

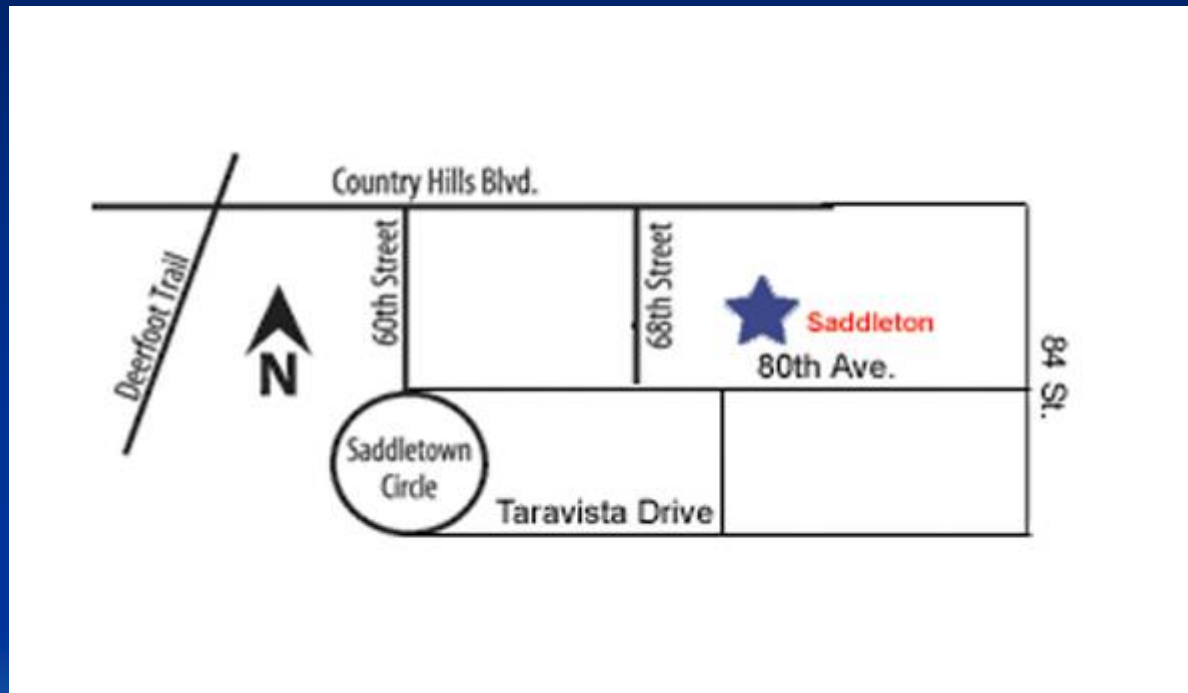
Saddleton

A Low Impact Development
Concept



Saddleton Location Map

Located within the Saddle Ridge ASP Area



Advantages of the Fused Grid

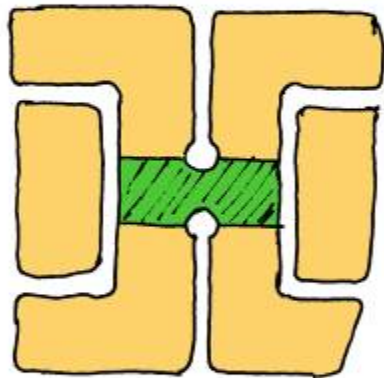
- CMHC Presentation
- The Fused Grid system provides increased pedestrian connectivity & access to open space
- Requiring less asphalt provides the opportunity higher lot yield and more open space than traditional suburban subdivisions
- Through the combination of increased lot yields and less road surface area, a Fused Grid subdivision can be more cost-effective to service and maintain.



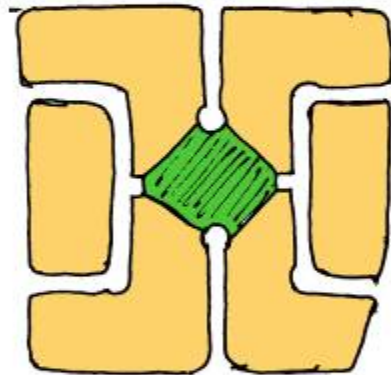


ALL OPTIONS HAVE :

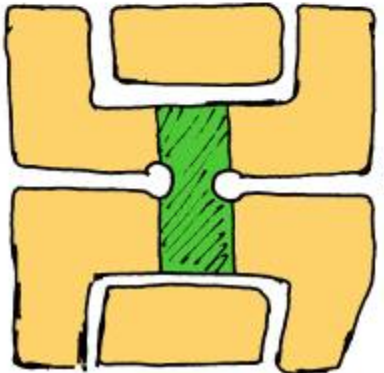
- 6 BLOCKS
- SAME STREET LENGTH
- SAME OPEN SPACE AREA.



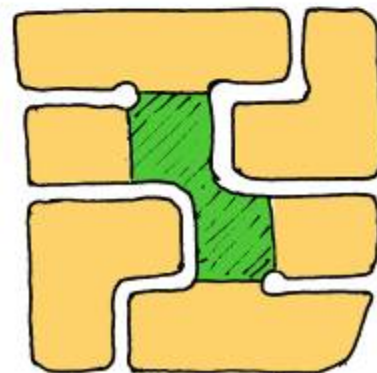
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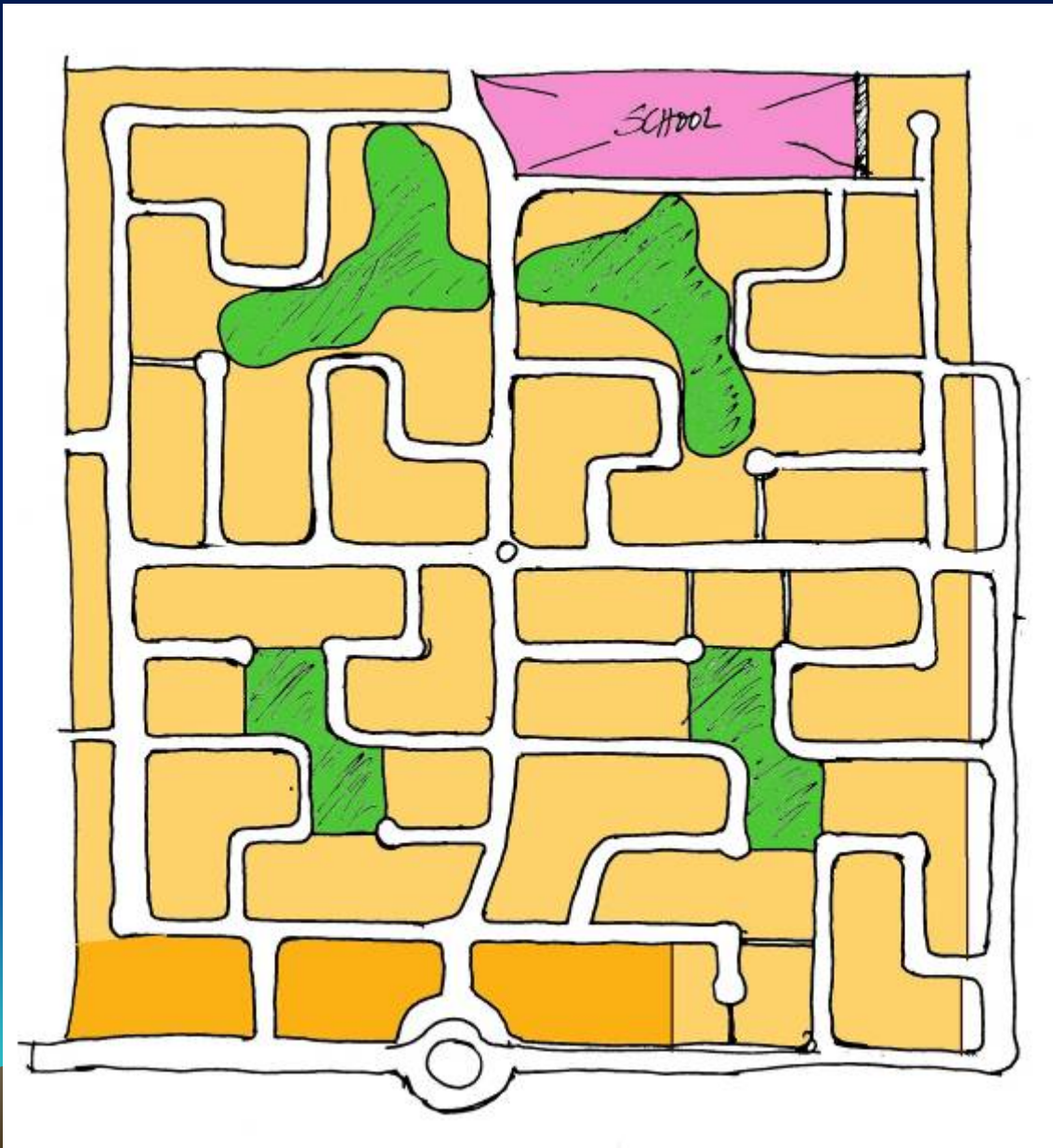
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Options for the SW quadrant:

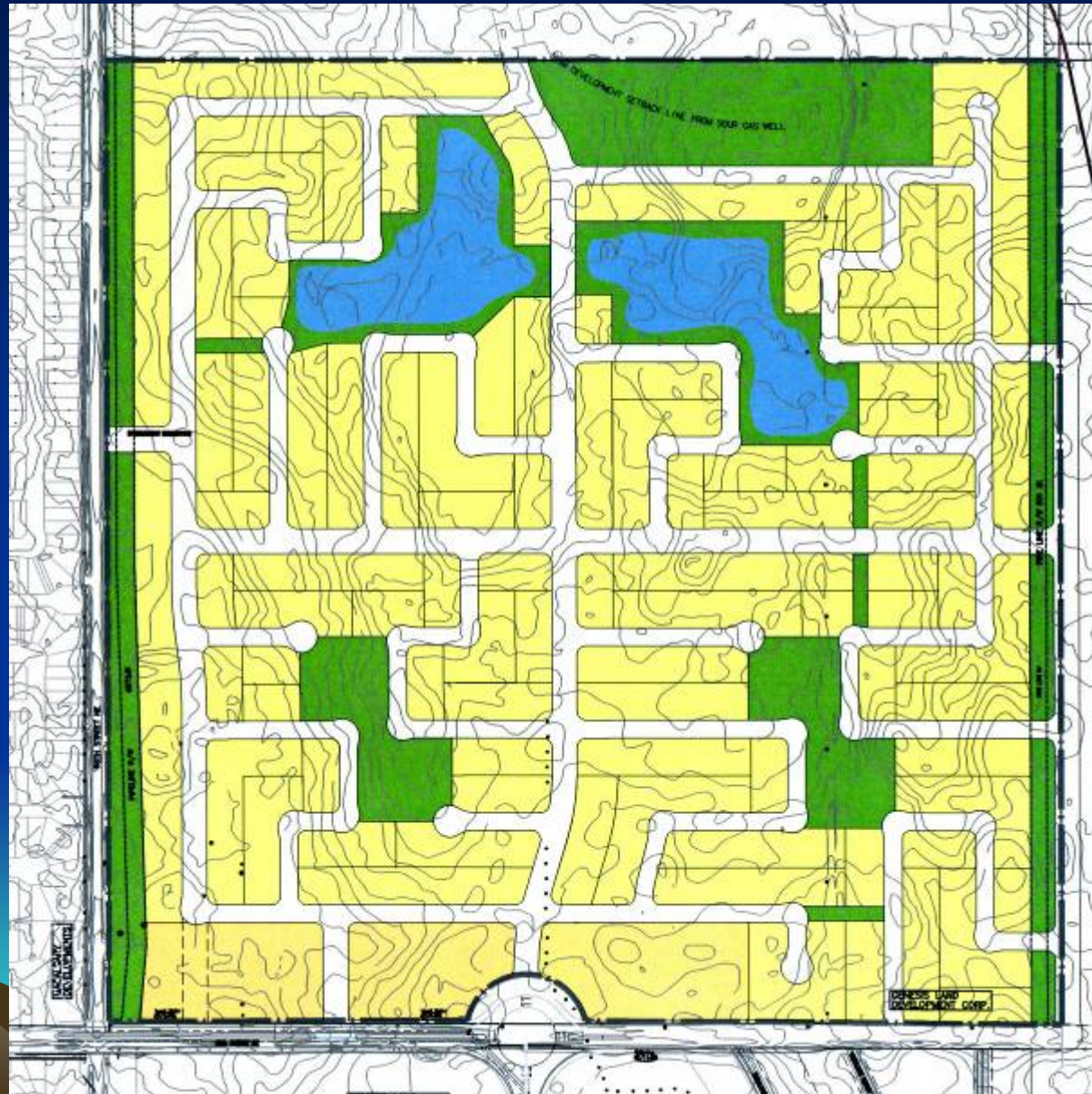
- All plans have symmetry and regularity that reinforces legibility.
- Plan 3 has more pedestrian continuity in its paths.

Some points about this Alternative:

- Retains the previous structure of perimeter streets and areas of blocks (except the block below the school)
- Equalizes the green space in two south quadrants
- Distributes the SWM pond equally in the North quadrants
- Makes more connections through the open spaces
- pedestrian paths are more direct
- open spaces are framed occasionally by a street portion for “open horizon” and security.



Concept Plan



The Fused Grid vs. Conventional Subdivision Design: Case Study

In a comparison of the current proposed fused grid concept for Saddleton vs. the more conventional design for Taralake (both parcels approximately the same land area) the results were as follows:

Taralake

Total area 64.78 ha
Roads 15.72 ha (24.3%)
Development 36.27 ha (56%)
Municipal Reserve 5.40 ha (8.3%)
Water 3.4 ha (5.2%)
Public Utility Lots 3.99 ha (6.2%)

Saddleton

Total area 64.24 ha
Roads 13.5 ha (21.0%)
Development 36.94 ha (57.5%)
Municipal Reserve 7.1 ha (11.1%)
Pond water surface 3.1 ha (4.8%)
Public Utility Lots 3.6 ha (5.6%)

In this particular case study, the Fused Grid application required approximately 2.2 ha (5.4 ac) less roads to service than the conventional Taralake design. This land can then be put to other uses such as residential land or open space.

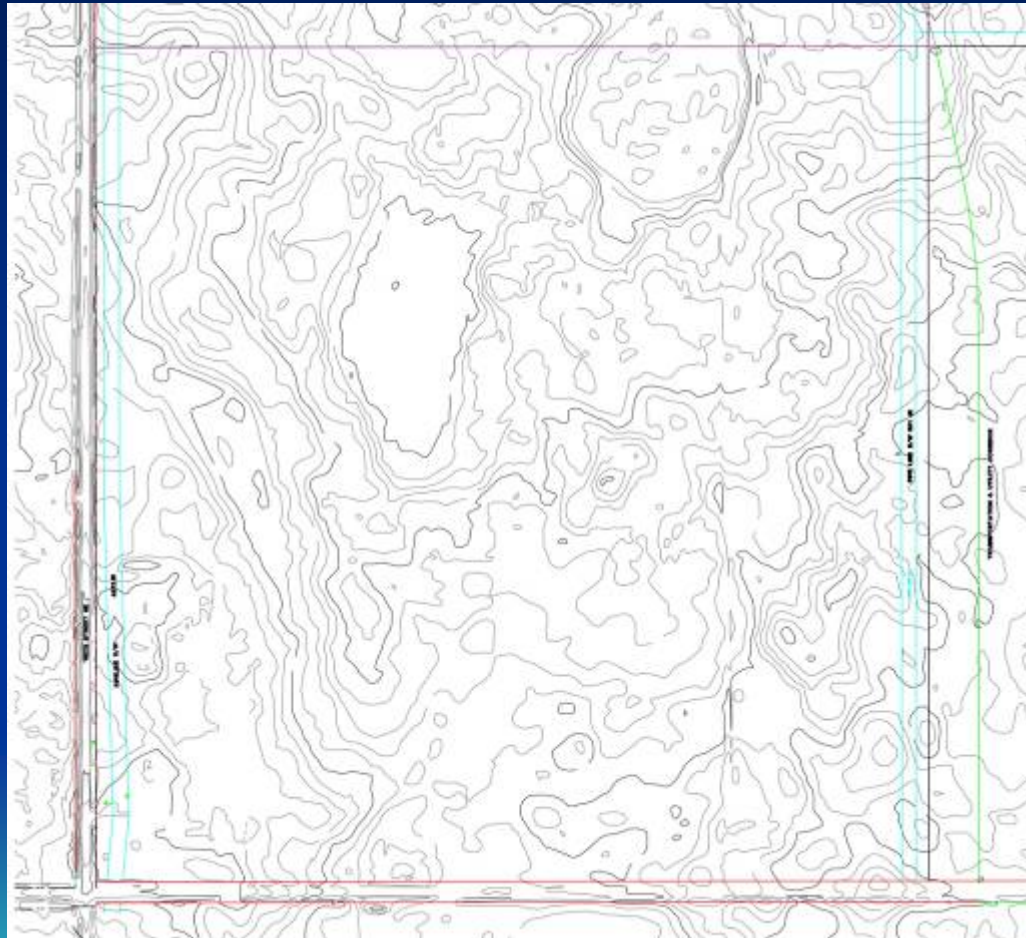


Evolution of the Design

- CMHC Fused Grid Concept
- Site Attributes / Contours
- Innovative storm water management opportunity
- Best Management Practices (BMP)



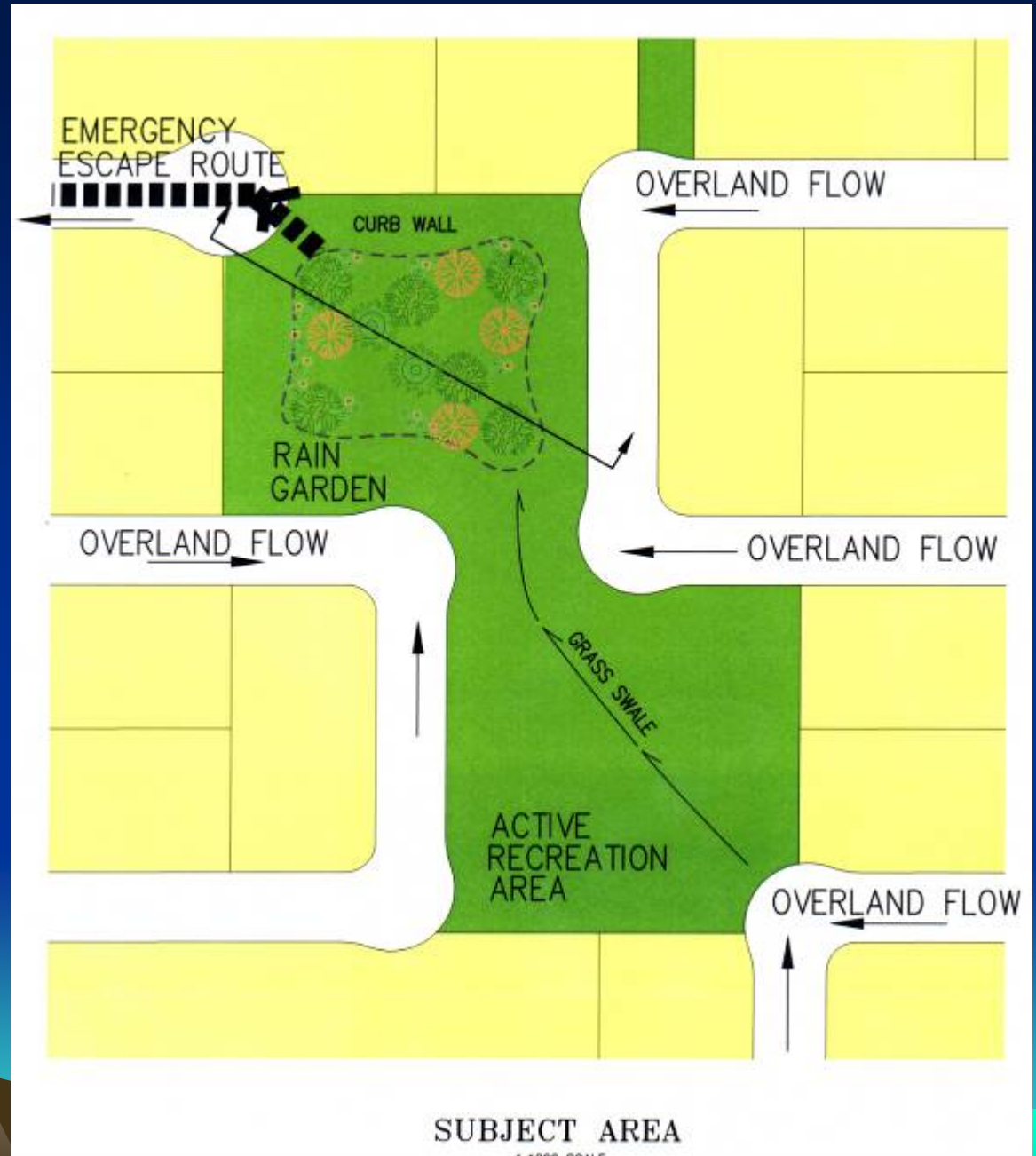
Site Contours



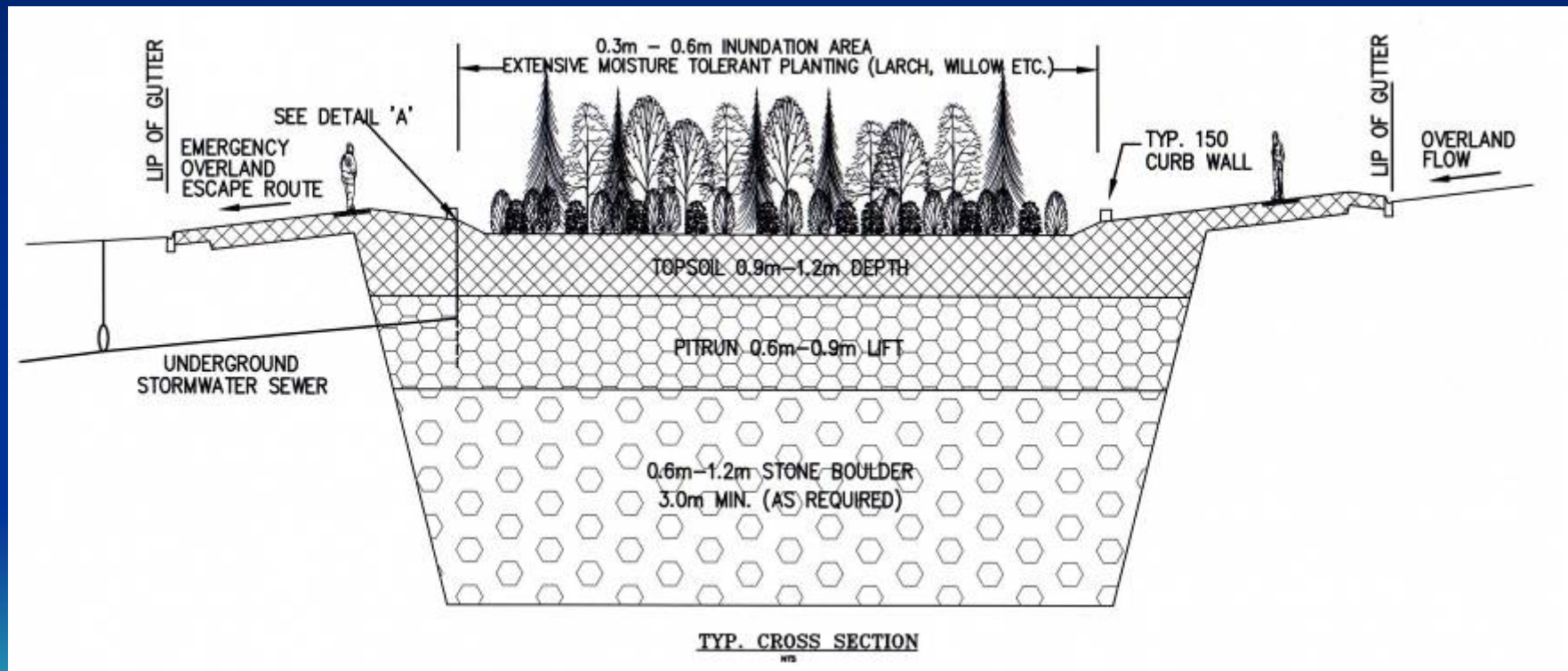
Rain Garden Concept Subject Area



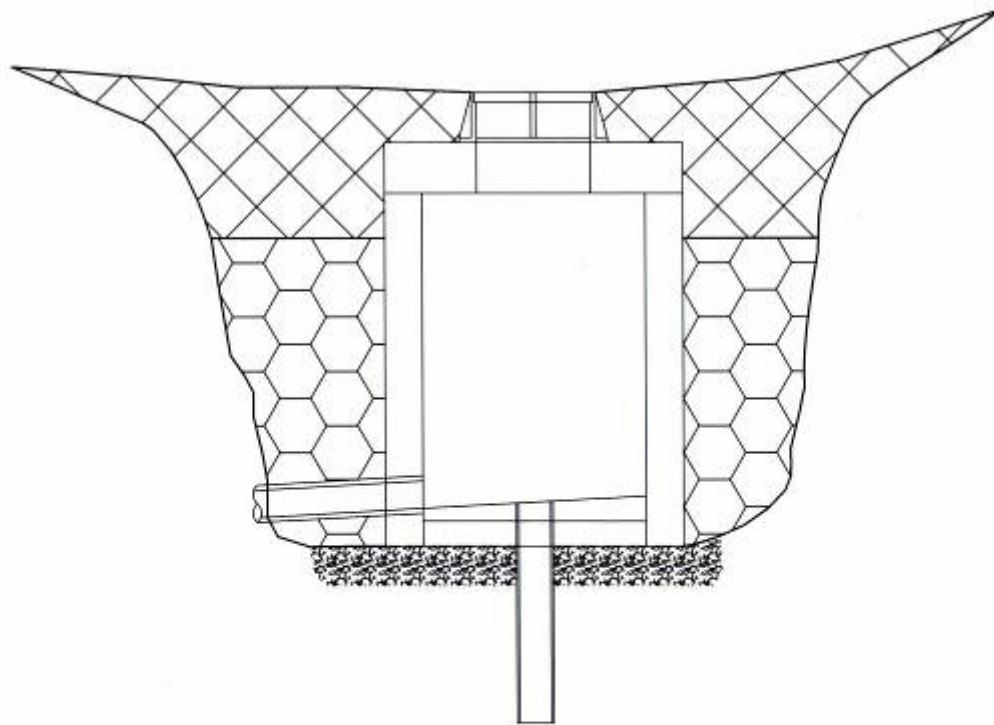
Rain Garden Concept Plan View



Rain Garden Concept Cross Section



Rain Garden Concept Detail



DETAIL 'A'

Storm Water Drainage System

- Where possible residential Standard streets convey overland flows
- Collector standard streets utilize conventional storm water system
- Frequent minor rain events conveyed to and retained in rain garden
- Major Storm Events utilize Conventional emergency overland drainage routes



Design Standards

- Use of streets and parks for conveying over land flows
- Increased topsoil depth on lots & in parks
- Sheet drainage from lots into parks.



Environmental Features

- First flush treatment
- Point Source Storm Water Management
 - Reduced pollution loading on receiving body
- Ground Water Recharge
- Reduced irrigation demand
- Reduced reliance on automobiles
- Public awareness



Conditions for success

- City as a willing partner
- Development cost equivalent or less than conventional development.
- Approval time equivalent to conventional development.
- Standard CCC & FAC process



Community Features

- Efficient traffic flow and improved connectivity for pedestrians
- Less road surface than conventional subdivisions
- Extensive, continuous network of pathways and open space which serve as recreational nodes, pedestrian corridors, overland drainage conveyance routes, and aesthetically pleasing focal points for the community.
- Ready access to open space
- Interpretive opportunities



- pedestrian activity and interaction is encouraged
- Open spaces become truly communal since park space is central to each neighbourhood “cell”
- The collector grid reduces transit walking distance.
- Open spaces Connectivity provides opportunity to implement Low Impact Development methods of rainwater management

