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TASK SPECIFIC METHOD STATEMENT

INSTALLATION OF SPILLWAY HEADWALL

SITE: - St Cuthberts Development, Grangetown, Cardiff, South Wales
for Messrs M. J. Cosgrove Construction Ltd.

Document Reference 20/03/01/TMS – 29/04/20 **Author M A Bishop of QSS**

The project in brief:-

The storm water generated from this development project, construction of a 3 storey block of social housing, will discharge via underground attenuation units per design of Austin Partnership Consulting Engineers into a new 150mm storm water sewer.

Accordingly both roof and parking drainage will finally discharge, at a restricted rate, through the 150mm diameter storm pipe via a Spillway Headwall into the River Taff.

The location of the Spillway Headwall is approximately 25m NW of the northern site boundary.

The new storm sewer will need to pass at right angles under an existing public riverside footpath that is situated at the top of the Clarence Embankment (adjacent to the River Taff).

Section 1: METHODOLOGY

1.01 PPE Standards:

Hard Hats, Toe-capped footwear, Gloves, eye goggles and High Viz Jackets.

1.02 <u>Management, Workforce and Supervision :</u>

a) Overall Management Control : **Gary Lewis 01432 277366**

b) Health & Safety adviser :- **Monty Bishop: 01432 354 309**.

c) Site Supervisor**. TBC.....**

d) Plant Operators: 1 **No -CPCS Carded**

e) Operatives **CSCS Carded (2 No.).**

1.03 <u>Plant and Equipment to be used :- All operators to be certificate-trained and authorised.</u>

a) Lorries.

b) Van.

c) 3 tonne tracked 360 degree excavators with attachments

d) Dump truck.

e) Hand Tools

1.04 Safe Systems of Work: -

a) Work Areas: Designate work area that is clear of other persons or trades (erect cordons or barriers as appropriate and agreed with Safety Officer of Messrs M. J. Cosgrove). Also obtain temporary closure of the public footpath on the Clarence Embankment (to river Taff).

b) Working Arcs of Plant: The working arc of the hydraulic excavator to be strictly controlled by a banks-man.

c) Demobilisation of non-working plant: Out of use plant will not have keys left in ignitions, and where fitted with de-mobilizers these turned on. All plant will be parked on site – i.e. NO PARKING OF PLANT OR VEHICLES ON OR NEAR THE RIVER BANK.

d) Noise Adopt attenuation techniques for silencing of plant & machinery {to maintain below 85dB}.

e) Lifting: All lifting will be carried out primarily by machine. No objects to be manually handled (one man lifted) greater than 25Kg in weight.

1.05 FACILITATING WORKS FOR NEW SPILLWAY HEADWALL.. Laying of the 150 Storm Sewer to the Spillway point will be carried out by a Welsh Water Accredited Contractor: Undertaken as to meet programme:

If this Storm Water Sewer forms part of the contract with Messrs CPH then a separate and specific task method statement will be provided.

Importantly if the 150 pipe is to be laid after the headwall is constructed a precise invert level will be required for the connection level of the 150mm diameter pipe to the Headwall/Spillway.

1.06. INSTALLATION OF PRECAST SPILLWAY HEADWALL

a) Mark out the easement for the c.25M length of storm drain required by Welsh Water between the site and River Taff (usually 6M wide).

b) Set out the exact headwall location and the invert level for spillway outfall.

c) Arrange for temporary closure of public footpath on the (River Taff's) Clarence Embankment. Protect the proposed “crossing” section of this footpath.

d) Set up Heras Fencing to provide working space for proposed installations within the 25M distance between the site and Headwall location.

e) With 360 degree tracked machine, having pre-cleared the access and egress to the Headwall, within a Heras Fenced compounded area excavate for the Headwall base of size 1750mm x 1750mm and mechanically compact. Set excavated material to one side.

1.06 INSTALLATION OF PRECAST HEADWALL.. continued

f) Mechanically install the semi dry concrete (using Dump Truck for delivery and then the Tracked Excavator to place) a minimum of 100mm thick. Note: Leave enough concrete in a heap for haunching to the headwall when in place.

g) Manoeuvre the pre-cast Head-wall module on to the semi-dry base to form the Headwall:-
In more detail:-
Set up exclusion zones to prevent unauthorised access to the area where the load is to be lifted, or appoint a banks-man to prevent others who are not involved with "the lift" from gaining access into a restricted "zone".
Use 3 tonne tracked excavator to transport the Head-Wall precast unit of weight 150Kg) from site to the river bank. Lifting of the Head-wall precast module will be by the use of chains attached to lifting hooks to three cast-in M12 Lifting Sockets. The excavator will raise the module and transport to its destination point. The precast unit will then be lowered by the tracked machine on to the (unset) preformed semi dry concrete base. Only approved certified lifting appliance and equipment are to be used with the load attached using tested chains by a competent Slinger. When the unit is sitting on the concrete base manually adjust it to fit snugly on the semi dry concrete to its correct level and position. Then manually haunch with the surplus concrete around the base of the Headwall.

h) Provide attendance upon the Welsh Water Approved contractor engaged to lay the 150 pipe discharging at the Head-wall, inclusive of all pea-gravel bedding and after-installation reinstatements.

i) Per **specification requirements** make good around the headwall using spoil or concrete, and fit the Headwall Grating.

j) Clear away surplus materials, excavated material etc. and leave the work area clean and tidy to approval of Client.

k) Decommission resources and Heras Fencing – and arrange for reopening of the Public (embankment) footpath. Complete all works to approval of Messrs M. J. Cosgrove.

TO BE READ in conjunction with Preface to Risk Assessment, Risk Assessments and technical drawing- GRC-300-Series- CC- Grating -JKH

End of Task Method Statement