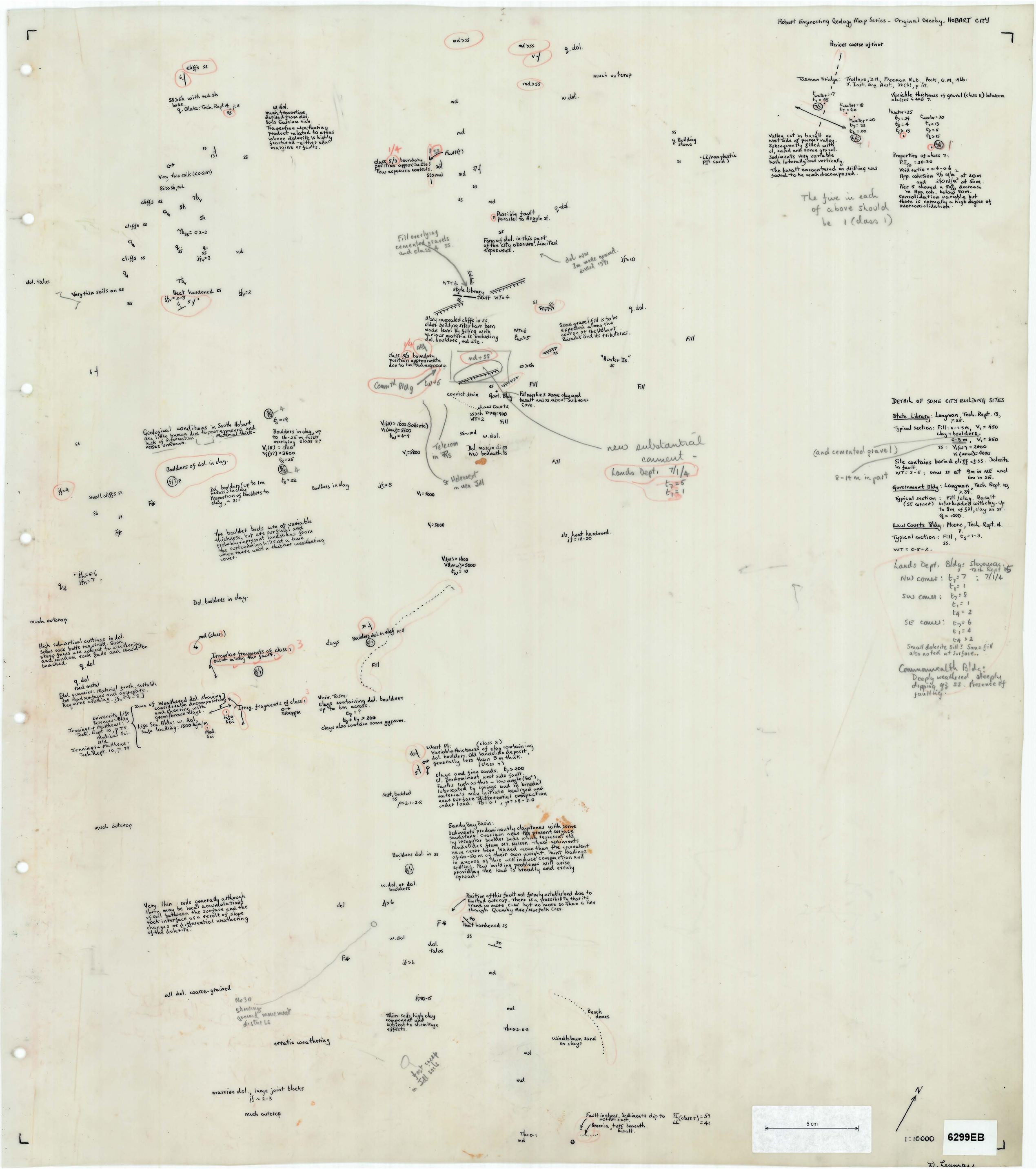
cliffs ss
ss>sh with red sh beds.
q. Blake: Tech. Rept 4, p.11
w. dol.
much travertine derived from dol.
Soils Calcium rich.
Travertine weathering product related to areas where dolerite is highly fractured - either near margins or faults.
md>ss
q. dol.
much outcrop
md>ss
md
md
w. dol.
md
ss
q. Building stone
LL/non plastic PI sand)
Fault(?)
class 5/3 boundary position approximate! Few exposure controls.
ss>md
md
ss
md
q. dol.
Possible fault parallel to Argyle st.
Very thin soils (<0.2m)
ss>>sh, md
cliffs ss
Tb
sh
cliffs ss
Tb
Tb = 0.2-2
cliffs ss
md
jf = 3
dol. talus
Very thin soils on ss
Heat hardened ss
jf = 2
Fill overlying cemented gravels and class 4 ss.
Form of dol. in this part of the city obscure. Limited exposures.
dol over 2m. made ground. drilled 1971
jf = 10
WT = 4
State Library
fault
WT = 4
q. dol.
Many concealed cliffs in ss. oldest building sites have been made level by filling with various materials including dol. boulders, md etc.
WT = 6
tw ~ 5
Some gravel fill is to be expected along the course of the Hobart Rivulet and its tributories.
Fill
class 5/3 boundary position approximate due to limited exposure
md + ss
"Hunter Is."
ss>sh
Comm'th Bldg
tw ~ 6
convict drain
Govt. Bldg.
Fill
Fill
Fill overlies some clay and basalt and ss about Sullivans Cove.
Law Courts.
ss>sh
WT = 2
Fill
ss~md
w. dol.
Fill
new substantial comment -
Lands Dept. 7/1/4
Telecom in TRS
Dol. margin dips NW beneath ss
St Helens ext in area Jdl
Geological conditions in South Hobart are little known due to poor exposure and lack of information. Material thicknesses unknown.
Boulders of dol. in clay.
Boulders in clay, up to 16-25 m thick overlying class 3?
Dol. boulders (up to 1m across) in clay. Proportion of boulders to clay, ~ 3:1
Boulders in clay
small cliffs ss
The boulder beds are of variable thickness, but are surficial and probably represent landslides from the surrounding hills at a time when there was a thicker weathering cover.
sls. heat hardened.
much outcrop
Dol. boulders in clay.
High sub-vertical cuttings in dol. Some rock bolts required. Such steep faces are subject to weathering and random rock falls and should be benched.
md (class 1)
Irregular fragments of class 1 occur along the fault.
days
Boulders dol. in clay
Fill
q. dol
q. dol
road metal
[dol. quarries: Material fresh, suitable for road surfaces and aggregate. Requires crushing. jf > 4-8]
University Life Sciences Bldg
Jennings + Matthews: Tech. Rept 10, p.75.
Medical Sci. Bldg.
Jennings + Matthews: Tech. Rept. 10, p. 79
Zone of weathered dol. showing considerable decomposition and shearing with green/brown clays.
Life Sci. Bldg: w. dol.
Safe loading: 5500 kgm/m
Irreg. fragments of class 1
Life Sci
Med. Sci
Univ. Tasm: clays containing dol. boulders up to 6m across.
Fill
much outcrop
Sandy Bay Basin: Sediments predominantly claystones with some sandstone overlain near the present surface by irregular boulder beds which represent old landslides from Mt. Nelson. These sediments have never been loaded more than the equivalent of 40-50 m of their own weight. Point loadings in excess of this will induce compaction and settling. Few building problems will arise providing the load is broadly and evenly spread.
Boulders dol. in ss
w. dol. or dol. boulders
Very thin soils generally although there may be local accumulations of soil between the surface and the rock interface as a result of slope changes or differential weathering of the dolerite.
dol
jf > 6
Position of this fault not firmly established due to limited outcrop. There is a possibility that its trend is more E-W but no more so than a line through Quamby Ave/Norfolk Cres.
Heat hardened ss
w. dol
dol. talus
jf > 6
md
all dol. coarse-grained
No 30 showing ground movement distortion
jf = 10-15
Thin soils high clay component and subject to shrinkage effects.
Beach dunes
Tb = 0.2-0.3
erratic weathering
windblown sand on clays
test check in soil
massive dol., large joint blocks jf ~ 2-3
much outcrop
Fault in clays. Sediments dip to north east.
Breccia, tuff beneath basalt.
PI (class 7) = 59
LL = 41
Tb = 0.1
md
Previous course of river
Tasman Bridge: Trollope, D.H., Freeman McD., Peck, E.M., 1966: J. Inst. Eng. Aust., 38(6), p. 117.
t water = 17
t7 = 48
t water = 18
t7 = 60
t water = 20
t7 = 33
t6 = 20
Valley cut in basalt on west side of present valley. Subsequently filled with cl, sand and some gravel. Sediments very variable both laterally and vertically.
The basalt encountered on drilling was found to be much decomposed.
The five in each of above should be 1 (class 1)
Variable thickness of gravel (class 6) between classes 6 and 7.
t water = 25
t7 = 24
t7 = 4
t6 > 13
t water = 30
t7 = 13
t8 = 5
t6 > 15
Properties of class 7:
PI50 = 20-30
Void ratio = 0.4-0.6
App. cohesion 96 N/m² at 30m and 290 N/m² at 50m.
Pier 5 showed a 50% decrease in App. coh. below 50m.
Consolidation variable but there is normally a high degree of overconsolidation.
DETAIL OF SOME CITY BUILDING SITES
State Library: Longman, Tech. Rept. 13, p.25.
Typical section: Fill: 0-1.5m, V1 = 450
clay + boulders: 0-8m, V1 = 850
ss: V1(w) = 2000
V1 (vnw) = 4000
(and cemented gravel)
8-14 m in part
Site contains buried cliff of ss. Dolerite in fault.
WT = 3-5; vnw ss at 9m in NE and 6m in SE.
Government Bldg: Longman, Tech Rept. 10, p.84.
Typical section: (SE corner) Fill/clay. Basalt interbedded with clay. Up to 8m of fill, clay on ss. Q = 1000.
Law Courts Bldg: Moore, Tech. Rept. 14. p.
Typical section: Fill, ss. t8 = 1-3.
WT = 0.5-2.
Lands Dept. Bldg: Stevenson. Tech Rept 15
NW corner: t7 = 7; 7/1/4
t1 = 1
SW corner: t7 = 8
t1 = 1
t4 = 2
SE corner: t7 = 6
t1 = 4
t4 > 2
Small dolerite sill? Some fill also noted at surface.
Commonwealth Bldg: Deeply weathered steeply dipping q3 ss. Presence of faulting.
5 cm
N
1:10000
6299EB
D. Leamon