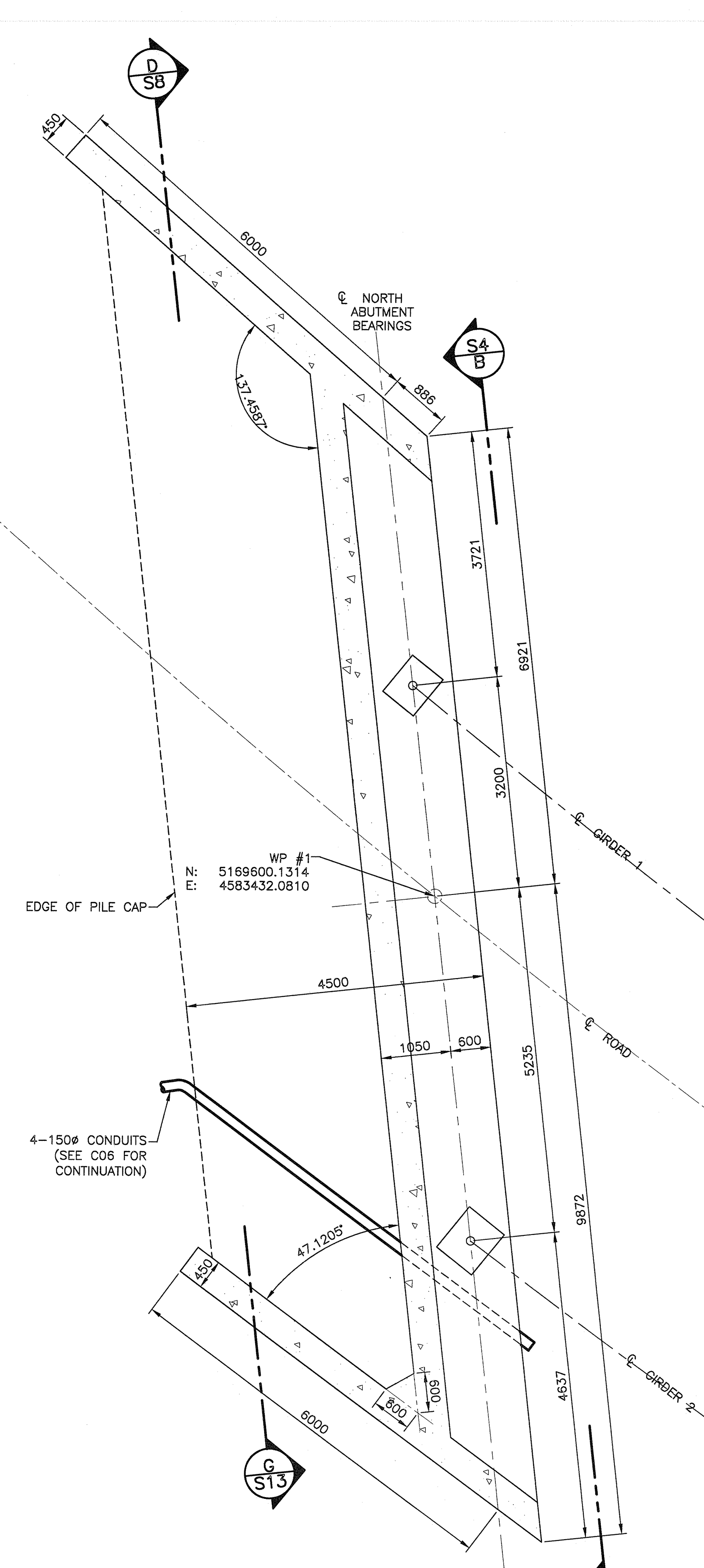


PLAN - NORTH ABUTMENT PILE CAP

SCALE: 1:50

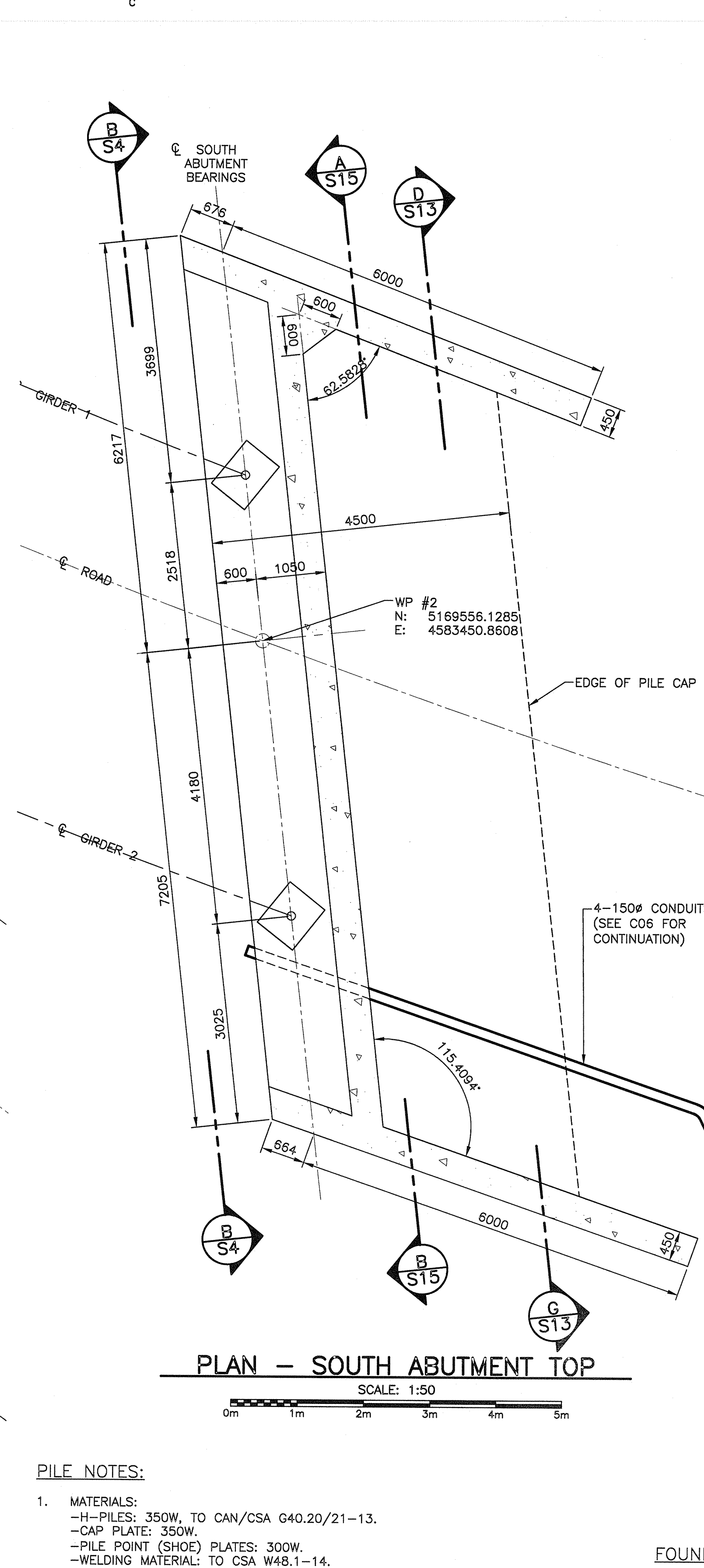


PLAN - NORTH ABUTMENT TOP

SCALE: 1:50

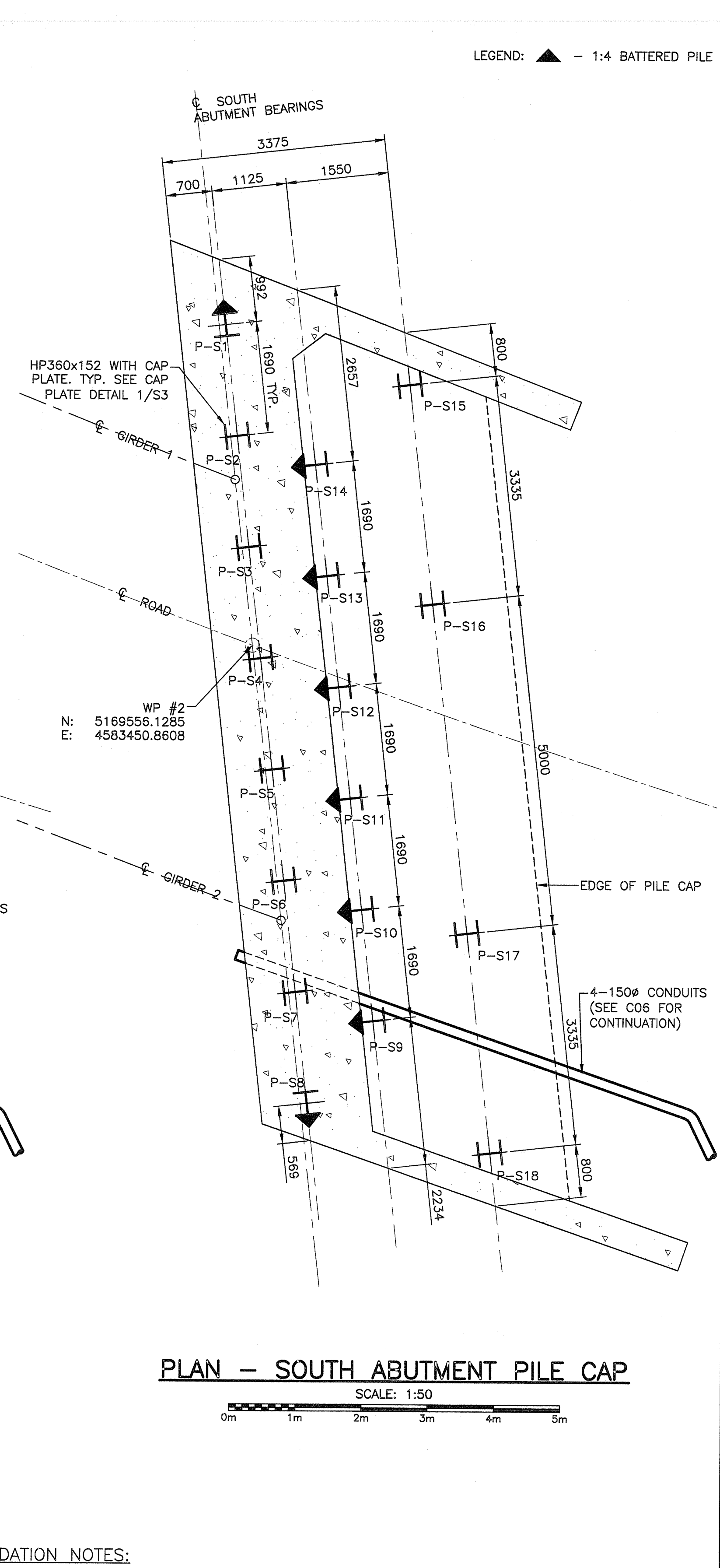
TYPICAL CONCRETE NOTES:

- CHAMFER EXPOSED CONCRETE CORNERS 25mm. THIS INCLUDES BUT IS NOT LIMITED TO ABUTMENTS, DECK AND CURBS.
- CONCRETE, CONCRETE MATERIALS, FORMS, PRACTICES, FINISHES, AND TOLERANCES: TO CAN/CSA S8-14, CAN/CSA A23.1/2-14, A23.3-14 AND S269.1-75 (R2003). USE HIGH PERFORMANCE CONCRETE AS SPECIFIED.
- CONCRETE MIX FOR ABUTMENTS, WINGWALLS, DECK, APPROACH SLABS, AND BARRIERS AS SPECIFIED, SUMMARIZED AS FOLLOWS:
 - HIGH PERFORMANCE CONCRETE (HPC)
 - COMPRESSIVE STRENGTH AT 28 DAYS: MIN. 45MPa
 - MAX AGGREGATE SIZE: 20mm
 - AIR CONTENT: 5-8%
 - MAX WATER/CEMENT RATIO: 0.35
 - MIN CEMENT CONTENT, SLUMP, AIR SPACING, PLASTICIZER, CHLORIDE ION PENETRABILITY AND TEMPERATURE REQUIREMENTS: AS SPECIFIED.
- CONCRETE COVER TO STEEL AND GFRP REINFORCING AS NOTED ON DRAWINGS.
- REFER TO DRAWING S-18 FOR REINFORCING STEEL AND GFRP REINFORCING REQUIREMENTS.
- ALLOW ENGINEER TO INSPECT ALL REINFORCEMENT PRIOR TO CLOSING PILES, FORMWORK, OR PLACING CONCRETE.



PLAN - SOUTH ABUTMENT TOP

SCALE: 1:50



PLAN - SOUTH ABUTMENT PILE CAP

SCALE: 1:50

PILE NOTES:

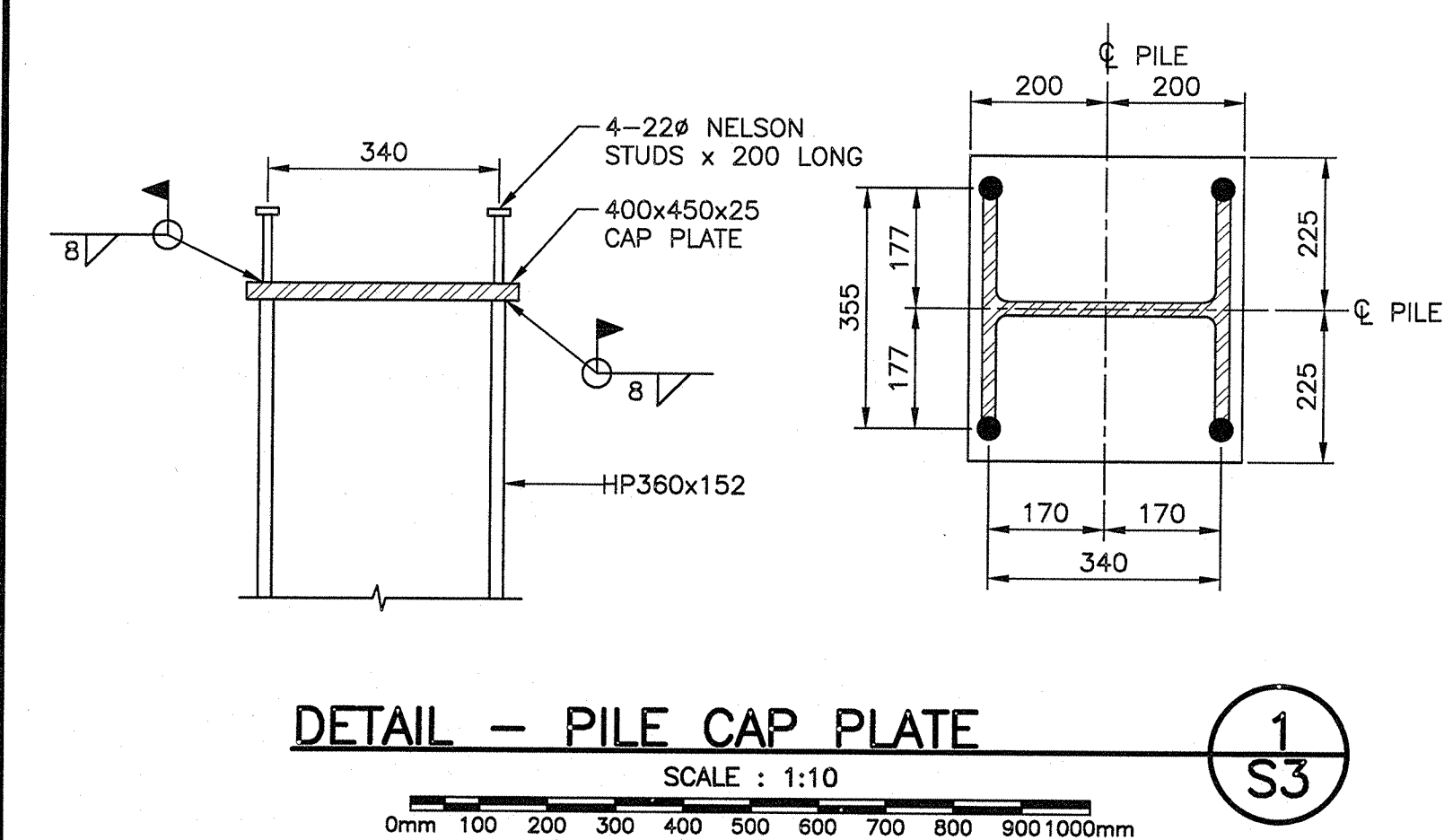
- MATERIALS:
 - H-PILES: 350W, TO CAN/CSA G40.20/21-13.
 - CAP PLATE: 350W.
 - PILE POINT (SHOE) PLATES: 300W.
 - WELDING MATERIAL: TO CSA W48.1-14.
 - WELD TO CAN/CSA W59-13.
- PILE SPLICE AND SHOE:
 - REINFORCE EACH PILE POINT WITH STANDARD SHOE. MATCH SHOE SIZE TO PILE SIZE AND WELD TO PILE TIP AS PER MANUFACTURER RECOMMENDATIONS. SUBMIT SHOE SHOP DRAWING.
 - DO NOT SPLICE PILES UNLESS AUTHORIZED BY DEPARTMENTAL REPRESENTATIVE.
 - SUBMIT SPLICE SHOP DRAWING TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. WHRR REQUIRED. LIMIT 1 SPLICE PER PILE. ALL SPLICES SHALL BE FULL STRENGTH WELDED CONNECTIONS.
- PILE BATTER 1:4.
- INSTALLATION TOLERANCES:
 - TOP OF PILES WITHIN 150mm OF PLAN LOCATION
 - OUT-OF-PLUMB OR OUT-OF-BATTER SHALL BE LESS THAN LESSER OF 10mm/m PER PILE LENGTH, OR 100mm TOTAL.
- HAMMER ENERGY:
 - USE HAMMER ENERGY OF 300J/cm² OF PILE AREA AND IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION REPORT.
 - INSTALL PILES BY DRIVING OVER ENTIRE LENGTH. DO NOT INSTALL BY DRILLING OR VIBRATORY METHODS.
- REFUSAL CRITERIA:
 - LESS THAN 25mm OF PENETRATION FOR LAST 15 BLOWS FOR A MINIMUM OF TWO CONSECUTIVE SETS.
 - RE-STRIKE ALL PILES TO REFUSAL CRITERIA, 24 HOURS AFTER INITIAL SET.
 - IF RELAXATION OCCURS, RE-STRIKE ALL PILES TO REFUSAL CRITERIA. REPEAT RE-STRIKE CYCLE UNTIL REFUSAL IS MAINTAINED DURING RE-STRIKE.
- TESTING:
 - ALLOW DEPARTMENTAL REPRESENTATIVE TO CONDUCT DYNAMIC PILE TESTING AS SPECIFIED.
 - ALLOW A MINIMUM OF 2 PILES PER ROAD BRIDGE ABUTMENT TO BE TESTED DURING INITIAL DRIVE, AND 2 PILES PER ROAD BRIDGE ABUTMENT TO BE TESTED DURING RE-STRIKE.
 - ALLOW A MINIMUM OF 1 PILE PER GOLF CART BRIDGE ABUTMENT TO BE TESTED DURING INITIAL DRIVE, AND 1 PILE PER GOLF CART BRIDGE ABUTMENT TO BE TESTED DURING RE-STRIKE.

FOUNDATION NOTES:

- FOR GENERAL NOTES SEE SHEET S01.

H-PILE SCHEDULE		
LOCATION	NO. OF PILES	CUT OFF ELEV.
NORTH ABUTMENT	18	+2.60m
PILE LABEL	NORTHING	EASTING
P-N1	5169506.558	4583435.836
P-N2	5169604.652	4583434.688
P-N3	5169602.746	4583433.540
P-N4	5169600.841	4583432.391
P-N5	5169598.935	4583431.243
P-N6	5169597.029	4583430.095
P-N7	5169595.123	4583428.946
P-N8	5169593.219	4583427.799
P-N9	5169596.657	4583429.716
P-N10	5169600.486	4583430.864
P-N11	5169602.392	4583432.012
P-N12	5169604.297	4583433.161
P-N13	5169606.186	4583434.299
P-N14	5169609.878	4583434.714
P-N15	5169606.050	4583432.407
P-N16	5169600.333	4583428.962
P-N17	5169598.538	4583426.678
FACTORED ULS H-PILE RESISTANCE	1200kN	

H-PILE SCHEDULE		
LOCATION	NO. OF PILES	CUT OFF ELEV.
SOUTH ABUTMENT	18	+2.60m
PILE LABEL	NORTHING	EASTING
P-S1	5169560.240	4583453.455
P-S2	5169558.792	4583452.583
P-S3	5169557.345	4583451.710
P-S4	5169555.897	4583450.838
P-S5	5169554.450	4583449.966
P-S6	5169553.002	4583449.094
P-S7	5169551.555	4583448.221
P-S8	5169550.107	4583447.349
P-S9	5169550.495	4583448.896
P-S10	5169551.942	4583449.768
P-S11	5169553.390	4583450.841
P-S12	5169554.837	4583451.513
P-S13	5169556.285	4583452.385
P-S14	5169557.732	4583453.257
P-S15	5169557.832	4583455.127
P-S16	5169554.976	4583453.406
P-S17	5169550.693	4583450.825
P-S18	5169547.836	4583449.103
FACTORED ULS H-PILE RESISTANCE	1200kN	



DETAIL - PILE CAP PLATE

SCALE: 1:10

SNC-LAVALIN Inc.
Halifax, Nova Scotia, Canada
Member of the SNC-LAVALIN Group

C01	ISSUED FOR TENDER	MAR 18 2016
revisions		date
project	CLYBURN BROOK BRIDGE REPLACEMENT CAPE BRETON HIGHLANDS NATIONAL PARK, NS	project
drawing		dessin
designed TDB		conçu
drawn TMB		dessiné
approved NDL		approuvé
Tender	2016.3.20	Submission
PWSSC Project Manager	Administrateur de projets TPSSC	
project number	R.072239.001	no. du projet
drawing no.	S03	no. du dessin

E-DRW/000-E: 280475 VERSION 1