Seth von Dardel
2021-05-13

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STUDY OF SOLAR ACCESS IMPACT OF 12 STOREY BUILDING

CONCLUSION

By reducing the building by two storeys from 12 storeys to 10, as shown below in Figure 1, solar access is significantly improved on the plaza during approximately 34 days with no impact between May 1st and August 10th (101 days) to no impact between April 15th and August 28th (135 days).

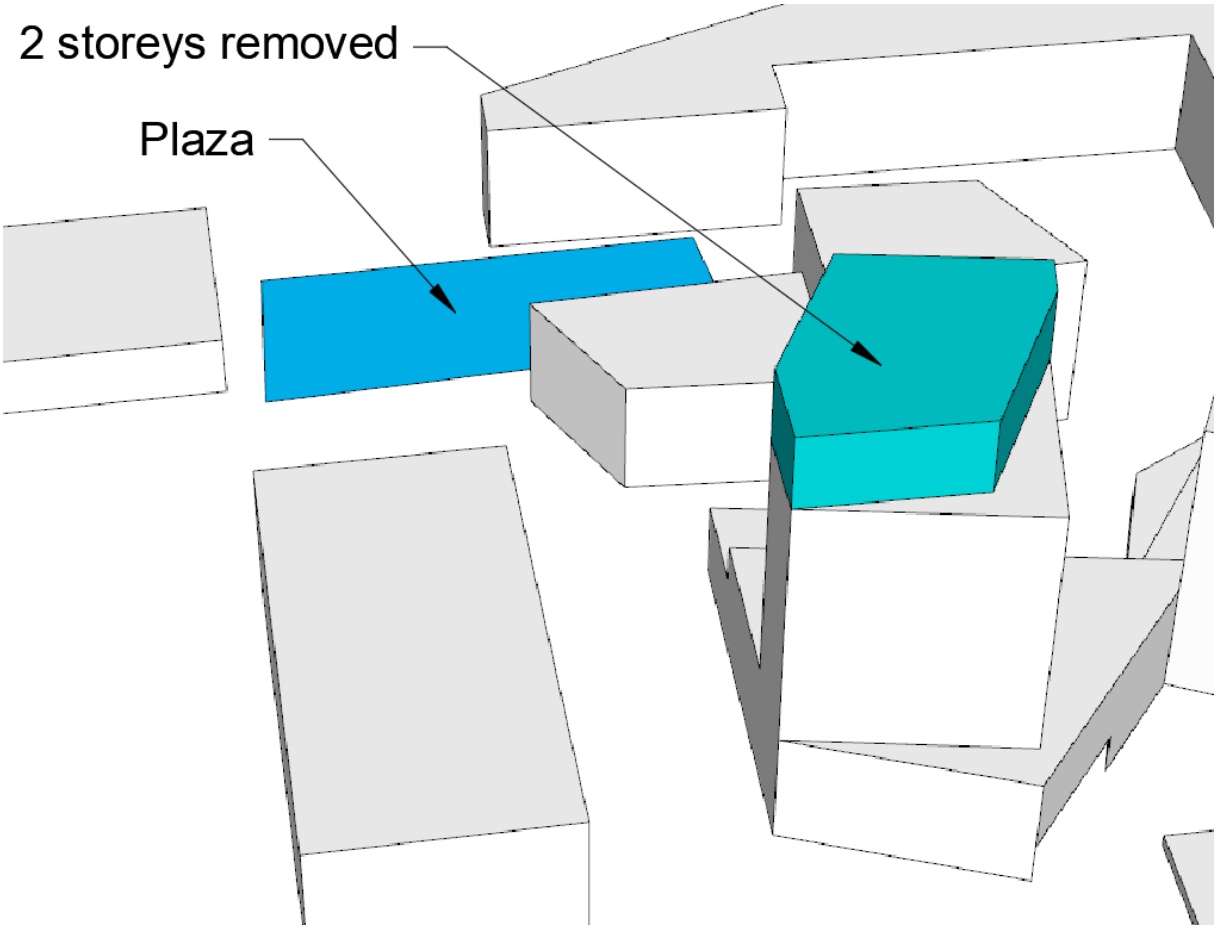

Figure 1 Plaza where solar access is studied and the two storeys removed when studying 10 storeys vs 12 storeys

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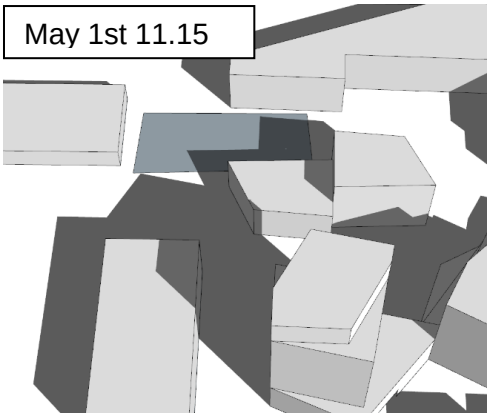
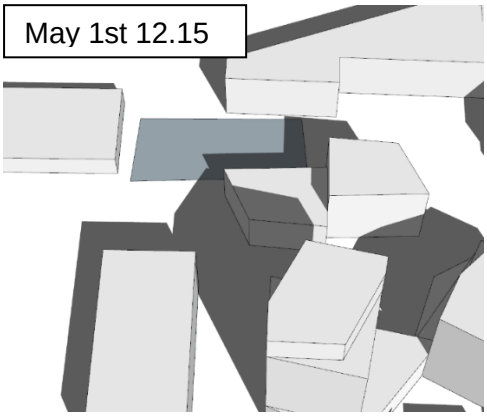
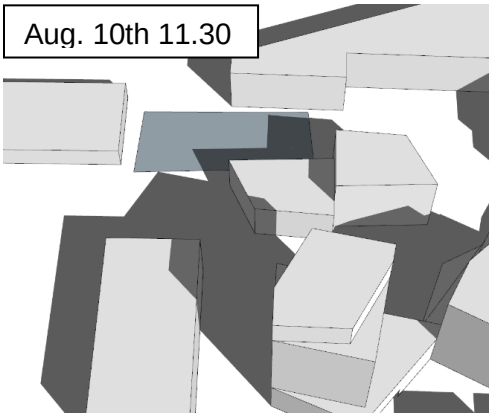
SOLAR ACCESS STUDY

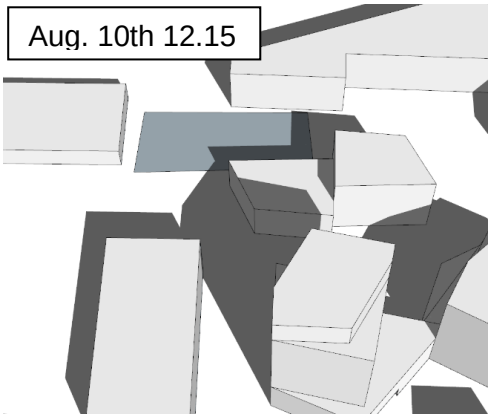
Time zone: UTC +-0

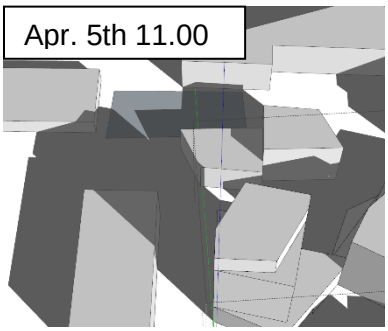
12 STOREYS

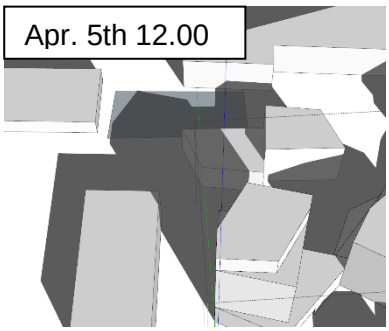


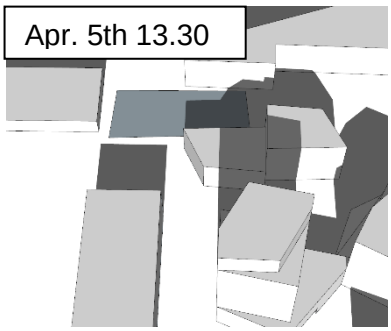


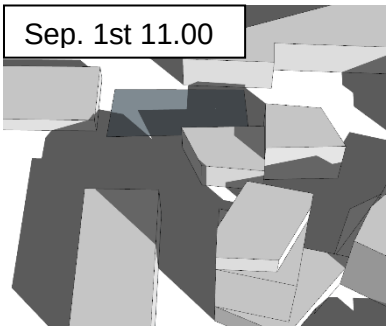


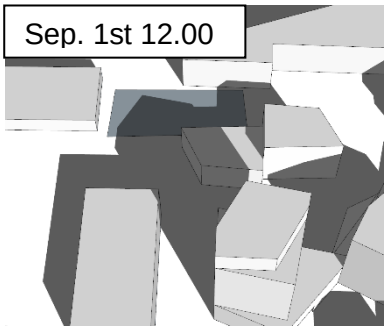


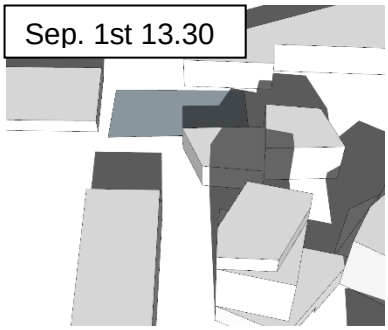












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Conclusion:

Between May 1st and August 10th the 12-storey building has negligible effect on solar access on the square. Between September 1st and April 5th the 12 storey building has significant impact on solar access on the plaza during the hours 11.00 to 13.30 (14.00). Significantly impacted means that the shade from the tower covers all or close to all of the plaza and negligible impacted means that the shade covers little to no part of the plaza.

Between April 1st and May 1st solar access for the plaza goes from significantly impacted to not impacted.

Between August 10th and September 1st solar access for the plaza goes from not impacted to significantly impacted.

The change between not impacted to significantly impacted can roughly be estimated to be linear which means that in the middle of the two periods, at April 15th and August 20th respectively, roughly half of the plaza, the southern side, is negatively impacted during the same hours.

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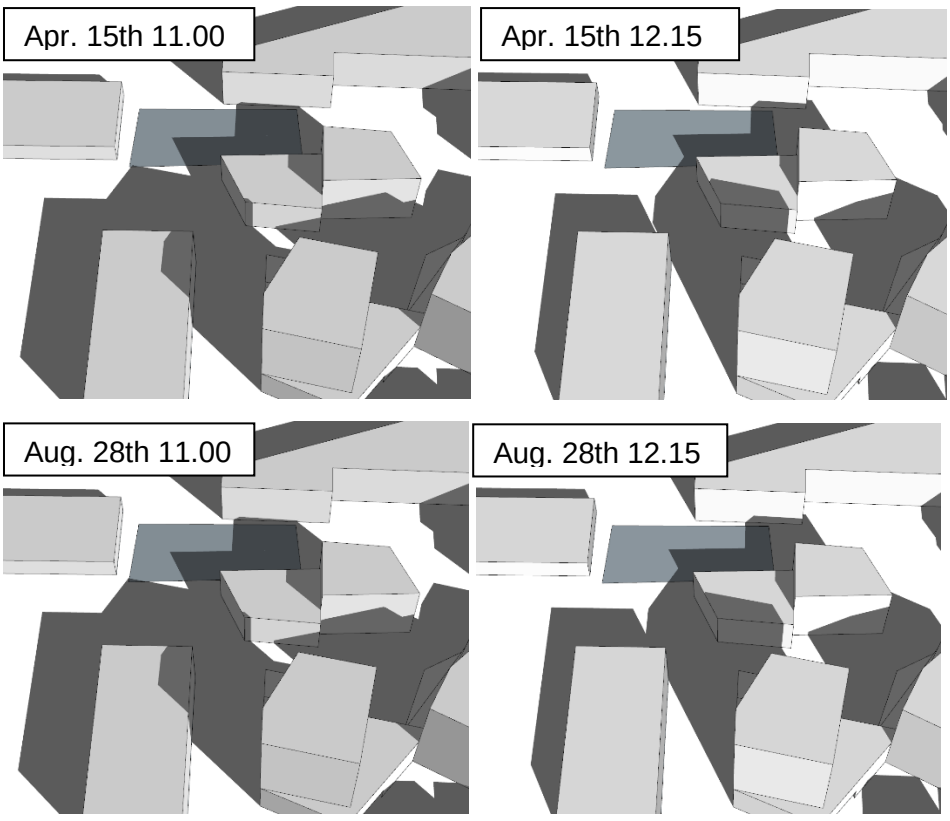
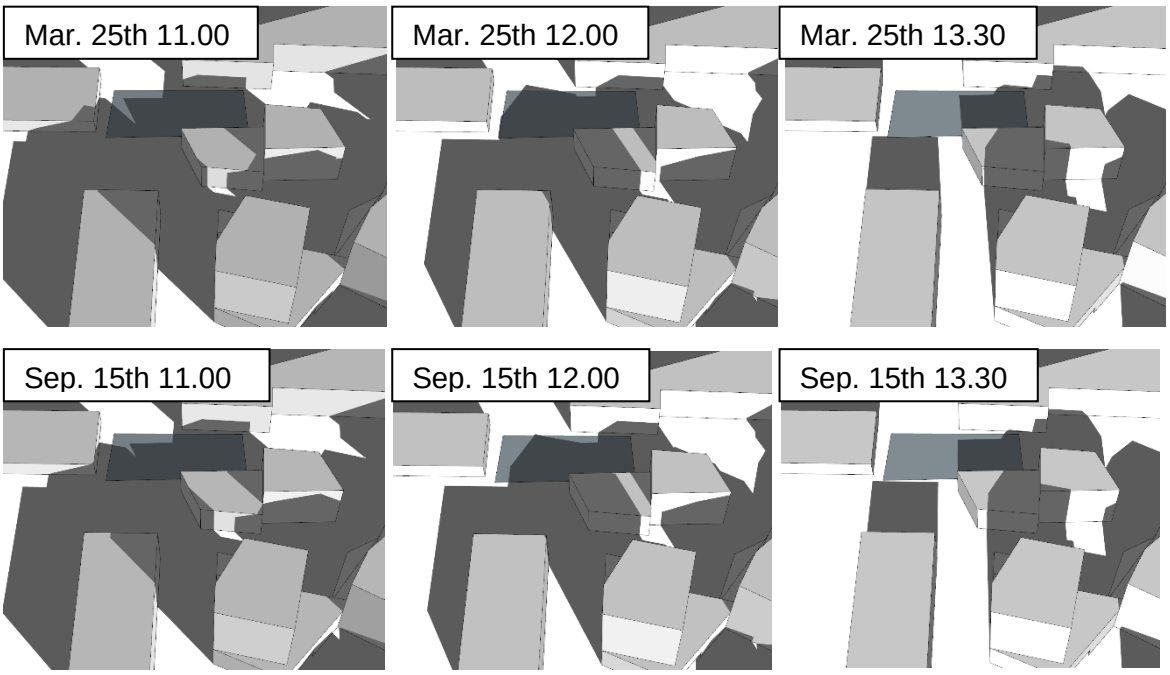
10 STOREYS





Conclusion: Between April 15th and August 28th the 10-storey building has negligible impact on solar access on the square. Between September 15th and March 25th the 10 storey building has significant impact on solar access on the plaza during the hours 11.00 to 13.30 (14.00). Significantly impacted means that the shade from the building covers all or close to all of the plaza and negligible impacted means that the shade covers little to no part of the plaza.

Between March 25th and April 15th solar access for the plaza goes from significantly impacted by the building to not impacted.

Between August 10th and September 15th solar access for the plaza goes from not impacted to significantly impacted.

The change between not impacted to significantly impacted can roughly be estimated to be linear which means that in the middle of the two periods, at April 4th and August 28th respectively, roughly half of the plaza, the southern side, is negatively impacted during the same hours.

By reducing the building by two storeys solar access is significantly improved during approximately 34 days with no impact between May 1st and August 10th (101 days) to no impact between April 15th and August 28th (135 days).

Starkstad.

STARKSTAD PROJECT PARTNERS AB

Seth von Dardel
seth@starkstad.com
Priorvägen 13
247 51 Dalby
Tel: 0702 – 56 25 50
Org. nr: 559191–6472