

## **A. CHECK SLIP TO ACCOMPANY THE SITE SURVEY OF BRIDGES & REGULATORS**

- 1) Has an index map to a scale of 1:50,000 showing the proposed location of the bridge and the canal, alternative sites investigated and rejected with reasons and general topography of the country and the important towns and villages etc., in the vicinity been furnished?
- 2) Has a contour survey plan to a scale of 1:5000 (with 0.5m contours) showing all topographical features extending to a considerable distance all-round the structure, features that influence the location and design of the Bridge and its approaches been furnished?
  - a) Are all sites of crossing worth consideration shown in the plan?
- 3) Has a site plan to a scale of 1:500 showing details of the site selected and extending not less than 100m upstream and downstream from the center line of crossing and covering the approaches to a sufficient distance not less than 500m on either side and along with the following information been furnished?
  - a) Have the name of the road and its destinations on either side been noted?
  - b) Are the canal proposals showing banks indicated in red pencil?
  - c) Have the alignment of the existing approaches and proposed crossing and its approaches been shown?
  - d) Is the angle and direction of skew if the crossing is aligned on a skew been marked? If so, is it examined whether the skew crossing can be avoided?
  - e) Has the reference to the position (with description and reduced level) of the B.M. used as datum been furnished?
  - f) Have the lines and identification numbers of cross sections and longitudinal section taken within the scope of the site plan and the exact location of their extreme points been given?
  - g) Have the trial pits or boring particulars with ground levels been given? If so, do they satisfy the following conditions?
  - i) Has the location or identification of each trial pit been shown?
  - ii) Are the trial pits dug at suitable intervals so as to cover the entire area of structure?
  - iii) Have the trial pits been dug up to H.R, stratified rock or any hard soils suitable for foundations?
- 4) Has a cross section of the proposed canal site, of the proposed crossing (Scale 1:100 ,Horizontal 1:100 vertical) extended along the approach roads or railway line, showing the existing road formation levels been furnished?

- a) If so, are the hydraulic particulars of the canal viz., F.S.D, Maximum discharge longitudinal slope etc ., given
- 5) Has the L.S. of the canal showing site of crossing extending to 100m on either side been given?
- 6) Has a note on the important details of the Bridges if any for this road within a reasonable distance been furnished?
- 7) Has a condensed L.S. showing the lists of the bridges and other masonry works 3 kms upstream and downstream of the proposed crossing been enclosed?
- 8) Is the necessity for the present bridge and any possibility of diverting the road through near by bridge examined? If so, are the economics between diverting the road and constructing a new bridge studied?
- 9) Has the canal mileage to the center of bridge and road mileage to the center of canal been noted?
- 10) Has the class of loading expected on the bridge been furnished?
- 11) Has the cross-section of the road been taken 500m on either side? In case of railway embankment is it extended further?
- 12) Are the rough proposals depending on site conditions marked?
- 13) Have any special features and relevant information been furnished?

**B. CHECK SLIP TO ACCOMPANY THE SITE SURVEY OF CM & CD WORKS viz Aqueducts/ Viaducts/ UTs/ Pipe UTs/ SPs/ Syphon Aqueducts/ Canal Syphons.**

1. Has an Index Map showing the location and any alternatives been enclosed ?
2. Has site plan to a scale of 1:500 giving the following information been enclosed:
  - a) Has the names of roads or drains with direction been given ?
  - b) Had the canal proposals been shown ?
  - c) If the structure is in skew, have the angle and direction of skew been given?
  - d) Has the reference to B.M. been given?
  - e) Are the levels and identification number of C.S. given ?
  - f) Are the trial pit particulars given ?
  - g) Have the spot levels of adjacent country been given ?
- 3) i) Has the L.S. of the drain been given?  
 ii) Are the scales adopted as 1:1000 and 1:100 ?
- 4) Has the L.S. of canal showing the site of crossing been enclosed ?
- 5) i) Has a note on the important details of masonry works along the drain Enclosed ?  
 ii) If so, are the hydraulic particulars furnished ?
- 6) Is a list of Masonry works for 3 Kms U/S and D/S of structure furnished?
- 7) Is the necessity for the structure explained clearly?
- 8) Have the canal chainages been given ?
- 9) Have the leads for materials of construction been given ?
- 10) Has any proposal depending on site conditions been marked ?
- 11) If the structure is on a curve or skew is it possible to
  - i) to alter:
  - ii) If not have the reasons been furnished ?

- 12) Have the possibilities of diversion been examined ?
- 13) Has the catchment map of the drain been furnished ?
- 14) Have the Hydraulic particulars of the drain furnished ?
- 15) Has any special features or relevant information been furnished ?
- 16) Has certificate of levels given ?
- 17) Have plans been indexed ?
- 18) Are the L.S. and C.S. levels of corresponding points tallying ?
- 19) Are the north points and scales noted in the plans ?

**C. CHECK SLIP TO ACCOMPANY THE SITE SURVEY OF DROPS AND  
OFFTAKE SLUICES**

1. Has an Index Map to a scale of 1:50000 showing the location of the proposed work and the canal alternative site investigated and rejected with reasons, the general topography of the country and the important towns and villages in the vicinity been furnished ?
2. Has a contour survey plan to a scale of 1:5000 showing all topographical features extending to a considerable distance around the structure of other features that influence the location and design of the work been furnished?
3. Has a site plan to a scale of 1:500 showing details of site selected and extending not less than 100m upstream and downstream from the center of the sluice or drop been furnished with the following information.
  - a) Have canal proposals showing banks indicated in red pencil?
  - b) Has a reference to the position of B.M. used at datum with description and R.L. been given ?
  - c) Have the trial pits or boring particulars been given? If so, do they satisfy the following conditions?
    - i) the location or identification of trial pits been shown?
    - ii) Are the trial pits dug at suitable intervals so as to cover the entire area of structure.
    - iii) Have the trial pits been dug up to H.R, stratified rock or any hard soils suitable for foundation?
  - d) Have the spot levels of the adjacent country been given ?
4. Has a C.S. of the proposed canal at site of the proposed sluice or drop (Scale 1 : 1000 horizontal and 1 : 100 vertical) extended to a sufficient distance been furnished?  
If so, are the hydraulic particulars of the canal namely F.S.L, Maximum Discharge, longitudinal slope etc., given?
5. Has the L.S. of the canal showing the site of drop or sluice extending to 100 m on either side been given?
6. Are the rough proposals depending on the site conditions marked?
7. Have any special features and relevant information been furnished?

**D. CHECK SLIP TO ACCOMPANY THE SITE SURVEY OF INFALL & OUTFALL  
REGULATORS :**

- 1) Has an index map to a scale of 1:50,000 showing the proposed location of the bridge and the canal, alternative sites investigated and rejected with reasons and general topography of the country and the important towns and villages etc., in the vicinity been furnished?
- 2) Has a contour survey plan to a scale of 1:5000 (with 0.5m contours) showing all topographical features extending to a considerable distance around the structure, features that influence the location and design of the Bridge and its approaches been furnished?
  - c) Are all sites of crossing worth consideration shown in the plan?
- 3) Has a site plan to a scale of 1:500 showing details of the site selected and extending not less than 100m upstream and downstream from the center line of crossing and covering the approaches to a sufficient distance not less than 500m on either side and along with the following information been furnished?
  - a) Have the name of the road and its destinations on either side been noted?
  - b) Are the canal proposals showing banks indicated in red pencil?
  - c) Have the alignment of the existing approaches and proposed crossing and its approaches been shown?
  - d) Is the angle and direction of skew if the crossing is aligned on a skew been marked? If so, is it examined whether the skew crossing can be avoided?
  - e) Has the reference to the position (with description and reduced level) of the B.M. used as datum been furnished?
  - f) Have the lines and identification numbers of cross sections and longitudinal section taken within the scope of the site plan and the exact location of their extreme points been given?
    - g) Salient features of Reservoir
      - 1) Has the catchment area plan for the reservoir prepared to the scale of
      - 2) Has the standards of the Reservoir are furnished such as
        - a) TBL of the Reservoir
        - b) MWL/FRL of the Reservoir
        - c) Crest level of the Reservoir
        - d) MDDL of the Reservoir
      - 3) Has the available driving head furnished
      - 4) Has the submergence plan furnished
      - 5) Has the Earth bund section details furnished such as
        - (a) Top width (b) Side slopes.

- h) Have the trial pits or boring particulars with ground levels been given? If so, do they satisfy the following conditions?
  - i) Has the location or identification of each trial pit been shown?
  - ii) Are the trial pits dug at suitable intervals so as to cover the entire area of structure?
  - iii) Have the trial pits been dug upto H.R. stratified rock or any hard soils suitable for foundations?
- 14) Has a cross section of the proposed canal site, of the proposed crossing (Scale 1:100 Horizontal 1:100 vertical) extended along the approach roads or railway line, showing the existing road formation levels been furnished?
  - a) If so are the hydraulic particulars of the canal Viz., F.S.D. maximum discharge longitudinal slope etc., given
- 15) Has the L.S. of the canal showing site of crossing extending to 100m on either side been given?
- 16) Has a note on the important details of the Bridges if any for this road within a reasonable distance been furnished?
- 17) Has a condensed L.S. showing the lists of the bridges and other masonry works 3 kms up and downstream of the proposed crossing been enclosed?
- 18) Is the necessity for the present bridge and any possibility of diverting the road through near by bridge examined? If so, are the economics between diverting the road and constructing a new bridge studied?
- 19) Has the canal mileage to the center of bridge and road mileage to the center of canal been noted?
- 20) Has the cases of loading expected on the bridge been furnished?
- 21) Has the cross-section of the road been taken 500 m on either side? In case of railway embankment is it extended further?
- 22) Are the rough proposals depending on site conditions marked?
- 23) Have any special features and relevant information been furnished?