

Tehnologije obnove i ojačanja zgrada

TOOZ

Elaborat obnove zgrade

TEHNIČKI DIO

1. TEKSTUALNI DIO

- Lokacija, oblik i veličina građevne čestice
- Oblik, veličina, smještaj građevina na građevnoj parceli i geometrijske karakteristike
- Zatečeno stanje i namjena zgrade
- Registar kulturnih dobara RH
- Izvor podataka
- Popis propisa relevantnih za izradu Elaborata
- Akt legalnosti zgrade
- Arhivska dokumentacija

2. OCJENA PRIKLADNOSTI ZGRADE ZA OBNOVU

- Brzi pregled oštećenja zgrade nakon potresnog djelovanja
- Detaljni pregled
- Tehničko stanje postojeće zgrade – snimak oštećenja
 - o Krovna konstrukcija i pokrov
 - o Vertikalni elementi zgrade
 - Zidovi ulaznog hodnika i stubišnog prostora
 - Zidovi 4. kata
 - Zidovi 3. kata
 - Zidovi 2. kata
 - Zidovi 1. kata
 - Zidovi prizemlja
 - Zidovi podruma
 - o Međuetazne konstrukcije
 - o Dimnjaci
 - o Temeljna konstrukcija
- Ispunjavanje temeljnog zahtjeva mehaničke otpornosti i stabilnosti
- Analiza potresne otpornosti postojeće konstrukcije
- Završna ocjena postojećeg stanja zgrade
- Program istražnih radova
- Razina obnove konstrukcije
- Tehnička rješenja obnove zgrade
- Procjena troškova

3. ANALIZA POSTOJEĆIH FIZIKALNIH KARAKTERISTIKA ZGRADE

4. ANALIZA POSTOJEĆEG STANJA ZGRADE - SIGURNOST U SLUČAJU POŽARA

5. DRUGI NEDOSTACI NA ZGRADI KOJI NISU REZULTAT POTRESNOG DJELOVANJA

Stabilizacija

TOOZ

tehnička rješenja i provedba

Provedba

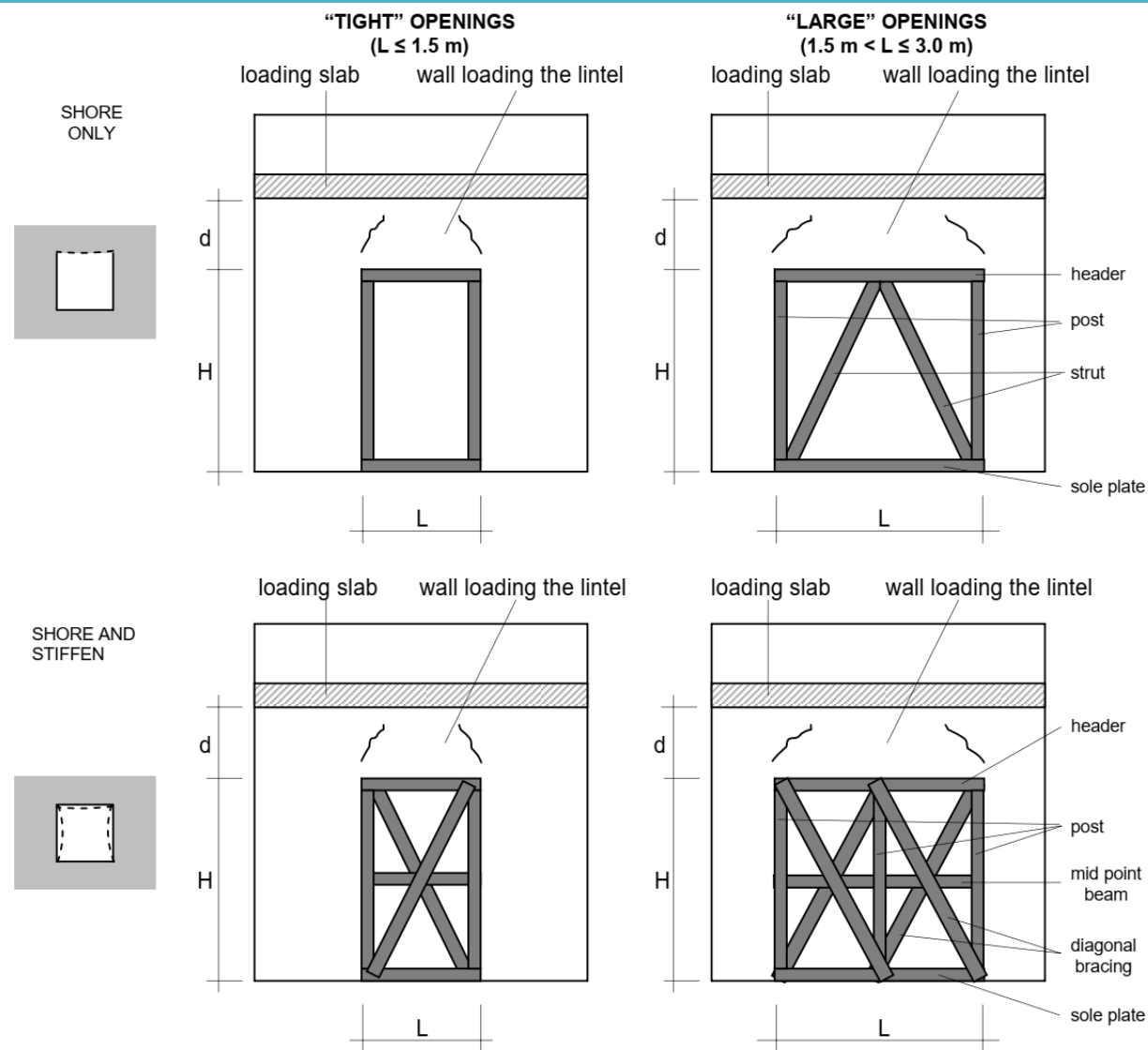
- Stabilizacija tla i ojačanje temelja
- *Prije bilo kakvih zahvata NUŽNO!*
- Proučiti rubne uvjete stabilnosti zgrade
- Logika izvedbe:
 - Konsolidacija
 - Ojačanje
 - Završni radovi
- IPAK:
- Moguće radi stabilnosti izvesti neke radove unaprijed:
 - Stabilizacija zidova
 - Olakšavanje konstrukcije
 - Uklanjanje ugroza
 - ...

TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja prolaza



TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih međуетаžnih konstrukcija

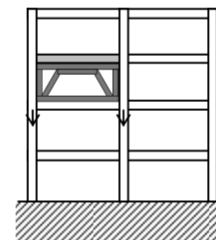
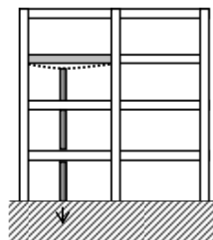
SHORES FOR SLABS: MAIN SCENARIOS AND SELECTION CRITERIA

- | | | |
|-----------------|--|--|
| SCENARIO | <ul style="list-style-type: none">· A new single load path to the ground is available· The ground is solid· Shores for all the underlying slabs are possible· Easy to build | <ul style="list-style-type: none">· No new load path to the ground is available· Shores for all the underlying slabs are impossible· New load path is possible |
|-----------------|--|--|

S SINGLE LINE
see STOP-SB/S (page 2/10)

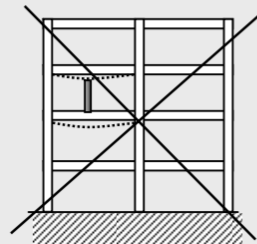
T TRUSS
see STOP-SB/T (page 8/10)

SOLUTION

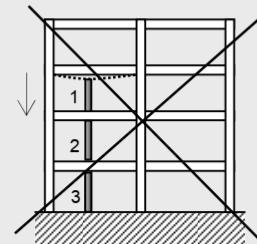


WARNING: correct procedure to implement a single line solution

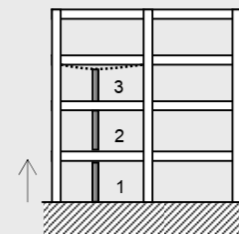
In the case of a single line solution, it is necessary to start from the bottom of the building and work to the top (see below).



NO



NO



YES

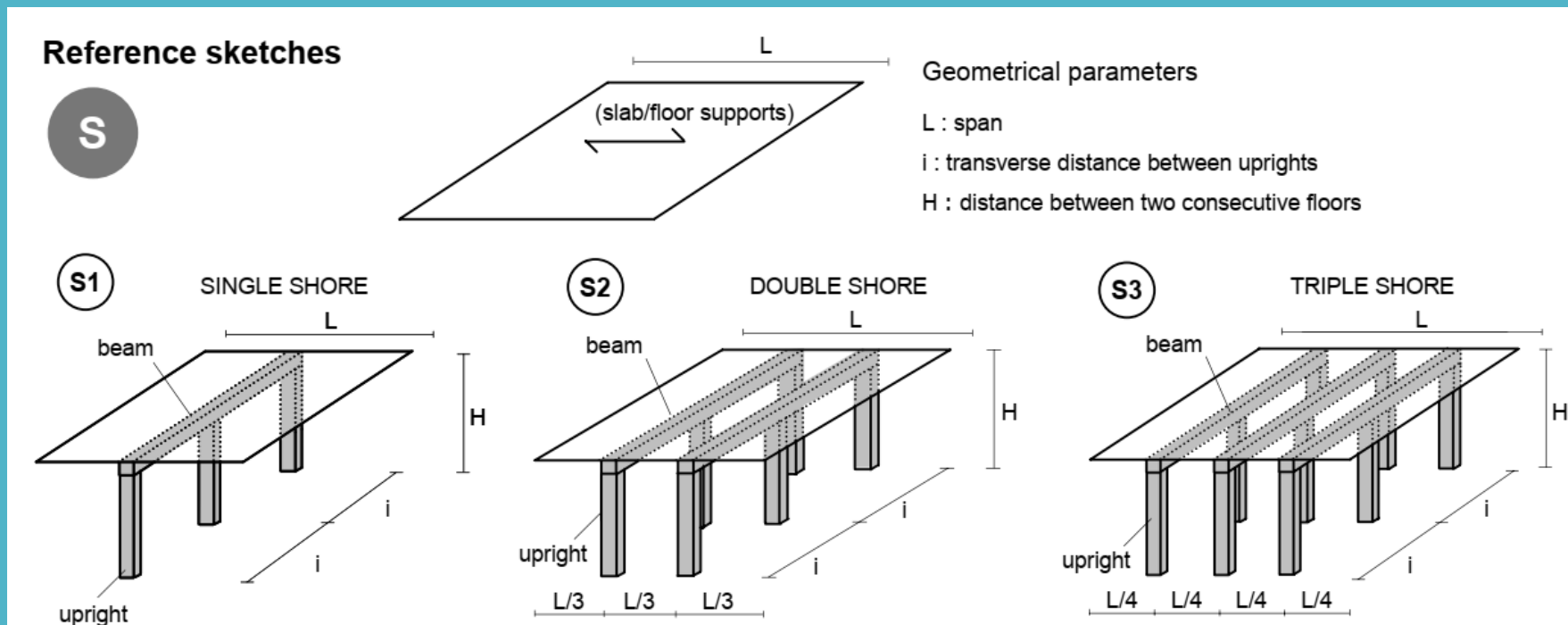
1-2-3 : building sequence

TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih međуетаžnih konstrukcija



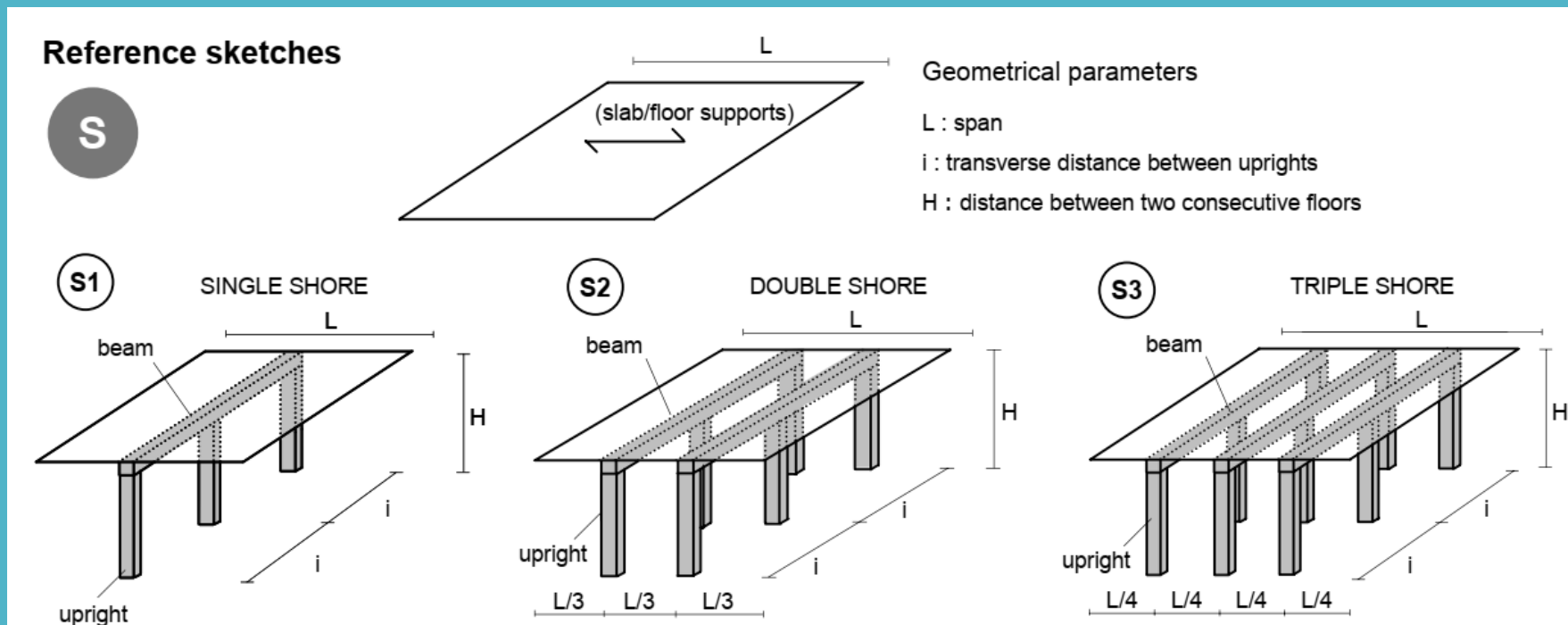
- Razmak među poduporama ne smije biti veći od 2 m

TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih međуетаžnih konstrukcija



- Razmak među poduporama ne smije biti veći od 2 m

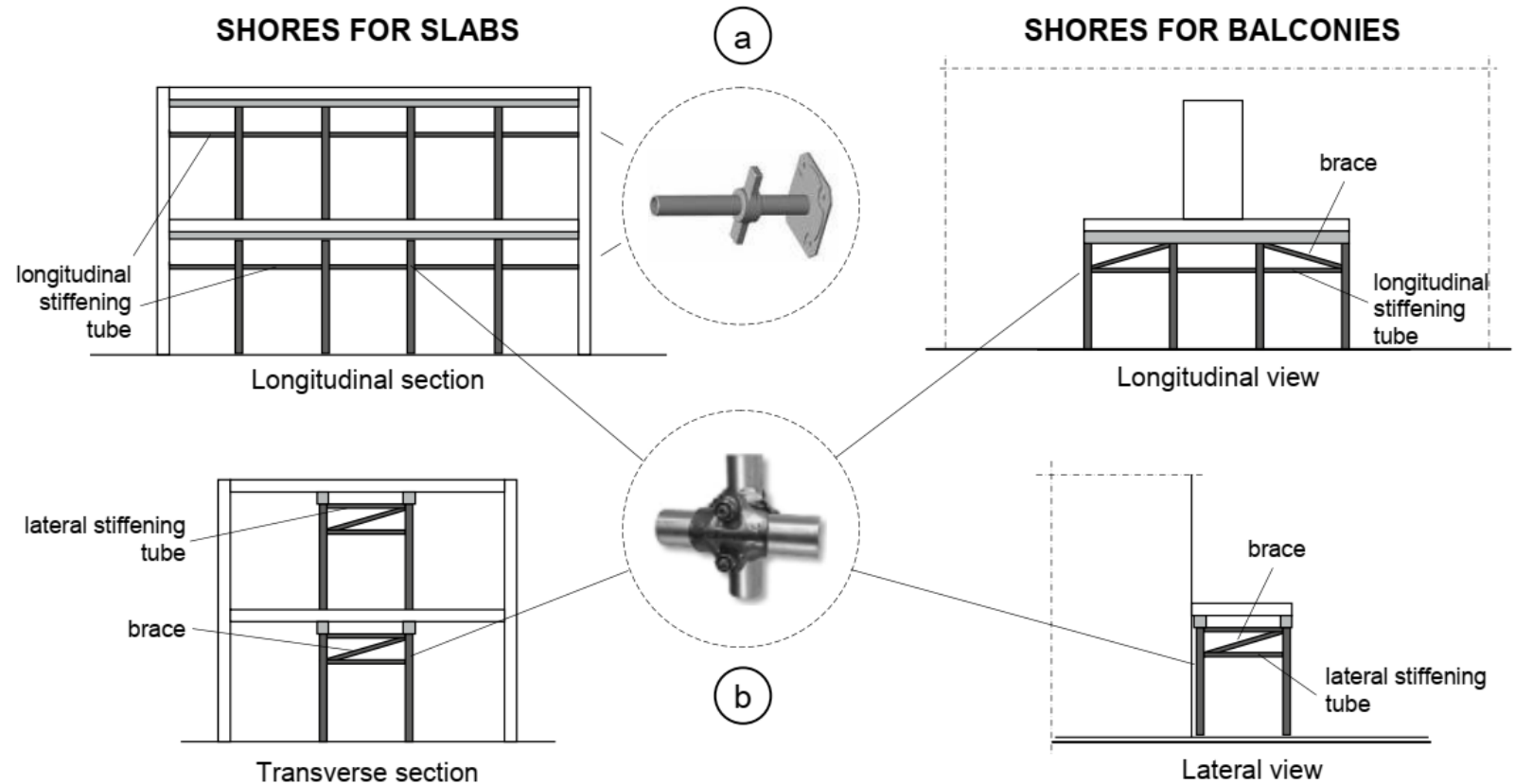
TOOZ
tehnička
rješenja i
provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih međуетаžnih konstrukcija

Managing the critical areas of STEEL SHORES



TOOZ

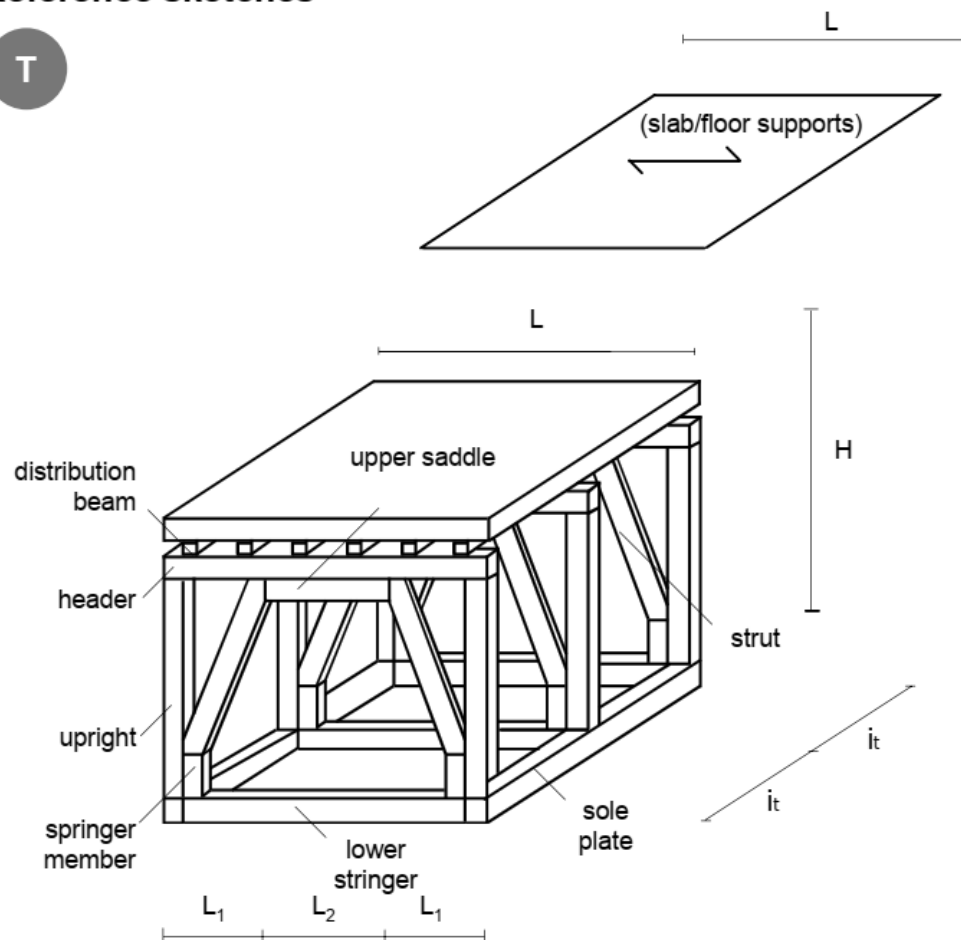
tehnička rješenja i provedba

STABILIZACIJA

Provedba

- Osiguranja stradalih međуетаžnih konstrukcija

Reference sketches

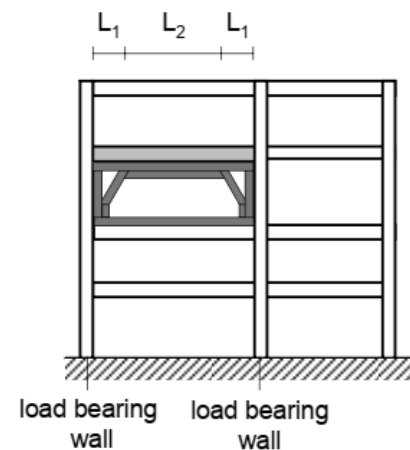


Nomenclature and reference geometrical parameters

L : span

i : distance between shores

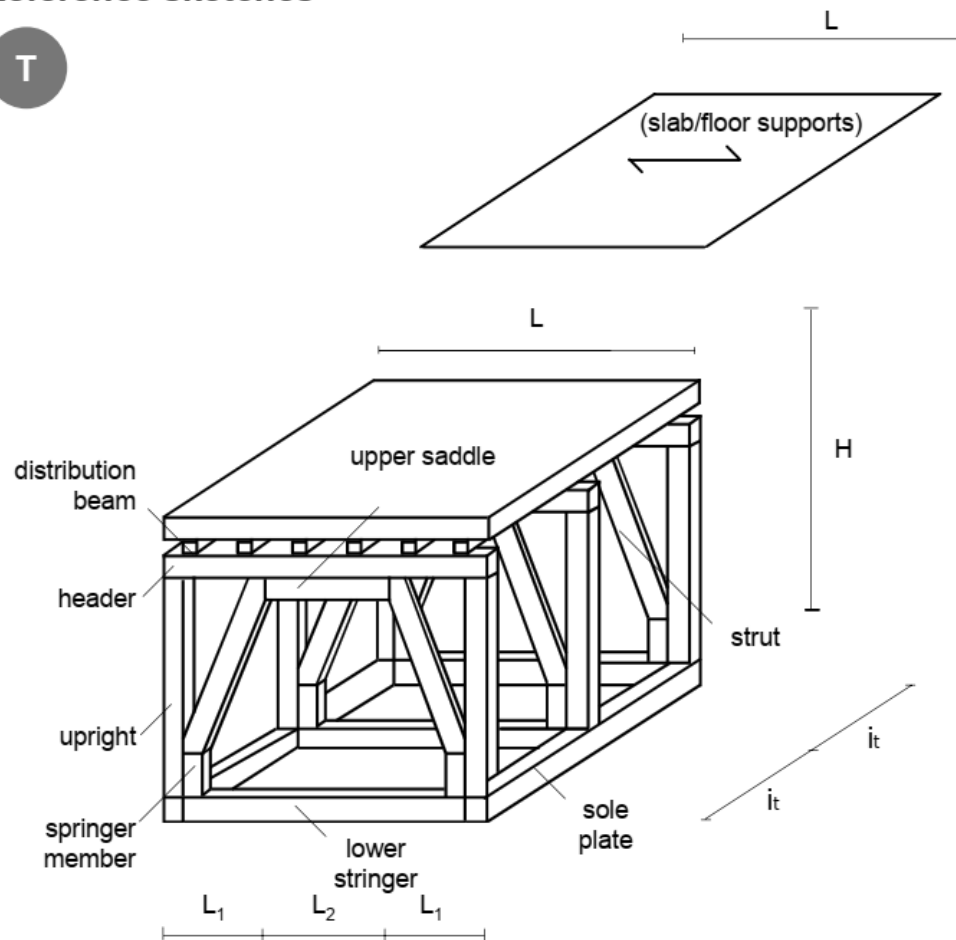
H : distance between two consecutive floors



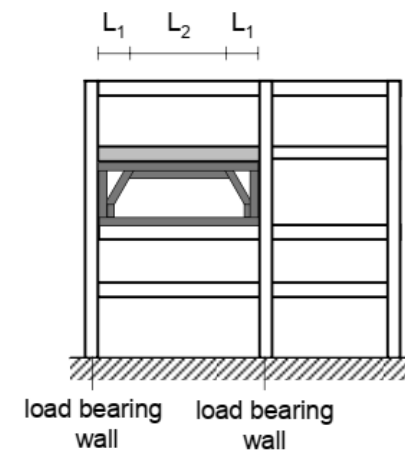
STABILIZACIJA

- Osiguranja stradalih međuetaznih konstrukcija

T



H : distance between two consecutive floors



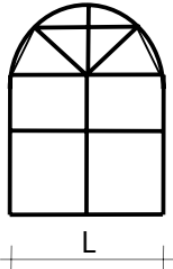
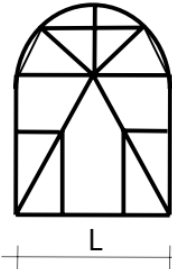
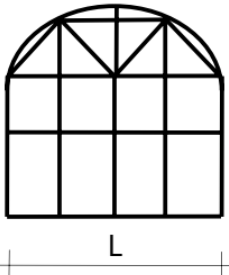
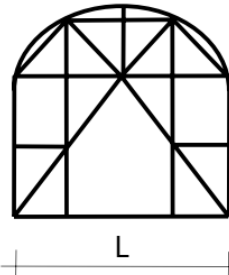
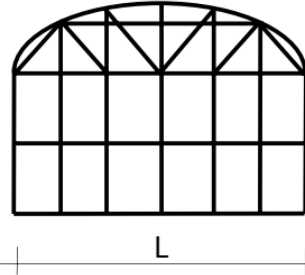
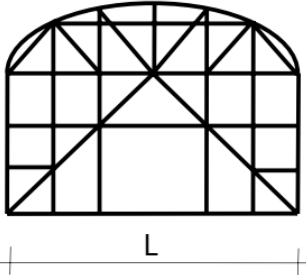
TOOZ

tehnička rješenja i provedba

STABLIZACIJA

Provedba

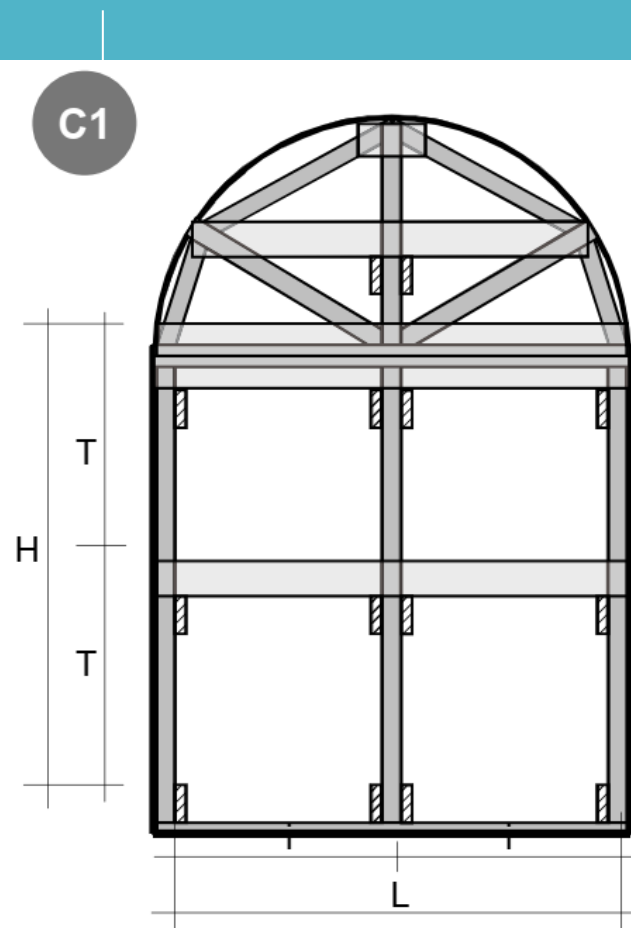
- Osiguranja stradalih svodova i lučnih konstrukcija

		FUNCTIONAL PARAMETERS	
		There's no need to pass through (Closed passage)	There's need to pass through (Allowed passage)
DIMENSIONAL PARAMETERS	$0m < L \leq 3m$	 C1	 A1
	$3m < L \leq 6m$	 C2	 A2
	$6m < L \leq 8m$	 C3	 A3

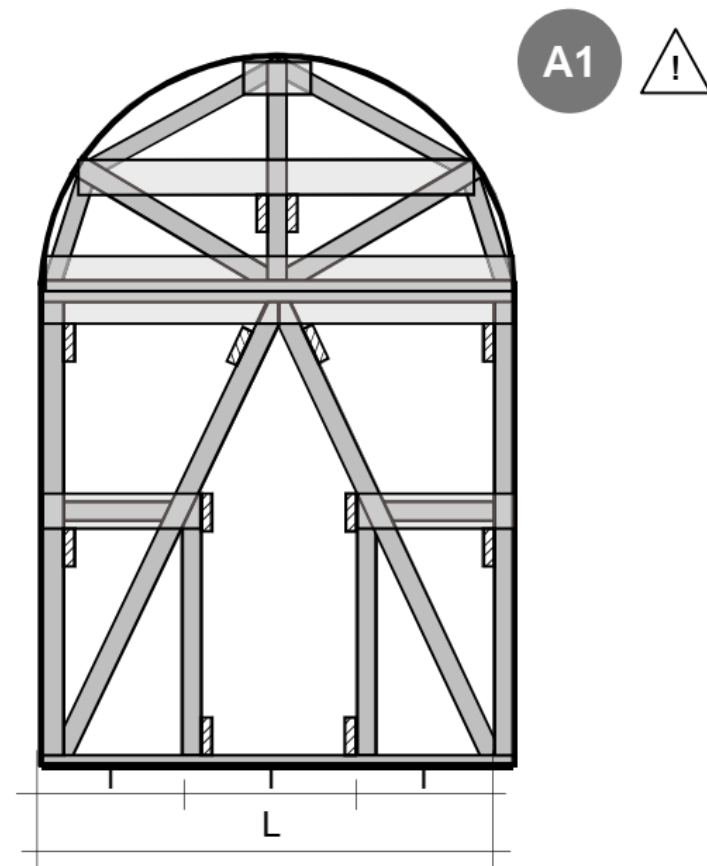
TOOZ tehnička rješenja i provedba STABLIZACIJA

Provedba

- Osiguranja stradalih svodova i lučnih konstrukcija



Closed passage



Allowed passage

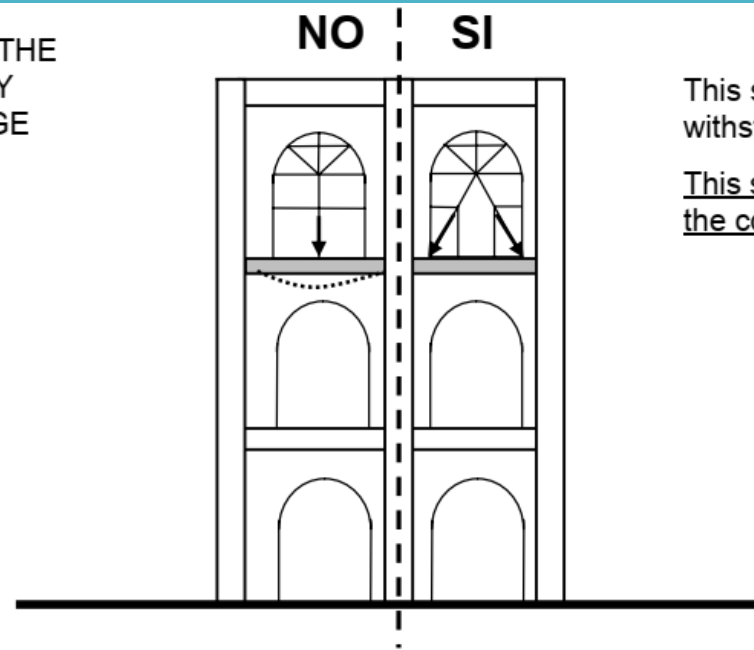
TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih svodova i lučnih konstrukcija

PRESENCE OF VOIDS UNDER THE FLOOR WITH THE POSSIBILITY OF A NEW PATH TO DISCHARGE THE LOADS



This solution can be used if the structure can withstand the new path for the load.

This solution is the best as it doesn't require the construction of shores under the floor.

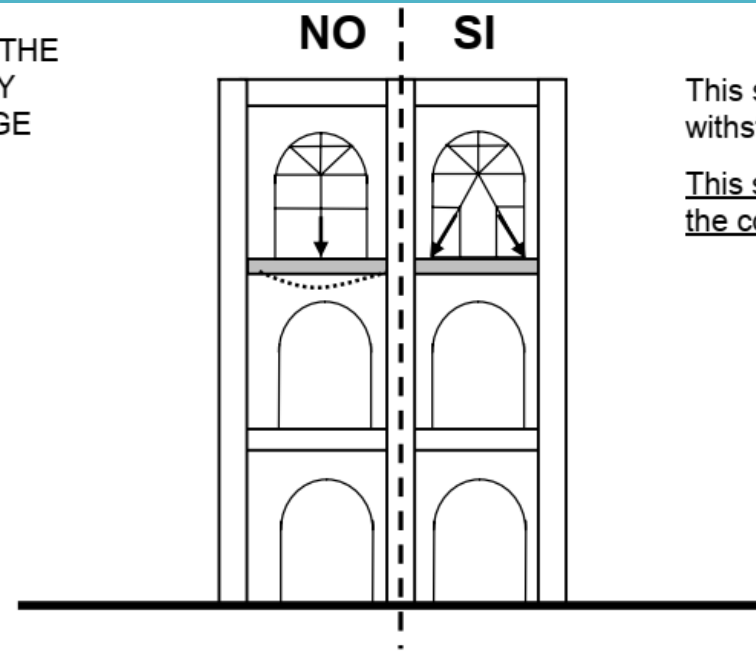
TOOZ tehnička rješenja i provedba

STABLIZACIJA

Provedba

- Osiguranja stradalih svodova i lučnih konstrukcija

PRESENCE OF VOIDS UNDER THE FLOOR WITH THE POSSIBILITY OF A NEW PATH TO DISCHARGE THE LOADS



This solution can be used if the structure can withstand the new path for the load.

This solution is the best as it doesn't require the construction of shores under the floor.