

Norwegian Athletic Federation

Ullevaal stadion
Sognsveien 75 J
0840 Oslo, Norway
E-mail: friidrett@friidrett.no
Phone: +47 94 83 33 26



COURSE MEASUREMENT REPORT

- REPORT FOR NATIONAL CERTIFIED COURSE -

INFORMATION ABOUT EVENT AND COURSE
Event: Stavanger Marathon
Technical Organiser: GTI Friidrettsklubb
City/Place: Stavanger/Norway
Date of Arrangement: 27 th August 2022
Date and time for measurement: 11 th June – 11:00 to 19:00
Measured distance(s): (5km – 21km – 42 km) – This report is for Marathon 42 km
Length of calibration course: 306,71 m
Terrain: Flat <input type="checkbox"/> Slightly hilly <input type="checkbox"/> Hilly <input checked="" type="checkbox"/> Terrain <input type="checkbox"/>
Type of course route: Closed loop <input checked="" type="checkbox"/> Back and forth <input type="checkbox"/> A to B <input type="checkbox"/> Other <input type="checkbox"/>
Race surface: Asphalt and gravel
Elevation Start - Finish: 0 m
Description of start: Downtown Stavanger by Alexander Kielland statue
Description of finish: Same line as start
Distance, in a straight line, between start & finish: 0 m
Start and Finish marked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Km-markings: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Will be done before race day
Measurement direction: Running direction <input checked="" type="checkbox"/> Opposite running direction <input type="checkbox"/>
National record can be approved: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

CONTACT INFORMATION		
	Measured by:	Organizer:
Contact person:	Erling Hiorth	Johannes Økland
Phone:	+47 91337338	+47 472 38 439
Email:	Erling.hiorth@lyse.net	lop@gti-friidrett.no

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(s) has the correct length(s). The survey is valid for 5 years, except if the route is changed.

19th June 2022 Erling Hiorth

4.7.2022

Peer Jensen

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Date	Signature by Course measurer	Date	Signature by NFIF
CALIBRATION COURSE AND PROCEDURE			
Length of measuring tape (steel measuring tape only)		50 m	
Length of calibration course 1st measurement		306,72 m	
Length of calibration course 2nd measurement		306,72 m	
Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd)		No	
Average of measurements before adjustments		306,72 m	
Temperature (road or measuring tape)		17 C	
Adjustment cf. $D-(D*(1+(temp-20)*0,0000115))$		- 0,011 m	
Measured calibration distance after adjustment		306,71 m	
Distance from start/finish to calibration distance		2,8 km	

CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m) - Performed 3 calibrations; Pre-start – halfway – post finish						
	Pre-measurement – 1st half M.			Post measurement		
	Date and Time: 11th June 11:30			Date and Time: 11th June 14:00		
	Start	End	Diff.	Start	End	Diff.
1. Measure	549 500	553 096	3 596	838 001	841 597	3 596
2. Measure	553 096	556 690	3 594	841 597	845 192	3 595
3. Measure	556 690	560 286	3 596	845 192	848 787	3 595
4. Measure	560 286	563 880	3 594	848 787	852 382	3 595
CALIBRATION INFORMATION – 2nd half marathon						
	Pre-measurement			Post measurement		
	Date and Time: 11th June 14:00			Date and Time: 11th June 19:00		
	Start	End	Diff.	Start	End	Diff.
1. Measure	838 001	841 597	3 596	206 800	210 398	3 598
2. Measure	841 597	845 192	3 595	210 398	213 996	3 598
3. Measure	845 192	848 787	3 595	213 996	217 593	3 597

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4. Measure	848 787	852 382	3 595	217 593	221 191	3 598
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Pre measurement - Intermediate - Post measurement

Average (1+2+3+4) / 4	3595,00	3595,25	3597,75	Today's constant. Either highest or average of before and after measurement
Constant 1 km	11721,192	11722,007	11730,158	
Addn. +1‰	11,72	11,72	11,73	
Measurement constant (rounded)	11733	11734		11734 (1st half marathon)
		11734	11742	11738 (2nd half + adjustm.)

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MEASUREMENT PROCEDURE		
Measurement constant	11734 1st half - 11738 2nd half + adjustments	
Measured Distance	Counter	Description of place
	Measurement 1 st 21 km	
	582 700	Start @ 6,5 km
21.011,1 m	829 244	Finish @ same 6,5 km mark – “3-Sjøersløpet”
	Intermediate calibration	
	Measurement 2 nd 21 km	
	907 500	Starting line for 21 km and 42 km
	50 491	Ref. point for possible future use
	53 767	Ref. point for possible future use
	97 194	Start 5 km race (last 5 km of Maraton course)
21.154,3 m	155 809	Finish line for 5 + 21 + 42 km
42.165,4 m		Total measured without adjustments
	178 760	Adjustment no.1 – Wider route around the lake
- 373,1 m	183 140	Original measure, along map item 1.4 (clockwise)
+ 556,0 m	189 666	Extended route along map item 2.1 (clockwise)
	229 369	Adjustment no.2 – Roundabout at map item 2.3
- 191,1 m	231 612	Original measure, full roundabout counterclock
+ 88,5 m	232 651	Shorter route, turn left at start roundabout
+ 80,3 m		Total measured adjustments
42.245,7 m		Total measured course

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CONCLUSION OF MEASUREMENT

1. General information about race course and start/finish
 - Start and finish line is by the Alexander Kielland statue downtown Stavanger
 - Stavanger Marathon contains two separate half marathons joined together
 - The measurement is split in two: 1st 21km starting at 6,5 km and returning at 27,6 km. 2nd 21km measure from official start to finish line downtown Stavanger
 - For overall course direction, see attached maps with km mark from 1 to 42 km
2. Measurement of calibration course
 - Tjensvoll Gravlund, 2,8 km from start, straight / flat asphalt walking path
 - Measured in accordance with procedure, 3 persons, both ways independent
 - Fixed points at both ends, no adjustment on ground, temp calculations done
 - Measured 2x 306,72 cm, temp 17 degree celsius, adjusted -1 cm to 306,71 cm
3. Calibration of bicycle
 - Calibration in accordance with procedure, 4 measures, variance max 2
 - In total 3 calibrations performed; pre- intermediate- and post calibration
4. Measurement of the course
 - 1st half marathon**; marked the starting point around 6,5 km
 - Cycled continuously / straight / shortest distance, in the course direction
 - From start, turned right at overall 8 km to *Store Stokkavatn*, over to and around *Hålandsvannet* clockwise, back to *Store Stokkavatn*, through district *Stokka*, over to and around *Mosvatnet* clockwise and return to same mark at 6,5 km
 - 2nd half marathon**; marked the official start/finish line at downtown Stavanger
 - From official starting point, to *Mosvatnet* and 1 full round counterclockwise, pass the 6,5 km mark, turn left at overall 29 km, along seaside *Møllebukta*, through district *Hinna*, along seaside *Gandsfjorden* and back to same start/finish line
 - Noted a few reference points
5. Course adjustments
 - The race organiser wants the 1st half marathon to be close to 21.097,5 as this is a separate race later in November
 - Several changes were discussed and 2 changes measured; added +183 m by using map item 2.1, and reduced -103 m at map item 2.3
6. Overall length of the course
 - Overall course length is longer than marathon as requested by race organiser. Possible future adjustments / reductions will require separate approvals.
7. Additional info
 - Km marks will be marked on ground by measurer before race day
 - Attached course map were generated two days after official measurement

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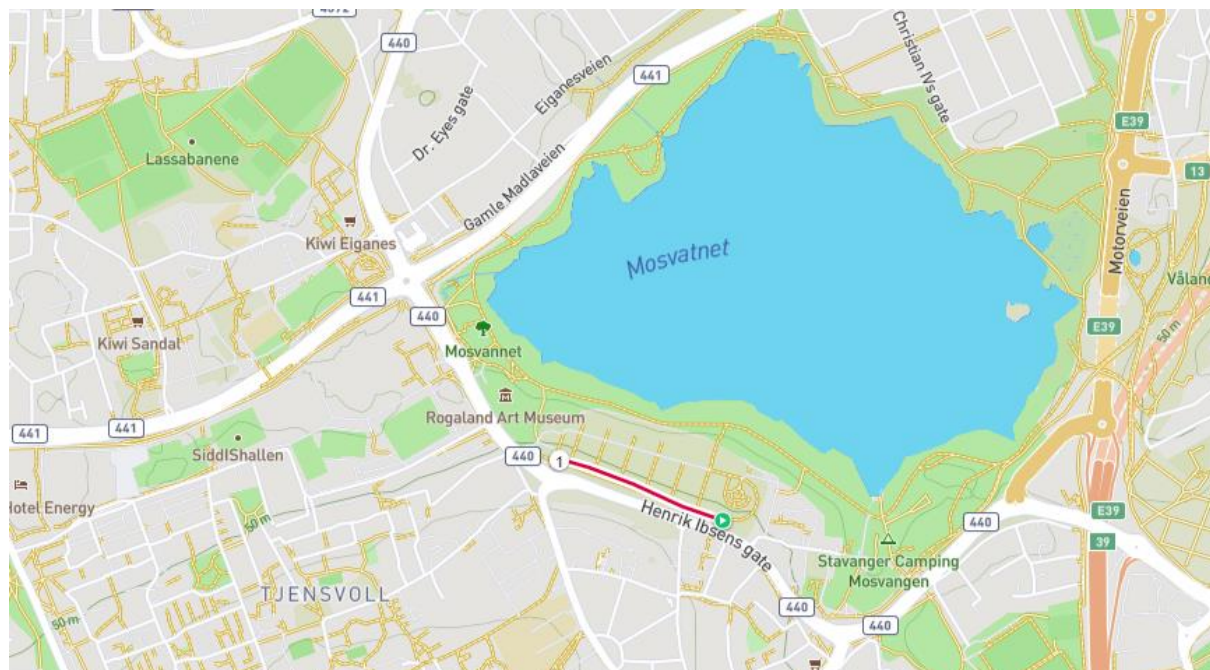
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CALIBRATION COURSE MAP



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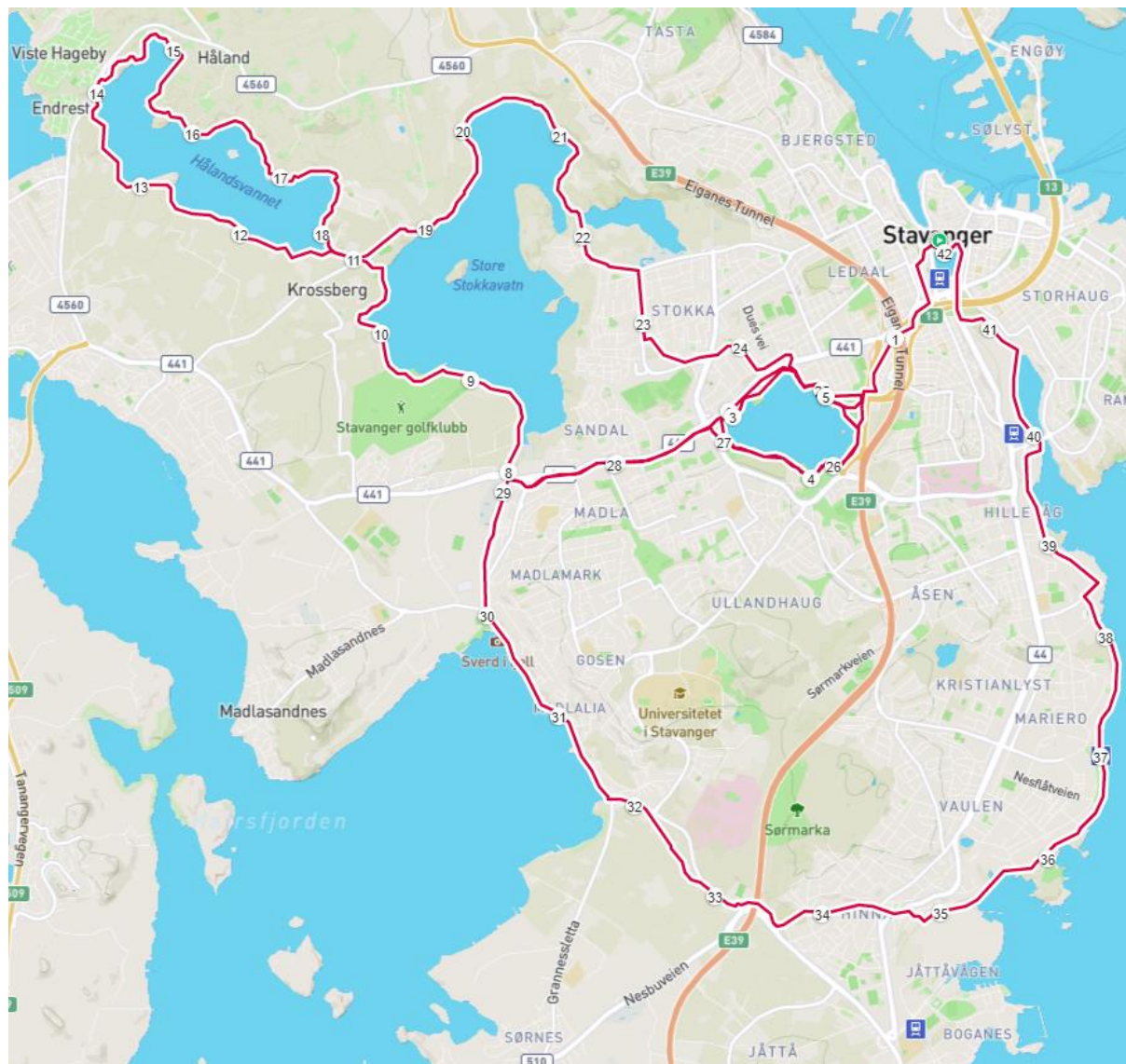
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COURSE MAP - 42 km



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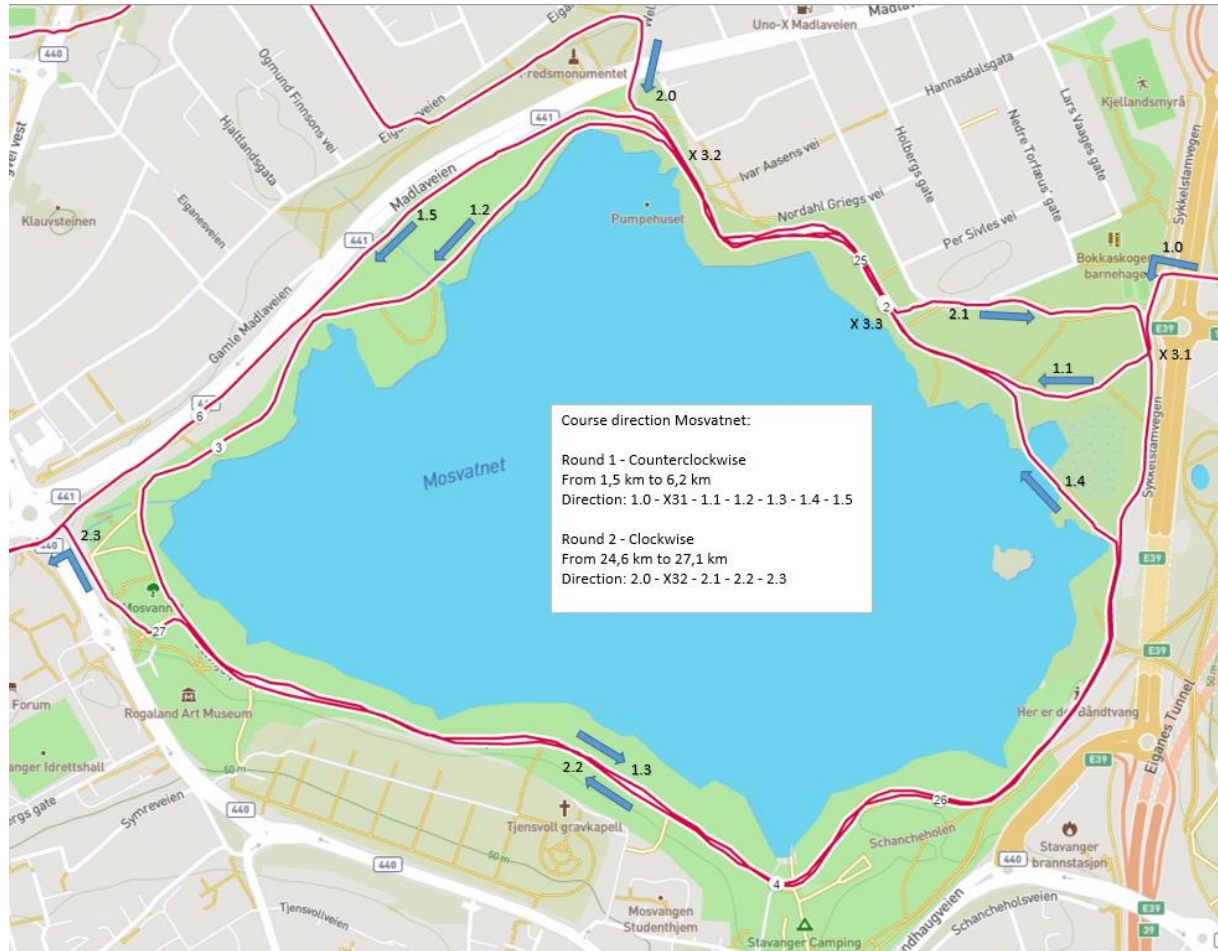
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COURSE MAP – Mosvatnet – with directions



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COURSE MAP – Description

Use of trial guard, obstacles and barrier tape as required

- 1 Haakon VII's gate, from start to Clarion Hotel (300m) will be closed for traffic
- 2 Left turn before Clarion Hotel - block pavement
- 3 From Peder Klows Gate to Grønlandsgata, use right lane
- 4 Trial guards at following crossing points - map item X 3.1 and X 3.2
- 5 Trial guard at crossing point just before 8 km
- 6 Trial guard at 10,8 km to follow gravel path, block crossing over lawn
- 7 Trial guard at 11,0 km and 11,2 km
- 8 Trial guards at following crossing points - map item X 3.2 and X 3.3
- 9 Trial guard at crossing point just before 29 km
- 10 Follow pavement along Grannesveien to Boganesveien
(This is a shorter distance than the official measurement by AIMS same day)
- 11 Trial guard at split pavement before Strømsbrua, course to follow left side
- 12 Use barrier tape at lawn before Strømsbrua, course to keep right around corner
- 13 Follow right hand side along edge in Consul Sigval Bergesens vei
(This is a shorter distance than the official measurement by AIMS same day)
- 14 Trial guard at pedestrian crossing at Kirkegårdsveien
- 15 Trial guard at crossing over Kongsgata, spray marked on ground
- 16 Straight forward through Kjellandshagen

Crossing – map item X 3.2

Item 7.14 – Kirkegårdsveien

Item 7.15 - Kongsgata

