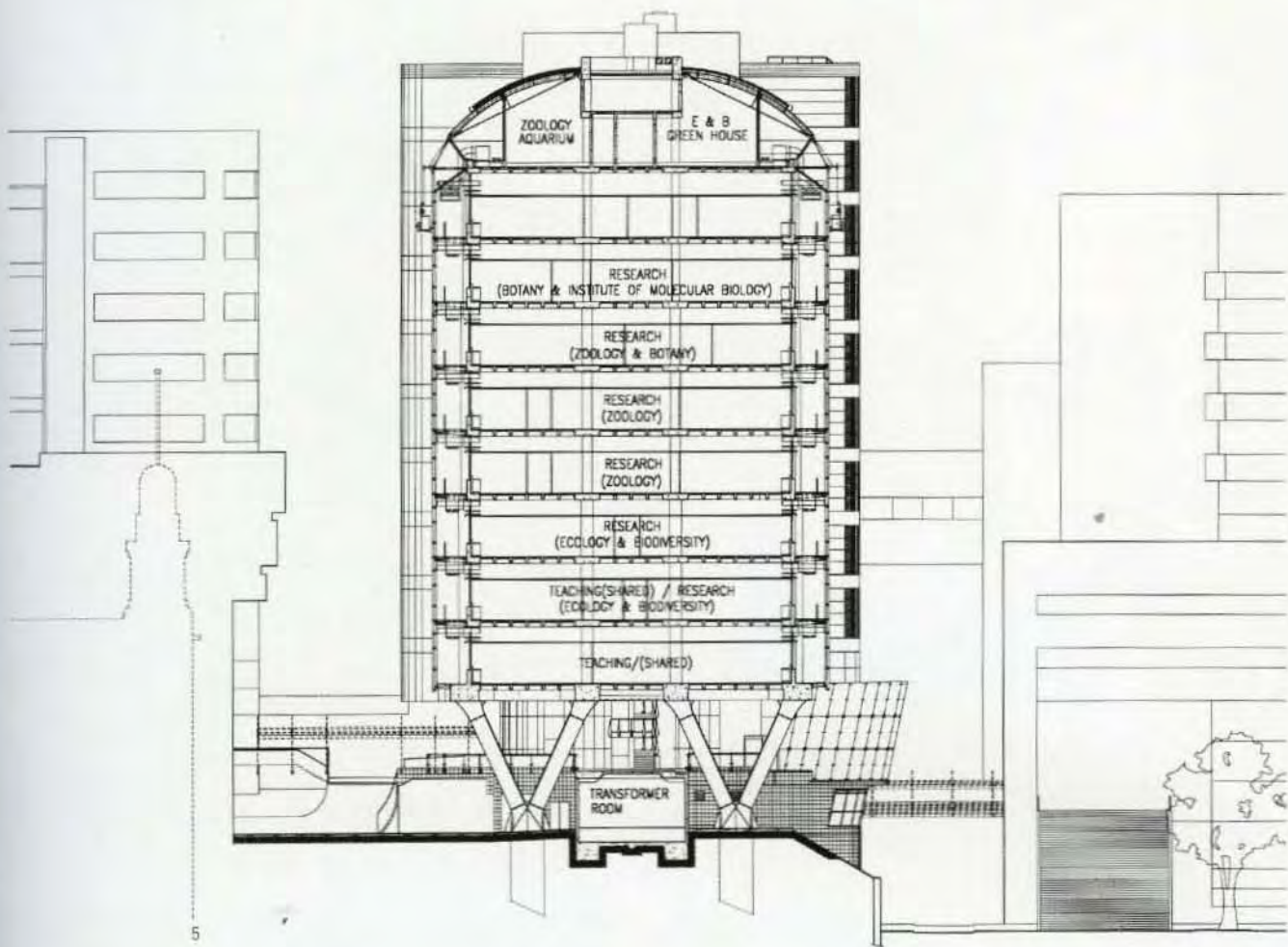
- 11 Mechanics' pit/wash bay
- 12 Floor plan
- 13 Equipment storage area looking southeast

Photo credit: Robert Shimer/Hedrich-Blessing









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**University of Hong Kong, Kadoorie Biological Sciences Building  
Hong Kong SAR, PRC**  
Leigh & Orange Ltd.

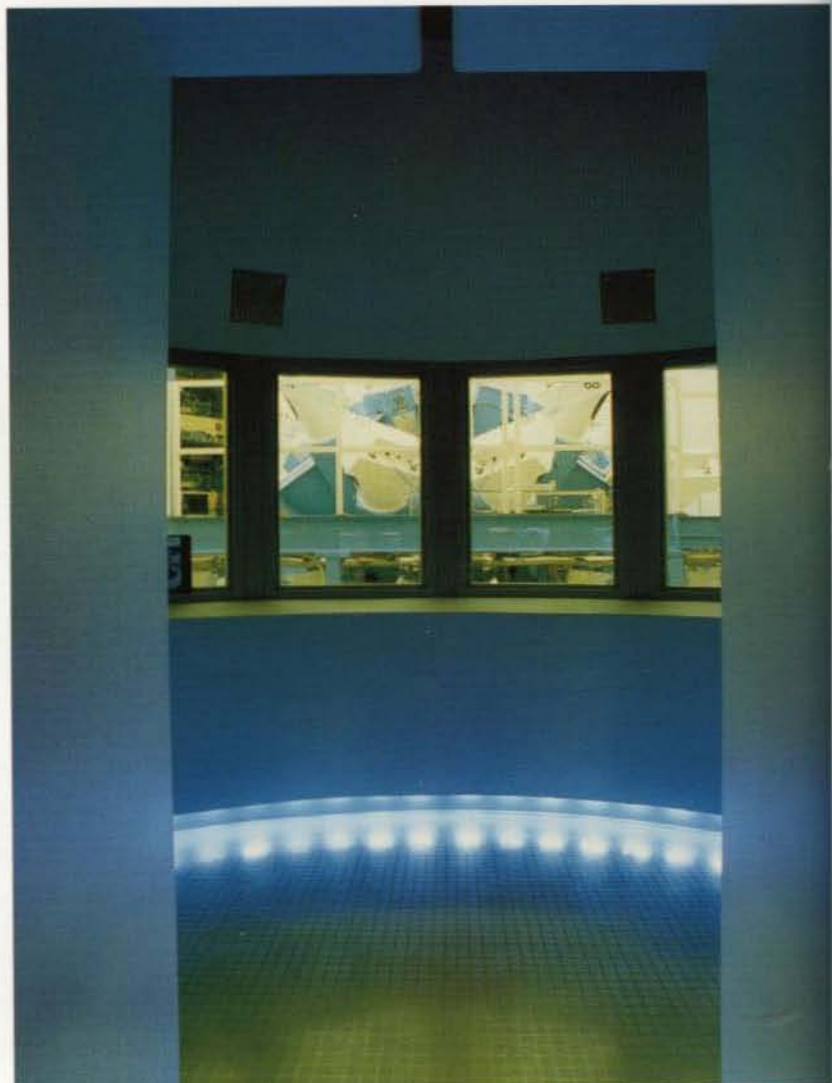
- 1 Long section
- 2 Façade view
- 3 External wall detail
- 4 Main staircase lobby
- 5 Short section
- 6 Podium entrance at night
- 7 Typical laboratory

Photo credit: courtesy Leigh & Orange Ltd.





1



2

**University of Rochester Laboratory for Laser Energetics**  
**Omega Upgrade**  
**Rochester, New York, USA**  
SWBR Architects & Engineers, P.C.

1 Laser viewing area  
2 Target bay

Photo credit: John Griebisch





**Coopers Brewery**  
**Adelaide, South Australia, Australia**  
Woods Bagot Pty Ltd

- 1&4 Corporate entry
- 2 External view brew house
- 3 Corporate reception
- 5 Internal view brew house, operating floor

Photo credit: Kevin O'Daley, Aspect Photography

2



4





**Herman Miller Cherokee Operations**  
**Canton, Georgia, USA**  
Mack Scogin Merrill Elam Architects  
formerly Scogin Elam and Bray Architects

- 1 Aerial view
- 2 Accessible inclined walkways between office and garden walls
- 3 Site plan
- 4 View from east across stormwater management terraces

Photo credit: Timothy Hursley



1



2





- |               |                      |
|---------------|----------------------|
| 1 Highway 5   | 7 Parking            |
| 2 Assembly    | 8 Stormwater terrace |
| 3 Fabrication | 9 Retention pond     |
| 4 Offices     | 10 Future expansion  |
| 5 Receiving   | 11 Creek             |
| 6 Shipping    | 12 Etowah River      |





**Herman Miller Cherokee Operations**

**Canton, Georgia, USA**

Mack Scogin Merrill Elam Architects

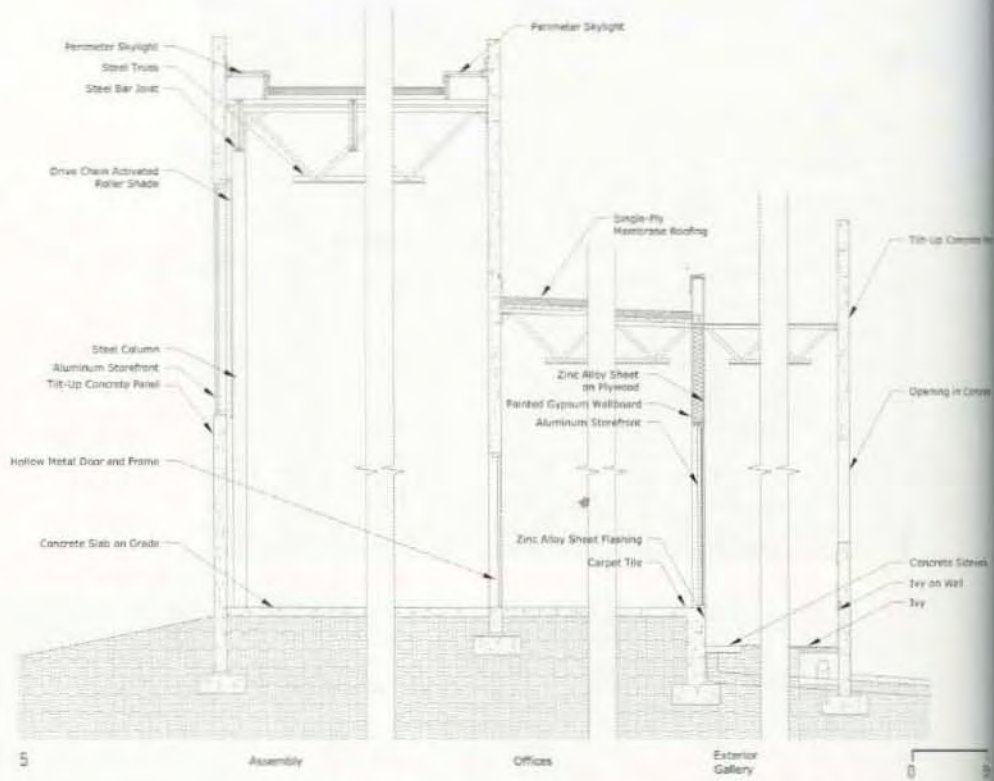
formerly Scogin Elam and Bray Architects

- 5 Wall section
- 6 Shipping apron with concrete tilt slab enclosing walls
- 7 View from Highway 5
- 8 View of visitor reception into fabrication

Following page:

- 9 Fabrication area with natural light on west wall
- 10 View of shipping

Photo credit: Timothy Hursley











9







**Bus Assembly Plant**  
**Malaga, Western Australia, Australia**  
Steve Dubczuk Architect Pty Ltd  
1 Front exterior view  
2 Rear exterior view  
3 Chassis assembly area interior  
Photo credit: Des Birt





**Pacific National Locomotive  
Maintenance Centre  
Spotswood, Victoria, Australia**  
HBO + EMTB

- 1 External view of office complex and administration
- 2 External view of stores and main facility
- 3 External view of wash facility
- 4 Exterior with view to wash facilities (foreground) and main maintenance facility
- 5 Internal view of main facility showing wheel reprofiler
- 6 Internal view of main locomotive workstation

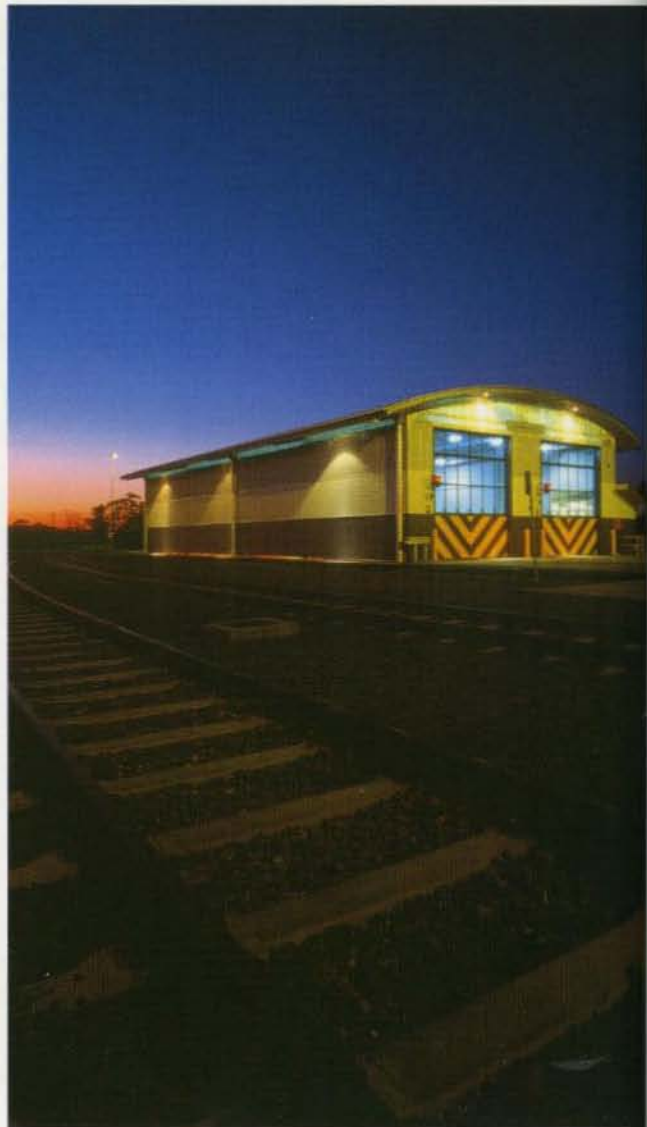
Photo credit: Tony Miller



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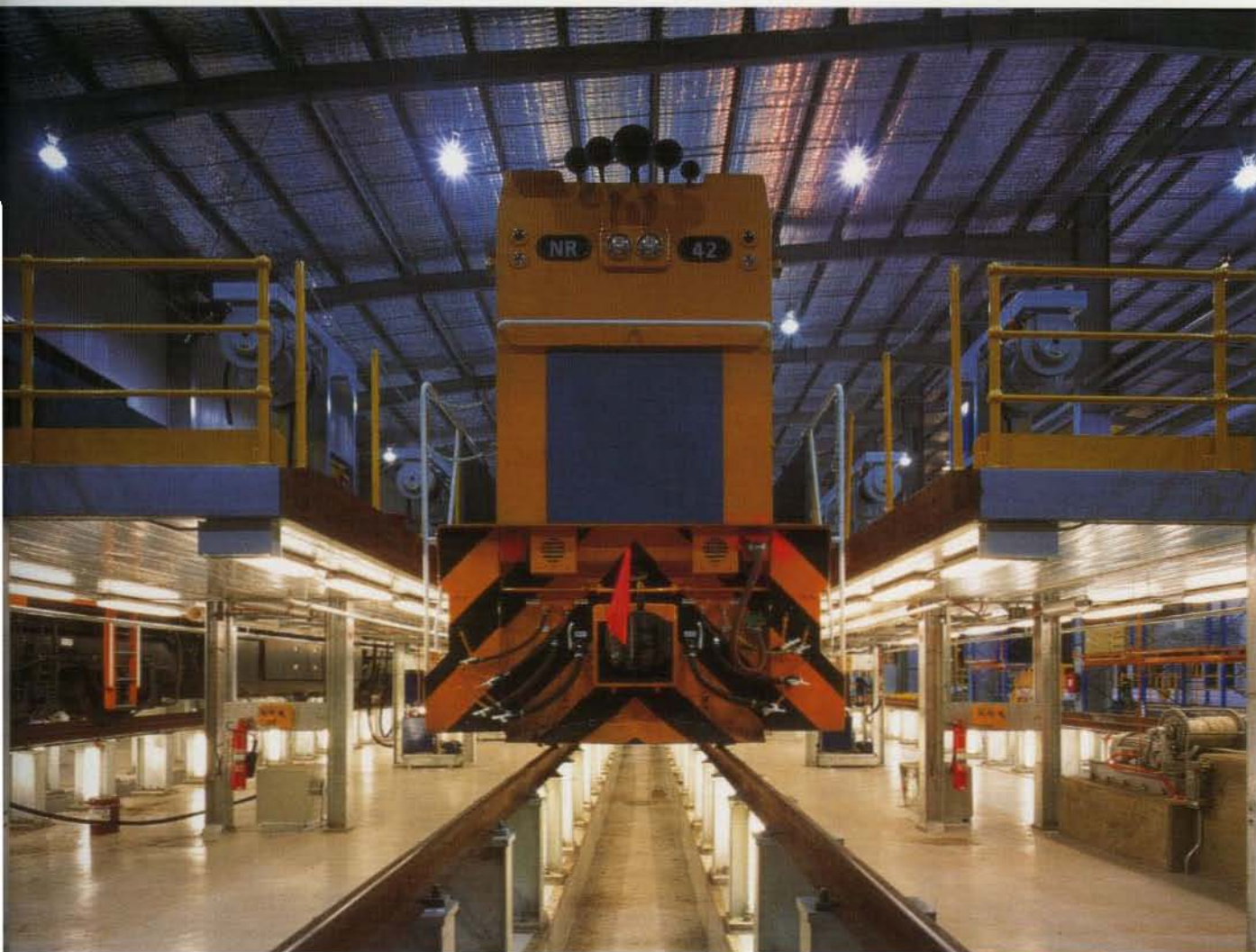


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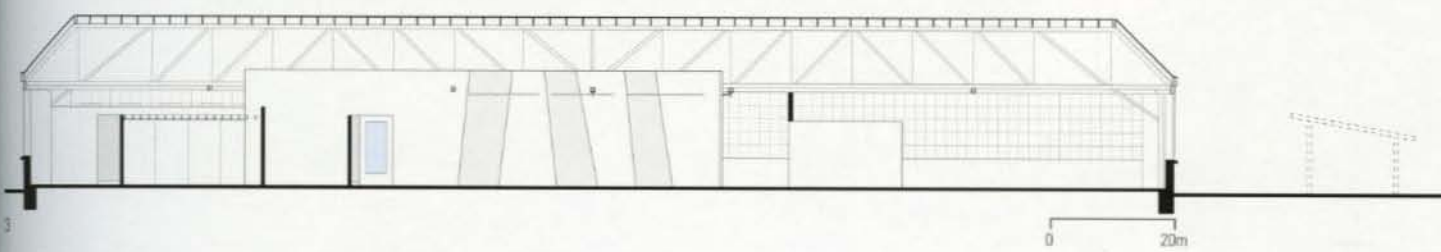






EXIT





**RAD Clothing Company**  
**Los Angeles, California, USA**  
 Koning Eizenberg Architecture

Previous pages:  
 Hallway

Opposite:  
 Office space looking into sample studio

3 Section

4 Hallway between studio and office space

Photo credit: Grey Crawford









**RAD Clothing Company**  
**Los Angeles, California, USA**  
Koning Eizenberg Architecture

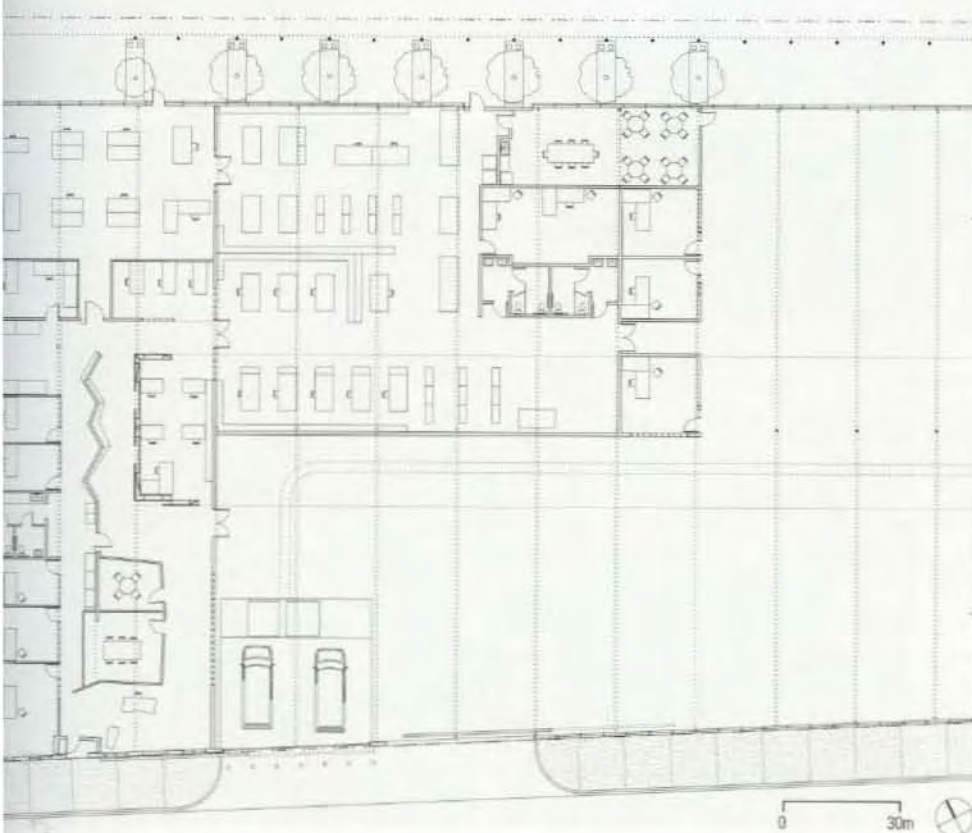
Opposite:

Warehouse entry

6 Screen wall detail, corrugated fiberglass

7 Floor plan

Photo credit: Grey Crawford







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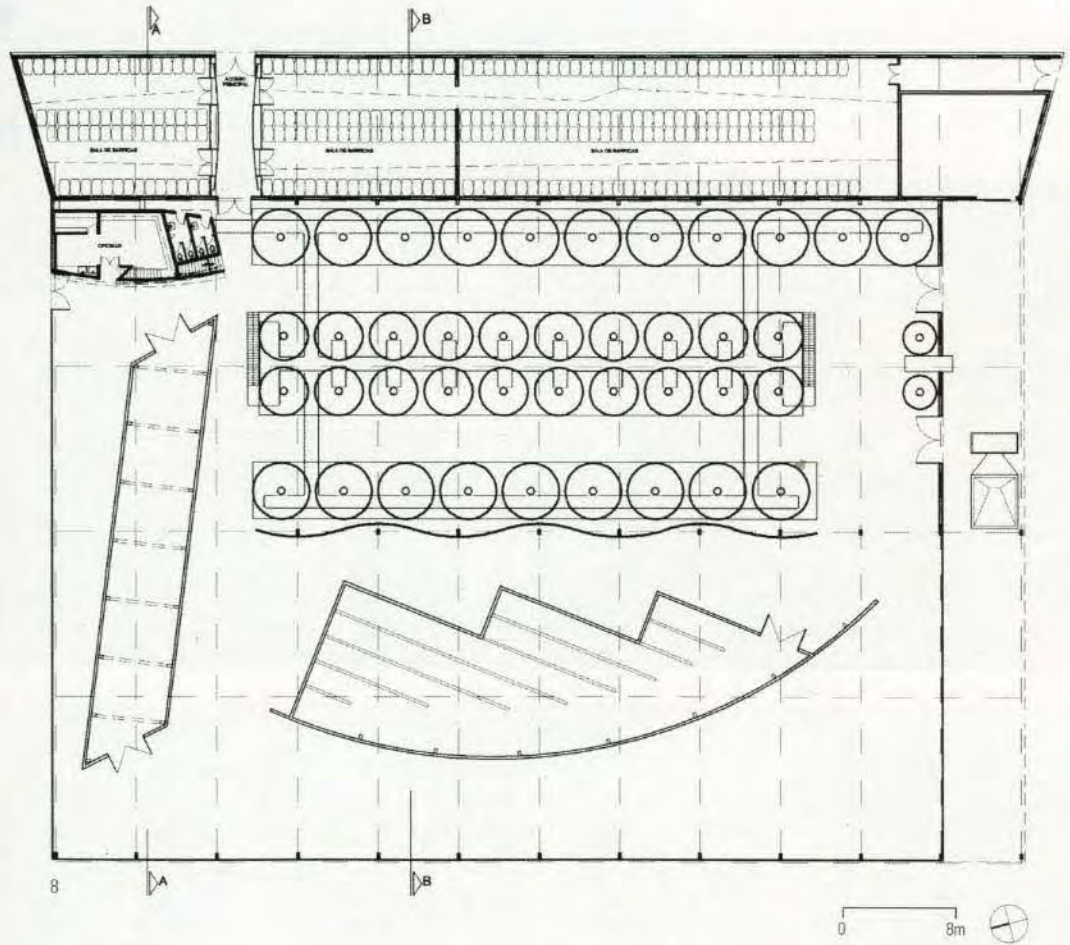
**Bodega de Viña Gracia**  
**Totihue, Chile**

Germán del Sol

- 1 Storage, external view
- 2 External view – detail of wood revetment
- 3 Storage, main corridor
- 4 Wine reserve interior
- 5&9 General view, wine manufacturing area
- 6 Storage interior
- 7 Escalator to second floor
- 8 Floor plan

Photo credit: Guy Wenborne, Guy St. Claire





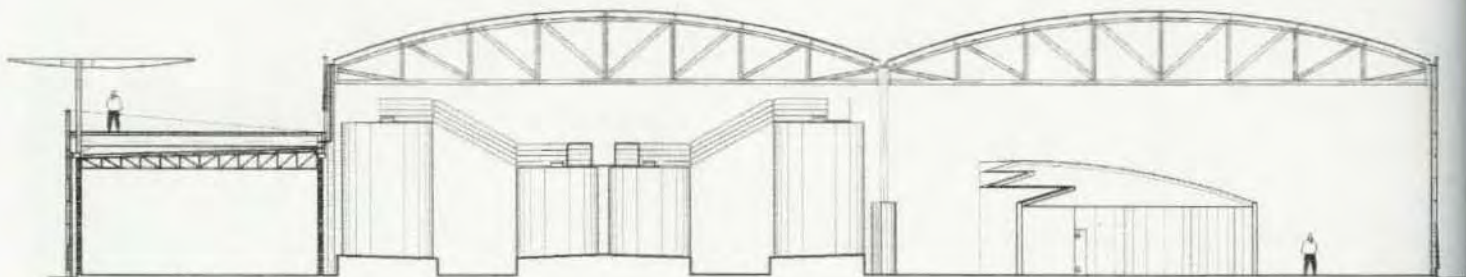
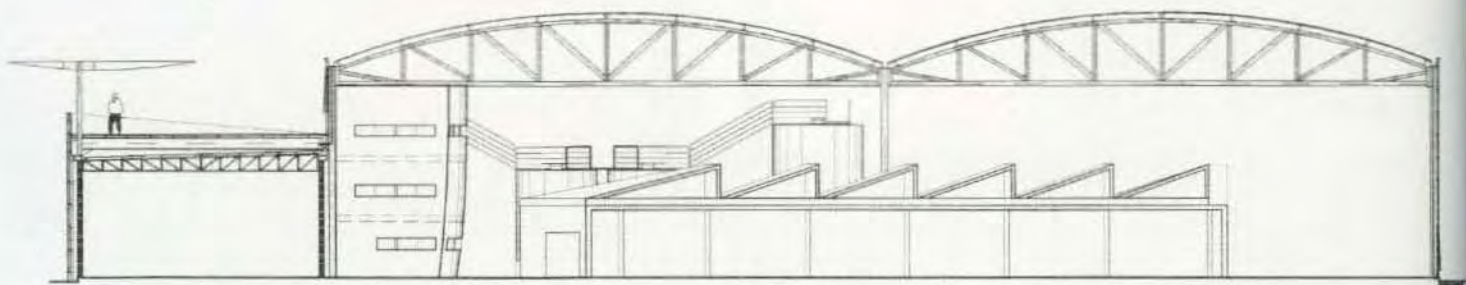




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**Bodega de Viña Gracia**  
Totihue, Chile

Germán del Sol

- 10 Wine reserve interior, night view
- 11 General view, wine manufacturing area
- 12 Sections

Photo credit: Guy Wenborne, Guy St. Claire





**Alpha Telecom Inc., New Facility  
Hsinchu, Taiwan**

Haigo Shen & Partners

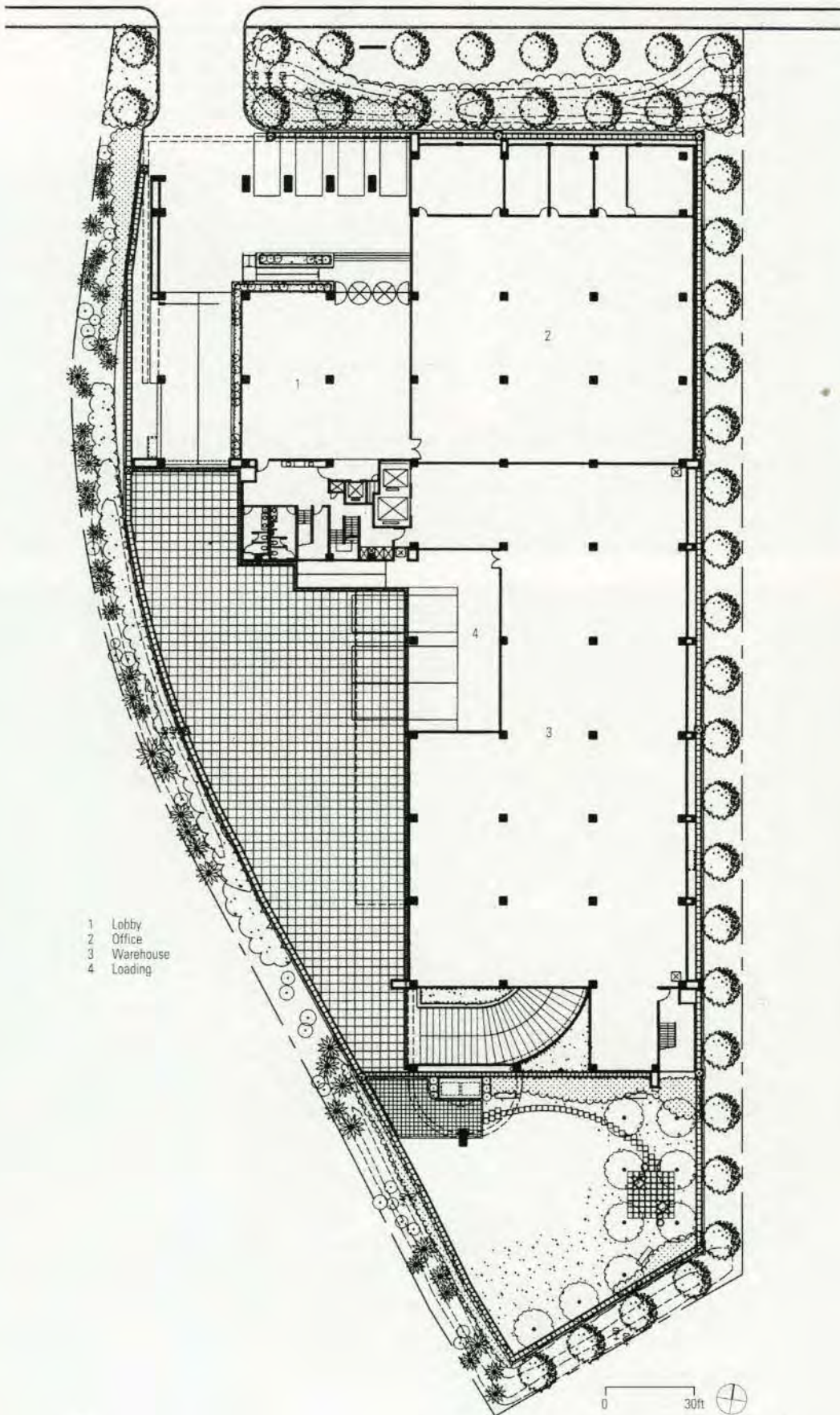
1 View from northwest

2 View from southeast

Photo credit: courtesy Haigo Shen & Partners







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**Alpha Telecom Inc., New Facility**

Hsinchu, Taiwan

Haigo Shen & Partners

3 First floor plan

4 View from southwest

Photo credit: courtesy Haigo Shen & Partners



**Toyota Europe Design Development  
Nice, France**

Shimizu Corporation & Toyota  
Architectural Design Office

- 1 Aerial view
- 2 South elevation
- 3 Entrance court
- 4 Interior view

Following pages:  
Interior view

Photo credit: courtesy Shimizu Corporation



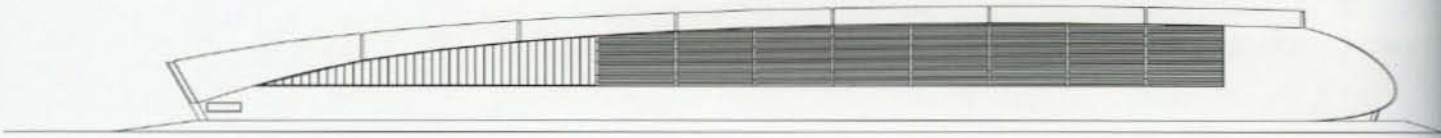
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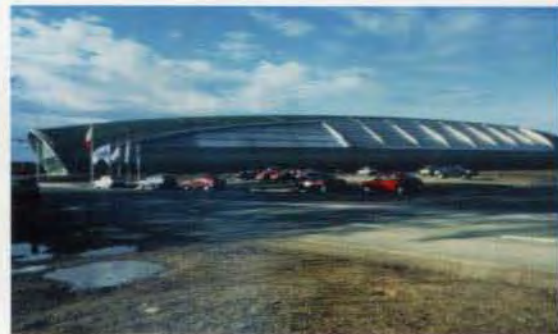




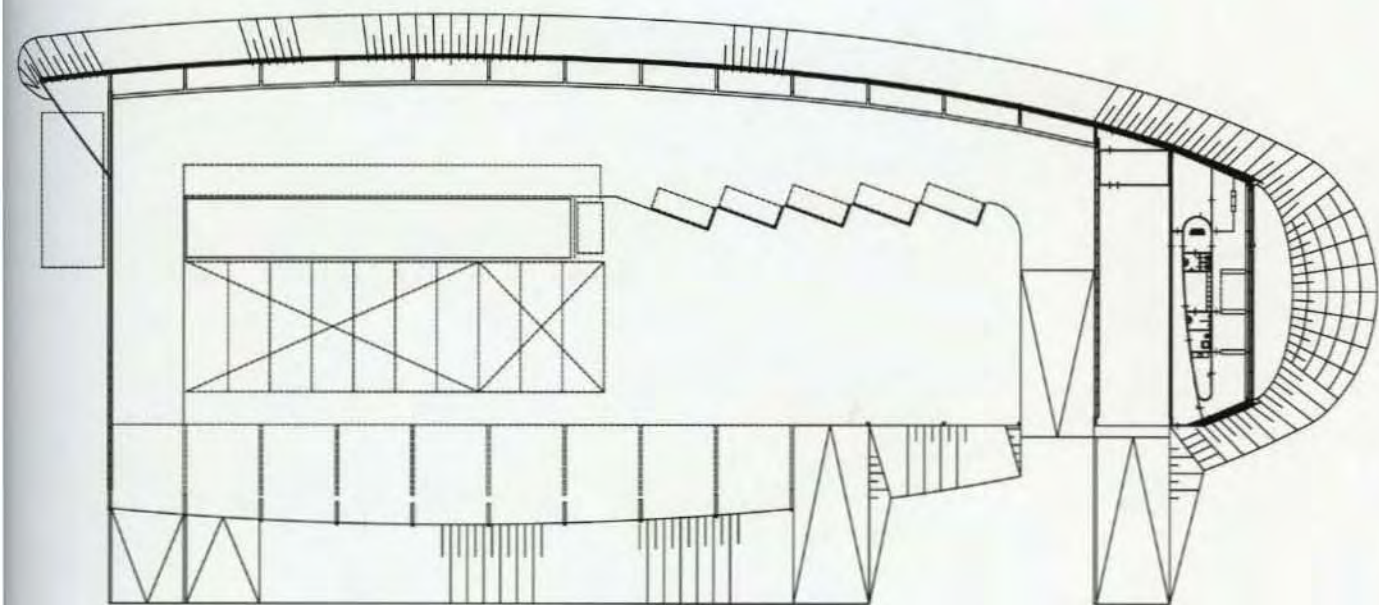
**Garbage Transfer Station**  
**Elhorst Vloedbelt, Netherlands**  
 Oosterhuis.nl

- 1 Elevation
- 2-4 Aerial views
- 5 Dumper gutter
- 6 View from street
- 7 Floor plan

Photo credit: Photo Holland (2-4); Hectic Pictures (5,6)



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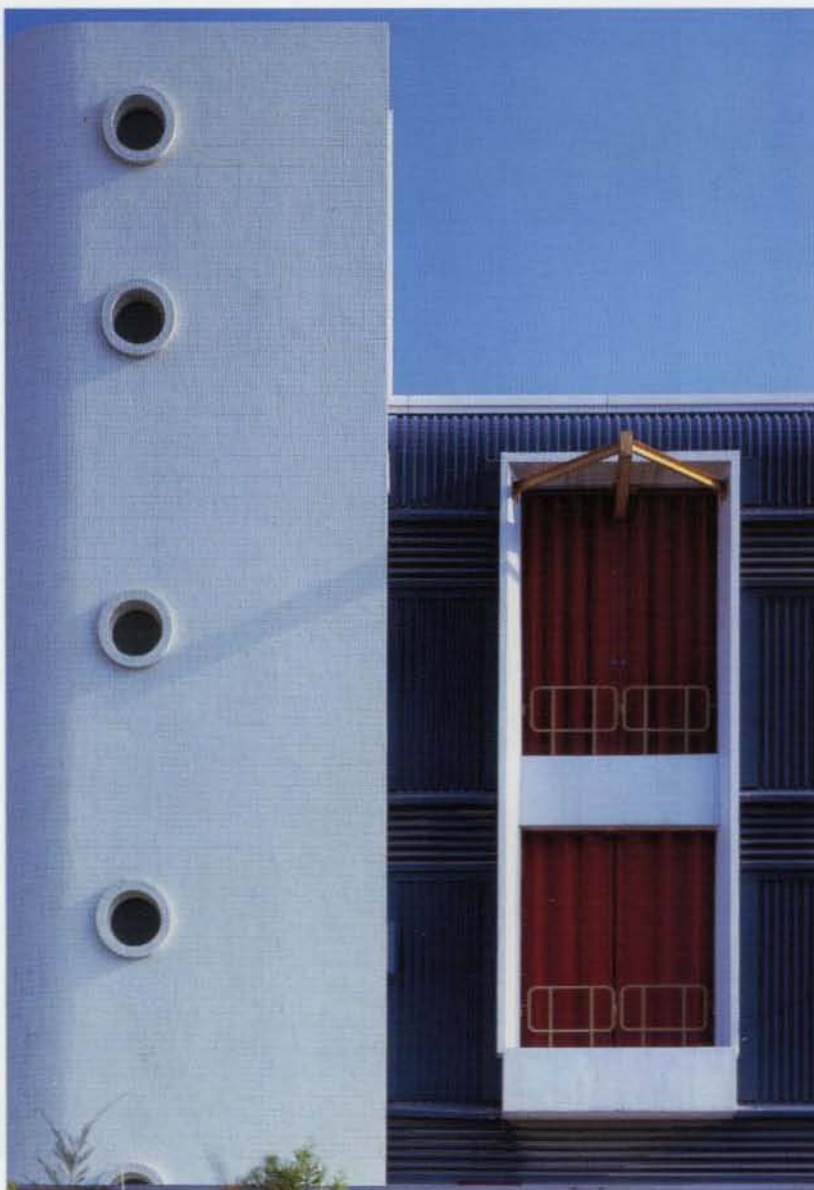








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**Black Point Power Station  
Hong Kong SAR, PRC**  
RMJM Hong Kong Limited

- 1 Aerial view
  - 2 Administration block
  - 3 Central control room interior
  - 4 Detail of 440kV substation
- Following pages:  
Rear view

Photo credit: Hans Schlupp









**Jackson-Triggs Niagara Estate Winery**  
**Niagara-on-the-Lake, Canada**  
Kuwabara Payne McKenna Blumberg Architects

- 1 View of mature vineyard looking towards south façade
- 2 Main entrance looking through Great Hall
- 3 Viewing platform
- 4 Grape crushing area

Photo credit: Design Archive/Robert Burley





**Jackson-Triggs Niagara Estate Winery**  
**Niagara-on-the-Lake, Canada**

Kuwabara Payne McKenna Blumberg Architects

5 View to south vineyard and Niagara escarpment from the Great Hall bridge

6 View through Great Hall to reception

Photo credit: Design Archive/Robert Burley









**Jackson-Triggs Niagara Estate Winery**  
**Niagara-on-the-Lake, Canada**  
Kuwabara Payne McKenna Blumberg  
Architects

- 7 VIP lounge, tasting room and terrace
- 8 View of tour route ramp and Great Hall
- 9 Retail shop

Opposite:  
Stainless steel tanks in fermentation area

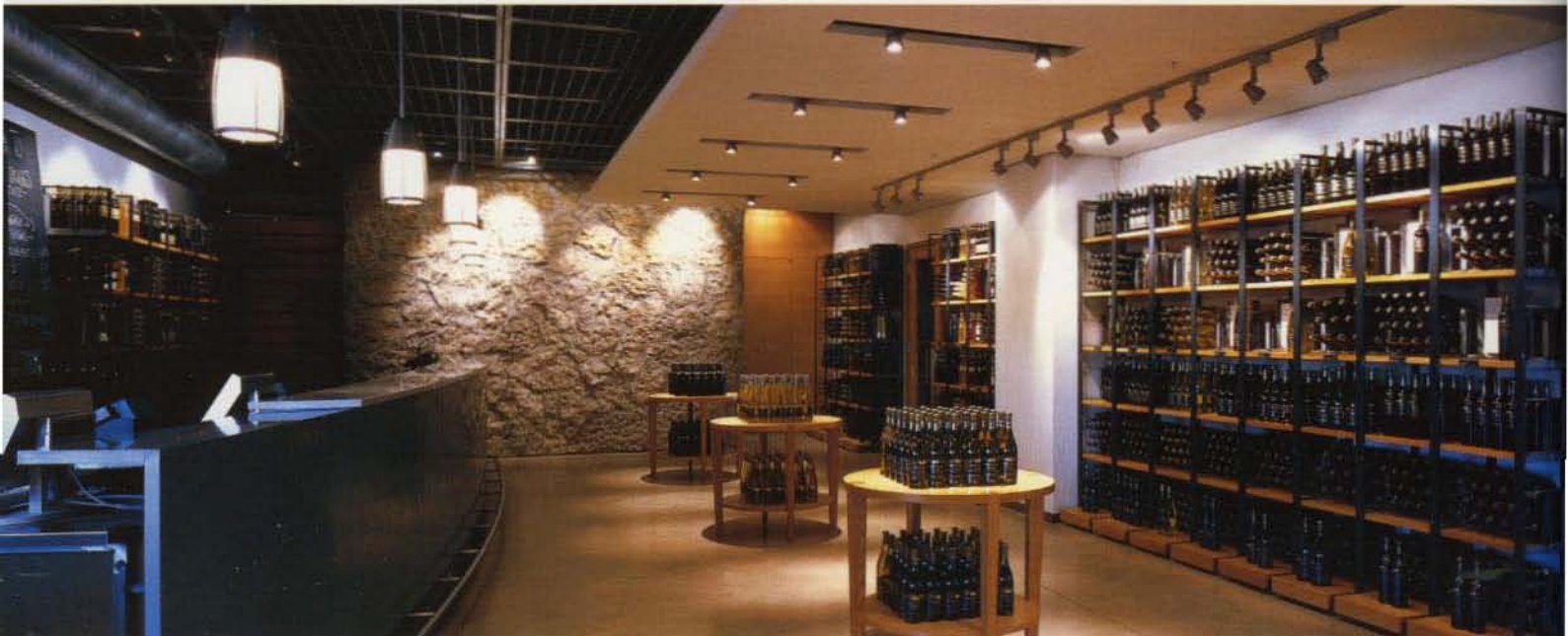
Photo credit: Design Archive/Robert Burley  
(7,8,opposite); Peter A. Sellar/KLIK (9)



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C12

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C15

C16

C17



**Jackson-Triggs Niagara Estate Winery**  
**Niagara-on-the-Lake, Canada**  
Kuwabara Payne McKenna Blumberg  
Architects

10 Production catwalks in fermentation area

11 Barrel cellar

Photo credit: Peter A. Sellar/KLUK



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11







**Gulfstream – Interiores Aeros Building  
Mexicali B.C., Mexico**

Taller de Arquitectura PEVI

- 1 Front façade view
- 2&5 Aerial view render
- 3 Loading docks and equipment areas render
- 4&7 Entrance view
- 6 Front façade render

Photo credit: Francisco Arce



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**Manitowoc County Maintenance Facility**  
**Manitowoc, Wisconsin, USA**  
 Barrientos Design & Consulting, LLC  
 8 Southeast overall view  
 9 Southeast view of entry canopy  
 10 Southwest view of entry canopy  
 11 Garage interior looking southeast  
 12 Garage interior looking east  
 Photo credit: Eric Oxendorf









**Snapfresh**  
Brisbane, Queensland, Australia  
Woods Bagot Pty Ltd

1 Main entry and office administration center  
Photo credit: David Sandison





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**Snapfresh**  
**Brisbane, Queensland, Australia**  
Woods Bagot Pty Ltd  
2 View to main entry  
3 Entry feature structure  
4 Window feature through to internal meeting room  
5 Staff amenities  
Photo credit: David Sandison





**AMS 2000: Microchip Plant for austria micro systems  
Graz-Unterpemstatten, Austria**

ATP Achammer-Trithart & Partner, architects and engineers

- 1 Principal service run and cleanroom
- 2 Detail of steel skin of cleanroom
- 3 Night view of administration block (left) and cleanroom (right)
- 4 Administration block façade detail
- 5 Cleanroom interior

Photo credit: Palladium Photodesign







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**Genzyme Corporation, Bioengineering/QC Laboratories  
Massachusetts, USA**

ARC/Architectural Resources Cambridge, Inc.

1 Flexible seed bioreactor benches fabricated from unistrut  
components and epoxy resin countertops and shelving

2 Bioreactor skids used for product development

Photo credit: Nick Wheeler/Wheeler Photographics

**Genzyme Corporation, Research Laboratories  
Massachusetts, USA**

ARC/Architectural Resources Cambridge, Inc.

3 Detail of maple casework and blue epoxy countertops

4 Research laboratory

Photo credit: Nick Wheeler/Wheeler Photographics



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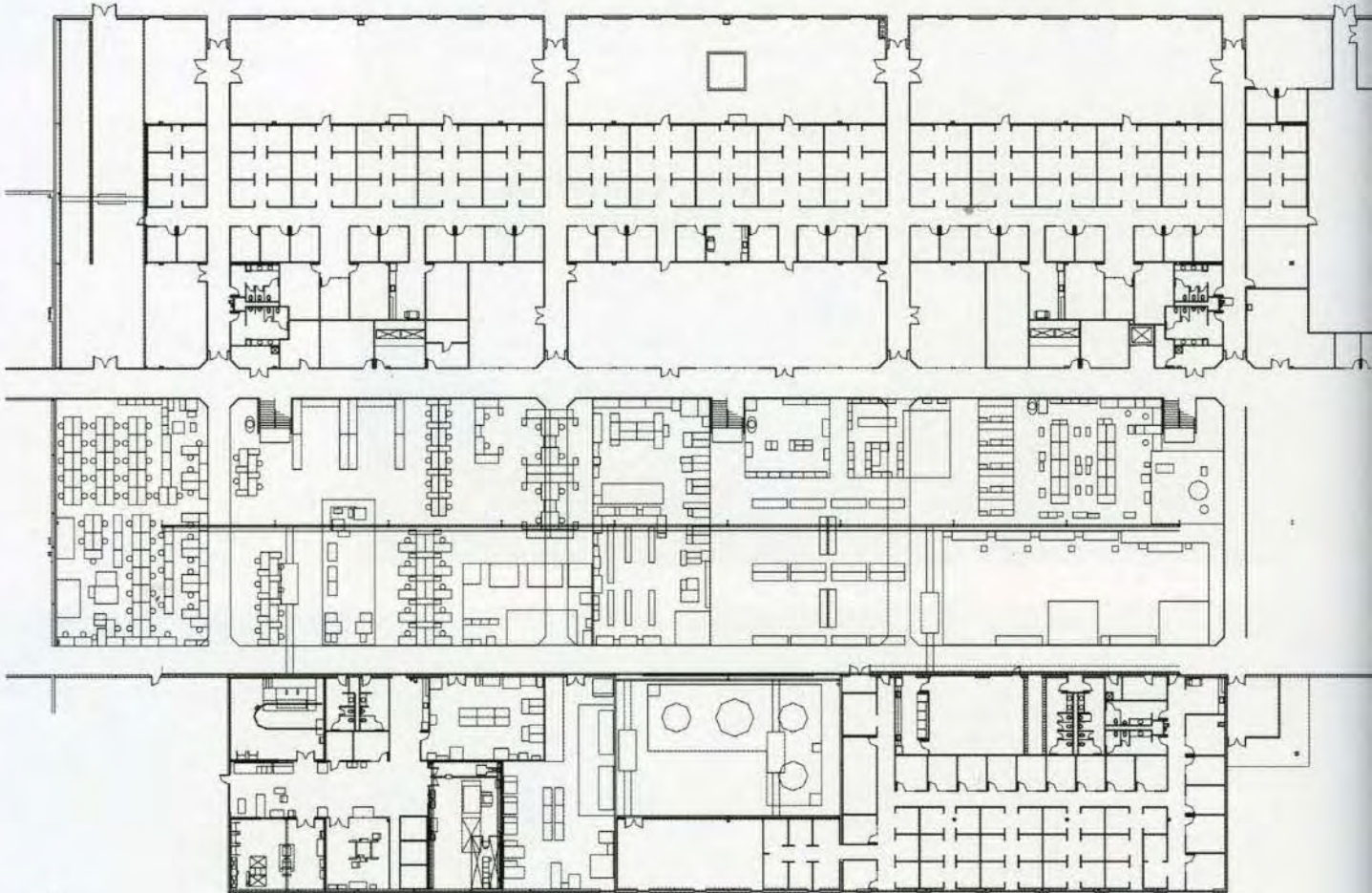




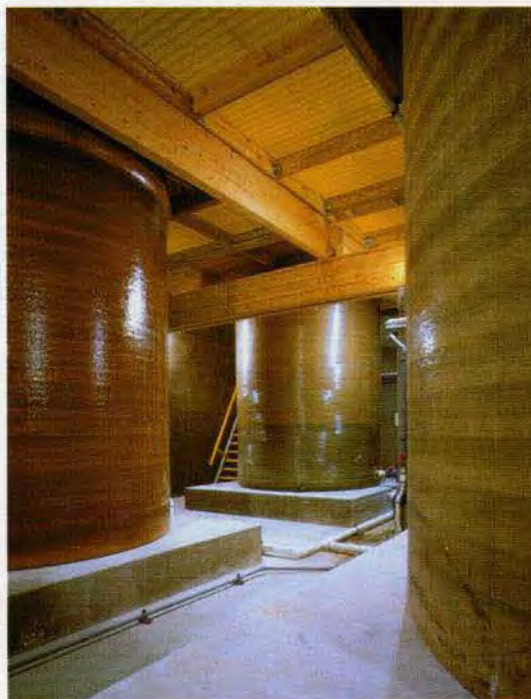
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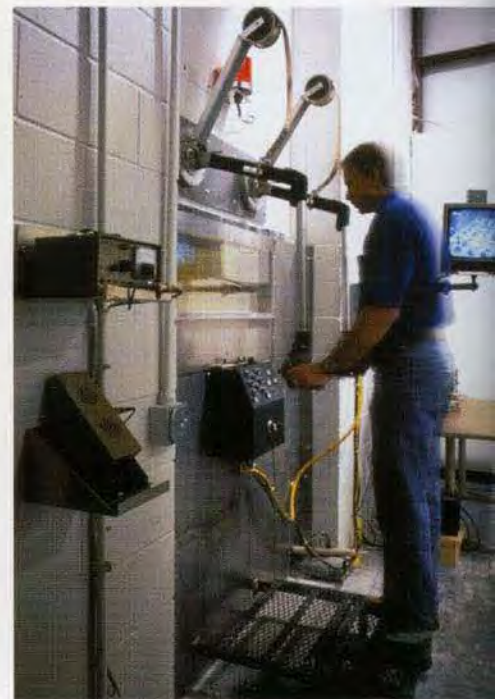
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**Baker INTEQ/Atlas Integration  
Houston, Texas, USA**

Kirksey Architecture

- 1 Exterior entryway
- 2 Vibration chamber, testing facility
- 3 Floor plan
- 4 Underground nonconductive test facility
- 5 Robotic arm used for nuclear storage

Photo credit: Aker/Zvonkovic Photography

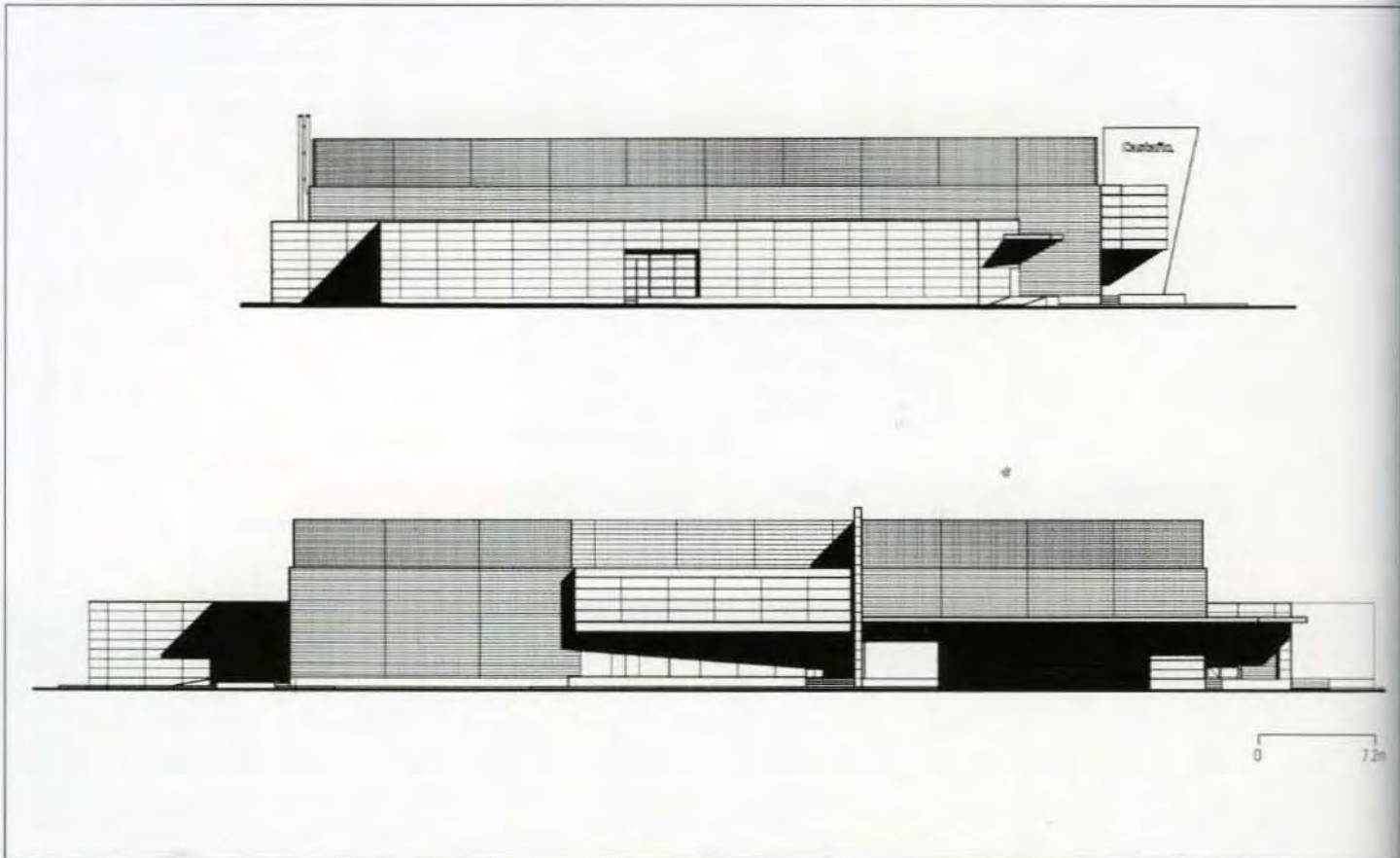




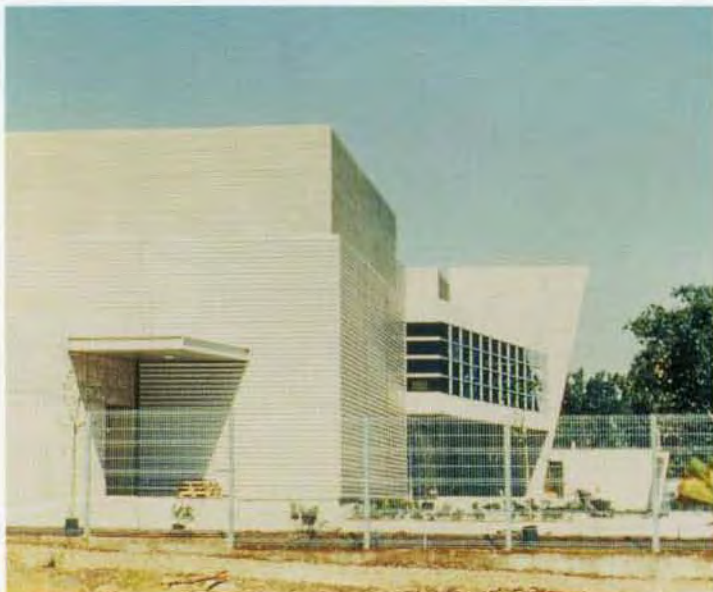
**Platan Park I, II**  
**Warsaw, Poland**  
APA Wojciechowski  
687 Warehouse/light industrial complex  
Photo credit: W. Krynski







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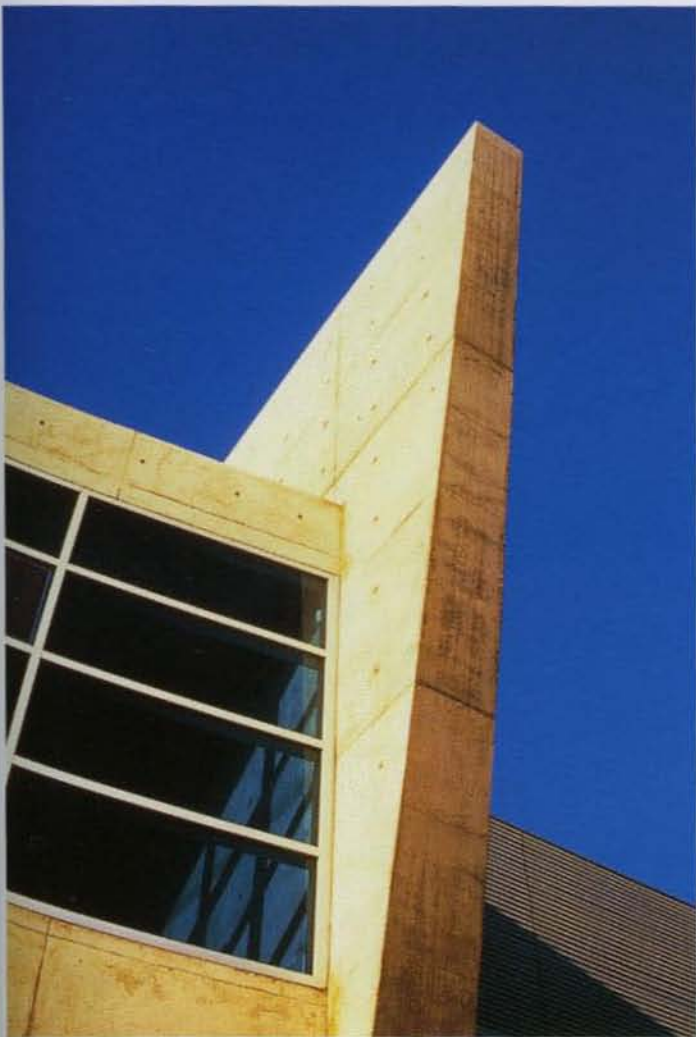


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**Castaño Bakery**  
**Santiago, Chile**

Guillermo Hevia & Asociados/Arquitectos

- 1 Elevations
- 2 Main façade and deliveries area
- 3 General view
- 4 Detail of main entrance
- 5 Detail of window and pillar wall
- 6 Detail of steel chimney, reinforced concrete wall and metallic revetments
- 7 Aluminum and wood stairway to office area
- 8 Suspended bridge for visitors' viewing of production area

Photo credit: courtesy Guillermo Hevia





**Sappi Gratkorn GmbH,  
Paper Product Plant  
Gratkorn, Austria**  
ATP Achammer-Trithart & Partner,  
architects and engineers

- 1 Aerial view from northwest
- 2 Entrance bridge and façade of administration block
- 3 Night view of administration block
- 4 World's largest paper machine produces 340,000 tonnes of paper per year

Photo credit: Craig Kuhner





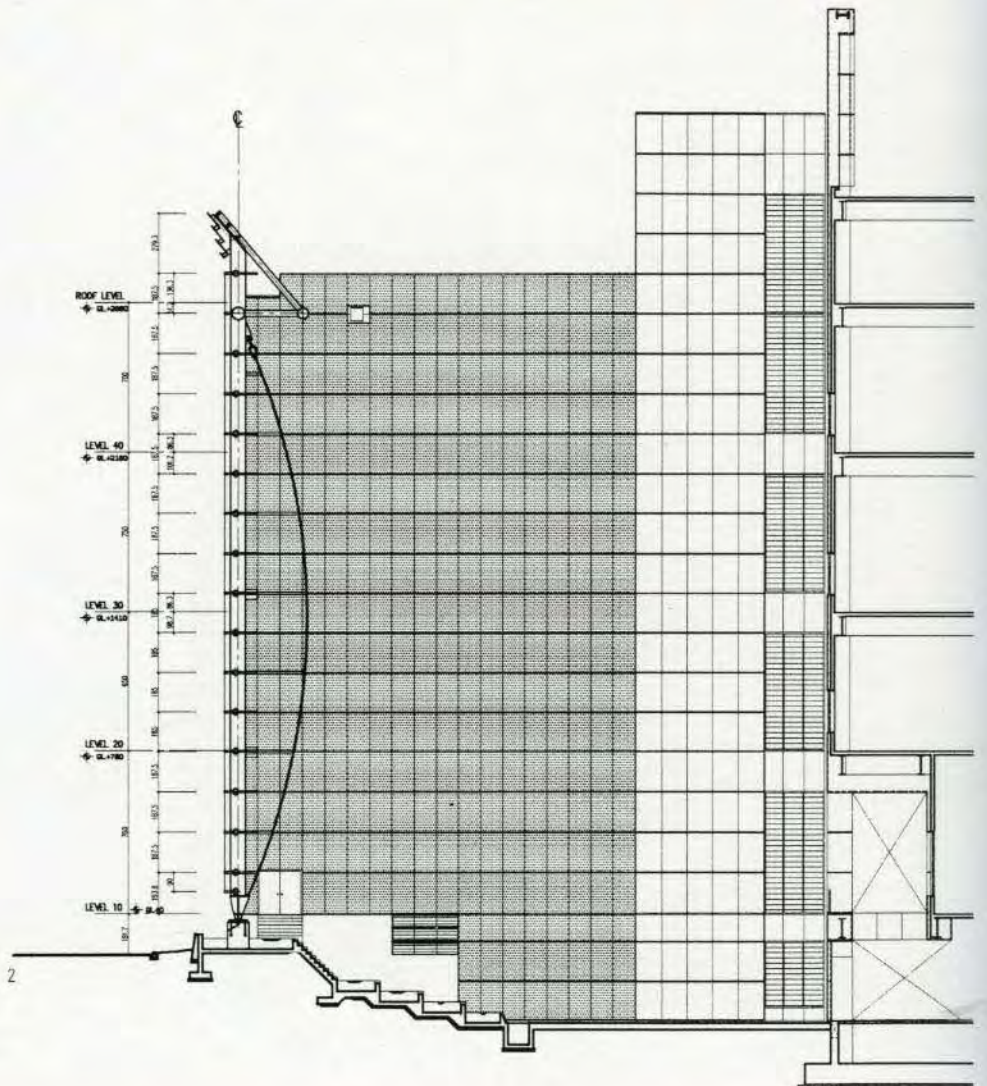




**Quanta Display TFT/LCD Plant**  
**Taoyuan County, Taiwan**  
 J.J. Pan & Partners, Architects and Planners

- 1 Front entry
- 2 Cross section

Opposite:  
 Canopy structure  
 Photo credit: David Chen



2







**Quanta Display TFT/LCD Plant**  
**Taoyuan County, Taiwan**  
J.J. Pan & Partners, Architects and Planners  
4 Structural contrast within courtyard  
5 Shadow from glass enclosure  
Opposite:  
North view from lobby  
Photo credit: David Chen



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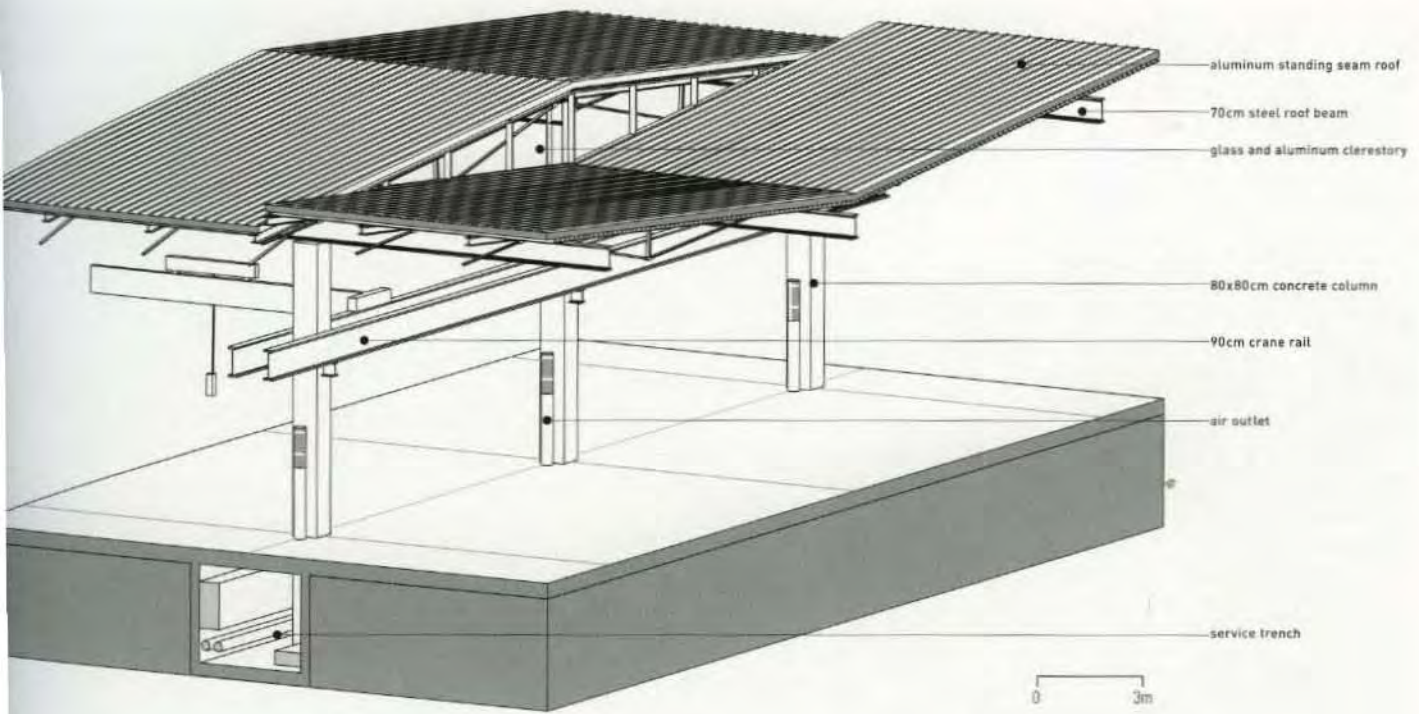
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**Laser Machine Tool Factory**  
**Ditzingen, Germany**  
 Barkow Leibinger Architects

- 1 Long section
- 2 West elevation
- 3 Rooftop view, steel truss roof clad with standing seam
- 4 South façade, delivery area
- 5 Corridor between production hall and offices
- 6 Construction axonometric
- 7 Production hall

Photo credit: Margherita Spiluttini (2,4-8); Roland Halbe (3)

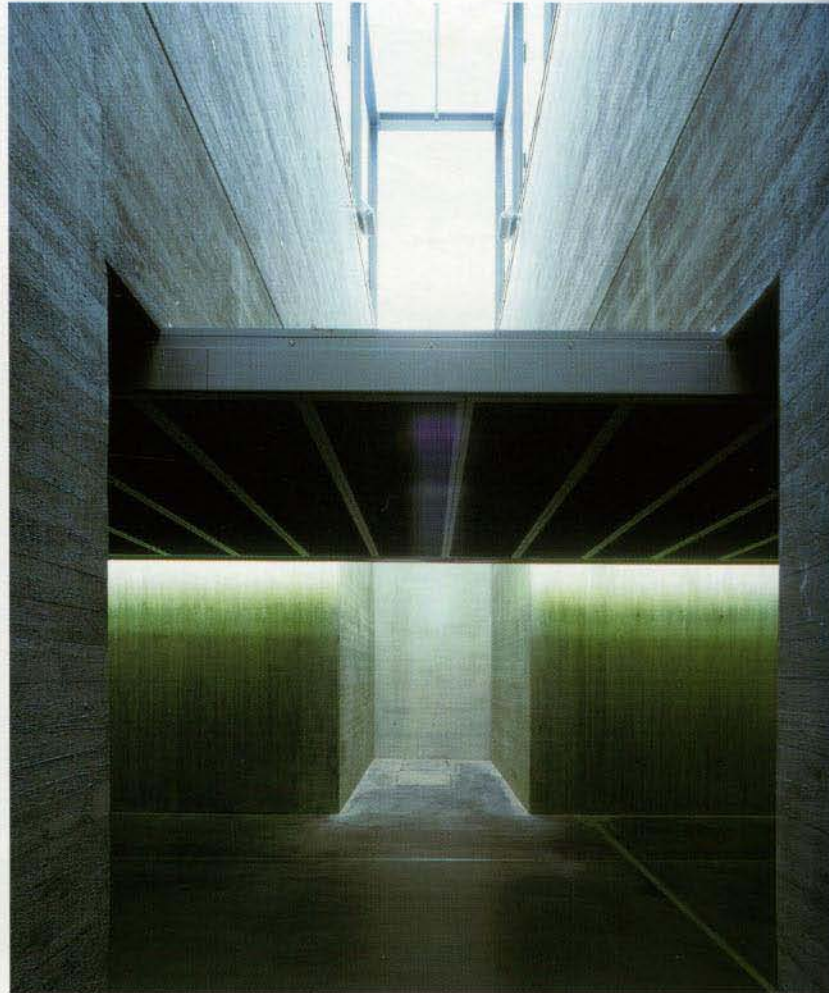








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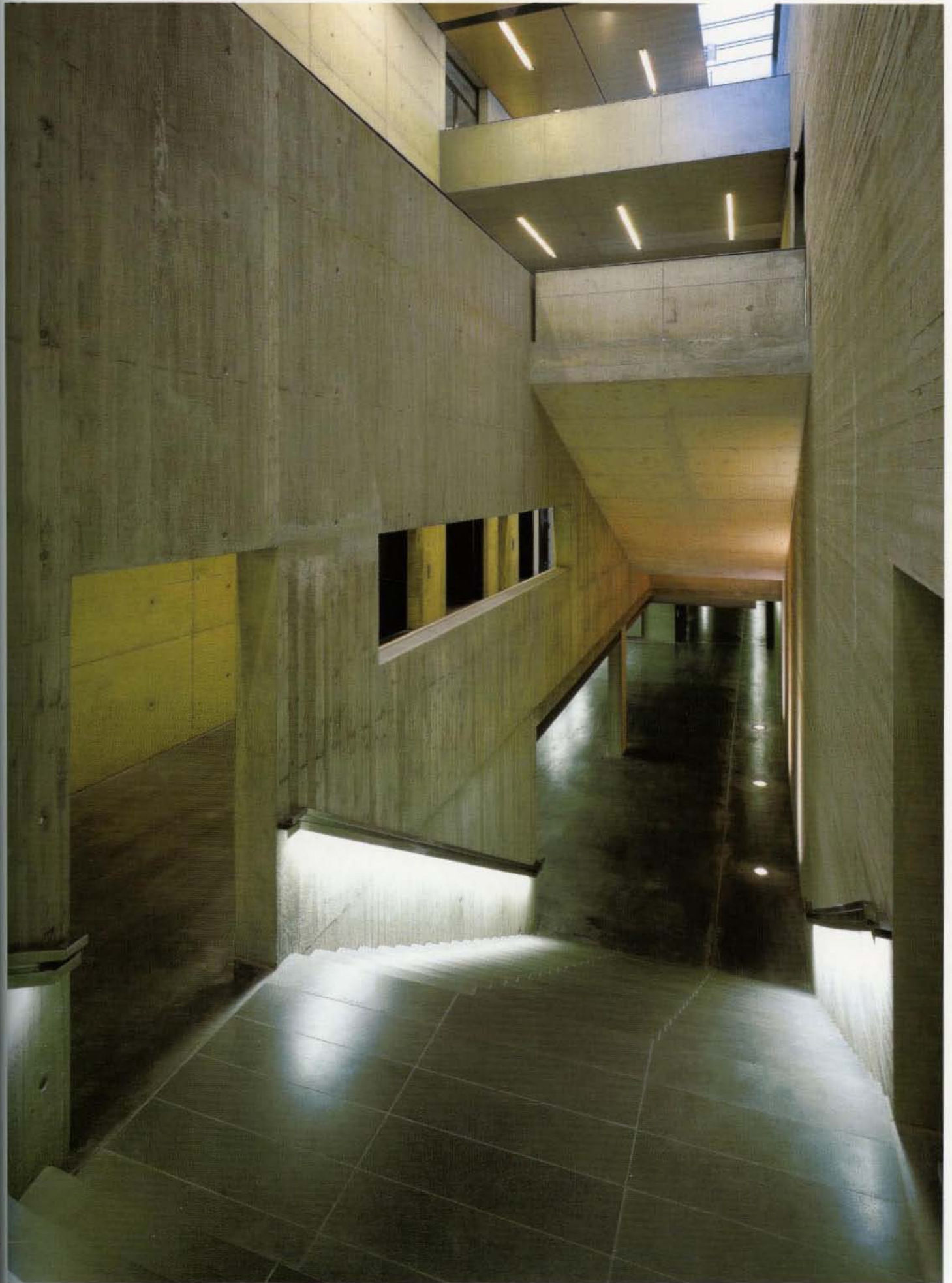
**Laser Machine Tool Factory  
Ditzingen, Germany**

Barkow Leibinger Architects

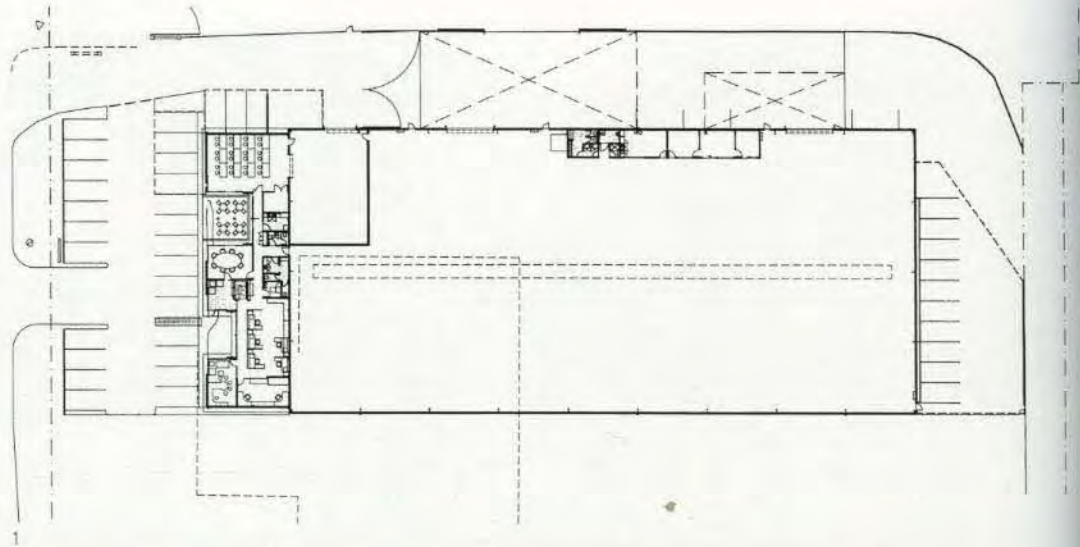
- 8 Stair of main circulation spine
- 9 Light shaft in tunnel
- 10 Tunnel and bridge
- 11 Tunnel and stairs to main circulation spine

Photo credit: Margherita Spiluttini









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**Nissan Headquarters, Spare Parts  
and Distribution Centre  
Welshpool, Western Australia, Australia**  
Oldfield Knott Architects Pty Ltd

- 1 Floor plan
- 2 Regional headquarters office
- 3 Office entry
- 4 Screen wall to office amenities area
- 5 Office amenities area
- 6 Spare parts storage

Photo credit: James Rogers Photography





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**Sun Metals Zinc Refinery  
Gatehouse and Changerooms  
Townsville, Queensland, Australia  
Ralph Power Associates**

1 Gatehouse (left) and changerooms from plant side showing similarities in elements and form

2 Gatehouse, heavily equipped with service functions, is a post-disaster emergency building and is designed to withstand severe cyclones

3 Gatehouse has large cantilever overhangs with tension tie downs for stability

4 Full width glazed Control Room to Gatehouse has command over entrance drive

Photo credit: courtesy Ralph Power Associates



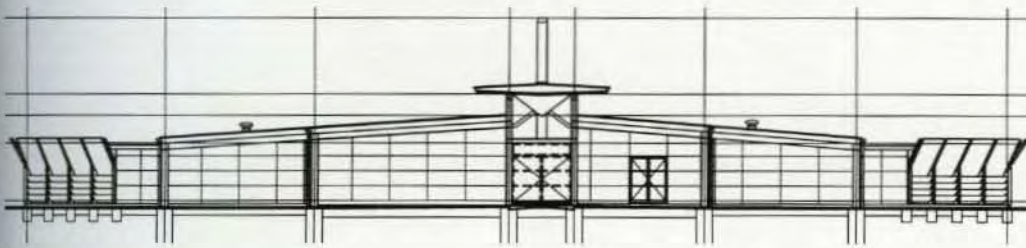




**Sun Metals Zinc Refinery  
Gatehouse and Changerooms  
Townsville, Queensland, Australia  
Ralph Power Associates**

- 5 Gatehouse southern side covered waiting area with view to control room and administrative office building at left distance
- 6 Changerooms south elevation
- 7 Changerooms covered entrance area showing exhaust funnels
- 8 Louvered wind scoops provide privacy to shaded landscaped courtyards outside change areas

Photo credit: courtesy Ralph Power Associates









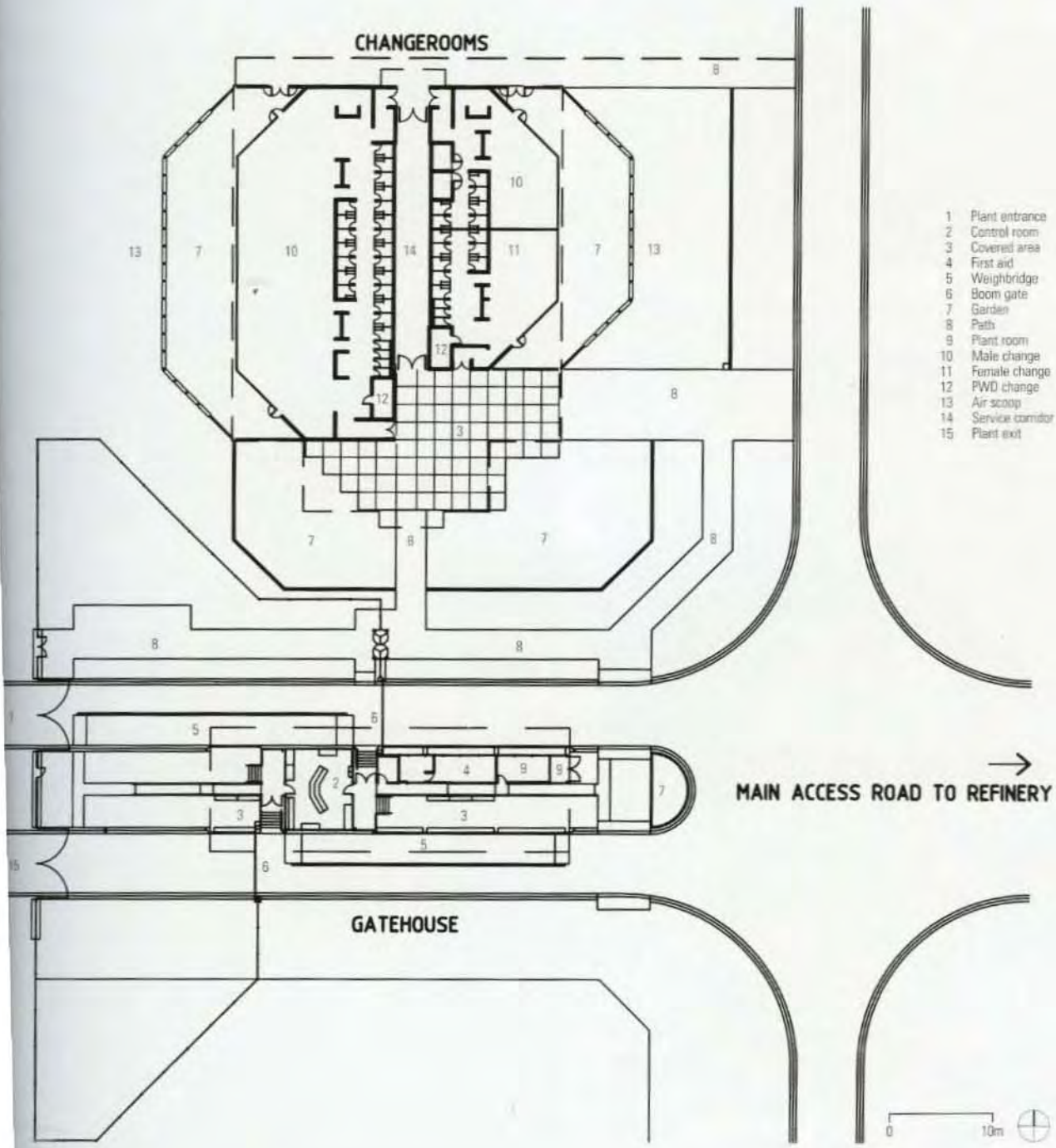


**Sun Metals Zinc Refinery  
Gatehouse and Changerooms  
Townsville, Queensland, Australia**  
Ralph Power Associates

- 9 Changerooms' services corridor with expressed extraction ducts from change areas
  - 10 Wind scoops surround garden courtyards outside change rooms with full-height glazed louvers
  - 11 Full-height glazed louvered wall to garden courtyard; lockers are mechanically exhaust ventilated
  - 12 Site plan
- Photo credit: courtesy Ralph Power Associates

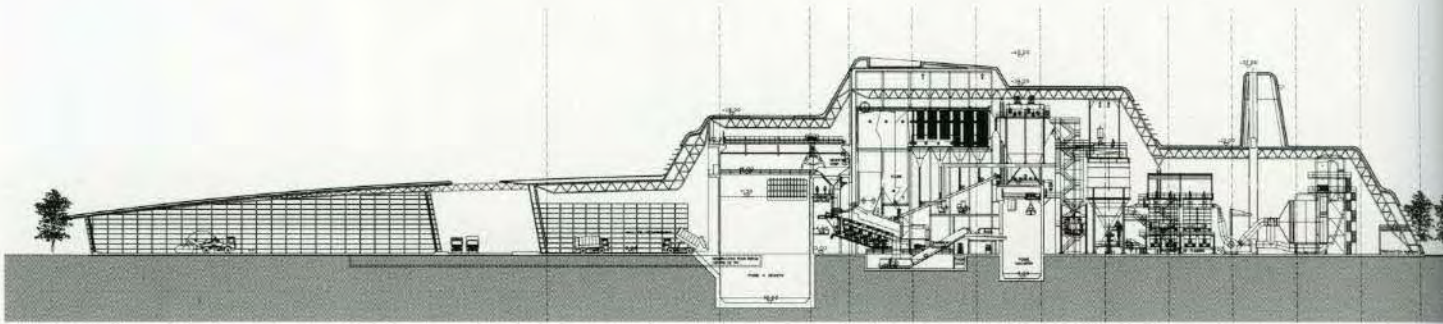
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- 1 Plant entrance
- 2 Control room
- 3 Covered area
- 4 First aid
- 5 Weighbridge
- 6 Boom gate
- 7 Garden
- 8 Path
- 9 Plant room
- 10 Male change
- 11 Female change
- 12 PWD change
- 13 Air scoop
- 14 Service corridor
- 15 Plant exit





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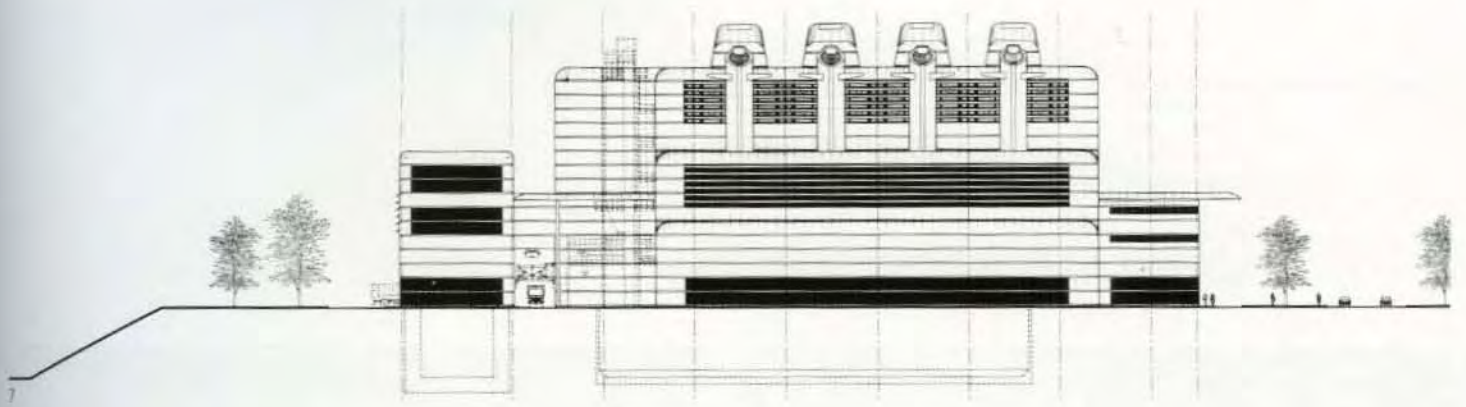


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**Waste Recycling Plant  
Rouen, France**

Claude Vasconi Architecte

- 1 Longitudinal section
- 2 Northwest façade on the Seine
- 3 West façade on the Seine
- 4 Delivery area
- 5&6 South façade detail
- 7 South façade elevation
- 8&9 Access to loading of ashes and blast-furnace slags
- 10 Fume treatment area

Photo credit: Philippe Ruault (2,6,8-10);  
Jean Luc Signamarcheix (3-5)





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**Waste Recycling Plant**  
**Rouen, France**  
Claude Vasconi Architecte  
11 Waste pit  
12 Base of chimneys  
13 Fume treatment  
Photo credit: Philippe Ruault



**Yageo Corporation Kaohsiung Factory III**  
**Kaohsiung, Taiwan**  
Haigo Shen & Partners  
1 View from east  
Photo credit: courtesy Haigo Shen & Partners

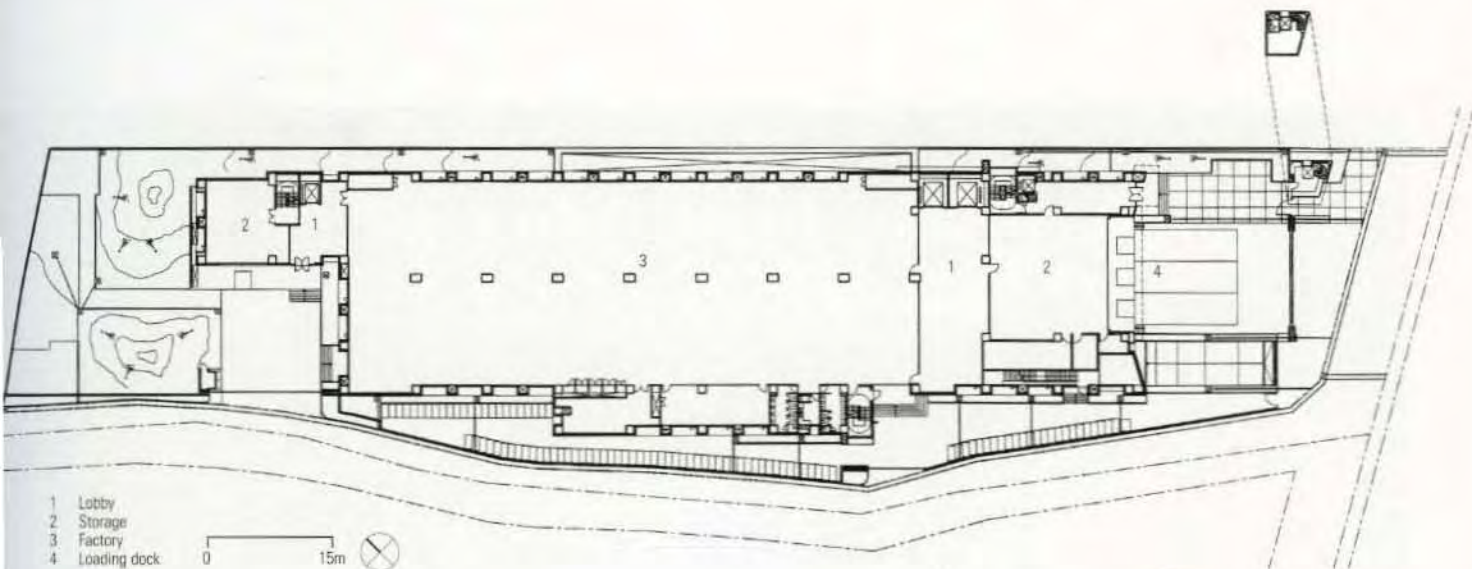




**YAGEO**

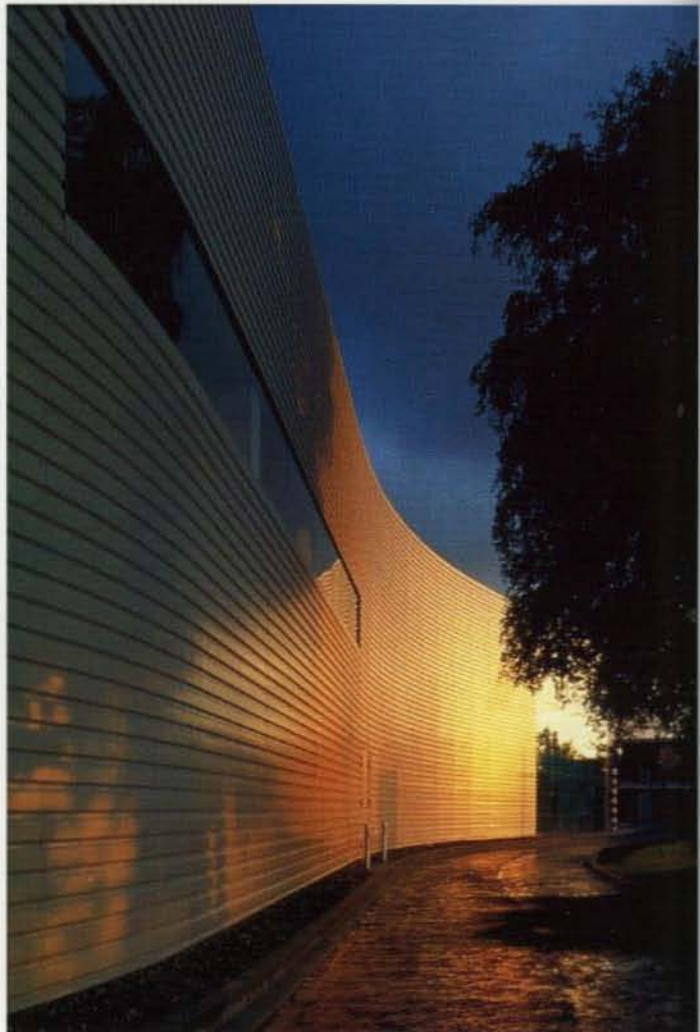
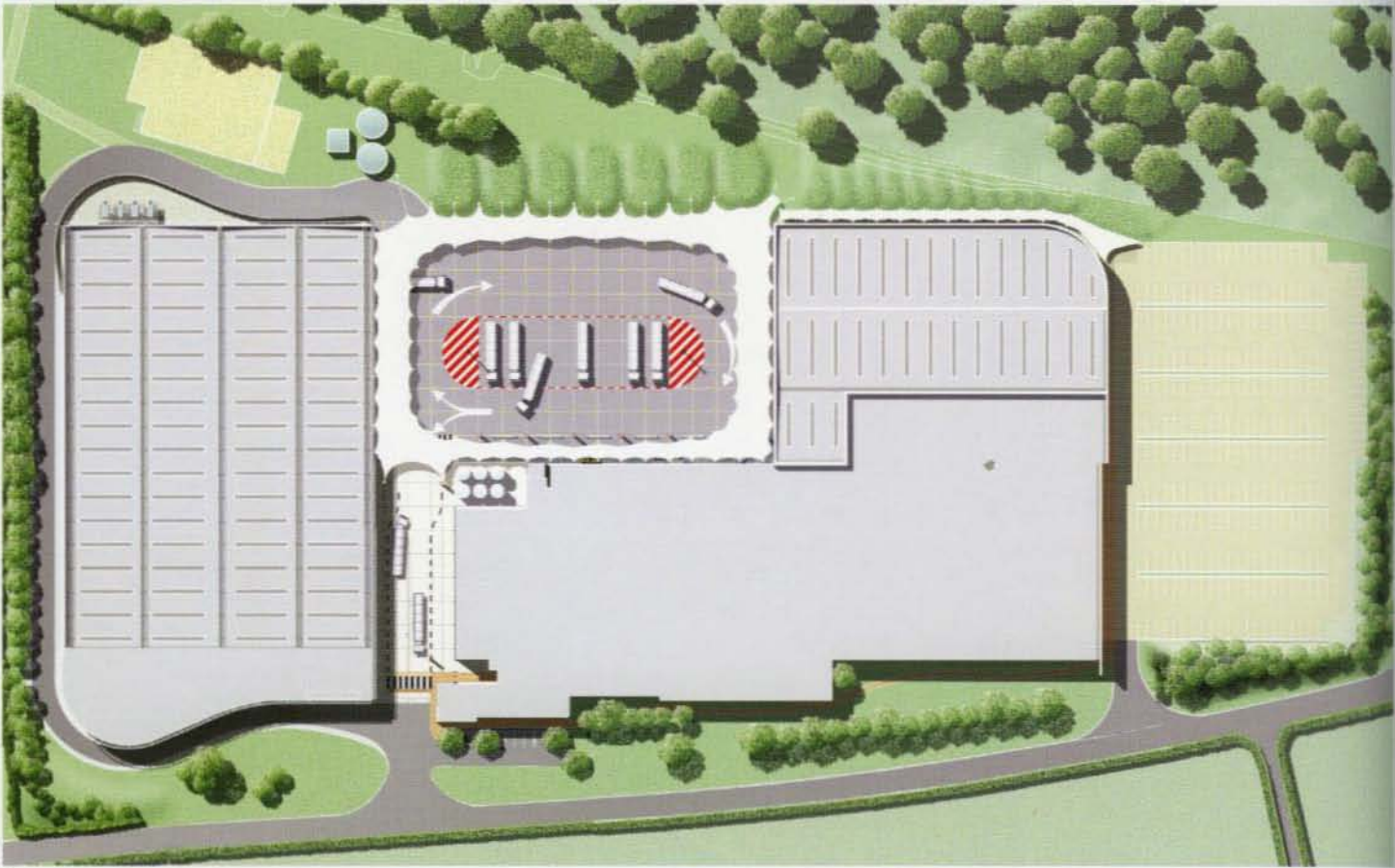






**Yageo Corporation Kaohsiung Factory III**  
 Kaohsiung, Taiwan  
 Haigo Shen & Partners  
 Opposite:  
 View from west  
 3 First floor plan  
 4 Front façade  
 Photo credit: courtesy Haigo Shen & Partners



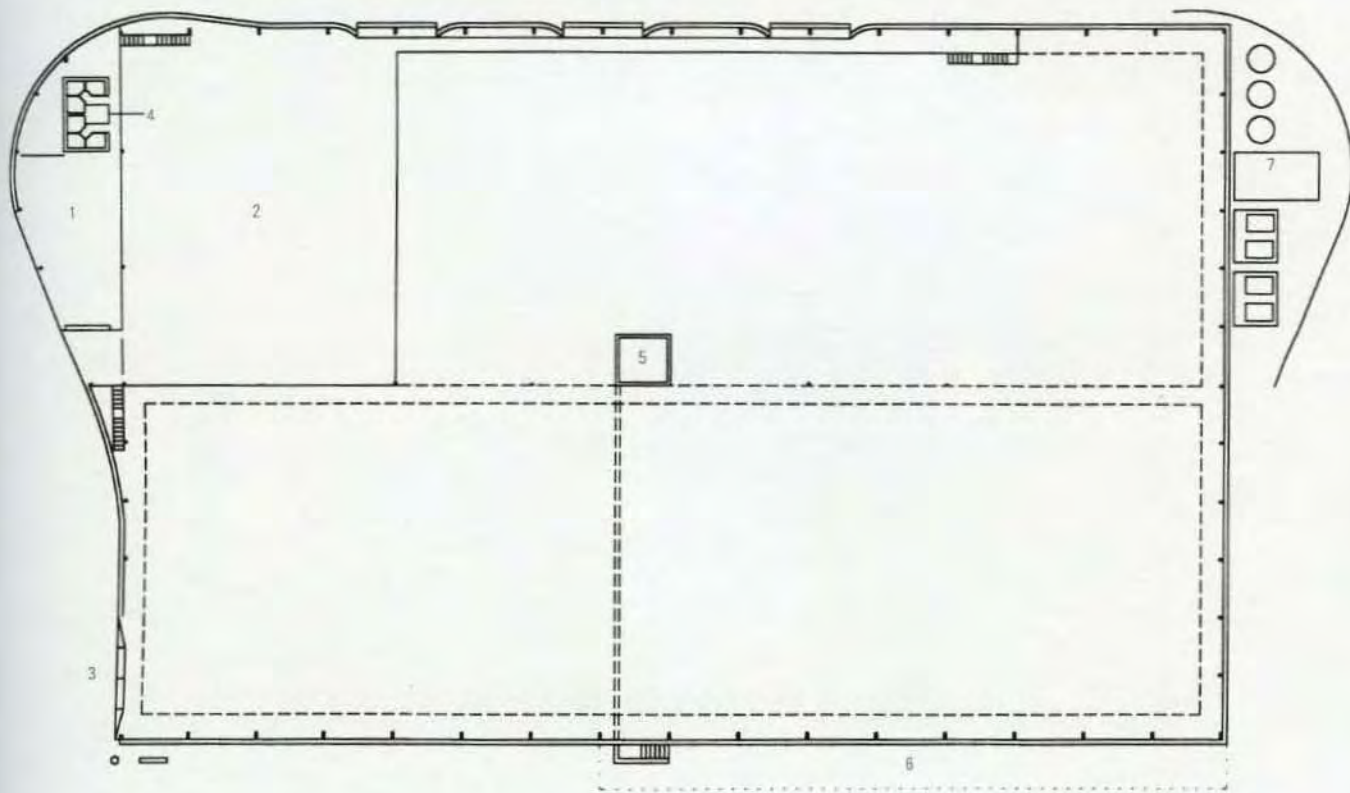




**Cannon Avert**  
**Suffolk, England**  
 Fletcher Priest Architects

- 1 Site rendering of low-cost robotized facility for the world's leading manufacturer of baby feeding products
- 2 Main entrance to production facility
- 3 North elevation and existing facility
- 4 North elevation/glazed elevation detail
- 5 Floor plan

Photo credit: Chris Gascoigne



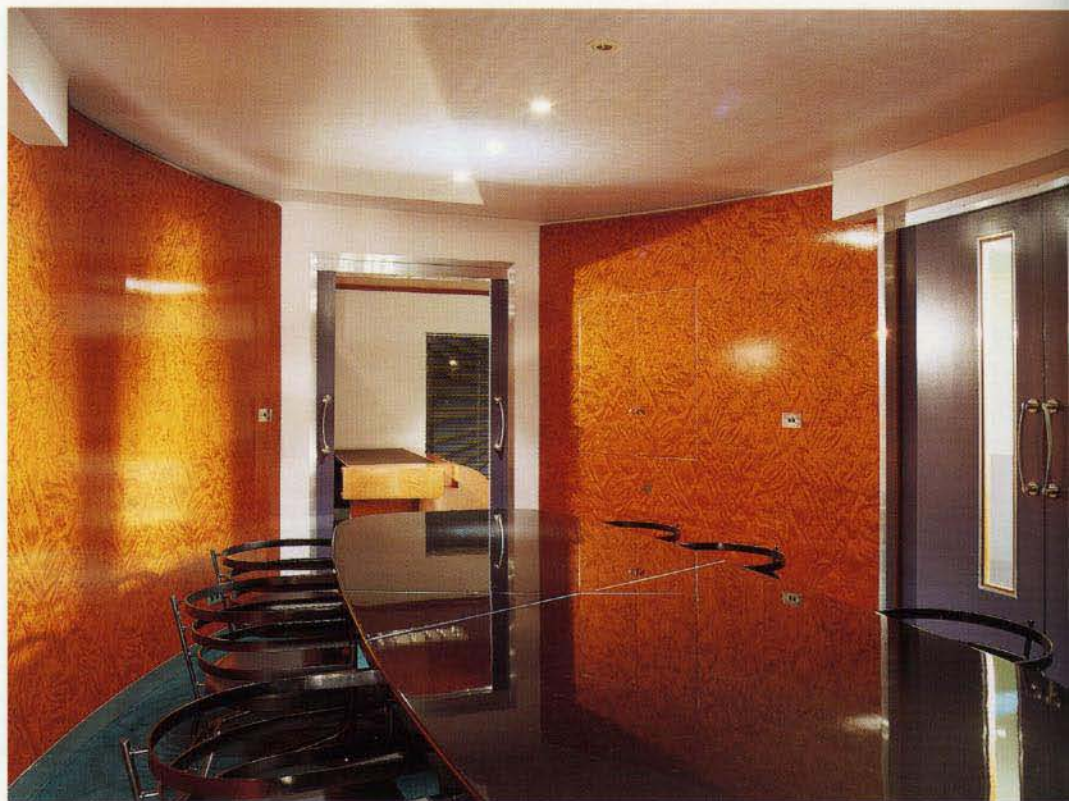
- |  |                  |
|--|------------------|
| 1 Display/entrance                                 | 5 Tunnel pod     |
| 2 Mezzanine  | 6 Loading bay    |
| 3 Fully glazed elevation                           | 7 Plant compound |
| 4 Core including baby changing and expressing room |                  |



**Lorraine-Lea Linen**  
**Mulgrave, Victoria, Australia**  
McBride Charles Ryan Architecture and  
Interior Design

- 1 Boat-shaped, black imperite boardroom table wrapped by rich timber veneer, creating intimacy, luxuriousness and a sense of importance
- 2 Upstairs landing allows Managing Director to view warehouse and downstairs office space
- 3 Pearlized aluminium car paint balustrade and deep green carpet lead to boardroom and Managing Director's office
- 4 Rubberized flooring is mint green. Shelving is bright orange. Color is used to make a utilitarian space more uplifting

Photo credit: Trevor Mein



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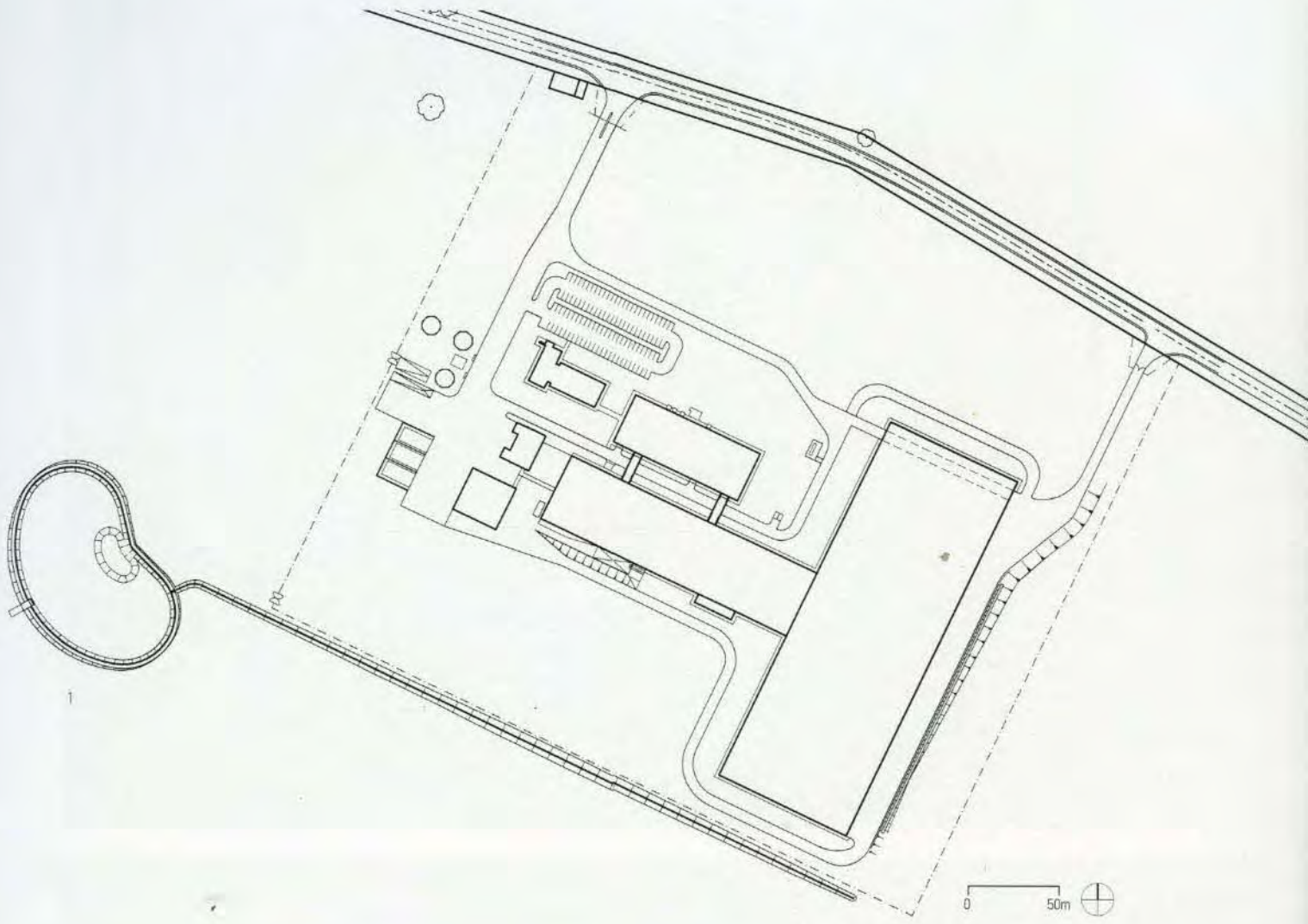


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**AMCOR Glass Bottle Manufacturing Plant**  
**Gawler, South Australia, Australia**  
 Architectus Melbourne Pty Ltd

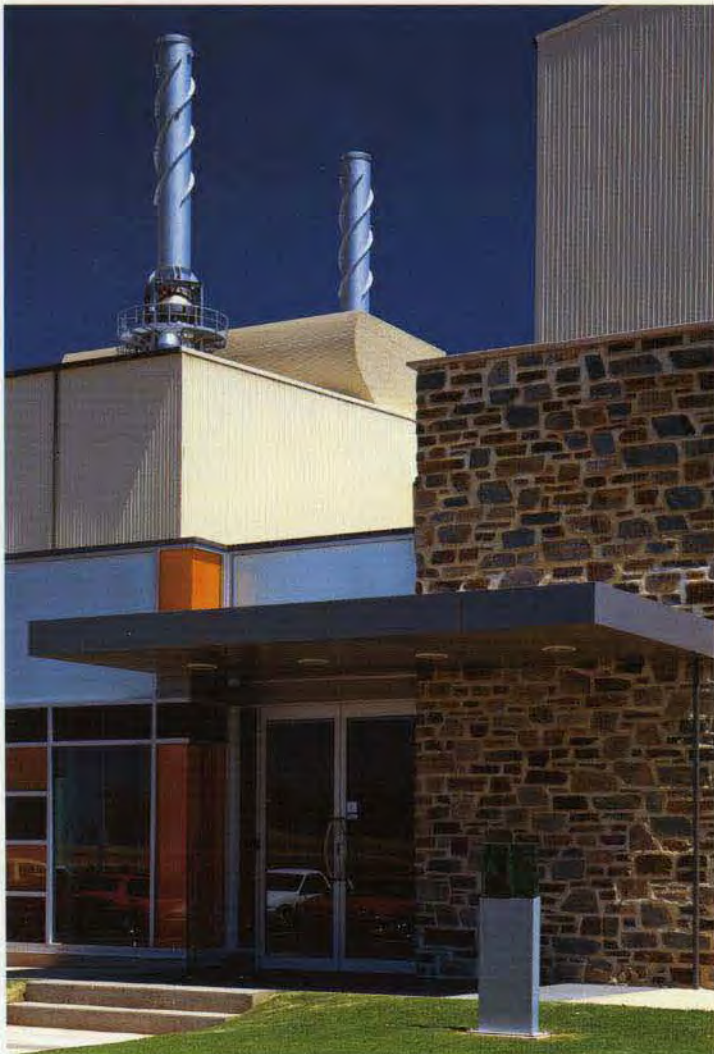
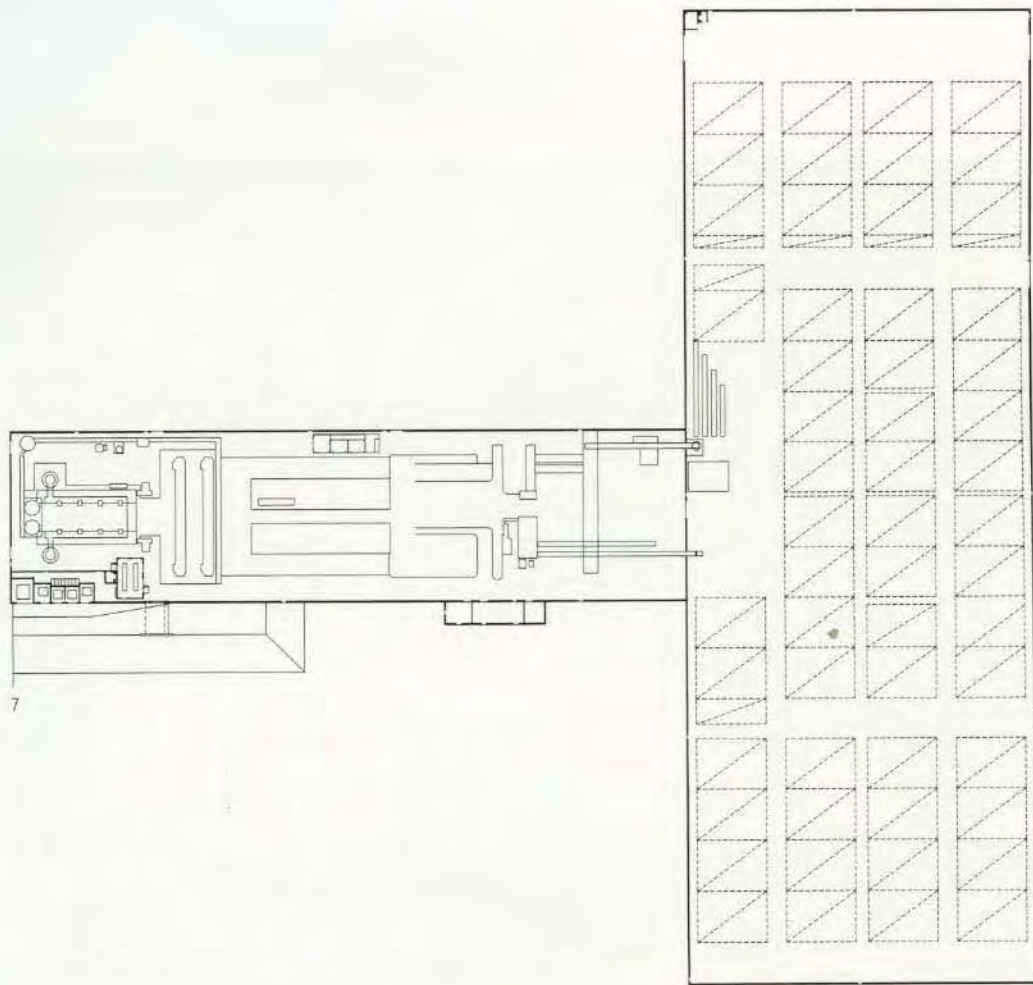
- 1 Site plan
- 2&3 Aerial views
- 4 Office
- 5 View from site entry
- 6 Batch house and utilities building

Photo credit: Trevor Fox













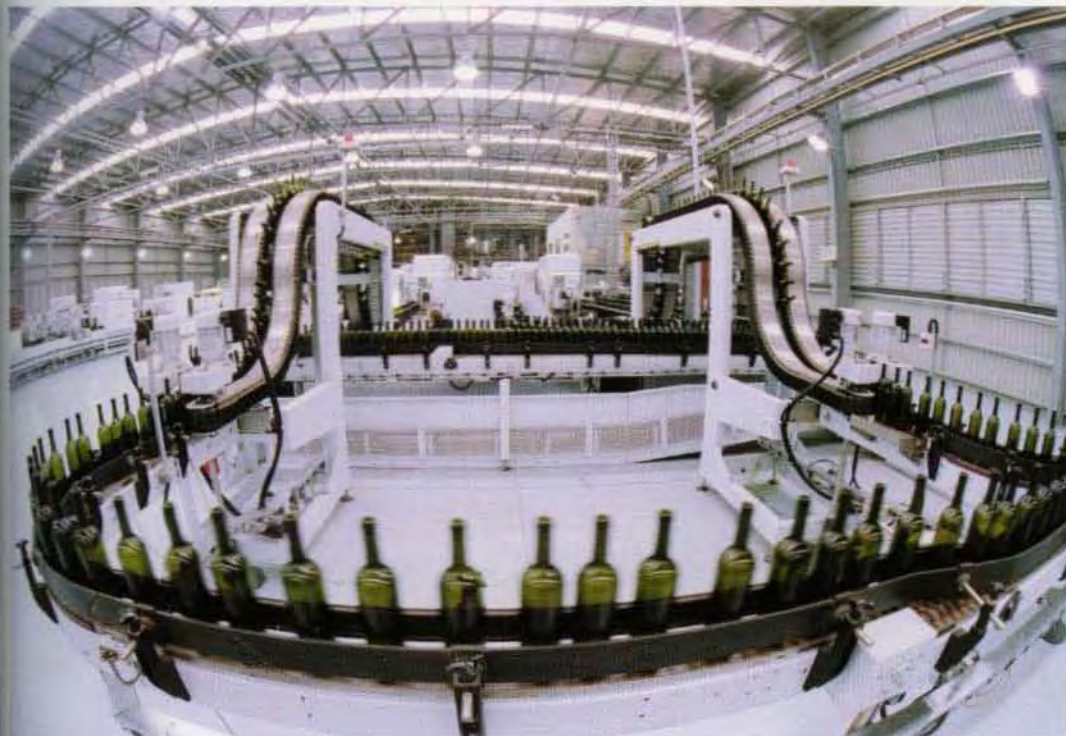
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**AMCOR Glass Bottle Manufacturing Plant  
Gawler, South Australia, Australia**  
Architectus Melbourne Pty Ltd

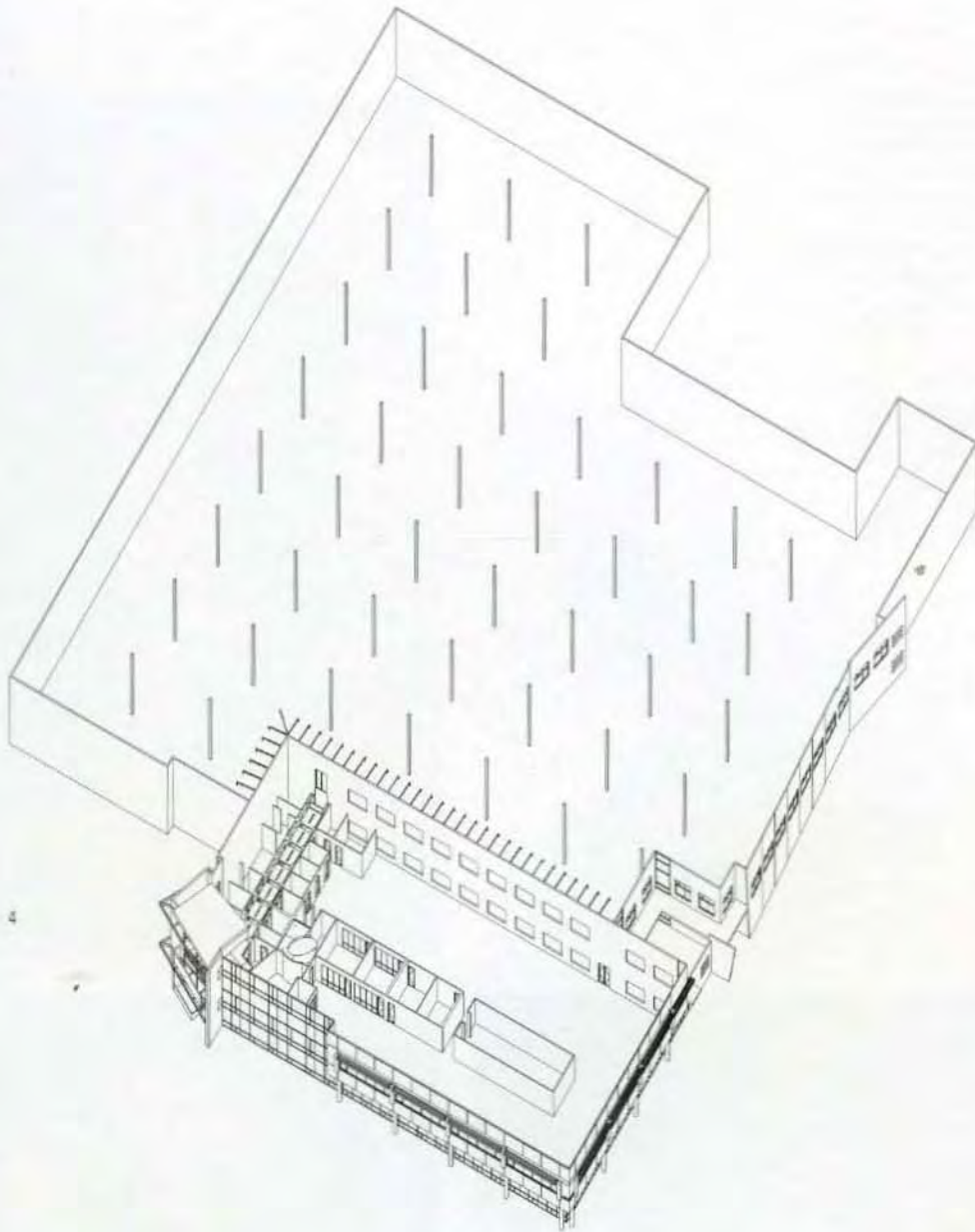
- 7 Floor plan
- 8 Entry to office
- 9 Office sunscreen detail
- 10 Office entry colored glazing detail
- 11 Office amenities glazing detail
- 12 Glass bottle manufacturing
- 13 Glass bottle conveyor

Photo credit: Trevor Fox (8-11); courtesy AMCOR (12&13)









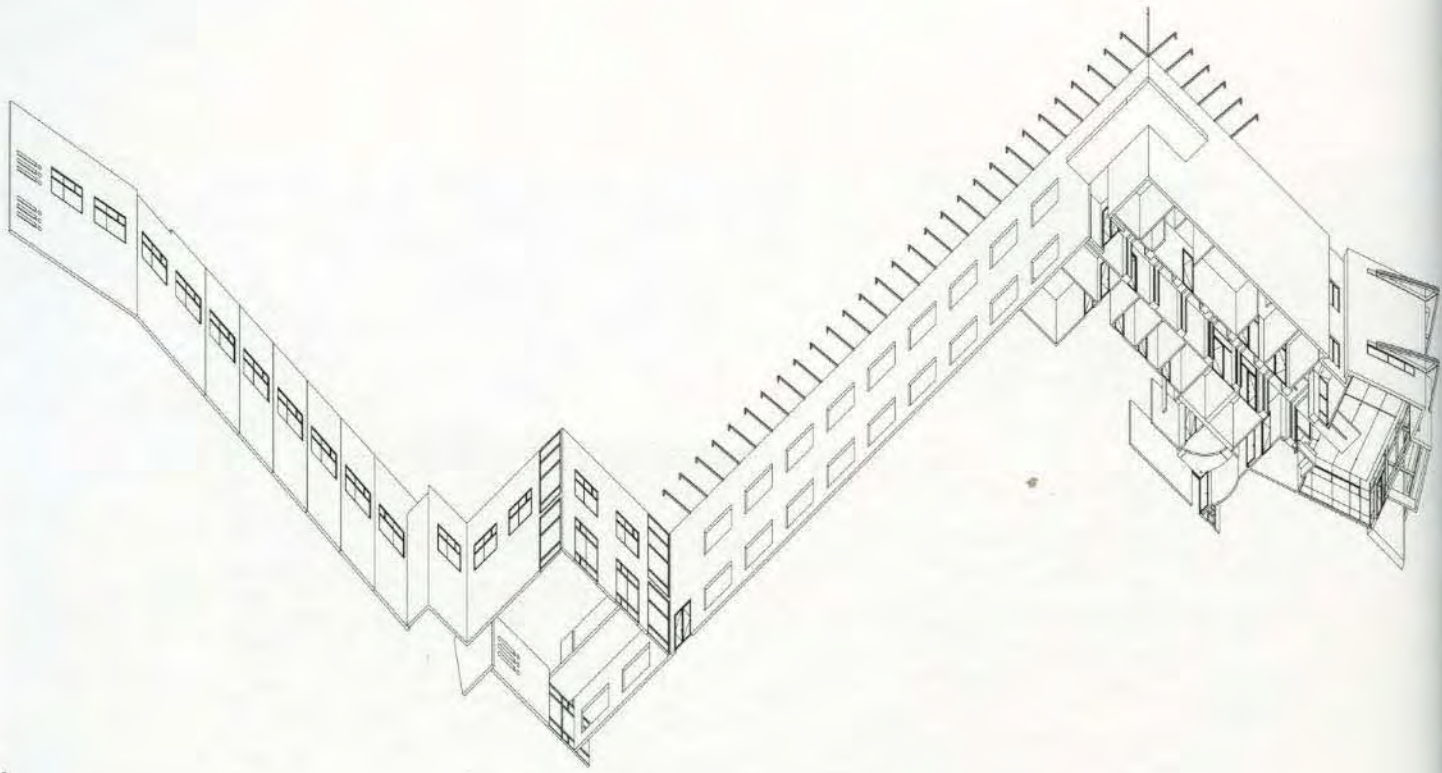
**RTRON Electronics Manufacturing  
Houston, Texas, USA**

Powers Brown Architecture

- 1 South elevation
- 2 View at east entry looking south
- 3 View at entry
- 4 Building axonometric
- 5 View at exterior court

Photo credit: Dror Baldinger





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**RTRON Electronics Manufacturing  
Houston, Texas, USA**

Powers Brown Architecture

- 6 Extended axonometric
- 7 View at exterior court looking north
- 8 View at east entry
- 9 View at entry looking east
- 10 View at entry
- 11 View at second floor offices

Photo credit: Dror Baldinger





**RTRON Electronics Manufacturing**  
**Houston, Texas, USA**  
Powers Brown Architecture  
12&13 Interior at entry lobby  
Photo credit: Jud Haggard







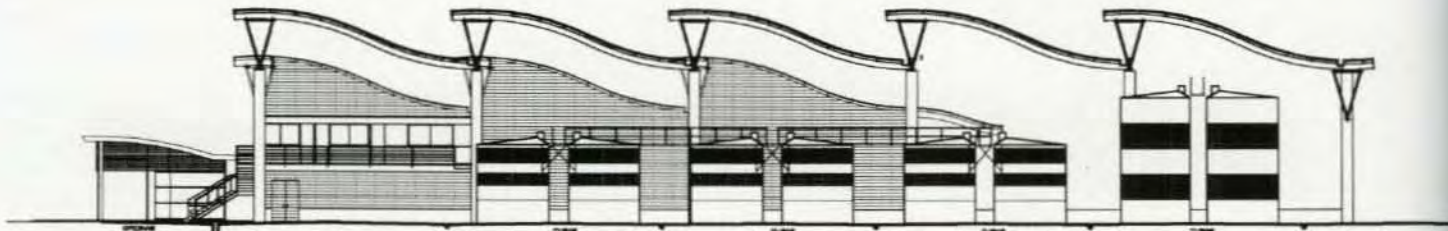
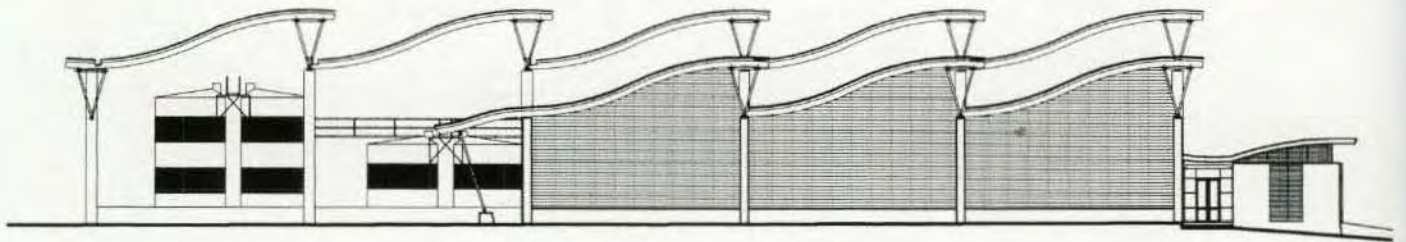


**Viña Terramater**  
**Isla de Maipo, Chile**  
 Guillermo Hevia & Asociados/Arquitectos

- 1 Sections
- 2&3 General view of warehouse
- 4 Side walls of warehouse, showing curved roof

- 5 Upper triangular beam
- 6 Site plan
- 7 Roof detail showing beams, pillars and revetments
- 8 Beam detail

Photo credit: courtesy Guillermo Hevia



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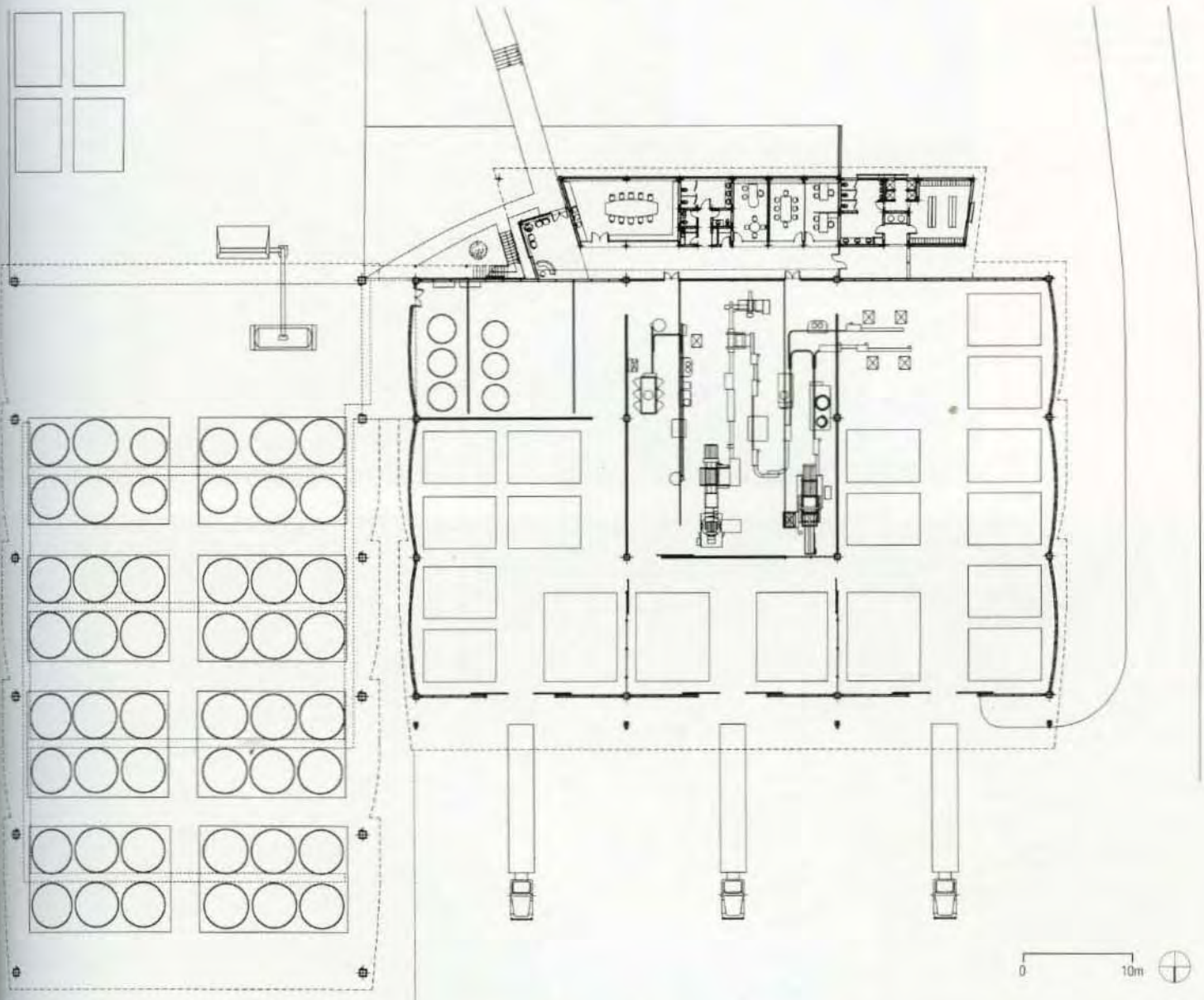


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**Level (3) Communications**  
**Boston, Massachusetts, USA**  
HLW International LLP

- 1 Exterior detail
- 2 Exterior
- 3 Exterior at night
- 4 Exterior entry

Photo credit: Peter Paige



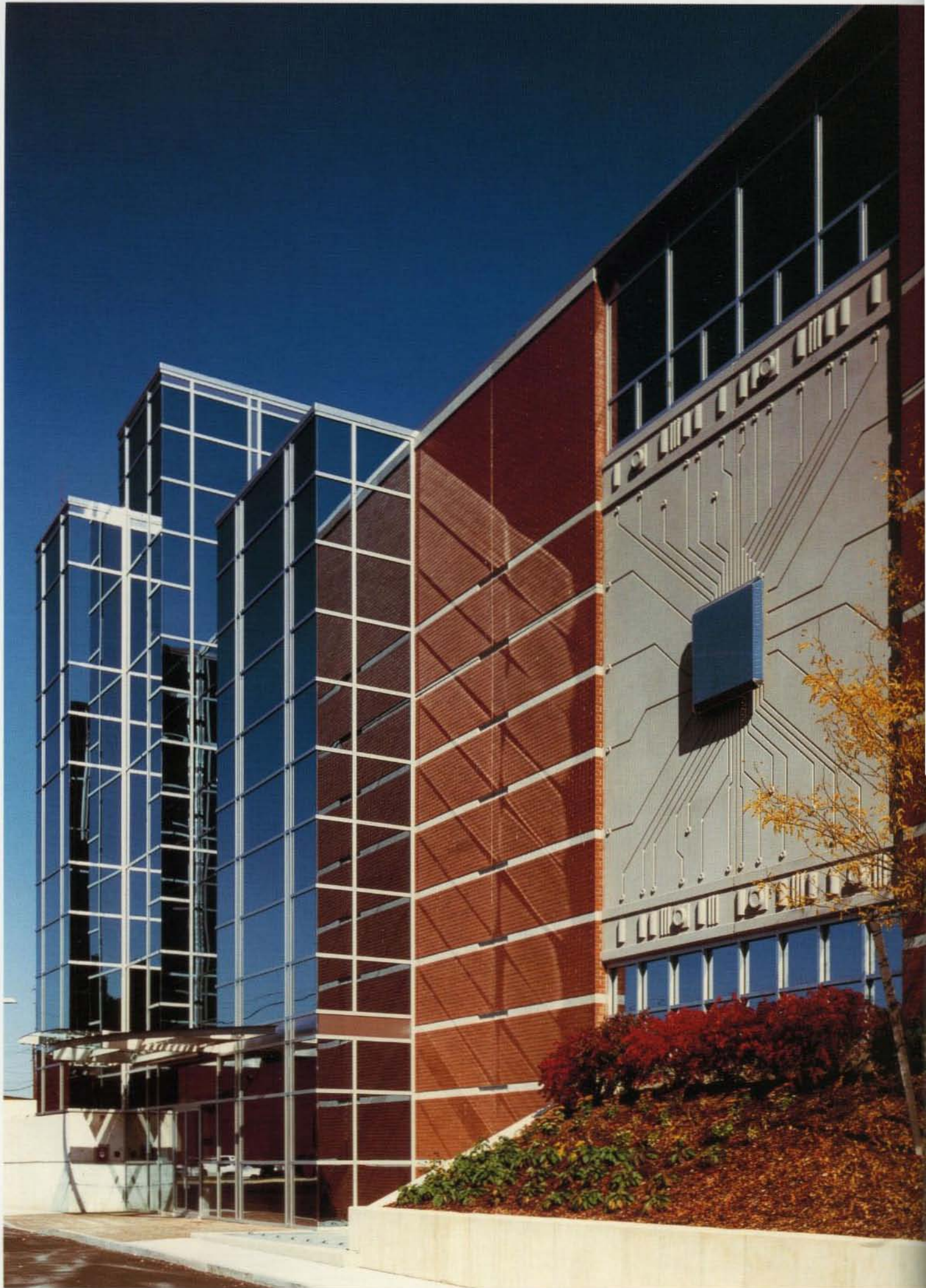
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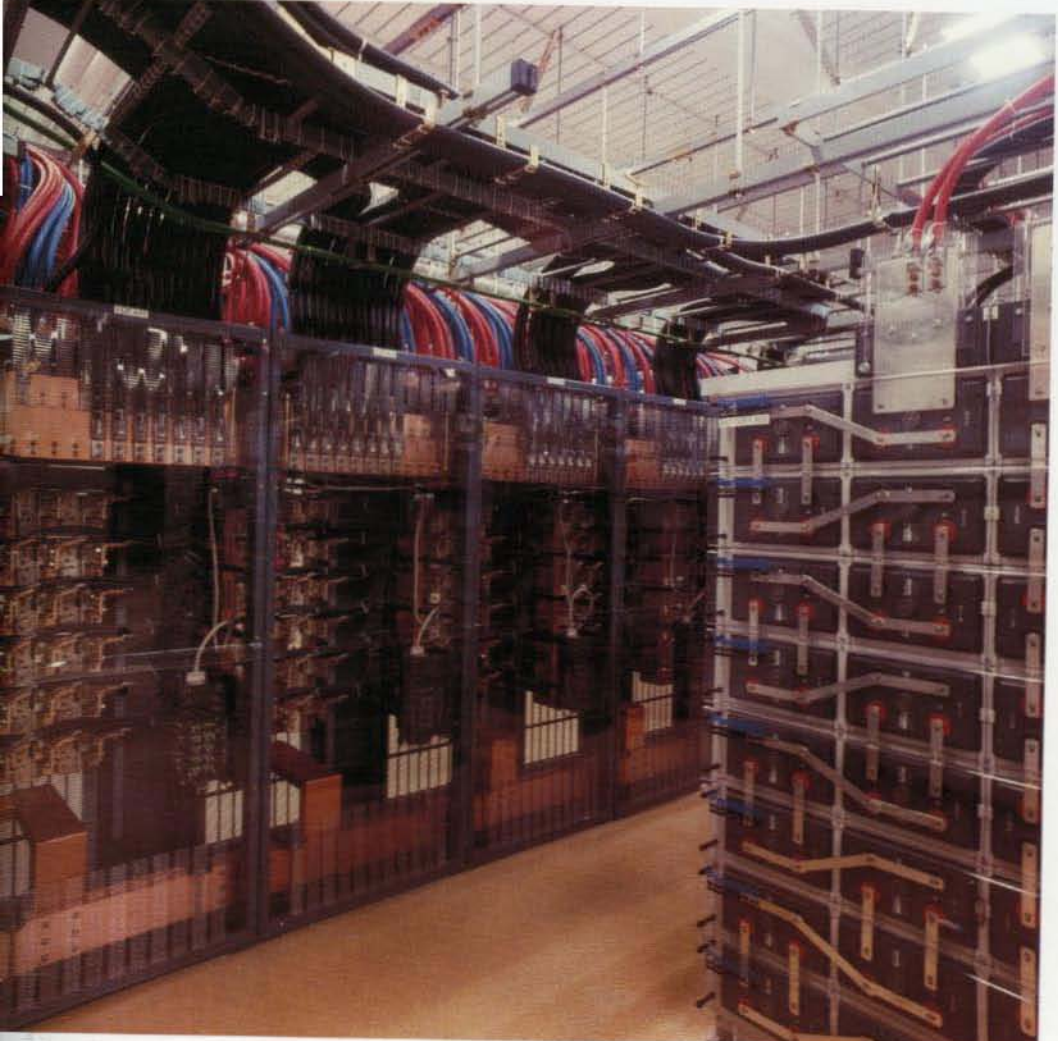








**Level (3) Communications**  
**Boston, Massachusetts, USA**  
HLW International LLP  
5 Exterior detail  
6&7 Fiber optic housing area  
Photo credit: Peter Paige





**Ajinomoto New Research Building  
Kawasaki, Japan**

Shimizu Corporation

- 1 South elevation; levels 3–5 are research laboratories
- 2 South elevation with view of adjoining plant
- 3 Communication hall on level 2
- 4 Communication hall
- 5 Entrance hall

Photo credit: Nacása & Partners Inc. (1–3);  
Miyagawa Co., Ltd (4&5)







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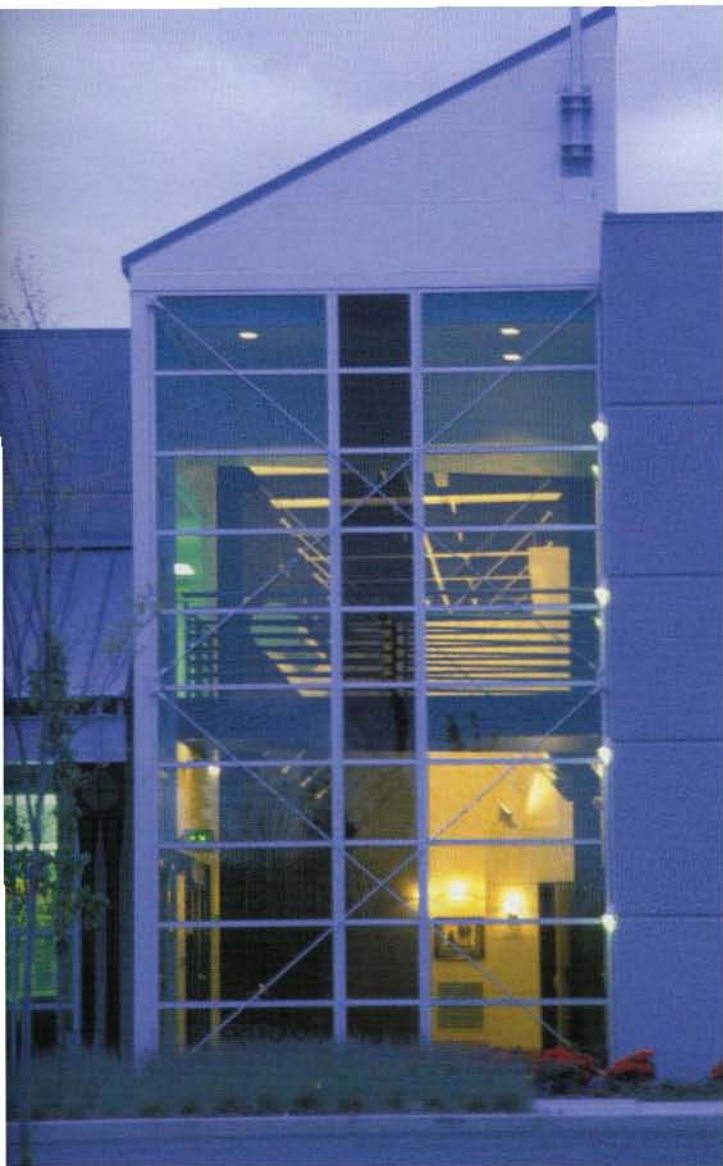
**Sheet Metal Workers Training Center  
Gresham, Oregon, USA**

Ankrom Moisan Associated Architects

- 1 Office building/student training center
- 2 Covered building/ student canopy
- 3 Administration entry at dusk
- 4 Exposed structural elements are carried from building exterior through interior
- 5 Interior spaces incorporate exposed steel and mechanical elements to portray a relationship to their trade
- 6 Looking from student walkway, entrances to large meeting area
- 7 Student walkway above connects to classrooms at each side

Photo credit: Michael Mathers



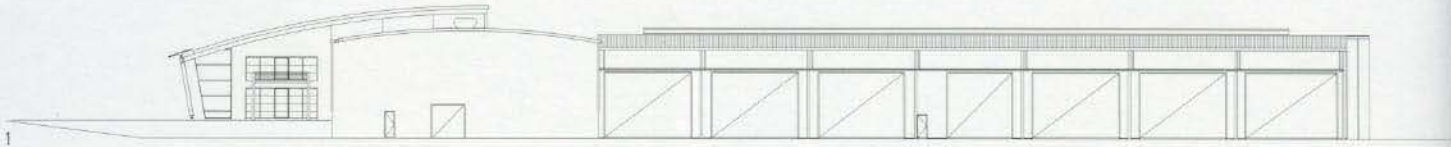


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**Cummins Engine Company**  
**Perth, Western Australia, Australia**  
Woods Bagot Pty Ltd

- 1 North elevation
- 2 East elevation
- 3 Entry, showing warehouse
- 4 Entry
- 5 Reception

Following pages:  
Truck workshop  
Photo credit: Rob Frith



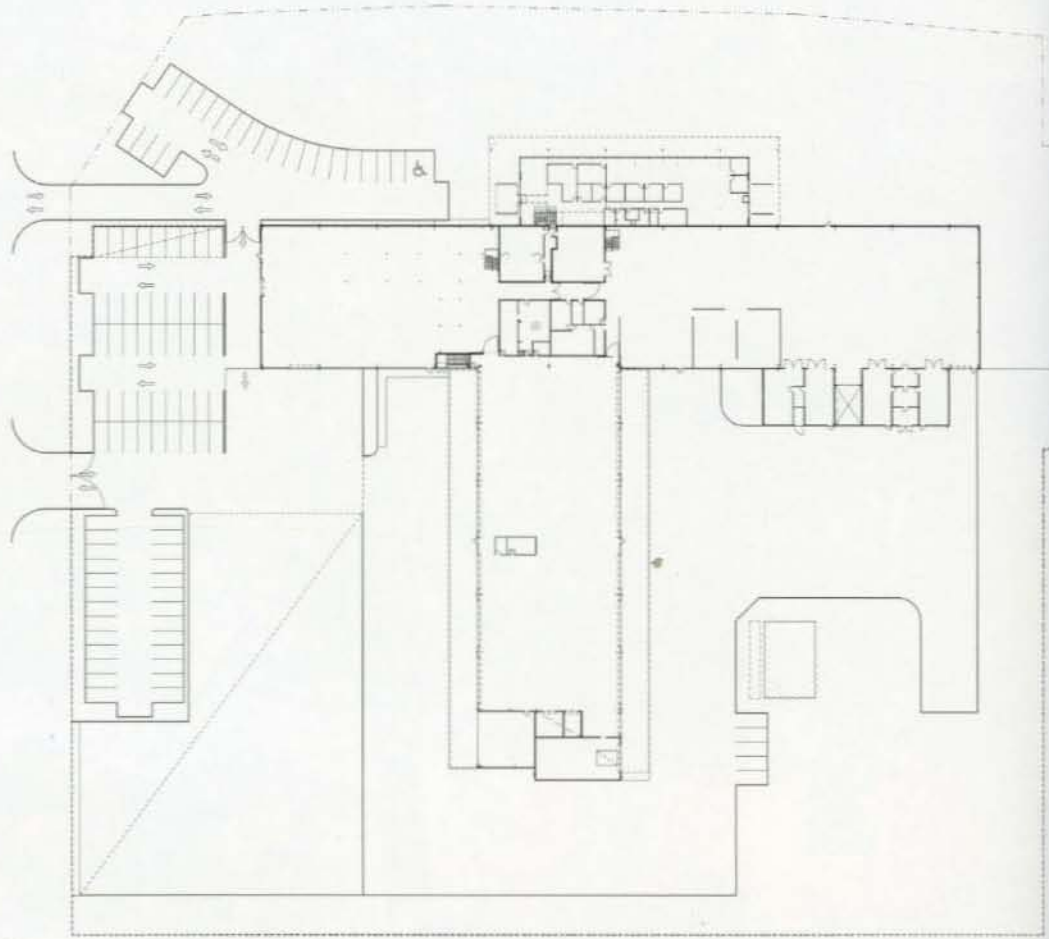








**Cummins Engine Company**  
Perth, Western Australia, Australia  
Woods Bagot Pty Ltd  
7 Floor plan  
8 Truck workshop  
Photo credit: Rob Frith



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**Glendale Community College, Physical Sciences Building**

**Glendale, Arizona, USA**

Richard & Bauer Architecture

- 1 Butterfly roof extends over lab entry, providing both shade and bounced indirect daylight; vertically cantilevered tilt slab concrete walls enclose office commons beyond
- 2 Each laboratory has access to natural light through continuous clerestories, which also allow entry and exit of all laboratory services
- 3 Lab plumbing is provided by accessible trenches below the slab to create open sightlines; materials include ground concrete floors, maple casework, exposed concrete block and painted steel
- 4 Exposed steel structure and building systems are softened by use of natural maple throughout; daylight is introduced by internal skylights within each office, while windowboxes provide views
- 5 Within faculty office and student commons areas, mechanical systems are housed in metal skinned volumes; continuous slit skylights provide daylight throughout building

Photo credit: Bill Timmerman



**Water Supplies Department Southwest Regional Depot  
Cheung Sha Wan, Hong Kong SAR, PRC  
RMJM Hong Kong Limited**

- 1 Workshop for technical staff
- 2 Lift lobby
- 3 Meeting room
- 4 External view of depot

Photo credit: Kerun Ip



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**Chesapeake Waynoka Field Office**

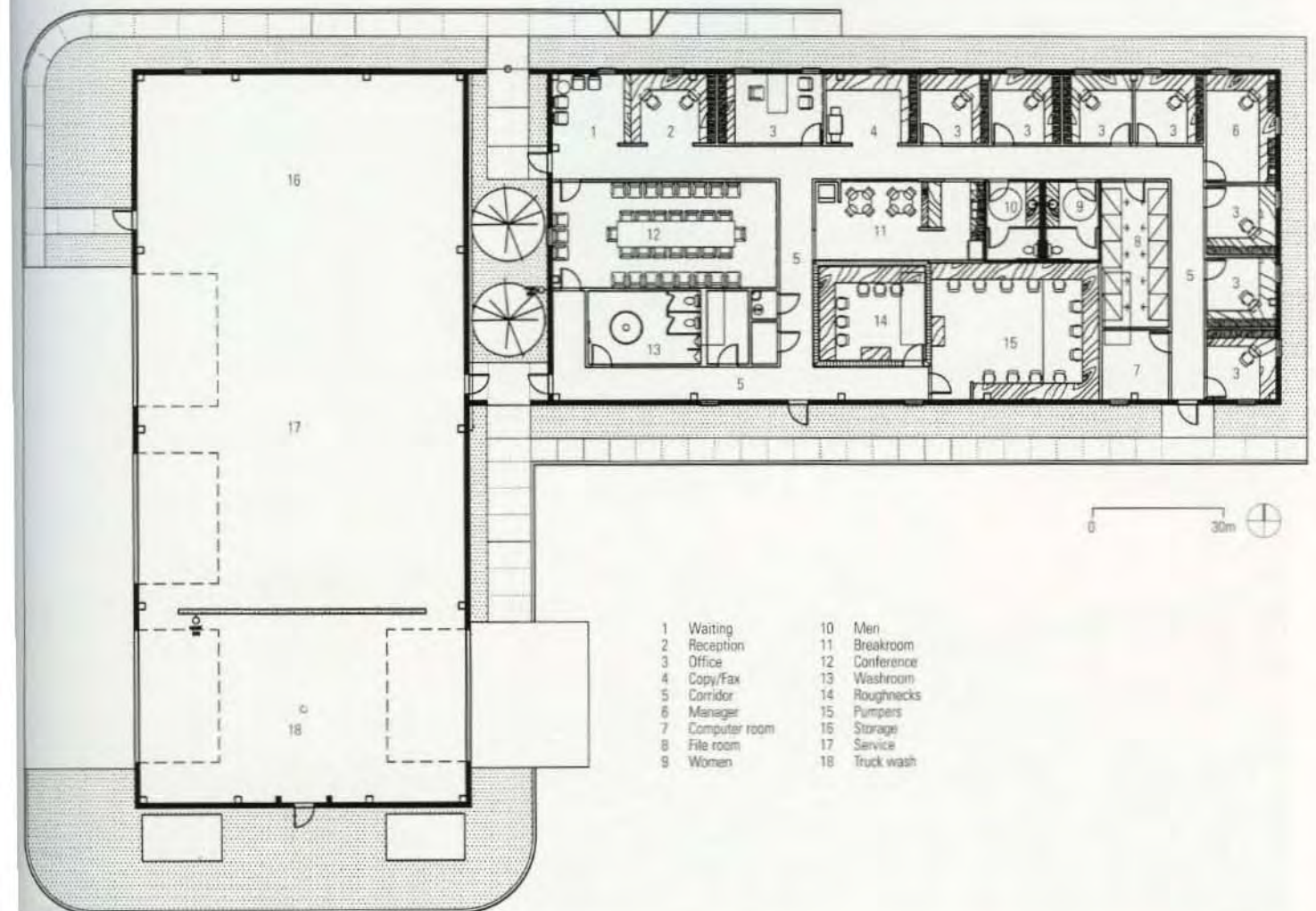
Waynoka, Oklahoma, USA

Elliott + Associates Architects

1 View looking southeast

2 Floor plan

Photo credit: Robert Shimer/Hedrich-Blessing





**Chesapeake Waynoka Field Office**  
**Waynoka, Oklahoma, USA**

Elliott + Associates Architects

3 Northwest corner

4 View looking southwest with pipe racks  
in foreground

5 Northwest corner detail

Photo credit: Robert Shimer/Hedrich-Blessing

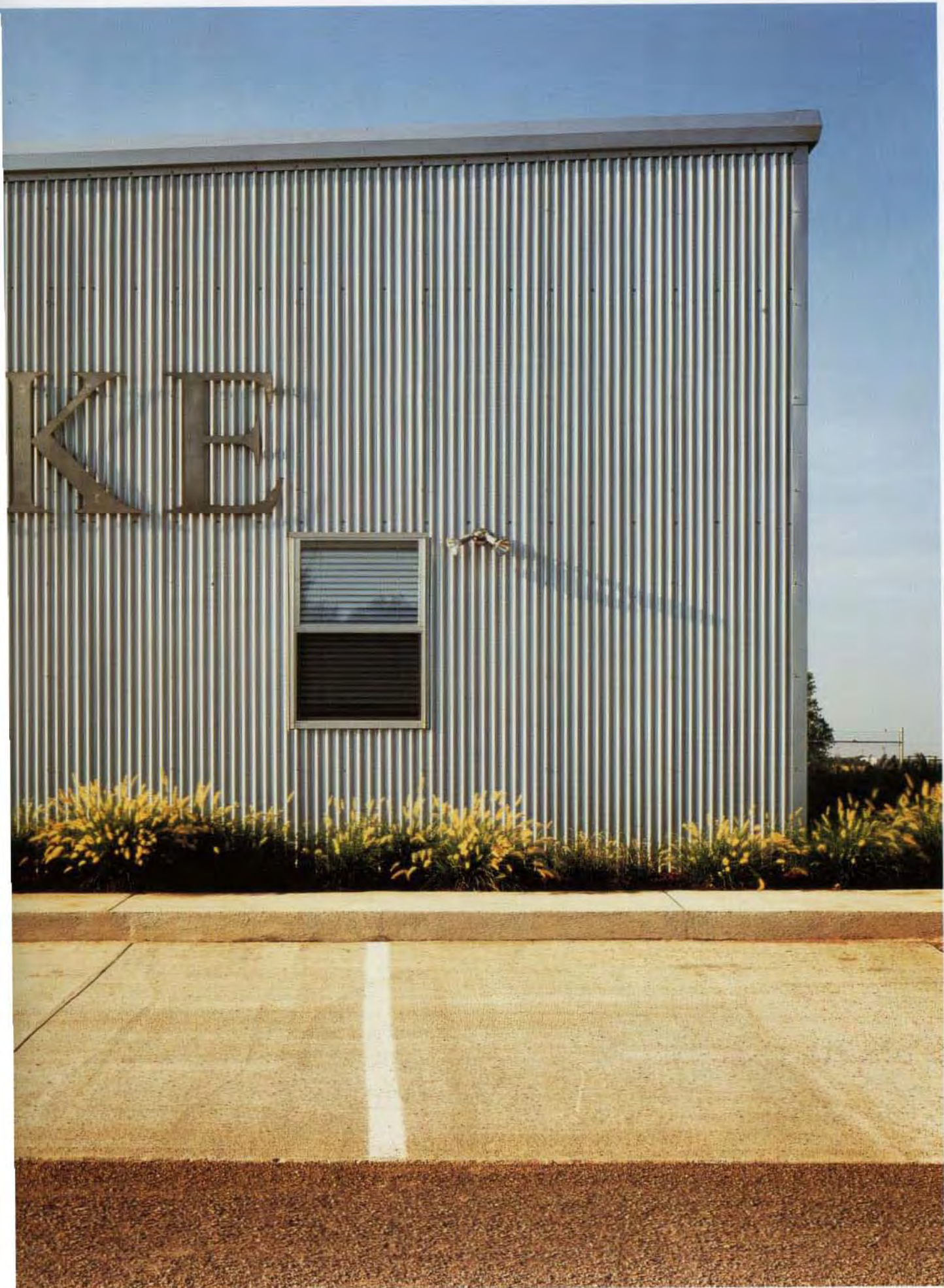


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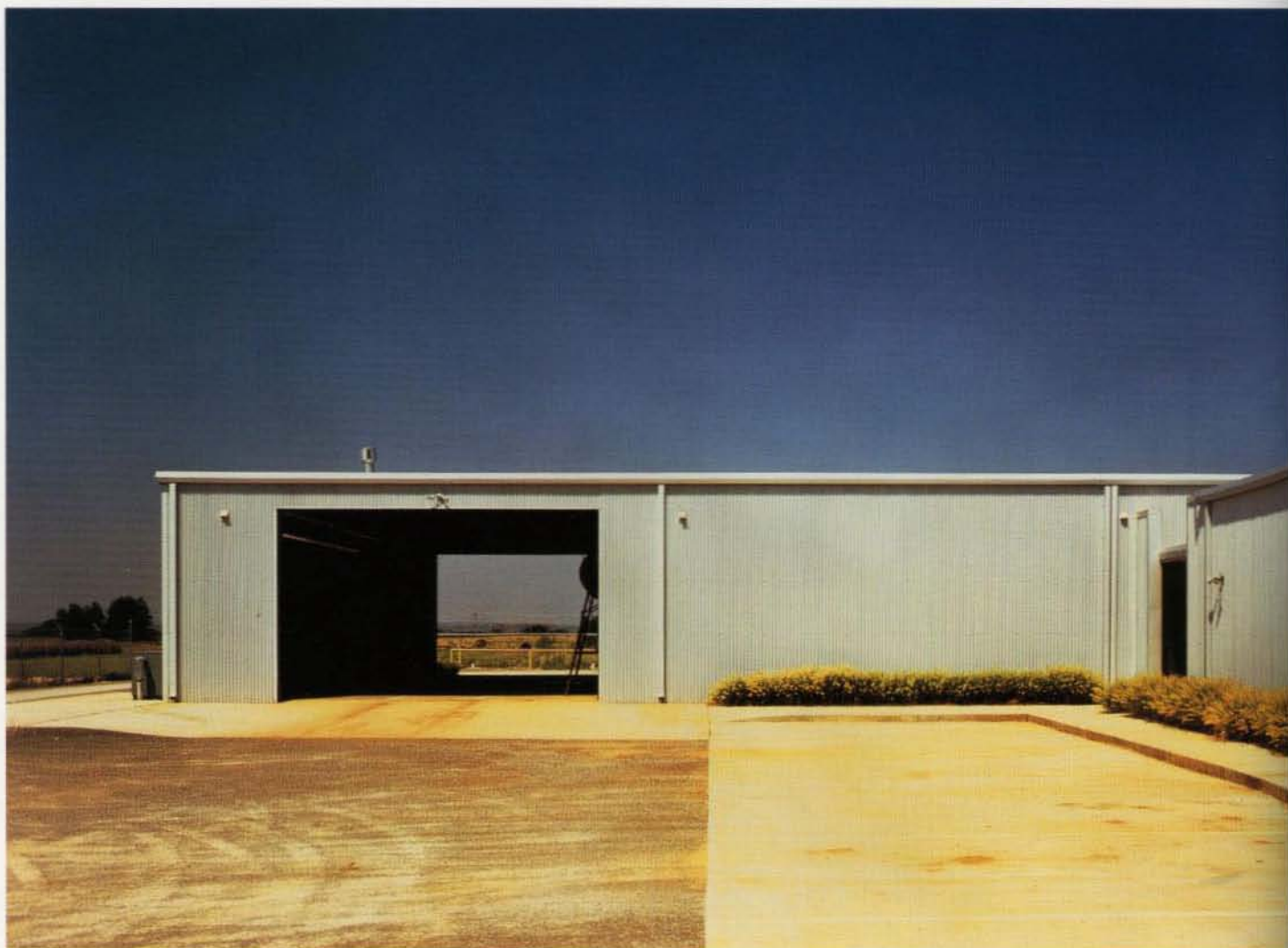




**Chesapeake Waynoka Field Office**  
**Waynoka, Oklahoma, USA**  
Elliott + Associates Architects  
6 Partial north elevation  
7 Service garage looking west  
Opposite:  
Entry courtyard looking south  
Photo credit: Robert Shimer/Hedrich-Blessing



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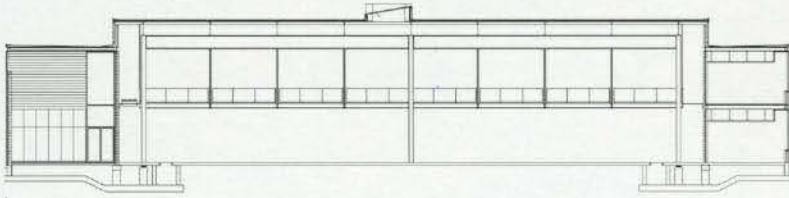






**Customer and Technology Center**  
**Farmington, Connecticut, USA**  
Barkow Leibinger Architects

- 1 Section
  - 2 Main entrance at south façade
  - 3 Southeast corner of building with terraced steps to wetlands in foreground
  - 4 Exterior detail featuring iron-spot brick, sand-blasted concrete block and steel double-height curtain wall
  - 5 Axonometric façade
  - 6 View of southwest corner
- Photo credit: Paul Warchol



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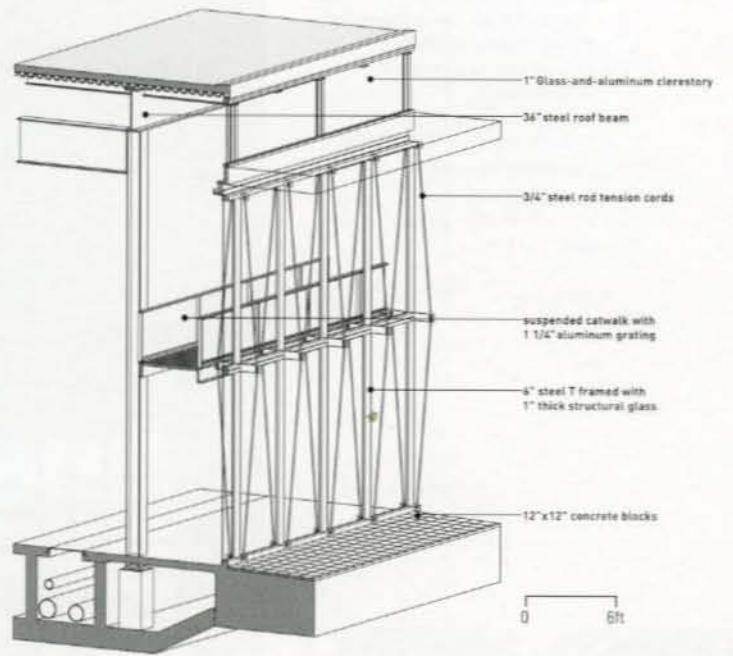


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**Customer and Technology Center  
Farmington, Connecticut, USA**  
Barkow Leibinger Architects

- 7 View of lobby with demonstration hall and wetlands in background
  - 8 Entrance foyer with reception in background
  - 9 Cafeteria looking east towards wetlands area
  - 10 Catwalk circling demonstration hall
  - 11 Ground floor plan
  - 12 Interior of demonstration hall
- Photo credit: Paul Warchol



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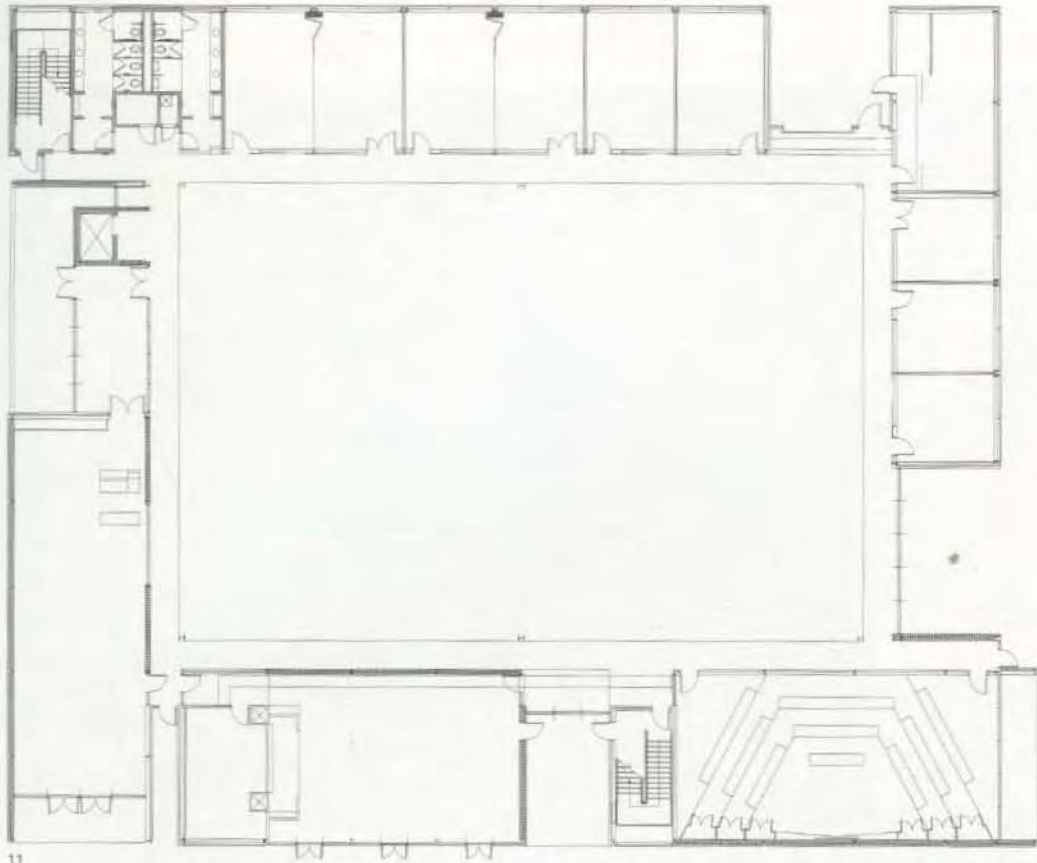


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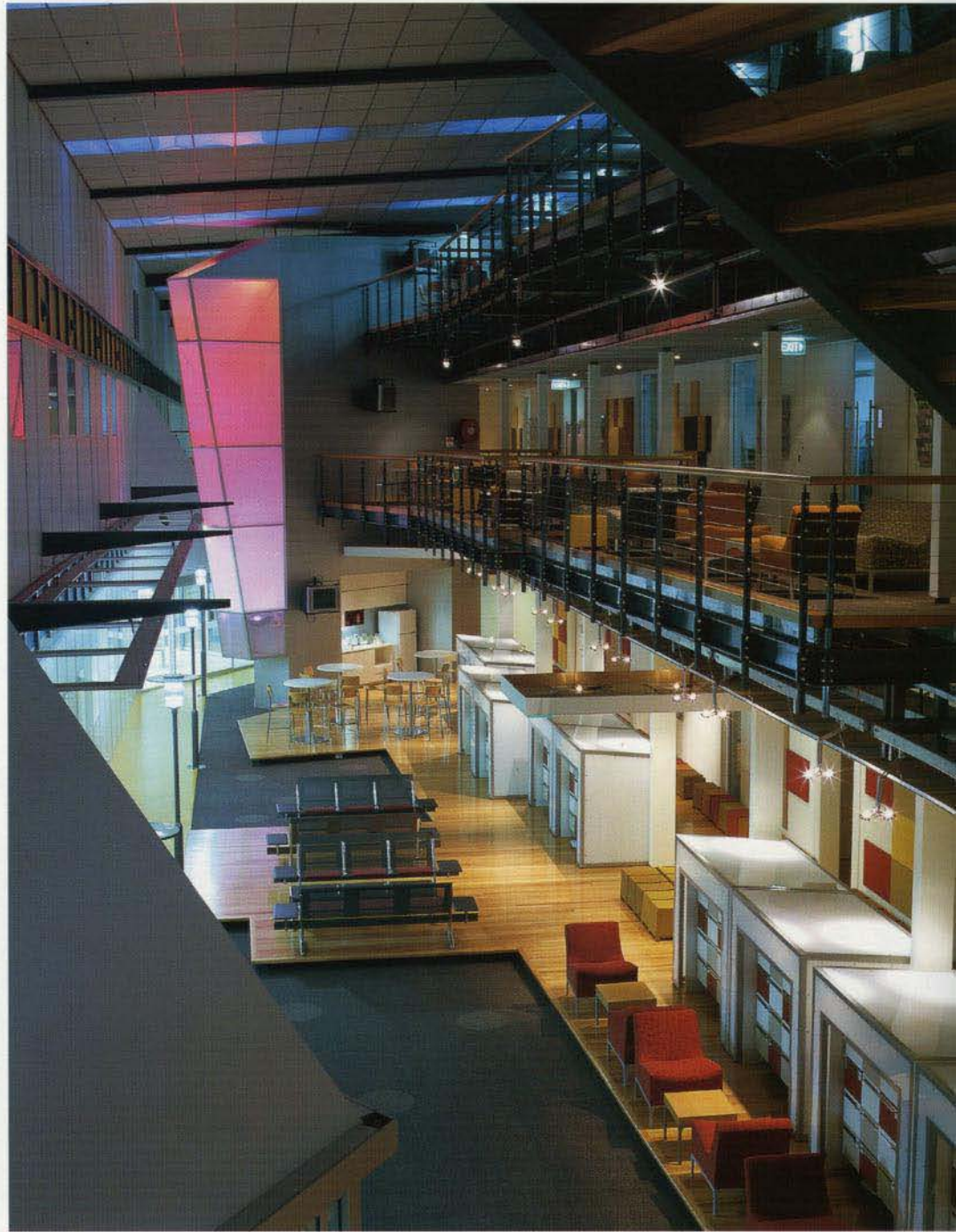


**Nortel Networks – Photonics**  
**Botany, New South Wales, Australia**  
HBO + EMTB

- 1 Overview of 'main street' including office balconies and breakout space
- 2 Reception area
- 3 Water feature at back-of-house entry zone
- 4 Workbenches in testing laboratory
- 5 View down administration access side of 'main street'
- 6 Reading and library space

Following pages:  
Breakout space

Photo credit: Tyrone Branigan.



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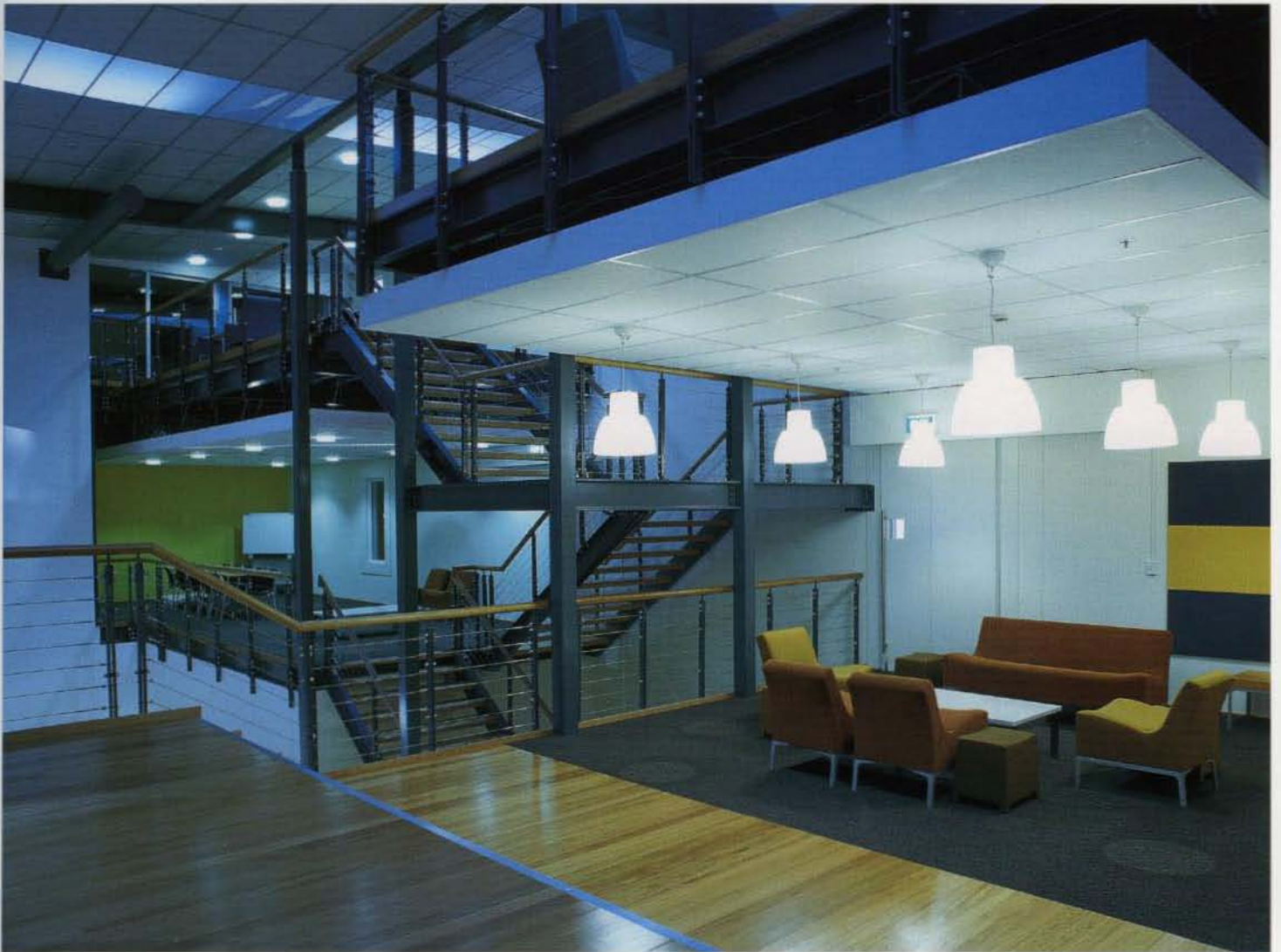




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