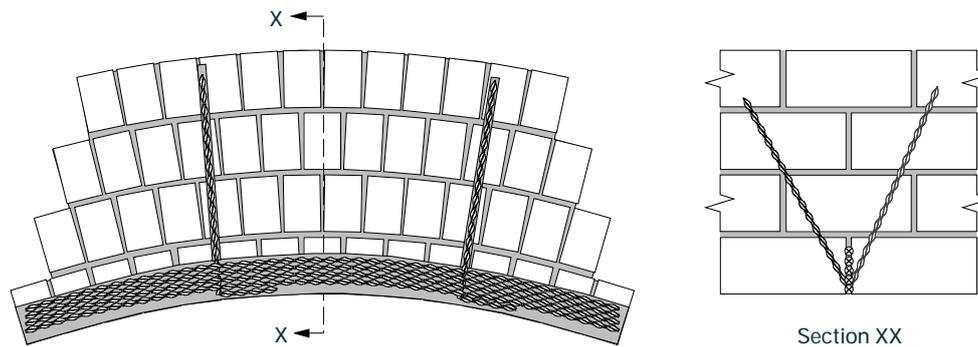


Repairing Brick Arch Structures - *Brick Arch Reinforcement*

METHOD STATEMENT

1. Rake out or cut slots for helical bars into underside of arch to specified depth and at required spacing.
2. Drill clearance holes (12 mm-16 mm diameter depending upon material and length of tie to be used) to required depth and at required spacing into the slots already cut for the helical bar reinforcing. The holes to be angled at approximately 60° to the left or right of the slot. Alternate holes to go in opposite directions.
3. Vacuum out holes and thoroughly flush with water. Mix cementitious grout and load into gun with required length of correct size extension nozzle already attached.
4. Pump cementitious grout to outlet of nozzle. Insert nozzle to the full depth of drilled hole and pump grout to fill hole. Keep light pressure on gun to ensure that all voids are filled with grout.
5. Wind correct length helical tie into the hole using the insertion tool. The end of the tie to be left protruding into the slot cut for the helical bar reinforcing.
6. Clean grout away from protruding end of the tie and allow 24 hours for the grout to achieve an initial set.
7. After 24 hours vacuum out the slots for the helical bar reinforcing and thoroughly flush with water.
8. Insert a 10 mm (approx) depth bead of cementitious grout into the back of the slot. Push first piece of helical bar reinforcement into the bead of grout to obtain good even coverage.
9. Insert a 10 mm (approx) depth bead of cementitious grout up against existing grout and helical bar. Push the next piece of helical bar reinforcement into the bead of grout to obtain good even coverage.
10. Continue to install reinforcing as per 9 above until required number of helical bars have been installed.
11. Bend ends of helical ties to follow along slot for reinforcing and insert a bead of cementitious grout over the last rod and the ends of the ties and iron into the slot using a finger trowel.

GUIDANCE NOTES *Unless otherwise specified, the following criteria are to be used:*

- a. Depth of slot to be 65 to 75 mm.
- b. Number of helical bars per slot to be 4.
- c. Nominal spacing between reinforced slots to be 450 mm.
- d. Nominal spacing between helical ties along slot to be 450 mm.
- e. Where helical bar have to be joined in long runs a minimum of 500 mm overlap should be allowed and all joints should be staggered.

To find out more and to see how we could help you, please contact us

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