LEGEND

BOUNDARY

F1 Barrier Type 1
Orangutan Habitat Fencing (Mesh with Anticlimb overhang)
Overall fence height 4.5m high with approx 4050m of 3.5mm Galvanised core steel chain link with PVC coating total thickness (4.7mm). Chainlink Colour: Black. Anticlimb: Aluminum 3mm thick: Powder Coated pressed steel 'Anti-climb' overhang - 1200mm in height. Colour: Olive Green
Timber Posts: 250mm Ø FSC softwood pressure treated timber post fixed within concrete foundation @ 3000mm centres to engineer detail and recommendations.
Hotwire: Requirements of 12x lines of hot wire set 250mm apart along fence line - Tensile wire to be used. Wires fixed to post using Live tip offset distance insulators 160mm(Gallagher or equal approved). Hot wires to be split into 4 zones running independent of each other.

F2 Barrier Type 2
Orangutan Habitat Fencing (Single-Sided)
Animal containment with one side of cladding on animal side to ensure smooth faced no climbable surface. Cladding Material: 1.2 gauge prime galvansied corrgugated sheets powder coated both sides or equal approved with flashing cover to match
Dimension: 4500mm high containment to be achieved above GL. Approx 500mm deep Sheet to continue below ground forming antidig.
RAL Colour: Olive Green
Structural steel and purlins to Engineer detail and specification.
Foundations to engineer details and specification.

F2A Barrier Type 2A
Orangutan Habitat Fencing (Dual faces - 1 x Soild sheet and 1x timber clad)
Animal containment with one side of cladding on animal side to ensure smooth faced no climbable surface. Cladding Material: 1.2 gauge prime galvansied corrgugated sheets powder coated both sides or equal approved with flashing cover to match
Dimension: 4500mm high containment to be achieved above GL. Approx 500mm deep Sheet to continue below ground forming antidig.
RAL Colour: Olive Green
Structural steel and purlins to Engineer detail and specification.
Foundations to engineer details and specification.
Public fronting face to be treated with 4.5-4.75m high rustic round softwood poles with bark on.Poles fixed to rails along fence supported from steel structure frame to engineer detail. Dimensions: Poles to vary in sizes from 25-40mm dia to be installed random along fenceline. Supplier: Brandon Thatchers or similar approved.

F2B Barrier Type 2B
Orangutan Habitat Fencing (Two Sided)
Animal containment with both sides being clad to ensure smooth faced no climbable surface. Cladding Material: 1.2 gauge prime galvansied corrgugated sheets powder coated both sides or equal approved with flashing cover to match
Dimension: 4500mm high containment to be achieved above GL. Approx 500mm deep Sheet to continue below ground forming antidig.
RAL Colour: Olive Green
Structural steel and purlins to Engineer detail and specification.
Foundations to engineer details and specification.

F3 Barrier Type 3
2 x no panels: Large viewing window integrated within main habitat containment wall. 39.04mm tempered laminated glass within steel frame: 3m high x 2.5m long within enclosure wall and visitor structure.
Frame: Heavy duty PPC steel frame to fabricator - Colour black

F3A Barrier Type 3A
2 X no. Small viewing window integrated within Babirusa containment fencing 22mm tempered laminated glass within steel frame: 1.6m high x 2m long within enclosure wall and visitor structure.
Frame: Heavy duty PPC steel frame to fabricator - Colour: Black

F3B Barrier Type 3B
Medium viewing window integrated within main habitat containment wall. 39.04mm tempered laminated glass within steel frame: 2m high x 4m long within enclosure wall and visitor structure.
Frame: Heavy duty PPC steel frame to fabricator - Colour: Black

F4 Barrier Type 4
Decorative timber standoff fence with mesh infill
Dimension: 1200mm high. Panel: Treated natural hardwood Eucalyptus poles, bark stripped. Poles fixed to top and bottom rails. Poles to vary in sizes from 25/35mm dia installed random along the fenceline, with the spacing of 100mm max. Mesh:10 gauge 50 x 50 mm PVC coated/galvanised core mesh installed to rear. PPC: Signal Black.Posts: 100mm x 100mm x 1550mm treated timber posts set at 1.8m centres. Foundation: Concrete foundation to engineer detail and specification.

F4A Barrier Type 4A
Standard Rope standoff fence
Dimension: 1200mm high. Rope and square mesh infill to 1.2m high
Posts: 100mm x 100mm x 1.5m treated timber posts set at 1.8m centres.
Foundation: Posts set within ground

F5 Barrier Type 5
Rustic timber screening to VIP area
Dimension: 2000-2500mm high. Panel: Treated natural hardwood Eucalyptus poles, bark stripped. Poles fixed using 4 x half round posts. Poles to vary in sizes from 25/35mm - 50/75mm dia to be installed randomly along the fenceline on both faces of the timber post. Posts: Timber posts formed as part of the boardwalk detail to Engineer detailing.

F6 Barrier Type 6
2.4m high Rustic Timber fencing to Babirusa area with mesh internal face. Treated natural hardwood Eucalyptus poles, bark stripped. Dimensions: Poles to vary in sizes from 25-40mm dia to be installed random along fenceline. Fixed to timber upright using 4 x no. half round hardwood poles. Posts: 2400mm high above GL; 150mm x 150mm pressure treated timber within concrete foundation to engineer detail. Mesh: 10 gauge 50 x 50 mm PVC coated / galvanised core mesh installed diagonally between fence posts. Paint Colour: PPC Colour Signal Black.Fixing: To be secured to timber post on the internal facade.
Gates: To match fencing

F7 Barrier Type 7
Decorative Timber Balustrade to the elevated boardwalk
Dimension: 1200mm high balustrade. Panel: 60mm (1.5mm mesh) Webnet Balustrade mesh infill fixed to top rail and bottom rail using galvanised fixings Frame: Timber posts and frame to engineer design and specification. Fixing: To be developed with contractor/ engineer input, as part of the boardwalk detailed design.

F7A Barrier Type 7
Decorative Timber Balustrade to the elevated boardwalk
Dimension: 1200mm high balustrade.
Infill Panel:10mm clear toughened glass (panel size 1650 (w) x 1100mm (h))
Supplier: Dellner glass or equal approved
Frame: Glass fixed within bottom rail approx 42 x 30mm within a Timber natural hardwood frame. Frame and fixing to supplier detail.

F8 Barrier Type 8
Babirusa enclosure mesh to 1.3m high, formed from 10 gauge 50 x 50 mm PVC coated / galvanised core mesh installed diagonally between fence posts.
Paint Colour: PPC Colour Signal Black.
Supplier: FHBrundle.co.uk
Fixing: To be secured to timber post on the internal facade.
Posts: 125mm Ø FSC softwood pressure treated timber post driven mechanically into ground

F9 Barrier Type 9
1.8m high timber post and chainlink fence to form new zoo lisence fencing.
Mesh: High tensile mesh net: Tornado R19.180/5 or equal approved. Mesh fixed to 125mm dia softwood pressure treated posts driven into ground. Mesh to continue 500mm below ground to form antidig.

F9A Barrier Type 9A
Existing Zoo Licence fence retained and made good where required

F10 Barrier Type 10
Decorative timber and mesh fence to Animal Habitat
Dimension: Rustic timber fixed to public facing side of fencing:
Treated natural hardwood Eucalyptus poles, bark stripped. Poles fixed to top and bottom rails. Dimensions: Poles to vary in sizes from 25-40mm dia to be installed random along fenceline. Fixed to timber upright using 3x no. half round hardwood poles
NOTE: Fence type10 and fence type 6 to have transitions sections where poles are angled along lenght.
Mesh:10 gauge 50 x 50 mm PVC coated/galvanised core mesh installed to rear.
PPC: Signal Black. Posts: 1500 - 1600mm high above GL; 150mm x 150mm pressure treated timber post, Angled top to prevent visitors standing on.
Foundation: Wrap and tack posts driven in ground, to engineer detail and specification.

GATES

G1 Gate - Type 01
Vehicle Gate (to Orangutan Habitat)
A solid panel double vehicle gate to access orangutan habitat
Product: Hot dipped galvanised and PPC 0.48cm steel door and heavy-duty frame
Dimension: 4500mm high x 3000mm wide
Panel colour PPC: Olive Green to match fencing. anel edge: Gate to be clad on animal side, ensuring an anticlimb boundary is maintained. Frame: 50mm square box section posts to fabricator spec. Galvanised and PPC: Olive Green. Posts: 125mm square heavy duty box section posts to fabricator spec. PPC: Olive Green. Opening: Inward opening to habitat

G2 Gate - Type 02
Single access keeper to Babirusa.
Dimension: 1500mm high x 1500mm wide
Mesh Infill:10 gauge 50 x 50 mm PVC coated / galvanised core mesh installed to rear.
Gate Frame: 75mm x 75mm treated timber gate with 1.5m clear opening.
Posts: 150mm x 150mm x 1550mm treated timber posts to engineer details.
Opening: Inward opening

G3 Gate - Type 03
Double access keeper standoff gate. Dimension: 1500mm high x 3000mm wide
Panel: 1500mm high. Rope and square mesh infill to match fence
Gate Frame: 75mm x 75mm treated timber gate with 3m clear opening to engineer spec.
Posts: 150mm x 150mm x 1550mm treated timber posts to engineer spec.
Opening: Outward opening

G4 Gate - Type 04
Single access keeper standoff gate. Dimension: 1200mm high x 1500mm wide
Panel: Treated natural hardwood Eucalyptus poles, bark stripped. Poles fixed to top and bottom rails. Poles to vary in sizes from 25/35mm dia to be installed random along fenceline; with spacing of 100mm max. Mesh:10 gauge 50 x 50 mm PVC coated / galvanised core mesh installed to rear. Gate Frame: 75mm x 75mm treated timber gate with 1.5m clear opening. Clad with eucalyptus poles. Posts: 150mm x 150mm x 1550mm treated timber posts set at 1.8m centres. Opening: Outward opening

G5 Gate - Type 05
Single swing steel gate with weldmesh infill within the zoo licence fence
Product: CLD Lockmaster Gate
Dimension: 1800mm high x 1100mm wide.
Panel: Weldmesh - Dulok S1 (PPC : RAL 9005)
Aperture: 200x50mm
Frame: 50mm square box section posts to fabricator spec. Galvanised and PPC: RAL 9005
Posts: 80x80mm square box section posts to fabricator spec. PPC: RAL 9005
Opening: Outward opening.
Locking: Code system / fob required for gate access * To be agreed with Client
Fixing - as per supplier detail and recommendation
Supplier: CLD or equal approved

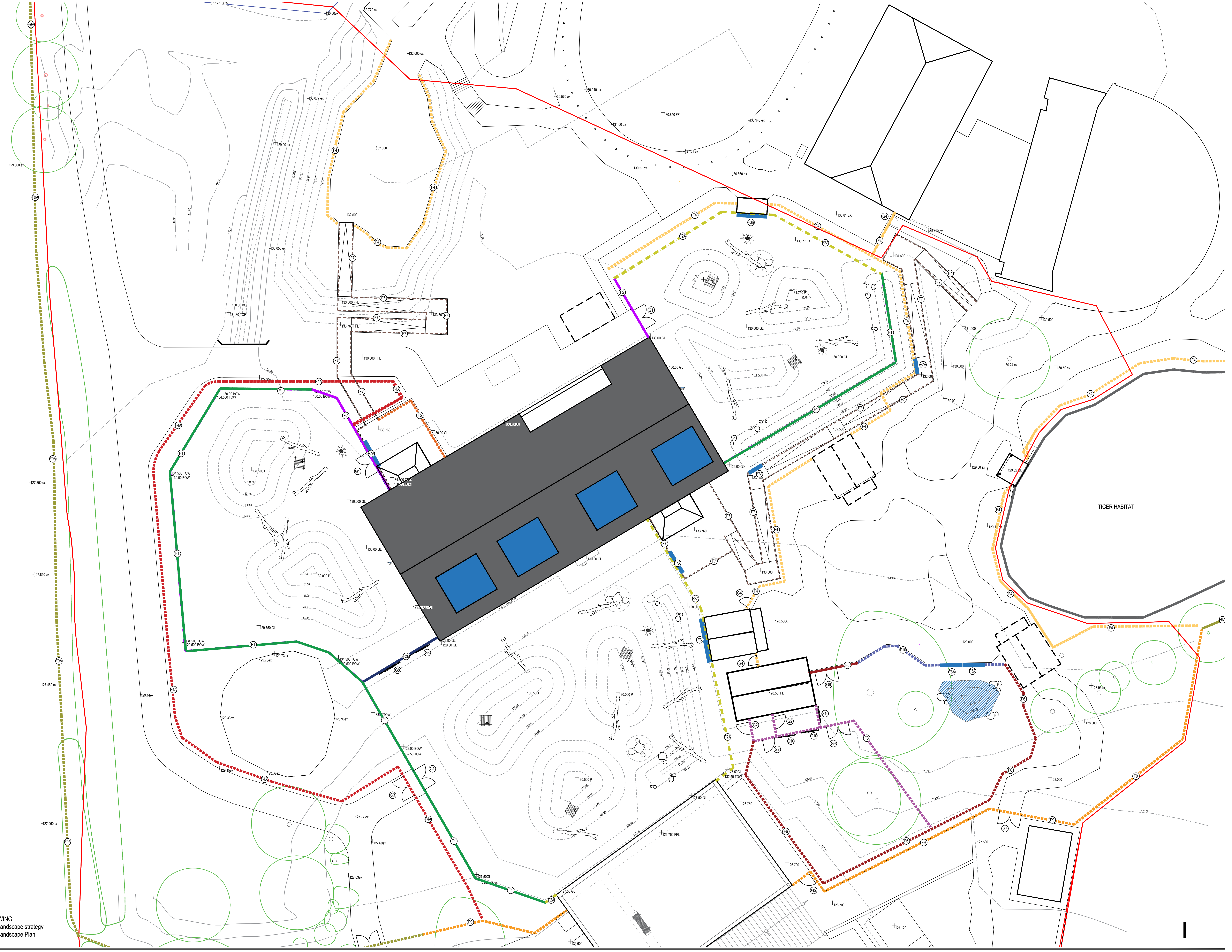
G6 Gate - Type 06
Vehicle gate. (To Babirusa Habitat)
Dimension: 2400mm high x 3000mm wide
Panel: Treated natural hardwood Eucalyptus poles, bark stripped. Poles fixed to top and bottom rails. Poles to vary in sizes from 25/35mm dia to be installed random along fenceline; with spacing of 100mm max. Mesh:10 gauge 50 x 50 mm PVC coated / galvanised core mesh installed to rear. Gate Frame: 75mm x 75mm treated timber gate. Clad with eucalyptus poles. Posts: 150mm x 150mm x 1550mm treated timber posts set at 1.8m centres. Opening: Outward opening

G7 Gate - Type 07
Double swing steel gate with weldmesh infill within the zoo licence fence
Product: CLD Lockmaster Gate
Dimension: 1890mm high x 2200mm wide.
Panel: Weldmesh - Dulok S1 (PPC : RAL 9005)
Aperture: 200x50mm
Frame: 50mm square box section posts to fabricator spec. Galvanised and PPC: RAL 9005
Posts: 80x80mm square box section posts to fabricator spec. PPC: RAL 9005
Opening: Outward opening.
Locking: Code system / fob required for gate access * To be agreed with Client
Fixing - as per supplier detail and recommendation
Supplier: CLD or equal approved

G8 Gate - Type 10
Animal Slider. Sliding doors between External Habitats
Operation: Manually operated using pullies from keeper areas. Opening: Horizontal sliding doors. Locking: To be developed with TZ / Fabricator input. Material: Single slide doors with Solid galvanised steel doors. PPC to match fencing - RAL Olive Green.
Frames: To fabricator design. PPC finish to match fencing.
Size: 0.8m (w) x 1m (h). Opening: Top ridge guide
Position: To be located at 1m off Ground level - final height to be confirmed by TZ team

G9 Gate - Type 09
Vehicle gate. (Between Babirusa Habitat)
Dimension: 1500mm high x 3000mm wide
Panel: Mesh:10 gauge 50 x 50 mm PVC coated / galvanized core mesh installed to rear.
Gate Frame: 50mm x 50mm Steel frame to fabricator detail.
Posts: 150mm x 150mm x 1550mm or to fabricators detail. Opening: Inward opening.
NOTE: Ensue - no gaps around gates for trapping animals.

G10 Gate - Type 10
Animal Slider. To Babirusa Habitat
Opening: Horizontal sliding doors.
Locking: To be developed with TZ / Fabricator input. Material: Single slide doors with Solid galvanised steel doors within Galvsanised frame. PPC to match fencing: RAL - TBC.
Frames: To fabricator design. PPC finish to match fencing.
Size: 0.8m (w) x 1m (h). Opening: Top ridge guide
Operation: Manually operated.



REFER TO HLM LANDSCAPE DRAWING:
TWZ-HLM-00-00-DR-L-30800 Hard Landscape strategy
TWZ-HLM-00-00-DR-L-30801 Hard Landscape Plan

rev	details	by	date
00	ISSUE FOR STAGE 03	JM	23.10.2023
01	STAGE 03 ISSUE TO KIER	ZW	05.02.2024
P02	UPDATED ISSUE FOR TENDER	JM	22.11.2024
P03	UPDATED ISSUE FOR TENDER	JM	04.12.2024
P04	ISSUE FOR PLANNING (S73)	JM	09.12.2024

rev	details	by	date

Notes

1. Do not scale from drawing, use figured dimensions only.
2. All dimensions to be checked onsite.
3. This drawing to be read in conjunction with all other drawings and specifications.

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0m 12.5m 25m

Project title
NSCC ORANGUTAN
FACILITY

Drawing title
BOUNDARY PLAN

Drawing number: TWZ-DZU-00-00-DR-L-00105-P04
Revision

Drawing Status
FOR PLANNING

Date	Scale	Drawn	Checked
15.09.2023	1:250 @ A1	ZW	JM

tz Twycross Zoo
IN THE HEART OF CONSERVATION

DEARADH ZÚ
ZOO - LANDSCAPE - DESIGN

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D:\Projects\Projects\P22009-00 NSCC Twycross Facility\Drawings\01 Design\CAD\100 series\P22009-00-001-DZ-0105 Boundary_Gate Plan (FOR PLANNING).dwg