

High School in Jerrabomberra

Response to Submissions and SDRP

30.03.2022

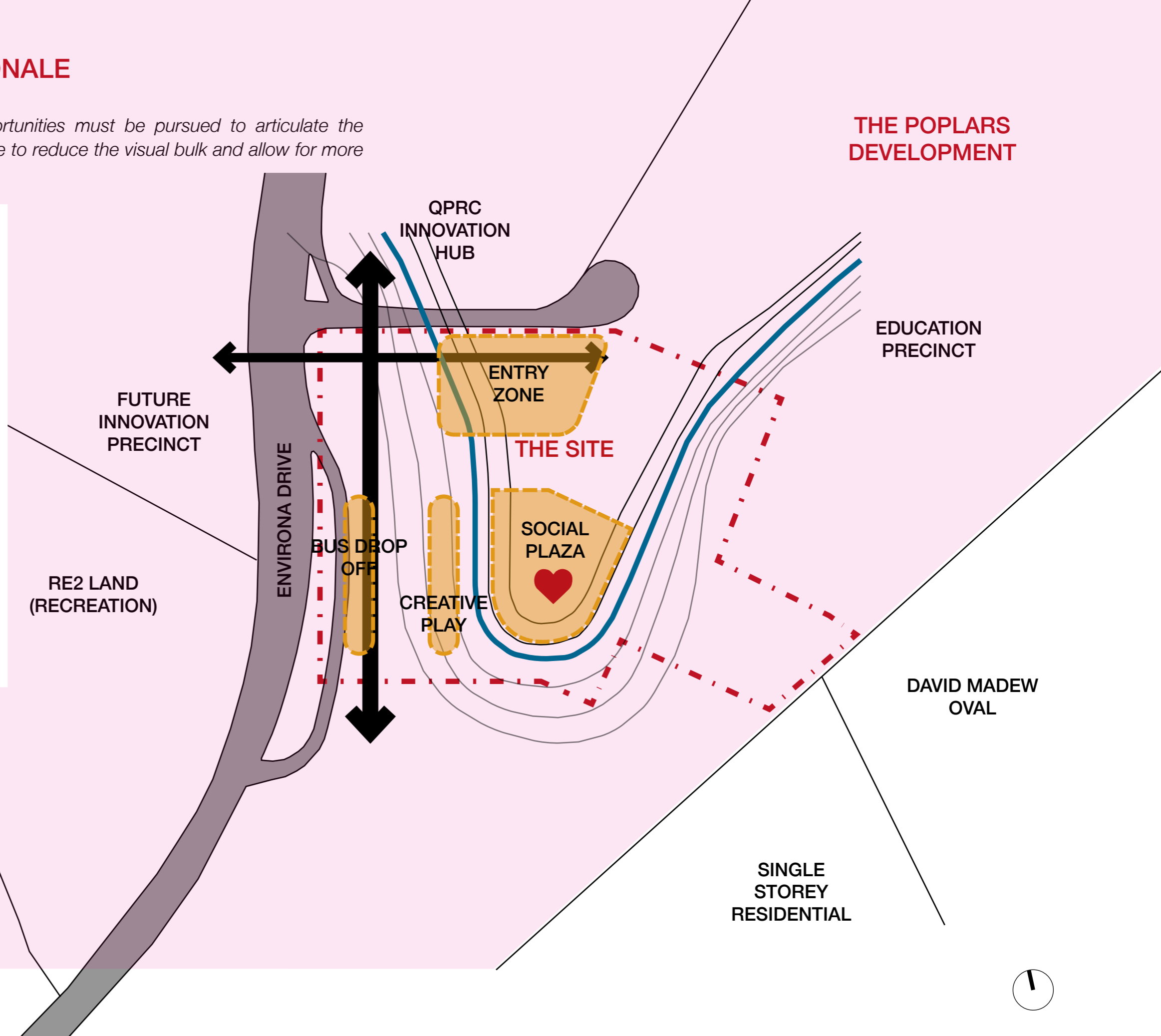
Issue A



BUILDING VOLUME RATIONALE

Recommendations 11 and 12a – opportunities must be pursued to articulate the volume of Building A along Envirova Drive to reduce the visual bulk and allow for more opportunities for natural ventilation.

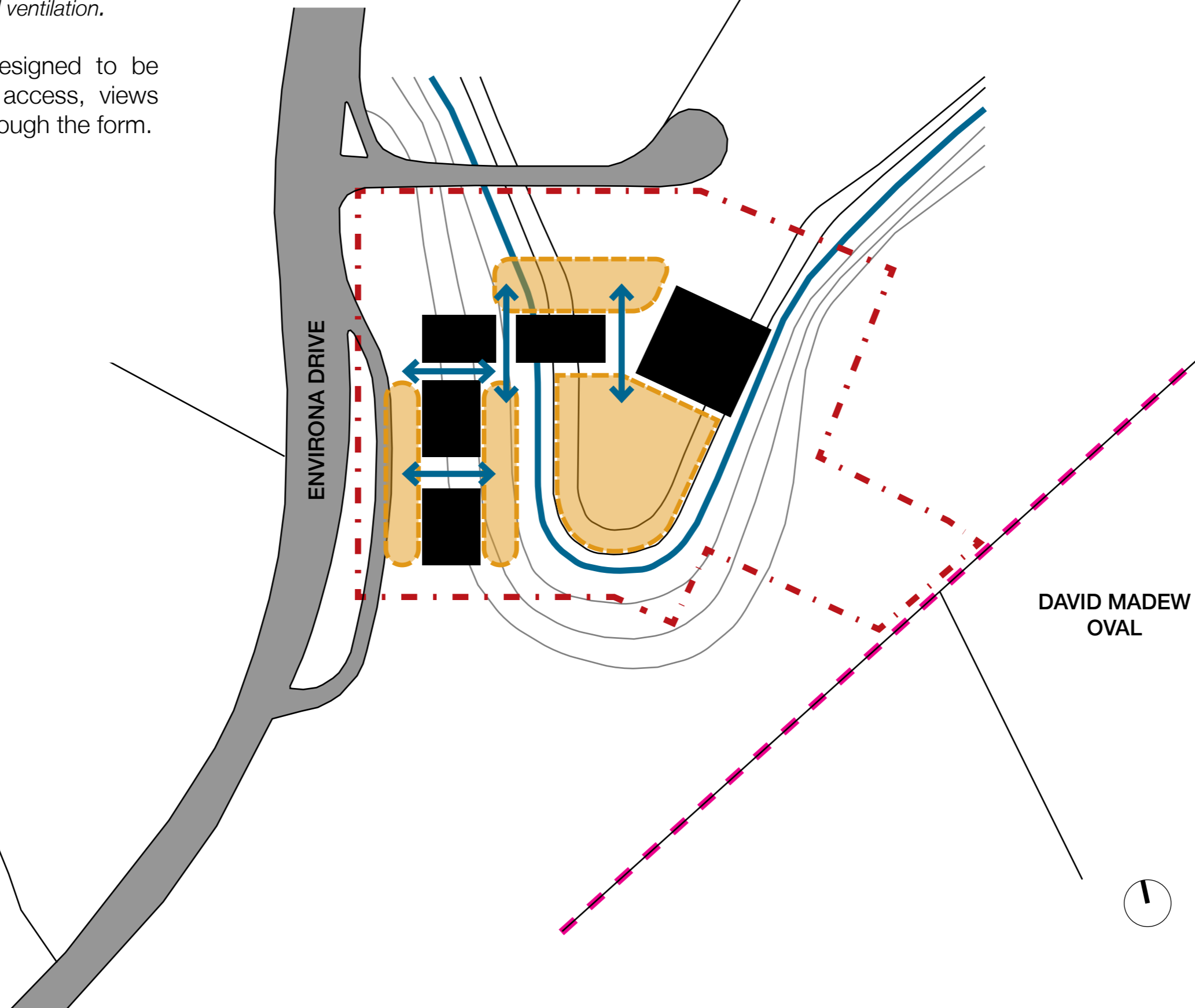
- The new school at Jerrabomberra is to be located with the Poplars Innovation Hub. A business and industrial park near to the region's new home for high performance business innovation and success.
- The building volume is generated by some of the dominant characteristics of the site
 - Road Alignment.
 - The relatively steep contours of the site.
 - The need to work with the contours to optimise open space and accessibility



BUILDING VOLUME RATIONALE | ACCESS AND PERMEABILITY

Recommendations 11 and 12a – opportunities must be pursued to articulate the volume of Building A along Envirova Drive to reduce the visual bulk and allow for more opportunities for natural ventilation.

- The volume is designed to be porous, allowing access, views and ventilation through the form.



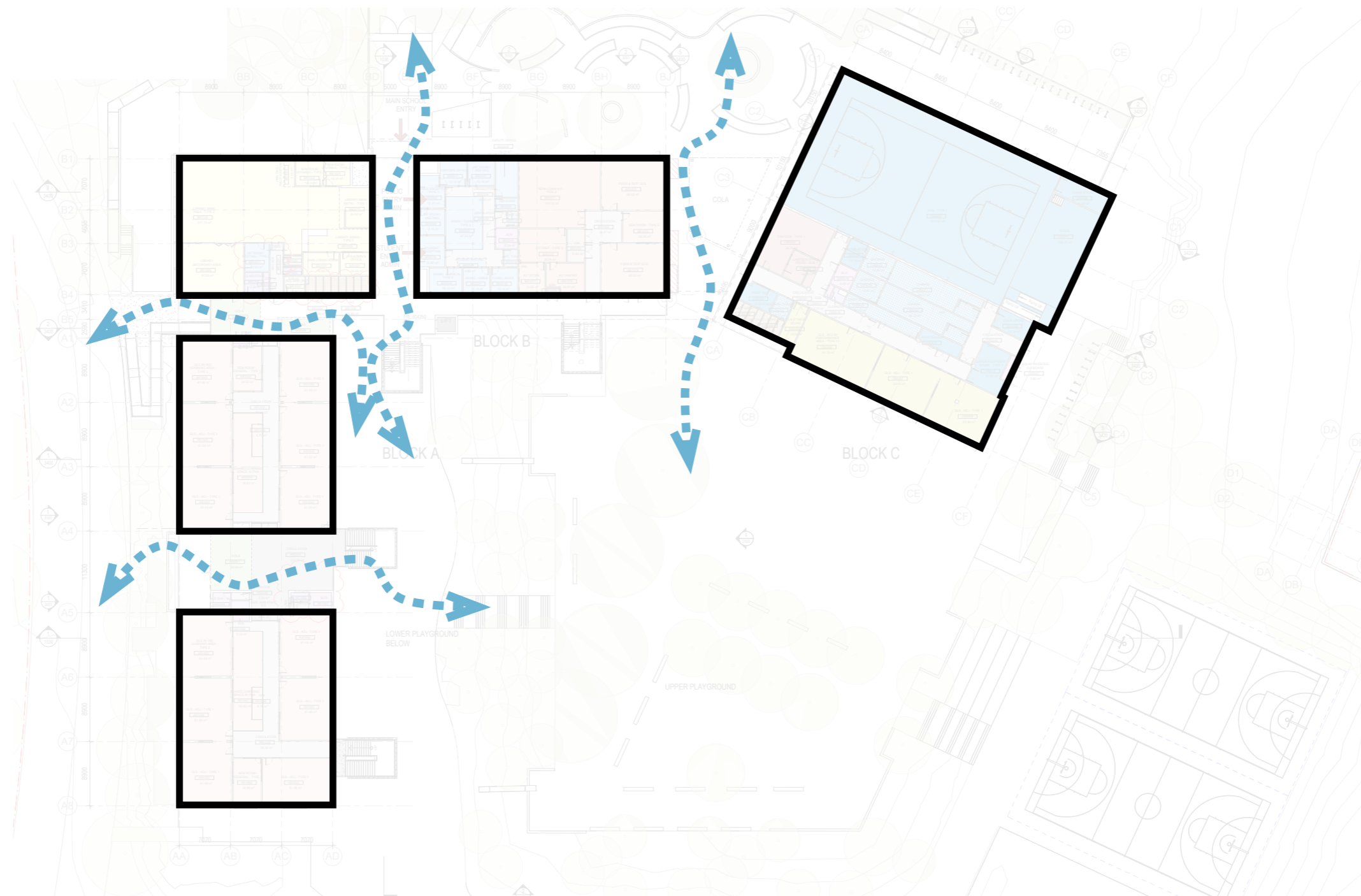
THE POPLARS
DEVELOPMENT

DAVID MADEEW
OVAL

BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK + CROSS VENTILATION

Recommendations 11 and 12a – opportunities must be pursued to articulate the volume of Building A along Environa Drive to reduce the visual bulk and allow for more opportunities for natural ventilation.

- The building volumes are separated to allow cross ventilation and porosity.



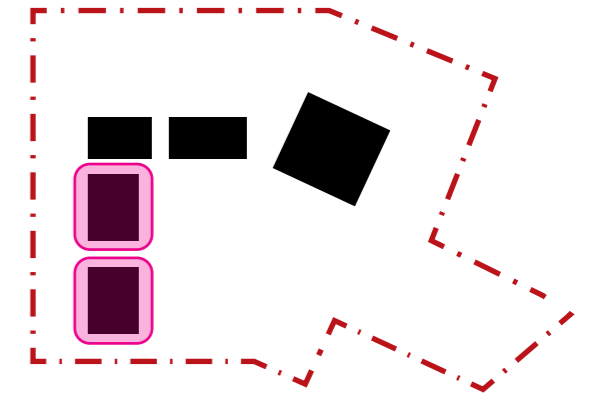
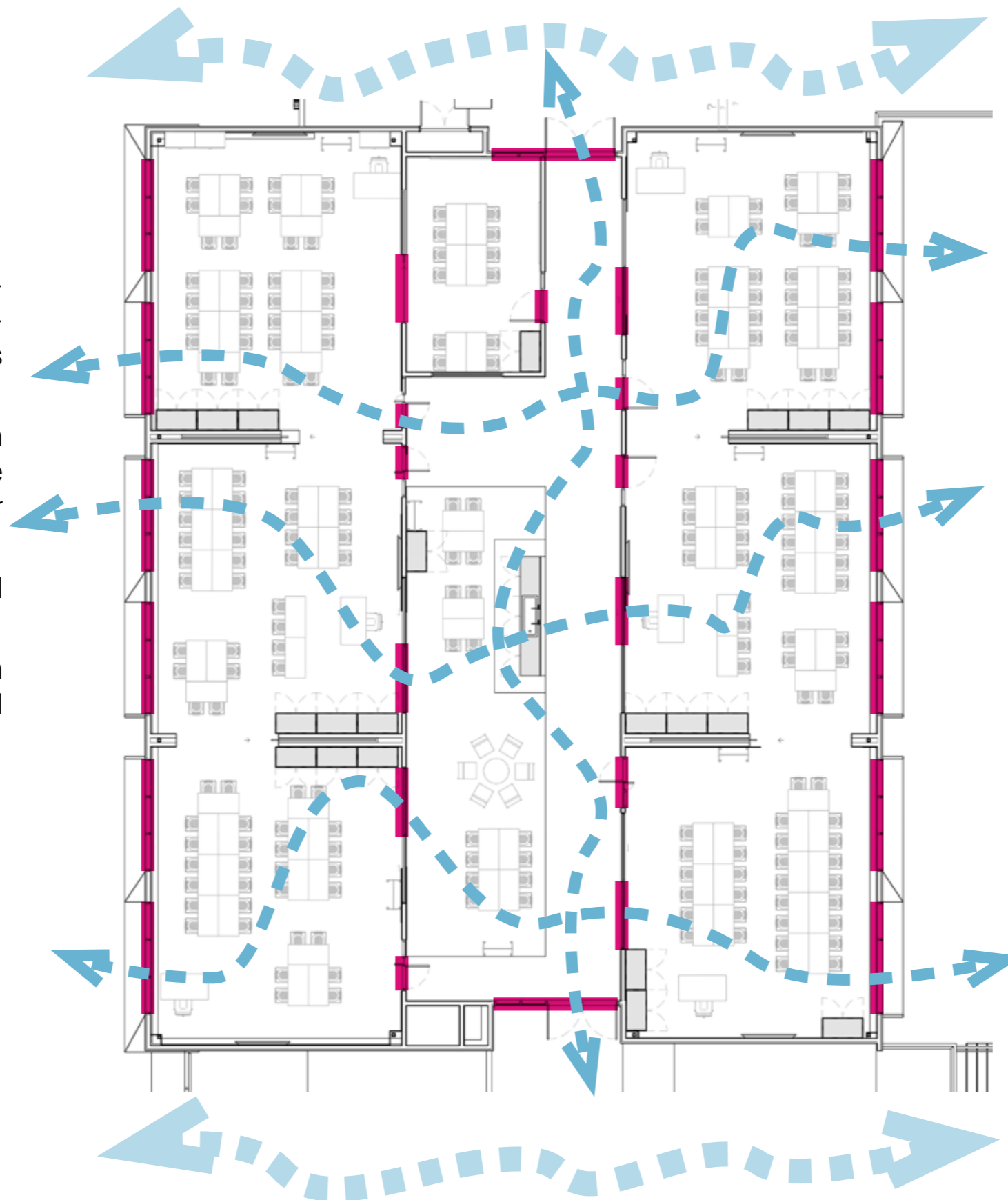
BUILDING VOLUME RATIONALE | OPPORTUNITIES FOR NATURAL VENTILATION

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OPERABLE OPENINGS 

VENTILATION 

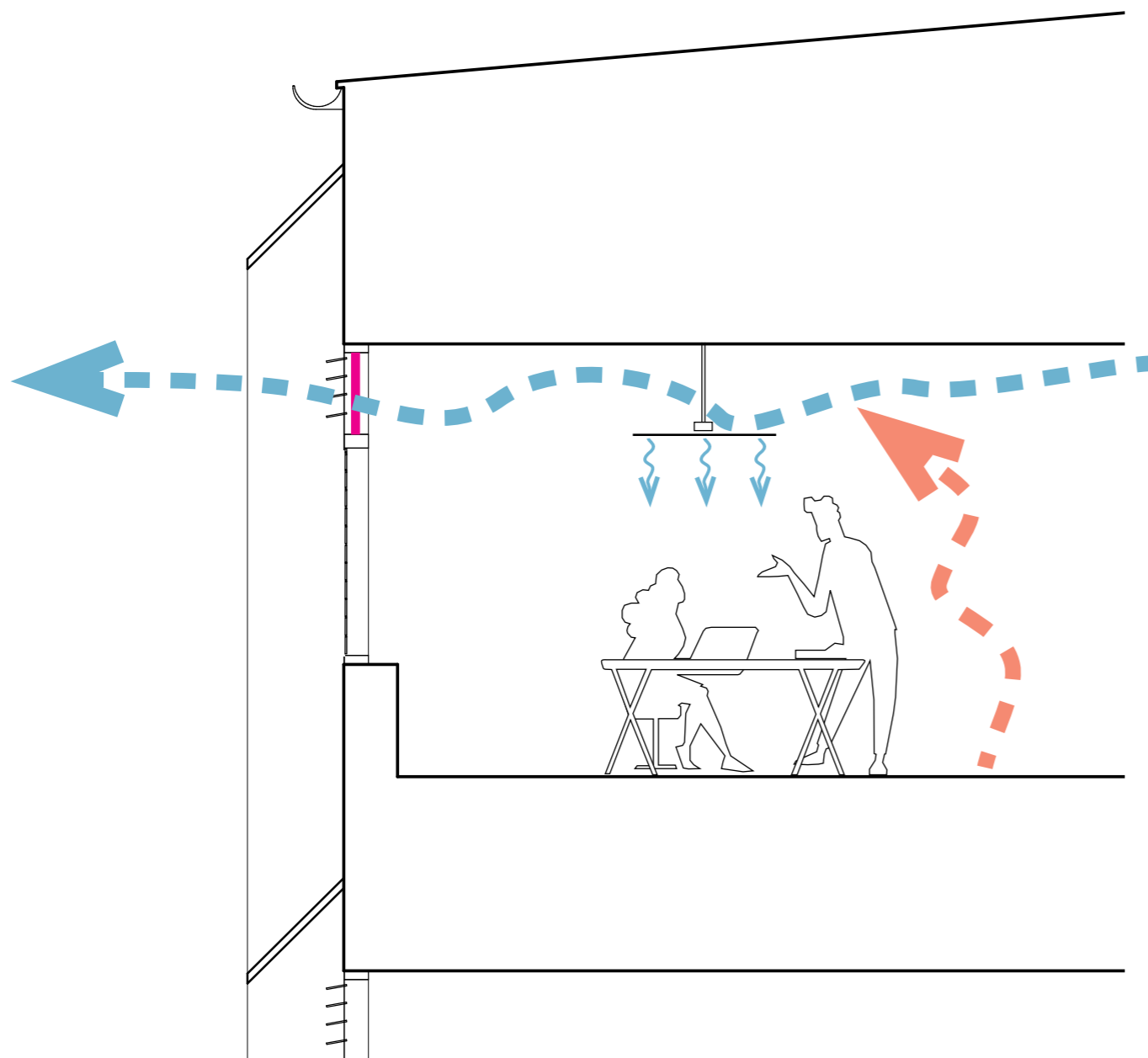
- The users can modify their environment by manipulating openings which provide opportunities for natural ventilation.
- Cross ventilation occurs through the learning commons via the open circulation nodes at either end of the hubs
- Operable windows in the external facade allow for air flow
- Cross ventilation occurs through external openings and internal partitions



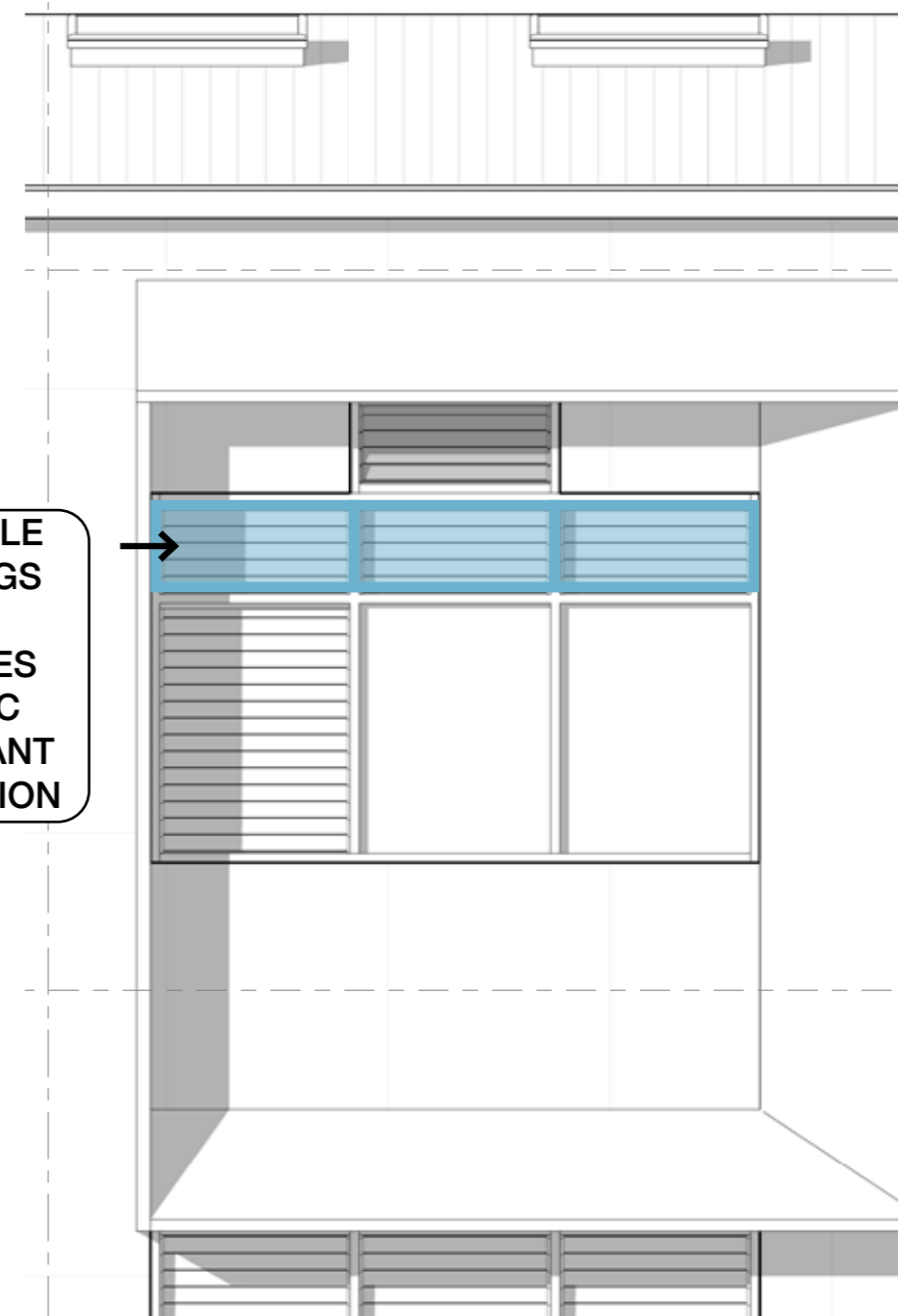
BUILDING VOLUME RATIONALE | OPPORTUNITIES FOR NATURAL VENTILATION

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- Users can operate louvre banks for high level cross ventilation.
- Fans assist with the cooling effect



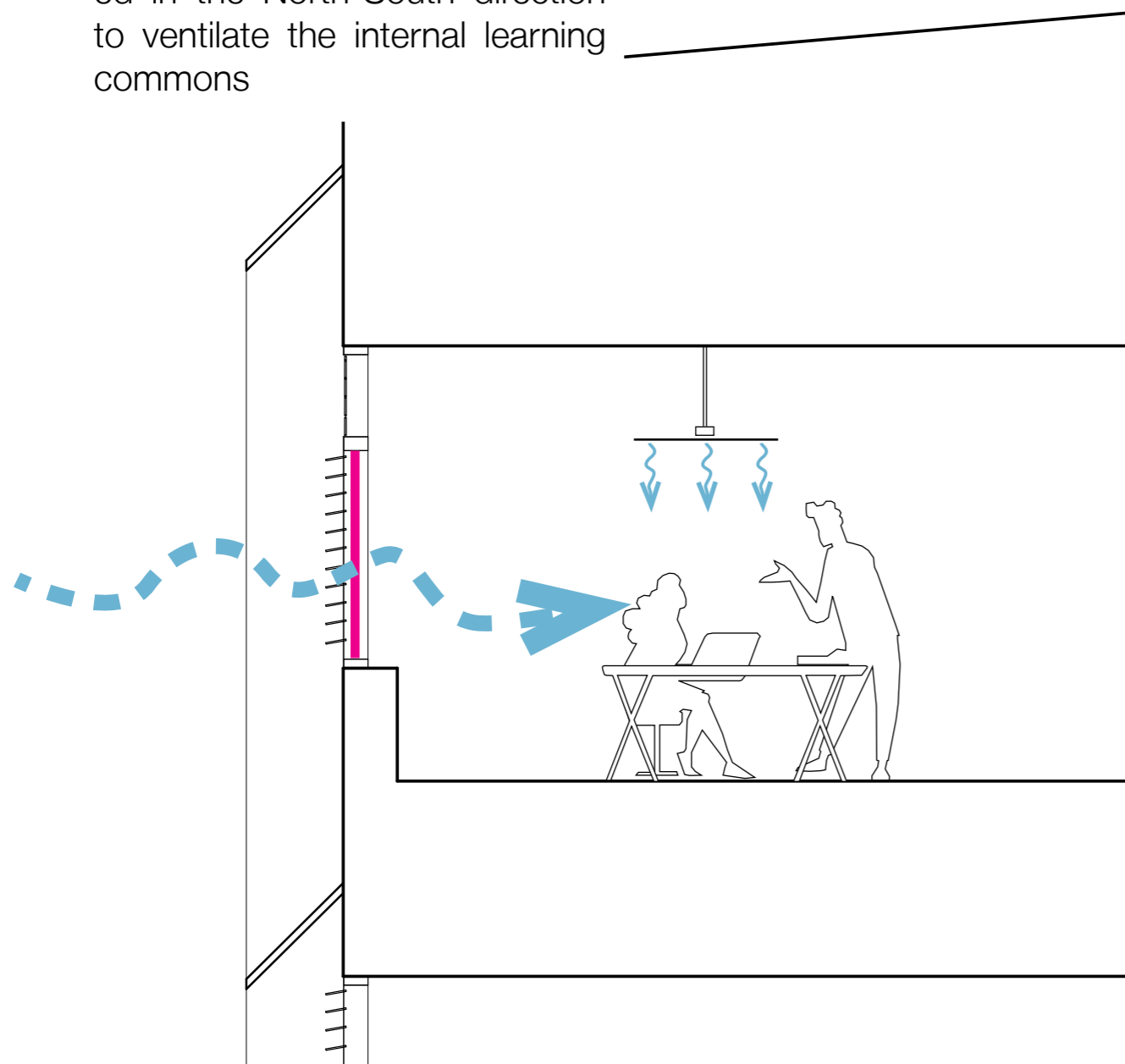
OPERABLE
OPENINGS
ACHIEVES
5% NCC
COMPLIANT
VENTILATION



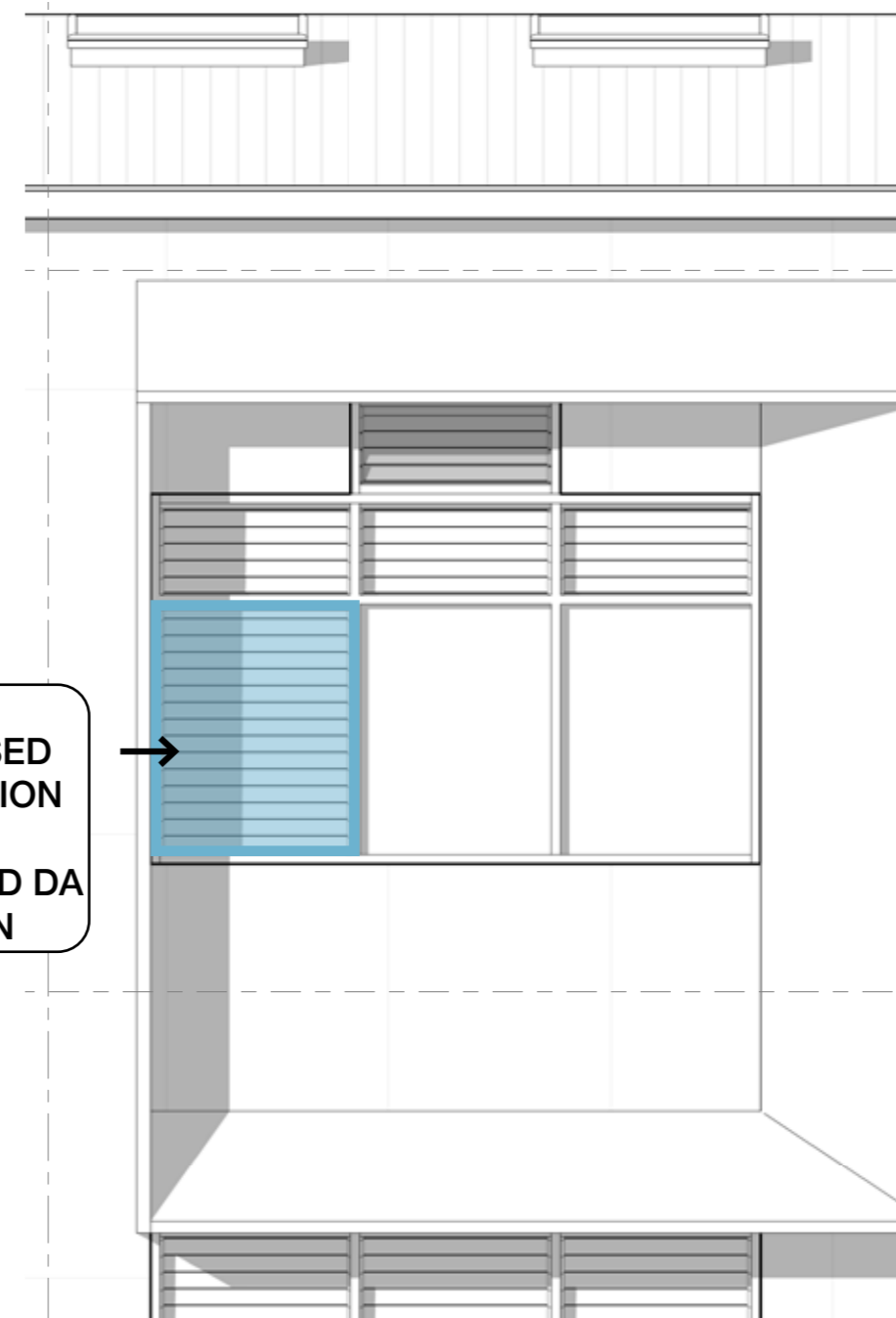
BUILDING VOLUME RATIONALE | OPPORTUNITIES FOR NATURAL VENTILATION

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- Lower level louvre banks provide air movement at occupant level.
- These louvres are additional to the previously submitted DA design
- Additional louvre banks to original DA design have also been added in the North-South direction to ventilate the internal learning commons



43%
INCREASED
VENTILATION
FROM
SUBMITTED DA
DESIGN



BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK

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ORIGINAL DA DESIGN

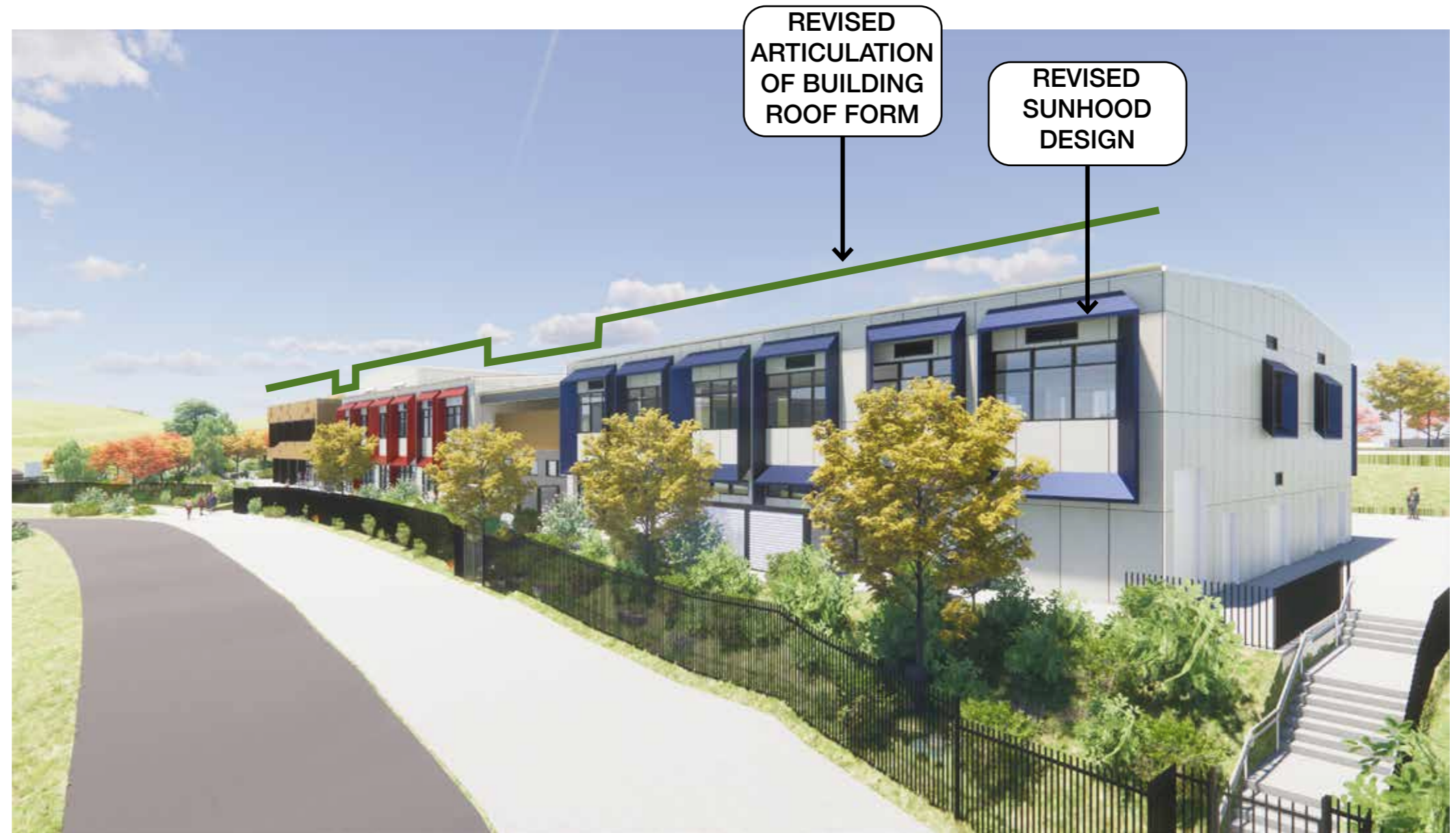


BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK

Recommendations 11 and 12a – opportunities must be pursued to articulate the volume of Building A along Environa Drive to reduce the visual bulk and allow for more opportunities for natural ventilation.

REVISED DESIGN

- The revised design has enhanced articulation.
- Articulation of the building form to allow porosity for natural ventilation and reduction of the visual bulk and scale.
- The roof has been modified from the DA design to provide greater expression of the separation of the building volume.
- The revised sunhood design provides greater variety and articulation of the building volume.



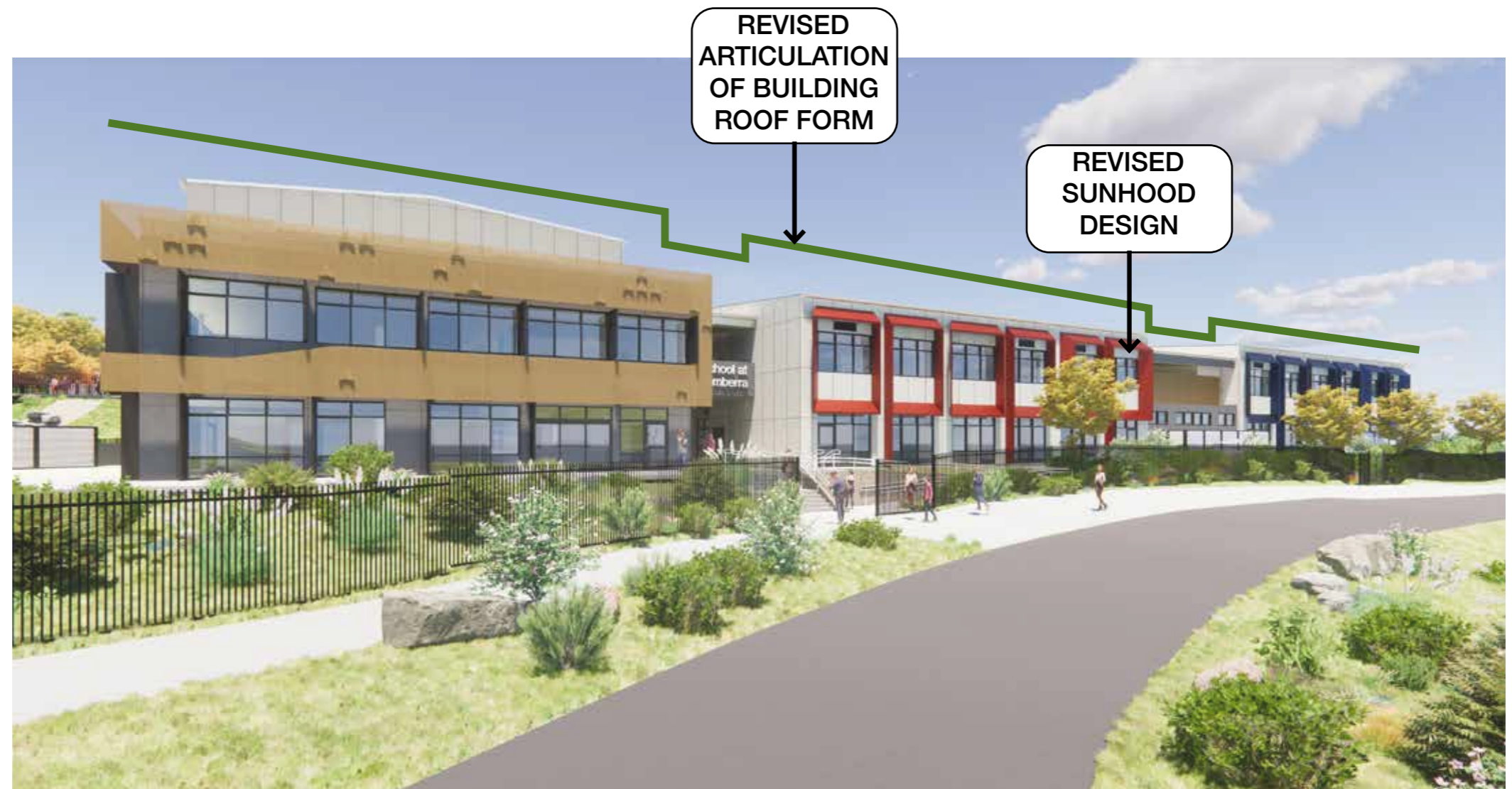
SOUTH WEST VIEW

BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK

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REVISED DESIGN

- The revised design has enhanced articulation.



NORTH WEST VIEW

BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK

Recommendations 11 and 12a – opportunities must be pursued to articulate the volume of Building A along Environa Drive to reduce the visual bulk and allow for more opportunities for natural ventilation.

- Perspective view of the western entry from the school bus bay, illustrating articulation of Building A with dropped roof and revised sun shading design



BUILDING VOLUME RATIONALE | REDUCTION OF VISUAL BULK

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- Perspective view of the western facade.

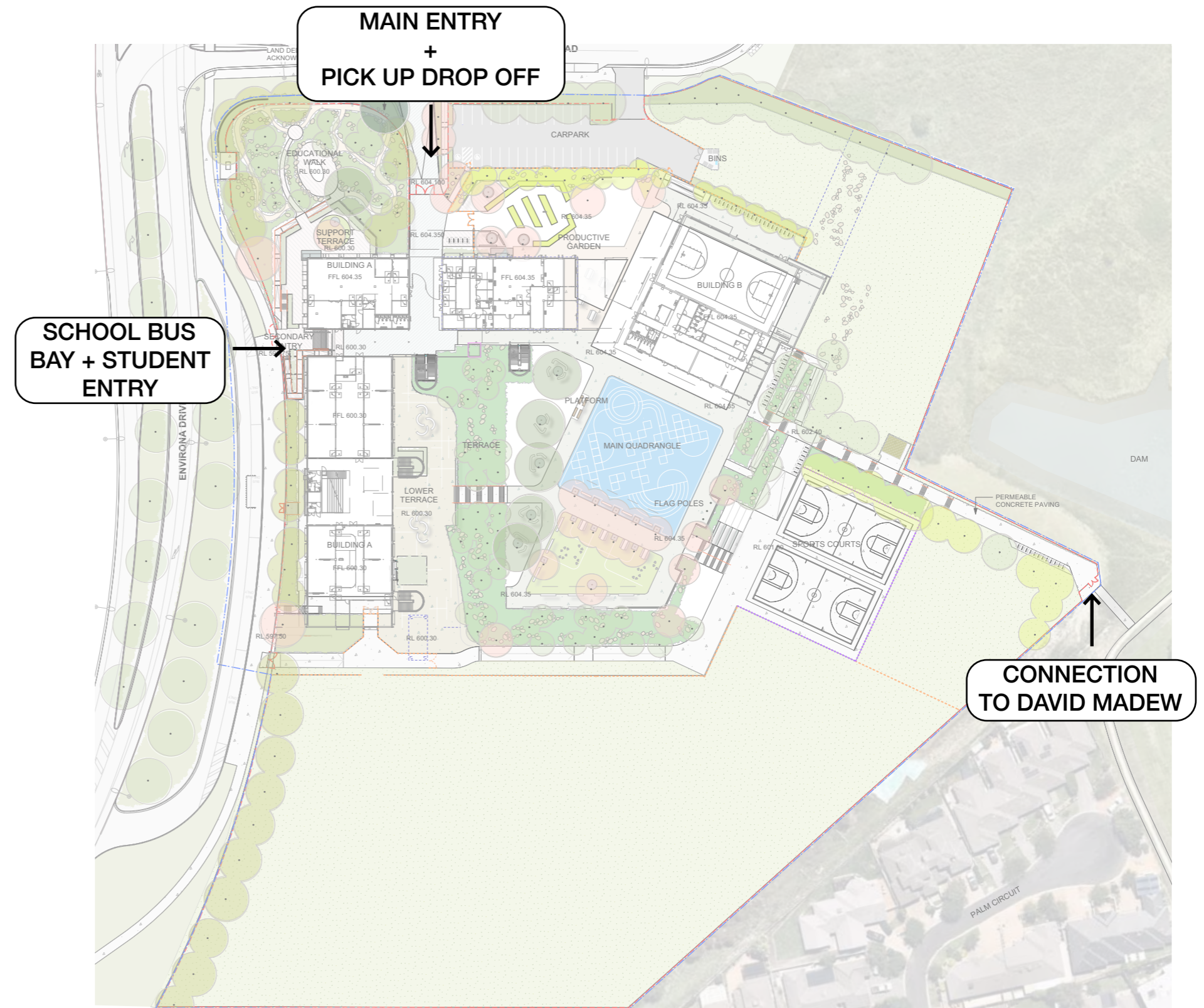


REVISED DESIGN

ACCESSIBILITY AND EQUITY | EXISTING DA DESIGN

Recommendation 7c – the response does not include any options testing, and the recommendation to explore how the connection between the David Madew Oval and the school is connected and inclusive has not been adequately addressed. Options to provide an inclusive and equitable connection between the Oval and the school must be explored.

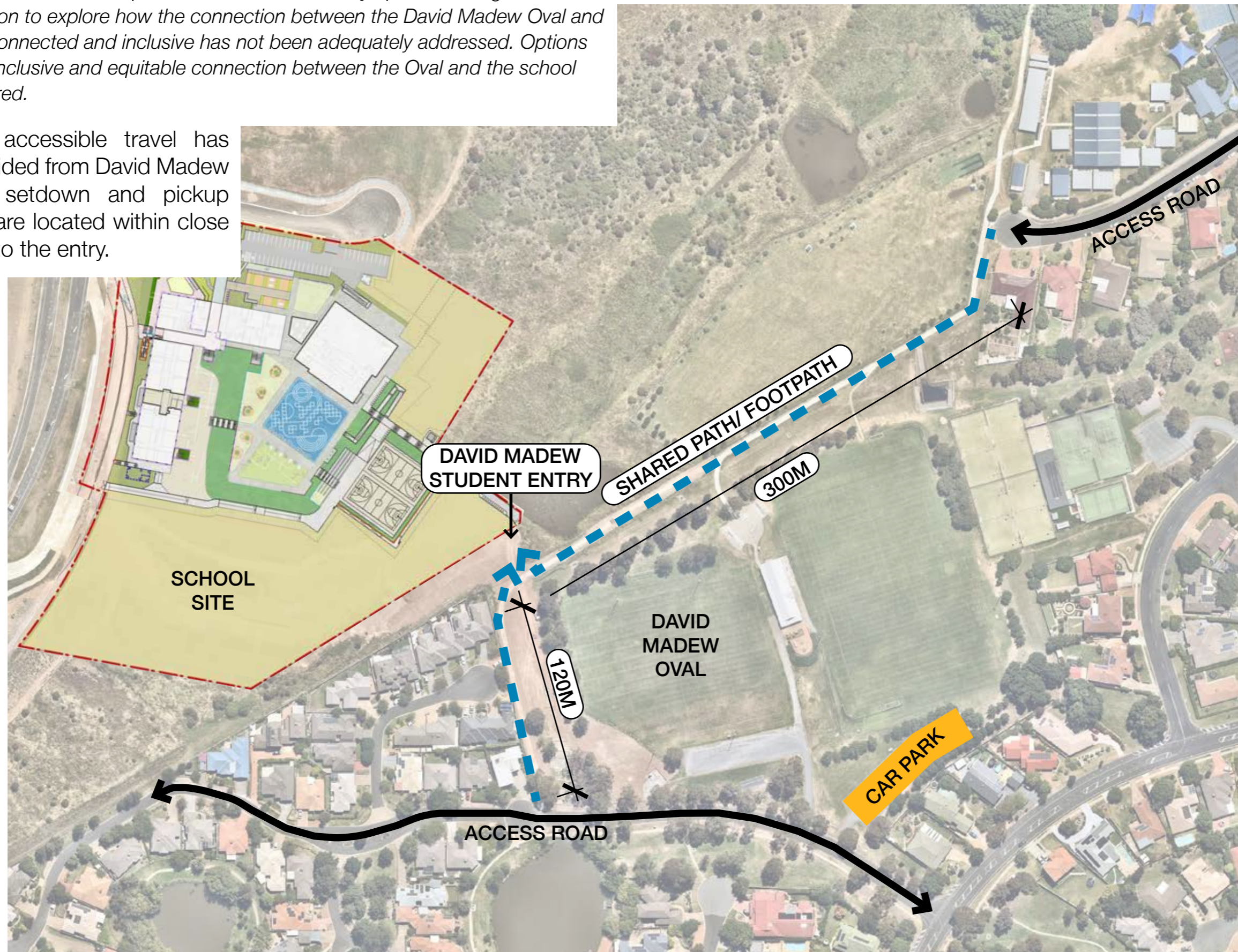
- The campus can be approached from a number of directions



ACCESSIBILITY AND EQUITY | CONNECTION TO DAVID MADEW OVAL

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- Although accessible travel has been provided from David Madew oval, no setdown and pickup locations are located within close proximity to the entry.

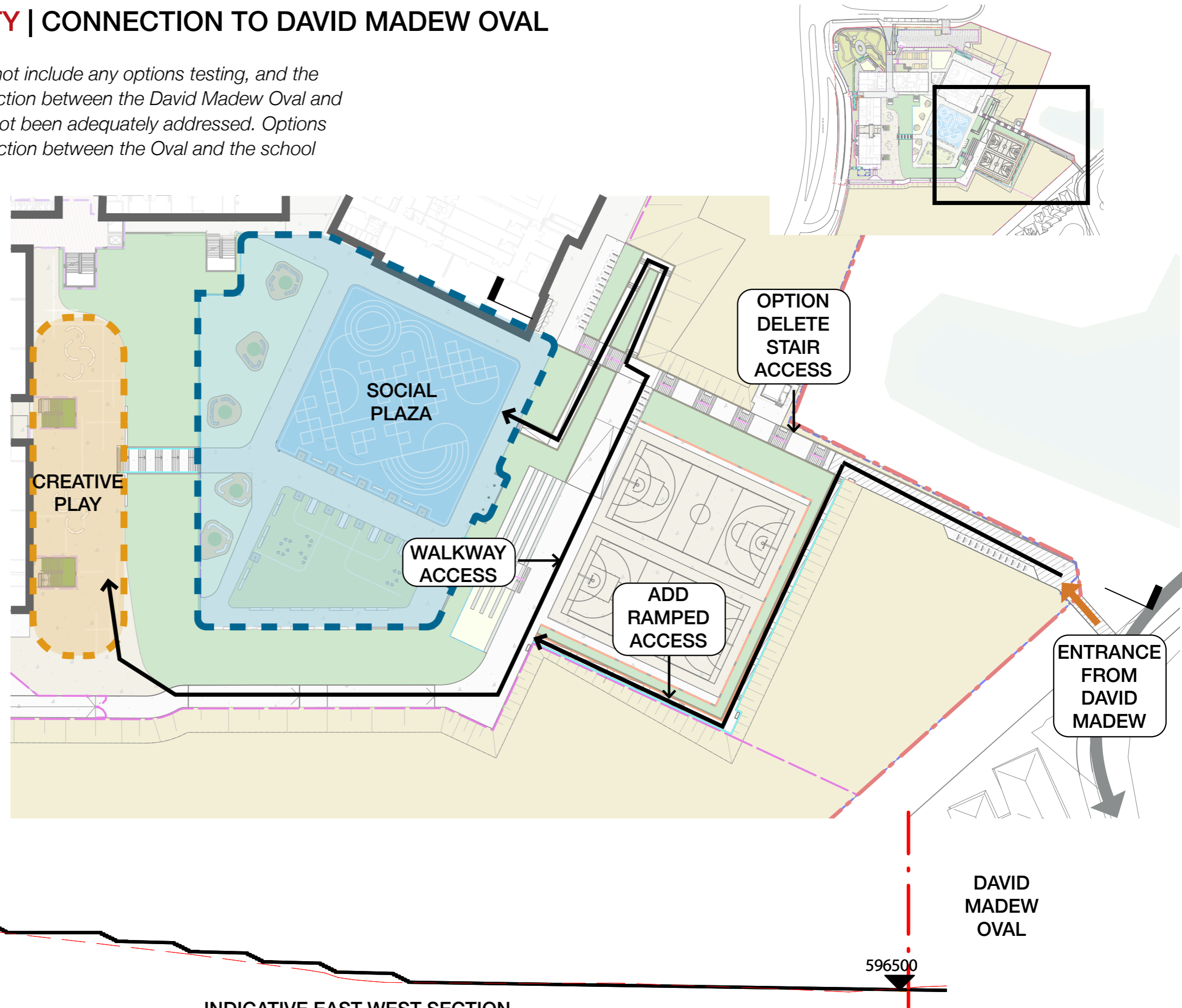


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- OPTION 1:

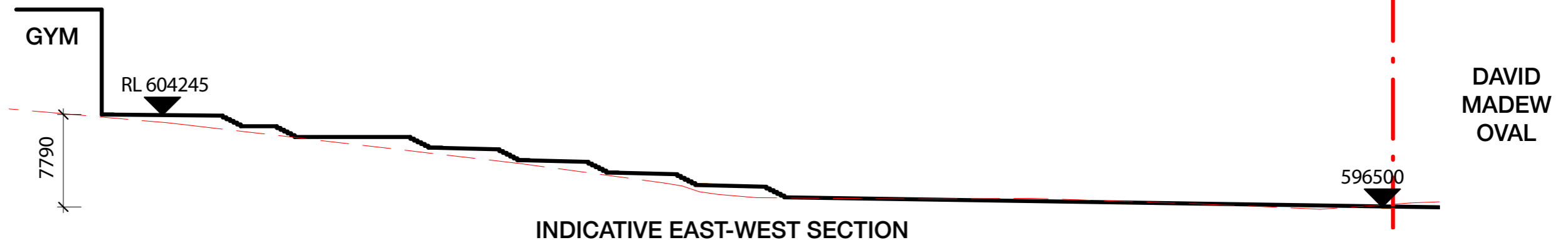
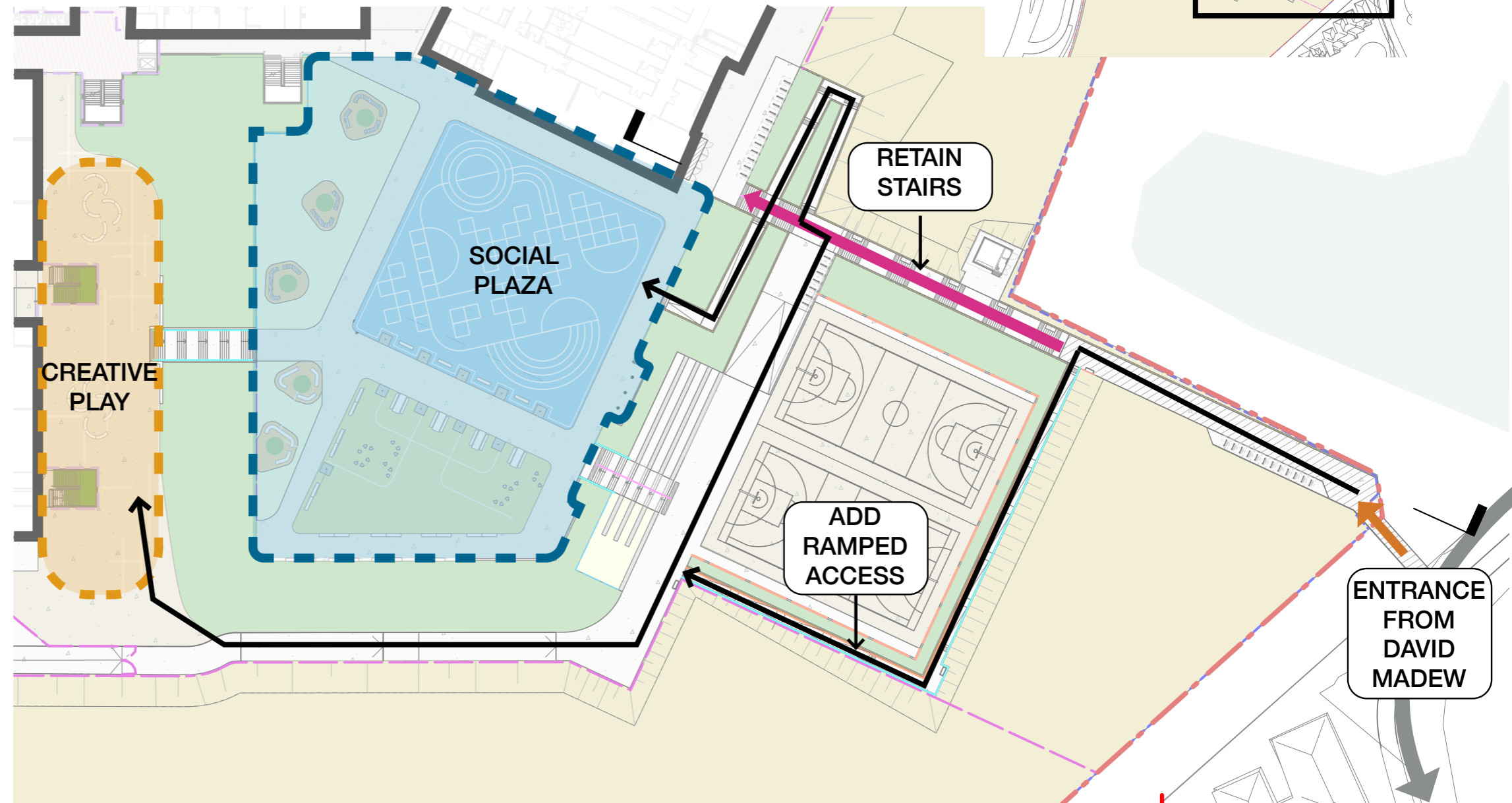
- Stair access to the Social Plaza is provided via a rise of 7 flights of stairs to navigate the 7.8 meters level difference of the natural contours
- Stair access can be deleted and replaced with a reamp system around the sports courts providing accessible and equitable travel for all users alike
- This option limits choice of travel paths for abled-bodies users



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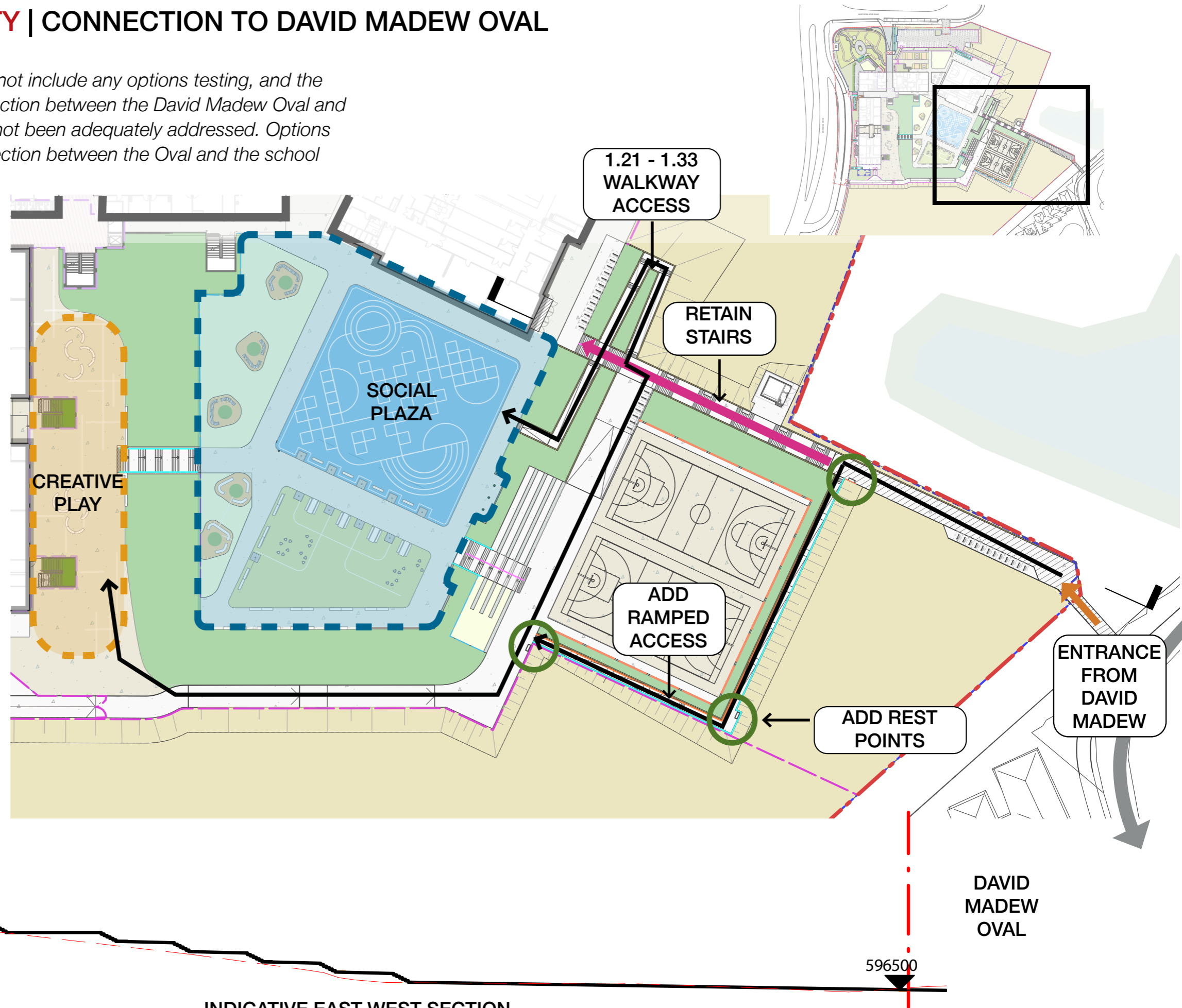
- OPTION 2:
 - Retain Stair access for abled-bodied users
 - Provide an accessible ramp system for use by all
 - This option maximises choice



ACCESSIBILITY AND EQUITY | CONNECTION TO DAVID MADEW OVAL

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- OPTION 3 (PREFERRED):
 - Retain stairs
 - Provide accessible ramp around courts
 - Add rest stops to the ramp system at convenient intervals
 - This option incorporates accessibility and equity for all users, and maximises choice
- OTHER OPTIONS REVIEWED
 - Pedestrian ramp adjacent the stairs would be too steep
 - A lift option was also investigated, but found to be impractical given the distance to the plaza



ACCESSIBILITY VIA DAVID MADEW OVAL

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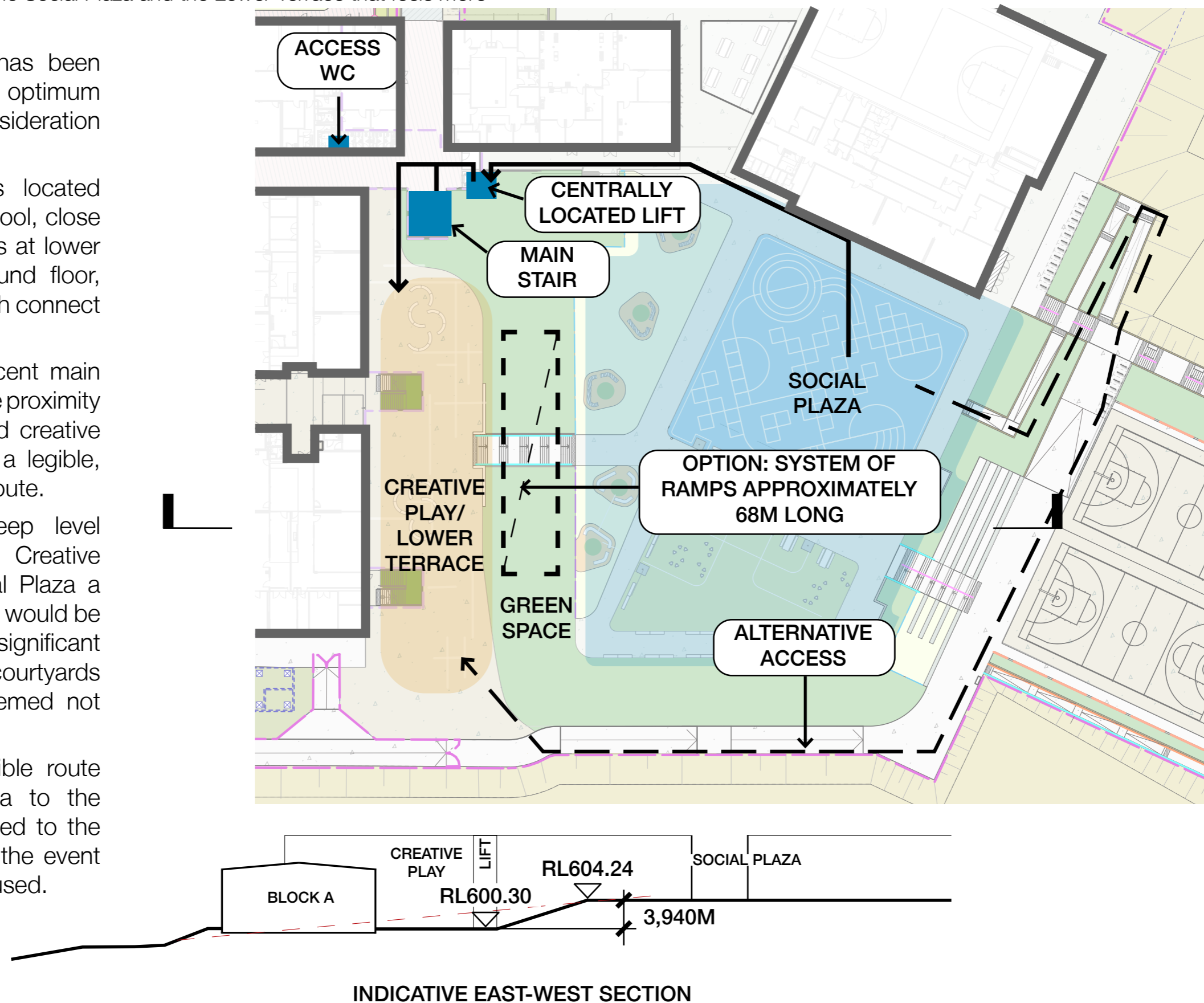
REVISED DESIGN:

The connection to the David Madew Oval has been addressed within the constraints presented by the sloped site. A series of ramps compliant with the enhanced requirements of AS 1428.2-1992 have been provided adjacent to the steps, ensuring that all users have choice to address the level change in the way most appropriate to their needs or disability. The ramps meet the EFSG requirement to provide landings at 6m intervals (in lieu of 9m intervals as per the requirements of the BCA) to ensure the route is suitable for students or users who might tire more easily. Rest points with seating are incorporated at a convenient intervals along the ramped route, to allow an opportunity for students and staff to rest and recover, extending the ability to comfortably travel longer distances.

ACCESSIBILITY BETWEEN THE SOCIAL PLAZA AND LOWER TERRACE

Recommendation 9 - the response has not considered alternative options to provide accessible access between the Social Plaza and the Lower Terrace that feels more inclusive and equitable.

- The school campus has been designed to allow for optimum accessibility with consideration of the site contours.
- The accessible lift is located centrally within the school, close to accessible amenities at lower ground floor and ground floor, and the main stair which connect all levels of the school.
- Both the lift and adjacent main stair are located in close proximity to the social plaza and creative play space, providing a legible, pragmatic circulation route.
- To transition the steep level change between the Creative Play space and Social Plaza a large network of ramps would be required, removing a significant portion of the central courtyards green space, and deemed not practical.
- An alternative accessible route from the Social Plaza to the Creative play is provided to the south of the plaza, in the event the lift is unable to be used.



ACCESSIBILITY BETWEEN THE SOCIAL PLAZA AND LOWER TERRACE

Recommendation 9 - the response has not considered alternative options to provide accessible access between the Social Plaza and the Lower Terrace that feels more inclusive and equitable.

PREFERRED DESIGN:

The connection between the upper and lower terrace can be achieved either via the passenger lift (which serves all levels and achieves compliance with the accessibility requirements of the NCC), or via an alternate step-free accessway within the school boundary. The step-free route need only be used in a scenario where the lift is unable to be used. The addition of ramping between the terrace levels would remove a large portion of green space.