Supplementary Information

The following information is associated with Network Rail Standard:
NR CIV/SD/248 Rev A

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CAD Drawing

- CIV/SD/248

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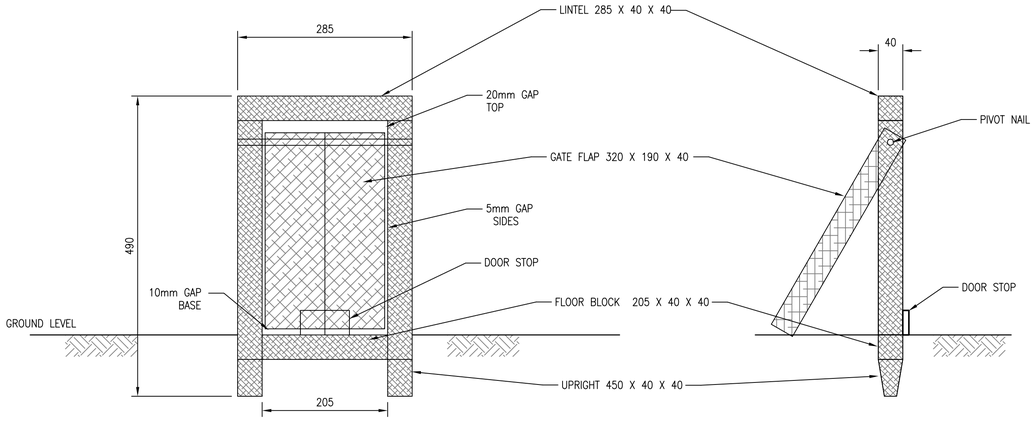
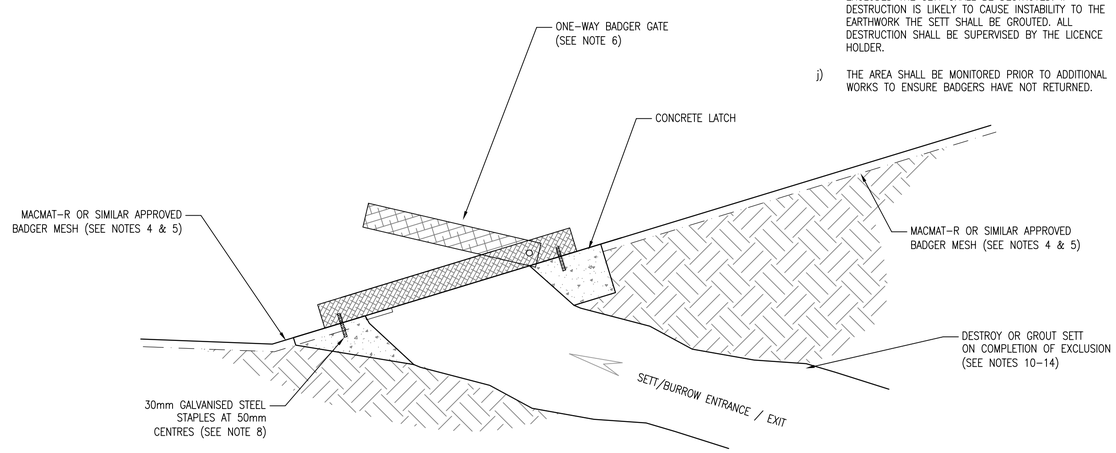
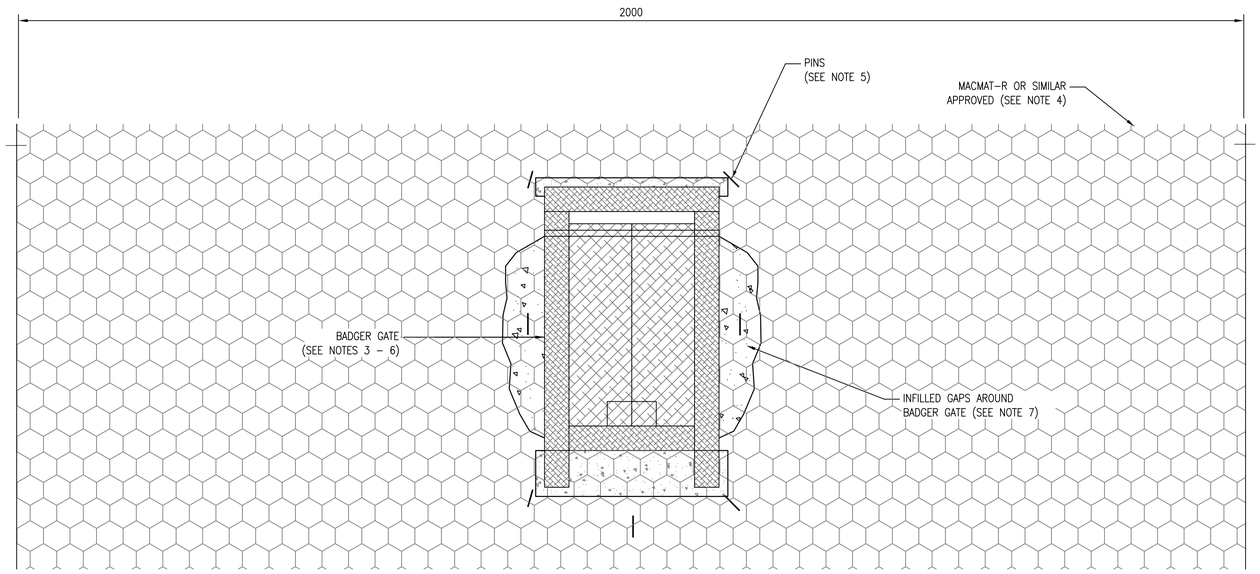


ONE–WAY BADGER GATE CONSTRUCTION

(SCALE 1:5)



SECTION



PLAN
DETAIL AROUND BADGER GATES TO PREVENT RE–ENTERING SETT

(SCALE 1:5)

OUTLINE CONSTRUCTION SEQUENCE

a) QUALIFIED ECOLOGIST TO UNDERTAKE A DETAILED SURVEY IN THE AREA OF THE SETT TO ESTABLISH ITS STATUS AND THE PRESENCE OF ANY OTHER SETTS WITHIN THE TERRITORY OF THE AFFECTED GROUP OF BADGERS.

b) ECOLOGICAL REPORT OF THE SITE TO BE ISSUED AND APPROVED PRIOR TO COMMENCEMENT OF ANY PHYSICAL WORKS.

c) SUBJECT TO THE FINDINGS OF THE ECOLOGY SURVEY, AN ARTIFICIAL SETT SHALL BE CREATED WHERE NECESSARY (DWG. NO. SD/246).

d) A DETAILED WORK PACKAGE PLAN SHALL BE PRODUCED FOR EACH SETT TO BE DESTROYED.

e) A LICENCE APPLICATION SHALL BE MADE FOR EXCLUSION AND DESTRUCTION OF THE SETT. (NO. SD/240).

e) CONSTRUCTION AND INSTALLATION OF BADGER GATES AT SETT ENTRANCES.

f) GAPS AROUND BADGER GATES TO BE INFILLED TO PREVENT RE –ENTRY.

g) MACMAT–R OR SIMILAR APPROVED TO BE LAID DOWN AROUND ENTRANCES TO PREVENT BADGERS RETURN.

h) BADGER GATES TO OPEN BOTH WAYS FOR 1 NO. WEEK AND ONE WAY FOR 2–4 NO. WEEKS OR AS SPECIFIED IN THE LICENCE CONDITIONS AND EXCLUSION TO BE SUPERVISED BY THE LICENCE HOLDER.

i) ONCE IT IS CONFIRMED THAT ALL BADGERS HAVE BEEN EXCLUDED THE SETT SHALL BE DESTROYED. IF DESTRUCTION IS LIKELY TO CAUSE INSTABILITY TO THE EARTHWORK THE SETT SHALL BE GROUTED. ALL DESTRUCTION SHALL BE SUPERVISED BY THE LICENCE HOLDER.

j) THE AREA SHALL BE MONITORED PRIOR TO ADDITIONAL WORKS TO ENSURE BADGERS HAVE NOT RETURNED.

DRAWING No. NR/CIV/SD/248

NOTES

1. THIS DRAWING FORMS A STANDARD DETAIL FOR TREATMENT/EXCLUSION FROM EXISTING BADGER SETTS AND SHOULD BE READ IN CONJUNCTION WITH THE GENERAL REQUIREMENTS OF DWG. NO. SD/240.
2. REFERENCE SHOULD ALSO BE MADE TO THE SCHEME SPECIFIC DRAWINGS AND SPECIFICATIONS FOR DETAILS OF THE WORKS TO BE UNDERTAKEN.
3. ALL TIMBER TO BE USED IN THE BADGER GATE CONSTRUCTION SHALL NOT BE TREATED WITH ANY PRESERVATIVE PRODUCT EITHER BEFORE OR AFTER CONSTRUCTION.
4. BADGER MESHING SHALL BE MACMAT–R OR SIMILAR APPROVED PRODUCT, WITH PVC COATED DOUBLE TWIST HEXAGONAL WOVEN 60mm MESH SIZE AND A 2.2mm WIRE THICKNESS.
5. BADGER MESHING SHALL BE PINNED TO THE SLOPE AT 200mm C/C AROUND THE GATE USING 4mmø 300mm LONG GALVANISED STEEL PINS AND AT 1m C/C ELSEWHERE. (SEE DWG. NO. SD/247)
6. BADGER GATE TO BE POSITIONED AT AN ANGLE, WITH THE TOP LEANING TOWARDS THE TUNNEL, SO THE FLAP DROPS SHUT UNDER ITS OWN WEIGHT.
7. GAPS AROUND THE BADGER GATE SHALL BE BLOCKED WITH SOIL AND STONE WHERE NECESSARY.
8. GATE TO BE SECURELY FASTENED TO BADGER MESH USING 30mm GALVANISED STEEL STAPLES AT NOMINAL 50mm CENTRES AROUND GATE FRAME.
9. WORK WITHIN 10m OF ANY ACTIVE SETT SHALL BE UNDERTAKEN USING HAND TOOLS ONLY.
10. IF IT IS NOT POSSIBLE TO DESTROY THE EXISTING SETT AFTER EXCLUSION, BECAUSE IT IS LIKELY TO CAUSE INSTABILITY, THEN THE SETT SHALL BE GROUTED.
11. GROUT SHALL CONSIST OF A 10:1 RATIO OF PFA:PORTLAND CEMENT AVAILABLE AS A READY MIX (SUCH AS GM10 OR SIMILAR APPROVED).
12. A 0.4 RATIO OF WATER TO SOLIDS SHALL BE USED TO MIX THE GROUT.
13. IF EXCESSIVE SHRINKAGE (>10% VOLUME) OCCURS THEN CONBEX 100 OR SIMILAR APPROVED PRODUCT CAN BE USED.
14. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF $4N/mm^2$.
15. IF PRESSURE GROUTING IS TO BE USED THEN TRACK MONITORING SHALL BE CONSIDERED TO MEASURE ANY POTENTIAL HEAVE.

Rev	Date	Description of revision	Design'd	C'kd
A	MAY 2011	FIRST ISSUE	CAM	GJPT

Network Rail

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Master copy with original signatures held by Network Rail HQ
CIVIL ENGINEERING STANDARD DESIGN

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STANDARD ECOLOGICAL DETAIL

TREATMENT / EXCLUSION FROM EXISTING BADGER SETTS

Scale	AS SHOWN @ A1	
Drawing Number	NR/CIV/SD/248	REV. A

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