

# Norsk friidrett

Ullevaal stadion

Sognsveien 75 J

0840 Oslo

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Tlf.: +47 94 83 33 26



## COURSE MEASUREMENT REPORT - RAPPORT FOR NASJONALT KONTROLLMÅLT LØYPE -

|                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Event and Course</b>                                                                                                                                                             |
| <b>Event :</b> Vossaton                                                                                                                                                             |
| <b>Promoting Organization:</b> Voss IL                                                                                                                                              |
| <b>Date :</b> August 24th 2024                                                                                                                                                      |
| <b>Date and Time of measurement:</b> April 30 <sup>th</sup> , 17:00                                                                                                                 |
| <b>Measured distance:</b> 5K                                                                                                                                                        |
| <b>Length of calibration course:</b> 300m                                                                                                                                           |
| <b>Terrain:</b> Flat <input checked="" type="checkbox"/> Slightly hilly <input type="checkbox"/> Hilly <input type="checkbox"/> Terrain <input type="checkbox"/>                    |
| <b>Race surface:</b> Mostly gravel                                                                                                                                                  |
| <b>Course configuration:</b> Closed loop <input checked="" type="checkbox"/> Back and forth <input type="checkbox"/> A to B <input type="checkbox"/> Other <input type="checkbox"/> |
| <b>Elevation : Start - Finish:</b> 0m                                                                                                                                               |
| <b>Description of Start:</b> Voss Idrettsplass (Stadium) Start                                                                                                                      |
| <b>Description of Finish:</b> Voss Idrettsplass (Stadium) Finish                                                                                                                    |
| <b>Distance, in a straight line, between start &amp; finish:</b> 0m                                                                                                                 |
| <b>Is Start and Finish marked:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                              |
| <b>Km-markings:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                             |
| <b>Measurement direction:</b> Running direction <input checked="" type="checkbox"/> Opposite running direction <input type="checkbox"/>                                             |

|                            |                    |                   |
|----------------------------|--------------------|-------------------|
| <b>Contact information</b> |                    |                   |
|                            | <b>Measured by</b> | <b>Organizer:</b> |
| <b>Name:</b>               | Geir Jensen        | Tore Tvilde       |
| <b>Phone:</b>              | +47 48 08 22 00    | +47 907 45 583    |
| <b>Email:</b>              | Ccie8795@gmail.com | ttvilde@gmail.com |

It is hereby confirmed that the course has been measured by a nationally certified course measurer from Norwegian Athletics. The course is measured in accordance with Norwegian athletics regulations, and the distance has the correct length. The survey is valid for 5 years, except if the route is changed.

19/5-24 Geir Jensen (sign)

Date

Signature

Date

NFIFs approval

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| Calibration                                                                     |      |
|---------------------------------------------------------------------------------|------|
| Length of measuring tape (steel measuring tape only)                            | 50m  |
| Length of calibration course 1st measurement                                    | 300m |
| Length of calibration course 2nd measurement                                    | 300m |
| Possible 3rd measurement (max. 1 cm diff per 100m between first 2 measurements) |      |
| Average of measurements before adjustments                                      | 300m |
| Temperature (road or measuring tape)                                            | 20C  |
| Adjustment cf. $D - (D * (1 + (\text{temp} - 20) * 0,0000115))$                 | 0m   |
| Measured calibration distance after adjustment                                  | 300m |
| Distance from start/finish to calibration distance                              | 500m |

| Calibration information (max 8 Counts difference of 1000 m between 4 measurements, ie 2 Counts of 300m and 3 Count of 400m) |                              |         |         |                              |        |         |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------|---------|---------|------------------------------|--------|---------|
|                                                                                                                             | Pre-measurement              |         |         | Post-measurement             |        |         |
|                                                                                                                             | Date/Time: March 30th, 17:00 |         |         | Date/Time: March 30th, 19:30 |        |         |
|                                                                                                                             | Start                        | End     | Reading | Start                        | End    | Reading |
| 1.                                                                                                                          | 670 000                      | 673 419 | 3 419   | 8 000                        | 11 416 | 3 416   |
| 2.                                                                                                                          | 674 000                      | 677 420 | 3 420   | 11 500                       | 14 916 | 3 416   |
| 3.                                                                                                                          | 677 500                      | 680 920 | 3 420   | 15 000                       | 18 417 | 3 417   |
| 4.                                                                                                                          | 681 000                      | 684 419 | 3 419   | 18 500                       | 21 916 | 3 416   |

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## Pre measurement Post measurement

|                      |             |         |                                                                             |
|----------------------|-------------|---------|-----------------------------------------------------------------------------|
| Average(1+2+3+4) / 4 | 3 419.5     | 3416.25 | Today's constant. Either highest or average of before and after measurement |
| Working Constant     | 11 398.3333 | 11387.5 |                                                                             |
| +1‰                  | 11.3983333  | 11.3875 |                                                                             |
| Measurement constant | 11 410      | 11 399  | 11410                                                                       |

## MÅLEPROSEDYRE

|                      |           |                                 |
|----------------------|-----------|---------------------------------|
| Measurement constant | 11 410    |                                 |
| Distance             | Counter   | Description                     |
| 0km Start            | 946 000   | Start/Finish line, Voss stadium |
| 5km Finish           | 1 003 050 | Start/Finish line, Voss stadium |

## Conclusion

- **Measurement method**  
Jones counter mounted on bicycle wheel
- **Measurement procedure**  
The measurement was carried out by a continuous measurement in the running direction from start to the finish.
- **Course adjustment**  
The post calibration gave a slightly lower constant 11 399 vs 11 410. I decided to use the highest value ( 11 410) in my calculations.

When I crossed the finish line the Jones counter was (1) 003 268, but it "should" have been (1) 003 050. The course is therefore 19,11m to long. No adjustment necessary.

$(1\ 003\ 268 - 1\ 003\ 050) \text{ ticks} \cdot 1000\text{m}/11\ 410 \text{ ticks.} = 19,11\text{m}$

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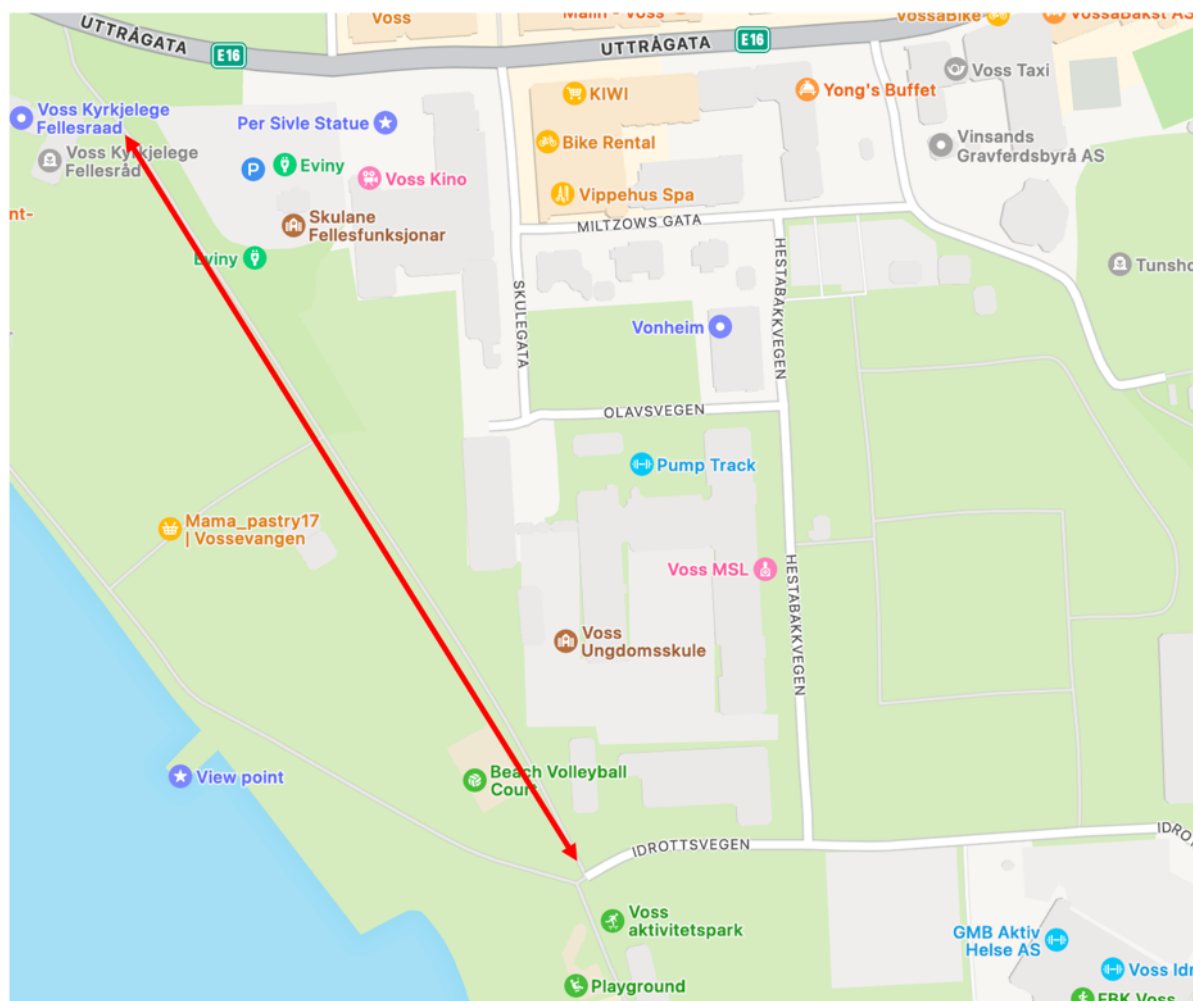
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## Calibration Course map



The calibration course is on the walkway between Idrottsvegen and Uttrågata,  
The calibration course is not permanently marked.

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## Course map and description



### Course description:

- Start at Start/Finish line at the stadium.
- Run 150m clockwise and exit through the gate
- Follow the path towards the alley
- Turn right at Tintrabrua onto Prestegardsalleen
- Run along Strandpromenaden to Peder Bondes veg.
- Run on the sidewalk to the turning point
- Same way back (Peder Bondes veg and Strandpromenaden ) until Idrottsvegen
- Turn left onto Idrottsvegen, and enter the stadium through the main gate.
- Run 300m to the finish line (counter clockwise).

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Start is at the Start/Finish line at the stadium, start running clockwise.



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Exit the stadium after 150m



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Run towards the alley.



Turn right at Tintebrua



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Run along Prestegaardsalleen



Strandpromenaden



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Enter Peter Bondes Veg, run on the sidewalk



Turning point marked with permanent blue paint on the sidewalk



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## Strandpromenaden



## Idrottsvegen towards the Stadium.



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