

A: GENERAL NOTES

1.

This drawing is to be read in conjunction with all discipline drawings, specifications and standards. Any discrepancies shall be referred to the Structural Design Engineer for decision before proceeding.
2.

Unless otherwise noted (UNO), all dimensions are in millimeters, all levels in meters above ordnance datum (AOD), and all setting-out points in meters to Survey Operations Ltd - April 2008. Do not scale from drawing, if in doubt ask.
3.

All relevant setting out points, dimensions and levels are to be checked by Contractor on-site prior to commencement of works.
4.

The on-land topographical survey was supplied by Survey Operations Ltd in April 2008. The beach topographical survey was supplied by Environmental & Engineering Services in 2019.
5.

General arrangement plan view drawings show approximate position of known services. See utility survey plans, statutory undertakers plans, and the Pre-Construction Information for further information. Further unknown services maybe present, including surface water drainage. Contractor to undertake a survey to determine full extent of services present within working area. Results & plans to be forwarded to the Structural Design Engineer two weeks prior to commencement of works or ordering of materials, whichever occurs first.
6.

All work to be in accordance with Specification for Highway Works, BS EN 13670, BS EN 1992 & PD 6687 (concrete structures), BS EN 1997 & BS 8002 (earth retaining structures), BS 8004 (foundations) and other relevant British and European Standards. See the Specification also.
7.

All proprietary items, fixtures and fittings must be installed in accordance with the manufacturer's instructions.
8.

New reinforced concrete structures along promenade seaward edge not to be constructed nor the promenade raised until the new rock revetment is constructed to underside of existing promenade edge coping level. Rock revetment to be constructed to rest against the seawall.
9.

Unless the contractor demonstrates otherwise in accordance with Eurocode Design Standards, heavy construction loads greater than 5kN/m² near the existing promenade seawall shall located at least 1.5 x the effective retained height away. Further temporary / protection works maybe required subject to contractor assessment / technical authority approval.
10.

The Contractor shall be responsible for stability of structures during all stages of construction. Existing adjacent structures not annotated as being removed on the site clearance must not be undermined or damaged during works. Contractor must ensure coastal protection of the site and promenade is provided throughout the project.
11.

Contractor must have control measures in place & temporary works must be sufficiently robust to resist possible adverse actions. Contractor is to submit for comment not less than 5 days prior to commencement on site the following:
a) Proposals for temporary works such as propping, shoring and de-watering.
b) Method statement for construction.
12.

Sections called up thus:



This for example indicates that section 4 is located on drawing 415437-MMD-00-XX-DR-S-2130.

ABBREVIATIONS

MML = Mott MacDonald Ltd
CCBC = Conwy County Borough Council
UNO = Unless noted otherwise.
TBC = To be confirmed.
TOW = Top of wall.
TOF = Top of foundation.
FFL = Finish floor level.
MJ = Movement Joint.
IJ = Isolation Joint.
NTS = Not to scale.
MAF = Movement accommodation factor.
SHW = Specification of Highway Works.
RC = Reinforced concrete.
U/S = Underside.
DRG = Drawing.

B: FOUNDATION NOTES

1.

For ground investigation (GI) information, see factual report referenced "CCG-C-20-11993" for the geotechnical investigation undertaken in 2021. Also see the associated interpretive report undertaken by Mott MacDonald Ltd referenced "415437-MMD-G-R-00-XX-1506". See also all publicly held site data.
2.

The Contractor shall review all historical data, site information and works information to identify all possible obstructions, asset protection works and service diversions. The Contractor shall then undertake all necessary work to locate obstructions, provide asset protection and divert services to deliver the proposed permanent works as per accepted programme.
3.

Unless noted otherwise foundations to be founded on medium dense granular material with an allowable bearing capacity of at least 100kN/m², and a characteristic effective shear resistance angle (friction angle) of 32°. Ground conditions are to be verified on-site by a competent Geotechnical Engineer employed by the Contractor prior to the commencement of any permanent work. Should discrepancies occur the Structural Design Engineer is to be notified.
4.

Any voids, soft spots or over excavations shall be backfilled to competent strata with ST2 concrete under foundations, and with class 6N compacted granular fill under promenade slabs in accordance with Series 600 Volume 1 Specification for Highway Works.
5.

Unless noted otherwise, grout for promenade structures to be high strength non-shrink flowable grout with minimum compressive cube strength of 40N/mm².
6.

Unless noted otherwise, blinding concrete below proposed promenade structures shall be ST2 grade prescribed concrete in accordance with BS 8500.
7.

New reinforced structures along promenade seaward edge not to be constructed nor the promenade raised until the new rock revetment is constructed to the existing promenade level. Rock revetment to be constructed to rest against the seawall.

C: CONCRETE NOTES

1.

Concrete shall be executed in accordance with BS EN 13670, BS EN 1992, PD 6687, the Specification and Series 1700 of Specification for Highway Works.
2.

Unless otherwise noted all in-situ concrete for promenade structures shall be C35/45 designed concrete in accordance with BS 8500 and BS 6349. It shall have an AC-2 ACEC class (DC-2), minimum strength class of C35/45 (28 day characteristic compressive cube strength of 45N/mm²), minimum cement content of 400kg/m³, maximum water to cement ratio of 0.40 and S3 consistence class. Aggregate shall have a Los Angeles abrasion resistance <30 (LA30) to BS EN 1097-2 / BS EN 12620:2002+A1. See the Specification for further requirements including: permitted cement types, finishes, aggregate type, aggregate size, pigmentation etc.
3.

Concrete admixtures proposals must be submitted for acceptance to the Project Manager, must not contain calcium chloride and must be compliant with BS EN 934.
4.

All structural concrete shall be compacted fully using a mechanical vibration process.
5.

See the Specification for construction joints, curing, temporary works, stripping times, accuracy of constructed work, quality control and testing. All construction joints to have a exposed aggregate finish, thoroughly cleaned and damp prior to placement of adjoining concrete.
6.

Unless noted otherwise, 150mm high concrete kickers incorporate to concrete walls.
7.

Unless noted otherwise; in accordance with the Series 1700 Volume 1 Specification for Highway Works formed surfaces shall have a F3 finish on exposed faces (including seaward side of seawalls and outside face of beach access steps) and F2 finish elsewhere and unformed surfaces shall have a U3 finished on exposed faces and U2 finish elsewhere. Top of concrete blinding below RC foundations shall have a rough/brushed finish. See the Specification for further information and for unformed finishes.
8.

Unless noted otherwise nominal in-situ concrete cover of 75mm to steel reinforcement is required. If concrete foundations are cast against earth facing, the minimum concrete cover should be increased to 115mm by increasing the concrete thickness by 40mm on each face.
9.

All reinforcement shall be grade B500B high yield deformed type 2 steel bars with a characteristic yield strength of 500N/mm² to BS 4449. Steel reinforcing mesh shall be to BS 4483.
10.

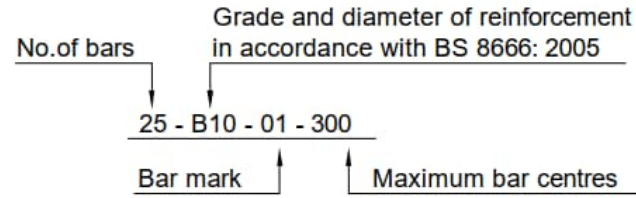
Standard lap lengths to be 40 x bar diameter unless noted otherwise. Lap lengths for unequal size bars shall be based upon the smaller bar.
11.

The Contractor is responsible for provision of, and schedule of chairs and spacers etc for the support of steel reinforcement.
12.

Steel reinforcement shall be fixed to provide an in-situ tolerance of +5mm/-10mm.
13.

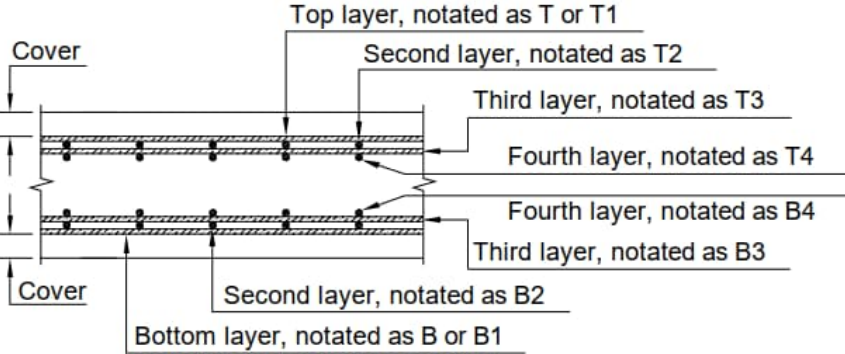
To prevent corrosion all permanently exposed metals to be non-ferrous.
14.

Notation of reinforcing bars and fixing information:



Bar notations may be followed with a description suffix as follows: -
T - Indicates top.
B - Indicates bottom.
ABR - Indicates alternate bar reversed.
EF - Indicates each face.
NF - Indicates near face.
FF - Indicates far face.

Description of layers is as follows: -



15.

Unless noted otherwise chamfers to all exposed edges shall be 15mm x 15mm. However landward top edge of new raised seawalls shall be square (seaward top edge shall be chamfered).

D: MASONRY NOTES

1.

All work to be in accordance with BS EN 1996, PD 6697 and the Specification.
2.

Mortar shall have a M6 compressive strength class in accordance with table NA.2 of NA to BS EN 1996 [mortar designation (ii)].
3.

Masonry clad walls shall be tied to the reinforced concrete stem using stainless steel wall ties typically spaced at 900mm horizontal centres and 450mm vertical centres.
4.

Where masonry stones from existing walls annotated as being removed on the site clearance drawings are specified to be re-used in the works; stones shall be carefully removed to avoid damage of the stone units, mortar removed, then thoroughly cleaned before being re-used in the works.

E: EXISTING SEAWALL REPAIR NOTES

1.

Prior to construction of the rock revetment, the adjoining front face of the existing masonry seawall shall be carefully repaired by the Contractor. The Contractor must establish a safe system of work, ensure the seawall remains stable and limit repairs to short sections each time.
2.

The Contractor shall carefully remove delaminated material, rake-out loose jointing, remove any detritus material and thoroughly cleaning any voids and raked-out joints.
3.

Void and open joints shall be subsequently repaired with a class R4 (to BS EN 1504-3:2005; i.e. minimum 45N/mm² compressive strength) propriety repair mortar suitable for the marine environment; e.g. "Marine Mortar S" by Flexcrete or equivalent accepted; installed in accordance with manufactures instructions. Contractor to submit proposals to the Project Manager for acceptance two weeks prior to commencement of works or ordering of materials, whichever occurs first.
4.

For tender purposes Contractor to assume, 35% of the raking out and repointing of the existing mortar along the identified seawall (sporadically over 100m length of wall), and 3No 1m² of concrete to maximum 200mm thickness for replacement of lost or damaged masonry units. However as per Appendix 24/4 clause 2 k), the extent of the repair works shall be agreed on site with the Employers Supervisor prior to commencement of the works, shall be marked up on the seawalls and photographs taken as a record.
5.

See Appendix 24/4 in the Specification for further requirements.

F: ILLUMINAIRES

1.

Lighting beacons shall be 3.4m root type column to be finished in RAL 7016 with 600mm glazed Silka luminaire tube providing an overall height of 4m. Luminaire by DW Windsor with 4k LED tape, 29W power, 126mA drive current and 1.77klm lumen output.
2.

Lighting beacons to be instated by Contractor with private supply and feed from the nearest CCBC street lighting column with time clock at west end of Rotary Way ramp. 50% part night dimming required.
3.

Lighting beacons and feed from existing CCBC street light, to be connected via 50mm diameter orange twin wall cable duct with "Street Lighting" embossed every metre on two sides at a minimum planting depth of 450mm in the footway and 750mm in the carriageway. Duct to be overlaid with yellow PVC cable marker tape (0.1mm thick and 150mm wide) approximately 250mm above cable duct.
4.

Lighting beacons to be connected with minimum 4mm² (Cu) XLPE/PVC/SWA/PVC 3 core cable for power requirements.
5.

Lighting beacons to have lockable double pole isolator suitable for private cable connection with 1 upward fused circuit. 3No lighting beacon closest to west to be suitable for loop in / loop out 4mm² SWA with 1 No upward and 1 no downward BS88-2 fused circuit. 1 No lighting beacon furthest to east to be suitable for incoming private termination 4mm² SWA with 1 no upward BS88-2 fused circuit.
6.

All lighting beacons to have C250 street lighting inspection chamber (450mm x 450mm) installed nearby with galvanised steel full surround and anti-slip ductile composite polyester cover marked "STREET LIGHTING". Last street lighting inspection chamber to east to include earth electrode. Continuity of any associated electrical networks shall be maintained. Proposed lighting inventory to be earthed and bonded in accordance with BS 7671.
7.

All luminaires shall be supplied with integral DALI compatible electronic control gear.
8.

Electrical installation to be installed in compliance with BS7671:18th Edition.
9.

The Contractor shall ensure that all utilities are adequately protected as a result of the excavation works.
10.

See drawing reference S-2134 for foundation details for the 4m Silka lighting beacon

Notes

1.

These promenade general notes apply to the 415437-MMD-00-XX-DR-S-2030 to 2399 series drawings.

Key to symbols

Reference drawings

415437-MMD-00-XX-DR-S-2030 series for prom general arrangement plans
415437-MMD-00-XX-DR-S-2130 series for prom sections & details

C01	21.01.2026	RW	Tender Issue	GWM	SS
P1	13.01.2026	RW	Tender Issue for Client Accpetance	GWM	SS
Rev	Date	Drawn	Description	Ch'k'd	App'd

Status Stamp

Tender Issue



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Title

Ph.3 - Old Colwyn Promenade Coastal
Defence & Active Travel Improvements
PROMENADE
GENERAL NOTES

Designed	R. Williams	Eng. Check	G. Mitchell	
Drawn	R. Williams	Coordination	G. Mitchell	
Dwg. Check	G. Mitchell	Approved	S. Smith	
MMD Project Number	415437	Scale at A1	Not applicable	Security STD
Suitability Description	Tender Issue			Suit. Code A4
Drawing Number	415437-MMD-00-XX-DR-S-2030			Rev C01