

# CATALYTIC PROJECTS SET TO TRANSFORM PENANG'S ECONOMIC AND PROPERTY LANDSCAPE

BY VANESSA GOMES AND PRIYA DEVAN

**WHAT** used to be a colonial-era port town is now Malaysia's fourth largest state economy, having contributed 7.4% to the country's gross domestic product (GDP) in 2023. Located on the north-western coast of Peninsular Malaysia, Penang is renowned for its rich cultural heritage, diverse gastronomy offerings and thriving economy.

Recognising its potential, the state government has a wave of catalytic infrastructure and development projects. Tremendous developmental growth is expected over the next decade as the state works to secure its position in the global semiconductor trade while catering to the country's rising population and transition into an ageing nation by 2030. This will also see more residential and commercial projects sprouting to support the projected growth.

As Malaysia's largest exporter, accounting for 38% of total exports, the state is long overdue for an uplift. Infrastructure to streamline the semiconductor supply chain is pertinent, considering that Malaysia holds about 7% of the global semiconductor market, with aspirations to double this share by 2029 through strategic investments and advancements in chip design.

The wheels are already turning on some mega projects, such as Penang Silicon Island (PSI) and the Mutiara Line LRT, while the uplifting of Penang International Airport (PIA) and Penang Port are underway as well. Looking beyond the state, conversations around large-scale connectivity projects such as the high-speed rail (HSR) linking Penang, Kuala Lumpur and Singapore have re-emerged.

Though the original HSR was put on hold due to cost concerns, its potential revival — especially under a privately led model — signals renewed interest in using HSR to drive economic development and regional integration, says KPMG Malaysia partner for business transformation Abhishek Kumar.

"For Penang, inclusion in such a network would significantly enhance its role as a strategic trade, tourism and logistical hub

HUNDENVONPENANG/WIKIMEDIA COMMONS



Phase 1 of the Gurney Bay rejuvenation project, which was opened to the public on Feb 4, 2024, comprises a children's play area, skate park, viewing deck, pedestrian promenade, hawker stalls, retail zones and reclaimed water bodies





underway. The second package will be the airport's airside facility, which includes the apron parking and tarmac, among others, which is only 2% to 3% into the development.

The third package involves the enhancement of the main terminal building itself, which is scheduled for tender by the middle of the year.

"This will be the major part of the project and the target is to have the new terminal building operational by 2027," he says. "This doesn't mean that the project ends in 2027, but that they will try to do it in such a way that even while the works are not complete, at least the new facilities can be used while renovation takes place in the existing terminal. It will be done concurrently."

In an email interview, Malaysia Airports Holdings Bhd (MAHB) says this expansion will boost PIA's annual passenger capacity from 6.5 million to 12 million per annum. Additional improvements include the installation of 10 automated immigration gates to streamline passenger flow at both arrival and departure halls, positioning the airport to better serve international and domestic travellers.

Addressing logistical concerns from industry players, Zairil says PDC is in dialogue with MAHB to develop the Penang International

Penang International Airport's expansion is underway with a projected cost of RM1.55 billion



**"BKIP3 and Penang Tech Park @ Bertam will catalyse new townships, commercial centres and industrial corridors in Seberang Perai and northern Penang."**

*Saleha, Nawawi Tie Leung*

Logistics Aeropark (PILA), which is set to begin operations by end-2027.

"[These concerns have] been brought up by the industry, whose representatives told us that we need to expand the cargo terminal alongside the passenger terminal. This expansion requires some PDC land, hence the discussion with them on the terms," he says.

"At the same time, the board of Penang Port has also approved their master plan, which entails port upgrades to add capacity and would involve capital dredging too. We're still talking to them and hope to get something going by this year."

MAHB says PIA handles an average 138,000 tonnes of cargo annually, contributing between 11% and 16% of Malaysia's total air cargo volume. Key exports include semiconductors, electrical and electronic (E&E) products, machinery and medical devices.

In terms of connectivity, the upcoming Juru-Sungai Dua Elevated Highway is expected to alleviate traffic congestion along the North-South

Expressway (NSE) corridor between the Juru and Sungai Dua toll plazas in Penang. This initiative is a collaborative effort between the Penang government and PLUS Malaysia Bhd, with oversight provided by the Public-Private Partnership Unit (UKAS).

The highway will stretch approximately 17.4km, with 8.95km constructed as elevated sections. Physical construction is scheduled to commence in 4Q2025, with completion expected by 2030 at an estimated cost of RM3 billion.

"At the Juru exit, there is a mix of local and visitor traffic. The idea is to separate the through traffic and local traffic by having an elevated road, [to] separate those who want to continue the journey along the NSE and the rest directed to collector-distributor lanes to other parts of Penang," Zairil explains.

Collector-distributor lanes are parallel roads alongside a highway that are designed to separate traffic entering and exiting the highway from traffic continuing on the main route. This helps to prevent weaving and congestion, especially in areas with multiple interchanges in a short distance.

This project doesn't just focus on developing an elevated highway but also addresses traffic hotspots; for example, at the Juru Auto City intersection, as traffic is caused by an eight-phase traffic light. The plan, says Zairil, is to convert it to a zero-phase intersection, which means traffic lights will be replaced with two elevated U-turns.

"We see this in KL and we don't have this in Penang. It will solve some major traffic issues, and part of that scope also includes building a new ramp to the Penang Bridge."

Another component is the Butterworth-Kulim Expressway Interchange (BKE IC), where a third-tier one-way fly-over is proposed to reduce the overall traffic volume entering the roundabout by some 20%, improving the efficiency of the roundabout and shortening the waiting time for motorists. It is one of the busiest junctions in Seberang Perai, with traffic volumes at the at-grade signalised roundabout hitting as high as 10,000



**"Batu Kawan and Seberang Perai are expected to see a spike in worker accommodation ... demand for well-planned and accessible worker housing will continue to climb in the years ahead."**

*Saw, Knight Frank Malaysia*

passenger car units per hour during peak traffic.

Zairil says this RM3 billion project will have a high impact on the area and is scheduled to start at year end, with PLUS Malaysia Bhd as the project owner having tendered for a consultant.

Many more projects from the PTMP have yet to commence, such as the Penang Undersea Tunnel project, but this is being looked into.

"There are many elements that we haven't looked at yet; for example, taking advantage of our waterways and putting in place water mobility. Water taxis are something we're very interested in and keen to work on with the Ministry of Trans-

port. It's something I would like to do during my time here," says Zairil.

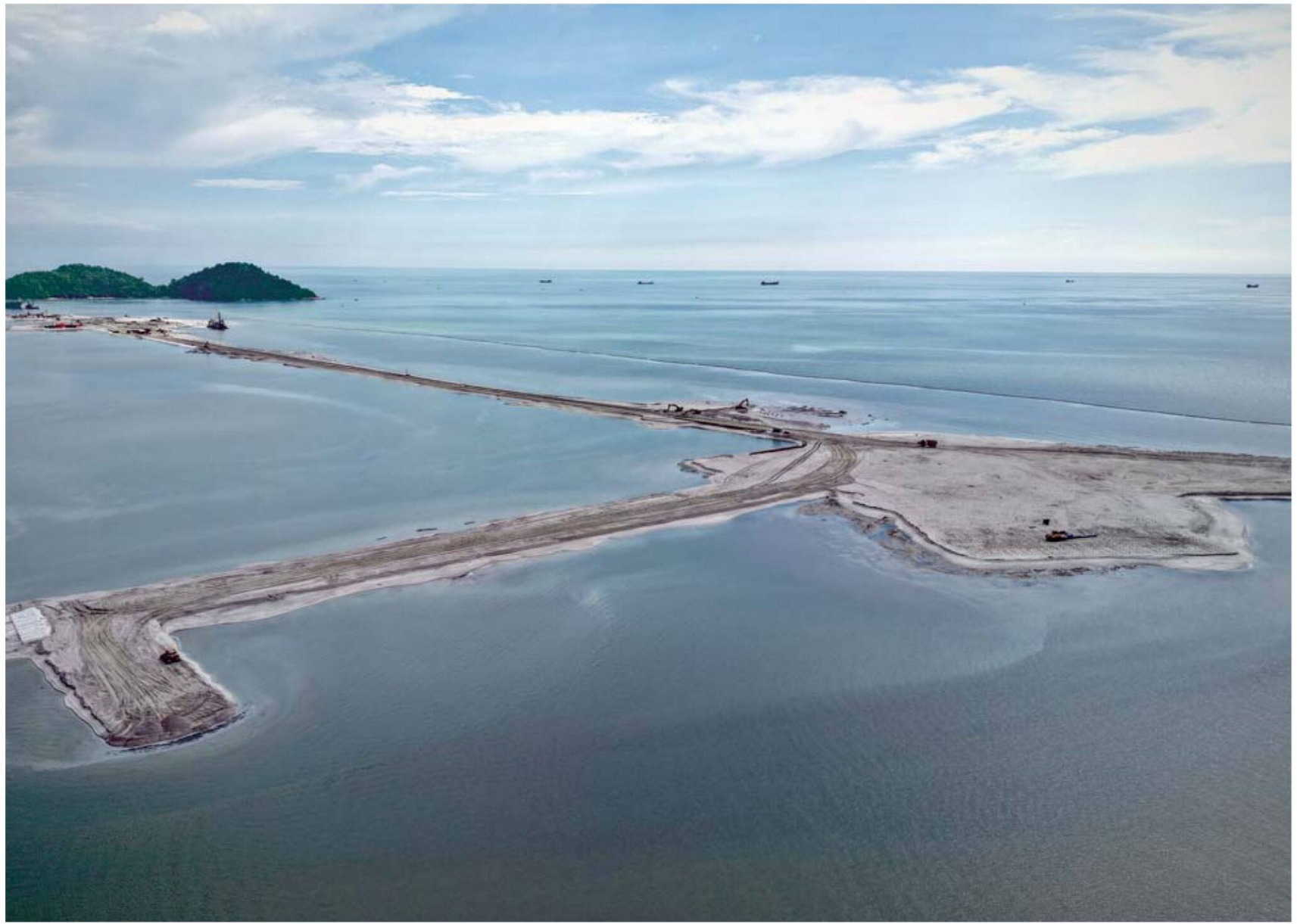
The project is said to ease severe traffic congestion on access roads to the First Penang Bridge, especially by diverting high traffic volumes in both directions to the proposed tunnel route. The 6.5km tunnel, intended to link Gurney Drive to Bagan Ajam on the mainland, is part of the PTMP.

#### SIGNIFICANT SPILLOVER BENEFITS EXPECTED FROM CATALYTIC PROJECTS

In terms of economic competitiveness, these pro-

The site of the upcoming Bandar Seri Pinang LRT station site in George Town





jects will attract foreign direct investment and domestic investment, particularly in high-value sectors such as semiconductors, E&E, logistics and green technologies, given the existing ecosystem to support these activities currently.

Penang's position as a technology and logistics hub will be further reinforced, enabling it to compete with the Klang Valley and Johor, says property consultant Saleha Yusoff, who is also an executive director at Nawawi Tie Leung Property Consultants Sdn Bhd.

The creation of job opportunities is among the direct impacts.

"The construction and operations phases of these projects will generate tens of thousands of jobs across skill levels. The demand for a high-skilled workforce will drive upskilling, vocational training and STEM (science, technology, engineering and mathematics) education in the region. PSI alone is projected to create up to 15,000 high-skilled jobs," she says.

"Local companies will benefit from economic spillovers by providing industrial solutions to multinational corporations in the state. Better job opportunities will improve household

Penang Silicon Island (photographed in Dec 2024), is slated for completion by 2032

income, inducing more spending as well as a potential increase in demand for housing and other facilities."

Projects like the Mutiara Line LRT and Juru-Sungai Dua Elevated Highway will reduce traffic congestion and enhance access to jobs, education and healthcare, says Saleha. They will also encourage developers to explore opportunities for transit-oriented developments (TODs), which will provide enhanced labour mobility and business efficiency.

Meanwhile, Penang's robust manufacturing ecosystem continues to attract industrial growth, Saleha says, resulting in heightened demand for industrial spaces that increasingly exceed the capacity of existing parks.

"This momentum has contributed to the transformation of areas such as Batu Kawan into emerging economic and urban centres. The BKIP3 and Penang Tech Park @ Bertam will catalyse new townships, commercial centres and industrial corridors in Seberang Perai and northern Penang.

"With proper planning, these projects can bridge regional disparities, especially between



LOW YEN YEING/THE EDGE



Batu Kawan Industrial Park, which was launched back in 2011, spans 1,151 acres

Penang Island and Seberang Perai or between urban and semi-urban areas. They can also support social infrastructure development, including affordable housing, education facilities and healthcare services."

#### PROPERTY MARKET SET TO APPRECIATE

The state's property market is likely to see significant appreciation in land and property values, says Knight Frank Malaysia (Penang Branch) senior executive director Mark Saw, particularly in areas situated near key infrastructure projects such as LRT stations, new highways, PIA and PSI.

"Prime growth corridors include Bayan Lepas, Batu Maung, Batu Kawan, Bukit Minyak and Tanjung Tokong, all of which are poised to benefit from enhanced accessibility and proximity to economic hubs," he says.

Saleha concurs, adding that these projects

have also spurred demand for residential properties. The state is also expected to see a rise in the development of new townships, including Eco Horizon, Aspen Vision City and Utropolis, which are designed to accommodate the growing population.

"In parallel, demand for commercial spaces, such as offices, retail units and services, has strengthened as businesses seek to support the expanding residential base. The entry and growth of sectors such as global business services (GBS) further diversify Penang's economy, which has traditionally been dominated by manufacturing," she says.

"Over the past five years, three dedicated GBS buildings have been developed, including GBS@Mayang within Mayang Mall, which has seen notable improvements in occupancy and rental rates. Batu Kawan, positioned as a future economic hub, presents opportunities to replicate the success of the GBS model."

The hospitality and short-stay property market is also expected to benefit from tourism-linked infrastructure, Saw says, such as the Penang Hill Cable Car, PSI and the PIA expansion.

"These developments are anticipated to boost demand for hotels, resorts and other lodging options, particularly in popular destinations like Penang Hill, Batu Ferringhi and the George Town heritage area," he elaborates.

As a result of increased economic activities, Penang is poised for expansion in the meetings, incentives, conferences and exhibitions (MICE) sector, says Saw. With PSI, new industrial parks and the PDC's strategic initiatives attracting global players in the technology, medical and logistics sectors, he anticipates growing demand for venues that can host trade exhibitions, product launches, conventions and networking events.

"This creates strong prospects for the development of sector-specific convention facilities," he says.

Saw also believes the workers' dormitory market in Penang is set for substantial growth in response to increasing labour demand from major developments.

"Areas like Batu Kawan and Seberang Perai are expected to see a spike in worker accommodations. Coupled with broader infrastructure improvements such as the PIA expansion and the Mutiara Line LRT, the demand for well-planned and accessible worker housing will continue to climb in the years ahead," he adds.

## EMERGING HOTSPOTS TO ALSO SEE INFRASTRUCTURE DEVELOPMENT

Surrounding neighbourhoods in the vicinity of the projects are expected to be high growth areas and favoured hotspots for other infrastructure development. On Penang Island, Bayan Lepas and Batu Maung stand out due to their proximity to major infrastructure developments — Mutiara Line LRT stations, PIA expansion, and access to the Free Industrial Zone and PSI.

"These factors make those areas highly attractive for residential developments, commercial ventures such as technology parks and business hubs, as well as hospitality projects, particularly airport-linked hotels that cater to business travellers and tourists," Saw explains.

In the northern part of the island, Tanjung Tokong and Tanjung Bungah are set to benefit from improved connectivity via the North Coastal Paired Road and future LRT accessibility. Saw says these areas already hold strong appeal among upscale homebuyers and retirees, making them ideal for high-end seafront residences, retirement living communities and luxury developments.

"George Town, the historic heart of Penang, continues to evolve with a blend of heritage charm and modern urban interests. As an LRT node and a Unesco World Heritage Site, George Town attracts digital nomads, the creative community and tourists."

The Penang Technology Park in Bertam spans 880 acres and has a GDV of RM4.2 billion

"This makes it well suited for boutique hotels, co-living spaces, short-term rentals and mixed-use refurbishments that integrate commercial and residential functions while preserving its cultural identity."

On the mainland, particularly Seberang Perai, Saw says Batu Kawan leads the way as the primary catalyst for growth. The area is home to major anchors such as IKEA, international universities and industrial parks such as Batu Kawan Industrial Park (BSS), complemented by strong logistics connectivity.

"These advantages support the development of integrated townships, gated residential communities, and extensive logistics and warehousing facilities."

Further inland, Bukit Minyak and Bukit Mertajam are strategically positioned near the Juru-Sungai Dua Elevated Highway, with easy access to Butterworth and the NSE.

"These towns serve as key nodes for industrial and logistics activities, and are ideal for the development of logistics hubs, medium-cost housing and SME-focused business parks," he says.

Apart from that, Valdor and Sungai Bakap, also located near Batu Kawan, are emerging as spillover growth areas.

"With ample land availability and proximity to existing industrial zones, these locations are well suited for large-scale industrial develop-



ment, logistics operations and affordable housing estates, providing opportunities for balanced and inclusive growth on the mainland," Saw says.

#### NAVIGATING FUTURE PROPERTY MARKET WILL BE CHALLENGING, BUT DOABLE

Despite the optimism, stakeholders must navigate several key challenges. In Penang's property market, there is a potential supply-demand imbalance, says Saw.

"As developers race to meet projected future demand, particularly in the high-rise residential and industrial segments, there's a risk of overconstruction. This could lead to market oversaturation in certain categories such as condominiums and mid-range housing, potentially resulting in price stagnation or diminished investment returns."

Without meticulous planning and accurate demand forecasting, this could lead to underutilisation and inefficiencies, says KPMG Malaysia director of business transformation Winnie Wong.

To be truly effective, these projects must be designed not only to meet current needs but also to anticipate future developments, and at the same time, remain resilient in the face of changing market dynamics.

"Holistic and integrated planning is essential. Each project must be assessed within the broader ecosystem — considering not only immediate demands and planning elements, but also environmental and socioeconomic sustainability," she says. "Failure to address these critical aspects could undermine the intended benefits, resulting in a misallocation of valuable investments and resources."

With an expected surge in economic activity, managing urban congestion and ensuring smooth mobility will be critical. Transport planning must integrate new infrastructure with existing systems, enhancing accessibility for both people and goods.

"A seamless, inclusive transport network is key to ensuring that the benefits of development are widely and fairly distributed. Ultimately, the success of these megaprojects hinges on striking the right balance between fostering economic growth and addressing community needs," says Wong. "Placing the well-being of the local community at the heart of development efforts is crucial to the long-term, sustainable progress in Penang."

Affordability and income mismatch is another pressing concern, says Saw as a substantial number of new property launches are priced beyond



**"Holistic and integrated planning is essential. Each project must be assessed within the broader ecosystem — considering not only immediate demands and planning elements, but also environmental and socioeconomic sustainability."**

Wong, KPMG

the financial reach of the average Penangite.

"While demand for affordable housing remains high, the market continues to see an influx of mid- to high-end developments, exacerbating the mismatch and deepening the supply-demand gap in lower-cost segments."

Saleha concurs, adding that high-skilled job opportunities and increased income do not immediately translate into higher affordability on housing purchase. As demand surges from increased employment and investment, land and property prices may escalate, especially in proximity to LRT lines, PSI and industrial parks.

"These factors risk displacing lower-income groups and widening the affordability gap unless inclusive housing policies are implemented. Potential homebuyers will prioritise navigating the rise in living cost before looking into houses on the higher end upon their stability," she says. "Thus, as these catalytic projects progress, residential properties within the household affordability level will remain the preferred choice, posing challenges to properties priced beyond that."

"Speculative buying in hotspots like Batu Kawan or along the LRT corridors may lead to artificial price inflation, as evidenced in the Klang Valley. This could result in price volatility and discourage genuine end-user ownership or long-term investment," she cautions.

Another major concern among environmentalists is the land reclamation works for PSI. Saleha says a large-scale land reclamation project like this may raise environmental concerns or disrupt coastal or marine ecosystems, adding that negative public perception or legal challenges could delay approval or trigger reputational risks for developers.

There is also the concern over delayed project timelines, Saw says, particularly for major infrastructure developments like the LRT, new highways and PSI.

"Such delays may arise from funding constraints, environmental hurdles or political uncertainties. When these delays occur, they can erode investor and buyer confidence, especially in speculative markets or TODs that rely heavily on timely infrastructure rollouts," he adds.

## SNAPSHOTS OF OTHER PROJECTS

### GURNEY BAY

Located in the iconic Gurney Drive, which is set to enhance public recreational spaces and coastal development. The RM247.8 million project is being developed in two phases.

Priority 1 spans 27.7 acres and includes a children's play area, skate park, viewing deck, pedestrian promenade, hawker stalls, retail zones and reclaimed water bodies. Priority 2, covering 74.1 acres, will introduce a hawker centre, retail and convenience stores, additional viewing decks, multi-storey and open parking, a water garden, a surau, a water taxi jetty, a man-made beach, and a boardwalk.

### PENANG TECHNOLOGY PARK @ BERTAM

Launched in March 2023 by Ideal Property Group. The park spans 880 acres of freehold land and carries a gross development value (GDV) of RM4.2 billion.

It is the first state-of-the-art technology park in Seberang Perai Utara and aims to support high-tech industries and research in emerging technologies. The park will be developed over three phases and is expected to be completed in 2027.

### BATU KAWAN INDUSTRIAL PARK 3 (BKIP3)

A key development aimed at supporting Penang's long-term industrial growth is BKIP3, which is owned and developed by the Penang Development Corporation. Located in Bukit Tambun, within the Batu Kawan area in the district of Seberang Perai Selatan, it was officially launched on Feb 18, 2024.

The park spans 407 acres and will be developed in four phases. Phase 1, covering 60 acres, is scheduled for completion by this October, while the entire development is expected to be finalised by August 2031. The total estimated cost of the project is RM2.2 billion.

### PENANG HILL CABLE CAR PROJECT

Another ambitious undertaking

currently underway, this project is set for completion by the third quarter of 2026. It will provide a direct and scenic route to the popular hilltop destination of Penang Hill.

The journey begins at the Penang Botanic Gardens, where a 1.2ha site will be transformed into a three-storey Garden Station, featuring food and beverage outlets as well as retail spaces.

The cable car system itself will span 2.73km and operate with 50 eight-seater gondolas, capable of transporting up to 1,000 passengers per hour. It will carry visitors to the 833m-high hill station in under 10 minutes.

### NORTH COASTAL PAIRED ROAD

Another road network project initiative aimed at improving connectivity and easing traffic congestion along Penang's northern coastline. The state government has approved a revised alignment for the road, which will stretch from Tanjung Bungah to Teluk Bahang. The project, estimated to cost RM2.43 billion, is expected to begin construction next year and will take about five years to complete.

## NEVERTHELESS, OUTLOOK ON PROPERTY MARKET REMAINS OPTIMISTIC

Over the next five years, Penang's property market across different segments is broadly positive, with caveats, driven by infrastructure investments, industrial growth and sectoral diversification.

As for the residential property market, the state is expected to remain moderately positive over this period. Saleha says that there is growing interest in mid-market landed homes, particularly among the M2-M4 income groups, and in TODs near LRT stations.

However, the market faces challenges from affordability stress, primarily due to rising land and construction costs. "The commercial sector is projected to see selective growth, largely influenced by location, market positioning and committed end-users.

"In the retail segment, new developments

in emerging townships like Eco Horizon and Aspen Vision City, as well as in tourism zones, are expected to drive demand."

The industrial property market is on a strong growth trajectory, driven by rising demand for high-specification, sustainable and smart industrial buildings, Saleha explains. There is growing interest in logistics parks, multi-tenant facilities and real estate investment trust-driven investments.

"Nevertheless, the sector faces operational hurdles such as labour shortages and the potential for infrastructure delays," she adds.

Saw concurs, suggesting that to mitigate these risks and maximise long-term value, developers and investors should prioritise sustainable, affordable and strategically located projects, thereby cultivating a balanced and resilient market position. ●