The background image shows a construction site with two excavators, one orange and one grey, working in a large pit. Several workers in hard hats are visible on the site. The image is overlaid with a dark blue gradient.

건축 적산

독립기초/ 줄기초 수량산출

The background image shows a construction site. In the upper left, an orange excavator with "DOOSAN" and "DX 160W" written on it is working on a pile of earth. To the right, a worker in a white hard hat and dark clothing stands near some equipment. The lower half of the image shows a large, deep excavation pit with a small white vehicle or piece of machinery at the bottom. The overall scene is dimly lit, suggesting an overcast day or early morning/late afternoon.

1

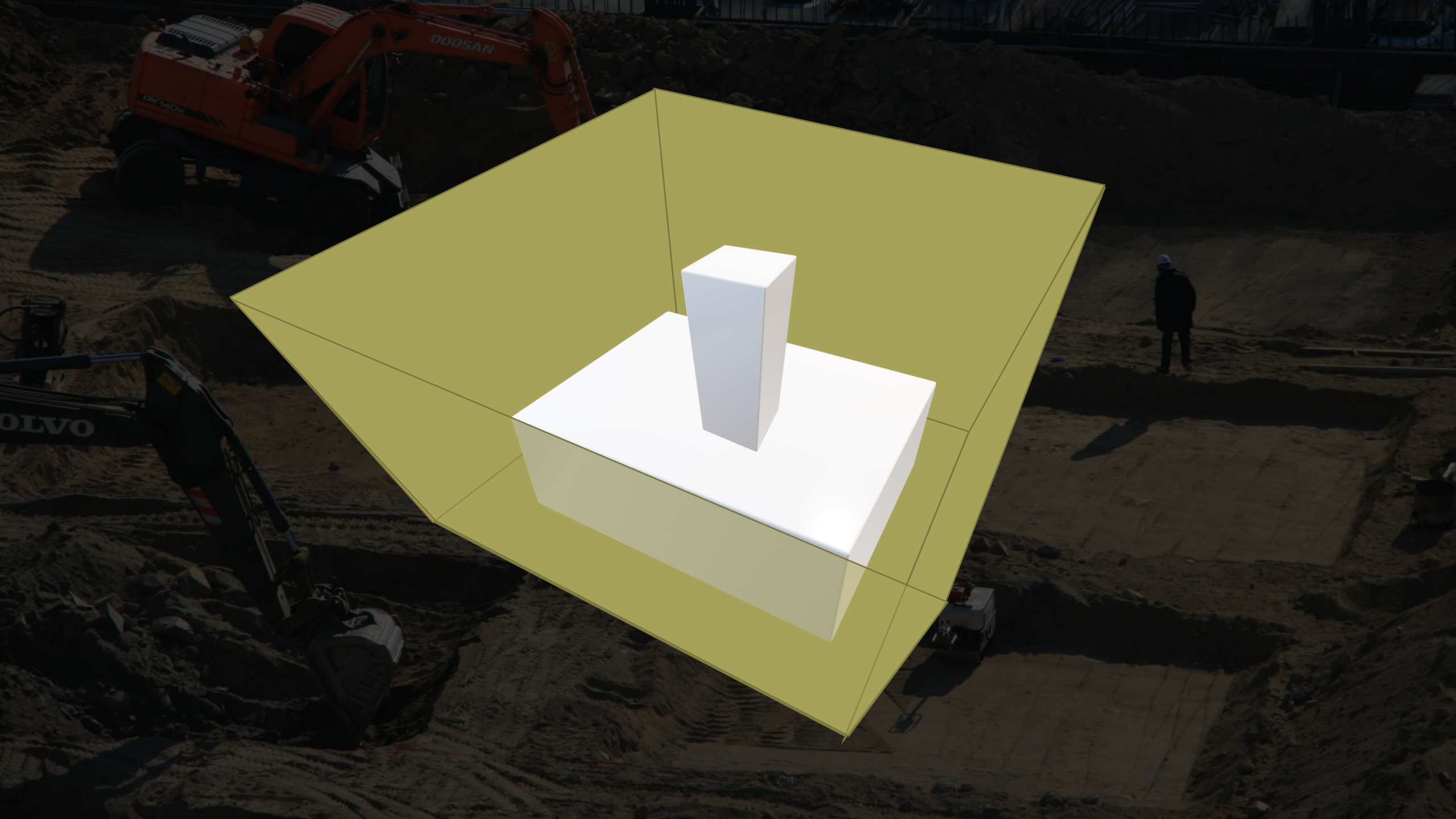
독립기초 터파기량 산출











법면 폭

법면 폭

여유폭

여유폭

작업 여유폭

여유폭

여유폭

흙막이가 없는 경우

깊이	여유폭
1.0m 이하	200mm
2.0m 이하	300mm
3.0m 이하	400mm
4.0m 이하	500mm

작업 여유폭

여유폭

여유폭

흙막이가 있는 경우

깊이

여유폭

5.0m 이하

600 ~ 900mm

5.0m 이상

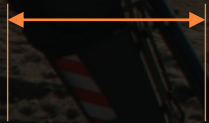
900 ~ 1,200mm

법면의 폭

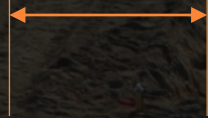
흙의 휴식각

흙 입자간의 마찰력만으로
중력에 저항하는 흙의 사면 각도

법면 폭



법면 폭 $\cong 0.3H$

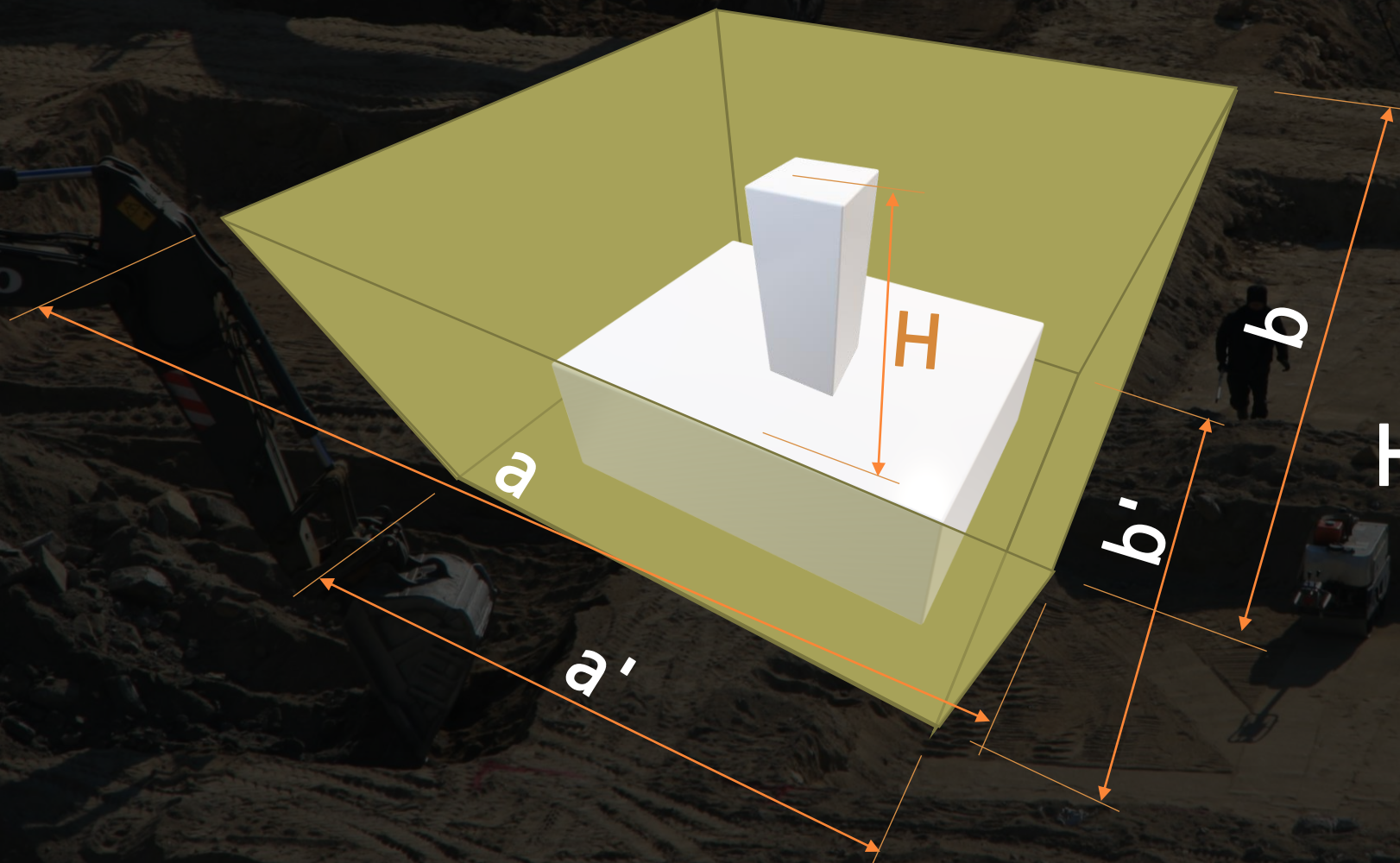


흙의 휴식각



터파기량

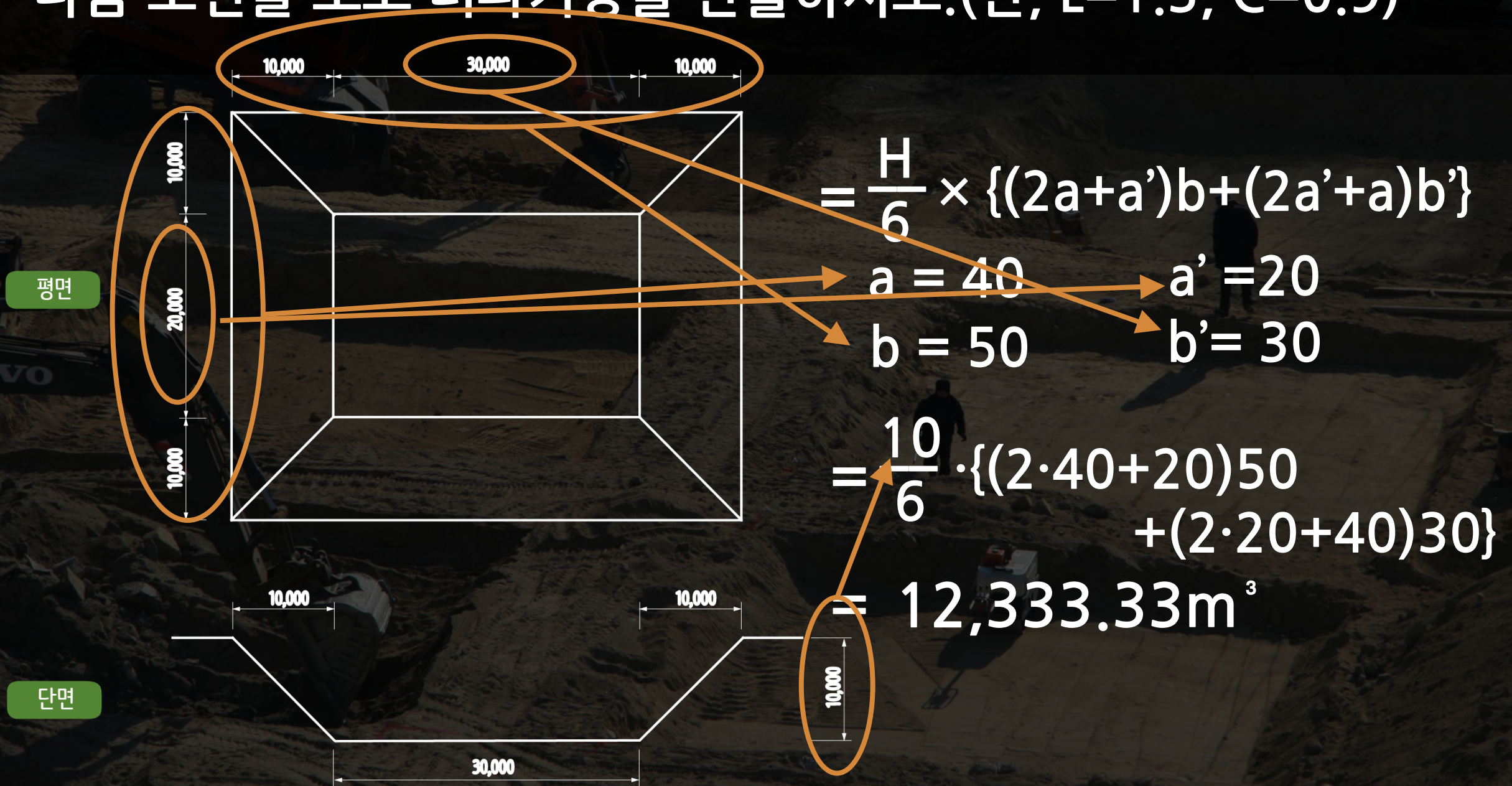
$$= \frac{H}{6} \times \{(2a+a')b + (2a'+a)b'\}$$



약산식 =

$$H \times \left\{ \frac{(a+a')}{2} \times \frac{(b+b')}{2} \right\}$$

다음 도면을 보고 터파기량을 산출하시오.(단, $L=1.3$, $C=0.9$)



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$$= 12,333.33\text{m}^3$$

트럭 1대의 적재량이 12m^3 일 때 운반대수를 산출하시오.

잔토처리량

$$= \text{터파기량} \times L$$

$$= 12,333.33 \times 1.3$$

$$= 16,033.33$$

$$\text{운반대수} = 16,033.33 / 12$$

$$= 1,336.11 \div 1,337(\text{대})$$

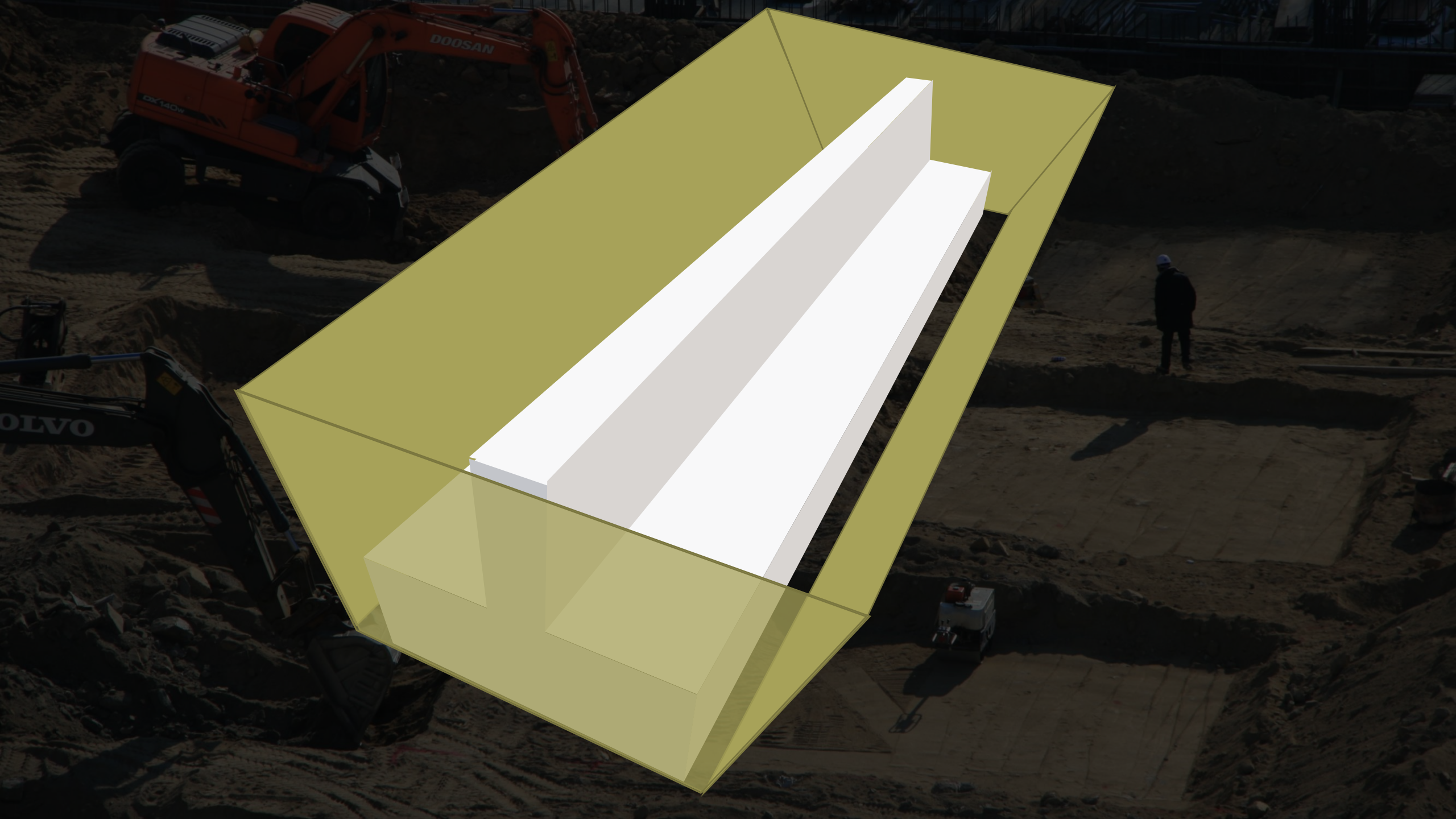
평면



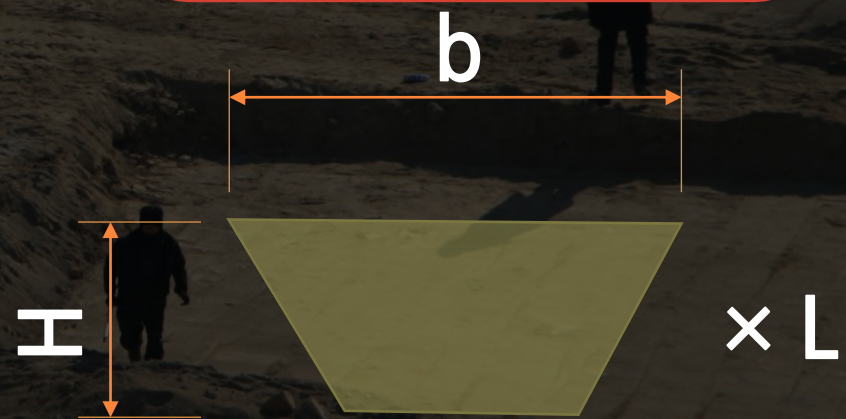
A dark, high-contrast photograph of a construction site. In the upper left, an orange excavator with "DOOSAN" and "DX 160W" visible on its arm is positioned on a pile of earth. To the right, a worker in a white hard hat and dark clothing stands on a flat area of the site. The ground is uneven, with various mounds and depressions. In the lower left, another excavator's bucket is visible, partially buried in the soil. The overall scene is dimly lit, emphasizing the textures of the earth and the industrial nature of the work.

2

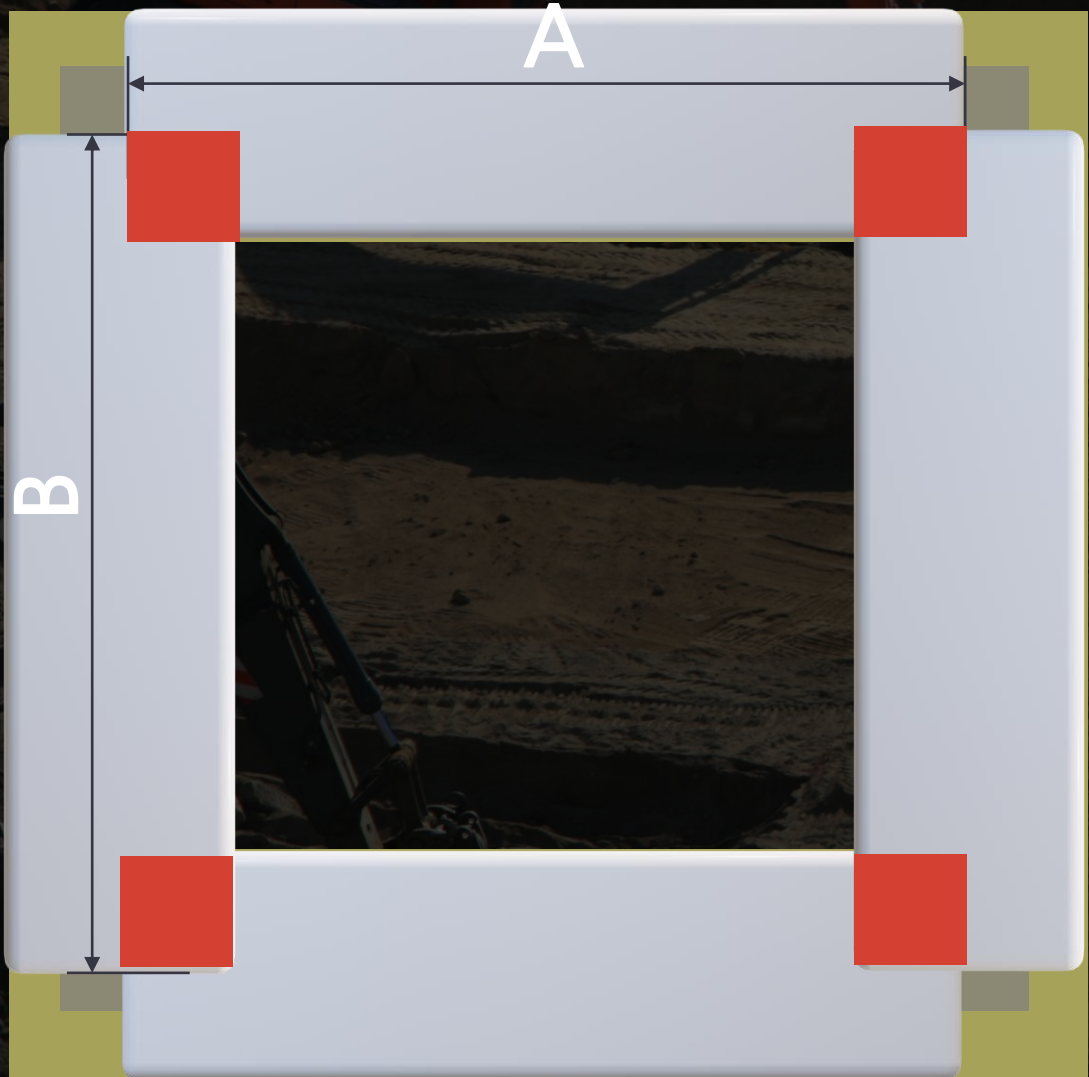
줄기초 터파기랑 산출



터파기량



$$= \frac{H(a+b)}{2} \times L$$

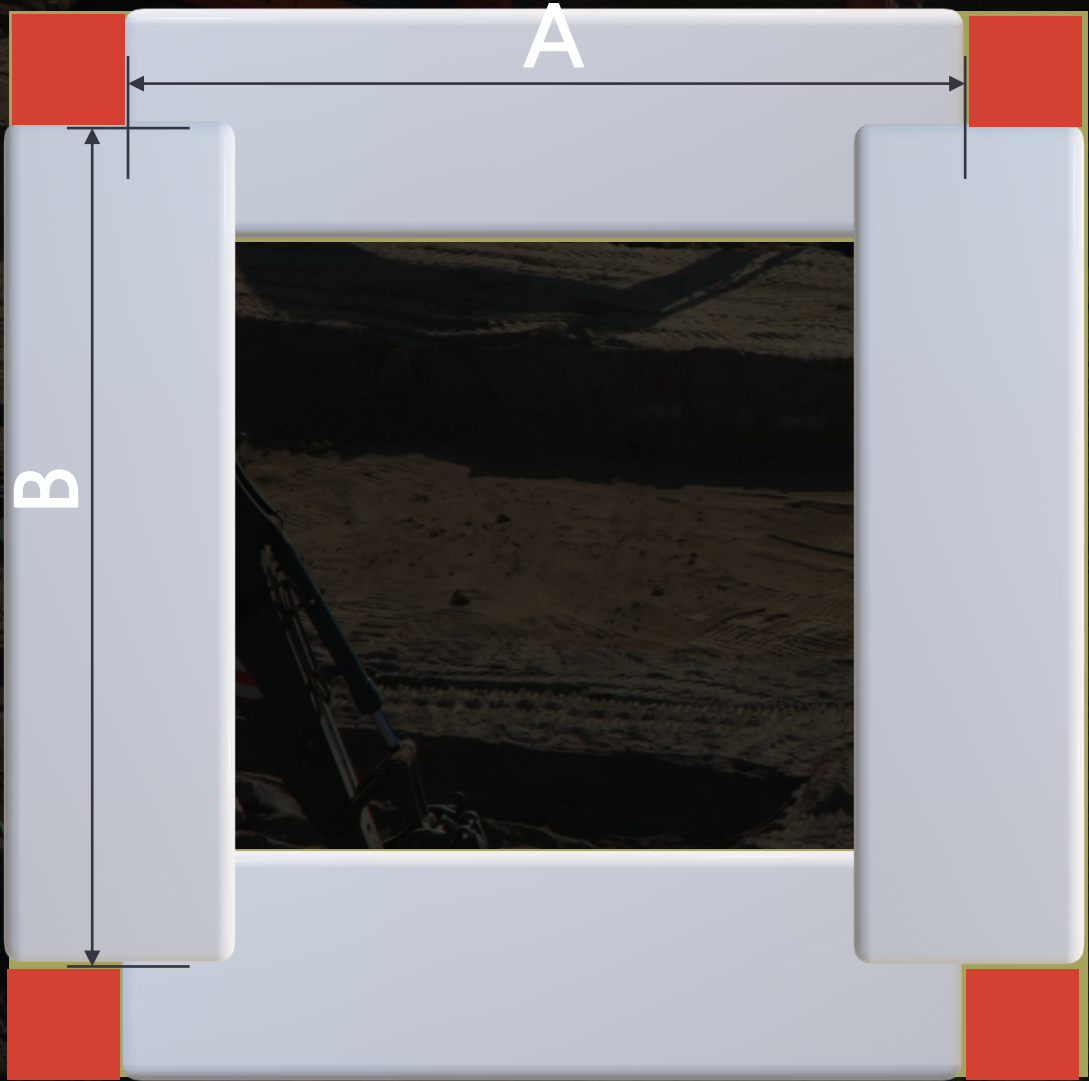


× L

줄기초 길이값의 적용

줄기초가 L자로 만날 때

$$L = (A+B) \times 2$$

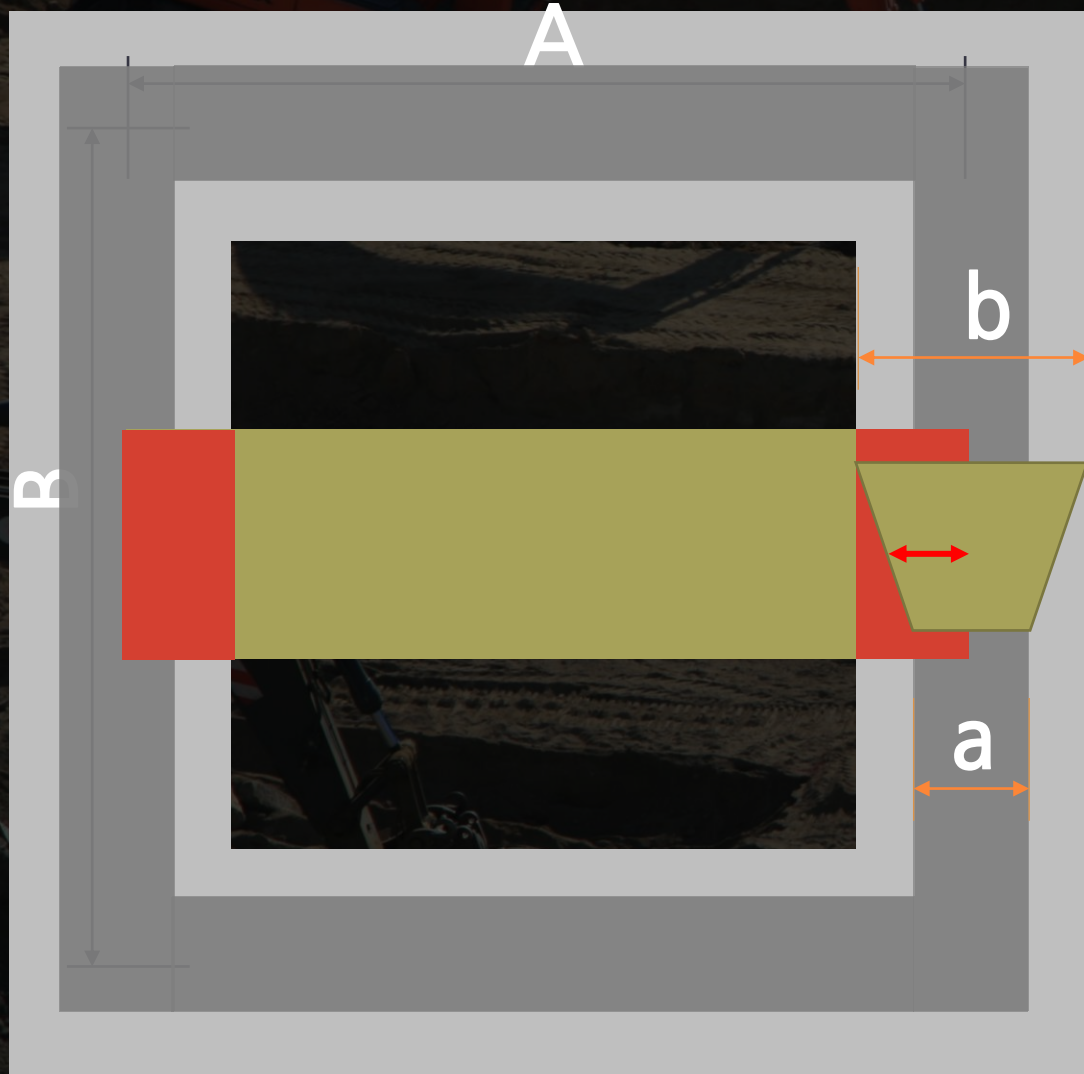


× L

줄기초 길이값의 적용

줄기초가 L자로 만날 때

$$L = (A+B) \times 2$$



줄기초 길이값의 적용

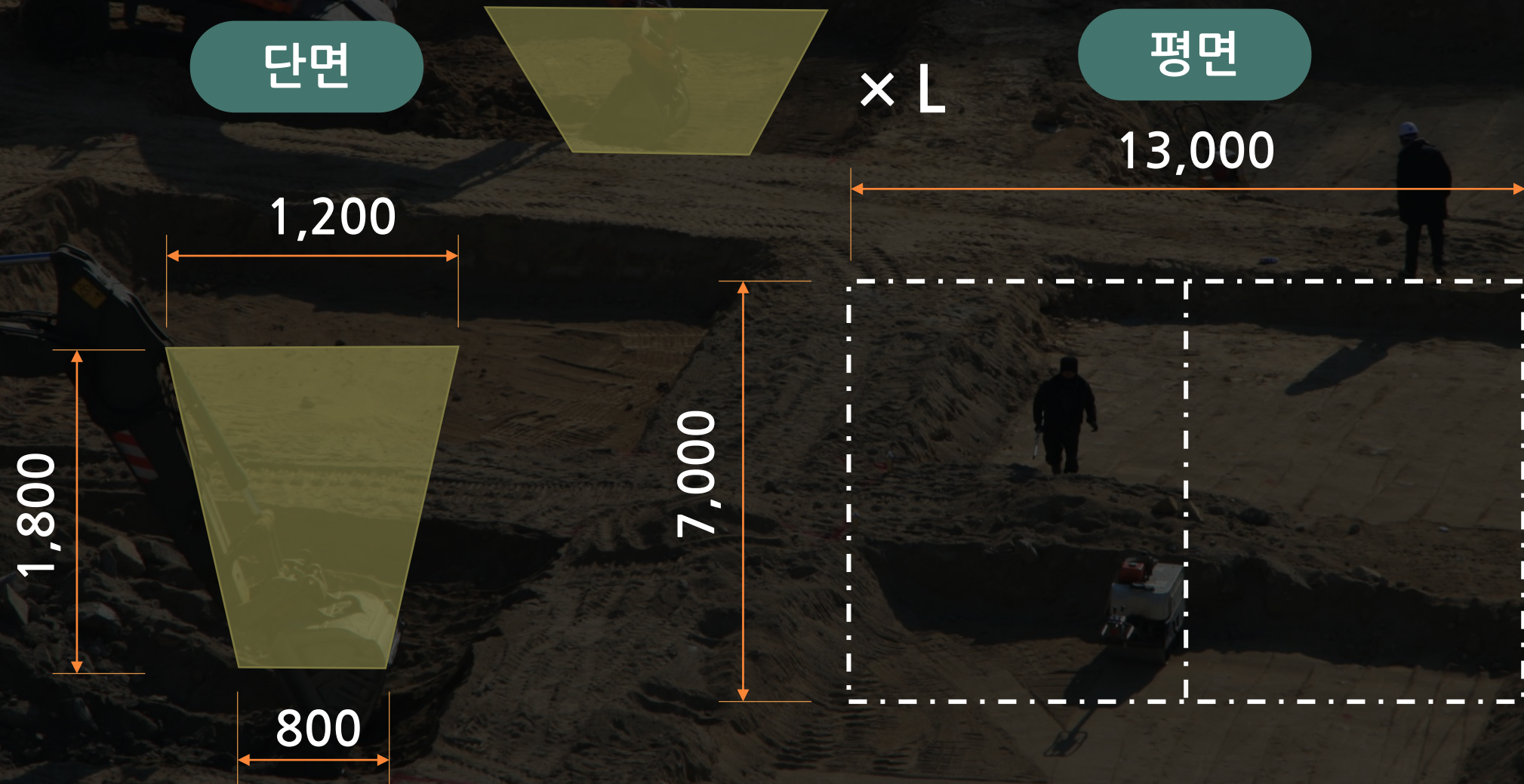
줄기초가 T자로 만날 때



$$L = A - \text{중복 길이} \\ ((a/2 + b/2)/2) \times 2$$

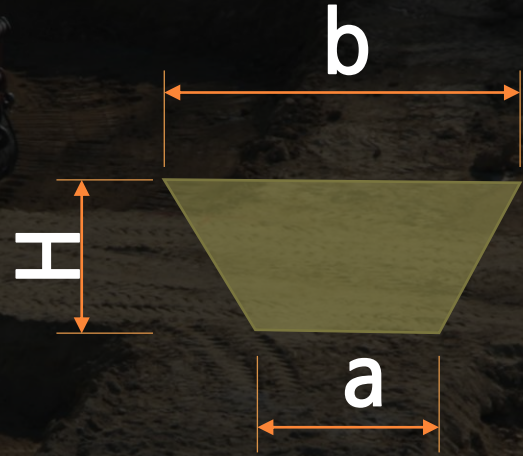
$$L = A - (a/2 + b/2)$$

다음과 같은 줄기초 터파기를 할 때 터파기 수량은?



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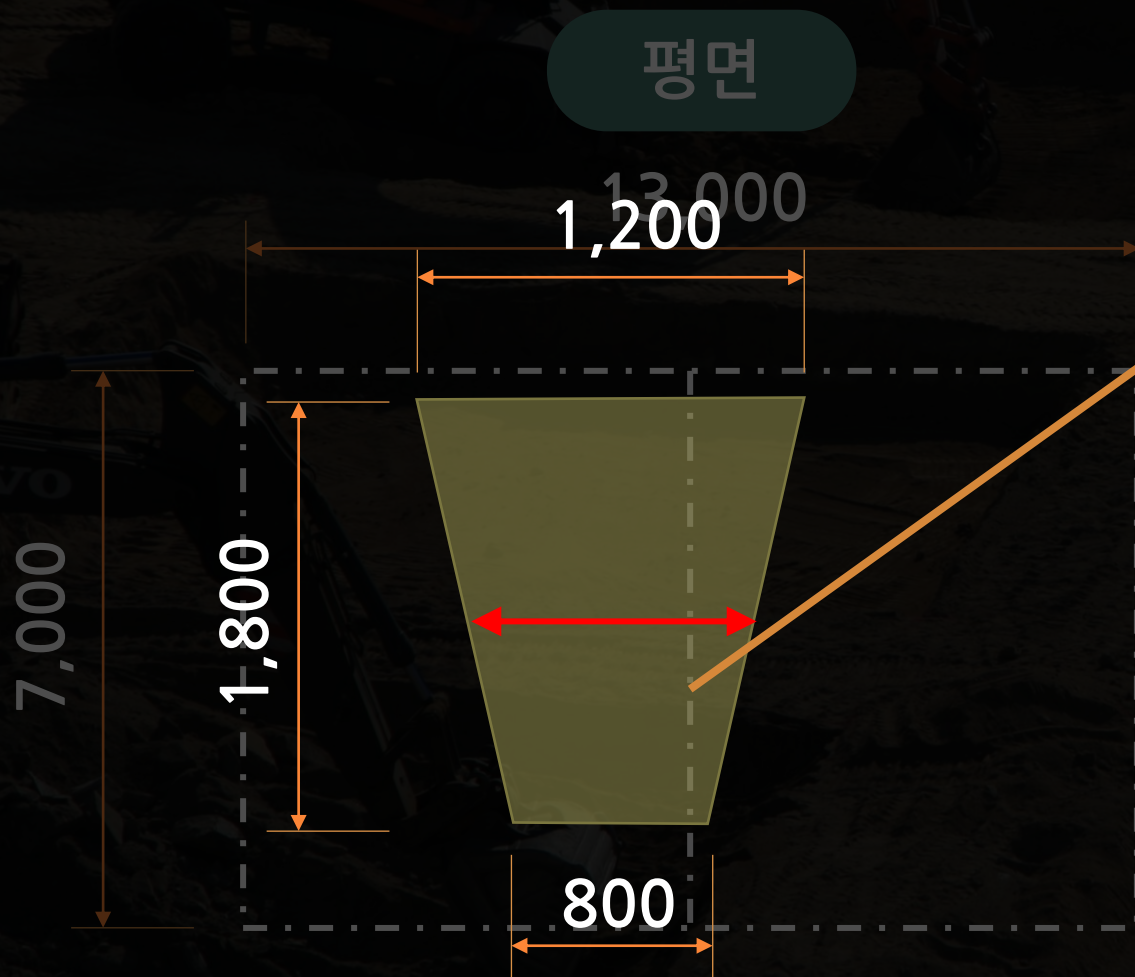
단면



$$= \frac{H(a+b)}{2}$$

$$= \frac{1.8(1.2+0.8)}{2} = 1.8\text{m}^2$$

다음과 같은 줄기초 터파기를 할 때 터파기 수량은?



$$\text{둘레} = (13+7) \times 2 = 40$$

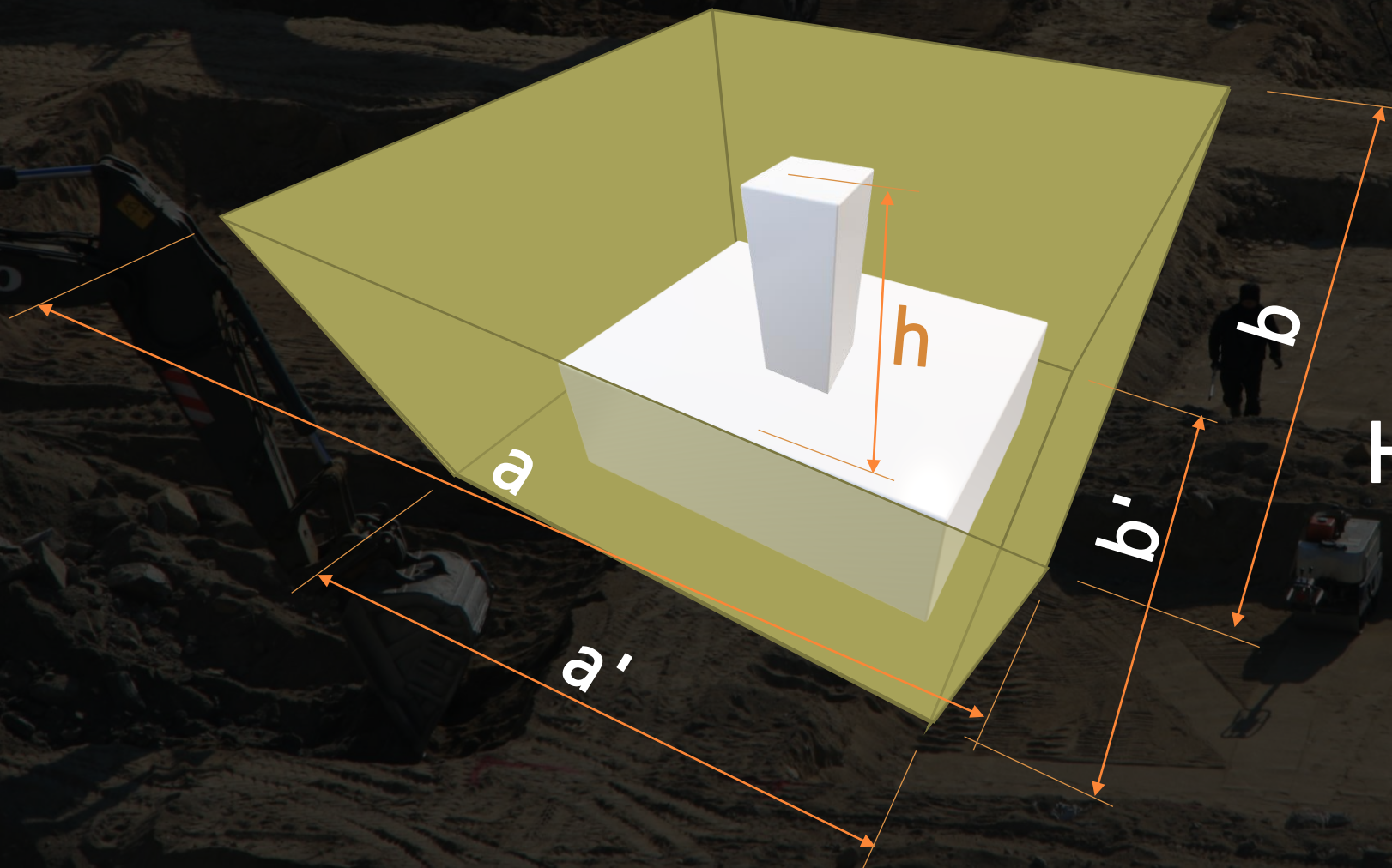
$$\begin{aligned} \text{중간} &= 7 - \text{겹침길이} \\ &= 7 - (1.2+0.8)/2 \\ &= 7 - 1 = 6 \end{aligned}$$

$$\text{총길이} = 40 + 6 = 46\text{m}$$

$$\begin{aligned} \text{터파기량} &= 1.8 \times 46 \\ &= 82.8\text{m}^3 \end{aligned}$$

독립기초

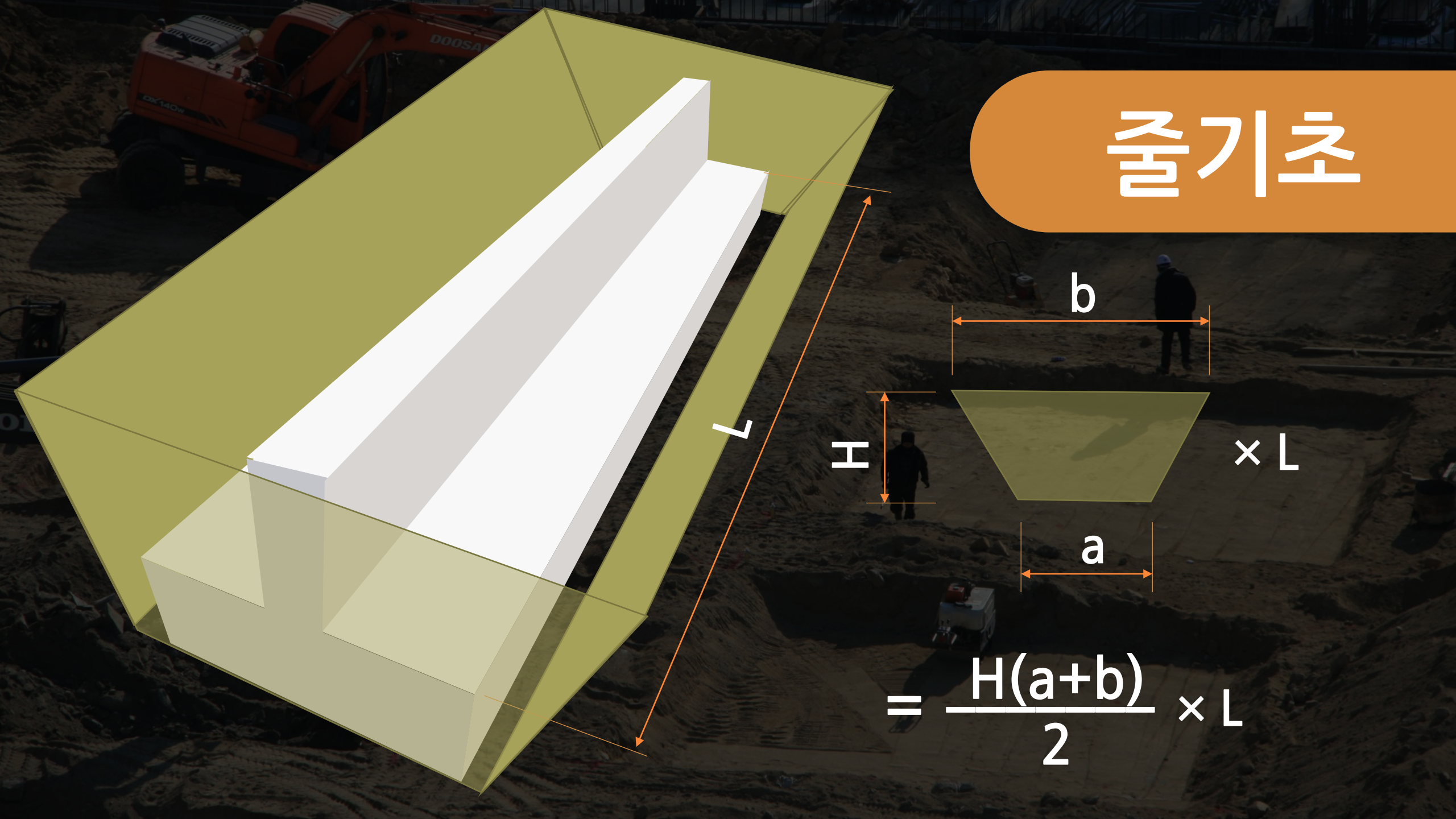
$$= \frac{H}{6} \times \{(2a+a')b + (2a'+a)b'\}$$



약산식 =

$$H \times \left\{ \frac{a+a'}{2} \times \frac{b+b'}{2} \right\}$$

줄기초



$$= \frac{H(a+b)}{2} \times L$$