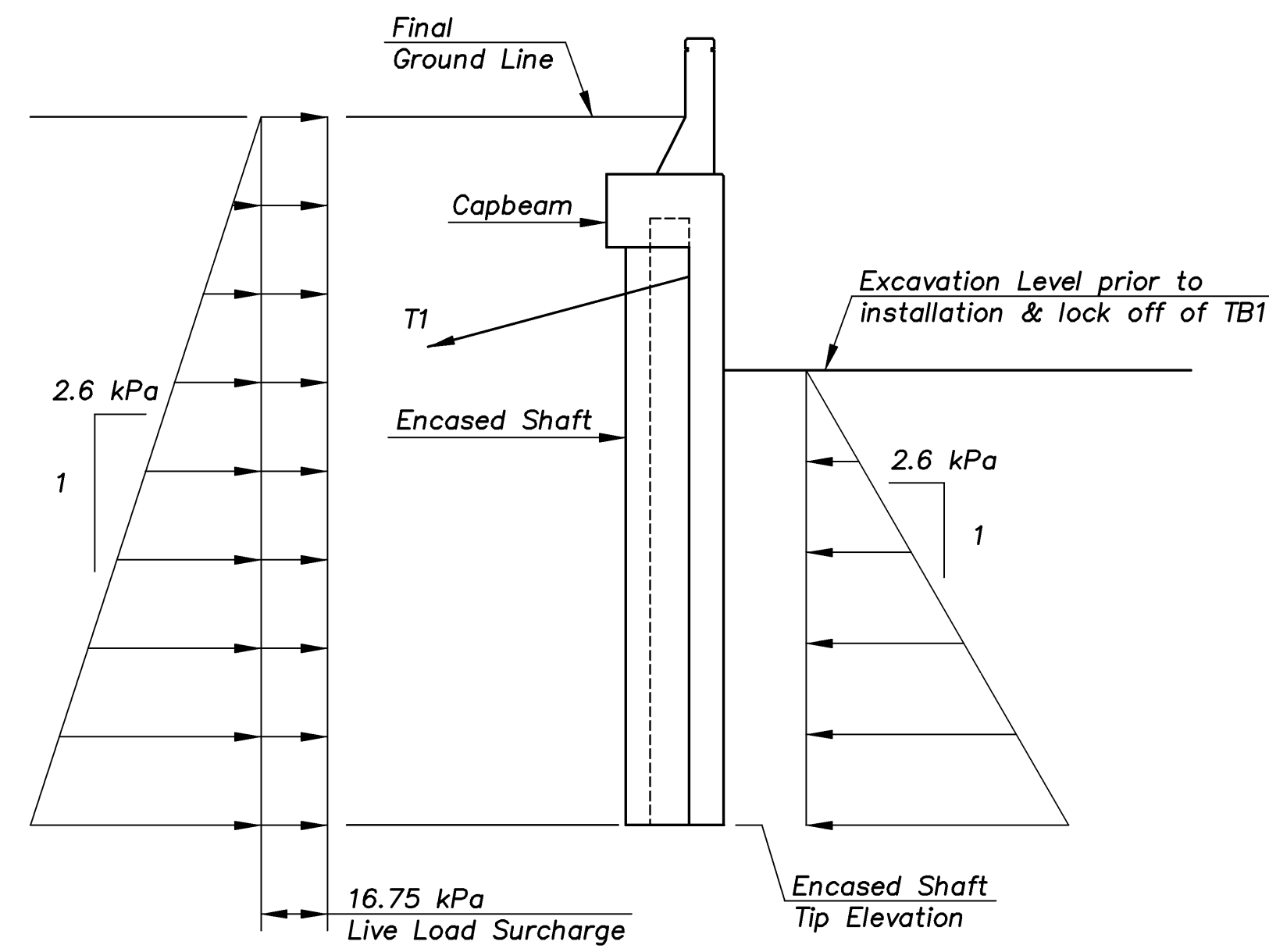


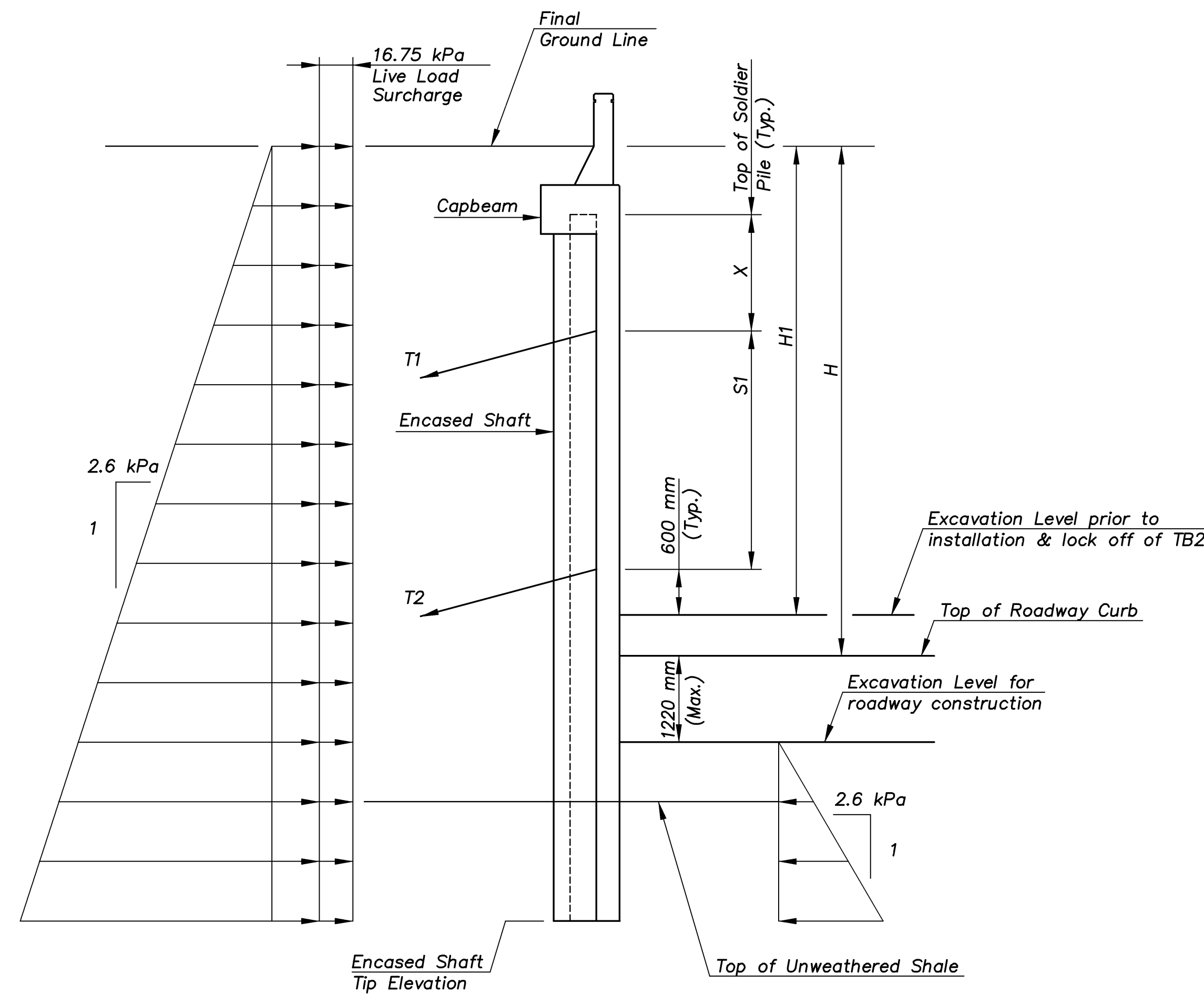
E.F. INDICATES EACH FACE.  
 N.F. INDICATES NEAR FACE.  
 F.F. INDICATES FAR FACE.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-8258-01	2007	234	556

Concrete Encased Shaft &



**LOADING DIAGRAM NO. 1**  
 (Zero or one tieback installed and locked off)

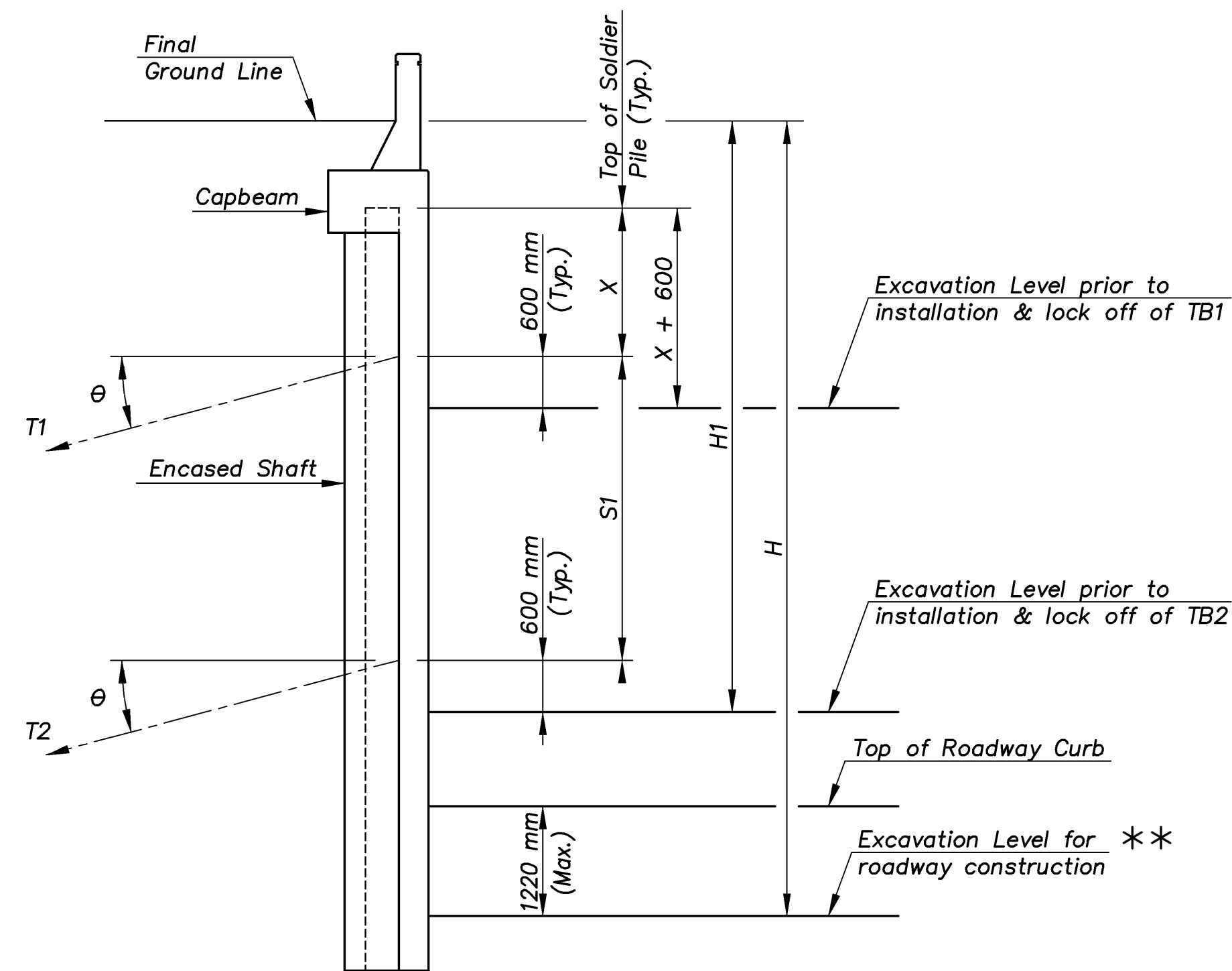


**LOADING DIAGRAM NO. 2**  
 (Two tiebacks installed and locked off)

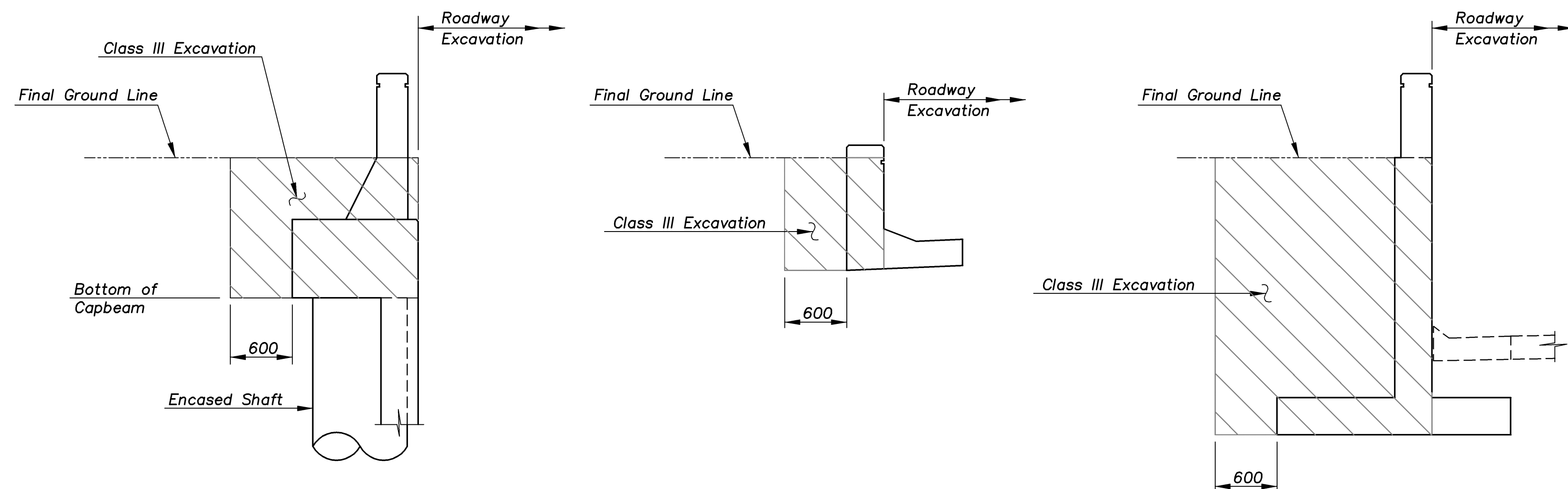
TIEBACK DATA TABLE						
WALL TYPE	NO. OF TIEBACKS	T1 (kN)	T2 (kN)	θ (Deg.)	S1 (m.)	X (m.)
A	0	-	-	-	-	-
B	1	265	-	20	-	1.8
C	1	300	-	20	-	1.8
D	1	330	-	20	-	1.8
E	2	250	370	20	2.5	1.8
F	2	250	395	20	2.5	1.8
G	2	355	380	20	2.5	1.8
H	2	365	330	20	2.5	1.8
I	2	375	270	20	2.5	1.8
J	1	465	-	20	-	1.8
K	1	430	-	20	-	1.8
L	2	375	590	20	2.5	1.8

**DEFINITIONS**  
 T1 = Axial design load on Tieback 1.  
 T2 = Axial design load on Tieback 2.  
 H = Wall design height.  
 H1 = Height of excavated wall during construction.  
 S1 = Vertical spacing between tiebacks.  
 θ = Tieback angle.

**NOTE:** Earth pressures shown act over a tributary width equal to the encased shaft spacing.




**EXCAVATION LEVELS**



**CLASS III EXCAVATION DETAILS**

\*\* **NOTE:** Design of the retaining walls is based on the excavation level shown. The Contractor shall use extreme caution when excavating in the area of the retaining walls, and shall not excavate more than 1.22 m below the top of Roadway Curb within 6.1 m of the drilled shafts, except for localized excavation for Inlets and Storage Boxes.

1:200  
 RET WALL/DETAILS

KANSAS DEPARTMENT OF TRANSPORTATION		 <b>Cook, Flatt &amp; Strobel</b> ENGINEERS, P. A.
<b>ROCK ROAD RETAINING WALLS</b> LOADING DIAGRAMS & TIEBACK DATA		
DESIGNED R.S.C.	SCALE Noted	Proj. No. 54-87 K-8258-01 SEDGWICK COUNTY SHEET 15 OF 27
DETAILED T.R.G.	DATE	
QUANTITIES T.R.G.	SHEET	