



1. ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES, UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED. NO DIMENSION IS TO BE SCALED.
 2. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC STRENGTH 150mm CUBES AS FOLLOWS:-
 PIER ----- M35
 PIER CAP ----- M35
 CLEAR COVER TO OUTER MOST STEEL SHALL BE AS FOLLOWS.
 (i) FOR SUBSTRUCTURE ----- 50mm
 (ii) FOR FOUNDATION ----- 75mm
 (iii) FOR HIGH YIELD STRENGTH DEFORMED BARS SHALL BE OF GRADE DESIGNATION Fe-415 CONFORMING TO IS:1786 SHALL ONLY BE USED.
 4. TMT HIGH YIELD STRENGTH DEFORMED BARS SHALL BE 42 x DIA OF BAR.
 5. MINIMUM BOND LENGTH SHALL BE 42 x DIA OF BAR.
 6. MINIMUM LAP LENGTH FOR REINFORCEMENT BAR SHALL BE 72 x DIA OF BAR. LAPS SHALL BE STAGGERED AND NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT ANY ONE SECTION.
 7. IN PIER SHAFT T-10 OPEN LINKS (OR S LOOPS) WITH HOOK PLACED AROUND THE VERTICAL BARS ARE PLACED AT THE RATE OF 4 LINKS IN ONE SQUARE METER.
 8. LL REPRESENTS LONGITUDINAL AXIS OF BRIDGE AND TT REPRESENTS TRANSVERSE AXIS OF BRIDGE.
 9. A IS THE DIMENSIONS OF THE BEARINGS WHICH IS TO BE FURNISHED BY THE MANUFACTURER.
 10. D = DIA OF JACK.

REFERENCE DRAWINGS:-
 i) 1213/SMEC/LUDHIANA/22-005/G-01 (SHEET 1 OF 6 TO 6 OF 6)
 ii) 1213/SMEC/LUDHIANA/22-005/E-09 (SHEET 1 OF 2)

LEGENDS:
 --- BAR ON TOP FACE
 --- BAR ON BOTTOM FACE

APPROVED FOR EXECUTION
 ISSUED
 [Signature] Chief Engineer
 [Signature] Executive Engineer Design (IP)
 PUNJAB P.W.D. (B & R)

PREPARATION OF DETAILED PROJECT REPORT FOR UPGRADATION OF SOUTHERN BYE-PASS LUDHIANA

CLIENT: PUNJAB INFRASTRUCTURE DEVELOPMENT BOARD

CONSULTANT: SMEC PVT. LTD. (SMEC CONSULTANTS INDIA PVT. LTD.)

PROJECT TITLE: PREPARATION OF DETAILED PROJECT REPORT FOR UPGRADATION OF SOUTHERN BYE-PASS LUDHIANA

REVISIONS:

REV	DATE	DRAWN	CHECKED	APPROVED	DETAILS OF REVISION
R1	28/08/2009	MKS	VNM	S/SHRI	REVISED AS PER P.B. PWD COMMENTS
R0	20/05/2009	MKS	VNM	S/SHRI	FIRST ISSUE

SCALE: AS SHOWN
 SHEET SIZE: A2
 SHEET NO: DPR/ DRW
 SHEET 2 OF 2

DETAILED PROJECT REPORT
DIMENSIONAL & REINF. DETAILS OF
PILE, PIER CAP, PIER & PIER CAP

1213/SMEC/LUDHIANA/22-005/E-09 R1