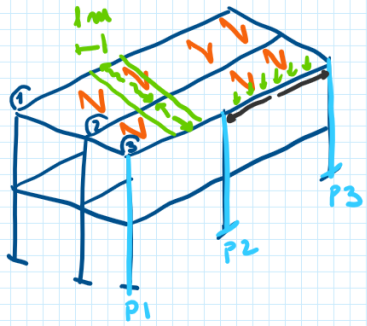
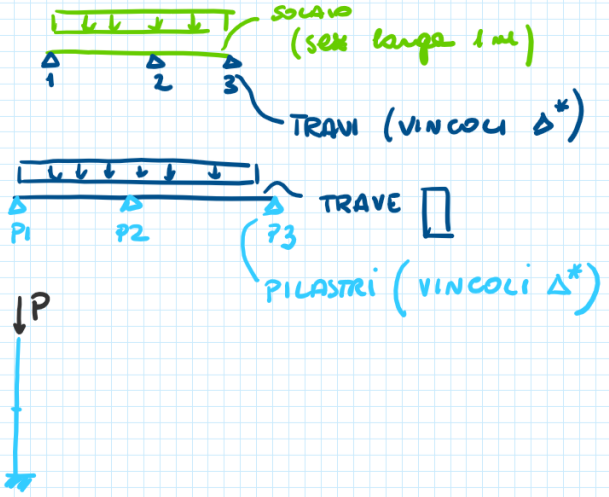
Progetto: impostazione della carpenteria

martedì 19 marzo 2024 14:03

PROG. EDIFICIO RESIDENZIALE - 6 PIANI

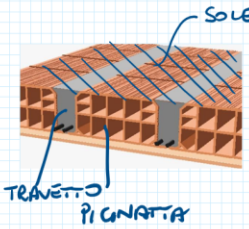
EDIFICIO IN C.A → STRUT. MONOLITICA → FORTEMENTE IPERSTATICA

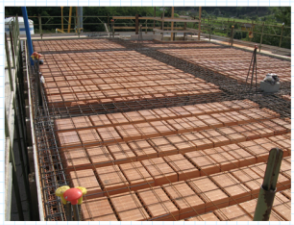




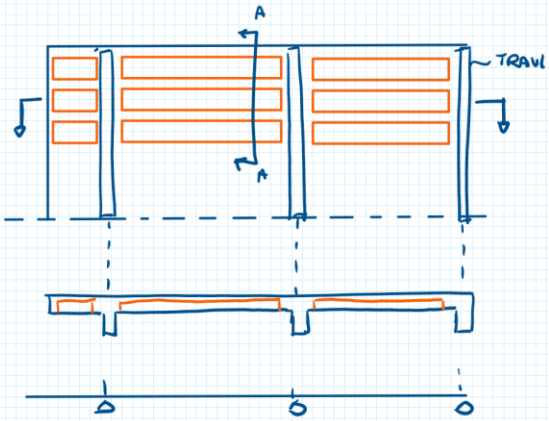
SOLAIO

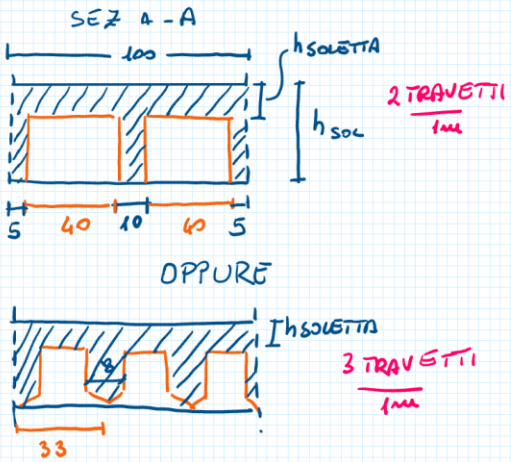
SOLAIO MONODIMENSIONALE IN LATEROCEMENTO





SOLAIO = TRAVETTI + SOLETTA + PIGNATTE → ALLEGGERIMENTO

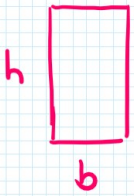




TRAVI

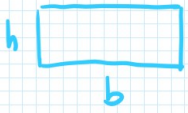
TRAVI EMERGENTI

TRAVI A SPESSORE



$h > b$

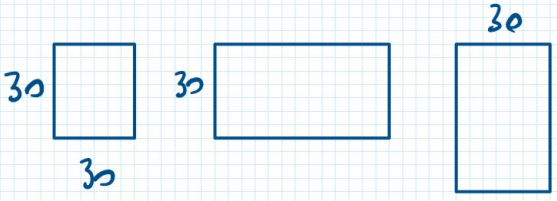
$b = 30$ cm



$b > h$

$h = h_{SOL}$

PILASTRI



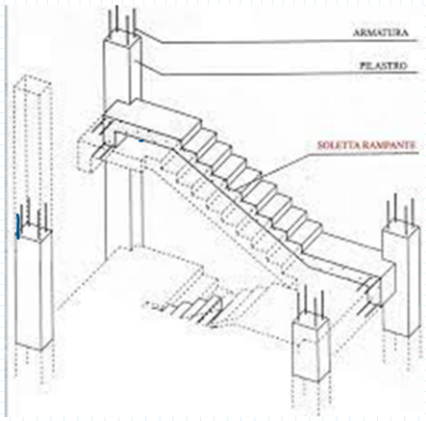
SCALE

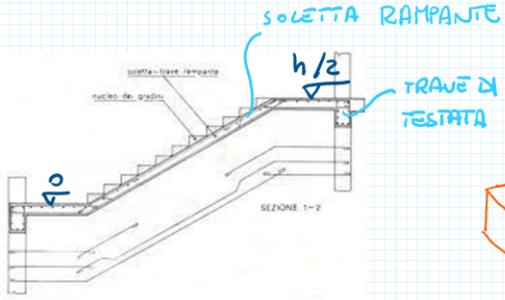
1) SCALA A SOLETTA RAMPANTE

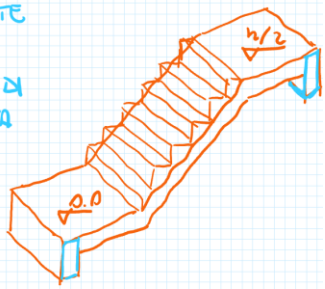
2) SCALA CON TRAVE A GINOCCHIO

3) SCALA ALLA GILIBERTI (ZONA SISMICA)

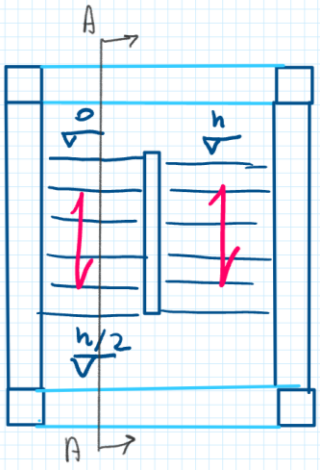
SCALA A SOLETTA RAMPANTE

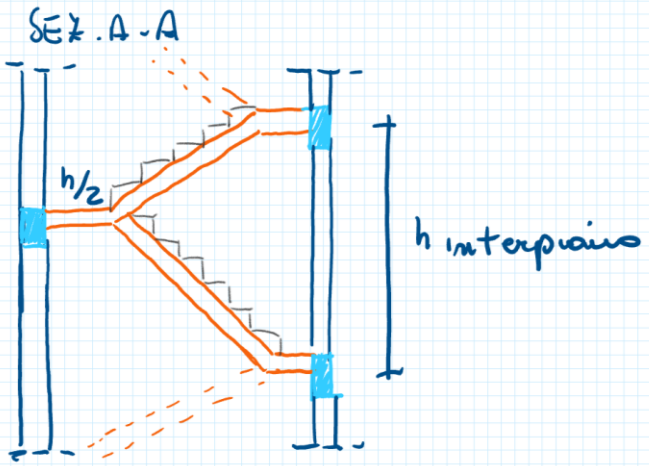




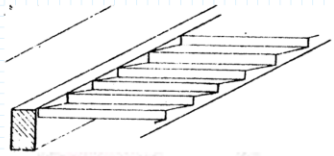


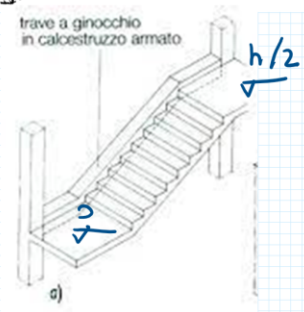
SOLETTA → PORTANTE
GRADINI → CARICO

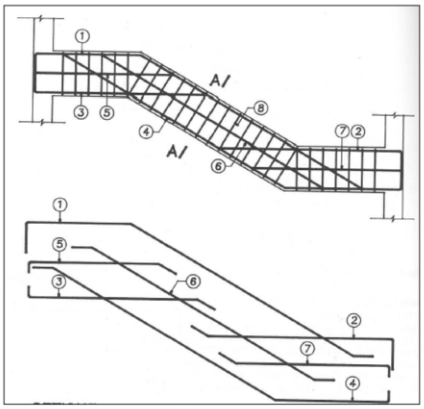


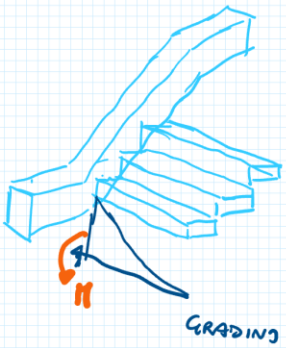


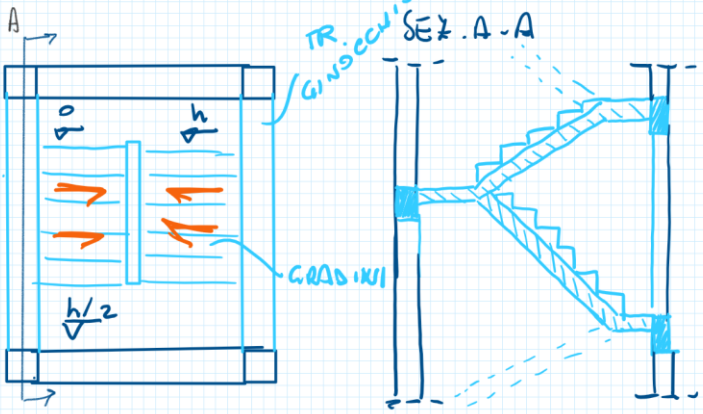
SCALA CON TRAVE A GINOCCHIO

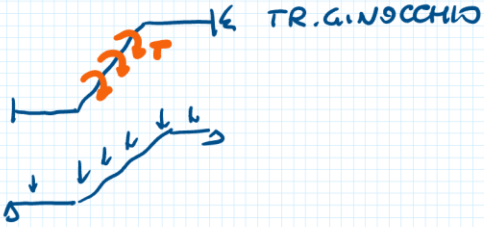






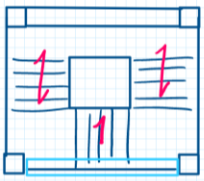


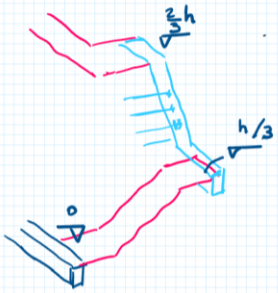




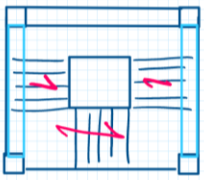
SCALE A 3 RAMPE

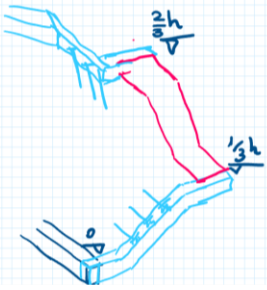
1) 2 SOLETTE RAMPANTI + 1 TRAVE A GINOCCHIO



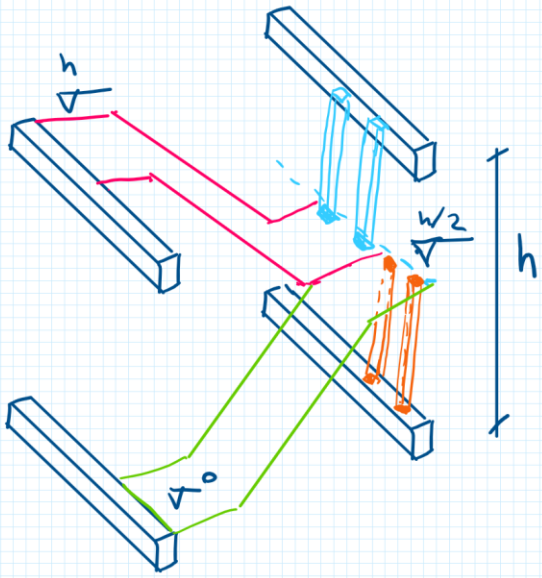


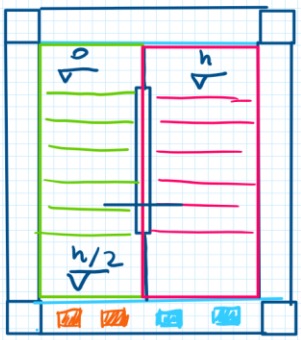
2) 2 TRAVI A GINOCCHIO + 1 SOLETTA RAMPANTE

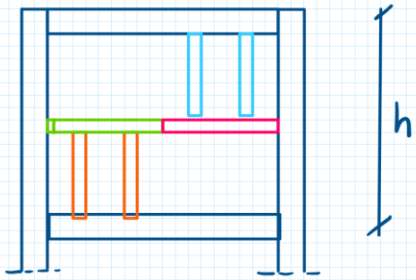




SCALA ALLA GILIBERTI



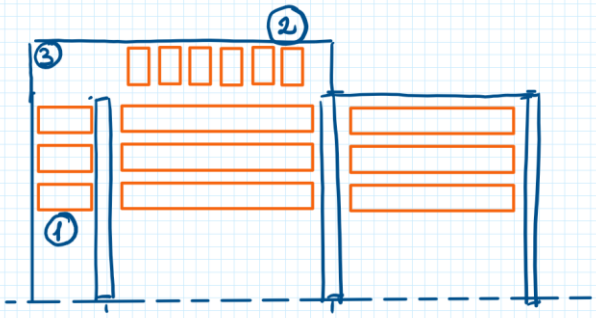




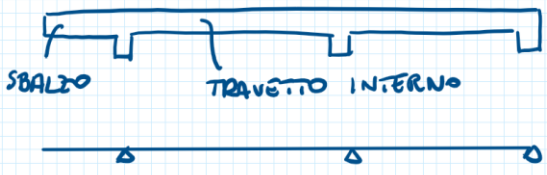
LE DUE RAMPE SONO "SEPARATE"
↳ PIANI NON COLLEGATI TRA LORO

SBALZI

SBALZI ← IN PROSECUZIONE ①
LATERALI ②
D'ANGOLO ③



SBALZO IN PROSECUZIONE



SBALZO LATERALE

Sbalzo laterale

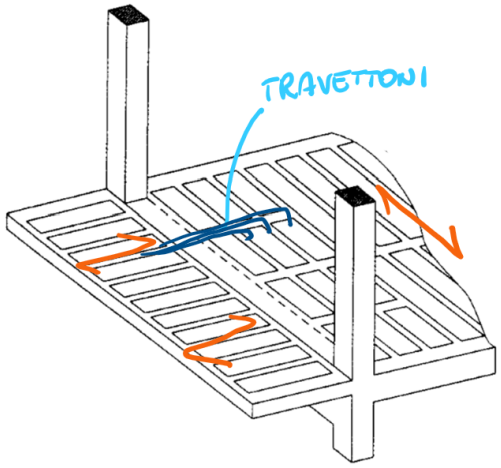
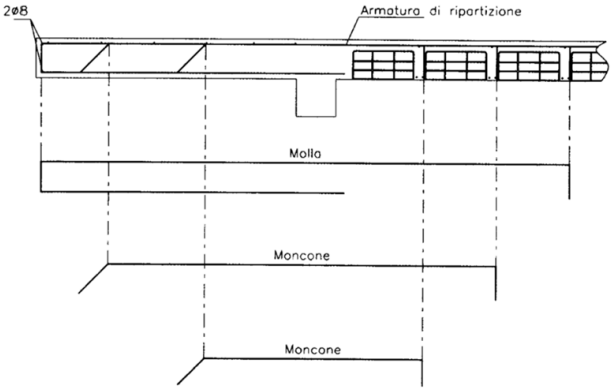
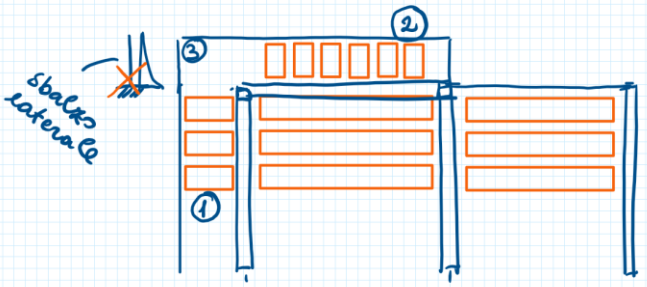
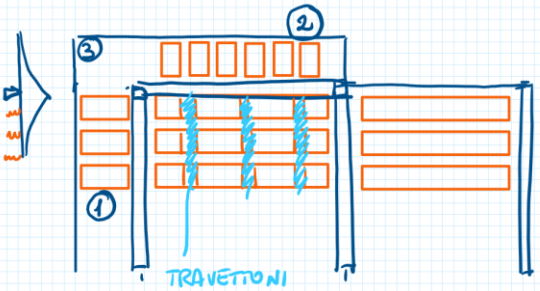


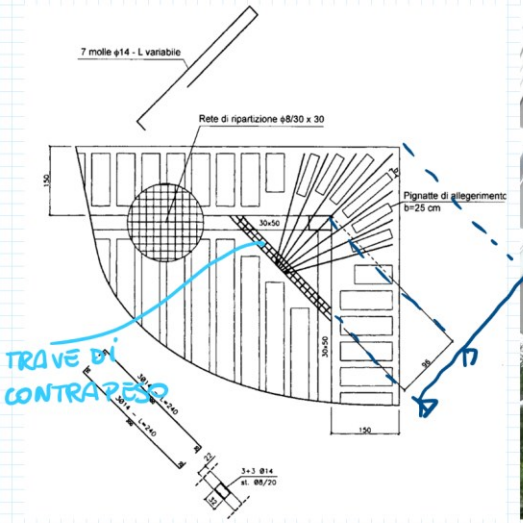
Fig. 1.61





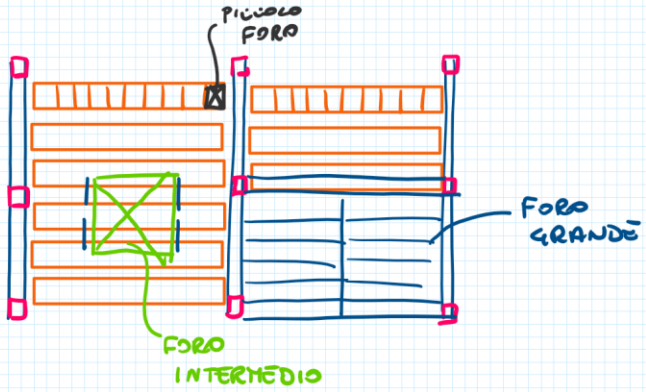


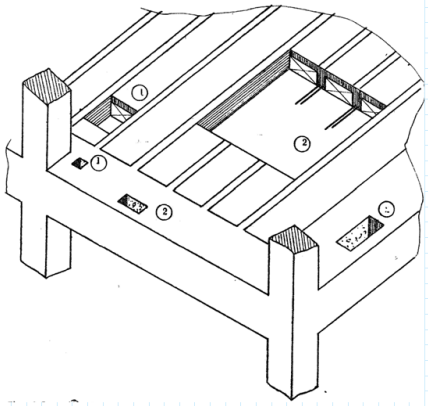
SBALZO D'ANGOLO

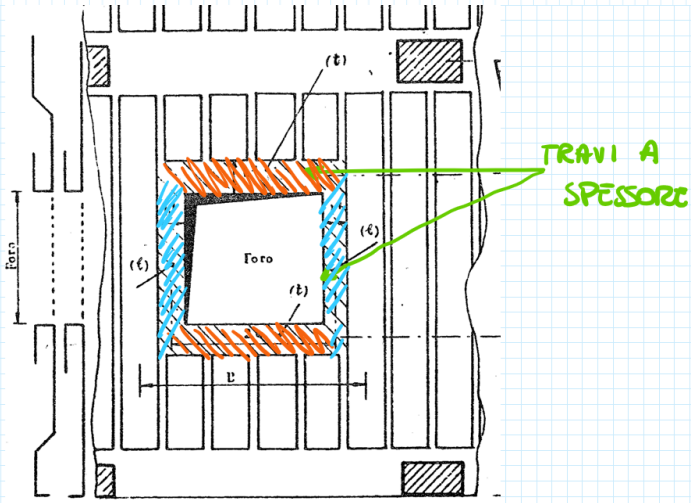


FORI

- FORI
  - PICCOLI → ES. CAVEDI
  - INTERMEDI → ES. ASCENSORI
  - GRANDI → ES. VANO SCALA







IMPOSTAZIONE DELLA CARPENTERIA

$L_{SOLAIO} \leq 6.0$ m

$L_{TR.EM} \leq 5 \div 5.5$ m

$L_{TR.SPES} \leq 4.0$ m

$L_{SBALZO} \leq 2.0$ m

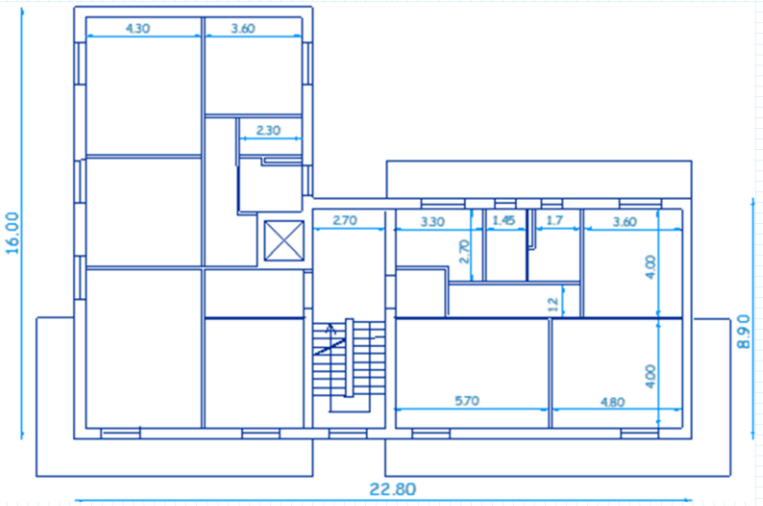
— TR. EMERGENTI

⇝ SOLAI

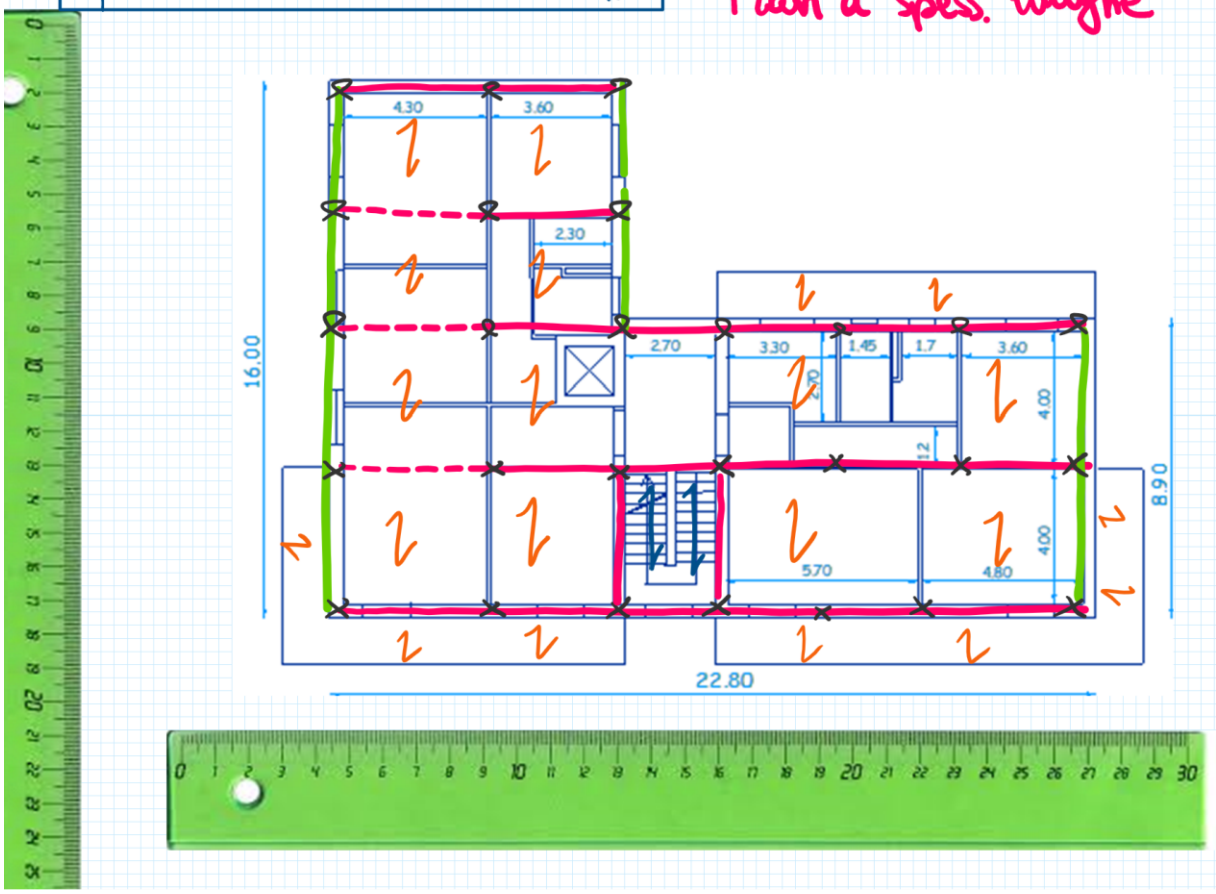
— TR. CHIUSURA

X PILASTRI

---- TR. SPESSORE

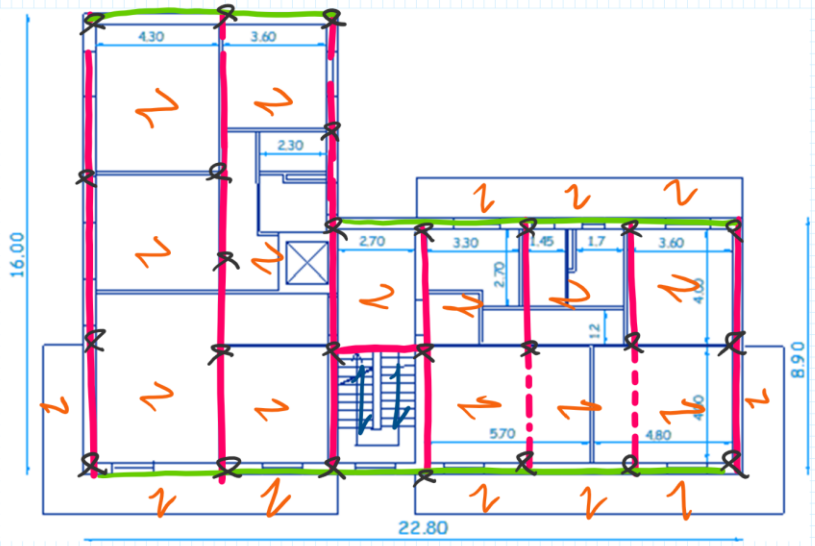


Hp. 1: Allineamenti ortz ⇒ funzione bene a destra tran a spess. lunghe



Hp. 2: allineamenti verticali ⇒ travi a spessore lunghe prevalenza sbalzi laterali

funziona bene a sinistra



Hp. 3: allineamenti misti ⇒ (nel mio caso) è la soluzione migliore