

# "BIESZCZADZKIE TRASY BIEGOWE" - MUCZNE

## SPRINT 1,5 km



### PARAMETRY TRASY

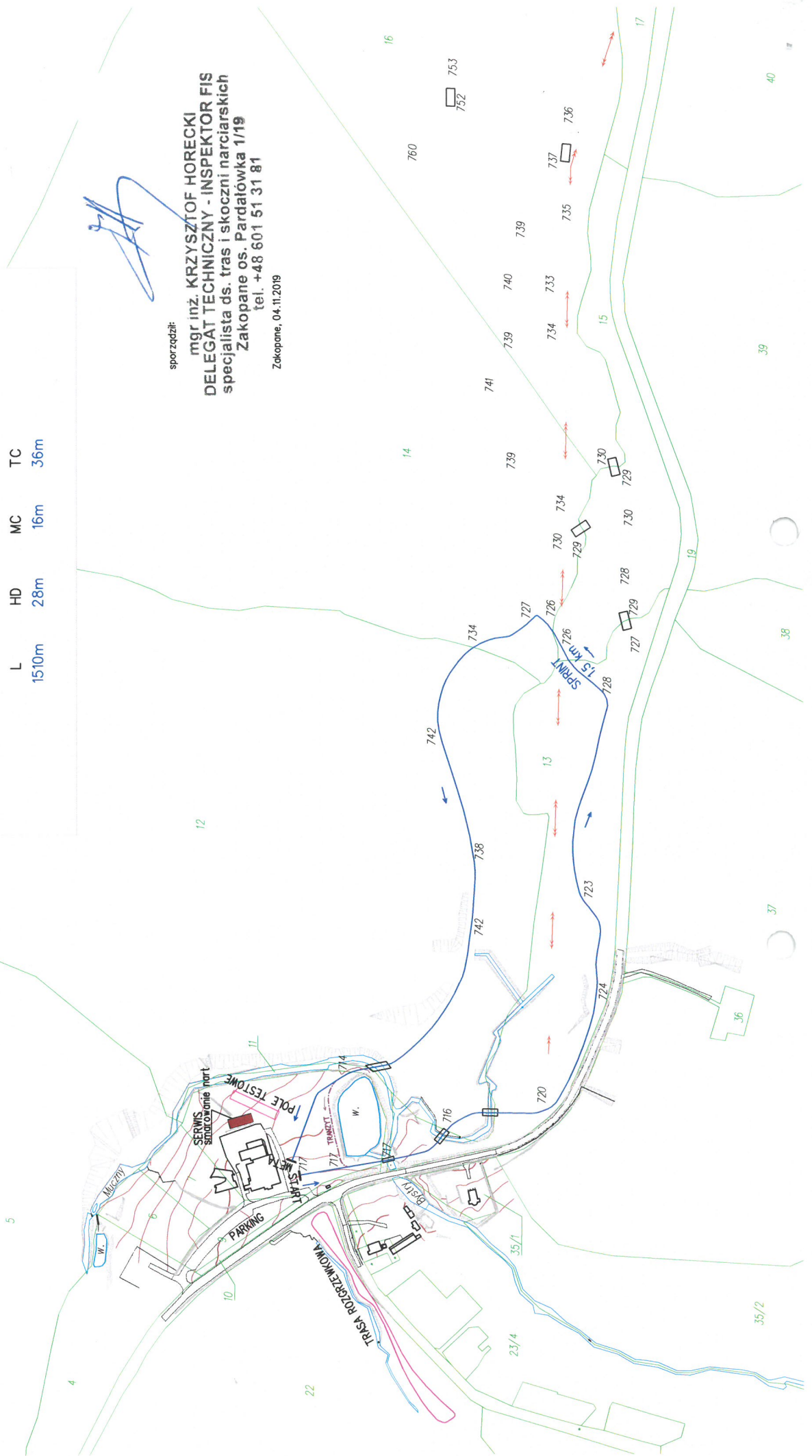
L	HD	MC	TC
1510m	28m	16m	36m

sporządził:  
mgr inż. KRZYSZTOF HORECKI  
DELEGAT TECHNICZNY - INSPEKTOR FIS  
specjalista ds. tras i skoczni narciarskich  
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Zakopane, 04.11.2019

## GEO-SPORT

Krzysztof Horecki  
34-500 Zakopane, ul. Do Samków 10  
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NIP 736-101-07-62





# FIS CROSS COUNTRY COMMITTEE

## Subcommittee for Rules and Control



### DOCUMENTATION OF HOMOLOGATED CROSS COUNTRY COURSES

- (1) Registration Number: 1/B/2019  
 (2) Location of the competition site: Muczne  
 (3) Organizer: POZN  
 (4) National Ski Association: PZN  
 (5) Contact person in the organizing committee: Tomasz Baran  
 (6) Homologation inspector: Krzysztof Horecki  
 (7) Name of course: Muczne sprint 1,5 km  
 (8) Description of course:

Course length:	1510m	Height Difference (HD):	28m	Lowest point:	714m
Category:	D	Maximum Climb (MC):	16m	Highest point:	742m
Competition Level:		Total Climb (TC):	36m		

- (9) Overview of the uphill
- major uphill
  - shorter uphill
  - undulated terrain

No.	PTC	% of TC
0	0	0.00
1	16	44.44
u.t.	20	55.56

- (10) Stadium area

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>- fixed stadium..... <input type="checkbox"/></li> <li>- fixed building..... <input checked="" type="checkbox"/></li> <li>- temporary stadium..... <input checked="" type="checkbox"/></li> <li>- temporary building..... <input type="checkbox"/></li> <li>- good infrastructure (access, parking, media, etc.)..... <input checked="" type="checkbox"/></li> <li>- skitesting area near the stadium..... <input checked="" type="checkbox"/></li> <li>- warm up track near the stadium..... <input checked="" type="checkbox"/></li> </ul> | <p>indoor working room for</p> <ul style="list-style-type: none"> <li>- timekeeping..... <input checked="" type="checkbox"/></li> <li>- calculation..... <input checked="" type="checkbox"/></li> <li>- announcer..... <input type="checkbox"/></li> <li>- media..... <input checked="" type="checkbox"/></li> <li>- jury..... <input checked="" type="checkbox"/></li> <li>- others..... <input type="checkbox"/></li> </ul> |
|---|---|

- (11) Category for the stadium and course layout

- |   | Individual                          | Sprint                              | Pursuit                  | Relay                               | Masstart                 |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Stadium: suitable for following starting procedures     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Course: suitable for following competition formats with |                                     |                                     |                          |                                     |                          |
| a) classical technique                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) free technique                                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| suitable for mixed relay and pursuit competition        |                                     |                                     |                          |                                     |                          |
| a) on the same course.....                              |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| b) combined with a separat course.....                  |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| Category: .....   |                                     |                                     |                          |                                     | <b>D</b>                 |

- (12) Possibility of snow making

- Stadium area.....  Course.....

- (13) Substitute course available.....

- (14) Map material in accordance to art 313.4.3 ICR

- very good.....  sufficient.....


- (15) Date of the final inspection: 29.10.2019

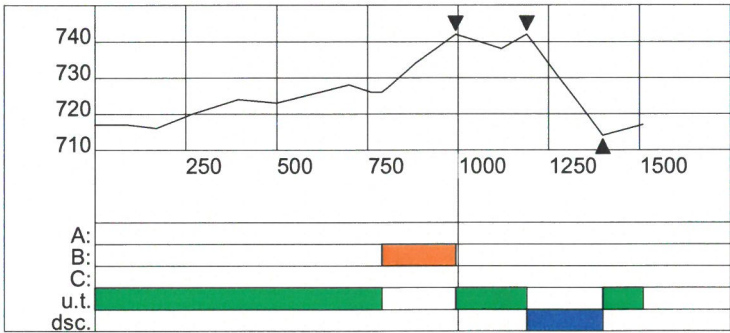
- (16) Closing of the homologation procedure: 6.11.2019

- (17) Date of the FIS-License: 6.11.2019

	Location	Distance	Length	Height	Grad.	HD +/-	PTC	A	B	C	k	▼	
1	Start	0	0	717	0.00	0	0						Dist. = 790m
2	prosta startowa - mostek	90	90	717	0.00	0	0						
3	za drugi mostek	80	170	716	-1.25	-1	0						
4	w lewo za trzecim mostkiem	100	270	720	4.00	4	4						
5	wzdłuż drogi	125	395	724	3.20	4	8						
6	wzdłuż drogi cd	105	500	723	-0.95	-1	8						
7	teren falisty	200	700	728	2.50	5	13						
8	skrót 1,5 km w lewo do potoczka	60	760	726	-3.33	-2	13						
9	drugi potoczek	30	790	726	0.00	0	13						
10	do połączenia z trasą 2,5 km	15	805	727	6.67	1	14						PHD = 16m PTC = 16m Dist. = 205m R = 7.80%
11	podbieg B	80	885	734	8.75	7	21						
12	podbieg B cd	110	995	742	7.27	8	29						Dist. = 195m
13	w dół	125	1120	738	-3.20	-4	29						
14	teren falisty	70	1190	742	5.71	4	33						PHD = -28m Dist. = 210m Dist. = 110m
15	zjazd za most, odejście tranzytu	210	1400	714	-13.33	-28	33						
16	początek prostej do mety	35	1435	715	2.86	1	34						
17	Meta	75	1510	717	2.67	2	36						
18		0	1510	717	0.00	0	36						
19		0	1510	717	0.00	0	36						

Muczne sprint 1,5 km

	Course length:	1510m	Height Difference (HD):	28m	Lowest point:	714m
	Category:	D	Maximum Climb (MC):	16m	Highest point:	742m
	Competition Level:		Total Climb (TC):	36m		



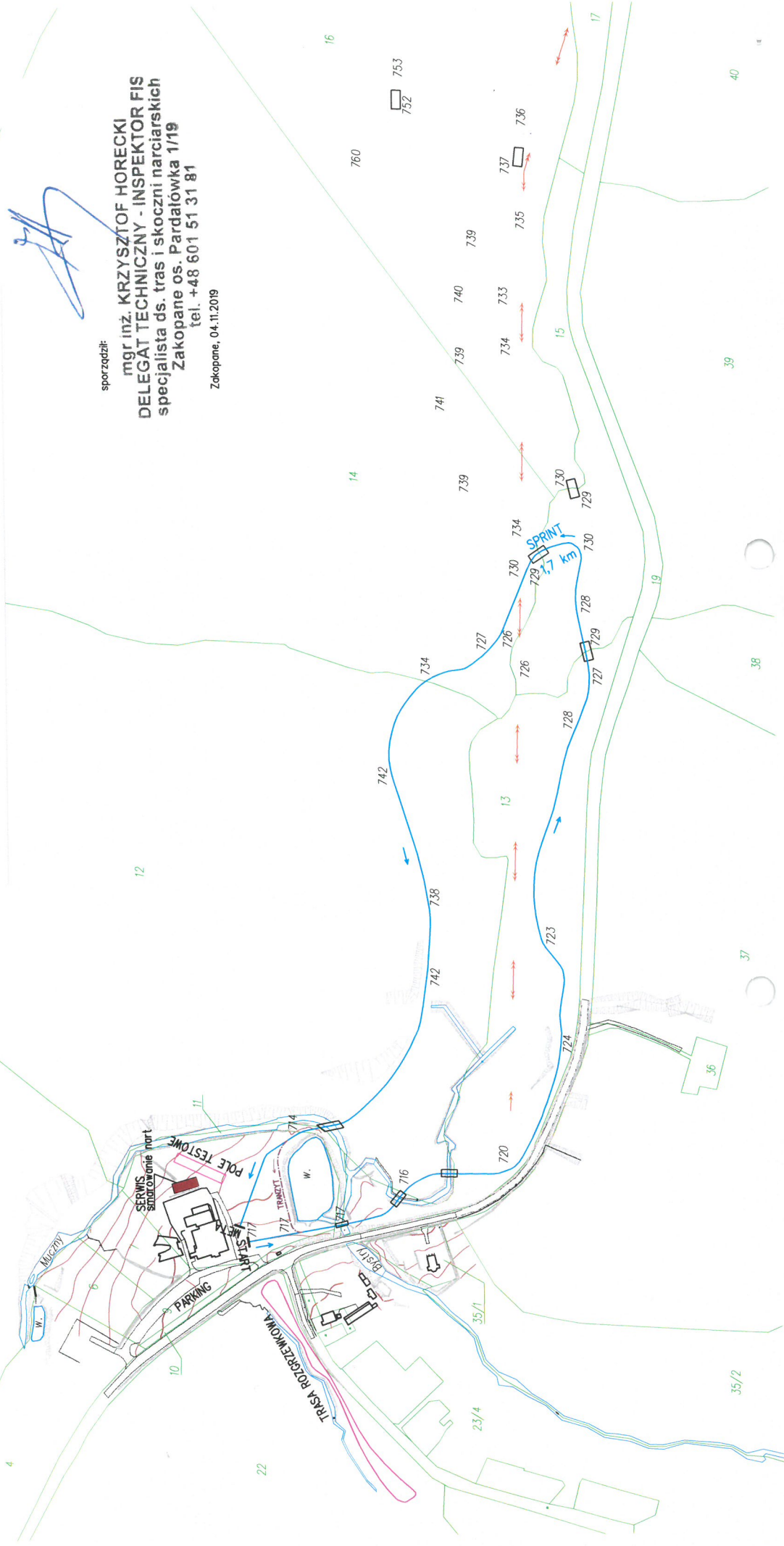


# "BIESZCZADZKIE TRASY BIEGOWE" - MUCZNE SPRINT 1,7 km



## PARAMETRY TRASY

L	HD	MC	TC
1725m	28m	16m	41m



sporządził:  
mgr inż. KRZYSZTOF HORECKI  
DELEGAT TECHNICZNY - INSPEKTOR FIS  
specjalista ds. tras i skoczni narciarskich  
Zakopane os. Pardalówka 1/19  
tel. +48 601 51 31 81  
Zakopane, 04.11.2019

## GEO-SPORT

Krzysztof Horecki  
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NIP 736-101-07-62



# FIS CROSS COUNTRY COMMITTEE

## Subcommittee for Rules and Control



### DOCUMENTATION OF HOMOLOGATED CROSS COUNTRY COURSES

- (1) Registration Number: 1/B/2019  
 (2) Location of the competition site: Muczne  
 (3) Organizer: POZN  
 (4) National Ski Association: PZN  
 (5) Contact person in the organizing committee: Tomasz Baran  
 (6) Homologation inspector: Krzysztof Horecki  
 (7) Name of course: Muczne sprint 1,7 km  
 (8) Description of course:

Course length:	1725m	Height Difference (HD):	28m	Lowest point:	714m
Category:	D	Maximum Climb (MC):	16m	Highest point:	742m
Competition Level:		Total Climb (TC):	41m		

- (9) Overview of the uphill
- major uphill
  - shorter uphill
  - undulated terrain

No.	PTC	% of TC
0	0	0.00
1	16	39.02
u.t.	25	60.98

- (10) Stadium area

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>- fixed stadium..... <input type="checkbox"/></li> <li>- fixed building..... <input checked="" type="checkbox"/></li> <li>- temporary stadium..... <input checked="" type="checkbox"/></li> <li>- temporary building..... <input type="checkbox"/></li> <li>- good infrastructure (access, parking, media, etc.)..... <input checked="" type="checkbox"/></li> <li>- skitesting area near the stadium..... <input checked="" type="checkbox"/></li> <li>- warm up track near the stadium..... <input checked="" type="checkbox"/></li> </ul> | <p>indoor working room for</p> <ul style="list-style-type: none"> <li>- timekeeping..... <input checked="" type="checkbox"/></li> <li>- calculation..... <input checked="" type="checkbox"/></li> <li>- announcer..... <input type="checkbox"/></li> <li>- media..... <input checked="" type="checkbox"/></li> <li>- jury..... <input checked="" type="checkbox"/></li> <li>- others..... <input type="checkbox"/></li> </ul> |
|---|---|

- (11) Category for the stadium and course layout

- |   | Individual                          | Sprint                              | Pursuit                  | Relay                               | Masstart                 |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Stadium: suitable for following starting procedures     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Course: suitable for following competition formats with |                                     |                                     |                          |                                     |                          |
| a) classical technique                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) free technique                                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| suitable for mixed relay and pursuit competition        |                                     |                                     |                          |                                     |                          |
| a) on the same course.....                              |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| b) combined with a separate course.....                 |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| Category: .....   |                                     |                                     |                          |                                     | D                        |

- (12) Possibility of snow making

- Stadium area.....  Course.....

- (13) Substitute course available.....

- (14) Map material in accordance to art 313.4.3 ICR

- very good.....  sufficient.....


- (15) Date of the final inspection: 12.12.2018

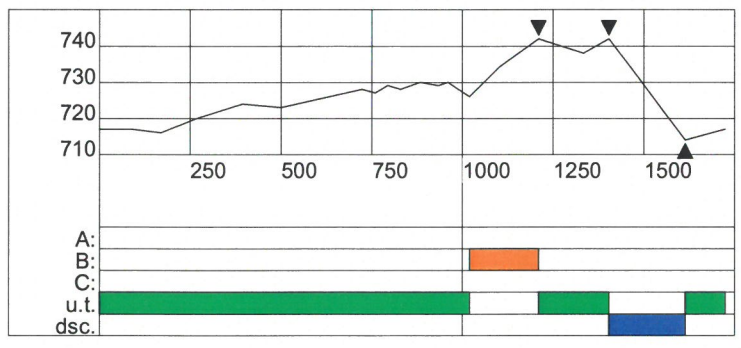
- (16) Closing of the homologation procedure: 3.01.2019

- (17) Date of the FIS-License: 3.01.2019

	Location	Distance	Length	Height	Grad.	HD +/-	PTC	A	B	C	k	▼	
1	Start	0	0	717	0.00	0	0						Dist. = 1020m
2	prosta startowa - mostek	90	90	717	0.00	0	0						
3	za drugi mostek	80	170	716	-1.25	-1	0						
4	w lewo za trzecim mostkiem	100	270	720	4.00	4	4						
5	wzdłuż drogi	125	395	724	3.20	4	8						
6	wzdłuż drogi cd	105	500	723	-0.95	-1	8						
7	teren falisty	225	725	728	2.22	5	13						
8	przed czwartym mostkiem	35	760	727	-2.86	-1	13						
9	czwarty mostek	35	795	729	5.71	2	15						
10	za mostkiem	35	830	728	-2.86	-1	15						
11	odejście od 2,5 km skrót sprint 1,7km	55	885	730	3.64	2	17						
12	mostek sprintu	50	935	729	-2.00	-1	17						
13	połączenie z dużą pętlą	25	960	730	4.00	1	18						
14	w dół do podbiegu	60	1020	726	-6.67	-4	18						
15	podbieg B	80	1100	734	10.00	8	26						PHD = 16m PTC = 16m Dist. = 190m R̄ = 8.42%
16	podbieg B cd	110	1210	742	7.27	8	34						Dist. = 195m
17	w dół	125	1335	738	-3.20	-4	34						
18	teren falisty	70	1405	742	5.71	4	38						PHD = -28m Dist. = 210m
19	zjazd za most, odejście tranzytu	210	1615	714	-13.33	-28	38						Dist. = 110m
20	początek prostej do mety	35	1650	715	2.86	1	39						
21	Meta	75	1725	717	2.67	2	41						
22		0	1725	717	0.00	0	41						
23		0	1725	717	0.00	0	41						

Muczne sprint 1,7

	Course length:	1725m	Height Difference (HD):	28m	Lowest point:	714m
	Category:	D	Maximum Climb (MC):	16m	Highest point:	742m
	Competition Level:		Total Climb (TC):	41m		





# "BIESZCZADZKIE TRASY BIEGOWE" - MUCZNE

## TRASA 2,5 km



### PARAMETRY TRASY

L	HD	MC	TC
2745m	46m	25m	77m

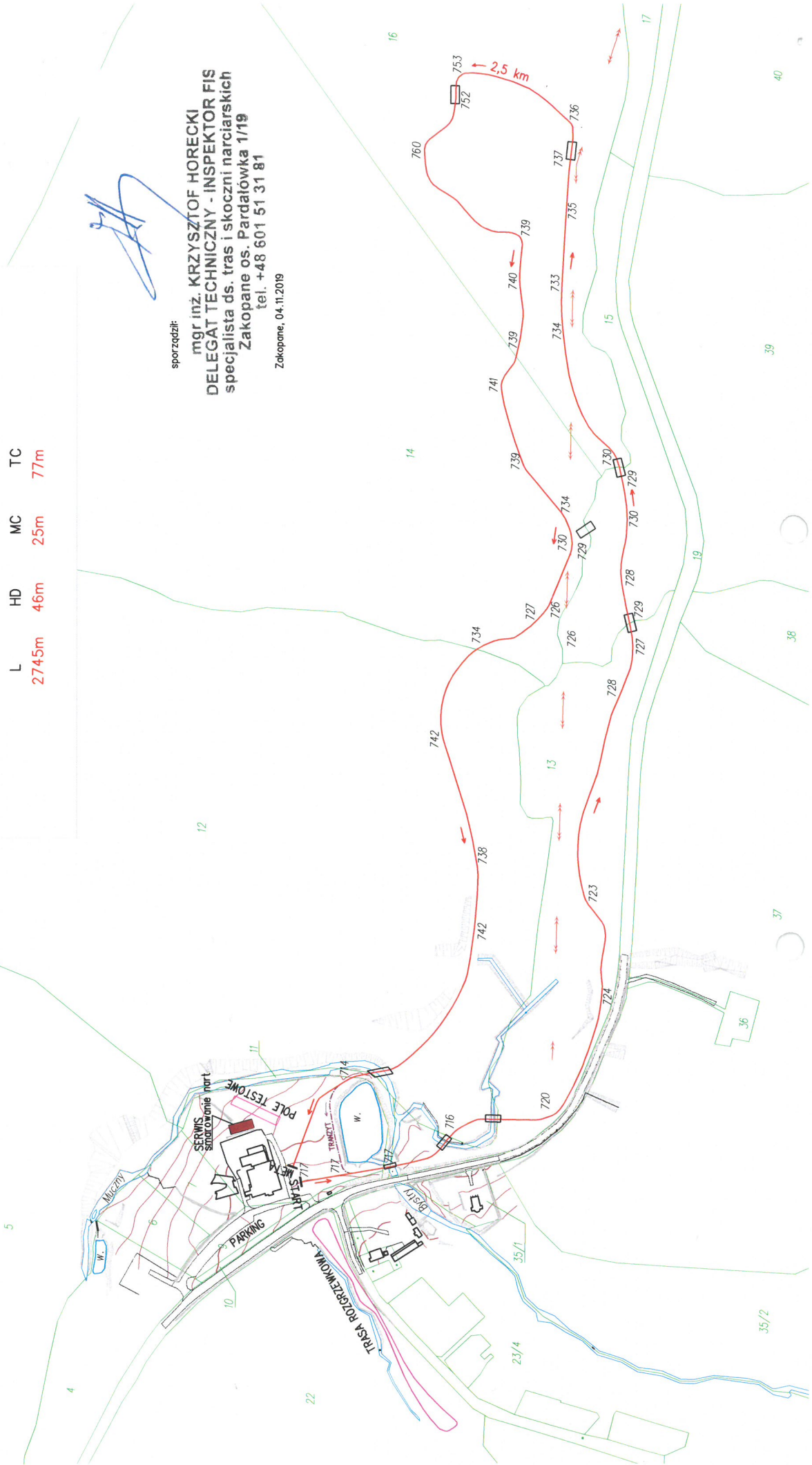
sporządził:

**mgr inż. KRZYSZTOF HORECKI**  
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 Zakopane os. Pardałówka 1/19  
 tel. +48 601 51 31 81

Zakopane, 04.11.2019

## GEO-SPORT

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 (3) Organizer: POZN  
 (4) National Ski Association: PZN  
 (5) Contact person in the organizing committee: Tomasz Baran  
 (6) Homologation inspector: Krzysztof Horecki  
 (7) Name of course: Muczne 2,5 km  
 (8) Description of course:

Course length:	2745m	Height Difference (HD):	46m	Lowest point:	714m
Category:	D	Maximum Climb (MC):	25m	Highest point:	760m
Competition Level:		Total Climb (TC):	77m		

- (9) Overview of the uphill  
 - major uphill  
 - shorter uphill  
 - undulated terrain

No.	PTC	% of TC
1	25	32.47
1	16	20.78
u.t.	36	46.75

- (10) Stadium area

- |   |                                     |                         |                                     |
|---|-------------------------------------|-------------------------|-------------------------------------|
| - fixed stadium.....                                      | <input type="checkbox"/>            | indoor working room for |                                     |
| - fixed building.....                                     | <input checked="" type="checkbox"/> | - timekeeping.....      | <input checked="" type="checkbox"/> |
| - temporary stadium.....                                  | <input checked="" type="checkbox"/> | - calculation.....      | <input checked="" type="checkbox"/> |
| - temporary building.....                                 | <input type="checkbox"/>            | - announcer.....        | <input type="checkbox"/>            |
| - good infrastructure (access, parking, media, etc.)..... | <input checked="" type="checkbox"/> | - media.....            | <input checked="" type="checkbox"/> |
| - skitesting area near the stadium.....                   | <input checked="" type="checkbox"/> | - jury.....             | <input checked="" type="checkbox"/> |
| - warm up track near the stadium.....                     | <input checked="" type="checkbox"/> | - others.....           | <input type="checkbox"/>            |

- (11) Category for the stadium and course layout

- |   | Individual                          | Sprint                              | Pursuit                  | Relay                               | Masstart                 |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Stadium: suitable for following starting procedures     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Course: suitable for following competition formats with |                                     |                                     |                          |                                     |                          |
| a) classical technique                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) free technique                                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| suitable for mixed relay and pursuit competition        |                                     |                                     |                          |                                     |                          |
| a) on the same course.....                              |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| b) combined with a separat course.....                  |                                     |                                     |                          |                                     | <input type="checkbox"/> |
| Category: .....   |                                     |                                     |                          |                                     | D                        |

- (12) Possibility of snow making

- Stadium area..... Course.....

- (13) Substitute course available.....

- (14) Map material in accordance to art 313.4.3 ICR

- very good..... sufficient.....

- (15) Date of the final inspection: 12.12.2018

- (16) Closing of the homologation procedure: 3.01.2019

- (17) Date of the FIS-License: 3.01.2019

	Location	Distance	Length	Height	Grad.	HD +/-	PTC	A	B	C	k	▼	
1	Start	0	0	717	0.00	0	0						Dist. = 1300m
2	prosta startowa - mostek	90	90	717	0.00	0	0						
3	za drugi mostek	80	170	716	-1.25	-1	0						
4	w lewo za trzecim mostkiem	100	270	720	4.00	4	4						
5	wzdłuż drogi	125	395	724	3.20	4	8						
6	wzdłuż drogi cd	105	500	723	-0.95	-1	8						
7	teren falisty	225	725	728	2.22	5	13						
8	przed czwartym mostkiem	35	760	727	-2.86	-1	13						
9	czwarty mostek	35	795	729	5.71	2	15						
10	za mostkiem	35	830	728	-2.86	-1	15						
11	odejście 2,5 km od sprintu 1,7km	55	885	730	3.64	2	17						
12	przed piątym mostkiem	50	935	729	-2.00	-1	17						
13	piąty mostek	20	955	730	5.00	1	18						
14	teren falisty	150	1105	734	2.67	4	22						
15	cd	40	1145	733	-2.50	-1	22						
16	cd	75	1220	735	2.67	2	24						
17	przed szóstym mostkiem	40	1260	737	5.00	2	26						
18	w lewo za mostkiem	40	1300	736	-2.50	-1	26						
19	podbieg główny do mostka siódmego	125	1425	753	13.60	17	43						PHD = 24m PTC = 25m Dist. = 220m R = 10.91%
20	siódmy mostek	25	1450	752	-4.00	-1	43						
21	podbieg na szczyt	70	1520	760	11.43	8	51						PHD = -21m Dist. = 140m Dist. = 140m
22	zjazd do ostrego zakrętu w prawo	140	1660	739	-15.00	-21	51						
23	teren falisty	45	1705	740	2.22	1	52						
24	cd	55	1760	739	-1.82	-1	52						
25	cd	40	1800	741	5.00	2	54						PHD = -15m Dist. = 240m R = -6.25%
26	początek zjazdu	80	1880	739	-2.50	-2	54						
27	zjazd	60	1940	734	-8.33	-5	54						
28	połączenie z pętlą sprintu 1,7 km	40	1980	730	-10.00	-4	54						PHD = 16m PTC = 16m Dist. = 190m R = 8.42%
29	w dół do podbiegu	60	2040	726	-6.67	-4	54						Dist. = 195m
30	podbieg B	80	2120	734	10.00	8	62						
31	podbieg B cd	110	2230	742	7.27	8	70						
32	w dół	125	2355	738	-3.20	-4	70						PHD = -28m Dist. = 210m Dist. = 110m
33	teren falisty	70	2425	742	5.71	4	74						
34	zjazd za most, odejście tranzytu	210	2635	714	-13.33	-28	74						
35	początek prostej do mety	35	2670	715	2.86	1	75						
36	Meta	75	2745	717	2.67	2	77						
37		0	2745	717	0.00	0	77						
38		0	2745	717	0.00	0	77						



Muczne 2,5 km



Course length:	2745m	Height Difference (HD):	46m	Lowest point:	714m
Category:	D	Maximum Climb (MC):	25m	Highest point:	760m
Competition Level:		Total Climb (TC):	77m		

