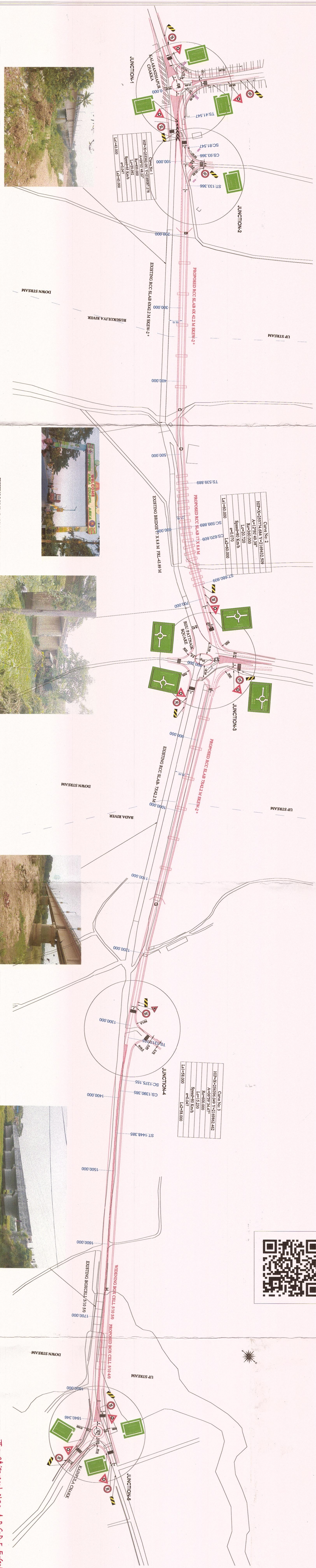




The alignment plan A-B-C-D-E-F-G-H-I is hereby approved as per (ECIP) letter no-19351, dt-15/5/25

Chief Engineer (Bridges)  
Odisha, Bhubaneswar  
11-5-16

| LEGEND                  |                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------|
| EXISTING ROAD           |                 |
| PROPOSED ROAD           |                 |
| CULVERT                 |                 |
| NALA / DOUBLE LINE NALA |                 |
| POWER LINE WITH POLE    |                 |
| TREE (Others)           |                 |
| SHED, BUILDING          |                 |
| TBI WITH VALUE          | <br>M (100.000) |

PROPOSED ALIGNMENT DETAILS -

1. PROPOSED ALIGNMENT IS SHOWN IN RED COLOR AS THIS ALIGNMENT HAS BEEN PROPOSED AT UP STREAM OF EXISTING BRIDGES.
2. DESIGN SPEED- 65-KM/H
3. THE PROPOSED APPROACH ROAD WILL BE DEVELOPED AS 2 LANE WITH 3.0 M WIDE SHOULDER ON EACH SIDE AND REST WILL BE 4 LANE WITH NO CHANGE.
4. REQUIRED LENGTH FOR CONSTRUCTION OF APPROACH ROAD : 170M-1010 M
5. TRAFFIC SIGNAL IS REQUIRED AS THE EXISTING BRIDGE WILL BE USED FOR TRAFFIC DURING CONSTRUCTION.

EXISTING STRUCTURE DETAILS -

1. SPALL ABRASION/STAIN 3-4 X 4.21 OVER RIBBULATING POWER
2. 17X14 IN OTHER THICKNESS 7.74 X 2.1 OVER BOLD ANTER
3. TYPE OF STRUCTURE RCC SLAB, RCC SLAB, RCC SLAB, ROCKETS
4. RESPECTIVELY.
5. TYPE OF FOUNDATION WELL, OPEN, WELL/OPEN, RESPECTIVELY
6. EXISTING ROAD 1.50, 4.47, 4.74/4.41, 4.93 M.
7. 4.31 M. RESPECTIVELY.
8. USE ADEQUACY ADEQUATE
9. STRUCTURE CONDITION GOOD
10. NEARBY BRIDGE DETAILS
11. NEXT BRIDGE ON US SIDE- NONE
12. NEXT BRIDGE ON US SIDE- NONE

HYDRAULIC DATA - (OVER AVAILABLE RIVER)  
HYDRAULIC ANALYSIS HAS BEEN CARRIED OUT AS PER  
IRC SP-31-2002 AND IRC SP-2018-1 AND OF CROSS  
SECTION HAS BEEN TAKEN FOR HYDRAULIC ANALYSIS  
AS PER CLAUSE NO.3 OF IRC-SP-31-2002

- a. AT 700 MTR UPSTREAM SIDE.
- b. AT BRIDGE SITE.
- c. AT 700 MTR ON DOWNSTREAM SIDE.

SUMMARY OF HYDRAULIC ANALYSIS

|                                |          |
|--------------------------------|----------|
| 1. CHANNEL BED (R/SLOPE) :     | 1:67.2   |
| 2. CHANNEL BANK (L/SLOPE) :    | 1:30     |
| 3. WETTED PERIMETER (M) :      | 200.374  |
| 4. BED SLOPE :                 | 0.001360 |
| 5. RUGOSITY CO-EFFICIENT (N) : | 0.0275   |
| 6. VELOCITY(M/SEC) :           | 3.6678   |

[illegible][illegible][illegible]

ASST ENGINEER  
 AIRCRAFT SECTION  
 EXECUTIVE ENGINEER  
 AIRCRAFT SECTION  
 KANSAS CITY, MISSOURI  
 CHIEF ENGINEER  
 CHIEF CONSTRUCTION ENGINEER  
 (MAG) CHIEF, RESEARCHER  
 CHIEF ENGINEER  
 BIRMINGHAM, ALABAMA