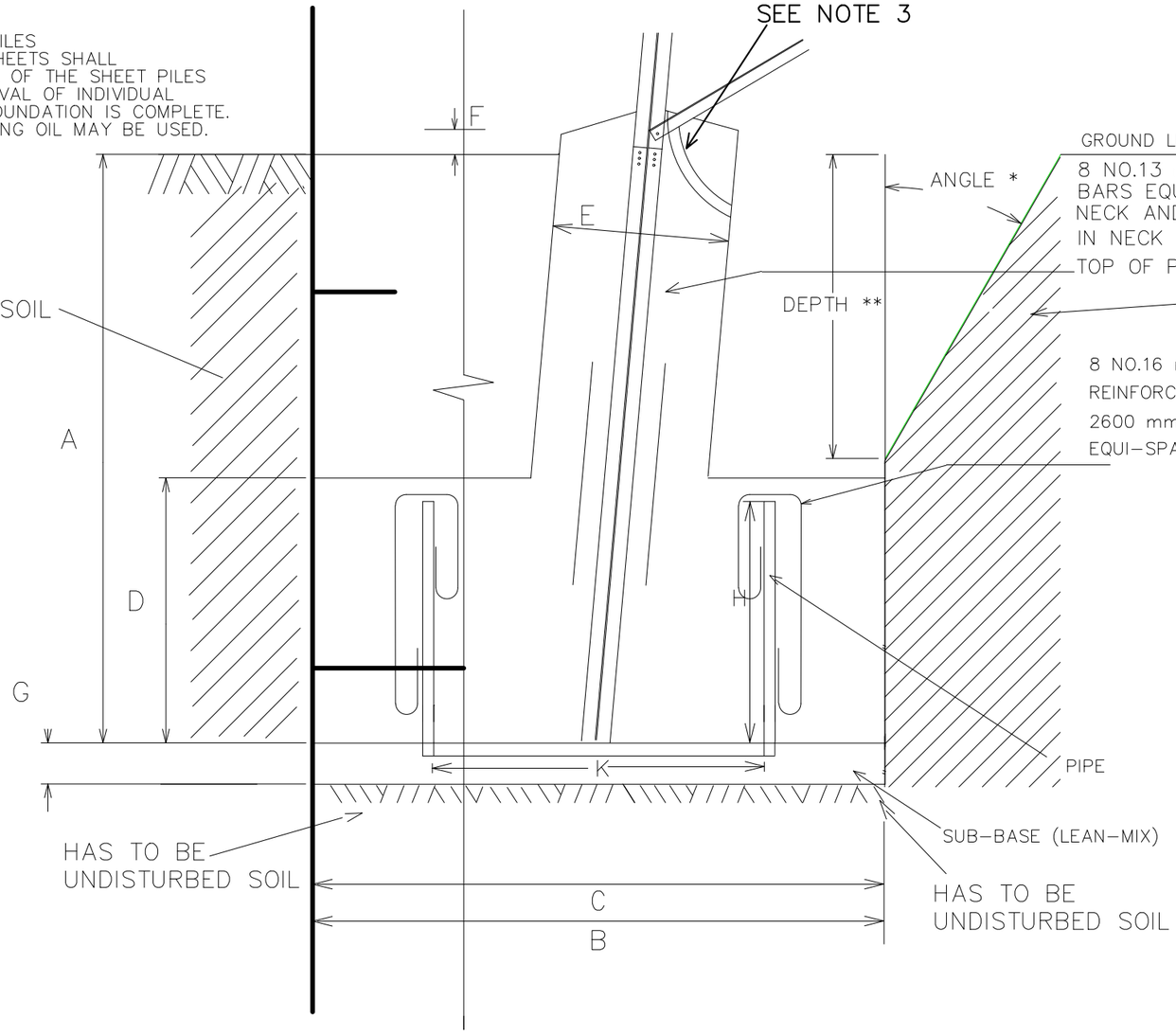
CONSTRUCTION METHOD 1:
SHUTTERING

SHUTTERING

TRENCH SUPPORT

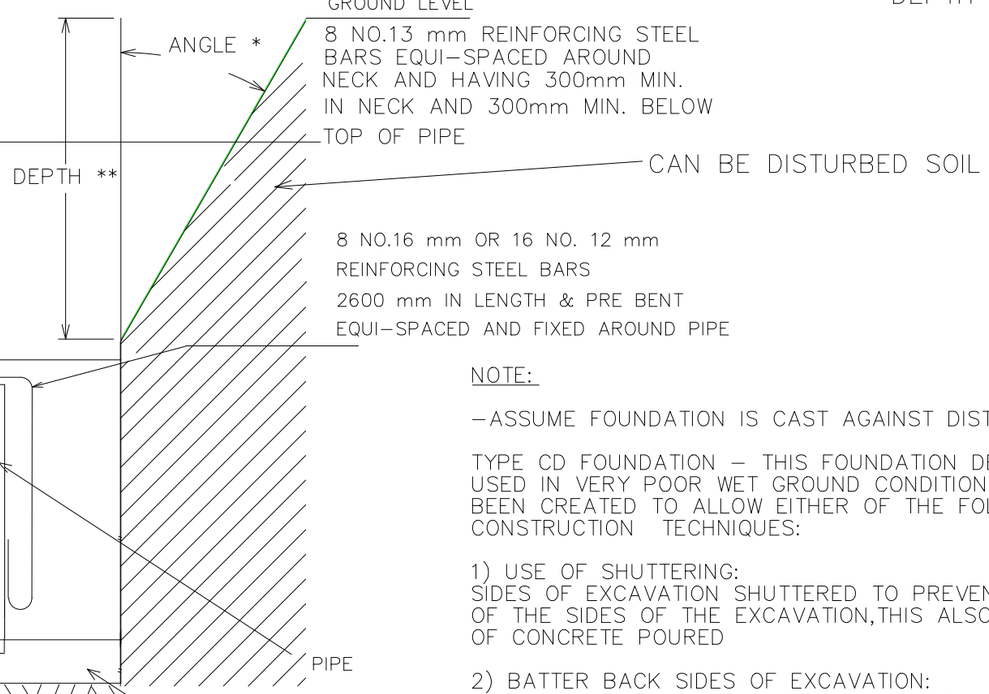
NOTE:

WHEN INSTALLING SHEET PILES
–APPROPRIATE PLASTIC SHEETS SHALL
BE PLACED ON THE INSIDE OF THE SHEET PILES
TO FACILAITATE THE REMOVAL OF INDIVIDUAL
SHEET PILES WHEN THE FOUNDATION IS COMPLETE.
ALTERNATIVELY, SHUTTERTING OIL MAY BE USED.



CONSTRUCTION METHOD 2:
BATTERED SIDES

* ANGLE AS APPROPRIATE
** DEPTH AS APPROPRIATE



NOTE:

–ASSUME FOUNDATION IS CAST AGAINST DISTURBED SOIL

TYPE CD FOUNDATION – THIS FOUNDATION DESIGN IS GENERALLY USED IN VERY POOR WET GROUND CONDITIONS.THE DESIGN HAS BEEN CREATED TO ALLOW EITHER OF THE FOLLOWING CONSTRUCTION TECHNIQUES:

1) USE OF SHUTTERING:
SIDES OF EXCAVATION SHUTTERED TO PREVENT COLLAPSE OF THE SIDES OF THE EXCAVATION,THIS ALSO CONTROLS VOLUME OF CONCRETE POURED

2) BATTER BACK SIDES OF EXCAVATION:
THE SIDES OF THE EXCAVATION CAN BE BATTERED BACK AS APPROPRIATE THIS MAY HELP PREVENT COLLAPSE OF THE SIDES OF THE EXCAVATION

3) 50mm HDPE PIPE [FOR FIBRE OPTIC CABLE LINK TO SUBSTATION]: THE PIPE IS REQUIRED IN ONE APPROPRIATE LEG FOUNDATION AT END MAST POSITIONS ONLY.MINIMUM BENDING RADIUS OF PIPE = 500mm.MINIMUM DISTANCE FROM STUB IN COMCRETE NECK = 100mm. MINIMUM DEPTH BELOW GL EXITING NECK = 200mm.PIPE SHOULD BE SEALED TO PREVENT WATER BUILD UP.

Concrete to be in accordance with ESB specification No. PG 404 – S27(Latest Revision)

DIMENSION	A	B	C	D	E	F	G	H	K
METRES	3.00	4.1	4.1	1.60	0.80	0.10	0.10	1.0 min	1.2 min

MAX UPLIFT/LEG= 121,291kgs = 1,189.86kN
MAX COMPRESSION LEG= 133,286kgs = 1,307.54kN
TRANSVERSE SHEAR/LEG= 9,117kgs = 89.44kN
LONGITUDINAL SHEAR/LEG= 6,870kgs = 67.39kN
VOLUME OF CONCRETE/LEG(min)= 27.86m (excluding sub–base)

Rev	Date	Revision description	Drn.	Prod.	Ver.	App.
0	27.07.20	ISSUED FOR SUBSTITUTE CONSENT	SB	SB	CM	HOK

Purpose of issue - Preliminary unless indicated

Client Approval ☐ Planning ☒ Tender ☐ Construction ☐ As-Built ☐

Energy for generations

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Engineering and Major Projects is a division of ESB.

Client: Gort Windfarms Ltd.

Project: Derrybrien Wind Farm Project

Contract:

Drawing title: Foundation details for Type 149E steel tower Foundation type 'D'

Production unit: Civil & Environmental Engineering

Drawn	Produced	Verified	Approved	Approval date
S. Bolton	S. Bolton	C.Moran	H.O'Keeffe	27.07.2020

Client ref.	No. of sheets	Size	Scale
	1	A3	n.t.s.

Drawing number: QS-000280-01-D460-023-012-000 SHEET REV

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