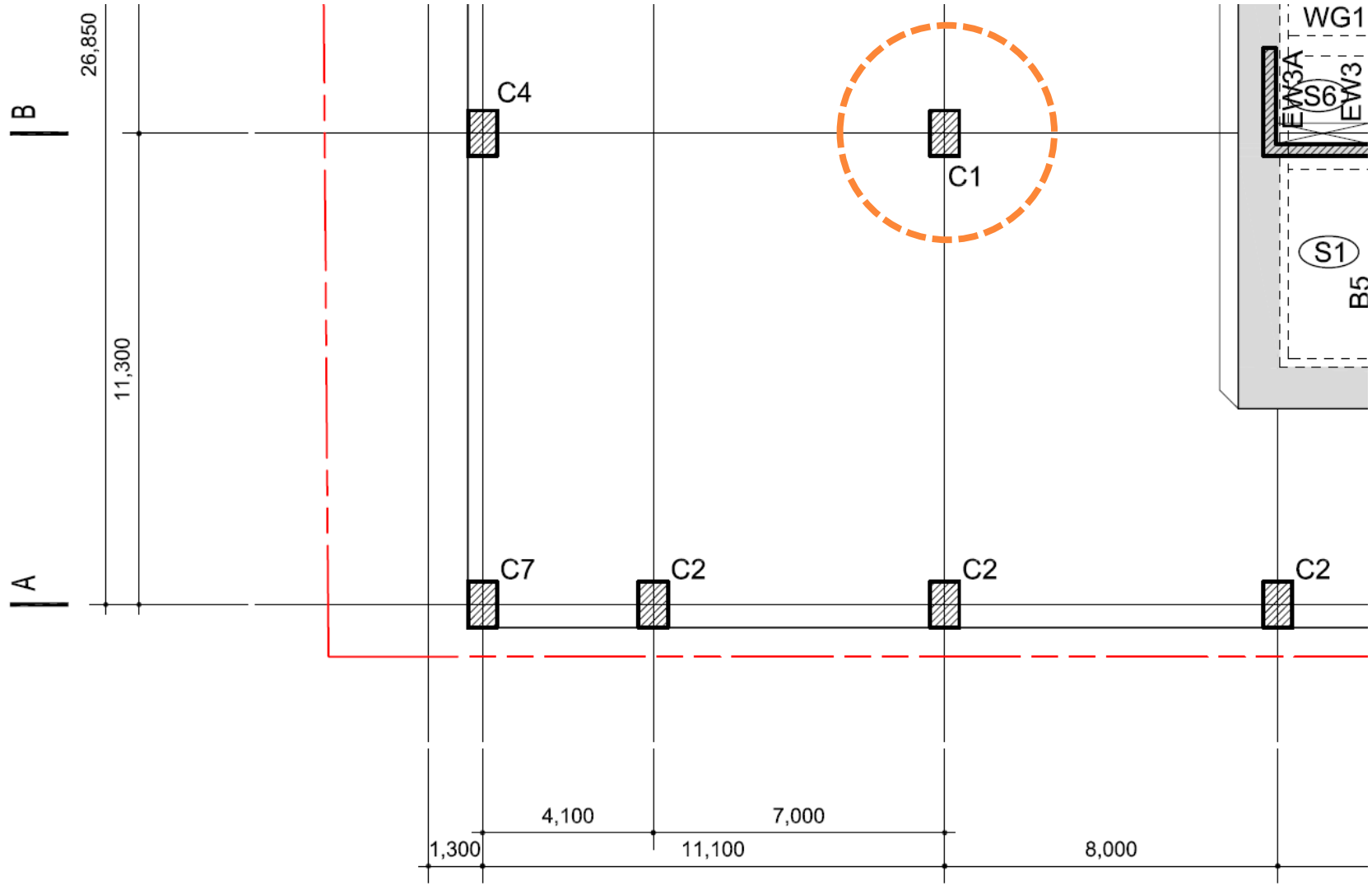
기둥 배근 기본

철근지식저장소

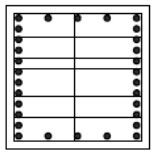
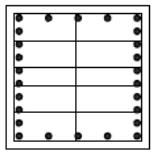
구조평면


B
A
26,850
11,300
C4
C1
C7
C2
C2
C2
WG1
EW3A
S6
EW3
S1
B5
4,100
7,000
1,300
11,100
8,000

부재별 일람표

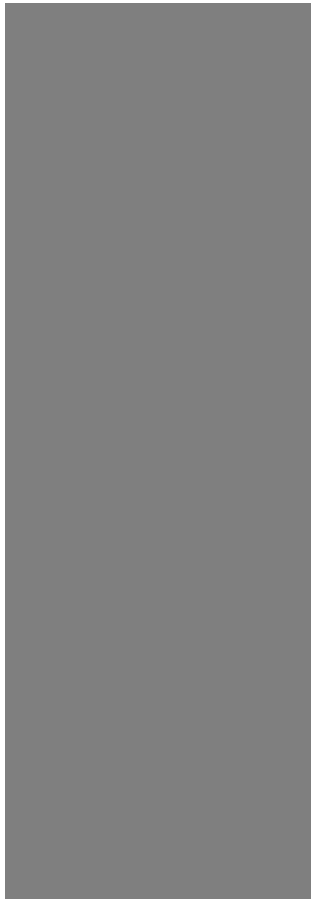
기 둥 일 람 표 - 1

SCALE : NONE

NAME	10C1	1~10C2
TYPE		
SIZE	700X1500	700X1100
MAIN BAR-1	30-D29	26-D29
MAIN BAR-2		
MAIN BAR-3		
HOOP (MID)	D10@300	D10@300
HOOP (END)	D10@150	D10@150
TIE BAR	D10	D10

부재별 일람표

10C1



기 둥 일 람 표 - 1

SCALE : NONE

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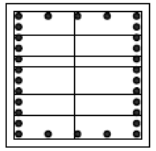
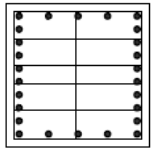
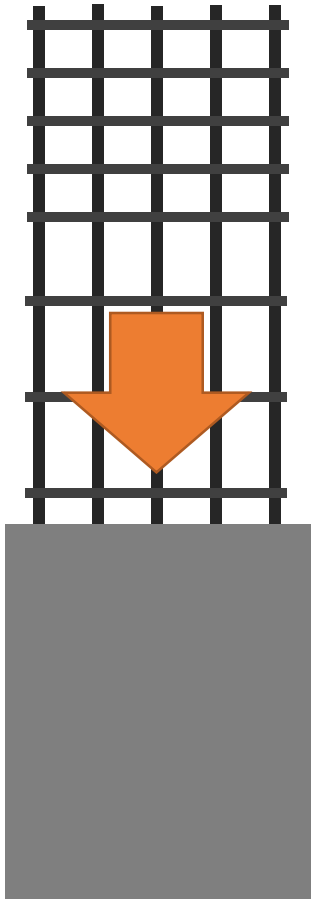
TYPE		
SIZE	700X1500	700X1100
MAIN BAR-1	30-D29	26-D29
MAIN BAR-2		
MAIN BAR-3		
HOOP (MID)	D10@300	D10@300
HOOP (END)	D10@150	D10@150
TIE BAR	D10	D10

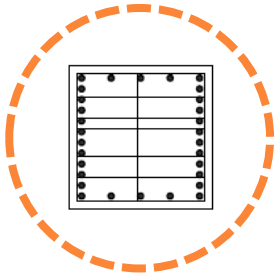
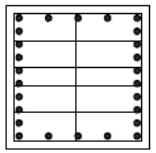
부재별 일람표

10C1



기 둥 일 람 표 - 1

SCALE : NONE

NAME	10C1	1~10C2
TYPE		
SIZE	700X1500	700X1100
MAIN BAR-1	30-D29	26-D29
MAIN BAR-2		
MAIN BAR-3		
HOOP (MID)	D10@300	D10@300
HOOP (END)	D10@150	D10@150
TIE BAR	D10	D10

주철근

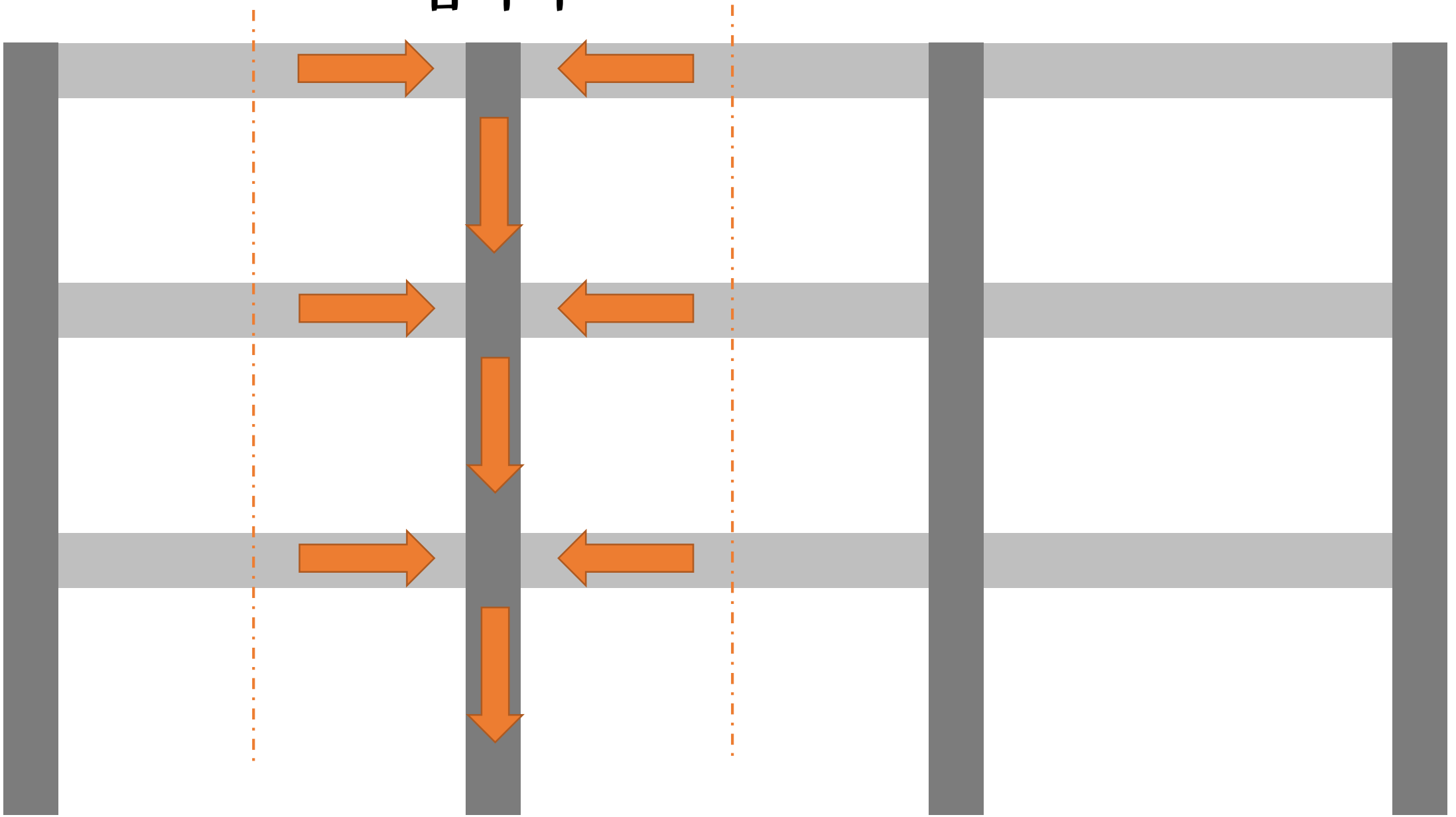
띠철근
(Tie-bar)

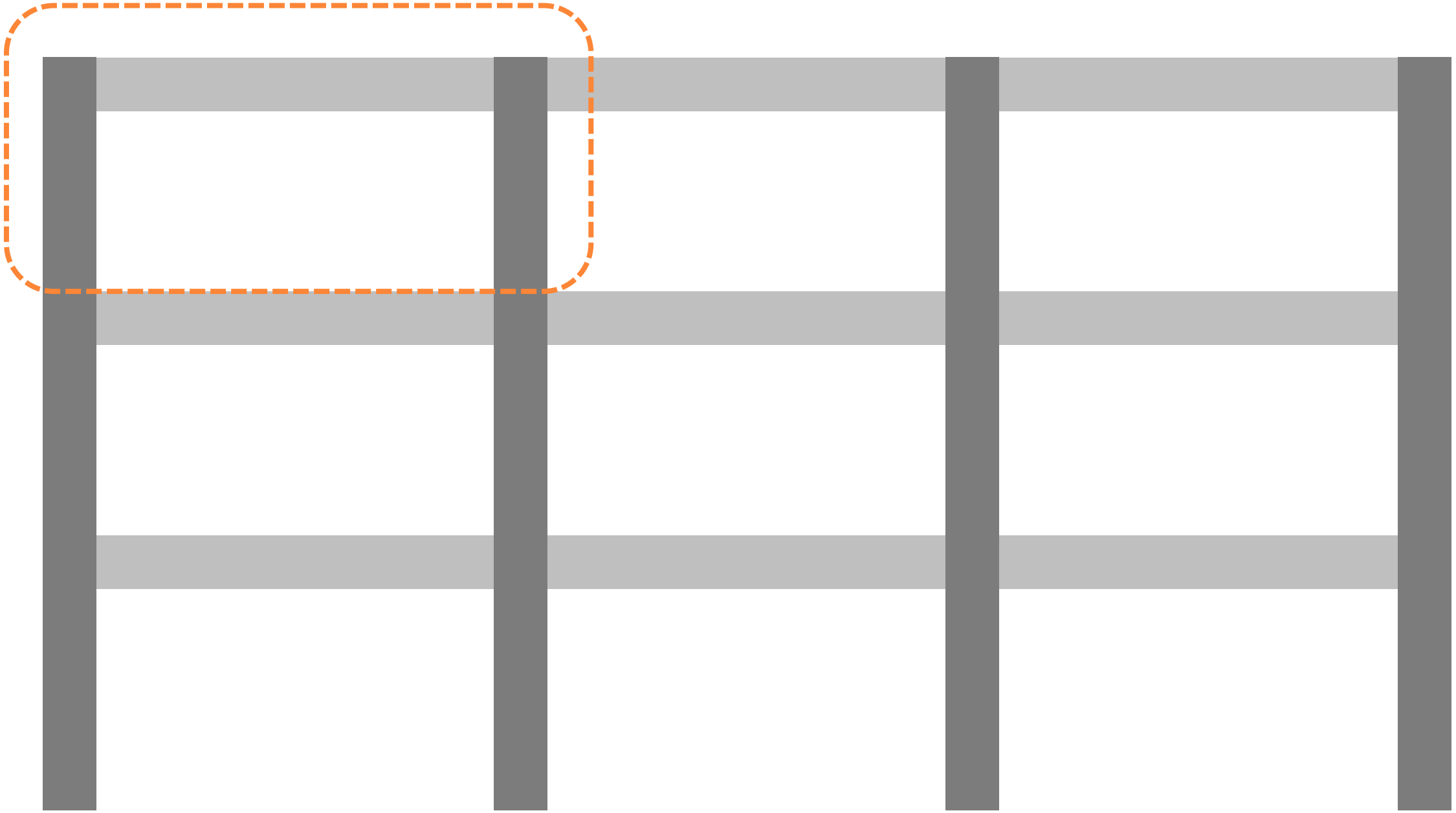
후프
(HOOP)

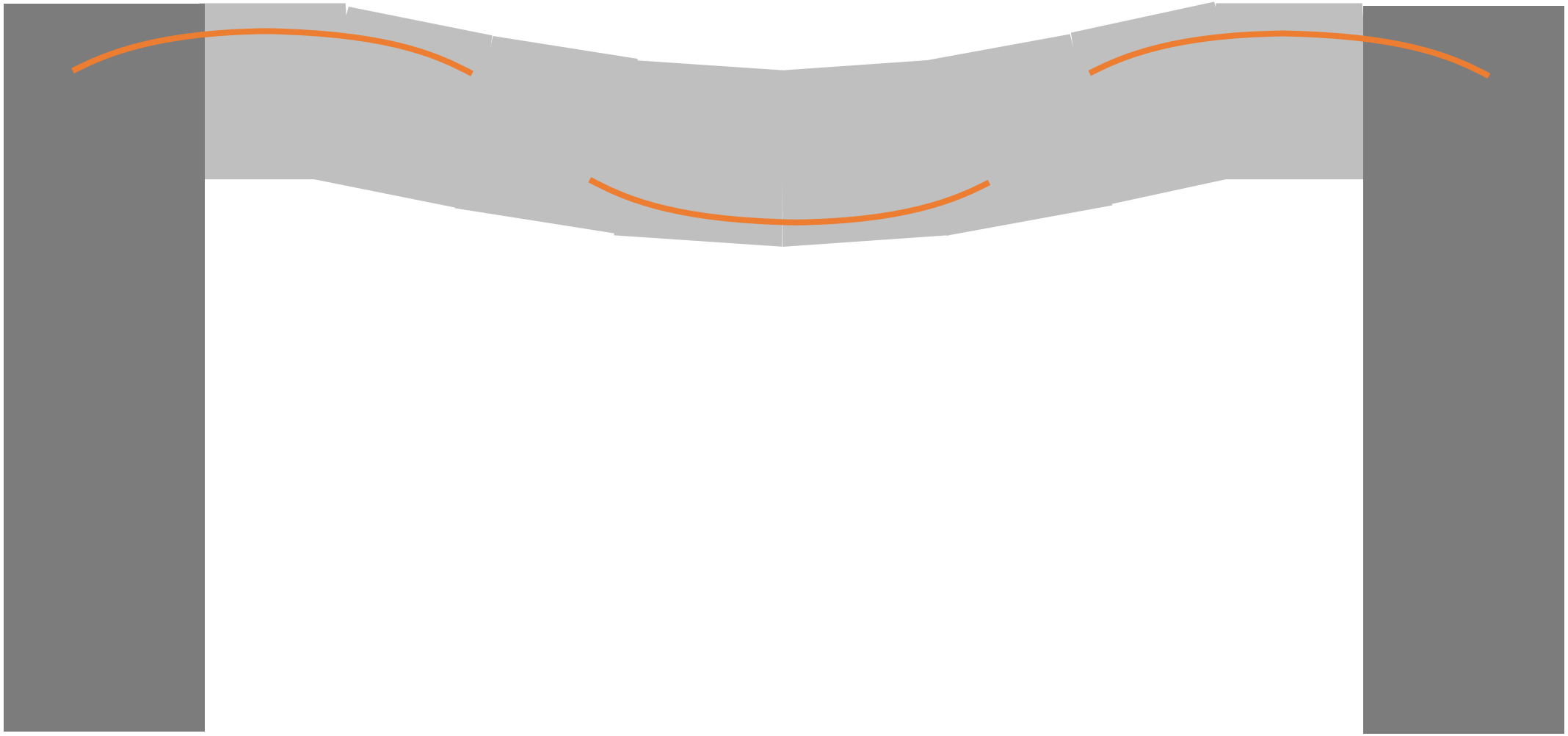
주철근의 역할

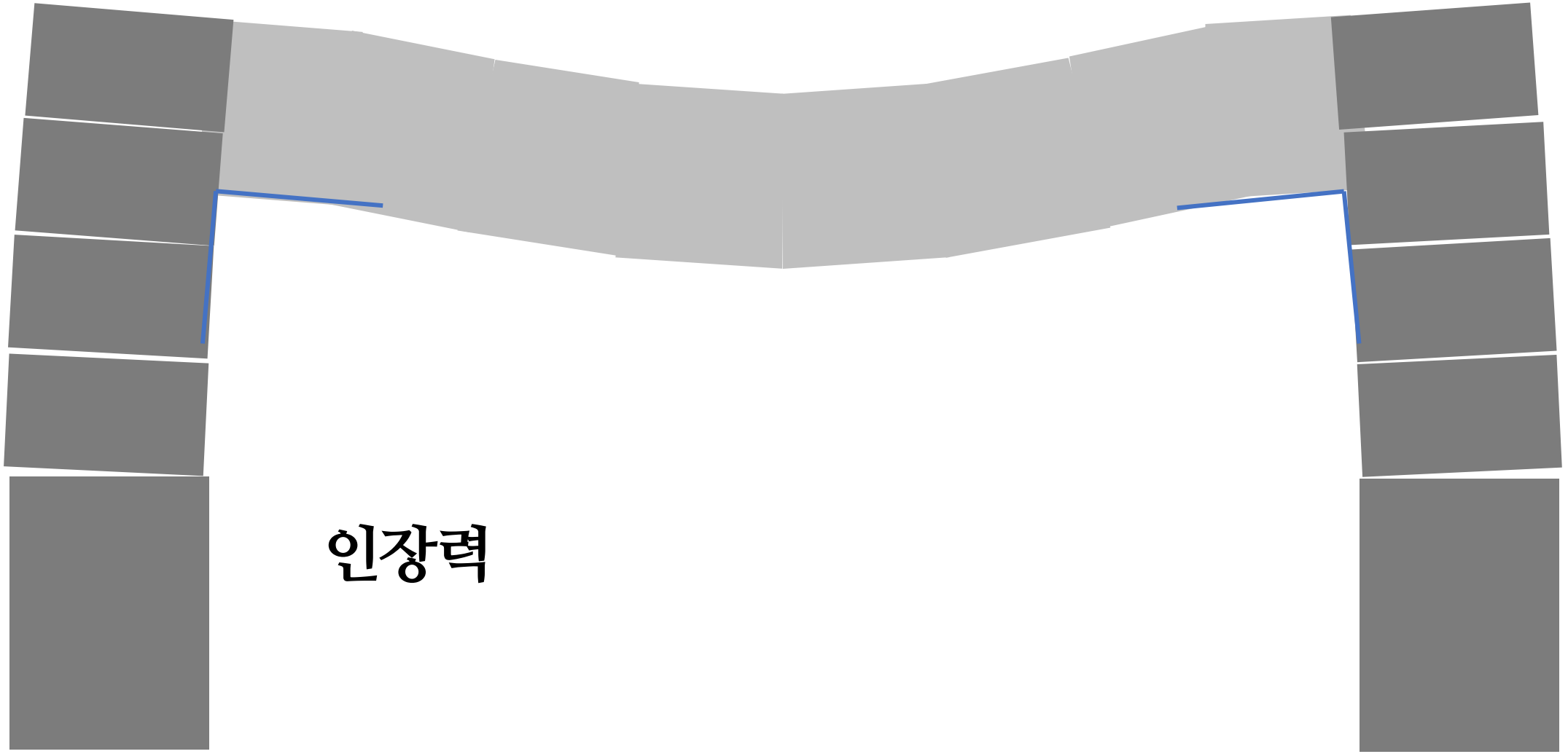
- 압축력 – 축방향력을 콘크리트와 분담
- 인장력 – 휨모멘트때문에 발생하는 인장력에 저항

압축력








인장력

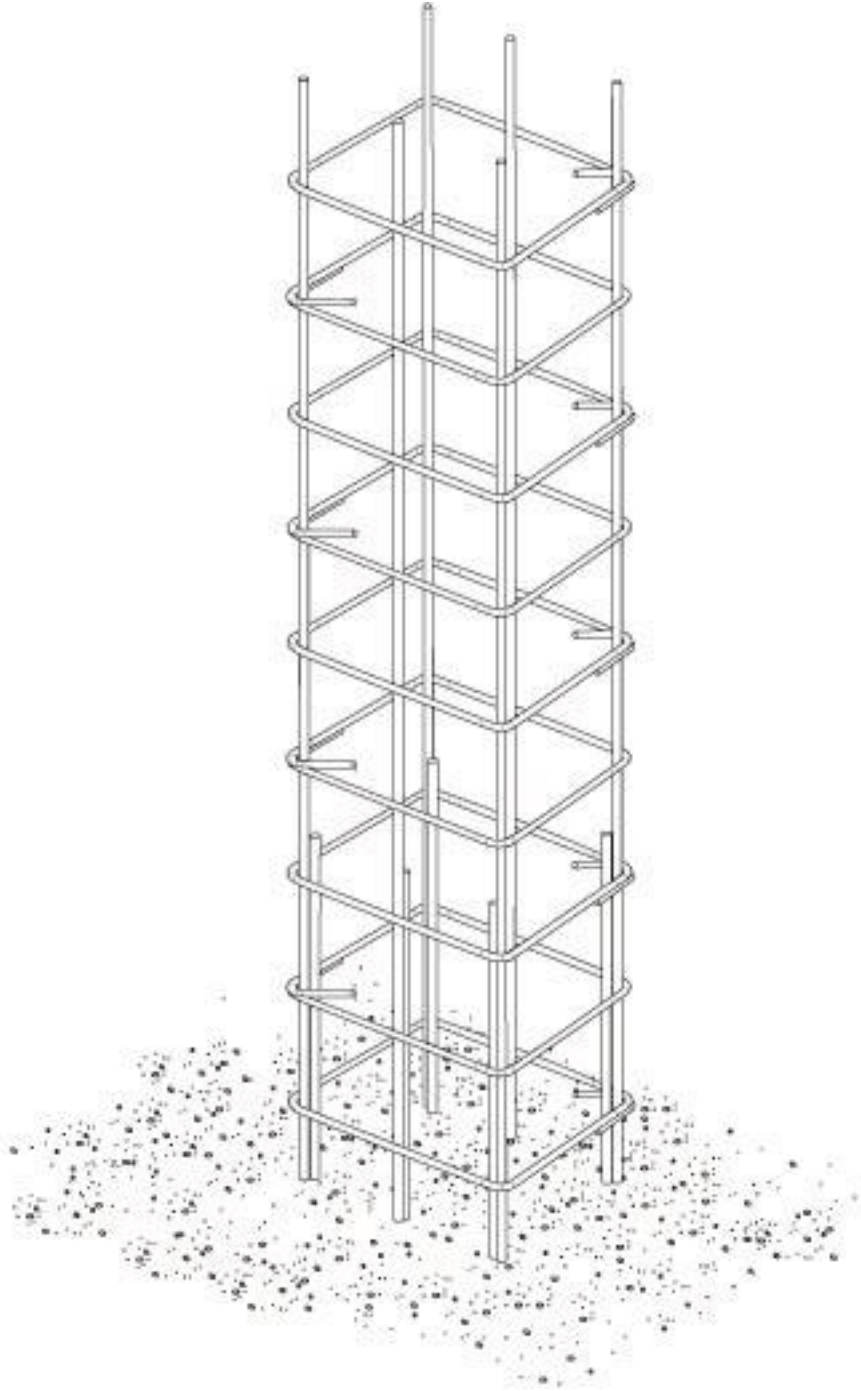
주철근

띠철근
(Tie-bar)

후프
(HOOP)

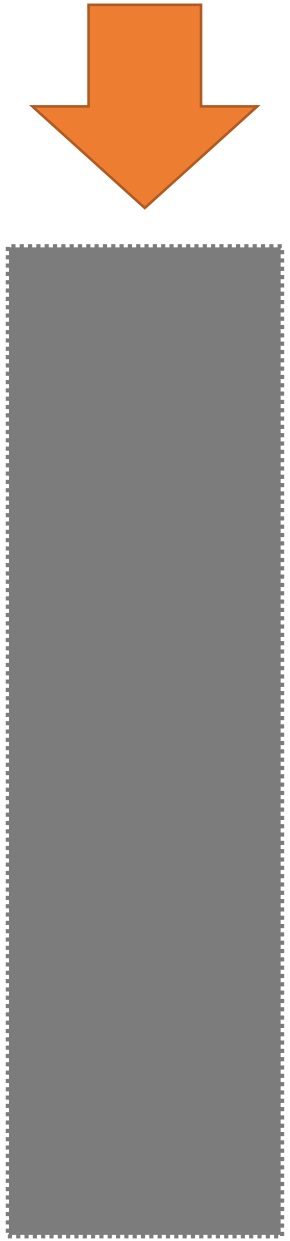
띠철근의 역할

- 축방향 주근의 고정 및 좌굴 억제
- 내부 콘크리트의 구속
- 전단보강근



띠철근의 역할

- 내부 콘크리트의 구속



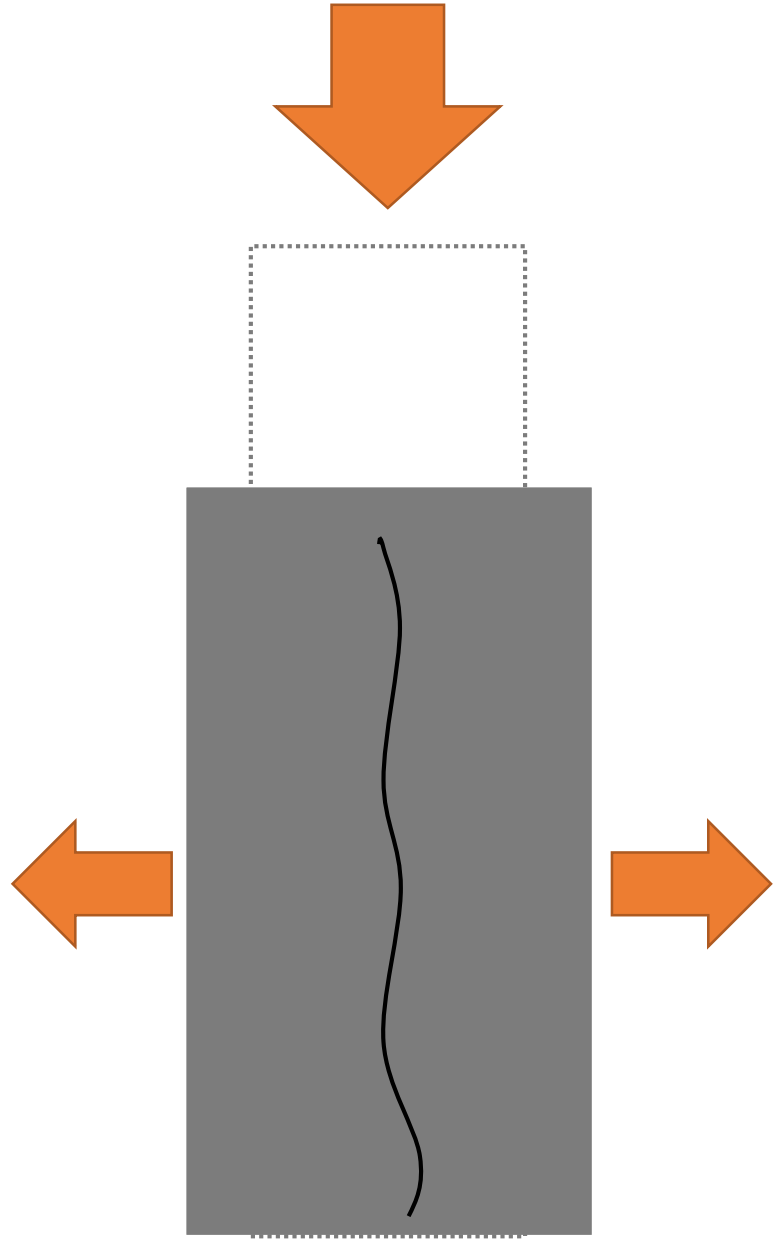
띠철근의 역할

- 내부 콘크리트의 구속

- 포아송(Poisson)비

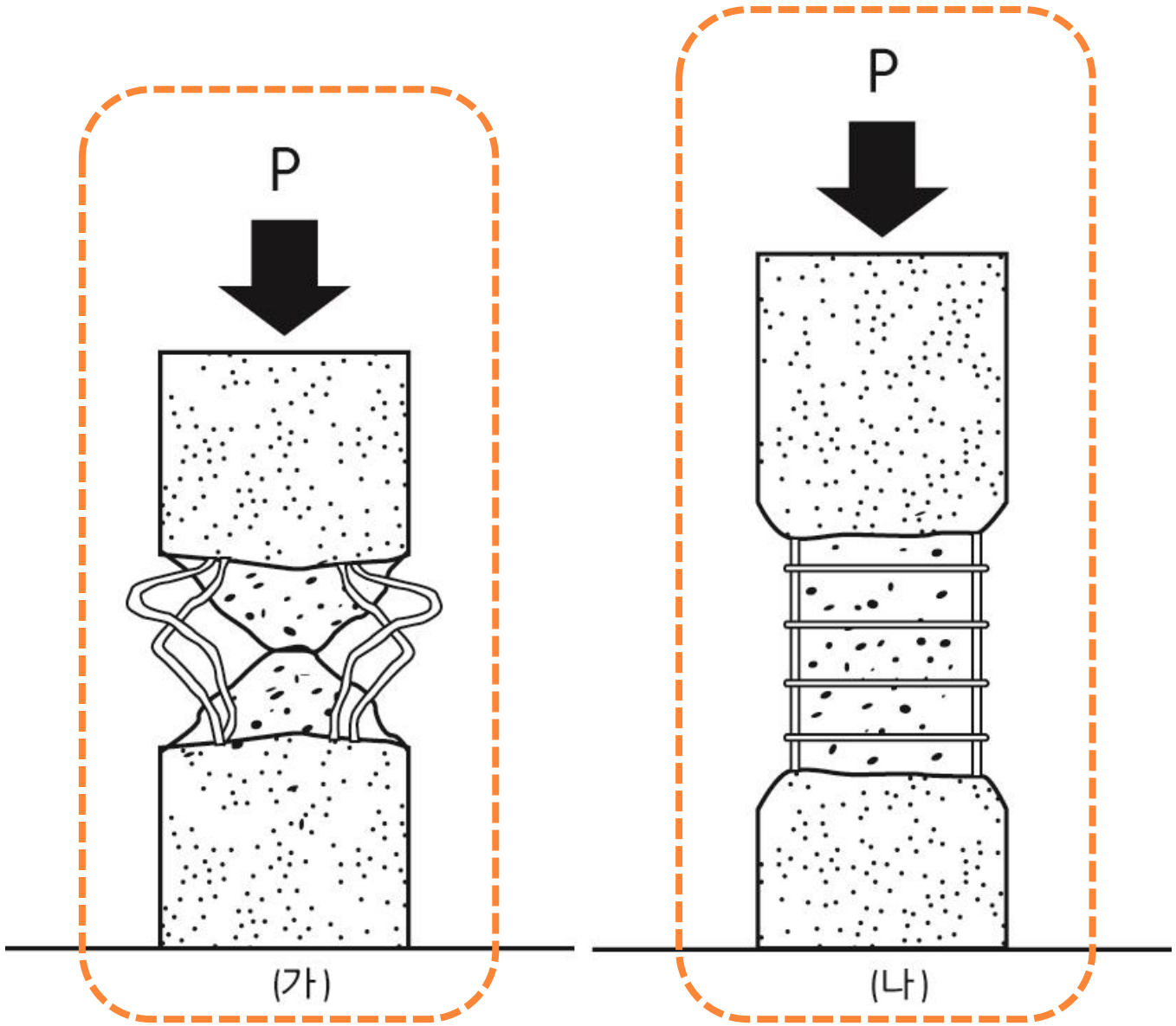
  = 횡방향변형/축방향변형

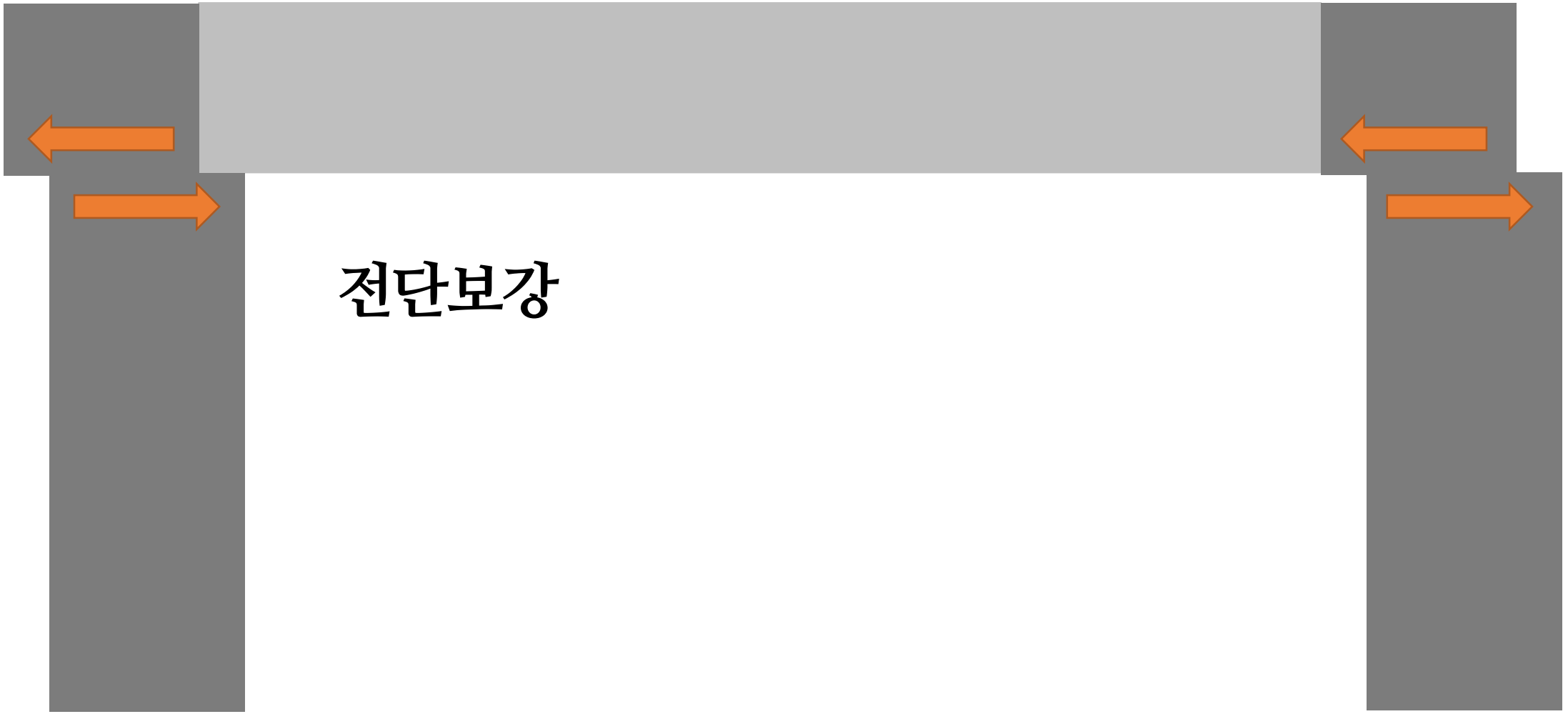
  = 1/6



띠철근의 역할

- 내부 콘크리트의 구속

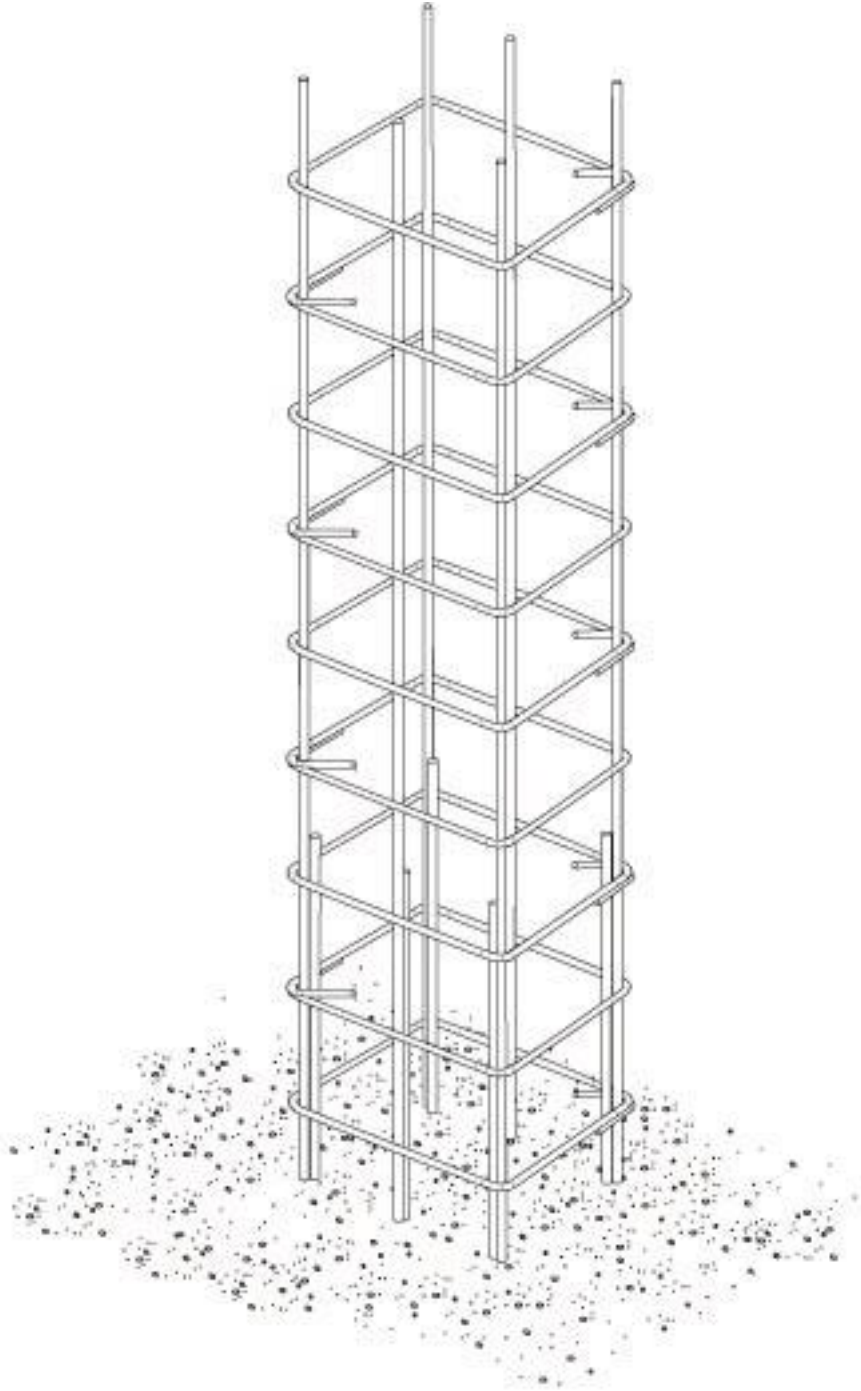




전단보강

띠철근의 역할

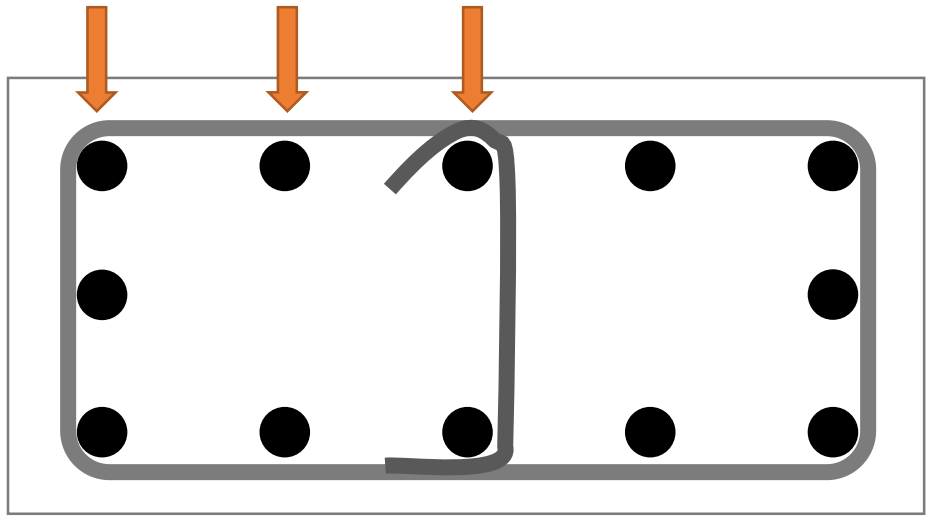
- 축방향 주근의 고정 및 좌굴 억제
- 내부 콘크리트의 구속
- 전단보강근

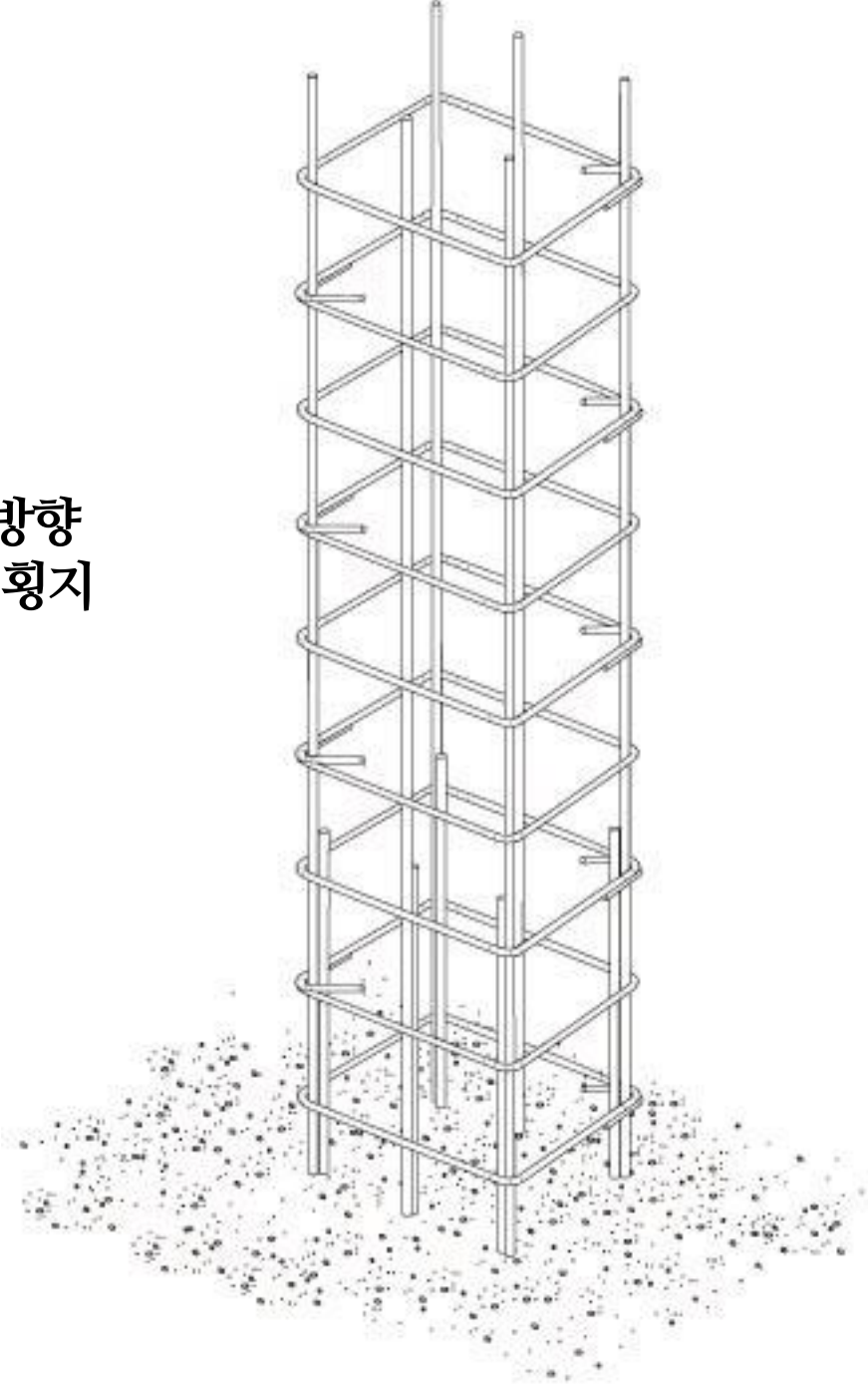


띠철근 설계 기준

- 띠철근 배치 규정

  모든 모서리 축방향 철근과 하나 건너 위치하고 있는 축방향 철근들은 135° 이하로 구부린 띠철근의 모서리에 의해 횡지지되어야 한다

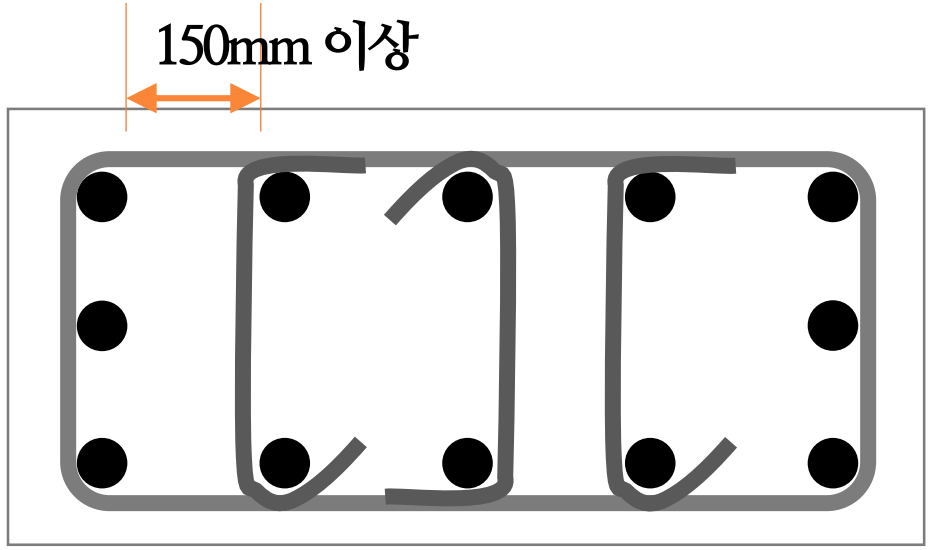


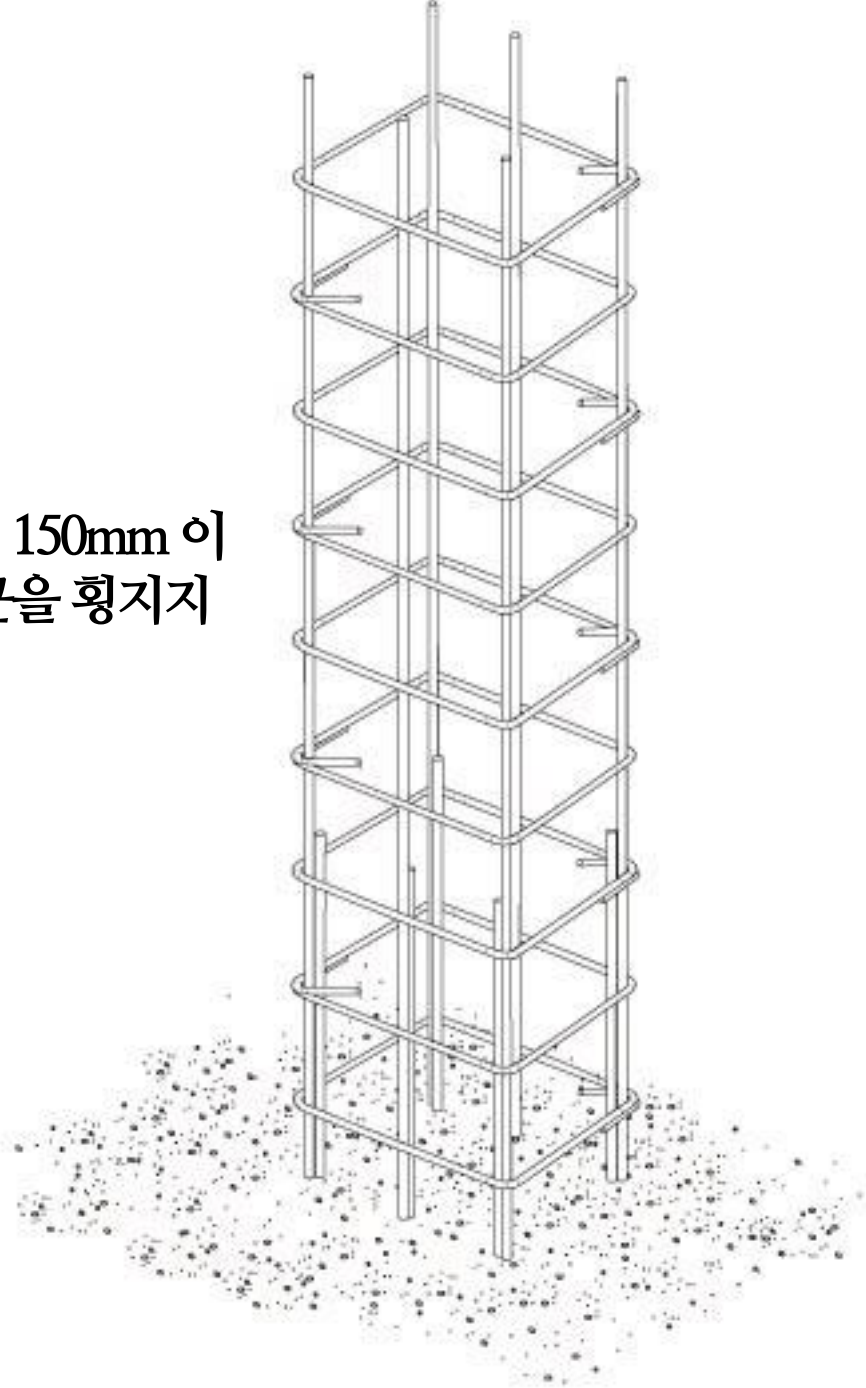


띠철근 설계 기준

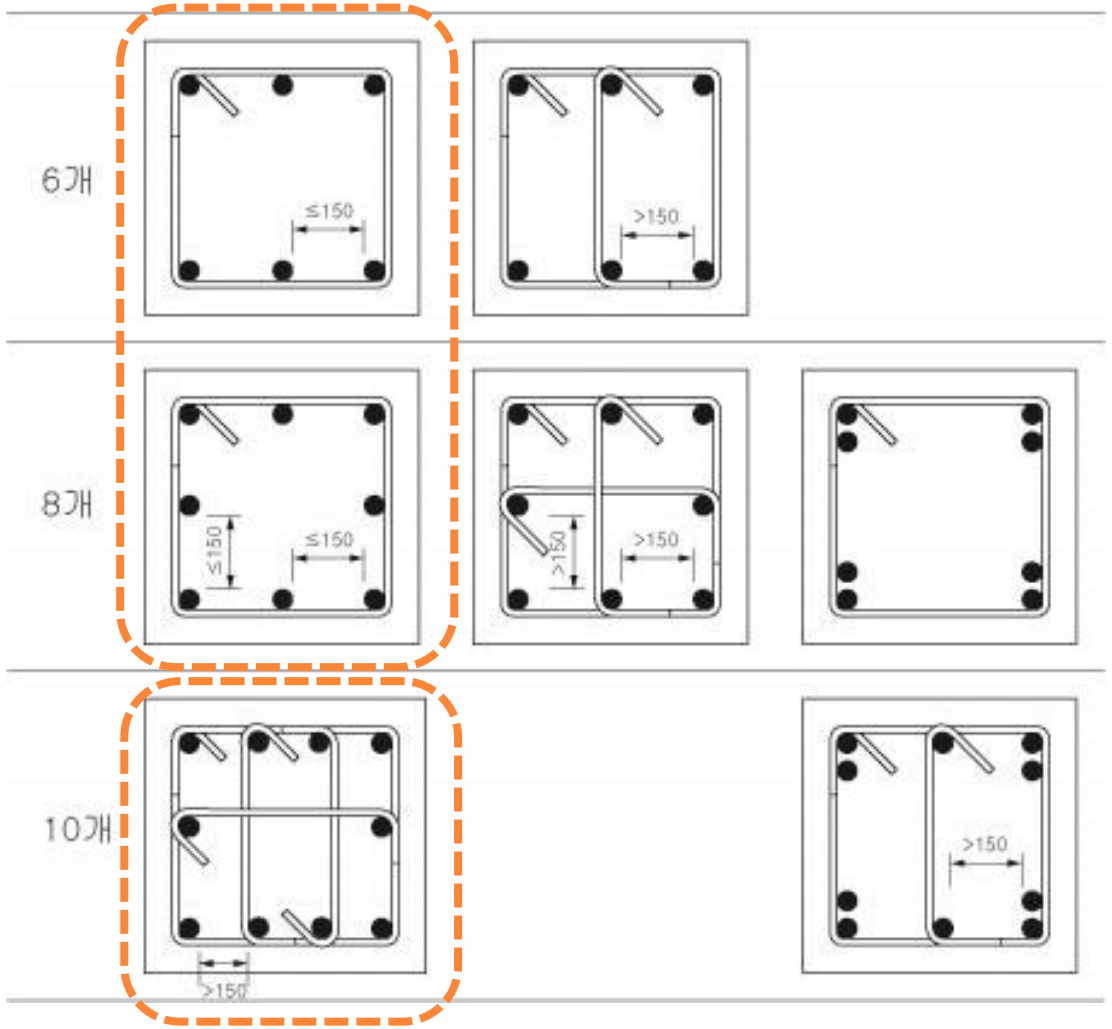
- 띠철근 배치 규정

  띠철근을 따라 횡지지된 인접한 축방향 철근의 순간격이 150mm 이상 떨어진 경우에는 추가 띠철근을 배치하여 축방향 철근을 횡지지





띠철근 배치 예



기둥 주근과 띠철근의 역할과

띠철근의 배치에 대해 살펴보았습니다.

철근 지식 저장소

https://next-rebar.tistory.com/