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This Design and Access Statement has been prepared on behalf of Knight Dragon Developments Ltd, as part of the planning application for the Greenwich Peninsula Golf Driving Range on the Greenwich Peninsula.

During May 2014, Kettle Collective were commissioned by Knight Dragon to design an urban golf driving range and clubhouse, which consists of a number of elements: a new double tier driving range consisting of 60 bays, a clubhouse housing a café and bar, and a golf retail unit: all to support the development of the Peninsula and contribute to the ongoing placemaking of the area.

The Greenwich Peninsula site comprises of approximately 76 hectares of brownfield land located within the Royal Borough of Greenwich. A masterplan for the site was approved in 2004 which provides for the creation of mixed use, residential, commercial and retail development around the retention of The O2 which has been converted into a multi events, sports and assemblies venue, which opened to the public in June 2007.

The new Greenwich Peninsula Golf Driving Range is to be a temporary building planned to remain for up to 10 years. The use of the site will revert in line with the approved masterplan at the end of its building use. The proposed temporary development of the Greenwich Peninsula Golf Driving Range demonstrates Knight Dragon’s commitment to the development of the Peninsula by providing a high quality public sport facility.

The design of the new Greenwich Peninsula Golf Driving Range has been developed within the masterplan guidelines and its continuing presence has been tested and considered over the future potential development phasing of the plots within its lifespan.

The layout of the master plan creates a logical and connected urban grid of streets. The alignment of streets responds to the site’s assets, curving and reflecting the influence of The O2 and Peninsula Central Park. Buildings will be planned to front on to and reinforce streets and open spaces, creating an urban structure which is recognisable as a part of London.

The masterplan is guided by the approved design code, which defines principles with flexibility for innovation and creativity. The design code aims to create new London streets and open spaces, inspired by the quality and character that has evolved over the years in London’s more established areas. Public realm is guided by a landscape and lighting strategy to create high quality urban places.

The objective for the buildings is to act as an urban golf driving range for both residents of London and people who may visit the Greenwich Peninsula. Its location, close to The O2, is a prominent riverside site with direct views to and from Canary Wharf. The Greenwich Peninsula Golf Driving Range will contain a range of functions, including a golf clubhouse, retail area and a café/bar. It is essential that the buildings provide significantly improved presence and visibility for Knight Dragon Developments and provides an exciting sporting facility on the peninsula.
A detailed brief was obtained from the Client and through a series of meetings, the brief was developed to define aspirations, requirements and areas.

The Greenwich Peninsula Golf Driving Range is formed by two building elements, the driving range tees and the clubhouse, which are connected by a direct and covered link. The brief includes the re use of shipping containers already in the client ownership.

The driving range building is a double tier, pre-fabricated modular system consisting of 60 tees. It is arranged along the southern edge of the site with a 5m circulation corridor for vehicular and pedestrian access.

The clubhouse building is defined by the shipping containers which house some of the functional aspects of the building. It contains a café/bar, a golf retail unit, changing facilities and administrative office.

The facility is intended to provide a positive local amenity for the surrounding community. Users will be able to enjoy practising their golfing skills against the dramatic backdrop of Canary Wharf or relax in the bar/café area that overlooks the driving tees.

It is intended the facility will be temporary with an expected building lifespan of 5-10 years. The temporary nature of the building has been reflected in proposed materiality and construction detailing of the building.

44 carparking spaces will be provided on the existing hardstanding area adjacent to the existing “Peters Pies” building. Three of these carparking spaces will be designed to accessible standards and a further two will be enlarged standard spaces in accordance with BS8300 4.2.1.1. Furthermore, 10-15 spaces for bicycles will be provided.

### Brief Area Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Internal Room Areas (m²)</th>
<th>Gross Areas (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOLF AREAS</strong></td>
<td></td>
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</tr>
<tr>
<td>Cafe / Bar</td>
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<tr>
<td>Cafe / Servery</td>
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<td></td>
</tr>
<tr>
<td>Cafe Store</td>
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<tr>
<td>Entrance Lobby</td>
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<tr>
<td>Reception</td>
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<td>Admin Store</td>
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<td>Ball Distribution</td>
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<td>WC / Changing</td>
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<td>Golf Retail</td>
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<tr>
<td>Retail Store</td>
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<tr>
<td><strong>Total Internal Room Areas</strong></td>
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<tr>
<td><strong>Driving Range Tees</strong></td>
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<tr>
<td>Driving Range Lower Tier</td>
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<td>Driving Range Upper Tier</td>
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<td><strong>Total Internal Room Areas</strong></td>
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<tr>
<td><strong>Total Development GFA</strong></td>
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<td><strong>2099</strong></td>
</tr>
</tbody>
</table>
5 | Existing Context and Key Views

1. Adjacent sites (Industrial)
2. South industrial site to remain
3. Dynamic view to Canary Wharf
4. Dynamic view to The O2

A. View of from western side of site looking northwest

B. View of vacant building to north of site near entrance

C. View of from western side of site looking northeast

D. View of existing fill on site
Key design considerations for the site plan are outlined below:

- The site has a natural north/south orientation that facilitates a setting-out for the driving range to take advantage of the expansive feature views towards Canary Wharf and the River Thames. The proposed orientation will also allow for secondary views towards The O2.

- The proposed site plan will maintain a 16m exclusion zone along the river edge to ensure proposed land works do not overlap with the existing configuration of ties for the river wall.

- The existing public footpath, which currently traverses the site, will be re-routed to the southern edge to allow for continued free access of movement.

- The Clubhouse/Retail is effectively located to provide immediate adjacency to both the existing hardstanding area for parking and the proposed location for the driving range bays.

- The configuration of the clubhouse defines a possible future family amenity area which can also be accessed directly from the car park.

- The location of the café within the clubhouse is positioned to provide feature views towards the green outfield of the driving range.
Each programmatic requirement for the building assembly is provided with a distinct and meaningful material identification and a clear circulation diagram unifies the separate volumes. An overview of the key design considerations is as follows:

- The social space of the reception/café is wrapped in a lightweight polycarbonate enclosure. At areas where entrance points or key views are encouraged then a clear glazing assembly is provided. The primary entrance is located near the dedicated parking area.

- The retail provision is accessed directly from the reception area. For security reasons this zone is treated as a closed box and an open jointed timber rainscreen will be applied.

- It is anticipated that pre-owned 40’ shipping containers will be plugged into the southern side of the café area and will provide enclosure for all support and service requirements.

- It is anticipated that pre-owned 20’ shipping containers will be installed within the clubhouse to provide servery kiosks and storage spaces for the café.

- A single 40’ container will be provided at the southern edge of the building assembly to provide space for maintenance equipment.
The objective for this project is to provide an enjoyable amenity space for the residents and visitors of the Greenwich Peninsula. Its uniqueness as a recreational experience will be enhanced by the location of the site in relation to Canary Wharf, the River Thames and The O2. The provision of the Urban Golf Project within the existing fabric will supplement, not compete with, these existing resources. For this reason the design proposal will be simple, functional and efficient in both its intervention on the site and in the ambition of its design.

The design of the required buildings will be compact while in contrast the open green space will be maximised. The appearance of the buildings will be influenced by the simple material palette to be used - which will be biased in favour of materials that are durable, weatherproof and reusable.

As the Greenwich Peninsula Golf Driving Range is intended to be a family destination, a small scale family amenity, such as a mini-golf park could be added in the near future.
The materials chosen for the proposed buildings reflect the industrial past of the site but are thoroughly contemporary in their application. The proposed materials differ between the driving tees building and the clubhouse building but they do share an approach that is simple and elegant and also have a common ability to be re-used once the buildings short proposed lifespan has come to an end.

**Clubhouse**
Reused shipping containers form the core of the clubhouse and the service areas to the rear. The remainder of the café and bar area will clad in a lightweight translucent polycarbonate. The retail area will be clad in untreated Siberian larch vertical boarding. The entire roof of the clubhouse will be covered in a single ply membrane with roof lights above to provide natural light into the retail area. Internally materials will continue the industrial theme with an exposed roof deck, simple plywood walls and a self-levelling concrete screed floor.

**Driving Tees**
The intention is to keep the driving tees as simple and efficient as possible. The southern walls and roof of the driving tees are clad in a polyester powder coated corrugated steel material similar in nature to the cladding material of the reused shipping containers elsewhere in the project. The structural steel supporting the walls and roof will be left exposed and simply painted in a colour to match the corrugated steel cladding.
The design proposal provides the following key features within the site plan:

• Thirty double story bays will provide sixty golfing tees.

• A driving field of approximately 218m which will be laid with a well maintained green turf.

• A 30m high net fence will be provided at the field perimeter to provide enclosure. Support masts will be distributed at approximately 30m centres to provide structure for the net.

• Up to 44 car parking spaces with be provided on existing hardstanding currently present on the site. Disabled car parking spaces will be included within this total.

• 10-15 spaces for bicycles will be provided.

• An open corridor is provided at the southern perimeter of the site to allow for public circulation to continue uninterrupted towards the eastern site edge.

• The existing buildings highlighted in black will remain as indicated within the site plan.

• Existing vegetation will remain on the site, where feasible.
Main Entrance Access:
The entrance to the building is provided in close proximity to the existing carpark. From this point both the café and retail areas are easily accessible.

Café Extension into Landscape:
The current internal extents of the café are generous and comfortably provides up to 40 seats. At busy periods the outdoor terrace can be used which will easily provide up to an additional 20 seats.

Circulation to Driving Range:
The primary circulation route to the driving range brings people through the communal café area towards the southern edge of the building. From this point golfers pass through an external circulation area to pick up golf balls and access the two story range.

Maintenance Access:
Primary outdoor maintenance equipment will be stored within a free-standing shipping container located at the southern edge of the site.
The simple and functional forms are to be constructed in lightweight and sustainable materials. The massing heights for the building are kept to their minimum functional requirements and are intended to remain subservient to the more important existing amenities currently found on the peninsula such as The O2.

The exposed containers at the perimeter of the building will be 2.8m high and in order to express their functional aesthetic they will not be sheathed by an additional cladding finish.

The massing expectations for the driving range are determined by the functional requirements they serve. This two level structure will be approximately 8.0m high and open to the elements. The Design Team will ensure it’s efficient and utilitarian structure will be elegantly expressed.
The reception and café building will act as the communal/social space for the project, therefore the proposed envelope will be light and suggest transparency. This area will be enclosed with a polycarbonate rain screen. The enclosure will include a large opening with clear glass to allow for a strong visual connection to the driving range and associated green landscape directly adjacent.

The retail pavilion will be more internally focused - and therefore will be treated as an opaque box. This volume will be wrapped with an open-jointed timber rain screen. For security reasons windows will not be provided, however, we anticipate environmental graphics will be integrated at the primary elevation to provide branding, wayfinding and other visual interests for the enclosure.

The shipping containers located at the perimeter of the building will be expressed as industrial elements and painted a solid colour to compliment the adjacent light-weight envelope.
For safety and security reasons a 30m high perimeter net fencing wall will be placed at the perimeter of the driving range field. This height has been determined in accordance with golfing professionals and is based on the anticipated ball trajectory produced by an experienced golfing clientele.

The tower masts will be composed of a steel lattice that will be set into permanent concrete footings. It is anticipated these tower masts will be positioned up to 30m apart.

The netting will be composed of a high quality synthetic material that will absorb both high and low impact balls. It is intended this material will wear well in all weather conditions to ensure a pleasing overall appearance that minimises visual impact.
New external lighting will be provided to three key areas of the site namely the Driving Range and Mini Golf area, the Car Park and associated amenity lighting as follows:

**Driving Range and Mini Golf Area**

Due to the nature of the activity taking place, the illumination of a driving has to be designed to provide good vertical illumination, in accordance with BS EN 12193:2007, to enable the customer to track the flight of the ball during the evening opening hours. Based on this requirement, the lighting scheme proposed for this development is to mount a number of high powered, directional floodlights onto the roof of the booths. The selected floodlights will be fitted with glare shields, and will be accurately sited to minimise direct light spill and glare to the surrounding areas.

The mini golf will be illuminated via the use of column mounted fittings around the perimeter of the green. These fittings will provide directional lighting from multiple angles to reduce shadowing during the evening hours. Light pollution will be addressed via the selection of fittings using of precise cut off angles, and zero upward light output.

**Car Park**

The proposed site will be provided with a number of car and bicycle parking spaces. Lighting to these areas will be designed in accordance with the British Standard, and will consist of luminaires mounted on 4m to 6m columns around the perimeter of the parking areas. Light pollution will be addressed via the selection of fittings using of precise cut off angles, and zero upward light output.

**Amenity Lighting**

Building mounted amenity lighting will be provided to the main entrance, circulation outside seating areas, to allow for safe use of the facilities during the evening hours. Additionally, functional lighting will be provided to all maintenance access areas. All amenity lighting will be design to comply with the British Standards and the requirements of Secured By Design.
The design philosophy for the site is based on total accessibility for everyone. This approach addresses not only compliance with the Equality Act and relevant planning policies but also the long-term implications of sustainability. The aim is therefore to provide an inclusive environment throughout. For this reason access issues have been and will be considered throughout the design process to ensure a fully inclusive design. A summary of the issues considered are outlined below.

The Equality Act 2010

The Equality Act 2010 aims to protect disabled people and prevent disability discrimination. The act prohibits unfair treatment in the workplace, when providing goods, facilities and services, when exercising public functions, in the disposal and management of premises, in education and by associations (such as private clubs).

Interpretation of Standards

Access standards are in a continuing state of development with no one authoritative document as a single source of reference. Instead, several separately authored documents have to be referred to, these include:

- The Equality Act 2010
- The Building Regulations 2010
- Approved Document M – Access to and use of buildings
- BS8300:2009 – Design of buildings and their approaches to meet the needs of disabled people
- Stairs, ramps and escalators.
- Inclusive design guidance 2010 RIBA

The following accessibility considerations have been included within this design proposal:

Clubhouse and Retail

- General gradient for the ramped entry from the car park to comply with Part M
- Part M compliant entrance door
- Part M compliant WC to be provided

Driving Range

- Level access will be afforded to the driving range from the Clubhouse
- 50% of all driving tees will be accessible at the ground level
- Part M compliant circulation route

Car Parking

- An appropriate parking provision dedicated for disabled use will be provided in accordance with Part M
The site is well served by public transport, and is easily accessible. The nearest station is North Greenwich Underground station (Jubilee Line), which has step free access to and from the street and train platform levels. The development is located approximately a 700 metre walk from the station. Additionally several accessible bus routes serve the site. The QEII pier is used for the Thames Clipper ferry service, which provides a frequent and fast service to Central London piers and several of the main line rail stations. Local networks of cycle lanes are included in the masterplan, which will provide direct links to and from the central district and residential neighbourhoods.

The cycle lanes will be integrated with the London Cycle Network linking to Greenwich and Central London. Priority will be given to pedestrians. The masterplan will provide direct links to and from the central district and residential neighbourhoods and link to Greenwich Millennium Village to increase permeability.

A provision of 44 parking spaces will be provided on existing hardstanding within the site for both individual and family visitors. This will include designated disabled spaces in accordance with Part M. 10-15 spaces for bicycles will also be provided for visitors to the Greenwich Peninsula Golf Driving Range.

The design and construction of the Greenwich Peninsula Golf Driving Range must exemplify the strong sustainability message being pursued within existing development at Greenwich Peninsula.

The proposal should accord with goals of sustainable development, in particular:

- The efficient use of previously developed land in a highly accessible location.
- The proximity to a number of public transport nodes and good pedestrian, disabled and cycle access facilities.

Our approach to providing a sustainable and low carbon building will combine a combination of passive and active measures. Passive measures include optimising the buildings form, mass, thermal performance and orientation in relation to sun path and wind directions.

This approach will include maximising natural light in all public areas where it accentuates the social spaces with views to the driving range (i.e. café and reception) whilst minimising their requirement to the southern side of the building where back of house and support spaces are located. This allows the requirement for windows at areas of maximum solar gain to be minimised.

As our building is intended to have a temporary lifespan maximum consideration will be given to:

- Consideration of the potential for recycled content within the materials selection process. As seen within the planning drawings our creative re-use of recycled shipping containers for all support spaces supports this objective.
- Consideration of the embodied carbon of materials selected.
- Application of WRAP's Designing Out Waste principles throughout the design stages to maximise the efficiency of the structure in terms of materials. This will also identify potential cost savings.
- Consideration of the sourcing of materials and their journey to site.
- The choice of materials and potential to reuse and/or recycle materials at the end of the buildings life.

As our buildings become more energy efficient during their operational life and the carbon in use is reduced it is important that the embodied energy of the building is considered too as part of the Cradle to Cradle strategy of the building.