How to Calculate an Observatory Wall Height

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$$H_{elev} = Tan(A_{elev}) * D_{wall}$$

EXAMPLE
Choose or measure A_{elev} minimum desired or possible (if limited by trees) elevation (assume 25°)
Measure D_{wall} distance from telescope center to wall (assume 60")
Measure H_{scope} height of telescope centerline above floor
Calculate H_{elev}
Tan(25°) = 0.466
H elev = 0.466 * 60
H elev = 27.96"
Wall may be 27.96" above telescope centerline height (H_{scope})
Add H_{scope} to H_{elev} for total wall height