

From: noreply@feedback.planningportal.nsw.gov.au on behalf of [Planning Portal - Department of Planning and Environment](#)
To: [PPO Engagement](#)
Cc: planning.exhibitions@planning.nsw.gov.au
Subject: Webform submission from: Western Sydney Aerotropolis Draft Precinct Plans
Date: Friday, 12 March 2021 2:36:20 PM
Attachments: [REDACTED] [-luddenham-road-luddenham-precinct-plan-modified-structure-plan-\(final\).pdf](#)

Submitted on Fri, 12/03/2021 - 14:31

Submitted by: Anonymous

Submitted values are:

Submission Type

I am submitting on behalf of my organisation

Name

First name

Jaime

Last name

McNamara

I would like my submission to remain confidential

No

Info

Email

[REDACTED]

Suburb/Town & Postcode

North Sydney 2060

Submission file

[REDACTED] [-luddenham-road-luddenham-precinct-plan-modified-structure-plan-\(final\).pdf](#)

Submission

To whom it may concern,

This submission to the NSW Government's Western Sydney Aerotropolis Draft Precinct Plan has been prepared by APP Corporation Pty Limited on behalf of the Landowners of [REDACTED] Luddenham Road, Luddenham 2745.

The attached modified structure plan prepared by Allen, Jack+Cottier Architects is submitted in support of the written submission. The modified structure plan should be viewed in conjunction with the submission.

Kind regards,
Jaime McNamara

I agree to the above statement

Yes

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Subject: Webform submission from: Western Sydney Aerotropolis Draft Precinct Plans
Date: Friday, 12 March 2021 2:31:26 PM
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Submitted on Fri, 12/03/2021 - 14:25

Submitted by: Anonymous

Submitted values are:

Submission Type

I am submitting on behalf of my organisation

Name

First name

Jaime

Last name

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No

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SUBMISSION TO THE WESTERN SYDNEY AEROTROPOLIS DRAFT PRECINCT PLANS

PREPARED ON BEHALF OF THE LANDOWNERS OF [REDACTED] LUDDENHAM ROAD, LUDDENHAM

Introduction

This submission to the NSW Government's Western Sydney Aerotropolis Draft Precinct Plan (the Precinct Plan) has been prepared by APP Corporation Pty Limited on behalf of the Landowners of [REDACTED] Luddenham Road, Luddenham 2745 (the Site). This submission is supported by a modified structure plan developed by Allen, Jack+Cottier Architects (AJ+C), addressing development and urban design outcomes.

The Draft Aerotropolis Precinct Plans establish the planning and legislative framework for the future of the Aerotropolis, identifying land use and zoning within the initial precincts including the Northern Gateway Precinct. The Precinct Plans are consistent with the statutory aims and objectives of the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (Aerotropolis SEPP).

The Northern Gateway Precinct is positioned to develop reciprocal relationships with the Western Sydney International (Nancy-Bird Walton) Airport (WSA), supporting jobs in warehousing, distribution and manufacturing, whilst seeking to provide 'connection to Country', increased urban tree canopy and improved site water quality. APP on behalf of the Landowners strongly support these objectives and commend the Planning Partnership for all of the comprehensive work done to date.

The Precinct Plans approach to retention of natural topography and the scale and provision of hilltop parks in alignment with ephemeral streams could be further strengthened pursuant to the individual site context. Reconsideration of these elements will facilitate better development outcomes with improved developable lot sizes and road networks.

Throughout the Northern Gateway Precinct, landscape features including undulating topography, provide rich natural assets that require consideration in planning and development processes. Planned transport infrastructure corridors to the south of the site are likely to impact the landscape, requiring significant earthworks and piping of natural water courses that will impact surrounding sites.

As such, this submission will be focused around four key discussion areas and provide recommendations with reference to the modified structure plan. The key discussion areas include:

- The provision of 56% open space across the site and its impact on site coverage and structure;
- Topographical constraints and the impact of transport infrastructure on existing topography; and
- Constraints of retaining existing riparian corridors and ephemeral streams and the benefits of integrating drainage corridors, open space and electrical easements.



Figure 1 – The site at [REDACTED] Luddenham Road, Luddenham

Site Description and Context

The site has a total area of 93 hectares and is irregular in shape with a 515 metre frontage to Luddenham Road. It is located 3 kilometres north of the WSA site and 3 kilometres south of the Sydney Science Park. Historically, the site has been used for agricultural grazing. The proposed development typology under the Precinct Plan includes finer grain employment centres and an education facility on the sites' northern border. Hilltop parks are proposed to be retained providing public open space to workers, as well as symbolic 'connections to Country'.

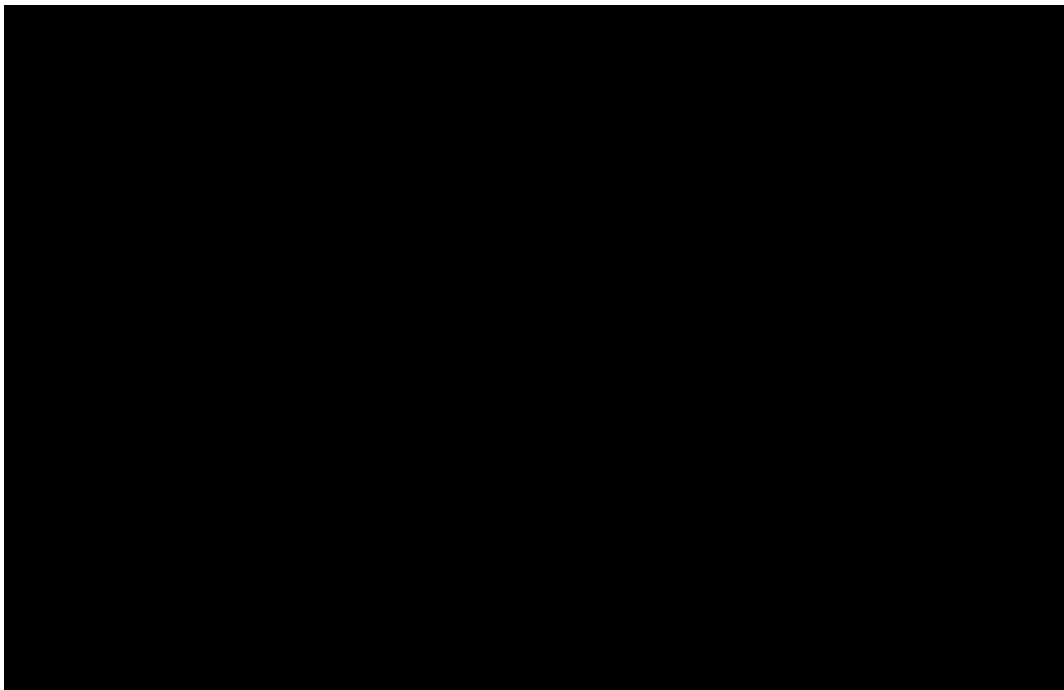


Figure 2 – Aerial view of the site

Zoning

The site is predominantly zoned ENT Enterprise and is dissected by ENZ Environment and Recreation zones aligning the riparian corridors and natural waterways. The site was previously zoned RU2 Rural Landscape under the Penrith Local Environment Plan 2010 and has historically been used for agricultural grazing.

The Northern Gateway centre is focussed on innovation, science and technology. The site falls within the identified 'Local Centre' area characterised by a mix of uses that include smaller scale retail and local convenience. Typical uses of land identified in the local centre includes:

- Retail facilities, specialty shops and a supermarket or large grocery store;
- Personal services;
- Co-location with social infrastructure (community facilities and open space); and
- Smaller scale mix of uses supporting industrial, office and employment uses with a diversity of commercial spaces, community and public places.

With reference to the Aerotropolis SEPP the ENT Enterprise zone seeks to encourage employment and business-related uses whilst the ENZ Environment and Recreation zone seeks to protect and manage key environmental features. As prescribed by the Aerotropolis SEPP, the ENT Enterprise zone permits any development not listed below with consent:

- Air transport facilities;
- Airstrips;
- Camping grounds;
- Caravan parks;
- Crematoria;
- Exhibition homes;
- Exhibition villages;
- Forestry;
- Heavy industrial storage establishments;
- Heavy industries;
- Helipads;
- Intensive livestock agriculture;
- Mortuaries;
- Open cut mining;
- Residential accommodation;
- Rural industries; or
- Turf farming.

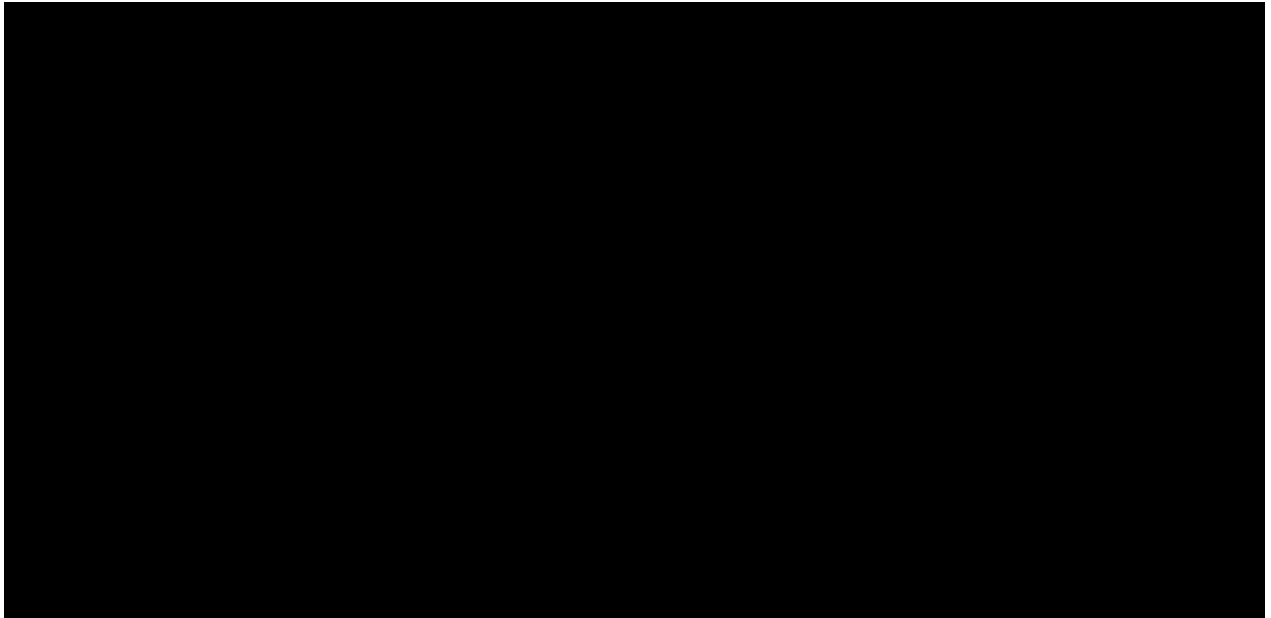


Figure 3 – Zoning of site and surrounds

Site Topography and Environmental Constraints

Land throughout the Northern Gateway Precinct is in part, highly constrained by angulating topography. Numerous sites adjacent to Luddenham Road feature hilled landscapes, highlighting the importance of maximising development at suitably level sites. The site and its surrounds are also constrained by a large electrical transmission line easement which traverse the precinct from the south-west through to the north-east.

Furthermore, planned transport corridors including the Outer Sydney Orbital (OSO), freight rail corridor and M12 corridor border the site to the south and west. Construction of these key infrastructure projects will require significant earthworks and piping of water courses, impacting the sites natural landscape. As a result, there is need to reconsider the proposed configuration of development envelopes around these features in order to maximise developable land parcels.

Environmental Constraints

Extent and Suitability of Open Space

As identified by the Northern Gateway Precinct Plan, hilltop parks are to be retained as a key feature throughout the precinct due to their cultural significance in Aboriginal history and connection to Country. The creation of new hilltop parks in the Aerotropolis will also create a series of scenic view connections. As addressed above, the provision of 47.1 hectares of public open space across the site, in-line with natural features, is subject to compromise due to surrounding road and rail corridors.

Due to the proposed focus of warehousing, distribution and manufacturing on the site, predominant users of the designated open space will be workers. Whilst the value of providing open space for recreational and passive use by workers is understood, the extent of green space proposed will be underutilised by the predominant population, forming pockets of lost land. The road and rail corridors located to the south of the site is a negative adjacency to public open space and will further limit visitor attraction potential.

Whilst the urban design principles that support the provision of public open space across hilltops and ridgelines are sound, the assumption that these environmental attributes will retain their natural form in the context of city-building infrastructure development is unlikely. The road and rail corridors will result in extensive bulk earthworks to facilitate at-grade construction, essentially impacting the surrounding topography and requiring site benching.

Wildlife Strike

The Precinct Plans are supported by a Draft Wildlife Management Assessment Report that identifies wildlife attraction issues associated with the Aerotropolis and Western Parkland City, including mechanisms to mitigate wildlife strike risks to aircraft. The report identified the conflict between

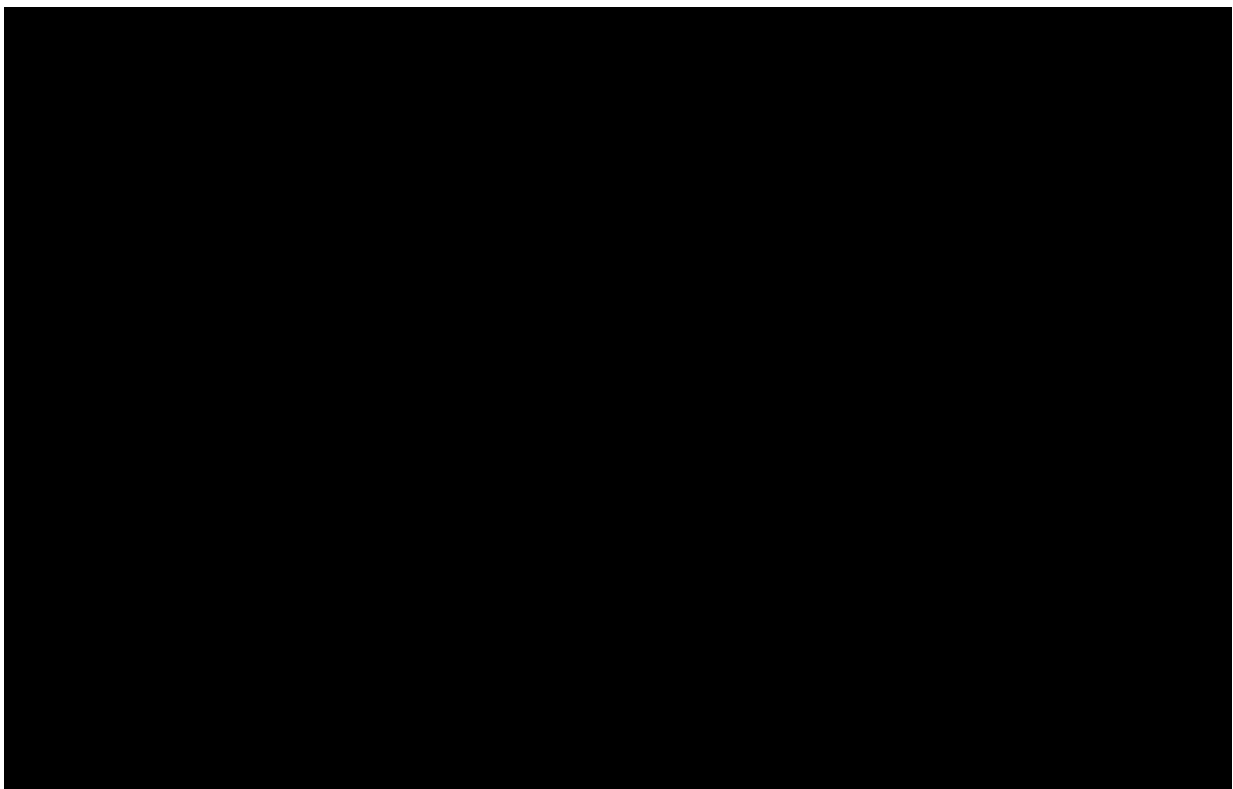
safeguarding the 24/7 operations of the airport and the Western Sydney Aerotropolis vision of 40% tree cover canopy, enhancement of riparian zones and wetlands and maximising biodiversity. Where land use is likely to increase strike risk, the report identifies flexibility in changes to design and operating procedures as a mitigation measure.

Recommendations

Due to the challenging site constraints, it is recommended that open space be consolidated with riparian corridors and ephemeral streams in order to retain key natural assets, whilst providing consolidated open spaces and developable lot sizes. The sites natural constraints and adjoining infrastructure development highlight the need to protect and expand developable land to fulfil the objectives of the zone and precinct.

There is capacity to meet the open space and drainage requirements outlined in the precinct plan through integration of green cover in built forms. Through adoption of living architecture, including green roofs and green walls, built form throughout the site can contribute to the 'living urban landscape', whilst mitigating heat island effects. The use of permeable building materials including 'grasscrete' across hardstand areas, will achieve many of the precincts sustainability goals whilst also delivering more usable areas to support the economic viability of future industries. The integration of green cover into built forms will ensure that the site can be developed in an orderly manner, whilst meeting the precincts sustainability goals.

The extent of open space planned for the site poses a risk to aircraft operations and wildlife populations, requiring revaluation of the provision of open space and particularly riparian corridors across the site. The alternate integration of green cover into the built form will reduce the amount of impervious surfaces whilst keeping biodiversity attraction to a minimum ensuring that the site does not adversely impact WSA operations. This is particularly relevant given that the site is located within 3 kilometres of the WSA site.



Development Constraints

Site Coverage Ratios and Market Conditions

Through initial engagement with industry, it is clear the proposed site coverage ratios, structure plan and building typologies assigned to the site will not facilitate economic or orderly development outcomes. In line with the ENT Enterprise zone objectives, the current market demand is for distribution, warehousing, logistics, industrial technologies and data centres. These development types have been successfully sought and delivered by developers across the region, including at Erskine Park Industrial Estate and within the proposed Sydney Science Park to the north of the site. Single logistics warehouses range from 5,000-30,000m², often requiring a minimum site dimension of 120 metres.

Few, if any of the lots identified within the Northern Gateway Precinct and across the site meet these requirements. The proposed lot sizes have been largely determined by the environmental characteristics of the sites, which are not necessarily reflective of market demand. It is recommended that larger developable lots be provisioned to support distribution, warehousing, logistics and data centres in line with the zone objectives, current and likely future demand.

Recommendations

As identified in the Precinct Plan, fragmentation of lands can compromise orderly economic development outcomes. Opportunity to explore master planning pathways that facilitate orderly development outcomes should be explored for this site given its size and strategic position. Master planning will allow:

- Coordinated development outcomes to address land fragmentation;
- Improved design and placement of open space with greater connection of green corridors and placement of infrastructure;
- Improved utilisation of land to support industrial development; and
- Integration of riparian corridor with electricity transmission lines as per the approach taken by Celestino in their masterplan for the Sydney Science Park.

Modified Structure Plans

The following modified structure plans have investigated the site at a micro scale, addressing environmental and development constraints. With reference to Figure 5 and Figure 6, AJ+C have developed two modified structure plans in support of this submission, exploring options for the alternate development and master planning of the site.

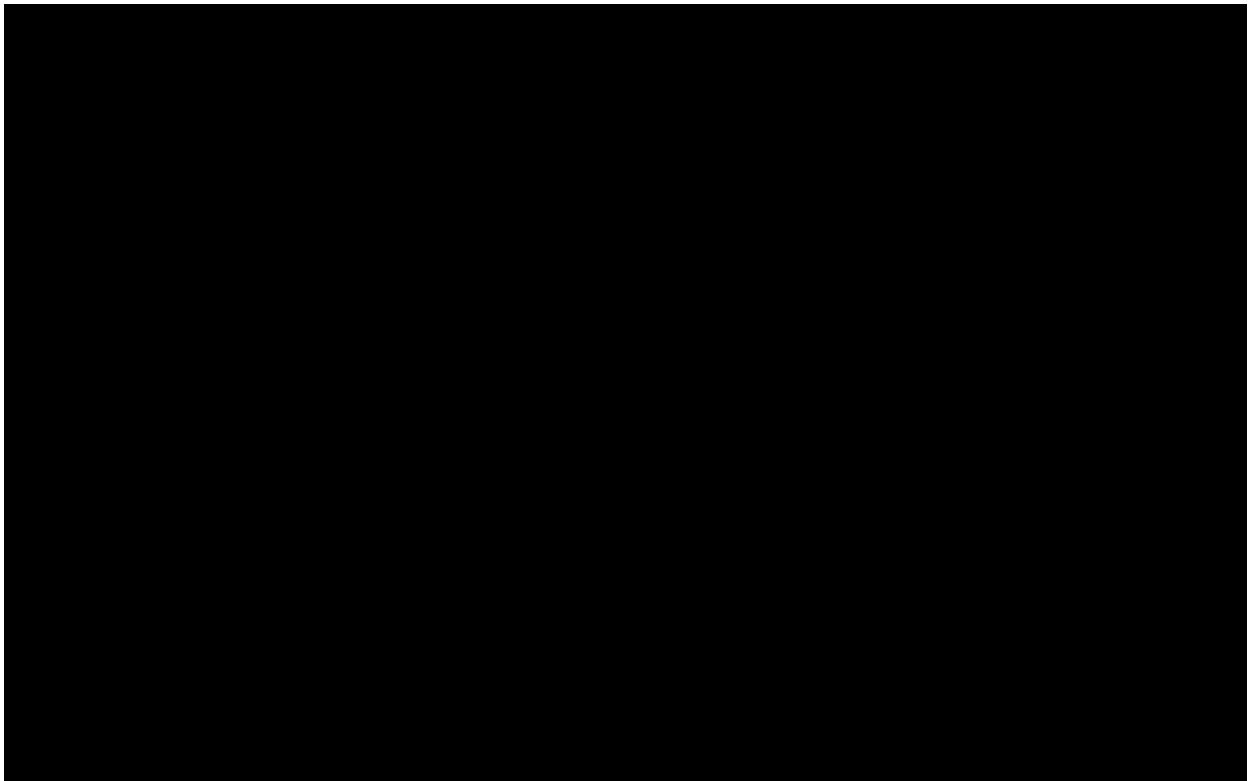
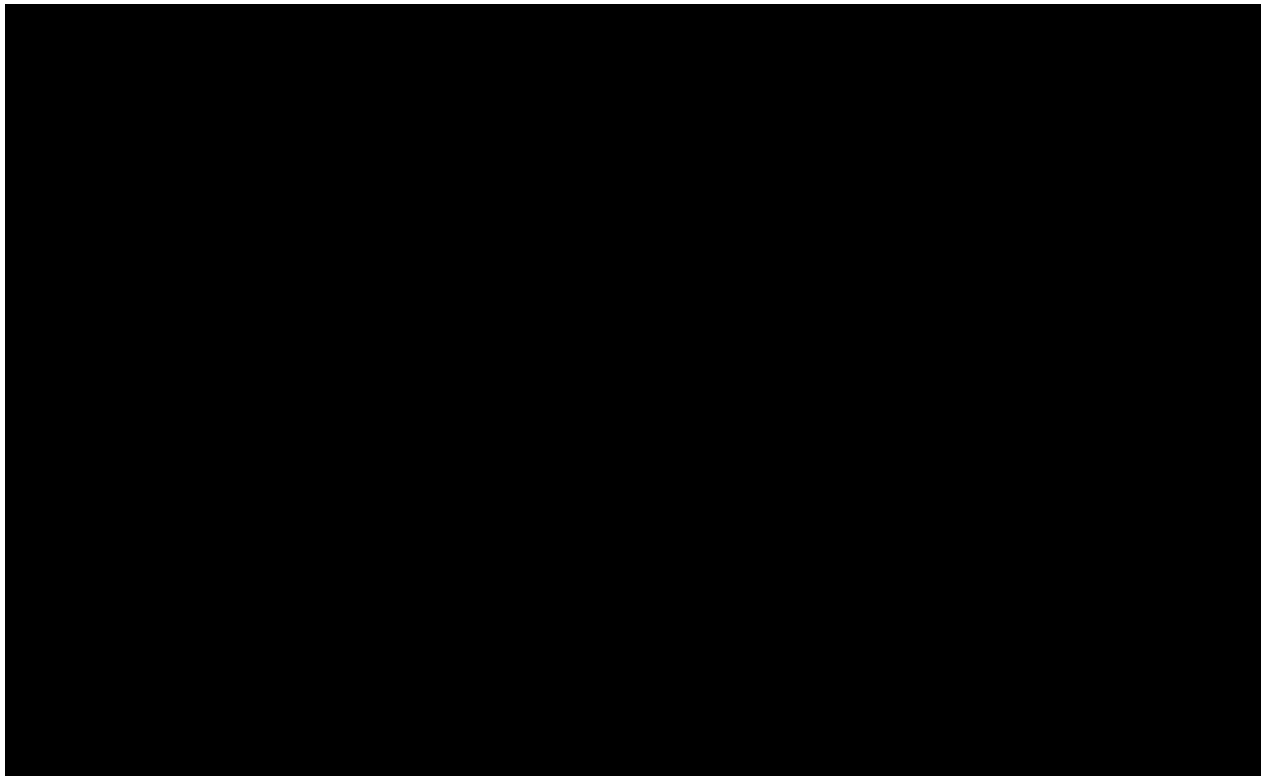
The modified structure plans account for the topographical changes necessary to deliver the road and rail corridors. The plan consolidates two drainage lines, public open space and overhead electrical transmission lines in a central corridor (green spine) which aligns with the Sydney Science Park corridor to the north.

The major topographical feature of the site, being the large hill on the eastern edge of the site, has been retained as public open space due to its cultural heritage, environmental significance, distance from the road and rail corridors and high accessibility from Luddenham Road.

The modified structure plans connect the north-south drainage line and large hilltop public open space through a wide street swale running east to west. Through reconfiguration of the proposed lots, a flexible street network can be modified to support multiple scales of development within the Enterprise zone.

Due to their lot size incompatibility with most ENT Enterprise uses, the sites adjacent to Luddenham Road have been retained to ensure development of active street frontages through uses such as petrol stations,

small factory unit complexes, retail and business premises. The 'super lot' structure plan included in Figure 6 would provide lot sizes compatible with warehouse and logistics related uses and is reliant on benching to facilitate these development typologies. This approach is considered more feasible given the extent of earthworks and benching that will likely be required to accommodate the new transport corridors to the south and west.



Conclusion

The Precinct Plans have effectively provided guidance on the overall future objectives of the initial Aerotropolis precincts. The Northern Gateway Precinct is earmarked for warehousing, distribution and manufacturing uses, requiring developable lot sizes for industrial use. With reference to the site-specific investigation undertaken by APP and the modified structure plans prepared by AJ+C, the site possesses opportunities to deliver these types of uses, but first, the conflicting block sizes and layouts presented for the site in the Precinct Plans require further attention.

Due to the sites' topographical attributes and the presence of riparian corridors, 56% of the site has been attributed to open space and drainage corridors. Whilst APP on behalf of the landowners support the retention of open space throughout the Aerotropolis, the sites adjacent position to key road and rail corridors will inevitably result in site benching to facilitate new infrastructure. As such, it is necessary to consider the topographical changes necessary to deliver the road and rail corridors and reevaluate the retention of all site ridges and hilltop parks.

Recommendations

Therefore, it is recommended that:

- The extent and location of open space applied to the site be reconsidered in-line with the modified structure plan prepared by AJ+C;
- The alternate integration of vegetation into built form be considered to achieve environmental outcomes;
- Site coverage ratios be re-configured in line with the proposed modified structure plans in order to deliver developable lot sizes in line with the future uses identified for the ENT Enterprise zone and Northern Gateway Precinct;
- Market conditions be acknowledged and further considered in the formation of final block and lot sizes in the Precinct Plan to reflect desired site and building typologies; and
- The site be considered as suitable for alternate master planning pathway due to its size, environmental characteristics and strategic location within the Northern Gateway precinct.

Should you wish to discuss any of the matters contained in this submission, please contact the undersigned on [REDACTED] or [REDACTED]

Yours sincerely

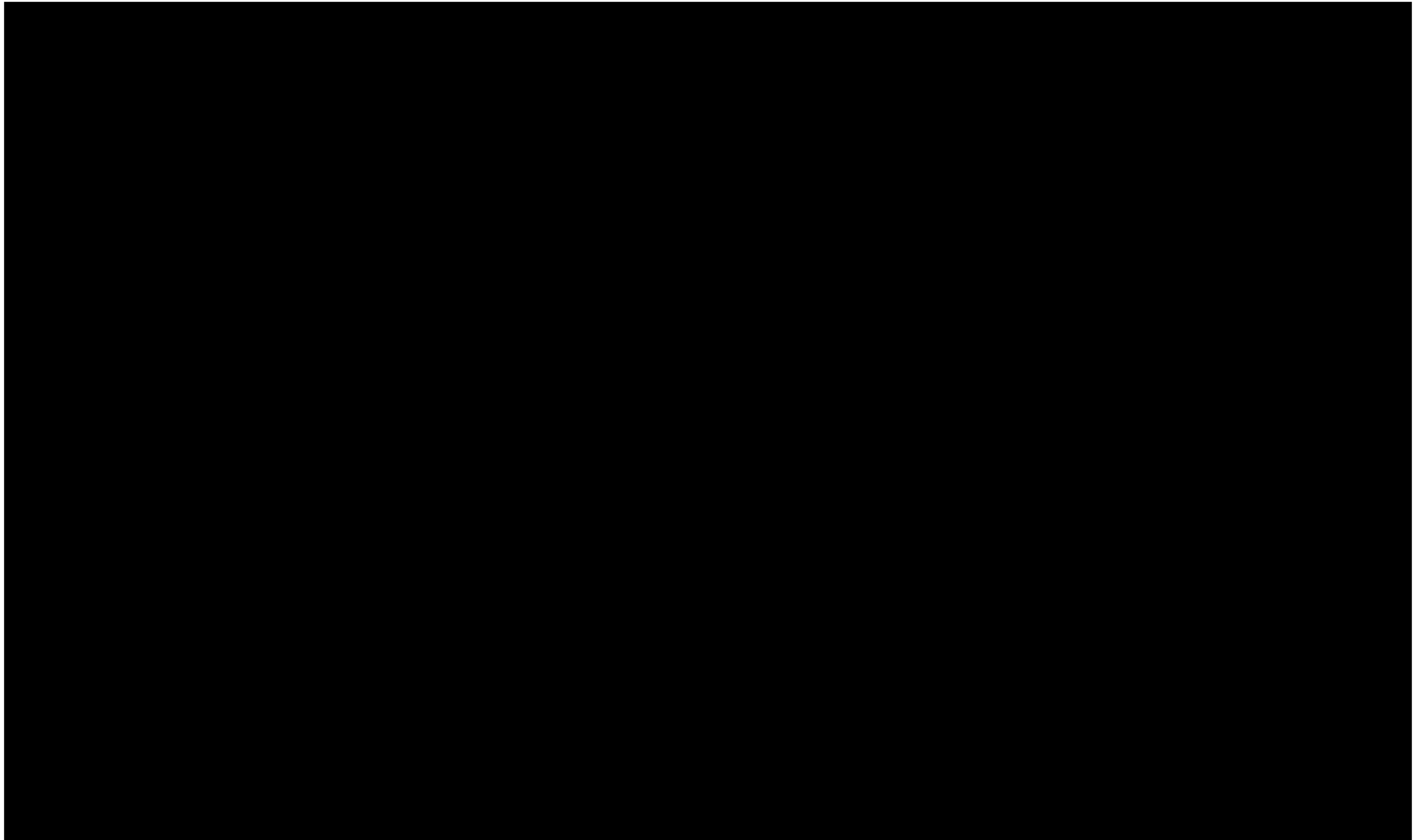
APP CORPORATION PTY LIMITED



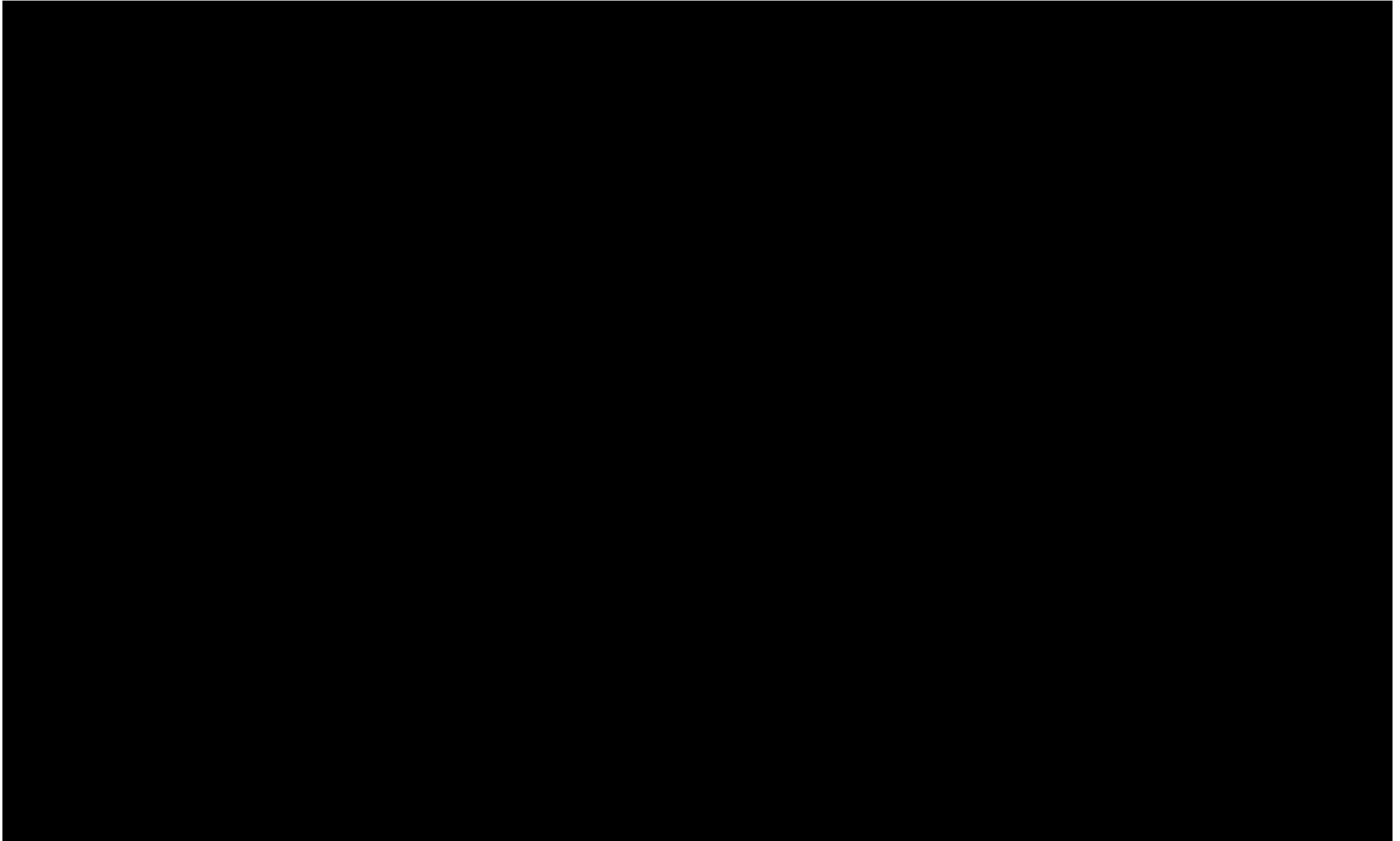
Jaime McNamara
Urban Planner

Submission Reviewed by Josh Owen – Senior Associate Planner

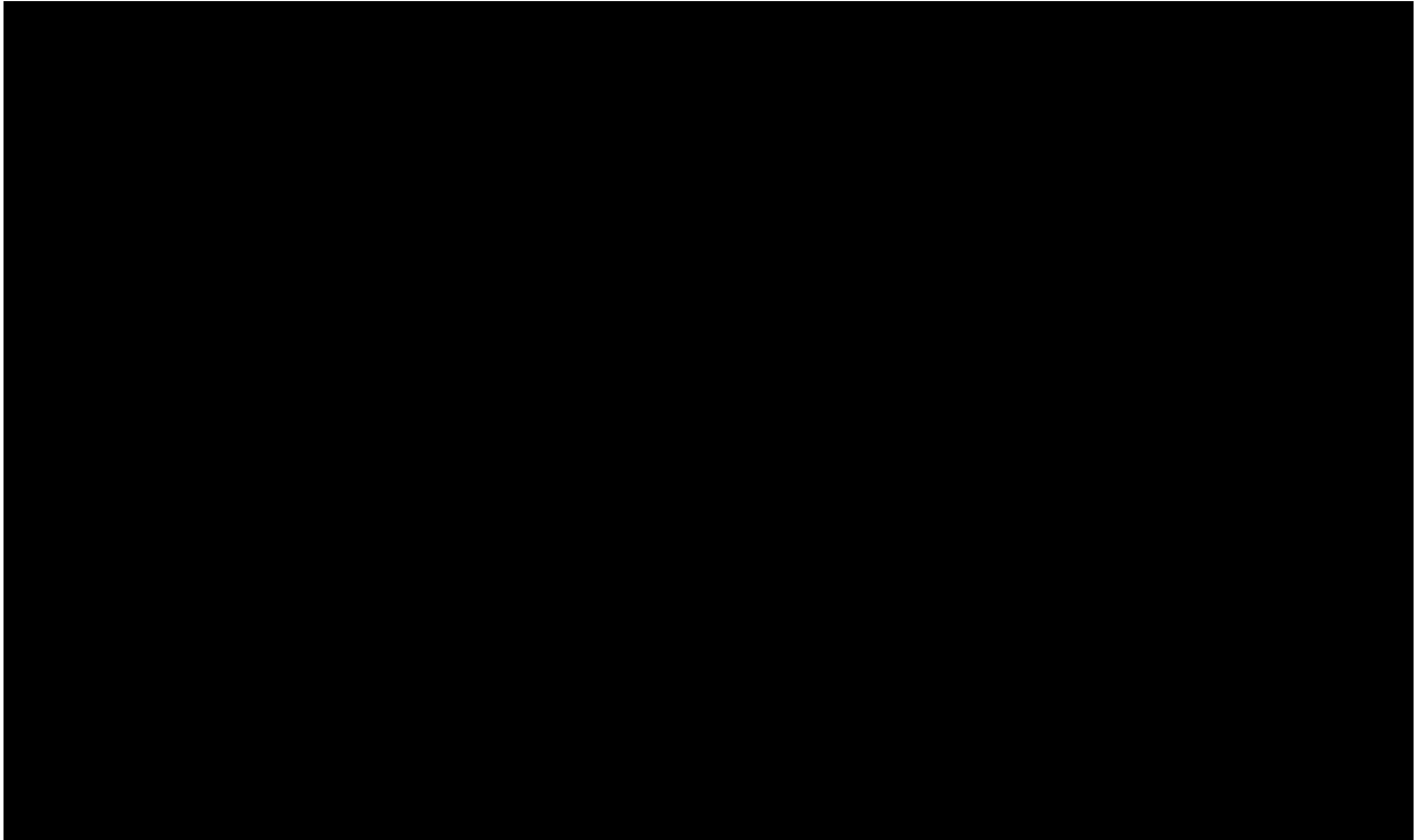
1.1 EXISTING SITE



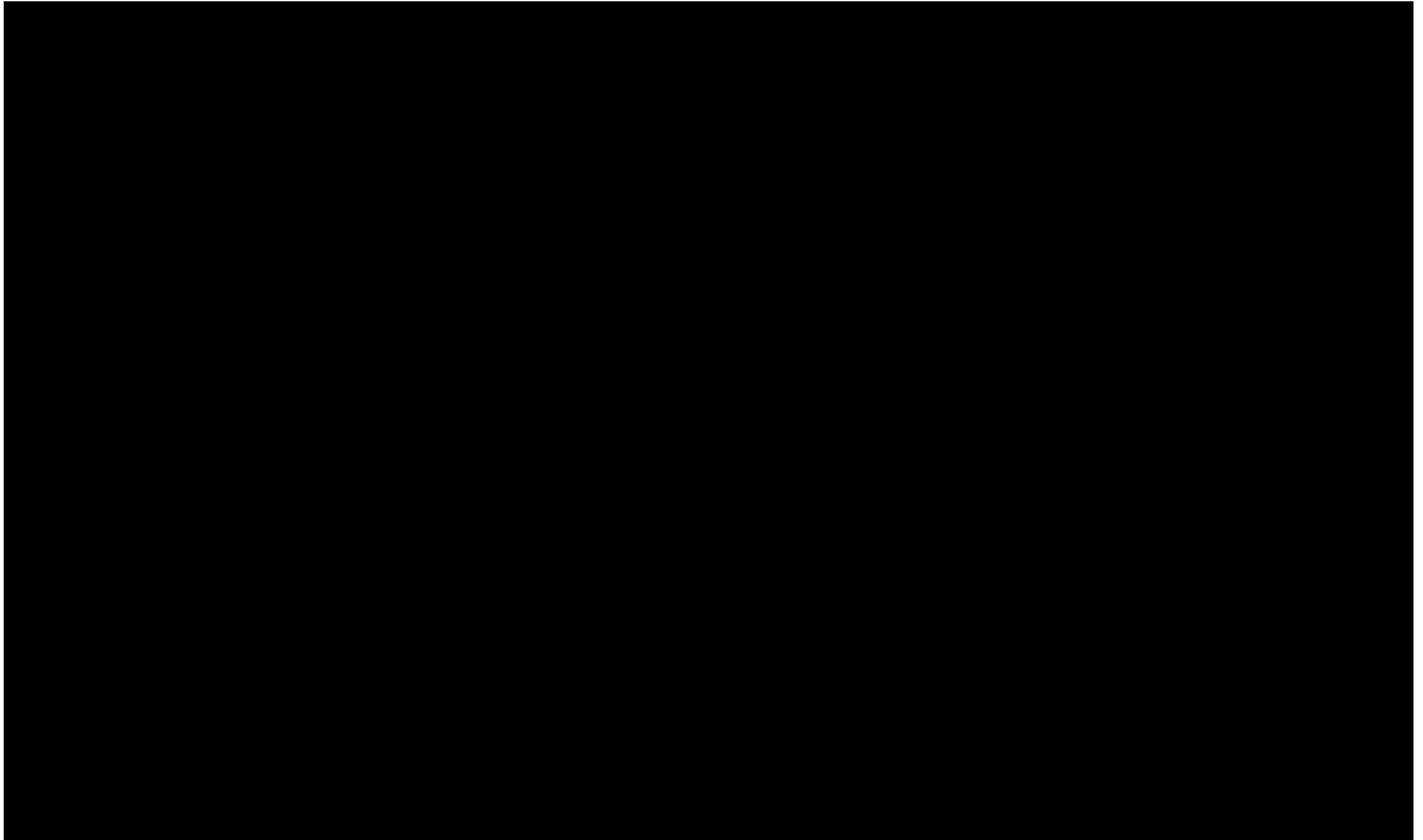
1.2 EXHIBITED MASTER PLAN



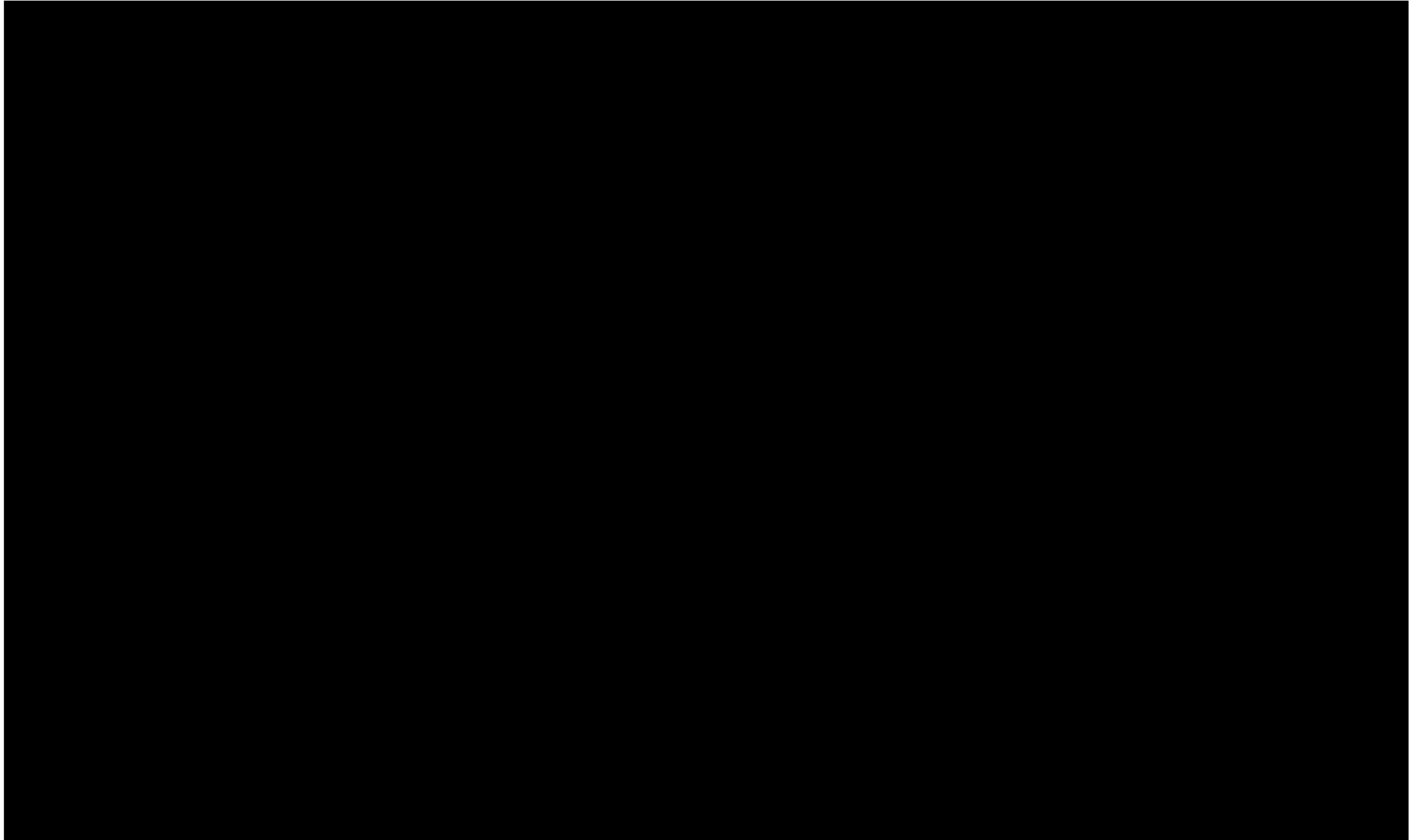
1.3 EXHIBITED STRUCTURE PLAN



1.4 MODIFIED STRUCTURE PLAN



1.5 MODIFIED STRUCTURE PLAN - SUPERLOT



1.6 MODIFIED SCHEME YIELD SHEET

	Lot Area	Use	HOB	Storeys	Gross Building Area (GBA)		Gross Floor Area (GFA)		NLA		Parking Req.	
Lot				x Storeys	Efficiency	LOT x %	Efficiency	GFA x %	Efficiency	GFA x %	1 per X GFA	GBA x %
1	6,525	Commercial	20	1	60%	3,915	98%	3,837	100%	3,837	50.0	78
2	15,435	Commercial	20	1	60%	9,261	98%	9,076	100%	9,076	50.0	185
3	16,690	Commercial	20	1	60%	10,014	98%	9,814	100%	9,814	50.0	200
4	33,225	Commercial	20	1	60%	19,935	98%	19,536	100%	19,536	50.0	399
5	17,970	Commercial	20	1	60%	10,782	98%	10,566	100%	10,566	50.0	216
6	20,512	Commercial	20	1	60%	12,307	98%	12,061	100%	12,061	50.0	246
7	20,365	Commercial	20	1	60%	12,219	98%	11,975	100%	11,975	50.0	244
8	28,865	Commercial	20	1	60%	17,319	98%	16,973	100%	16,973	50.0	346
9	23,870	Commercial	20	1	60%	14,322	98%	14,036	100%	14,036	50.0	286
10	24,585	Commercial	20	1	60%	14,751	98%	14,456	100%	14,456	50.0	295
11	24,515	Commercial	20	1	60%	14,709	98%	14,415	100%	14,415	50.0	294
12	3,220	Commercial	20	1	60%	1,932	98%	1,893	100%	1,893	50.0	39
13	30,650	Commercial	20	1	60%	18,390	98%	18,022	100%	18,022	50.0	368
14	15,780	Commercial	20	1	60%	9,468	98%	9,279	100%	9,279	50.0	189
15	15,900	Commercial	20	1	60%	9,540	98%	9,349	100%	9,349	50.0	191
16	10,100	Commercial	20	1	60%	6,060	98%	5,939	100%	5,939	50.0	121
17	43,495	Commercial	20	1	60%	26,097	98%	25,575	100%	25,575	50.0	522
18	29,160	Commercial	20	1	60%	17,496	98%	17,146	100%	17,146	50.0	350
19	15,060	Commercial	20	1	60%	9,036	98%	8,855	100%	8,855	50.0	181
20	15,135	Commercial	20	1	60%	9,081	98%	8,899	100%	8,899	50.0	182
21	17,210	Commercial	20	1	60%	10,326	98%	10,119	100%	10,119	50.0	207
22	7,130	Commercial	20	1	60%	4,278	98%	4,192	100%	4,192	50.0	86
Totals	435,397					261,238		256,013		256,013		5,225

TOTALS

	NORTH LOT	SOUTH LOT	TOTAL
Site Area	453,665	381,892	835,557
Less Public Open Space (incl HVP)	119,110	70,868	189,978
Less Road Reserves	111,140	98,595	209,735
Developable Area	223,415	212,429	435,844
			52.2%
Total NLA			256,013
Total GFA			256,013 m2
Average Net/Lot FSR			0.59 : 1
Gross FSR			0.31 : 1

Assumptions

	LOT>GBA	GBA>GFA	GBA>NLA
Commercial	60%	98%	100%
Parking Req.	1 space per	50	GFA
	GROUND	TYPICAL	PLANT
Floor-to-floors		15.00	
Storeys @ 20m HOB		1	
Storeys @ 27m HOB		0	
			OVERRUN

Note: this spreadsheet represents a 'best guess' estimate of potential floor areas indicatively illustrated in the November 2020 draft of the DPIE Northern Gateway Precinct Plan. All projections are approximate.