REPORT NO. CECDP – 2015/01 – 01

VOLUME III – DRAWINGS

CLEARBROOK INTERCHANGE IMPROVEMENT PROJECT

ABBOTSFORD BC

BY: ALLOY CONSULTING LTD.

MARCH 2015

CIVIL ENGINEERING CAPSTONE

DESIGN PROJECT

DEPARTMENT OF CIVIL ENGINEERING

SCHOOL OF CONSTRUCTION AND THE ENVIRONMENT

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

BURNABY, BC, CANADA  V5G 3H2
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PROJECT No. 12345

HIGHWAY No. 1 & CLEARBROOK INTERCHANGE PROJECT

MARCH 16, 2015
PROJECT No. 12345
HIGHWAY No. 1 & CLEARBROOK INTERCHANGE PROJECT
STA. P.O.T. 100+260.000 - STA. P.O.T. 101+530
1.270 km
LANDMARK KILOMETRE INVENTORY
SEGMENT 0.533
km 5.28 TO km 13.34

NOTE: SUPERELEVATION VALUES IN DRAWING 200 SERIES ONLY SHOWN FOR RIGHT SIDE FOR PLANAR ROADS
TYPICAL ON-RAMP & OFF-RAMP SECTION

TYPICAL CLIPPED SHOULDER ON-RAMP & OFF-RAMP SECTION

WB 0+935+00 to 0+967.00, 1+100.00 to 1+208.00
EB 0+600.00 to 0+680.00, 0+770.00 to 0+850.00

FOR GEOMETRICS AND LANEING
SEE DWG 400 SERIES
FOR DRAINAGE
SEE DWG 700 SERIES
FOR SIGNING & PAVEMENT MARKINGS
SEE DWG 600 SERIES
FOR CONSTRUCTION PHASING
SEE DWG 1100 SERIES
CONCRETE BRIDGE DECK
SCALE: 1:20

- CONCRETE BRIDGE DECK DESIGNED IN ACCORDANCE WITH CSA S6-06 CLAUSE 8.18
- CONCRETE SHALL HAVE 28-DAY COMPRRESSIVE STRENGTH $f'_c = 30$ MPa
- REINFORCEMENT SHALL BE TYPE 400R WITH YIELD STRENGTH $f_y = 405$ MPa
**NOTES:**

- STEEL PLATE GIRDER DESIGNED IN ACCORDANCE WITH CSA S6-06 SECTION 10
- STEEL SHALL HAVE YIELD STRENGTH $f_y = 300$ MPa

**SCALE:** 1:20
CONCRETE BRIDGE DECK DESIGNED IN ACCORDANCE WITH CSA S6-06 CLAUSE 8.18
· PRECAST CONCRETE I-BEAM SHALL HAVE 28 DAY COMpressive STRENGTH Fc = 45 MPa
· PRECAST CONCRETE I-BEAM SHALL HAVE 28 DAY COMpressive STRENGTH Fc = 30 MPa
· REINFORCEMENT SHALL BE TYPE 400R WITH YIELD STRENGTH fy = 400 MPa
· POST-TENSION TENDONS SHALL HAVE ULTIMATE STRENGTH fu = 1860 MPa
PRECAST CONCRETE BOX GIRDER

SCALE: 1:20

- 6 - 20M @ 200 EACH FACE TYP.
- 15M CLOSED STIRRUPS TYP.: 
  - @ 150 FOR 10000 FROM SUPPORTS
  - @ 600 ELSEWHERE

2 ROWS OF 50 - 25M EACH

15M @ 500

100 THK ASPHALT WEAR SURFACE

NOTES:

- CONCRETE BRIDGE DECK DESIGNED IN ACCORDANCE WITH CSA S6-06 CLAUSE 8.18
- PRECAST CONCRETE BOX GIRDER SHALL HAVE 28-DAY COMPRESSIVE STRENGTH $f_c = 40$ MPa
- REINFORCEMENT SHALL BE TYPE 400R WITH YIELD STRENGTH $f_y = 400$ MPa

CONCRETE BRIDGE DECK DESIGNED IN ACCORDANCE WITH CSA S6-06 CLAUSE 8.18
PRECAST CONCRETE BOX GIRDER SHALL HAVE 28-DAY COMPRESSIVE STRENGTH $f_c = 40$ MPa
REINFORCEMENT SHALL BE TYPE 400R WITH YIELD STRENGTH $f_y = 400$ MPa
PROPOSED GROUND SURFACE

MINIMUM 300mm ZONE OF 19mm CLEAR CRUSHED GRAVEL AT BASE SLOPED TO A MAXIMUM 1H : 2V

APPROVED BACKFILL

100mm Ø PERFORATED DRAIN PIPE WRAPPED IN FILTER FABRIC

PROPOSED PAVEMENT AND SUBBASE

TYPICAL SECTION

WINGWALLS (NOT DESIGNED)

15° SKEW

DIMENSIONS

NTS

PLAN VIEW

NTS