

## Second Crossing Maintenance 2020

Activity Code No:

CM0354 F/1 & G

Month Planned

January & August

Code Frequency

F/1 & G

Carried Out

January & August

By:

Prince of Wales Bridge Mechanical Department

Also raised by Maintenance Department Monthly (Checked throughout Covid-19 Lockdown).

Description of Activity:

As per the Nedern Brook Grill Maintenance 6 Monthly (F/1) & 12 Monthly (F/2 & G) Checklist.

Raising & clearing of the grill also required before being returned into the lowered position.

Findings/Actions:

All functioning correctly & service on the power-pack carried out on both visits.

	Signature	Date
Checked by		19/09/2020
Approved by		19/09/2020

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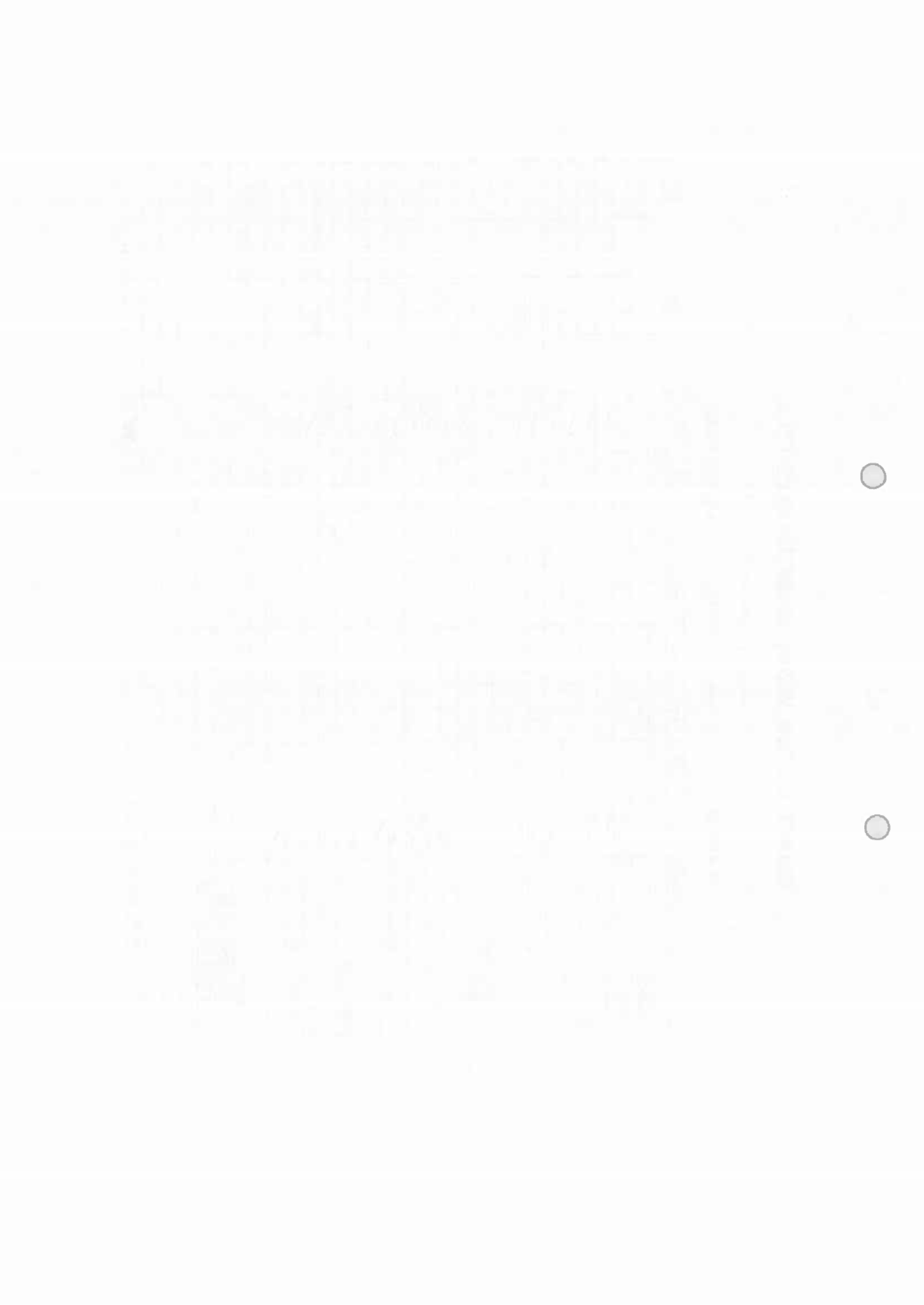
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**Prince of Wales Bridge  
U5867**

**METHOD STATEMENT**

**FOR**

**REMOVAL OF DEBRIS FROM NEDERN BROOK GRILL**

**Laing O'Rourke Ref No:**

**CM 0354G**

Revision	Prepared By:	Approved LOR	Date	Approved	Date
03	██████	██████	16/2/2020		

Control No.	Issue Date	Received	Date

**MASTER COPY  
SECOND SEVERN CROSSING**

**IMPLEMENTATION OF METHOD STATEMENT:**

I have witnessed the work within the last 24 hrs and am reasonably satisfied to the best of my knowledge that the proposals in the above method statement are being implemented.

Signed:

On Behalf of: WILLOWWAVE ENGLAND

Name:

Date: 11.02.2020

Review record – Review every 3 months when in use.

Review date	Name	Signed	Changes required (if none state none)
11.02.2020	[REDACTED]	[REDACTED]	NONE.
20.08.2020	[REDACTED]	[REDACTED]	NONE





**SEVERN CROSSINGS MAINTENANCE U5867**

<b>ROUTINE MAINTENANCE PROCEDURE REMOVAL OF DEBRIS FROM NEDERN BROOK GRILL</b>	<b>ROUTINE MAINTENANCE NO.</b>	<b>CM 0313G</b>
	<b>REVISION NO.</b>	<b>03</b>
	<b>DATE</b>	<b>14<sup>th</sup> January 2020</b>
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13. Risk Assessment



**SEVERN CROSSINGS MAINTENANCE U5867**

<b>ROUTINE MAINTENANCE PROCEDURE REMOVAL OF DEBRIS FROM NEDERN BROOK GRILL</b>	<b>ROUTINE MAINTENANCE NO.</b>	<b>CM 0354G</b>
	<b>REVISION NO.</b>	<b>03</b>
	<b>DATE</b>	<b>14<sup>th</sup> January 2020</b>
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**1. Introduction**

The Nedern Brook back grill is situated to the North West of the Gwent Abutment off the M4. It allows surface water to drain into the Severn at low tide. This grill has been blocking up with debris since its installation in early 1996. It has been part of Severn River Crossings duty to maintain this area and keep the grill clear to avoid the Caldicot area from flooding.

The debris which collects is primarily in the form of reeds cut from the local banks and often household rubbish that has been discarded into the brook, this task is one that is not without risk i.e. working in deep fast flowing water, manual handling, unknown contents in containers recovered, cold weather operations and recovery considerations, should an operative be injured during these operations.

To avoid these risks, a new grill adjacent to the original one was fitted in late 2003 which can be raised and lowered by a hydraulic ram to aid the recovery of this debris. This procedure is planned to result in minimal handling of any debris at the grill area.

This Procedure has been approved in principle by both the Countryside Commission For Wales (CCW) and the Environmental Agency (Wales). (Strict controls of these operatives in the use of the equipment and supervision of the operations will ensure that the Caldicot area will be free from flooding in the future).

This Maintenance Procedure covers the removal and disposal of debris. Works will be carried out when low water is in the Nedern Brook, low tide times and there is no risk of surface water being carried to that area.

**2. Reference Documents**

- 2.1 Second Severn Crossing Safety Procedures Manual Rev 1.
- 2.2 SC/020 - Safe Access and Working Arrangement When Working on Ditches, Embankments, the NRA Road, the Lagoon or the Rock Armour.
- 2.3 SX/007 - Radio Communications.
- 2.4 SX/015 - COSHH, Hazchem and Waste Disposal.
- 2.5 SX/043 - Working in Adverse Weather Conditions.

**3. Safety**

- 3.1 All works shall be carried out in accordance with the Project Safety Manual.



**SEVERN CROSSINGS MAINTENANCE U5867**

**ROUTINE MAINTENANCE PROCEDURE**

**REMOVAL OF DEBRIS FROM NEDERN  
 BROOK GRILL**

**ROUTINE  
 MAINTENANCE NO.**

**CM 0354G**

**REVISION NO.**

**03**

**DATE**

**14<sup>th</sup> January 2020**

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**3. Safety**

- 3.2 The Nedern Brook grill shall only be operated by trained personnel.
- 3.3 All personnel shall work in a safe manner and use all the safety equipment provided.
- 3.4 Any lifting operations shall be supervised by personnel holding a valid rigging qualification. All lifting equipment shall be certified and bear the current inspection colour code.
- 3.5 All electrical equipment shall carry a current PAT test validation label.
- 3.6 Substances governed by the COSHH Regulations shall be controlled as detailed in Safety Procedure SX/015.

**4. Access**

- 4.1 Access to the grill area shall be via the locked gate and access path then down the slopes of the Nedern Brook grill.

**5. Plant and Equipment**

- 5.1 Garden fork
- 5.2 Pitch fork

**6. Personal Protective Equipment**

PPE to be worn shall include:

- 6.1 Safety helmet with cradle
- 6.2 High visibility waistcoat/jacket & trousers or overalls (to BS-EN 470 Class 3)
- 6.3 Safety boots (wellingtons if required)
- 6.4 Showa 380 gloves
- 6.5 Eye protection
- 6.6 Radio (radio check to be carried out upon arrival at work location)

**7. Site Personnel**

- 7.1 Senior Maintenance Inspector or his deputy
- 7.2 Charge hand / Painter Riggers



**SEVERN CROSSINGS MAINTENANCE U5867**

**ROUTINE MAINTENANCE PROCEDURE**

**REMOVAL OF DEBRIS FROM NEDERN  
BROOK GRILL**

**ROUTINE  
MAINTENANCE NO.**

**CM 0354G**

**REVISION NO.**

**03**

**DATE**

**14<sup>th</sup> January 2020**

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**8. Sequence of Operations**

- 8.1 Confirm that no storm water is imminent during operations.
- 8.2 Connect electrical supply via the nearby grey electrical box to the hydraulic power unit.
- 8.3 Remove padlocks (2 in total) from steel grill holding brackets and place holding brackets into the correct position to allow the gate to lift.
- 8.4 Raise the grill using the hydraulic power unit, then stop the hydraulic power pack once in a fully raised position.
- 8.5 Lock in the raised position using the holding brackets and padlocks previously removed.
- 8.5 Using pitch fork remove any debris still remaining on the screen, consider using a lever motion between grill and debris to ease excessive force on the body.
- 8.7 Once grill has been cleared remove locks from holding brackets and lower into its normal stowed position.

**9. Actions In The Event of Breakdowns**

If the grill will not raise inform the Second Severn Crossing Maintenance Unit and await repair before attempting to carry out works.

**10. COSHH**

All personnel shall have read, understood and signed on to the COSHH assessment sheets for the following items:

- 10.1 Aero Shell 41 Hydraulic Oil
- 10.2 WD40

**11. Emergency Egress**

- 11.1 Incapacitated personnel may be rescued directly from Gwent Abutment (M4 Eastbound – Marker Post location 201/000) by a suitable Laing O'Rourke vehicle or by the emergency services as appropriate.
- 11.2 A stretcher can be carried along the flat paved area between the grill and path access gate.

# OPERATION OF NEDERN BROOK SAFETY SCREEN

## TO RAISE SCREEN

Safety: No personnel to access the walkway during raising or lowering operation

- 1) Remove 2 locks from power switch hasp
- 2) Lock safety stops in open position
- 3) Remove lock from power switch hasp and turn power to ON (I)
- 4) Pull out **E STOP**, Press **E STOP RESET** and **START PUMP**
- 5) Press **RAM UP** (screen will start to raise slowly)

Note: As screen is moving ensure debris is clear of limit switches

- 6) When screen stops, check **RAM UP LIMIT** lamp is lit
- 7) **STOP PUMP**
- 8) Depress **E STOP**
- 9) Turn power switch to OFF (0), attach hasp and lock in position
- 10) Remove locks from safety stops, turn to closed and lock in position
- 11) Access walkway and clear screen of debris

## TO LOWER SCREEN

- 12) Remove locks from safety stops, turn to open and lock in position
- 13) Remove lock and hasp from power switch and turn power to on (I)
- 14) Pull out **E STOP**, Press **E STOP RESET** and **START PUMP**
- 15) Press **RAM DOWN** (screen will start to lower slowly)
- 16) When screen stops check **RAM DOWN** limit lamp is lit
- 17) **STOP PUMP**
- 18) Depress **E STOP**
- 19) Switch power to off (O), attach hasp and lock in position
- 20) Remove locks from safety stops and attach to hasp on power switch

## **OPERATION OF NEDERN BROOK DEBRIS SCREEN**

**Safety : No Personnel To Access Walkway During Raising/Lowering**

### **TO RAISE SCREEN**

- 1) **Switch Power On (I)**
- 2) **Ensure **E Stop** Is Out**
- 3) **Press **E Stop Reset****
- 4) **Start Pump**
- 5) **Press Ram Up (Screen Will Start To Raise Slowly)**

**Note: As screen is moving, ensure debris is clear of limit switches**

- 6) **When Screen Stops, Check Ram Up Limit Lamp Is Lit**
- 7) **Secure Safety Stops By Locking In Position**
- 8) **Clear Screen**

### **TO LOWER SCREEN**

- 9) **If Screen Has Settled On Safety Stops, Raise Screen To Upper Limit By Following Steps 1 – 5 Above**
- 10) **Release Safety Stops And Lock Into Position**
- 11) **Press **Ram Down** To Lower Screen**
- 12) **When Down, Check Ram Down Limit Lamp Is Lit**
- 13) **Stop Pump**
- 14) **Switch Power To Off Position (O)**



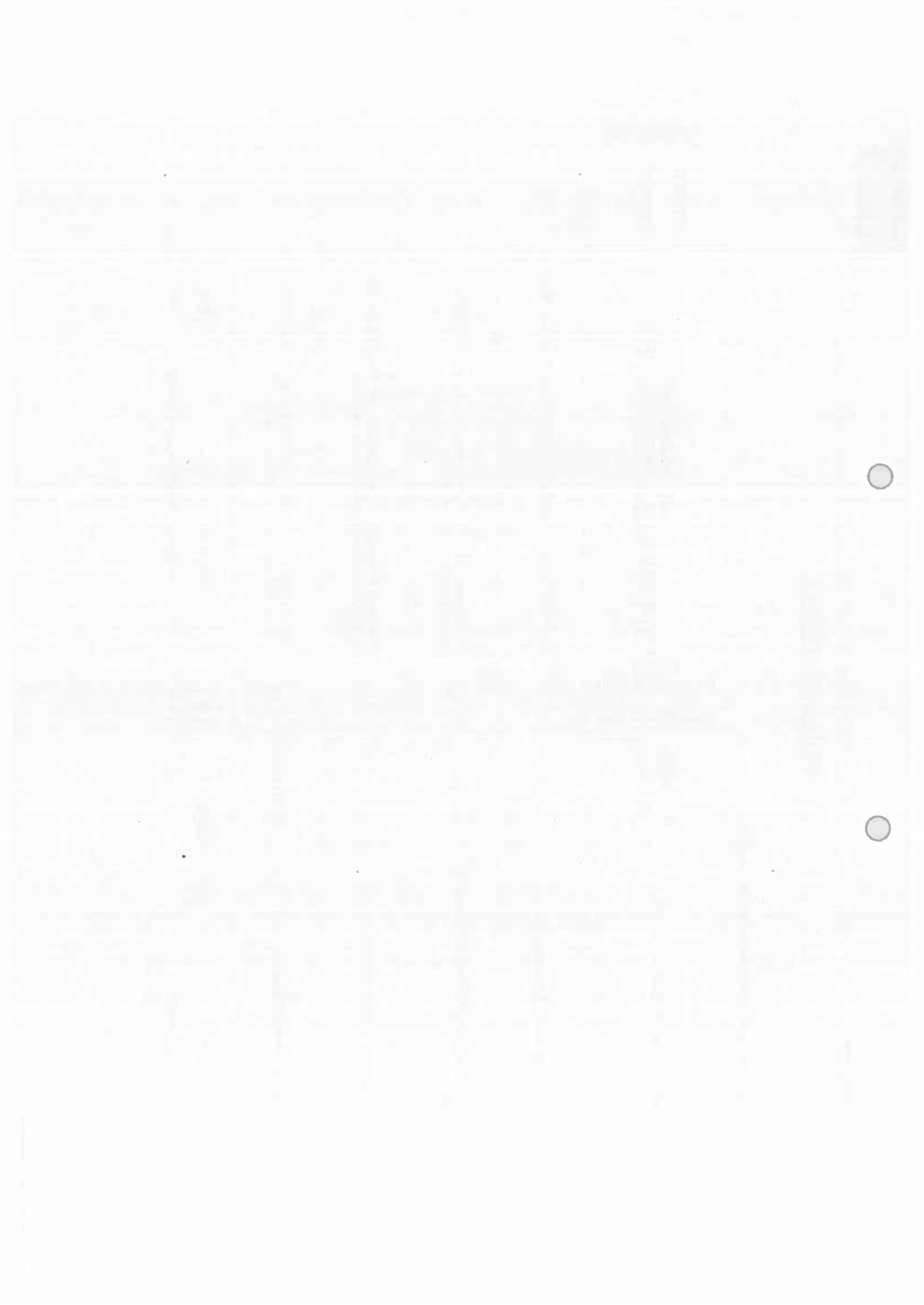
HSE RISK ASSESSMENT

PROJECT: U5867

TASK: CM0354 G - Removal of Debris from Nedern Brook Grill

Item No.	SIGNIFICANT HAZARDS / RISKS	PERSONS at RISK	Before mitigation (High Medium Low)	ACTIONS REQUIRED <u>TO REDUCE OR CONTROL RISKS</u>	ACTION BY: WHEN BY:	After mitigation (High Medium Low)
1.	Working near tidal water / Drowning	All	H	No water in Brook Sept/October when operation to be carried out.	All	L
2.	Carrying out operations / Harmful chemical and substances	All	M	Operations to be done when nothing in Brook. Any drums found contents to be checked.	All	L
3.	Lifting out operations / Personal injury	All	M	Sections removed to be manhandled so to be less than 20kgs each. All operatives trained in manual lifting	All	L
4.	Public interface / Personal injury	All and public	M	Access gate to path to be kept locked at all times. Currently locked and signed to keep public out.	All	L

Completed by:	Name: [REDACTED]	Signature: [REDACTED]	Job Title: Senior Maintenance Inspector	Date: 14 <sup>th</sup> January 2020
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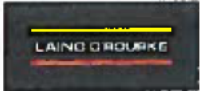


**T4-G TOOLBOX TALK / METHOD STATEMENT BRIEFING REGISTRATION**

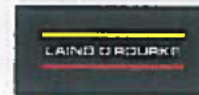
Project: U5867		Sheet No:
Briefing Start Time : 09:00	Briefing Finish Time: 09:00	Date: 12/02/2020
TBT / Briefing Title / Ref No. & Rev.: (Append Copy to this Register) CM 0354G Removal of debris from Nedern Brook grill Rev 03		
Delivery by: (Print Name)		Signature:

\* All attendees must sign this register to confirm that they have received and understood the Toolbox Talk or Briefing.

Name(print)	Employer (print)	Signature*	Date	Payroll / Clock No. or NI Number
	HE			
	HE			
	HE		12.02.20	
	HE			
	HE			
	HE			
	HE		12.02.20	
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	HE		12.02.20	
	HE			



Name(print)	Employer (print)	Signature*	Date	Payroll / Clock No. or NI Number
	HE		12-02-20	
<b>Additional Comments or Feedback:</b>				

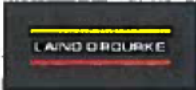


**T4-G TOOLBOX TALK / METHOD STATEMENT BRIEFING REGISTRATION**

<b>Project: U5867</b>		<b>Sheet No:</b>
<b>Briefing Start Time :</b>	<b>Briefing Finish Time:</b>	<b>Date:</b>
<b>TBT / Briefing Title / Ref No. &amp; Rev.:</b> (Append Copy to this Register)		
<b>Delivery by:</b> (Print Name)		<b>Signature:</b>

\* All attendees must sign this register to confirm that they have received and understood the Toolbox Talk or Briefing.

Name(print)	Employer (print)	Signature*	Date	Payroll / Clock No. or NI Number
[REDACTED]	HE			
[REDACTED]	HE			
[REDACTED]	HE	[REDACTED]	4/9/20	
[REDACTED]	HE	[REDACTED]		
[REDACTED]	HE	[REDACTED]	4/9/20	
[REDACTED]	HE	[REDACTED]		
[REDACTED]	HE	[REDACTED]	4/9/20	
[REDACTED]	HE			
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[REDACTED]	HE			
[REDACTED]	HE			



Name(print)	Employer (print)	Signature*	Date	Payroll / Clock No. or NI Number
[REDACTED]	HE			

**Additional Comments or Feedback:**

## Second Crossing Maintenance 2020

Activity Code No:

CM0354 G

Month Planned

March

Code Frequency

G

Carried Out

March

By:

LOR Sub-contract labour [REDACTED]

Description of Activity:

Collection and removal of all tidal derbis obstructing the Gwent Abutment lower access road.

Findings/Actions:

All works safely carried out over 4 consecutive days.

	Signature	Date
Checked by	[REDACTED]	19/09/2020
Approved by	[REDACTED]	19/09/2020

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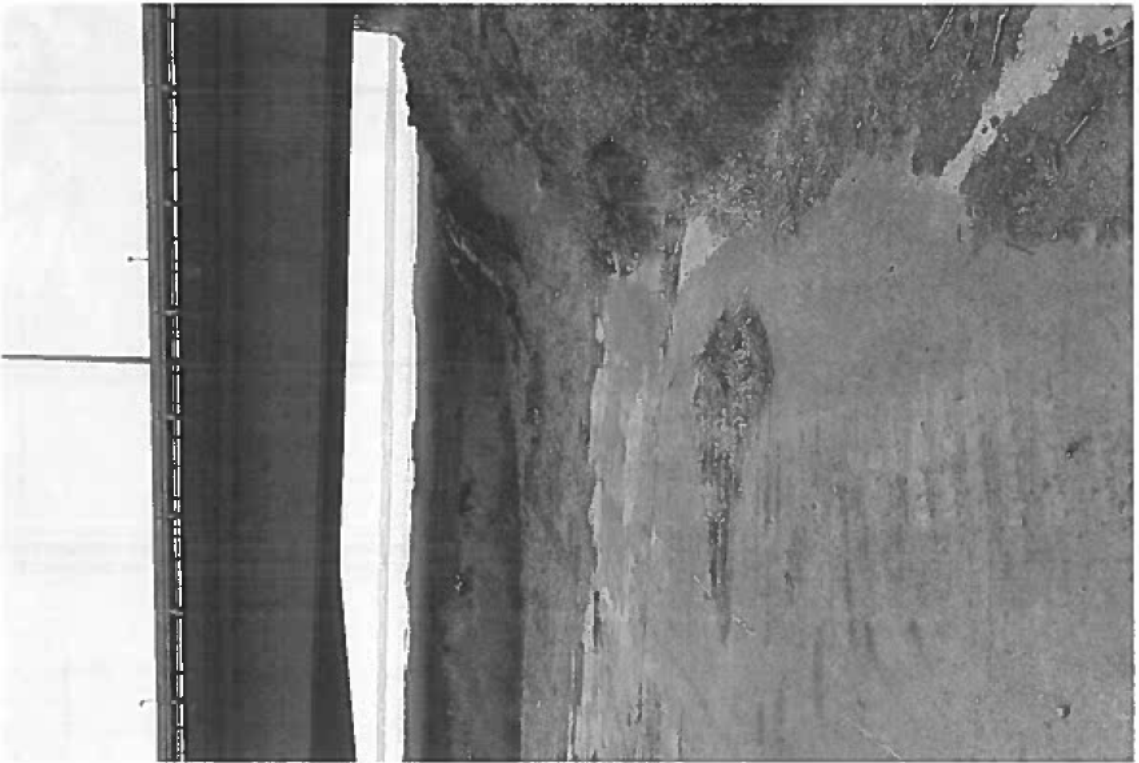
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