



Erik S. Mustonen Landscape Architect

**INTERNATIONAL WORK**



# Menara TM (Telekom Malaysia Headquarters Building) Kuala Lumpur, Malaysia

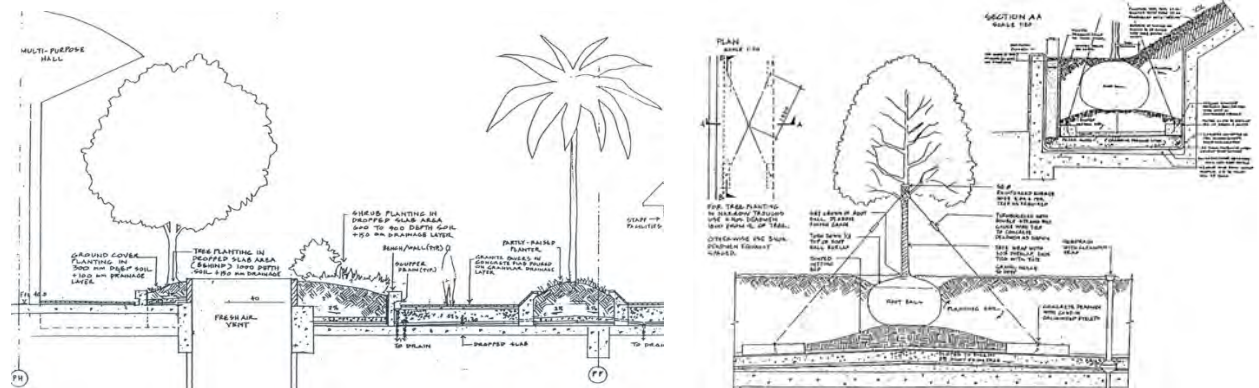


A high-rise tower on a 7-acre podium over a parking garage, with an auditorium, multi-purpose hall and staff facilities.



Seating area on the podium

Erik Mustonen was the in-house landscape architect for Hijjas Kasturi Associates Architects & Planners Sdn. Menara TM was designed as a high-rise tower on a 7-acre podium over a parking garage, with an auditorium, a sports multi-purpose hall, a gym, a day-care centre and a surau (Muslim prayer room.) Erik Mustonen carried the landscape design from the earliest conceptual stage through construction documents. He worked in close coordination with the architects and engineers on the project, to integrate the planting with structural and mechanical elements of podium and "Sky Gardens." The structural slab was dropped at most planting areas to permit the planting to be more gracefully incorporated.



Sketch details for podium planting including dropped structural slab



Podium landscape with planting pits and water feature recessed beneath the plaza surface.





The office tower with Sky Gardens. Auditorium in the foreground.)



Typical Sky Garden on a lower level.



Sky Garden truss structure.

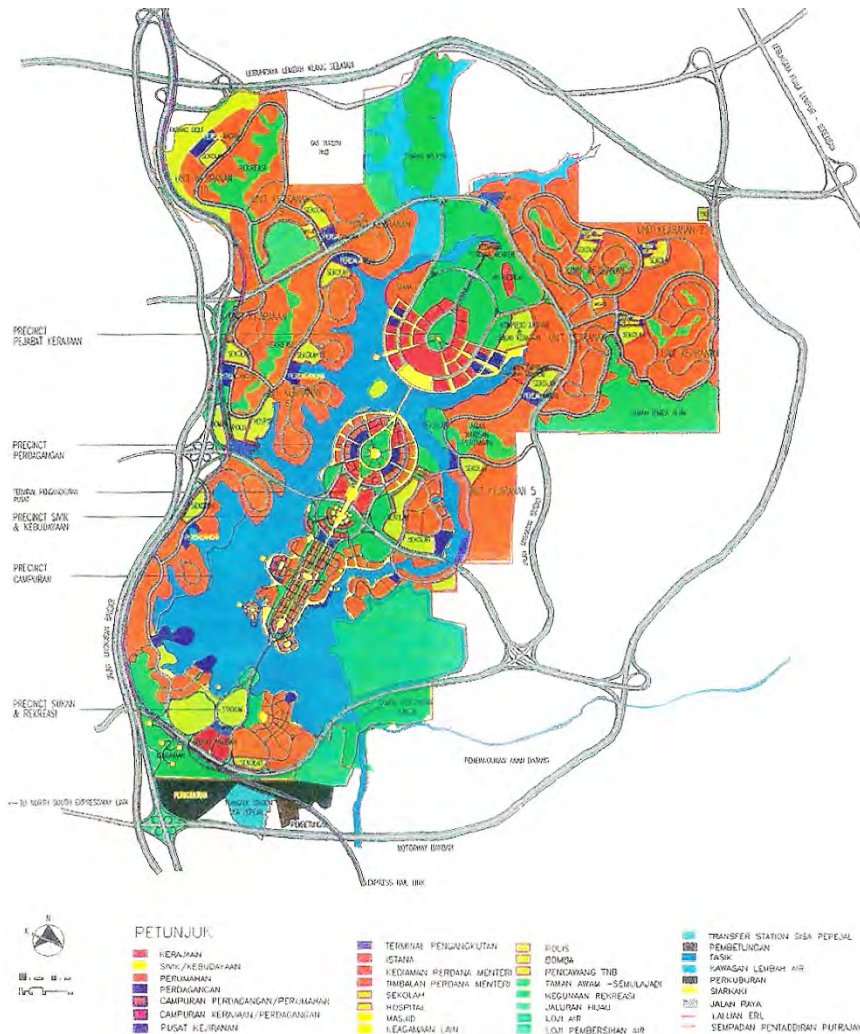


The Menara TM Sky Gardens occur at every three floors on alternate sides of office tower. They are suspended courtyards on lower levels and taper down to planting balconies on the upper levels up to the 54<sup>th</sup> floor. They serve as year-round meeting areas in the tropical climate, and retreat spaces for Telekom Malaysia staff.

In a value engineering exercise toward the end of the architectural design process there was a suggestion that the Sky Gardens might be removed. The structural engineers pointed out, however, that they were actually integral to the building's structure.



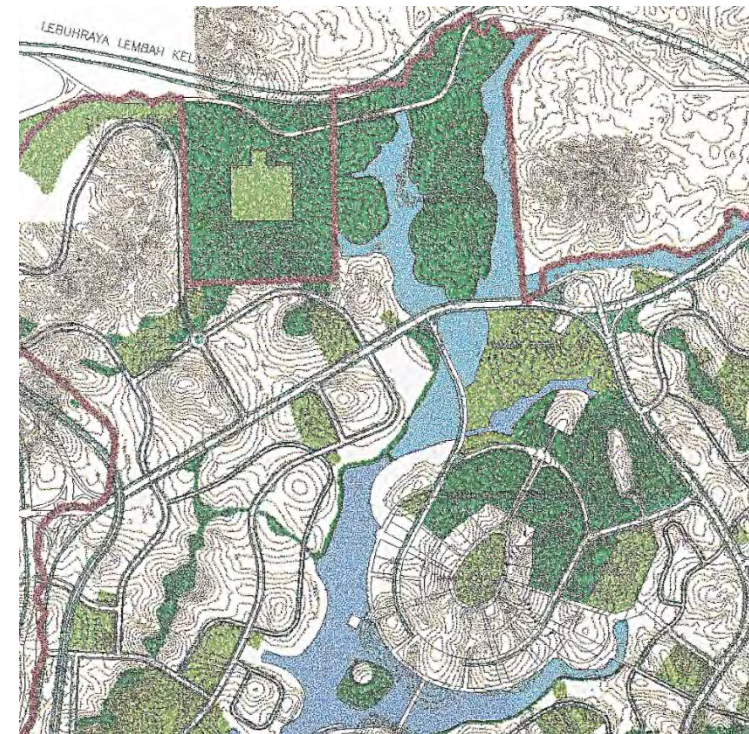
# Putrajaya Federal Administrative District Malaysia



During the development of the selected concept plan he led a team of Malaysian landscape architects in the preparation of the Landscape Guidelines, as a Landscape Master Plan for the city.

## Landscape Master Plan:

Putrajaya was conceived of as both an “intelligent city” and a “garden city.” The latter was achieved through the creation of a Green Network. This included an arboretum in the northern end, and a constructed wetland providing bio-filtration where the stream flows into the artificial lake. Other park areas some formal (especially along the central spine) and some informal, are linked into the network by green connections, which allow wildlife movement as well as recreational use for hiking, strolling, and bicycling. The lake provides opportunities for both casual and competitive rowing and canoeing. Portions of the original oil palm and rubber tree plantations remain.

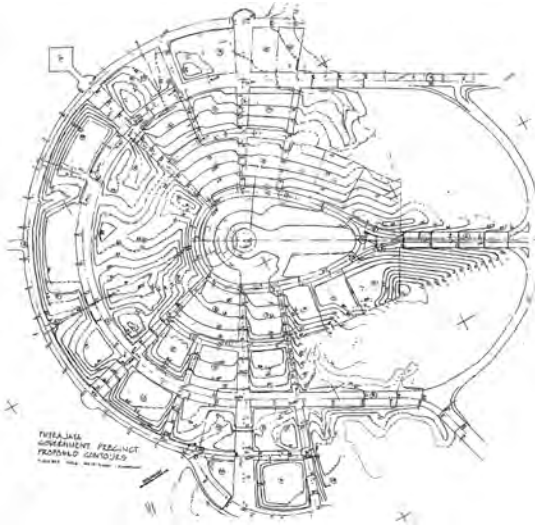


Portion of Green Network Plan

The five largest architecture, planning and engineering firms in Malaysia formed a consortium, Kumpulan Perunding Kota Bistari (the Intelligent City Consulting Consortium), to plan a new federal capital city. Erik Mustonen representing Hijas Kasturi Associates Sdn. Architects and Planners, was seconded to the consortium. He was the only foreigner on the project and in the early stages, the only landscape architect/environmental planner. Erik conducted the initial environmental analysis during the conceptual alternative stage. He also assisted with project management and reviewed the work of the planners and engineers to advocate for minimizing the environmental impact of the project.



## The Government Precinct:



Government Precinct Sketch Grading Plan (5m contours.)

Erik Mustonen's work on the project included preparation of preliminary grading plans for Phase 1 – the Government Precinct. This was a challenge because it was a formal axial and radial layout implemented on a very irregular, hilly site.



The Artificial lake with a series of bridges and islands and the green network.



Government Precinct Rendering.



The main (Putra) mosque, park areas and a boulevard.



Putrajaya today:

Malaysia also concurrently developed a second new town adjacent to Putrajaya, called Cyberjaya, as a focus for high-tech industries. Putrajaya and Cyberjaya are now linked with Kuala Lumpur and the Kuala Lumpur International Airport, by an efficient high-speed rail line.



Putrajaya has become a fully livable city with the artificial lake and significant portions of the central axis completed, major infrastructure in place and buildings constructed not only in Phase 1, the Government Precinct, but also in other areas. The landscape is maturing. With its major parks and spacious boulevards, the city is the focus for many public events on a national scale such as the Malaysian Independence Day parade, garden shows, aquatic games and an international fireworks competition.



Putrajaya (centre) and Cyberjaya (left) 2007.



A promenade, the lake, the main (Putra) mosque, and Prime Minister's Offices.



Putrajaya Government Precinct (right), Commercial Precinct (lower left) and Cyberjaya 2013.



# Al-Khafji Joint Operations Master Plan Al-Khafji, Saudi Arabia

Al-Khafji Joint-Operations, a tri-national (Saudi, Kuwaiti and Japanese) joint-venture oil company, retained URS Corp. to oversee the development of a master plan for Al-Khafji, an oil company town on the Arabian Gulf, 10km from the Kuwait border. The buildings and infrastructure dated from the 1960s and 1970s. It had been the only town in Saudi Arabia to have been invaded by Iraq in the first Gulf War.

Erik Mustonen was one of eight URS Corp. program management consultants representing the client to oversee the work of planning, engineering and architectural firms on the master plan. These were initially all Saudi firms. However, after Erik wrote a detailed critical analysis of the concept developed by a Saudi architect, the client chose to remove that firm and upon the recommendation of URS, to bring in Gensler Architects (UK).

The other URS team members consisted of six engineers and a planning technician. As a landscape architect also having a professional degree in architecture/urban design, Mr. Mustonen's role was therefore effectively *Project Manager for Urban Design, Architecture, Environmental Planning and Landscape Architecture*. The client's representative called him "Mr. Urban."

The first concept (Scheme 1) developed in a collaboration between URS and Gensler, was a pragmatic restructuring of the town's existing assets.

The second concept (Scheme 2) was much more dynamic and involved land reclamation into the Arabian Gulf. This was the client's preferred scheme.

The conceptual master plan was completed, but after the events of "9-11," URS Corp. was reluctant to send their personnel to the region. There was also a change in senior management of Al-Khafji Joint Operations, and URS Corp. was replaced by Bechtel on the project in 2002.



Al-Khafji Master Plan – Scheme 1.



Al-Khafji Master Plan – Scheme 2.



# Riyadh Diplomatic Quarter - Extensive Landscape Areas and Earth Berm Riyadh, Saudi Arabia

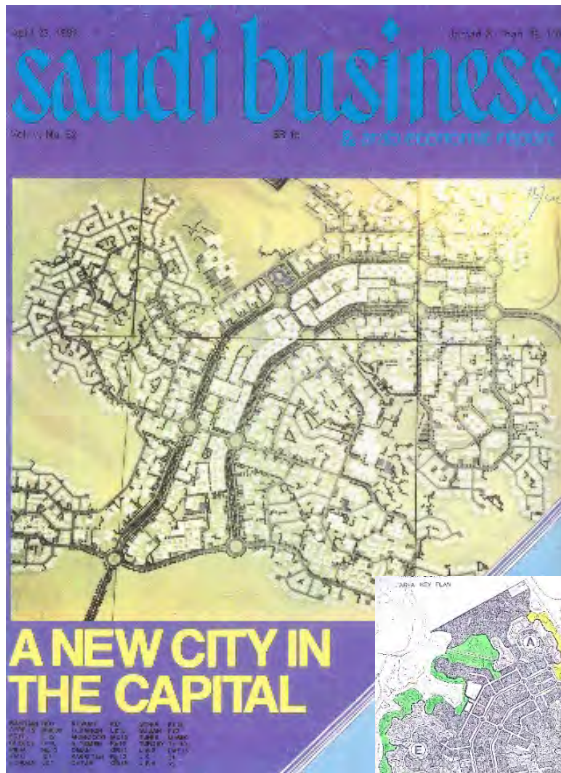
The Riyadh Diplomatic Quarter was created to accommodate the relocation of the Ministry of Foreign Affairs and the entire foreign diplomatic community, from Jeddah to Riyadh into what was to become a new town for 30,000 people. BBW&P Landschaftsarchitekten GmbH, Düsseldorf, were the project landscape architects. Erik Mustonen led an international team for the planning, design development and construction documents, for the two major components on the periphery.

**Extensive Landscape Areas** (shown in green on the Key Plan):

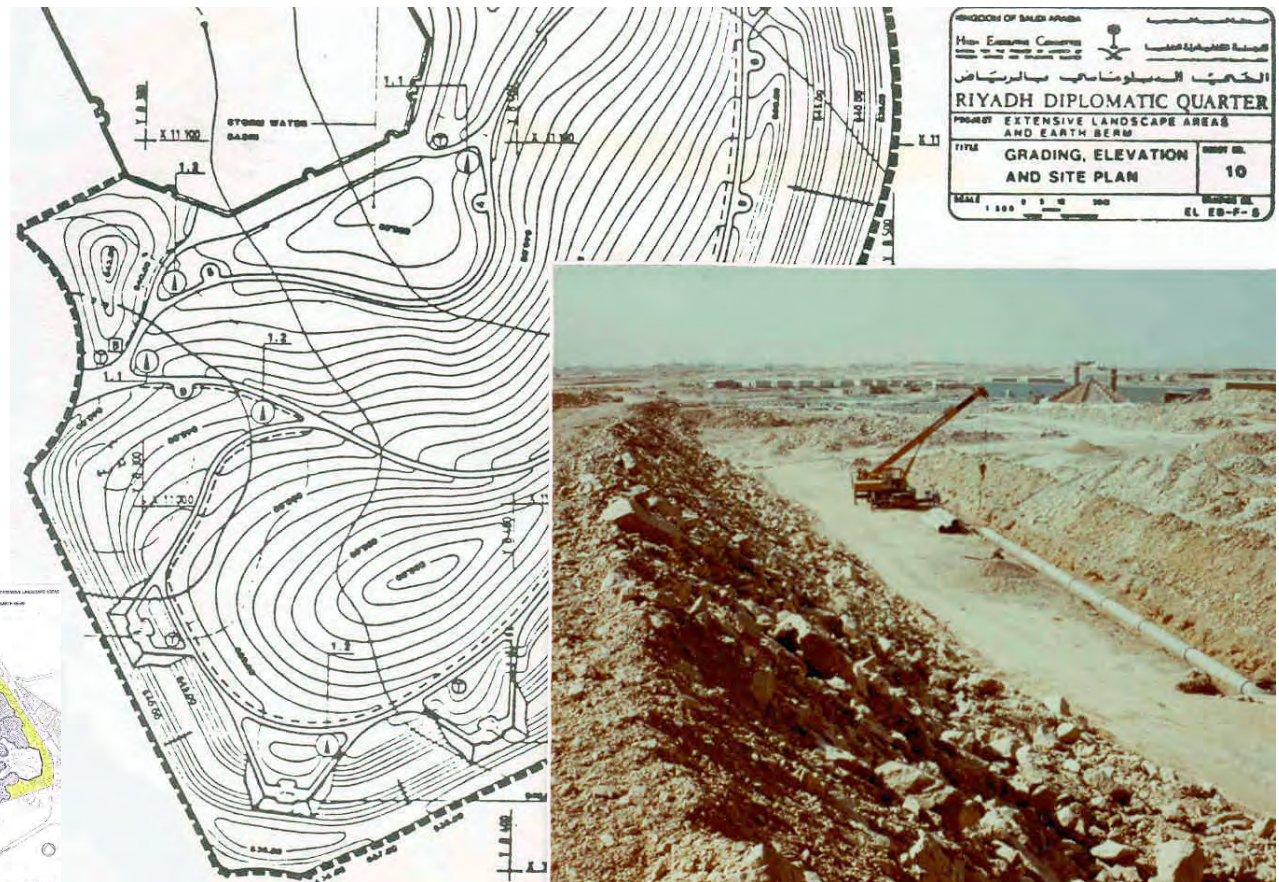
An 85-hectare urban park along the upper edge of an escarpment overlooking the Wadi Hanifah valley. Little or no irrigation would be provided in this natural desert park, so the design utilized drought-resistant native plants along with native limestone, which was used for landscape features.

**Earth Berm** (yellow on Key Plan):

This was a spoils pile for the entire Diplomatic Quarter and a buffer to shield the site from the adjacent freeway, while also serving as a huge earth sculpture and passive recreation area 2.5km long by 10 to 60m in height. Construction had begun before the design, so the team had to scramble to stay ahead of the row of dump trucks creating the berm. A terraced layout served to control runoff while collecting it (with in this case, supplementary irrigation) for xeriscape planting. Terraces and rampart-like viewing platforms along a walking path, added further interest. Lighting was added because the site was most pleasant in the relative cool of the evening. The paths became very popular with the foreign diplomats and their families.



Key Plan



Earth Berm: partial plan (at high point) and view during construction.





The escarpment and the Wadi Hanifah viewed from the Extensive Landscape Areas prior to construction

The native limestone of the site was excavated, shaped and stacked to create walkways, steps, benches, amphitheaters, shade structures and rock art sculpture, under the supervision of a resident landscape architect.

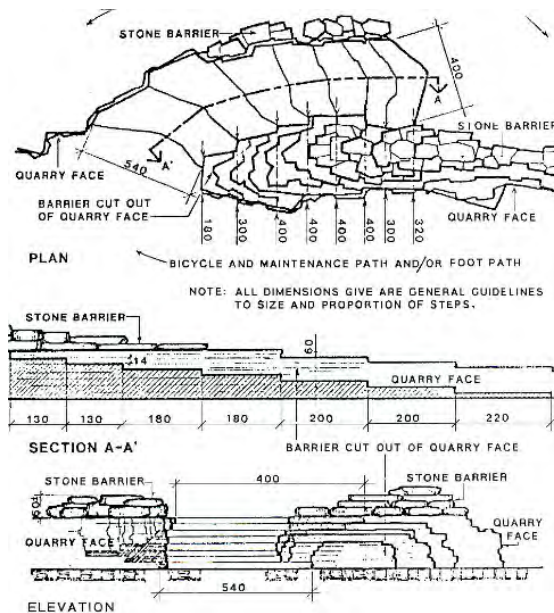


Shade Structure, steps, shaded alcove and benches.

Although supplemental irrigation was not provided to the Extensive Landscape Areas, in some cases runoff from excess irrigation of embassies, diplomatic residences and formal parks on the plateau above, led to unexpected growth of volunteer vegetation.



Overgrown vegetation on trail.



Limestone steps cut into quarry face

