Supplementary Information

The following information is associated with Network Rail Standard:
NR CIV/SD/244 Rev A

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CAD Drawing

- CIV/SD/244

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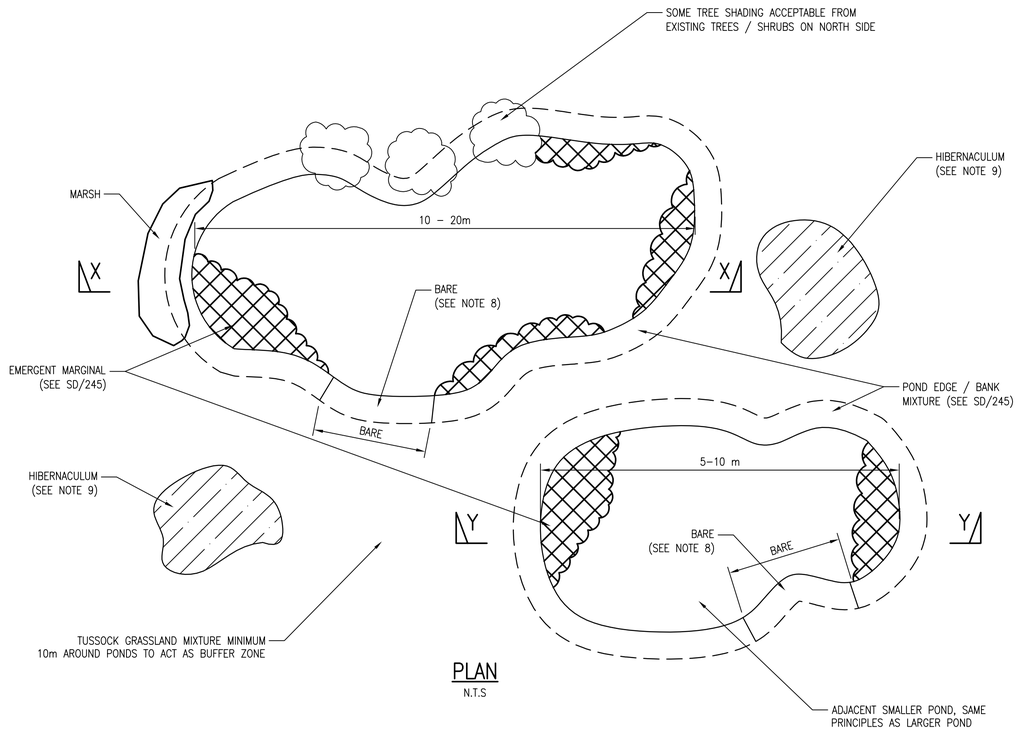
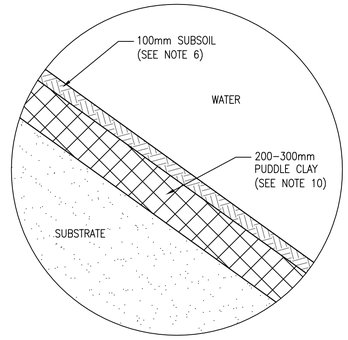


PLAN

N.T.S



DETAIL 1

N.T.S

15. DETAILS OF THE INFLOW AND OUTFLOW ARRANGMENTS TO THE PONDS WILL REQUIRE SITE SPECIFIC APPRAISALS AS DETAILED ON THE SCHEME SPECIFIC DRAWINGS.

16. NO CONTAMINATED OR TREATED MATERIAL SHALL BE USED IN ANY PART OF THE HIBERNACULUM CONSTRUCTION.

OUTLINE CONSTRUCTION SEQUENCE

a) QUALIFIED ECOLOGIST TO UNDERTAKE AN ECOLOGICAL SURVEY OF THE SITE TO IDENTIFY THE PRESENCE OF ANY PROTECTED SPECIES.

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

c) DRAINAGE SURVEY AND CONSULTATION WITH EA/SEPA TO ASSESS THE SUSTAINABILITY AND LONG TERM DRAINAGE PERFORMANCE AND IMPACT OF THE ALTERNATIVE HABITAT SITE.

d) SLOPE STABILITY TO BE ASSESSED BY A GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF WORKS FOR ANY SITES WITHIN 5.0M OF AN EARTHWORKS TOE.

e) LOCATE AND MARK OUT ANY SERVICES PRESENT ON THE ALTERNATIVE HABITAT SITE.

f) SECURE PERIMETER FENCING TO PROTECT THE SITE

g) MOBILISE AND ESTABLISH ALL REQUIRED SAFETY/WELFARE FACILITIES, STORES, COMPOUND AND SITE OFFICES.

h) UNDERTAKE SITE DE–VEGETATION WORKS AS REQUIRED.

i) EXCAVATE POND TO THE REQUIRED PROFILE.

j) INSTALL PUDDLE CLAY/ARTIFICIAL POND LINER AND PLACE 100mm OF SUBSOIL ON TOP.

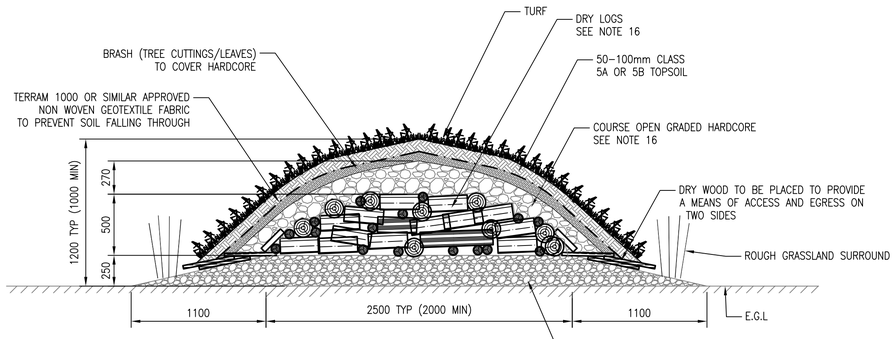
k) CONSTRUCT UNDERWATER REEFS AND HIBERNACULUM.

l) FILL POND WITH WATER TO DESIGN LEVELS.

m) UNDERTAKE PLANTING WITHIN AND AROUND THE MARGINS OF THE PONDS.

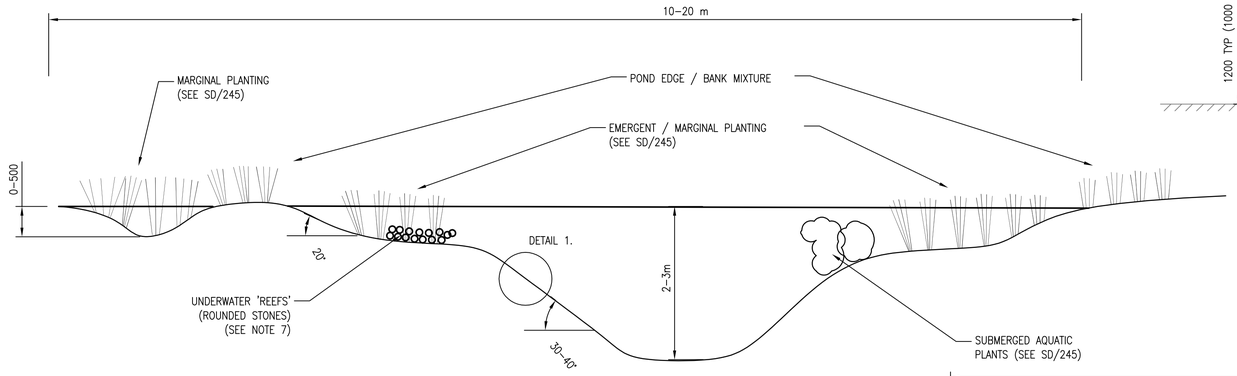
n) CONSTRUCT SCREENING AROUND THE POND USING HAWTHORN HEDGING AND INSTALL LOCKABLE GATES TO CONTROL ACCESS WHERE REQUIRED.

o) DEMOBILISE.



HIBERNACULUM DESIGN

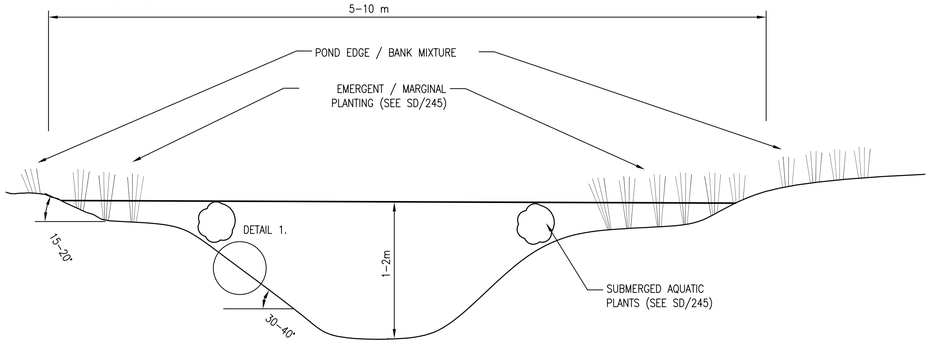
N.T.S



CROSS SECTION X–X

N.T.S

THE ENVIRONMENT AGENCY (EA) OR THE SCOTTISH ENVIRONMENT PROTECTION AGENCY (SEPA) MUST BE CONSULTED WHEREVER WORKS MAY IMPACT ON WETLANDS OR WATERCOURSES



CROSS SECTION Y–Y

N.T.S

DRAWING No. NR/CIV/SD/244

NOTES

1. THIS DRAWING FORMS A STANDARD DETAIL FOR GREAT CRESTED NEWT ALTERNATIVE HABITATS AND SHOULD BE READ IN CONJUNCTION WITH THE GENERAL REQUIREMENTS OF DRAWING SD/240.

2. REFERENCE SHOULD ALSO BE MADE TO THE SCHEME SPECIFIC DRAWINGS AND SPECIFICATIONS FOR DETAILS OF THE WORKS TO BE UNDERTAKEN.

3. THE PRECISE DESIGN OF A GREAT CRESTED NEWT POND DEPENDS ON THE SITE SPECIFIC IMPACTS TO AND THE SIZE OF THE POPULATION. THE PROPOSED ALTERNATIVE SITE SHOULD NOT ALREADY CONTAIN GREAT CRESTED NEWTS.

4. THE SITE SHOULD BE SCREENED FROM PUBLIC RIGHTS OF WAY, PREFERABLY BY HAWTHORN HEDGING TO DISCOURAGE ACCESS AND NOT NEAR ANY ROADS, WHERE FLY TIPPING MAY OCCUR. LOCKABLE GATES MAY BE REQUIRED TO ALLOW CONTROLLED ENTRY.

5. THE NEW POND (S) SHOULD BE CONSTRUCTED AT LEAST 6 MONTHS AND PREFERABLY 1–2 YEARS PRIOR TO TRANSLOCATION.

6. THE NEW POND SHALL HAVE A LAYER OF SUBSOIL 100mm THICK TO PROVIDE A HABITAT FOR POND ORGANISMS AND A ROOTING ZONE FOR PLANTS. SUBSOIL FROM THE POND EXCAVATION WILL NORMALLY BE SUITABLE.

7. UNDERWATER REEFS OF STONES, PREFERABLY ROUNDED SHALL BE PLACED IN PILES OR RIDGES IN DEEPER WATER OR LEADING UP TO THE BENCHES AT THE WATERS EDGE .

8. INITIAL PLANTING SHOULD LEAVE SOME BARE AREAS OF MUD TO PROVIDE AN INVERTEBRATE HABITAT.

9. AT LEAST TWO HIBERNACULA SHOULD BE BUILT IN THE ADJACENT HABITAT, POSITIONED WITHIN 50m OF THE POND, ABOVE ANY POTENTIAL FLOOD LINE.

10. WHERE USE OF EXISTING SUBSTRATE IS NOT POSSIBLE AN ARTIFICIAL POND LINER MAY BE REQUIRED. FOR THE POND LINER USE PUDDLED CLAY OF 200 – 300mm THICK, OR IF NOT AVAILABLE USE A 1.0mm THICKNESS BUTYL POND LINER WITH A SUITABLE UNDERLAY (E.G. POLYFELT CUSHION).

11. PONDS WILL REQUIRE ANNUAL MANAGEMENT. IN NOVEMBER LEAF LITTER/BLANKET WEED SHOULD BE CLEARED. MARGINAL AND SUBMERGED VEGETATION MAY REQUIRE THINNING AT THIS TIME AND THE POND SHOULD ALSO BE CHECKED FOR LEAKS AND ANY INVASIVE SPECIES. SCRUB SHOULD BE CLEARED FROM AROUND THE POND EVERY 5 YEARS.

12. ANY VEGETATION REMOVED SHOULD BE PLACED ON THE BANKS FOR A FEW DAYS TO ALLOW POND ANIMALS TO RETURN TO THE POND.

13. WITHOUT A DEVELOPMENT LICENCE, IT IS ILLEGAL TO KILL, INJURE OR DISTURB GREAT CRESTED NEWTS OR TO DAMAGE OR OBSTRUCT PLACES THEY USE FOR SHELTER OR PROTECTION

14. SITING AND CONSTRUCTION OF A GREAT CRESTED NEWT POND SHOULD BE UNDERTAKEN IN CONSULTATION WITH A SUITABLY QUALIFIED ECOLOGIST.

15. ADEQUATE SIGNAGE INDICATING A WATER HAZARD IS TO BE PROVIDED TO WARN CONSTRUCTION AND FUTURE OPERATIONAL STAFF.

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

Network Rail

Network Rail Infrastructure Ltd. Registered Office: Kings Place, 90 York Way, London, N1 9AG

	Name	Position	Signature	Date
Approved	P CLARK	Senior Prog. Eng. Manager Investment Projects Building & Civils	PC	MAY 2011

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

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STANDARD ECOLOGICAL DETAIL

GREAT CRESTED NEWT ALTERNATIVE HABITAT CREATION

Scale	NOT TO SCALE (N.T.S)	
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