



**GEO Certified<sup>®</sup>**

# **GEO Certified<sup>®</sup> Report Shambhala Golf & Resort**

Prepared by independent verifier: YS Baek

Certified by GEO Foundation: 2023  
Recertification due: 2026

**GEO Certified<sup>®</sup>**

 **GEO  
Foundation**  
Sustainability in and through golf

*“Shambhala opened in 2020 and has tried to operate sustainably. It has tried to recover the natural features, which were damaged during construction. It planted many native flowers and trees. It has a colder climate than other golf courses in Korea, so it has introduced germanium for grass health. The grass condition is therefore better than others. Shambhala installed 50 bird boxes for Flying squirrels, which is one of 3 notable species identified in Shambhala. It is using rainwater as the irrigation source without using tap water. It needs to be more sustainable when minimizing maintained area, but its efforts for 3 years have created a positive asset for Pocheon-Si. I look forward to seeing more positive results from sustainable efforts, including introducing Germanium and liquid fertilizer.”*

**YS Baek**

*(GEO accredited independent verifier)*



# Introduction

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GEO Foundation is pleased to confirm that Shambhala Golf & Resort has successfully achieved GEO Certified® status for its outstanding work to foster nature, conserve resources and support the community.

GEO Certified® is the most respected certification for golf, based on a credibly and transparently developed modern sustainability Standard of best practice.

Shambhala Golf & Resort has:

1. Met the required certification criteria for sustainable golf operations
2. Successfully completed the official third-party verification process
3. Successfully passed the final evaluation by GEO Certification Ltd. (autonomous subsidiary of GEO Foundation)

GEO agreed with the conclusions of the official verification report, that, having achieved all mandatory criteria; and with specific Continual Improvement Points (CIP) and Critical CIP's (CCIPs) to be reviewed at recertification, Shambhala Golf & Resort should be awarded GEO Certified® status.

For the certification period stated above, Shambhala Golf & Resort can therefore claim a position as a leader in advancing sustainability in golf – making important contributions in protecting nature, conserving resources and strengthening communities.

The GEO Certified® Report that follows comments on the actions undertaken against the criteria, as observed by the independent verifier during the assurance process.

Certification is nearly always the result of a dedicated team effort resulting in many practical and valuable social and environmental results around the golf course, maintenance facility and clubhouse. These dedication and leadership qualities are an important part of ensuring the resilience of the golf facility and the golf industry into the future and also as part of society's wider effort to pull together for people and planet.

We congratulate all involved.

Jonathan Smith  
Founder and Executive Director, GEO Foundation  
GEO Certification Ltd. Board Member

Kelli Jerome  
Executive Director, GEO Foundation

Carole Kerrey  
Manager, Data and Reporting, GEO  
Certification Ltd.



# Verification and Certification

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## Verification

The official third-party audit was carried out by an independent verifier, accredited by GEO to undertake verifications of golf facilities applying for certification.

Verification involves reviewing practices and data, using the International Voluntary Standard for Sustainable Golf Operations as the guide to ensure comprehensive and consistent evaluation of performance. A detailed verification report is submitted for evaluation by GEO Certification Ltd, a subsidiary of GEO Foundation.

## Certification

GEO Certification Ltd, an autonomous subsidiary of GEO Foundation [both not-for-profit entities], undertook a full review of all content submitted through the OnCourse® online platform and the report submitted by the verifier, ensuring:

- Comprehensiveness – that activities undertaken touched on all elements of the Standard
- Consistency – that the verification approach was balanced, well weighted and with consistent depth of evaluation across each theme
- Accuracy - matching the verification report with evidence submitted by the golf facility to ensure statements and claims were accurate

GEO Foundation is an international not-for-profit founded to advocate, support and reward sustainability in and through golf. Over more than ten years, the group has worked collaboratively with dozens of golf industry associations and government and non-government organisations around the world, to help golf become a sustainability leader, striving for a net positive social and environmental impact. In addition to managing and assuring GEO Certified®, GEO Foundation also provides a suite of credible, practical programmes for golf facility management, new golf developments and golf tournaments called OnCourse®, often delivered in partnership with national golf bodies. Find out more at [www.sustainable.golf](http://www.sustainable.golf)

## Credibility

GEO Certified® is part of the ISEAL Alliance, a group of the world's foremost credible certification systems including Fairtrade, Rainforest Alliance, Forest Stewardship Council, Marine Stewardship Council and many others. GEO Foundation earned and retains full membership of the ISEAL Alliance global association following a rigorous evaluation against the ISEAL Codes of Credibility in Sustainability Standards and Certification. The ISEAL Codes cover standard-setting, assurance, and monitoring and evaluation. Find out more at [www.isealalliance.org](http://www.isealalliance.org)



# Verifier's Report

The Sustainability Agenda for golf covers the following themes and action areas:

THEMES	ACTION AREAS
<b>Nature</b>	<ul style="list-style-type: none"> <li>• Habitats &amp; Biodiversity</li> <li>• Turfgrass management</li> <li>• Pollution prevention</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Energy</li> <li>• Materials</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Partnerships &amp; Outreach</li> <li>• Golfing &amp; Employment</li> <li>• Advocacy &amp; Communications</li> </ul>

Included below are the observations made by the Independent Verifier against each item in the Standard.

<b>NATURE</b>			
<b>N1 Habitats and Biodiversity</b>			
Objectives	Requirements	Mandatory Practices	Verifier Notes
<b>N1.1 Understand the site and surroundings</b>	<b>N1.1.1 Sound understanding of the nature and landscape value of the site</b>	Map all habitats and vegetation types on the site; Regularly update landscape / biodiversity surveys	The golf course has a 59,54 ha of habitat, including 28.08 ha of Native Woodland.

			<p>484 species have been identified on the site, including 3 notable species.</p> <p>Biodiversity surveys are produced annually and are shared with all staff to help to take care of its biodiversity on the course. They are proud of their natural assets.</p> <p><b>CCIP: Please consider mapping flora and fauna on the golf course.</b></p>
	<b>N1.1.2 Knowledge of legal designations for protected areas, habitats and species</b>	Understand legal responsibilities for protected landscapes and species; Record and monitor protected, endangered, or rare species found on the site	<p>28.08 ha Native Woodland has been designated as preserved woodland. The original habitat is preserved well.</p> <p>Shambhala installed 50 bird boxes to increase habitat for flying squirrels. This is one of the notable species on Shambhala.</p>
	<b>N1.1.3 Understanding and respect for cultural heritage</b>	Protect any archaeological, historical or cultural designations on the site	No archaeological, historical or cultural designations.
<b>N1.2 Opportunities to naturalise the course</b>	<b>N1.2.1 Measures taken to identify and minimise the required area of managed turfgrass</b>	Observe, track and / or monitor golfer play	<p>The Course management team leader, Mr. Kim, observes the golf course every day to monitor turfgrass and divots. He is able to identify possible minimized turfgrass area based on the result. Shambhala has tried to minimize managed turfgrass area according to Mr. Kim's opinion, etc. between teeing grounds and the fairways.</p> <p><b>CIP: Please consider monitoring golf play to identify underutilized areas of managed turfgrass for further naturalization.</b></p>
<b>N1.3 Actively manage habitats for wildlife</b>	<b>N1.3.1 Projects to manage habitats in the best way for wildlife and golf</b>	Regularly review and follow a habitat management plan; Prioritise native species when planting and landscaping	<p>Confirmed annual species survey data.</p> <p>50 bird boxes are installed in the preserved woodland.</p> <p>There are lots of slopes between holes because Shambhala was constructed in the mountains. Native wildflowers have been planted in those area so biodiversity and habitat area will be increased.</p> <p><b>CIP: Please consider creating a habitat management plan.</b></p>

<b>N1.4 Conserve key species</b>	<b>N1.4.1 Practical conservation measures for priority species</b>		<b>CIP: Please continue efforts to maximize the habitat area.</b>
<b>N2 Turfgrass</b>			
<b>N2.1 Maintain optimum turf and soil health</b>	<b>N2.1.1 Appropriate turfgrass varieties adapted to climatic and other geomorphological factors</b>	Select appropriate grass species for climate	<p>Weather condition (DongduCheon-Si)  Average temperature for the year : 11.5°C  Lowest temperature: -3.8°C (Jan.)  Highest temperature: 24.9°C(Aug)</p> <p>Annual precipitation: 1,417.1ml</p> <p>Warm season grass, Zoysia japonica, is suitable for fairway and rough and Cool season grass, Agrostis is suitable for greens in this area. Zoysia tolerates drought and disease well in the areas climate conditions.  Even though Agrostis is not good in Summer, there are no other species options on greens in Korea; however, Agrostis is more tolerant in this cooler area than other Korea golf courses.</p> <p>Turfgrass species:</p> <p>Green Turfgrass : Agrostis stolonifera/palustris 100%  Tee Turfgrass : Poa pratensis 100%  Fairway Turfgrass : Zoysia japonica 100%  Rough Turfgrass : Zoysia japonica 100%  Practice: Agrostis stolonifera/palustris 100%</p>
	<b>N2.1.2 Practices to maintain good soil structure and condition</b>		Shambhalla has been using Germanium to improve soil structure for intensifying the turfgrass rootzone.
	<b>N2.1.3 Careful and responsible fertiliser application throughout the year to avoid over-fertilisation</b>	Undertake soil tests and nutrient analysis	Soil tests and nutrient analysis have been executed by Pocheon-Si every 6 months.

<p><b>N2.2 Prioritise mechanical maintenance</b></p>	<p><b>N2.2.1 Non-chemical pest, disease and weed management</b></p>	<p>Sharpen mowing blades; Remove surface moisture; Hand weeding</p>	<p>Mowing blades are sharpened periodically.</p>
<p><b>N2.3 Use chemicals responsibly</b></p>	<p><b>N2.3.1 Application of chemicals only when necessary to prevent or cure defined / identified turf health issues</b></p>	<p>Establish patterns and levels of risk for pests and diseases; Scout the course daily for early signs of pests and disease; Accurate pest and disease identification; Map and track pest and disease hotspots; Establish pest and disease thresholds</p>	<p>Since 2020, Shambhala has been using a liquid fertilizer which has four-type compound minerals. The total amount of fertilizer has been reduced.</p> <p>The Course management team leader, Mr. Kim, scouted course and monitored turf grass conditions for early symptoms and signs every day. He sets up management/pesticide plans based on the scouting results to guide all staff.</p> <p><b>CIP: Please consider creating a habitat map and management plan.</b></p> <p><b>CCIP: Please create an up-to-date planting and grassing drawing.</b></p>
	<p><b>N2.3.2 Application of chemicals with full safety precautions</b></p>	<p>Use only legally registered and approved products; Ensure staff are fully qualified and licenced to use pesticides; Regularly calibrate and test applicators; Use appropriate protective equipment; Dilute and dispose of leftover product on untreated areas of turf .</p>	<p>The amount of chemicals has been reduced 542(2020), 572(2021) and 515(2022).</p> <p>Confirmed applicators licenses. The equipment washing area was separated completely.</p> <p>Shambhala has used legally registered products which should be reported to the local environment department periodically.</p>
<p><b>N3 Pollution Prevention</b></p>			
<p><b>N3.1 Prevent pollution across the entire site</b></p>	<p><b>N3.1.1 Practical measures to ensure pollution risks are minimised from golf course operations</b></p>	<p>Document procedures for emergency spill responses; Maintain mowing buffer zones around water and all ecologically sensitive areas; Maintain spraying and spreading buffer zones around water and all ecologically sensitive areas; Create a map / aerial visual reproduction, drawing etc of the course showing buffer zones and no-spray, no-spread areas.</p>	<p>There are spreading buffer zone around ponds.</p> <p><b>CIP: Maintain spraying and spreading buffer zones around water and all ecologically sensitive areas after careful review of playing quality.</b></p> <p><b>CIP: Create a map and drawing of buffer zones.</b></p>



	<p><b>N3.1.2 Practical measures to ensure pollution risks are minimised from clubhouse operations</b></p>	<p>Ensure all hazardous materials are safely and securely stored; Ensure compliance with all required standards and systems for hazardous waste and wastewater discharge</p>	<p>All hazardous waste is safely stored and collected periodically by a licenced local collection company.</p>
	<p><b>N3.1.3 Practical measures to ensure pollution risks are minimised from maintenance facility operations</b></p>	<p>Ensure wash areas are on impermeable, leak-free surfaces; Mixing and loading of pesticides and fertilisers over an impermeable surface; Triple rinse pesticide containers and applicators</p>	<p>All hazardous waste is safely stored and collected periodically by a licenced local collect company</p> <p>All wash areas are on impermeable, leak-free surfaces.</p> <p>All washing and preparation areas are cleaned well.</p> <p>Shambhala have an authorized waste collection company which collects waste material and wastewater periodically.</p>
<p><b>N3.2 Safely manage hazardous substances</b></p>	<p><b>N3.2.1 Legal compliance in the storage, handling, application and safe disposal of all hazardous substances</b></p>	<p>Maintain a register of hazardous materials available to authorised staff; Safe storage in secure and ventilated concrete or metal building; Sufficient storage capacity; Impermeable flooring; Spill containment kits present; Emergency wash area; Fire extinguisher in the immediate area; Secondary containment for fuel, either externally constructed, or integrally manufactured; Regular inspection of storage tanks</p>	<p>All chemical / product logs are reviewed and well organized.</p> <p>Sign board is attached on the storage building wall and confirmed who is the authority.</p> <p>All storage areas are cleaned and installed very well.</p> <p>Safety devices are installed very well.</p> <p>All wash areas are on impermeable, leak-free surfaces.</p> <p>Fuel storage tanks are installed in safety area and on impermeable, leak-free surface.</p>
<p><b>N3.3 Responsibly manage waste / storm water</b></p>	<p><b>N3.3.1 Appropriate wastewater usage and discharge licences</b></p>	<p>Wastewater discharge licence; Appropriate treatment of machinery wash water (impermeable surface, oil / grease / clipping separation)</p>	<p>Reviewed wastewater treatment system.</p> <p>Shambhala is using rainwater for irrigation.</p> <p>Groundwater is not used.</p>

## RESOURCES

### R1 Water

Objectives	Requirements	Mandatory Practices	Verifier Notes
R1.1 Minimise water demand	R1.1.1 Measures to reduce the need to consume water	Target irrigation to essential playing surfaces only	Shambhala is using rainwater for irrigation, so it has tried to minimise maintenance area.
R1.2 Maximise water efficiency	R1.2.1 Practical measures to use water more efficiently on the golf course	Conduct regular irrigation performance checks; Provide staff training on efficient irrigation practices; Ensure effective application of water to target areas; Ensure irrigation schedules are informed by weather patterns and soil moisture analysis	The leader of the course maintenance team scouts every morning to confirm grass conditions and to find manual irrigating area and to plan the irrigation schedule and area.  Water consumption has been reduced with this method.  Shambhala has a new irrigation control system, so it is operated efficiently compare to other golf course in Korea.
	R1.2.2 Practical measures to use water more efficiently in buildings	Audit water use regularly; Review bills frequently and look for irregularities; Encourage water-saving practices amongst staff and visitors; Categorise and track water consumption	A member of the facility management department monitors and records the amount of water use. The administration department keeps its bills.  <b>CIP: Please improve methods of categorising irrigation area and tracking water consumption.</b>
R1.3 Source water responsibly	R1.3.1 Measures towards alternative, lower quality sources of water	Ensure appropriate water abstraction permit and reporting, as required	Shambhala has been using rainwater for irrigation.  Shambhala received a water abstraction permit during construction and excavation of several holes. Now it uses tap water only in buildings and collects rainwater for the irrigation source. I confirmed the irrigation pond on the course.
R2 Energy			
R2.1 Reduce energy demand	R2.1.1 Measures to reduce the amount of energy consumed in course maintenance	Minimise areas of managed turf to reduce mowing, irrigation, and turf inputs	<b>CIP: Please try to minimize maintained area.</b>  <b>CIP: Please create a map of the course showing buffer zones and no-spray, no-spread areas.</b>

<b>R2.2 Maximise energy efficiency</b>	<b>R2.2.1 Measures to use energy and fuels more efficiently in buildings</b>	Audit energy use regularly; Regularly review bills; Categorise and track energy consumption	Solar panels will be installed on the roof of the new clubhouse.  All indoor lightings have been installed energy-efficiently.
<b>R2.3 Source energy responsibly</b>	<b>R2.3.1 Measures to source alternative, renewable forms of energy</b>	Determine potential sources of renewable energy in the area and on-site, through renewable energy providers	All indoor lightings have been installed energy-efficiently.  <b>CIP: Please review more renewable forms of energy and look for more locations for the installation of a solar panel.</b>
<b>R3 Materials</b>			
<b>R3.1 Reduce materials demand</b>	<b>R3.1.1 Products and materials selection based on necessity, including opportunities for recycled, reused and locally sourced alternatives</b>	Undertake a review of materials consumed	Materials and products that have been identified and stored in different bins.  Shambhala has bought course maintenance materials deliberately to save cost.
<b>R3.2 Purchase responsibly</b>	<b>R3.2.1 Practical use of an ethical / environmental purchasing policy</b>	Adopt a sustainable, or ethical / environmental purchasing policy to maximise the use of locally sourced goods and goods made from recycled, recyclable and certified materials	Shambhala established 158 local suppliers for C/H food, beverage, and maintenance materials.  Shambhala has an environmental purchasing policy, so it is maximising the use of local suppliers.
<b>R3.3 Reuse and recycle</b>	<b>R3.3.1 Waste stream separation for maximum recycling and re-use opportunity</b>	Demonstrate waste separation, reuse and recycling; Track how much waste goes to landfill, or is reused / recycled	Bins are installed separately according to the Pocheon-Si waste using policy.
<b>R3.4 Demonstrate legal compliance</b>	<b>R3.4.1 Compliance with all local and regional waste management regulations</b>	Use authorised waste and recycling contractor for general, hazardous, industrial and green waste	Water and soil quality has been tested every 6 months and reported to Pochon-Si environmental department.

## COMMUNITY

### C1 Outreach

Objectives	Requirements	Mandatory Practices	Verifier Notes
C1.1 Diversify access and provide multi-functionality	C1.1.1 Social and recreational activities at the facility		Golf tournament for the disabled Junior golf tournament Charity mini tour of KPGA
C1.2 Provide for volunteering and charity	C1.2.1 Opportunities available for volunteering and support of charities and good causes		Participation of Korean Talent Donation Association
C1.3 Establish active community partnerships	C1.3.1 Positive and constructive engagement with neighbours, the local community and other groups	Create a 'sustainability working group'	Participation of Korean Talent Donation Association The golf course hosts various concerts for its neighbours Shambhala created a sustainability working group when GEO certification work started and informed all information of GEO through this. I confirmed its organization table and interviewed some staff. Shambhala uses the homepage and new club house electronic display for informing its sustainability results. A community meeting has been held periodically. Shambhala listened to the opinions of neighbours and reflected on some of them in its policy.
<b>C2 Golfers &amp; Employees</b>			
C2.1 Improve health and wellbeing	C2.1.1 Benefits to human physical and mental health from golf and facility activities		

<b>C2.2 Be open and inclusive</b>	<b>C2.2.1 Inclusivity and diversity in membership and visitor policies</b>	Demonstrate inclusive policies for members and visitors	Total number of visitors: 74,728(2022)  Shambhala is one of the daily fee golf courses, so it is open to everybody who wants to play and use the clubhouse.
<b>C2.3 Employ fairly and safely, and provide career opportunities</b>	<b>C2.3.1 Ethical and legal employment, working conditions and professional development</b>	Follow all relevant national legislation and best practice for employment, health & safety etc	Various in & outside training programs are prepared for employees
<b>C3 Communications</b>			
<b>C3.1 Engage golfers and members</b>	<b>C3.1.1 Communications activities that raise awareness and understanding amongst members and visitors</b>	Provide information on the facility's sustainability commitments, actions, or achievements	Shambhala uses the club's website, social media activity and internal notice on its sustainable activities to raise golfers' awareness and understanding
<b>C3.2 Celebrate and promote sustainability</b>	<b>C3.2.1 Activities that raise awareness and engage people in the wider community</b>	Provide evidence of external communications and community engagement	Golf tournament for the disabled  Junior golf tournament  Charity mini tour of KPGA

## Golf and Sustainability

Among all sports, golf has a particularly close relationship with the environment and communities, golf facilities can bring many benefits to people and nature - from the protection of greenspace and conservation of biodiversity; healthy recreation for all ages; local supply chains; and jobs, tourism and other forms of economic value.

Adopting a more sustainable approach is also good for golf. It's about presenting a high-quality golf course and providing a memorable experience in natural surroundings. It's about being as efficient as possible. And it's about supporting the community in a range of ways that bring increased recognition, respect and contact.

At a broader level, it's important that golf credibly demonstrates its commitment, and its social and environmental value – strengthening the sport's image and reputation for the long term.

Golf facilities that participate in OnCourse®, an international sustainability initiative assured by the non-profit GEO Foundation, are taking a comprehensive approach and striving to be leaders in the community.

Find out more at [www.sustainable.golf](http://www.sustainable.golf)