



STREET TREE OUTCOMES CAN WE DO BETTER?

UDIA IST COMMITTEE – 8 September 2020



Introduction

01

The urban forest concept

02

Complex topic and many stakeholders and design disciplines

03

Can we do better?



Examples of Melbourne's great streets



Examples of Melbourne's not so great streets



What makes trees grow to their full potential

Species selection relative
To local climate conditions

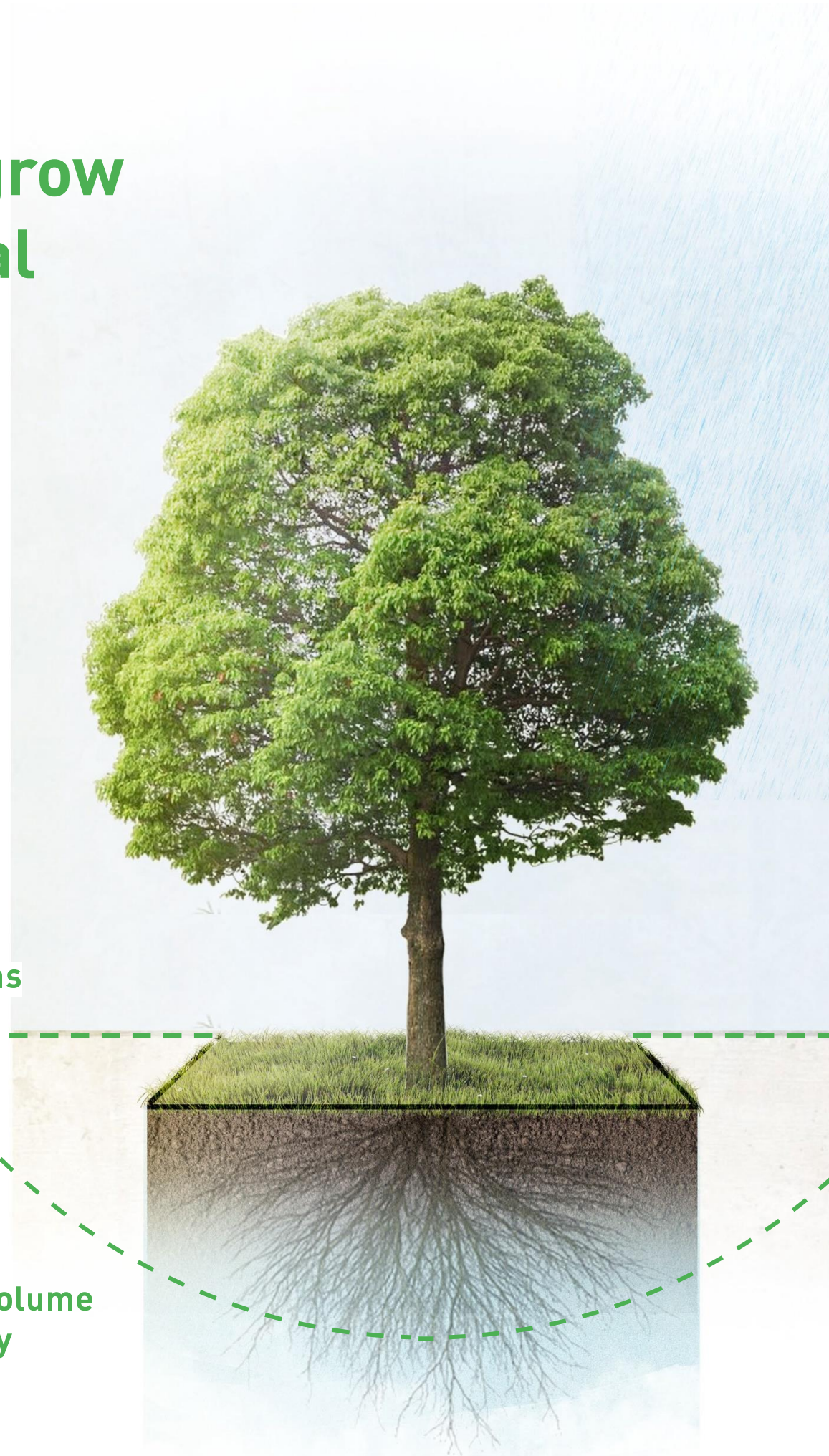
Prevailing ground conditions

Adequate soil volume
and quality

Management during
the critical early
establishment phase

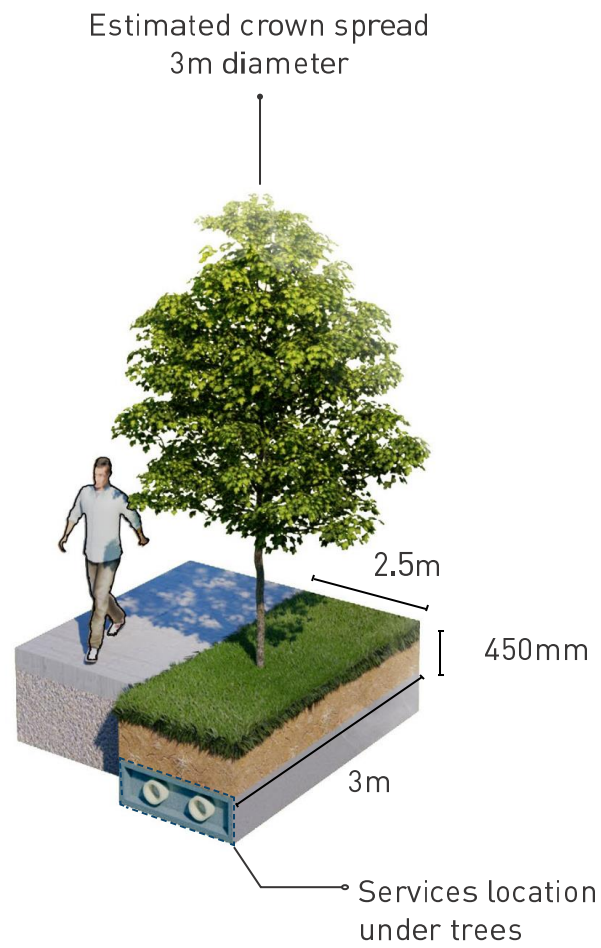
Water in the
right quantities

Air

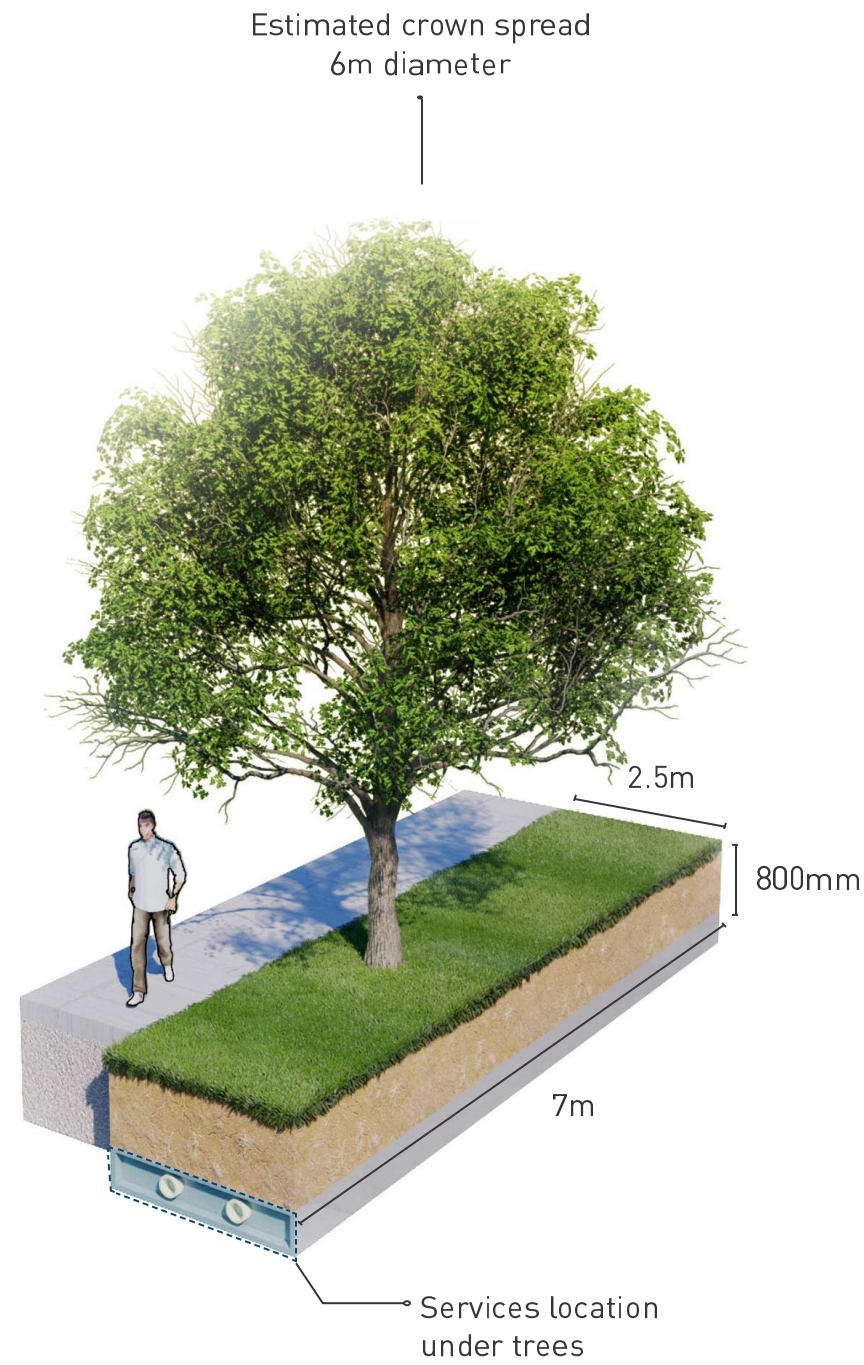


Soil volume

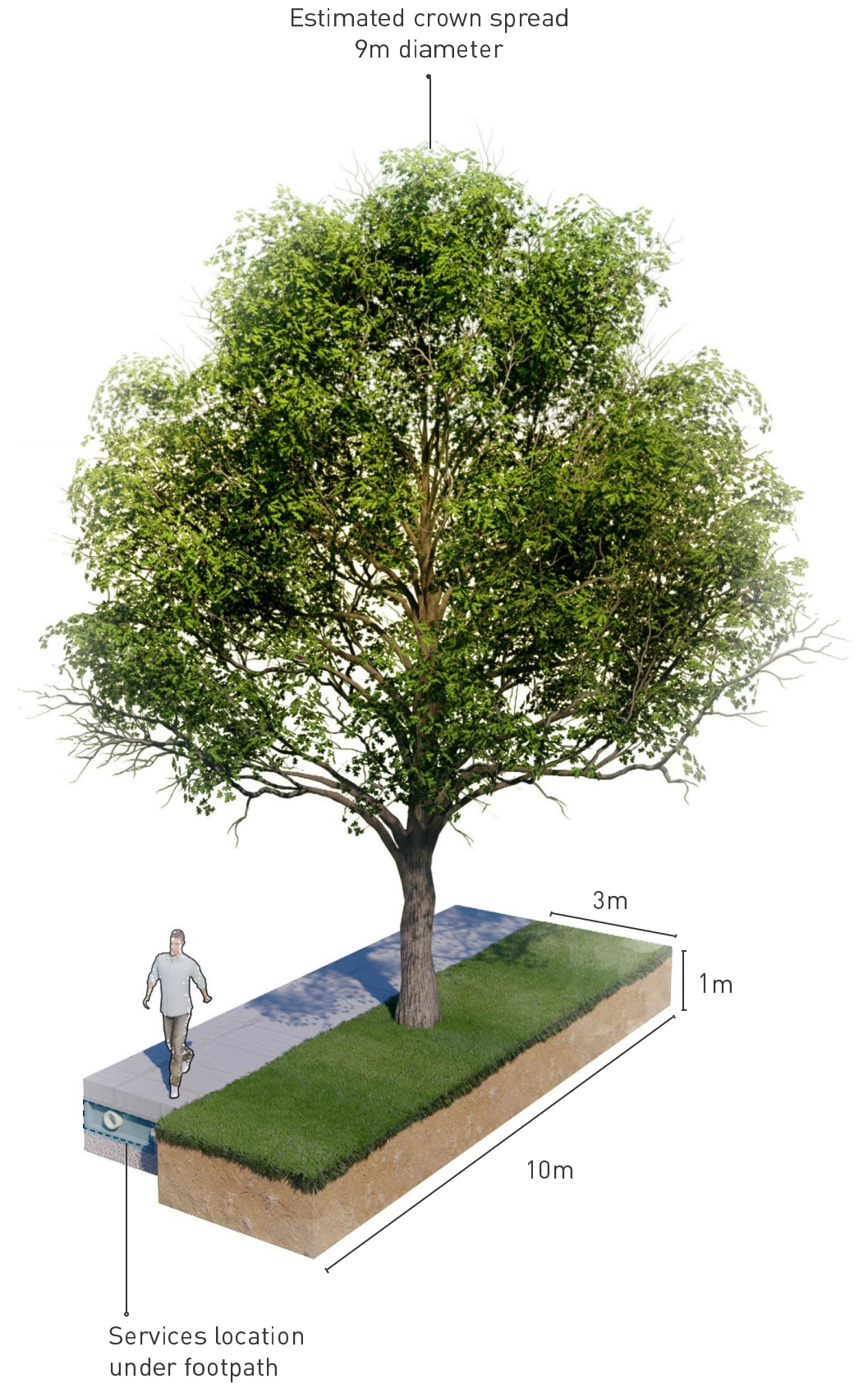
Why is it important



Soil volume around 3m³



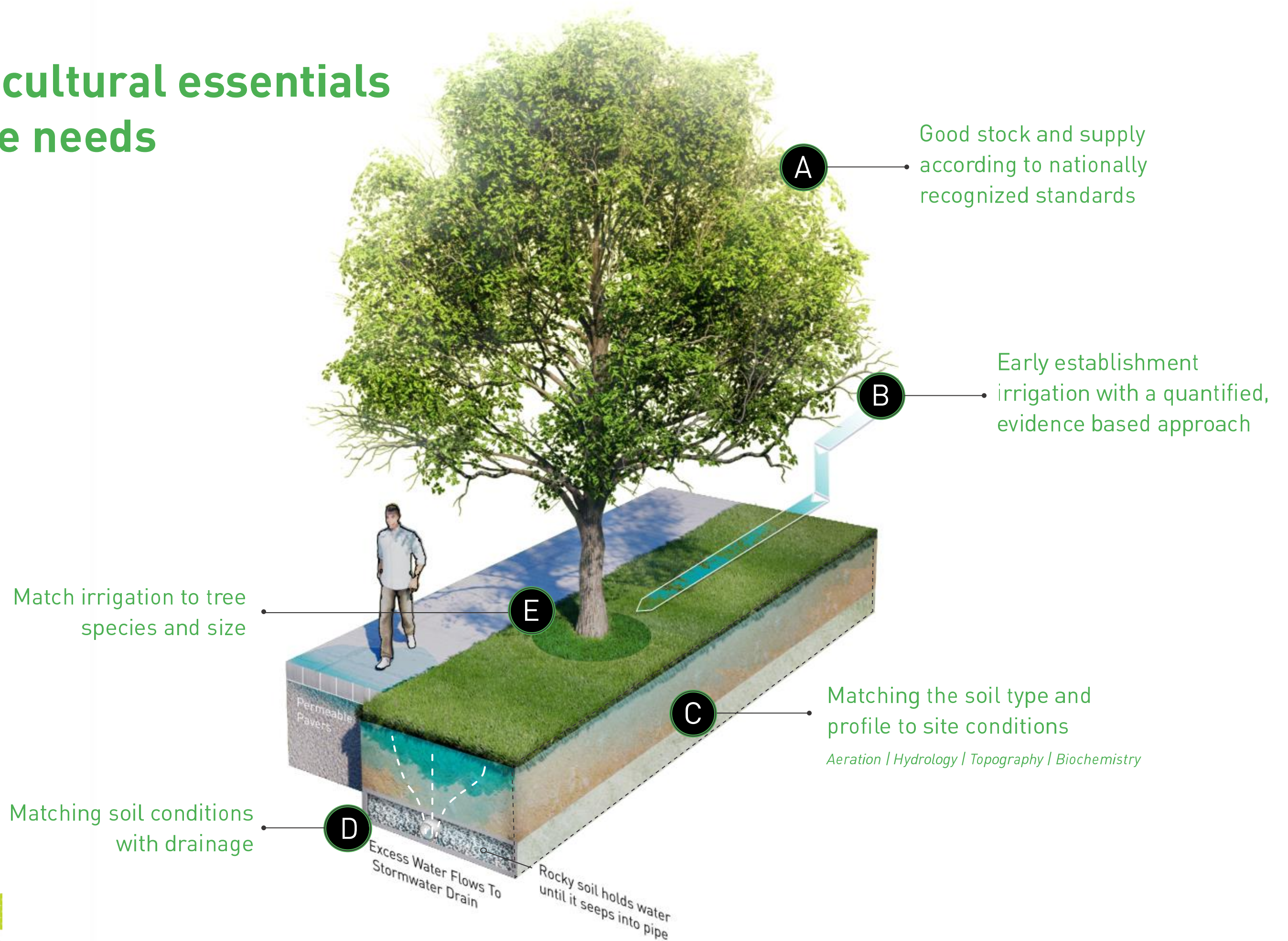
Soil volume around 14m³



Soil volume around 30m³

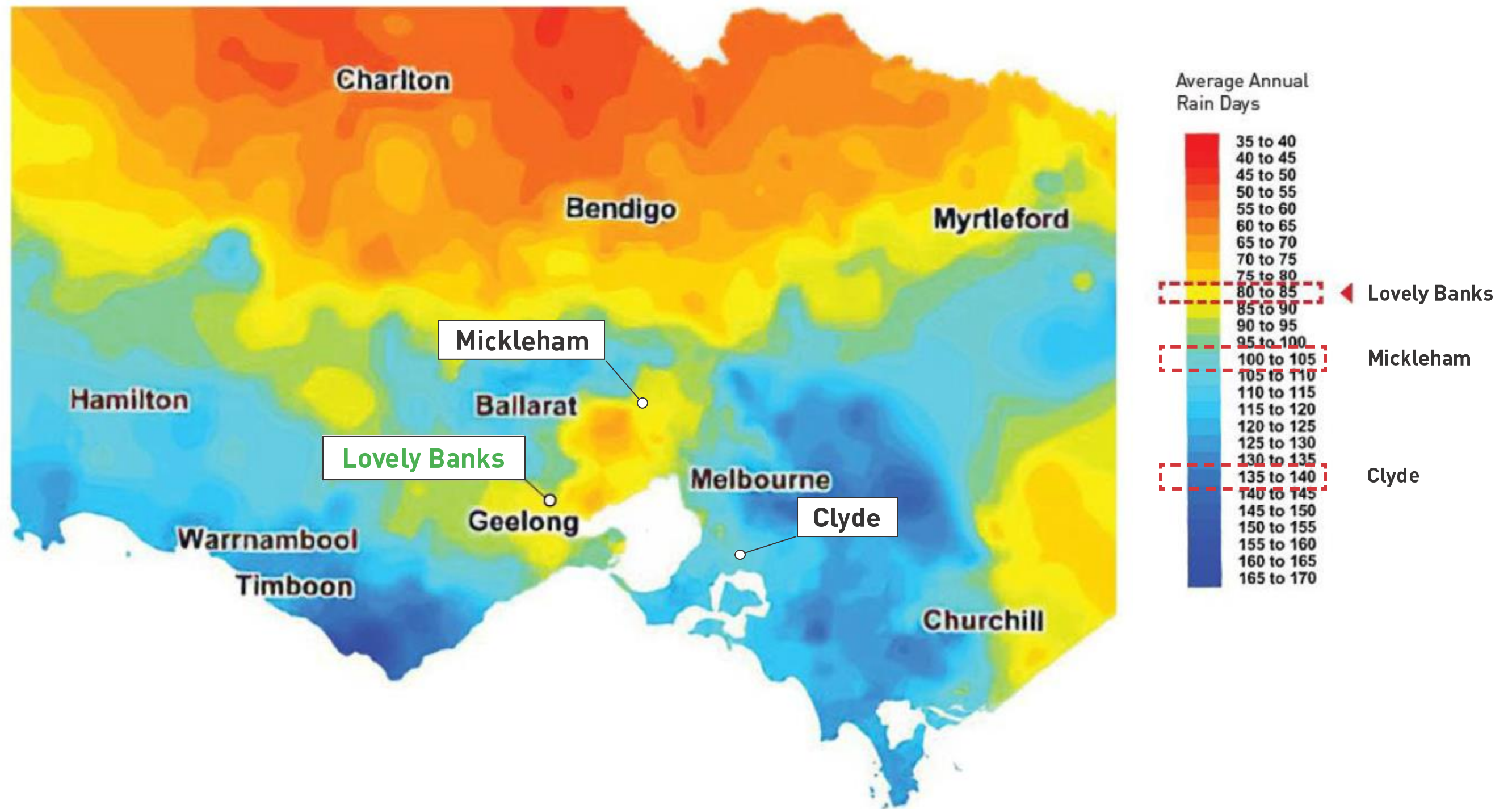
Horticultural essentials

A tree needs



Melbourne climate and geology

It is not one size fits all



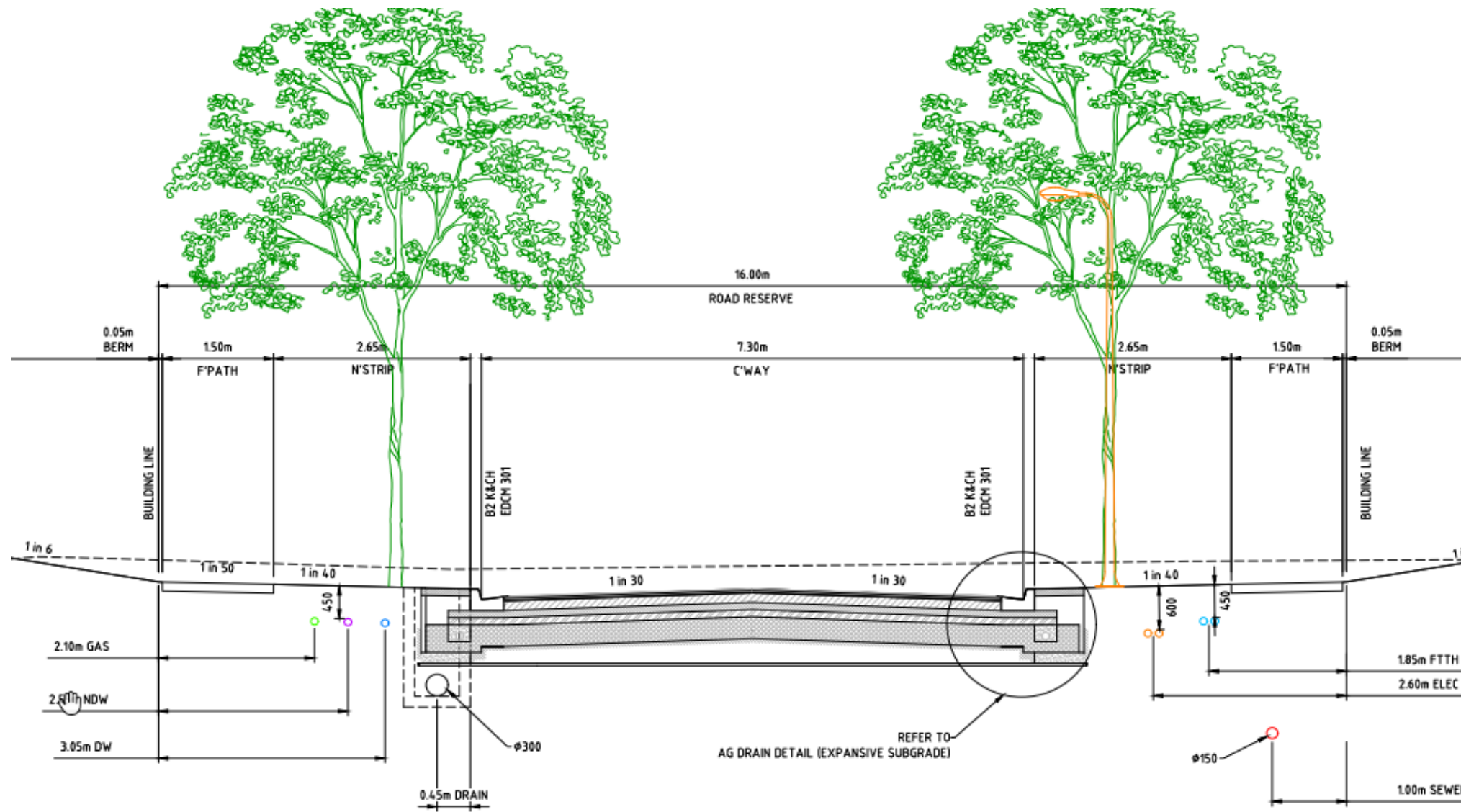
Current issues in new subdivisions

- 01 Permeability of Developed Area
- 02 Lot Frontages and Access
- 03 Soil Volume – heavily constrained by service alignments and plan offsets
- 04 Soil Quality – degraded soils and compacted fill
- 05 Pavement design and detailing
- 06 Irrigation and ongoing maintenance



The 16 metre road reserve

Around 60% of our roads
Permeability based on front loaded access

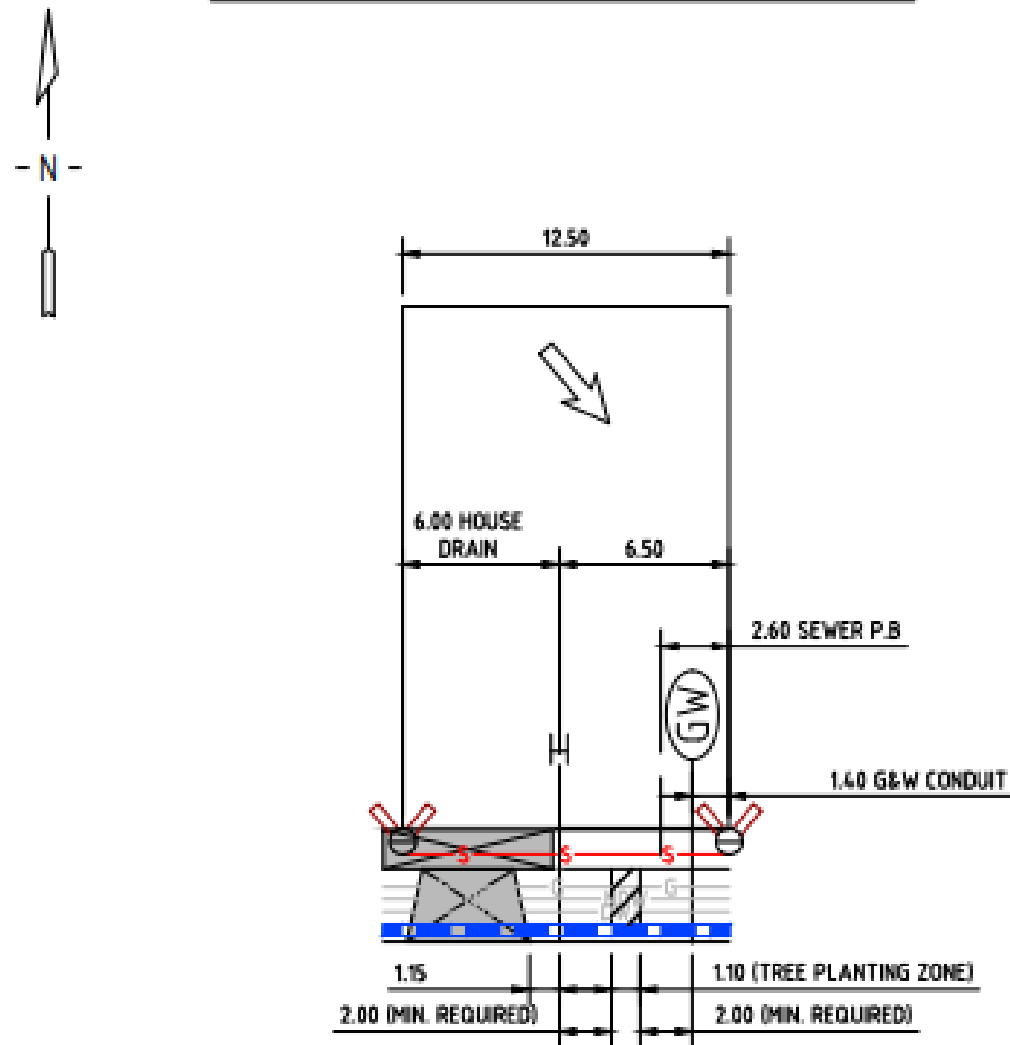


Lot Frontage (m)	Perm. (%)	Soil Volume (m3)
14.0	23.4	15.9 – 0.6 deep
12.5	22.3	13.5
10.5	15.8	10.3
8.5	11.8	7.2

... What constraints?

12.5M LOT-FALL AWAY FROM D'WAY:

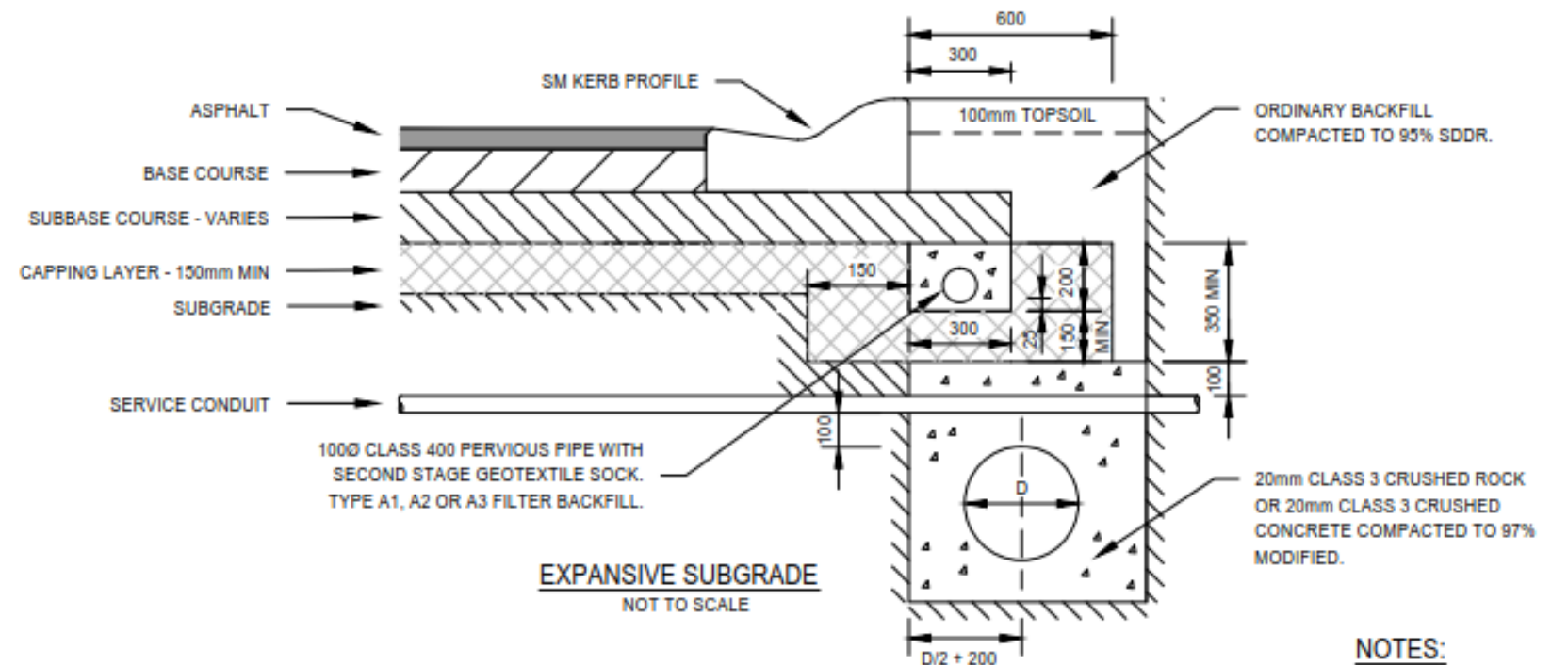
(DISPENSATION GRANTED)



REMARK:

- DISPENSATION GRANTED: HOUSE DRAINS OFFSET 6M FROM DRIVEWAY SIDE IRRESPECTIVE OF LOT FALL.
- SUFFICIENT SPACE FOR STREET TREE (1.1M)

...and don't forget the subbase extends 600mm beyond BOK



NOTES:

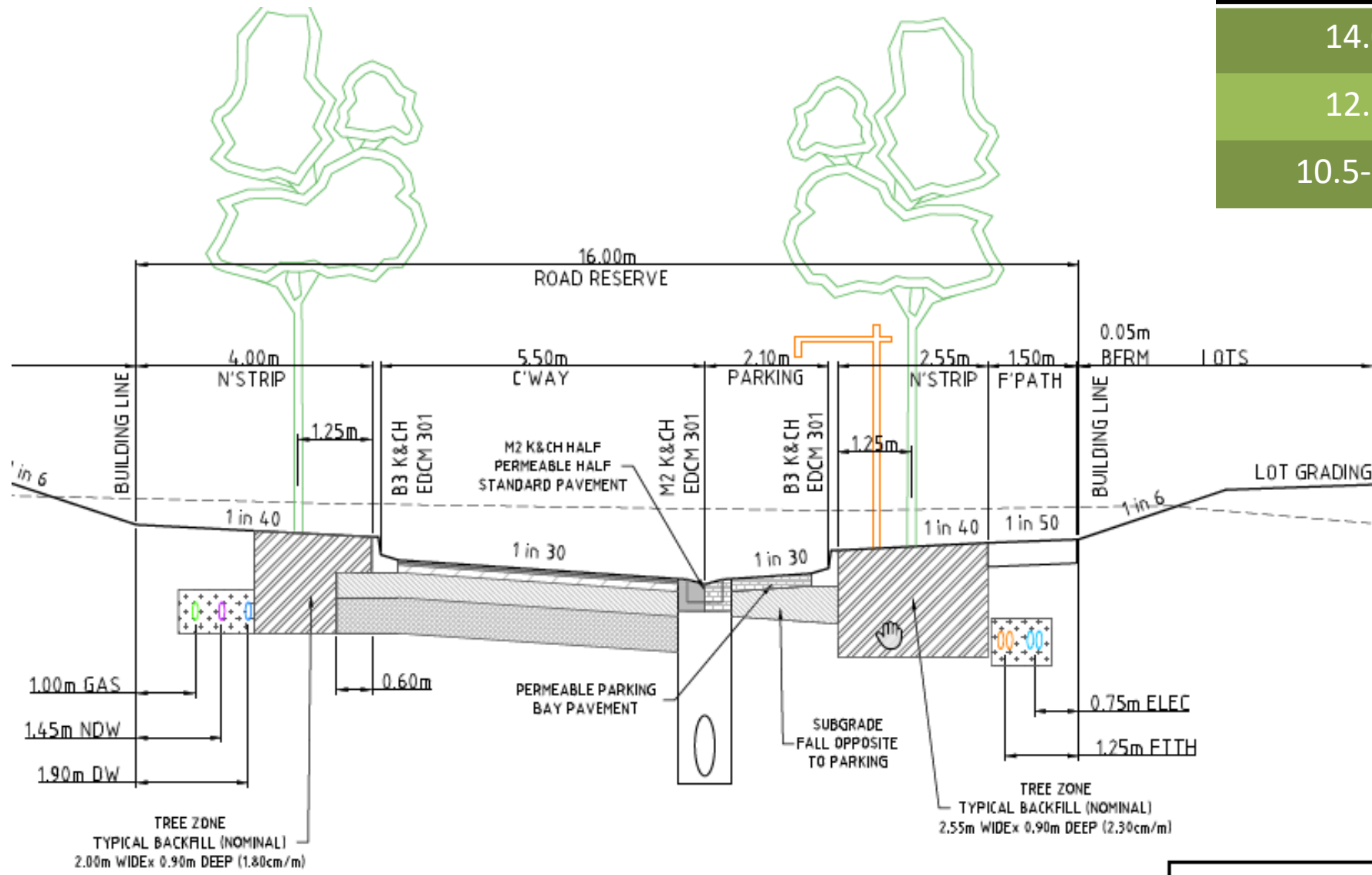
1. CONDUITS FOR G&W LOCATED CLEAR (



The 16 metre road reserve

Alternative for street of less than 30 lots

Lot Front (m)	Perm. (%)	Change (%)	Soil Volume (m ³)
14.0	35	12	23
12.5	39	17	23
10.5-8.5	NA	NA	NA



Circa 1980's – Bangalay Drive Berwick – 16 metre road reserve

Note paved parking indents and single sided footpath. Different tree species.



Circa 1920's - Harvey St Malvern – 19.8 m (65 feet) road reserve

21 lots – 12624 sm = 16.6 lots/Ha. Lot sizes 295 sm to 800 sm. Dwellings 30+



... What's next?



REIMAGINE
STREETS



MORE TREES WITH
DENSE CANOPY



HIGHER
PERMEABILITY



MORE SOIL QUANTITY
AND BETTER QUALITY



WATER NEEDS
AND DETAILS

Acknowledgements

T.C.L



Are we leaving a legacy
for our future
community?

