



**DRAINAGE NOTES**

- GENERAL:**  
DRAINAGE BUFFER ZONE WIDTHS SHALL BE A MINIMUM OF 85m.
- CONSTRUCTION AND MAINTENANCE**
  - ROADSIDE DRAIN SHOULD NOT INTERCEPT LARGE VOLUMES OF WATER FROM THE GROUND ABOVE.
  - ROADSIDE DRAINS LIKELY TO CARRY HIGH SEDIMENT LOADS AND MUST DISCHARGE INTO A BUFFER OF ADEQUATE WIDTH.
  - DRAINS ON THE UPPER SIDE OF THE ROAD MAY NEED CULVERTS TO THE LOWER SIDE.
  - REGULAR INSPECTIONS, CLEANING AND REPAIRS WHERE NECESSARY.
- DRAINS:**
  - DRAINS SHALL BE DESIGNED AND CONSTRUCTED TO MITIGATE CHANNEL EROSION, E.G. BY INSTALLATION OF PERFORATED PIPE WITH DRAINAGE STONE SURROUND.
  - DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SYSTEM OF STILLING PONDS AND BUFFERED OUTFALLS.
  - DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL BE CONVEYED THROUGH A BUFFERED OUTFALL WITHIN AN UNDISTURBED STABILISED AREA AT NON-EROSIVE VELOCITIES.
  - ALL OBSTRUCTIONS WITHIN A DRAINAGE CHANNEL SHALL BE REMOVED AND DISPOSED OF, SO AS NOT TO INTERFERE WITH THE PROPER FUNCTION OF THE DRAINAGE SYSTEM.
  - CHECK DAMS SHALL BE CONSTRUCTED USING WELL GRADED 150mm DOWN ANGLAR GRAVEL PLACED OVER A GEO-TEXTILE LAYER. SEE DETAIL 1.
  - THE SPACING OF CHECK DAMS SHALL BE SUCH THAT THE PEAK OF THE DOWNSTREAM DAM IS NO LOWER THAN THE FOOT OF THE UPSTREAM DAM.
  - THE USE OF STRAW BALES WITHIN THE DRAINAGE SYSTEM SHOULD BE CONSIDERED ON A TEMPORARY BASIS DURING CONSTRUCTION AND MAINTENANCE WORK.
  - STRAW BALES SHOULD, HOWEVER, ONLY BE USED TO INTERCEPT SEDIMENT-LADEN RUNOFF FROM ALL DRAINAGE AREAS OF DISTURBED SOIL.
  - BALES SHOULD BE ANCHORED IN PLACE BY THE USE OF TIMBER STAKES OR RE-BARS DRIVEN THROUGH THE BALES, WHERE BALES ARE TO BE PLACED IN POSITION ADJACENT TO OTHER BALES (EG WITHIN A STILLING POND), THE FIRST STAKE IN EACH BALES SHOULD BE DRIVEN TOWARDS THE PREVIOUSLY LAID BALES AT AN ANGLE. THIS HAS THE EFFECT OF FORCING THE TWO BALES TOGETHER.
  - BALES SHALL BE REPLACED AS REQUIRED
  - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS.
- OUTFALLS:**
  - ALL DRAINAGE CHANNELS SHALL FAN/TAPER OUT BEFORE ENTERING THE BUFFER ZONE. PRIOR TO ENTERING THE TAPERED ZONE, THE BASE OF THE DRAINAGE CHANNELS TO BE CONSTRUCTED OF A HARDCORE MATERIAL TO AID THE SETTLEMENT OF SUSPENDED SOLIDS.
  - NON-DEVELOPMENT RUN-OFF SHALL BE RETURNED TO A SURFACE FLOW CONDITION E.G. BY USE OF LEVEL SPREADERS.

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P00	Issued for Comments	LB	JL/RM	Mar, 2023
rev.	modifications		by chkd	date

Client  
**EMP Group**

Project  
**Proposed Wind Farm and Grid Connection at Dyrick Hill, County Waterford.**

Stage  
**Planning Application**

Title  
**Drainage Details Sheet 2 of 4**

Scales  
**1:50 & 1:100 (A3)**

Surveyed	Prepared By	Checked	Date
	L.B.	J.L.	Oct. 2022

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