



WHOLE LIFE CONSULTANTS LTD

## Forecasting Wales' Future Construction Skills

### Technical appendix



**Client:** CITB

**Authors:** Dr Doug Forbes, Adam  
Evans & Sandra Lilley

**Approved by:**

CITB/WLC Ltd

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CITB  
Bircham Newton  
Kings Lynn  
Norfolk  
PE31 6RH  
t: +44 (0)344 994 4400  
www.citb.co.uk

Whole Life Consultants Limited  
Dundee University Incubator  
James Lindsay Place  
Dundee  
DD1 5JJ  
t/f: +44 (0)1382 224 304  
enquiries@wlcuk.com

CITB is registered in England and Wales Charity No 264289 and in Scotland Charity No SC044875

Whole Life Consultants Ltd is registered in Scotland as SC259987, VAT number 852809506  
Registered office c/o 14 City Quay, Dundee DD1 3JA

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## Appendix A. **Occupational definitions**

Reference is made in this report to a range of occupational aggregates for construction occupations. This appendix contains details of the 166 individual occupations which are aggregated into 28 occupational aggregates.

Occupations included within construction occupational aggregates (Four-digit codes refer to Office for National Statistics Standard Occupational Classification Codes).	
<b>1 Senior, executive, and business process managers</b>	
	(1115) Chief executives and senior officials (1131) Financial managers and directors (1132) Marketing and sales directors (1133) Purchasing managers and directors (1135) Human resource managers and directors (1251) Property, housing and estate managers (1136) Information technology and telecommunications directors (2150) Research and development managers (1162) Managers and directors in storage and warehousing (1259) Managers and proprietors in other services nec (1139) Functional managers and directors nec (2133) IT specialist managers (2134) IT project and programme managers (3538) Financial accounts managers (3545) Sales accounts and business development managers
<b>2 Construction project managers</b>	
	(2436) Construction project managers and related professionals
<b>3 Other construction process managers</b>	
	(1121) Production managers and directors in manufacturing (1122) Production managers and directors in construction (1161) Managers and directors in transport and distribution (1255) Waste disposal and environmental services managers (3567) Health and safety officers (3550) Conservation and environmental associate professionals
<b>4 Non-construction professional, technical, IT, and other office-based staff (excl. managers)</b>	

(3131) IT operations technicians
(3132) IT user support technicians
(3534) Finance and investment analysts and advisers
(3535) Taxation experts
(3537) Financial and accounting technicians
(3563) Vocational and industrial trainers and instructors
(3539) Business and related associate professionals nec
(3520) Legal associate professionals
(3565) Inspectors of standards and regulations
(2136) Programmers and software development professionals
(2139) Information technology and telecommunications professionals nec
(3544) Estate agents and auctioneers
(2413) Solicitors
(2419) Legal professionals nec
(2421) Chartered and certified accountants
(2424) Business and financial project management professionals
(2423) Management consultants and business analysts
(4216) Receptionists
(4217) Typists and related keyboard occupations
(3542) Business sales executives
(4122) Book-keepers, payroll managers and wages clerks
(4131) Records clerks and assistants
(4133) Stock control clerks and assistants
(7213) Telephonists
(7214) Communication operators
(4215) Personal assistants and other secretaries
(7111) Sales and retail assistants
(7113) Telephone salespersons
(3541) Buyers and procurement officers
(3562) Human resources and industrial relations officers
(4121) Credit controllers
(4214) Company secretaries
(7129) Sales related occupations nec
(7211) Call and contact centre occupations
(7219) Customer service occupations nec
(9219) Elementary administration occupations nec
(2111) Chemical scientists
(2112) Biological scientists and biochemists

	(2113) Physical scientists (3111) Laboratory technicians (3421) Graphic designers (2463) Environmental health professionals (2135) IT business analysts, architects and systems designers (2141) Conservation professionals (2142) Environment professionals (2425) Actuaries, economists and statisticians (2426) Business and related research professionals (4124) Finance officers (4129) Financial administrative occupations nec (4138) Human resources administrative occupations (4151) Sales administrators (4159) Other administrative occupations nec (4162) Office supervisors (7130) Sales supervisors (7220) Customer service managers and supervisors (4161) Office managers
<b>5 Construction trades supervisors</b>	
	(5250) Skilled metal, electrical and electronic trades supervisors (5330) Construction and building trades supervisors
<b>6 Wood trades and interior fit-out</b>	
	(5315) Carpenters and joiners (8121) Paper and wood machine operatives (5442) Furniture makers and other craft woodworkers (5319) Construction and building trades nec (25%)
<b>7 Bricklayers</b>	
	(5312) Bricklayers and masons
<b>8 Building envelope specialists</b>	
	(5319) Construction and building trades nec (50%)
<b>9 Painters and decorators</b>	
	(5323) Painters and decorators (5319) Construction and building trades nec (5%)
<b>10 Plasterers</b>	
	(5321) Plasterers
<b>11 Roofers</b>	
	(5313) Roofers, roof tilers and slaters

<b>12 Floorers</b>	
	(5322) Floorers and wall tillers
<b>13 Glaziers</b>	
	(5316) Glaziers, window fabricators and fitters (5319) Construction and building trades nec (5%)
<b>14 Specialist building operatives not elsewhere classified (nec)</b>	
	(8149) Construction operatives nec (100%) (5319) Construction and building trades nec (5%) (9132) Industrial cleaning process occupations (5449) Other skilled trades nec
<b>15 Scaffolders</b>	
	(8141) Scaffolders, staggers and riggers
<b>16 Plant operatives</b>	
	(8221) Crane drivers (8129) Plant and machine operatives nec (8222) Fork-lift truck drivers (8229) Mobile machine drivers and operatives nec
<b>17 Plant mechanics/fitters</b>	
	(5223) Metal working production and maintenance fitters (5224) Precision instrument makers and repairers (5231) Vehicle technicians, mechanics and electricians (9139) Elementary process plant occupations nec (5222) Tool makers, tool fitters and markers-out (5232) Vehicle body builders and repairers
<b>18 Steel erectors/structural fabrication</b>	
	(5311) Steel erectors (5215) Welding trades (5214) Metal plate workers, and riveters (5319) Construction and building trades nec (5%) (5211) Smiths and forge workers (5221) Metal machining setters and setter-operators
<b>19 Labourers nec</b>	
	(9120) Elementary construction occupations (100%)
<b>20 Electrical trades and installation</b>	
	(5241) Electricians and electrical fitters (5249) Electrical and electronic trades nec (5242) Telecommunications engineers



<b>21 Plumbing and heating, ventilation, and air conditioning trades</b>	
	(5314) Plumbers and heating and ventilating engineers (5216) Pipe fitters (5319) Construction and building trades nec (5%) (5225) Air-conditioning and refrigeration engineers
<b>22 Logistics</b>	
	(8211) Large goods vehicle drivers (8212) Van drivers (9260) Elementary storage occupations (3541) Buyers and purchasing officers (50%) (4134) Transport and distribution clerks and assistants
<b>23 Civil engineering operatives not elsewhere classified (nec)</b>	
	(8142) Road construction operatives (8143) Rail construction and maintenance operatives (8123) Quarry workers and related operatives
<b>24 Non-construction operatives</b>	
	(8117) Metal making and treating process operatives (8119) Process operatives nec (8125) Metal working machine operatives (8126) Water and sewerage plant operatives (8132) Assemblers (vehicles and metal goods) (8133) Routine inspectors and testers (8139) Assemblers and routine operatives nec (9249) Elementary security occupations nec (9233) Cleaners and domestics (9232) Street cleaners (5113) Gardeners and landscape gardeners (6232) Caretakers (9241) Security guards and related occupations (3319) Protective service associate professionals nec
<b>25 Civil engineers</b>	
	(2121) Civil engineers
<b>26 Other construction professionals and technical staff</b>	

	(2122) Mechanical engineers
	(2123) Electrical engineers
	(2126) Design and development engineers
	(2127) Production and process engineers
	(2461) Quality control and planning engineers
	(2129) Engineering professionals nec
	(3112) Electrical and electronics technicians
	(3113) Engineering technicians
	(3114) Building and civil engineering technicians
	(3119) Science, engineering and production technicians nec
	(3121) Architectural and town planning technicians
	(3122) Draughtspersons
	(3115) Quality assurance technicians
	(2432) Town planning officers
	(2124) Electronics engineers
	(2435) Chartered architectural technologists
	(3531) Estimators, valuers and assessors
	(3116) Planning, process and production technicians
<b>27 Architects</b>	
	(2431) Architects
<b>28 Surveyors</b>	
	(2433) Quantity surveyors
	(2434) Chartered surveyors

## Appendix B. **Glenigan projects removed from North Wales**

This section contains a list of all the Glenigan projects removed from the analysis, stating the reason for their exclusion.

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
1	Slipway	Gwynedd Dwyfor	-	29/08/2016	07/06/2017	Missing Values
2	Demolition	Flintshire	-	22/10/2016	12/07/2017	Missing Values
3	Flood Alleviation Scheme	Flintshire	3.0			Missing dates
4	29 Houses	Flintshire	2.2			Missing dates
5	Road (Improvement)	Conwy County	2.0			Missing dates
6	9 Office Units	Flintshire	2.0			Missing dates
7	16 Houses	Flintshire	1.8			Missing dates
8	44 Flats	Denbighshire	1.8			Missing dates
9	Supermarket	Anglesey	1.7			Missing dates
10	20 Holiday Units/Restaurant & Hotel	Gwynedd Dwyfor	1.7			Missing dates
11	15 Houses	Denbighshire	1.1			Missing dates
12	Care Home (Extension)	Gwynedd Dwyfor	1.1			Missing dates
13	10 Lodges/Holiday Lodges & Flat	Denbighshire	1.0			Missing dates
14	11 Houses	Gwynedd Dwyfor	1.0			Missing dates
15	28 Flats (Conversion/Alterations)	Conwy County	1.0			Missing dates
16	12 Houses	Wrexham	0.9			Missing dates
17	8 Office Units	Denbighshire	0.9			Missing dates
18	Industrial Unit (Extension)	Gwynedd Dwyfor	0.7			Missing dates
19	Hotel (Conversion/Extension)	Wrexham	0.7			Missing dates
20	Anaerobic Digestion Plant	Flintshire	0.6			Missing dates
21	Student Accommodation (Conversion)	Gwynedd Dwyfor	0.5			Missing dates
22	18 Student Flats & 2 Retail Units	Gwynedd Dwyfor	0.5			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
23	Car Sales Area/Office Building	Anglesey	0.5			Missing dates
24	Processing & Storage Building (Extension)	Denbighshire	0.5			Missing dates
25	Student Accommodation (Extension)	Conwy County	0.4			Missing dates
26	2 Industrial Units	Anglesey	0.4			Missing dates
27	Care Home (Extension/Alterations)	Flintshire	0.4			Missing dates
28	Sports Centre (Extension)	Gwynedd Dwyfor	0.4			Missing dates
29	College Science Block (Extension)	Conwy County	0.3			Missing dates
30	Garages/Training Facilities & Offices	Gwynedd Dwyfor	0.3			Missing dates
31	Nursery/Club Building	Anglesey	0.3			Missing dates
32	Consultancy Services Frameworks	Gwynedd	10.0	01/04/2014	01/04/2018	Consultancy
33	Multi-Disciplinary Consultancy Services Framework	Gwynedd	6.0	01/09/2014	27/08/2018	Consultancy
34	Construction Consultancy Services Framework	Gwynedd	40.0	01/01/2015	01/01/2018	Consultancy

## Appendix C. **Glenigan projects removed from South East Wales**

This section contains a list of all the Glenigan projects removed from the analysis, stating the reason for their exclusion.

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
1	2 Office & Retail Units	Cardiff	51.5			Missing Dates
2	Bypass	Vale of Glamorgan	18.6			Missing Dates
3	126 Houses & Flats	Vale Of Glamorgan	9.5			Missing Dates
4	18 Holiday Chalets/1 Hotel (New/Extension)	Newport	8.6			Missing Dates
5	Solar Photovoltaic Farm	Merthyr Tydfil	8.3			Missing Dates
6	Office Building (Refurbishment)	Merthyr Tydfil	5.2			Missing Dates
7	School	Rhondda Cynon Taff	4.4			Missing Dates
8	School & Leisure	Rhondda Cynon Taff	4.0			Missing Dates
9	Biomass Power Station	Bridgend	4.0			Missing Dates
10	Supermarket	Rhondda Cynon Taff	3.8			Missing Dates
11	Offices & Paint Shop	Cardiff	3.6			Missing Dates
12	62 Flats(Conversion/Alterations)	Newport	3.0			Missing Dates
13	40 Houses	Cardiff	2.9			Missing Dates
14	Care Home	Bridgend	2.4			Missing Dates
15	2 Car Showrooms (New/Extension)	Cardiff	2.4			Missing Dates
16	Care Home	Newport	2.4			Missing Dates
17	Office & Retail	Caerphilly	2.3			Missing Dates
18	Rugby Club (Extension)	Vale Of Glamorgan	2.0			Missing Dates
19	Residential Care Unit	Monmouthshire	1.9			Missing Dates
20	Community Centre (Alterations)	Rhondda Cynon Taff	1.9			Missing Dates
21	Office Building	Vale Of Glamorgan	1.6			Missing Dates
22	Hotel & Sports Facility (Extension)	Cardiff	1.6			Missing Dates
23	Car Showroom	Cardiff	1.6			Missing Dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
24	28 Flats & 2 Houses	Newport	1.5			Missing Dates
25	27 Flats & 2 Houses (New/Conversion)	Newport	1.5			Missing Dates
26	Eco Visitors Centre/Educational Building	Vale Of Glamorgan	1.2			Missing Dates
27	13 Flats & 10 Houses (Conversion/Extension)	Merthyr Tydfil	1.2			Missing Dates
28	Hotel	Cardiff	1.1			Missing Dates
29	14 Flats	Newport	1.1			Missing Dates
30	8 Flats & 1 Restaurant	Cardiff	1.0			Missing Dates
31	Nursing Home	Torfaen	1.0			Missing Dates
32	Church Building	Vale Of Glamorgan	1.0			Missing Dates
33	Hotel & Sports Facility (Extension)	Cardiff	1.0			Missing Dates
34	2 Care Flats & 1 Takeaway	Rhondda Cynon Taff	1.0			Missing Dates
35	Waste Transfer Station	Caerphilly	1.0			Missing Dates
36	Bridge Works	Newport	1.0			Missing Dates
37	4 Light Industrial Units	Cardiff	1.0			Missing Dates
38	Hotel	Caerphilly	1.0			Missing Dates
39	2 Restaurants	Vale Of Glamorgan	0.9			Missing Dates
40	17 Flats	Cardiff	0.9			Missing Dates
41	Nursing Home (Extension)	Vale Of Glamorgan	0.8			Missing Dates
42	Community Building	Bridgend	0.6			Missing Dates
43	Footpath (Improvements)	Merthyr Tydfil	0.6			Missing Dates
44	Church Building (Extension)	Cardiff	0.5			Missing Dates
45	Sewage Treatment Plant	Vale Of Glamorgan	0.5			Missing Dates
46	8 Flats & 2 Houses	Rhondda Cynon Taff	0.5			Missing Dates



Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
47	10 Flats (Conversion)	Newport	0.5			Missing Dates
48	Demolition	Cardiff	0.5			Missing Dates
49	Nursing Home (Extension)	Newport	0.4			Missing Dates
50	School Building (Extension)	Vale Of Glamorgan	0.4			Missing Dates
51	Hospital (Refurbishment)	Newport	0.3			Missing Dates
52	Restaurant/Cafe Building	Newport	0.3			Missing Dates
53	Infrastructure Consultancy Framework (Phase 2)	Caerphilly	60.0	17/04/2017	19/04/2021	Consultancy
54	Consultancy Framework	Monmouthshire	0.4	08/04/2013	08/04/2017	Consultancy
55	Engineering Consultancy Framework	Caerphilly	20.0	19/02/2018	21/02/2022	Consultancy

## Appendix D. **Glenigan projects removed from South West and Mid Wales**

This section contains a list of all the Glenigan projects removed from the analysis, stating the reason for their exclusion.

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
1	Gas Fired Power Generation Plant	Neath & Port Talbot	200.0			Missing Values
2	CHP Plant	Pembrokeshire Coast Natl Park	100.0			Missing Values
3	Power Station	Pembrokeshire	80.0			Missing Values
4	Hospital & Residential/Commercial	Ceredigion	50.0			Missing Values
5	Biomass CHP Unit	Brecon Beacons National Park	50.0			Missing Values
6	13 Wind Turbines & 1 Control Building	Powys	30.0			Missing Values
7	Road (Improvements)	Powys	25.0			Missing Values
8	Road (Improvements)	Powys	20.0			Missing Values
9	166 Houses & 4 Flats	Pembrokeshire	11.4			Missing Values
10	Quay	Neath & Port Talbot	10.0			Missing Values
11	Bypass	Powys	10.0			Missing Values
12	11 Industrial/Office/Warehouse Units	Swansea	8.3			Missing Values
13	Hotel	Carmarthenshire	8.2			Missing Values
14	82 Houses	Powys	6.2			Missing Values
15	Road (Improvement)	Powys	6.0			Missing Values
16	3 Turkey Rearing Units	Brecon Beacons National Park	5.6			Missing Values
17	58 Houses & 18 Luxury Houses	Carmarthenshire	5.5			Missing Values
18	79 Residential Units	Carmarthenshire	5.5			Missing Values
19	Health Centre	Ceredigion	4.6			Missing Values
20	66 Residential Units	Carmarthenshire	4.6			Missing Values
21	Biomass Power Station	Bridgend	4.0			Missing Values

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
22	33 Flats	Ceredigion	3.5			Missing Values
23	30 Flats & 3 Shop/Restaurant Units	Neath & Port Talbot	3.5			Missing Values
24	45 Self Catering Holiday Units	Pembrokeshire	3.4			Missing Values
25	Hotel	Pembrokeshire Coast Natl Park	2.7			Missing Values
26	57 Flats & 1 Football Stadium	Ceredigion	2.7			Missing Values
27	Care Home	Bridgend	2.4			Missing Values
28	26 Houses	Carmarthenshire	1.9			Missing Values
29	19 Houses & 4 Luxury Houses	Pembrokeshire	1.8			Missing Values
30	Health Centre	Neath & Port Talbot	1.8			Missing Values
31	24 Houses	Ceredigion	1.8			Missing Values
32	11 Houses	Ceredigion	1.8			Missing Values
33	School (Extension/Alterations)	Carmarthenshire	1.8			Missing Values
34	32 Flats (New/Extension)	Swansea	1.6			Missing Values
35	18 Flats	Swansea	1.6			Missing Values
36	20 Chalets & 1 Hub Building	Ceredigion	1.6			Missing Values
37	Water Drainage Infrastructure	Swansea	1.5			Missing Values
38	Office Building (Extension)	Swansea	1.5			Missing Values
39	19 Houses	Brecon Beacons National Park	1.4			Missing Values
40	18 Holiday Lodges	Pembrokeshire Coast Natl Park	1.4			Missing Values
41	Care Home (Conversion/Extension)	Carmarthenshire	1.3			Missing Values

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
42	2 Restaurant/Cafe Units & 1 Vehicle Maintenance	Swansea	1.2			Missing Values
43	26 Flats (New/Alteration)	Pembrokeshire	1.2			Missing Values
44	26 Flats (Conversion/Extension)	Swansea	1.2			Missing Values
45	15 Houses & 1 Clubhouse	Swansea	1.2			Missing Values
46	Convenience Store	Carmarthenshire	1.1			Missing Values
47	15 Log Cabin Holiday Units	Ceredigion	1.1			Missing Values
48	Care Home (New/Alterations)	Swansea	1.1			Missing Values
49	4 Shops	Swansea	1.1			Missing Values
50	Short Term Operating Reserve	Swansea	1.1			Missing Values
51	Bridge Works	Swansea	1.0			Missing Values
52	Highway Improvement Works	Powys	1.0			Missing Values
53	9 Houses & 5 Flats	Carmarthenshire	1.0			Missing Values
54	10 Holiday Lodges	Pembrokeshire	0.9			Missing Values
55	Garden Centre (Extension)	Swansea	0.8			Missing Values
56	10 Houses	Swansea	0.8			Missing Values
57	8 Industrial Units	Powys	0.7			Missing Values
58	Vehicle Workshop (Extension/Alterations)	Swansea	0.7			Missing Values
59	12 Flats & 2 Commercial Units (New/Extension)	Swansea	0.7			Missing Values
60	17 Flats (Conversion)	Swansea	0.6			Missing Values
61	Community Building	Bridgend	0.6			Missing Values
62	Church/Community Centre	Neath & Port Talbot	0.6			Missing Values
63	School Flying Start Facility (Extension)	Ceredigion	0.6			Missing Values

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason
64	Cycle Route (Extension)	Ceredigion	0.5			Missing Values
65	10 Flats	Swansea	0.5			Missing Values
66	Elderly Care Home (Conversion/Extension)	Swansea	0.5			Missing Values
67	2 Light Industry/Warehouse Units	Carmarthenshire	0.5			Missing Values
68	Industrial Units	Pembrokeshire	0.4			Missing Values
69	6 Shops & 4 Flats (Conversion/Extension)	Swansea	0.4			Missing Values
70	Warehouse Freezer (Extension)	Swansea	0.4			Missing Values
71	5 Flats & 1 Shop (Conversion/Extension)	Swansea	0.3			Missing Values
72	Care Home (Extension)	Pembrokeshire	0.3			Missing Values
73	Consultancy Services	Carmarthenshire	15.0	14/12/2015	11/12/2017	Missing dates
74	Tunnels	Powys	62.0	01/10/2015	01/10/2019	Consultancy

## Appendix E. **Significant Glenigan projects in North Wales**

This appendix provides a list of all the significant projects analysed. The projects appear in the following as they were put into the LFT.

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
NW001	Nuclear Power Station & Laboratory	Anglesey	4923.9	06/06/2021	01/06/2025	Infrastructure
NW002	Biomass	Anglesey	281.4	07/08/2017	04/02/2019	Infrastructure
NW003	Contractors Framework	Denbighshire	74.4	01/04/2014	01/04/2018	Public Non-housing
NW007	Hospital (Modernisation)	Conwy County	38.2	30/04/2012	30/04/2018	Public Non-housing
NW008	Wind Farm	Denbighshire	7.0	06/03/2018	13/12/2018	Infrastructure
NW009	Contractors Framework Agreement	Conwy County	75.0	05/09/2016	31/08/2020	New housing
NW010	Bypass	Gwynedd	46.1	01/12/2017	27/11/2020	Infrastructure
NW012	Highway Maintenance Framework Contract	Anglesey	35.2	30/06/2016	02/07/2020	Infrastructure
NW013	New Build Framework	Gwynedd	50.0	04/01/2016	04/01/2020	New housing
NW015	Railway Station Upgrade	Conwy County	28.1	09/01/2017	29/06/2018	Infrastructure
NW017	Undod Welsh Housing Framework	Gwynedd	40.0	07/12/2015	07/12/2019	New housing
NW018	Road (Improvements)	Conwy County	23.2	01/05/2017	29/04/2019	Infrastructure
NW019	Hospitality Zone	Denbighshire	33.0	30/01/2017	11/09/2017	Private Commercial
NW020	Council Offices	Conwy	11.9	01/11/2016	30/10/2018	Public Non-housing
NW021	Water Treatment Works (Extension)	Conwy County	19.6	09/02/2016	08/12/2017	Infrastructure
NW022	Decommissioning	Gwynedd	11.8	05/09/2016	04/09/2017	Infrastructure
NW024	Council Office Building & Multi Storey Car Park	Conwy County	9.2	06/03/2017	10/09/2018	Public Non-housing
NW027	Science Park	Anglesey	7.6	17/10/2016	25/12/2017	Public Non-housing
NW029	123 Houses	Anglesey	20.0	16/01/2017	16/01/2019	New housing
NW033	200 Homes/34 Apartments	Denbighshire	17.6	23/10/2017	19/11/2018	New housing
NW035	Science Park	Anglesey	5.8	10/10/2016	03/12/2017	Public Non-housing
NW042	Office	Anglesey	11.8	20/06/2016	27/07/2017	Private Commercial



WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
NW047	Poultry Processing Facility	Wrexham	8.7	03/07/2017	02/07/2018	Private Industrial
NW050	72 Flats	Flintshire	8.7	25/07/2016	24/04/2017	New housing
NW085	Retail Unit (Refurbishment)	Conwy County	4.0	20/02/2017	12/06/2017	Private Commercial
NW004	Energy Efficiency Framework Agreement	Flintshire	58.4	03/01/2017	05/01/2021	Housing R&M
NW011	Wales Regional Supply Chain Partner Framework	Cardiff	4.4	04/09/2017	04/09/2021	Public Non-housing
NW025	9 Retail/Supermarket/Hotel & 2 Sub-Stations	Denbighshire	37.2	23/05/2016	13/05/2017	Private Commercial
NW040	Road Works	Gwynedd	17.0	20/11/2017	19/11/2018	Infrastructure

## Appendix F. **Significant Glenigan projects in South East Wales**

This appendix provides a list of all the significant projects analysed. The projects appear in the following as they were put into the LFT.

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SEW002	Motorway (Relief Road)	Caerphilly	773.8	16/05/2018	16/11/2022	Infrastructure
SEW003	Housing External Wall Insulation	Torfaen	700.0	31/08/2016	01/09/2021	Housing R&M
SEW005	Construction Framework	Cardiff	229.0	17/04/2012	17/04/2018	Public Non-housing
SEW006	Contractors Framework	Rhondda Cynon Taff	190.9	01/05/2015	26/04/2019	Public Non-housing
SEW007	Pipeline Systems Framework	Merthyr Tydfil	91.6	11/08/2017	09/08/2024	Infrastructure
SEW008	Trunk Road (Dualling/Upgrading)	Merthyr Tydfil	281.4	15/04/2019	10/01/2020	Infrastructure
SEW009	Onshore Wind Farm	Rhondda Cynon Taff	25.5	13/01/2014	10/04/2017	Infrastructure
SEW010	Critical Care Centre	Torfaen	133.6	04/09/2017	02/04/2021	Public Non-housing
SEW012	Electrification	Rhondda Cynon Taff	114.1	01/07/2019	01/07/2021	Infrastructure
SEW013	South East Wales Highways Framework	Rhondda Cynon Taff	140.7	10/10/2016	05/10/2020	Infrastructure
SEW014	Trunk Road (Dualling/Upgrading)	Monmouthshire	105.5	29/12/2014	29/12/2017	Infrastructure
SEW015	1,000 Homes (Development Partner/Consortium)	Cardiff	150.0	17/05/2017	12/05/2027	New housing
SEW018	Asset Management Services Framework	Caerphilly	142.0	07/04/2014	04/04/2022	Housing R&M
SEW019	University (Extension)	Cardiff	51.5	03/01/2017	06/07/2018	Public Non-housing
SEW021	Electrification	Cardiff	40.6	07/01/2019	07/01/2024	Infrastructure
SEW022	Conference Centre	Newport	100.0	20/03/2017	03/06/2019	Private Commercial
SEW024	Office	Cardiff	100.0	02/04/2018	02/04/2019	Private Commercial
SEW027	Main Contractors and M&E Services Framework	Cardiff	34.4	08/03/2016	08/03/2020	Public Non-housing
SEW028	Hospital (Extension)	Merthyr Tydfil	32.4	21/08/2017	26/03/2018	Public Non-housing
SEW034	2 Retail Units & Leisure Centre	Merthyr Tydfil	50.0	26/09/2016	09/02/2018	Private Commercial

SEW036	Office & Media HQ	Cardiff	43.0	05/12/2016	09/07/2018	Private Commercial
SEW037	400 Housing Units Framework	Newport	40.0	15/03/2014	15/04/2018	New housing
SEW041	School	Monmouthshire	13.7	29/03/2016	15/09/2017	Public Non-housing
SEW042	Tunnel (Refurbishment)	Caerphilly	24.6	20/06/2016	31/01/2018	Infrastructure
SEW044	School (New/Alterations)	Rhondda Cynon Taff	13.0	31/10/2016	23/08/2019	Public Non-housing
SEW045	Office & Education Building	Newport	30.0	11/12/2017	17/12/2018	Private Commercial
SEW046	Dual Carriageway	Cardiff	21.1	17/03/2016	14/04/2017	Infrastructure
SEW048	Student Accommodation	Cardiff	11.1	09/11/2015	05/06/2017	Public Non-housing
SEW049	255 Flats & 109 Houses	Cardiff	27.3	08/01/2018	07/01/2019	New housing
SEW051	High School	Cardiff	9.9	18/07/2016	22/12/2017	Public Non-housing
SEW053	Trunk Road Dualling	Merthyr Tydfil	17.6	26/11/2018	23/11/2020	Infrastructure
SEW054	School	Cardiff	9.5	01/09/2017	28/09/2018	Public Non-housing
SEW059	Bridges & Community Route Works (New/Refurb)	Rhondda Cynon Taff	16.2	12/06/2017	18/06/2018	Infrastructure
SEW061	83 Flats & 12 Town Houses	Cardiff	22.0	16/11/2015	12/06/2017	New housing
SEW063	School Building	Caerphilly	7.6	03/08/2015	10/04/2017	Public Non-housing
SEW064	School Building (New/Alterations)	Vale Of Glamorgan	7.6	02/11/2015	21/04/2017	Public Non-housing
SEW065	Organic Waste Treatment Plant	Cardiff	5.6	01/06/2015	29/05/2017	Infrastructure
SEW067	90 Student Flats (Extension)	Cardiff	7.6	25/04/2016	31/07/2017	Public Non-housing
SEW070	University (Extension)	Cardiff	7.2	03/09/2018	27/05/2019	Public Non-housing
SEW073	Office (Refurbishment)	Cardiff	18.2	28/11/2016	28/11/2017	Private Commercial
SEW075	236 Houses/Flats	Cardiff	17.7	16/12/2016	16/12/2017	New housing
SEW076	198 Houses/Town Houses & 27 Flats	Rhondda Cynon Taff	16.9	01/03/2017	04/04/2018	New housing

SEW077	224 Residential Units	Torfaen	16.8	21/03/2016	17/04/2017	New housing
SEW079	College & Railway Station Building (New/Extension)	Rhondda Cynon Taff	6.1	02/05/2016	24/06/2017	Public Non-housing
SEW081	Food/Pharmaceutical/High Care Manufacturing Facility	Caerphilly	13.8	16/10/2017	23/04/2018	Private Industrial
SEW082	210 Houses & Flats	Torfaen	15.8	12/04/2016	12/10/2017	New housing
SEW083	Hotel (Conversion)	Cardiff	15.7	01/07/2017	01/01/2019	Private Commercial
SEW084	209 Residential Units	Monmouthshire	15.7	05/06/2017	02/07/2018	New housing
SEW087	2 Offices & 1 Hotel	Cardiff	15.0	18/08/2017	18/05/2018	Private Commercial
SEW088	130 Houses & 63 Flats	Cardiff	14.5	15/05/2017	11/06/2018	New housing
SEW090	171 Houses/14 Flats & 5 Bungalows	Caerphilly	14.3	05/02/2018	04/03/2019	New housing
SEW093	Student/Hotel Accommodation (Conversion)	Newport	5.0	31/07/2017	27/04/2018	Public Non-housing
SEW094	Supermarket & Petrol Filling Station	Rhondda Cynon Taff	13.0	11/09/2017	09/07/2018	Private Commercial
SEW095	Junction (Improvements)	Newport	9.1	14/03/2017	13/07/2018	Infrastructure
SEW097	Office Building	Cardiff	12.0	01/09/2016	31/01/2018	Private Commercial
SEW098	Office (Fit-out)	Cardiff	12.0	03/07/2017	01/01/2018	Private Commercial
SEW103	146 Houses	Newport	11.0	21/02/2018	21/03/2019	New housing
SEW104	Manufacturing Unit (Conversion)	Vale of Glamorgan	9.5	03/04/2017	03/10/2017	Private Industrial
SEW105	Sports Pitch	Rhondda Cynon Taff	7.1	09/01/2017	06/12/2017	Infrastructure
SEW111	Car Dealership	Cardiff	10.0	04/09/2017	04/09/2018	Private Commercial
SEW116	130 Residential Units	Cardiff	9.8	18/05/2018	15/06/2019	New housing

SEW119	School	Bridgend	3.6	01/05/2017	01/06/2018	Public Non-housing
SEW120	Police Station Cafe Building	Bridgend	9.5	05/09/2016	23/06/2017	Private Commercial
SEW140	Industrial Development	Rhondda Cynon Taff	6.6	04/09/2017	12/03/2018	Private Industrial
SEW161	Restaurant/Night Club & Shop (Extension/Alterations)	Cardiff	6.1	05/06/2017	15/01/2018	Private Commercial
SEW164	Convenience Store & 3 Retail Units	Monmouthshire	6.0	03/01/2017	11/07/2017	Private Commercial
SEW169	Residential Development (Refurb)	Cardiff	6.0	03/01/2017	08/09/2017	Housing R&M
SEW175	2 Schools	Cardiff	2.2	11/12/2017	03/09/2018	Public Non-housing
SEW182	Multi Use Games Area/Synthetic Sports Pitch	Cardiff	2.0	07/08/2017	05/02/2018	Public Non-housing
SEW209	2 Industrial/Storage Buildings	Newport	3.9	02/10/2017	09/04/2018	Private Industrial
SEW211	Food Industry (Extension/Alterations)	Monmouthshire	3.9	17/07/2017	22/01/2018	Private Industrial
SEW017	Residential/Commercial Development	Cardiff	150.0	07/08/2020	07/08/2024	New housing
SEW023	763 Homes, Health Centre & Commercial	Cardiff	79.4	07/01/2017	14/01/2023	New housing
SEW029	Student Accommodation Flats & 2 Shops/Offices/Restaurants	Cardiff	51.8	10/07/2017	13/07/2020	Public Non-housing
SEW038	201 Student Flats & 1 Retail/Commercial Unit	Cardiff	27.6	05/12/2016	30/11/2018	Public Non-housing
SEW039	630 Residential Units & School/Community/Visitor Centre	Vale Of Glamorgan	27.0	03/04/2017	09/07/2018	New housing
SEW043	3 Student Accommodation/Retail Units	Cardiff	24.2	11/01/2016	07/08/2017	Public Non-housing
SEW047	396 Houses/Flats & 1 Village Centre	Cardiff	23.6	01/02/2016	23/02/2018	New housing
SEW058	193 Student Flats/1 Retail & Commercial Units	Cardiff	16.3	05/09/2016	17/08/2018	Public Non-housing
SEW011	Wales Regional Supply Chain Partner Framework	Cardiff	9.6	04/09/2017	04/09/2021	Public Non-housing
SEW016	New Build & Development Framework	Rhondda Cynon Taff	93.9	01/03/2016	01/03/2020	New housing

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SEW025	NRW Civil Engineering Framework	Cardiff	30.8	01/06/2016	03/06/2020	Infrastructure
SEW026	Highway (Improvements)	Monmouthshire	41.4	31/05/2017	02/06/2021	Infrastructure
SEW035	Housing Maintenance Framework	Rhondda Cynon Taff	28.2	26/08/2013	26/08/2017	Housing R&M
SEW040	Domestic Building Maintenance Framework	Cardiff	18.5	19/04/2018	19/04/2022	Housing R&M
SEW004	Railway Infrastructure (Framework)	Cardiff	329.2	08/04/2019	08/04/2023	Infrastructure
SEW001	Construction Work Framework	Carmarthenshire	222.3	13/06/2016	15/06/2020	Public Non-housing

## Appendix G. **Significant Glenigan projects in South West and Mid Wales**

This appendix provides a list of all the significant projects analysed. The projects appear in the following as they were put into the LFT.



WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW002	Tidal Power Station/Tidal Lagoon	Swansea	91.4	22/07/2020	19/07/2023	Infrastructure
SW&MW003	Gas Fired Power Plant	Neath & Port Talbot	114.3	20/09/2019	20/09/2024	Infrastructure
SW&MW006	University Development	Neath & Port Talbot	57.3	15/04/2013	15/04/2017	Public Non-housing
SW&MW007	Gas Fired Electricity Generating Station	Neath & Port Talbot	26.4	13/07/2017	19/04/2018	Infrastructure
SW&MW010	Insulation Supply & Installations Framework	Swansea	100.0	12/06/2017	14/06/2021	Housing R&M
SW&MW013	Road Dualling	Pembrokeshire	56.3	08/04/2019	09/10/2020	Infrastructure
SW&MW014	1000 Residential Units (Refurbishment)	Carmarthenshire	75.0	14/08/2017	12/08/2019	Housing R&M
SW&MW017	Trunk Road	Powys	40.2	01/10/2018	02/10/2020	Infrastructure
SW&MW018	Bypass	Powys	39.4	14/12/2015	14/02/2018	Infrastructure
SW&MW022	Housing (Refurbishment)	Neath & Port Talbot	43.4	11/10/2011	11/10/2017	Housing R&M
SW&MW023	Bypass	Carmarthenshire	28.1	04/07/2016	07/12/2018	Infrastructure
SW&MW024	School Building	Neath & Port Talbot	14.1	20/08/2018	13/05/2019	Public Non-housing
SW&MW027	Kitchen/Bathroom Installations (Framework)	Swansea	32.0	01/04/2015	27/03/2019	Housing R&M
SW&MW029	Innovation Quarter	Swansea	11.5	05/09/2016	28/05/2018	Public Non-housing
SW&MW032	Reactive Repairs & Refurbishment Framework	Swansea	9.5	10/11/2015	10/11/2020	Public Non-housing
SW&MW034	5 Schools	Powys	8.8	06/02/2017	07/02/2022	Public Non-housing
SW&MW036	EWI & Re-Roofing Framework	Neath & Port Talbot	20.0	28/04/2014	24/04/2017	Housing R&M
SW&MW037	Housing Adaptations Framework	Swansea	20.0	02/06/2014	28/05/2018	Housing R&M
SW&MW039	Student Accommodation	Neath & Port Talbot	7.6	04/01/2016	15/09/2017	Public Non-housing
SW&MW041	Highways/Structures (Improvements)	Neath & Port Talbot	14.1	01/04/2017	30/03/2019	Infrastructure
SW&MW042	Factory	Swansea	17.1	04/09/2017	12/03/2018	Private Industrial
SW&MW044	240 Houses & Flats	Carmarthenshire	18.0	29/08/2017	29/09/2018	New housing

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW046	Student Accommodation	Swansea	6.9	12/10/2015	10/11/2017	Public Non-housing
SW&MW047	220 Houses & Flats	Bridgend	16.5	25/09/2017	23/09/2019	New housing
SW&MW048	School	Powys	6.1	06/03/2017	03/09/2018	Public Non-housing
SW&MW049	Bridge	Powys	10.9	20/03/2018	17/03/2020	Infrastructure
SW&MW052	228 Houses & Flats	Carmarthenshire	14.6	05/01/2015	02/03/2018	New housing
SW&MW053	Aqueduct Upgrade	Powys	9.9	03/10/2016	06/04/2018	Infrastructure
SW&MW055	School	Neath & Port Talbot	5.3	05/06/2017	26/02/2018	Public Non-housing
SW&MW057	School (Extension)	Swansea	4.7	18/11/2016	16/11/2018	Public Non-housing
SW&MW062	School (Extension/Refurbishment)	Pembrokeshire	3.9	26/09/2016	23/10/2017	Public Non-housing
SW&MW063	137 Houses	Neath & Port Talbot	10.3	20/11/2017	20/12/2018	New housing
SW&MW064	Flats (Refurb)	Swansea	10.0	13/04/2015	14/04/2017	Housing R&M
SW&MW069	School Building	Pembrokeshire	3.8	04/07/2016	27/11/2017	Public Non-housing
SW&MW070	Office	Carmarthenshire	10.0	06/03/2017	06/09/2018	Private Commercial
SW&MW073	Wakboard Cable Park	Pembrokeshire	9.8	01/05/2017	11/12/2017	Private Commercial
SW&MW074	129 Holiday Lodges	Carmarthenshire	9.7	23/12/2017	20/01/2019	Private Commercial
SW&MW075	Retail Park (Alterations)	Swansea	9.5	09/01/2017	30/10/2017	Private Commercial
SW&MW076	School	Bridgend	3.6	01/05/2017	01/06/2018	Public Non-housing
SW&MW077	Police Station Cafe Building	Bridgend	9.5	05/09/2016	23/06/2017	Private Commercial
SW&MW079	Hospital	Swansea	3.4	17/07/2017	17/07/2019	Public Non-housing
SW&MW081	School Building	Carmarthenshire	3.4	21/11/2016	04/05/2018	Public Non-housing
SW&MW082	238 Flats (Alterations)	Swansea	9.0	03/08/2015	07/04/2017	Housing R&M
SW&MW083	118 Houses	Carmarthenshire	8.9	13/07/2015	04/08/2017	New housing

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW084	117 Houses/Flats & Bungalows	Pembrokeshire	8.8	03/08/2017	13/09/2018	New housing
SW&MW085	School	Swansea	3.2	01/02/2016	01/05/2017	Public Non-housing
SW&MW088	School	Carmarthenshire	3.1	22/02/2016	21/08/2017	Public Non-housing
SW&MW092	Poultry Sheds/Biomass Building	Powys	6.9	28/08/2017	27/08/2018	Private Industrial
SW&MW094	81 Residential/Commercial Units	Neath & Port Talbot	7.6	02/10/2017	29/04/2019	Private Commercial
SW&MW095	Cultural Hub Building (Extension/Alterations)	Brecon Beacons National Park	2.9	02/02/2017	10/04/2018	Public Non-housing
SW&MW096	25 Extra Care Flats/19 Houses & 1 Care Home	Bridgend	7.5	09/03/2017	09/09/2018	New housing
SW&MW097	2 Broiler Houses	Powys	6.5	06/04/2018	12/10/2018	Private Industrial
SW&MW098	96 Houses	Carmarthenshire	7.2	25/07/2016	21/08/2017	New housing
SW&MW102	43 Residential Units	Swansea	6.9	28/11/2016	30/04/2018	New housing
SW&MW103	Milking Parlour & Animal Building (New/Extension)	Pembrokeshire	5.6	13/11/2017	21/05/2018	Private Industrial
SW&MW104	School (Extension)	Carmarthenshire	2.4	11/07/2016	11/09/2017	Public Non-housing
SW&MW107	School	Swansea	2.3	04/09/2017	03/09/2018	Public Non-housing
SW&MW108	School	Bridgend	2.3	20/02/2017	02/04/2018	Public Non-housing
SW&MW109	School (Extension/Alterations)	Swansea	2.3	05/12/2016	28/08/2017	Public Non-housing
SW&MW111	Animal Building	Pembrokeshire	5.2	03/04/2017	09/10/2017	Private Industrial
SW&MW112	Retail Park	Carmarthenshire	5.9	14/11/2016	08/09/2017	Private Commercial
SW&MW113	2 Poultry Units & 1 Temporary Staff House	Powys	5.0	03/07/2017	08/01/2018	Private Industrial
SW&MW114	University (Refurbishment)	Swansea	2.2	08/05/2017	08/05/2018	Public Non-housing
SW&MW116	40 Extra Care Home & 1 Health Care Facility	Ceredigion	5.5	23/10/2017	22/10/2018	New housing
SW&MW120	Warehouse & Production Facility	Powys	4.5	10/04/2018	10/04/2019	Private Industrial

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW127	47 Live/Work Units (Conversion)	Swansea	5.0	03/07/2017	30/07/2018	Housing R&M
SW&MW129	Enabling Works	Swansea	3.5	06/02/2017	06/10/2017	Infrastructure
SW&MW132	Office/Industrial & Warehouse/Distribution	Bridgend	4.8	11/09/2017	11/06/2018	Private Commercial
SW&MW133	College (Extension)	Pembrokeshire	1.8	22/08/2016	18/08/2017	Public Non-housing
SW&MW134	41 Flats (Conversion)	Neath & Port Talbot	4.7	13/02/2017	09/02/2018	Housing R&M
SW&MW138	School	Brecon Beacons National Park	1.8	27/02/2017	22/01/2018	Public Non-housing
SW&MW139	School Building	Powys	1.8	06/02/2017	09/02/2018	Public Non-housing
SW&MW141	Office Building	Brecon Beacons National Park	4.5	13/04/2016	17/04/2017	Private Commercial
SW&MW143	Infrastructure (Logistic Unit)	Pembrokeshire	3.9	14/08/2017	19/02/2018	Private Industrial
SW&MW152	Supermarket	Pembrokeshire	4.0	08/01/2017	08/11/2017	Private Commercial
SW&MW159	Egg Production Unit	Powys	3.3	05/06/2017	11/12/2017	Private Industrial
SW&MW160	Poultry Unit	Carmarthenshire	3.3	05/06/2017	11/12/2017	Private Industrial
SW&MW161	Animal Building	Powys	3.3	10/07/2017	15/01/2018	Private Industrial
SW&MW163	Egg Production Building	Powys	3.3	18/09/2017	26/03/2018	Private Industrial
SW&MW164	Shop & Restaurant	Ceredigion	3.7	22/05/2017	18/12/2017	Private Commercial
SW&MW165	Poultry Unit	Powys	3.2	01/05/2017	06/11/2017	Private Industrial
SW&MW166	Egg Production Unit	Powys	3.2	27/11/2017	04/06/2018	Private Industrial
SW&MW168	Food Industry (Extension)	Ceredigion	3.1	05/06/2017	11/12/2017	Private Industrial
SW&MW171	Demolition	Swansea	2.5	07/11/2016	08/05/2017	Infrastructure
SW&MW173	Health Centre & Pharmacy	Bridgend	1.3	17/07/2017	16/04/2018	Public Non-housing
SW&MW176	Research & Development Facility (Extension)	Neath & Port Talbot	1.3	13/11/2017	13/08/2018	Public Non-housing

WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW184	Car Park	Pembrokeshire	2.1	08/01/2018	24/09/2018	Infrastructure
SW&MW185	Supermarket	Swansea	3.0	10/07/2017	05/02/2018	Private Commercial
SW&MW190	Animal Building (New/Conversion)	Powys	2.6	04/09/2017	12/03/2018	Private Industrial
SW&MW191	2 Retail Units	Powys	3.0	07/11/2016	07/04/2017	Private Commercial
SW&MW192	10 Trade/Industrial Units (Alterations)	Carmarthenshire	2.6	03/04/2017	09/10/2017	Private Industrial
SW&MW195	Egg Production Unit	Powys	2.5	07/08/2017	05/02/2018	Private Industrial
SW&MW196	Caravan & Motorhomes Sales & Service Building	Carmarthenshire	2.9	12/06/2017	08/01/2018	Private Commercial
SW&MW197	6 Cafe Units (Extension/Alterations)	Ceredigion	2.9	18/09/2017	30/04/2018	Private Commercial
SW&MW204	Trampoline Centre	Swansea	2.7	10/07/2017	19/02/2018	Private Commercial
SW&MW219	Animal Building	Carmarthenshire	1.9	29/08/2017	28/02/2018	Private Industrial
SW&MW236	Restaurant/Takeaway Building	Swansea	2.0	09/01/2017	15/05/2017	Private Commercial
SW&MW313	Agricultural Building	Powys	1.1	18/08/2017	10/11/2017	Private Industrial
SW&MW089	28 Flats & 1 Commercial Unit/1 Multi Storey Car Park	Bridgend	7.1	11/01/2016	15/05/2017	Housing R&M
SW&MW100	39 Flats & 1 Hotel/1 Shop (Conversion)	Ceredigion	7.0	29/05/2017	16/07/2018	Housing R&M
SW&MW001	Construction Work Framework	Carmarthenshire	102.2	13/06/2016	15/06/2020	Public Non-housing
SW&MW040	University Building	Neath & Port Talbot	18.7	30/01/2017	02/07/2018	Public Non-housing
SW&MW035	Housing Maintenance Framework	Rhondda Cynon Taff	16.8	26/08/2013	26/08/2017	Housing R&M
SW&MW026	School Building	Pembrokeshire	38.1	16/05/2016	09/08/2019	Public Non-housing
SW&MW025	NRW Civil Engineering Framework	Cardiff	18.4	01/06/2016	03/06/2020	Infrastructure
SW&MW016	New Build & Development Framework	Rhondda Cynon Taff	56.1	01/03/2016	01/03/2020	New housing
SW&MW011	South West Wales Civil Engineering (Framework)	Carmarthenshire	65.5	01/01/2015	01/01/2018	Infrastructure

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WLC ID	Heading	Local Authority	Forecast Value (£m)	Start Date	End Date	Project Type
SW&MW004	Wind Farm	Neath & Port Talbot	79.5	03/02/2014	03/08/2017	Infrastructure

## Appendix H. Current apprenticeship numbers

This appendix provides current apprenticeships numbers in Wales split by level and regional area.

Occupation	North Wales				SW & Mid Wales				South East Wales				Total			
	L2	L3	L4+	Total	L2	L3	L4+	Total	L2	L3	L4+	Total	L2	L3	L4+	Total
Construction (Building - excluding Specialist)	255	75	.	330	455	220	.	670	375	165	.	540	1,080	460	.	1,545
Construction (Specialist)	95	15	.	115	70	25	.	95	100	10	.	110	270	50	.	320
Construction (Civil Engineering) - Apprenticeship	.	.	.	.	.	.	.	0	.	.	.	.	.	.	.	.
Construction (Civil Engineering) - Foundation Apprenticeship	75	.	.	75	30	.	.	30	65	.	.	65	175	.	.	175
Construction (Technical and Professional)	.	15	.	15	0	20	.	20	.	50	.	50	.	85	.	85
Electrotechnical	.	27	.	275	0	445	.	445	.	550	.	550	.	1,270	.	1,270
Fencing	.	.	.	.	.	.	.	0	.	.	.	.	.	.	.	.
Heating and Ventilation	.	.	.	.	.	.	.	5	20	25	.	45	30	30	.	60
Housing	.	.	.	5	5	20	.	30	5	25	.	30	15	50	.	65
Plumbing and Heating	115	90	.	205	225	165	.	390	240	145	.	385	585	395	.	980
Other Sector Frameworks - Construction (2)	.	10	.	15	5	15	20	45	35	20	.	55	45	50	20	115
<b>Total</b>	<b>550</b>	<b>48</b>	<b>.</b>	<b>1,035</b>	<b>810</b>	<b>915</b>	<b>20</b>	<b>1,740</b>	<b>840</b>	<b>1,000</b>	<b>.</b>	<b>1,840</b>	<b>2,200</b>	<b>2,395</b>	<b>20</b>	<b>4,615</b>

Source: StatsWales (2015/16)

## Appendix I. Forecast apprenticeship numbers

This appendix provides forecast apprenticeship numbers in Wales split by level and regional area.

Total Forecast	North Wales			SW & Mid Wales			South East Wales			Total		
	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total
2017	709	342	1,050	1,194	572	1,766	1,260	607	1,867	3,163	1,521	4,684
2018	728	351	1,079	1,227	587	1,814	1,294	623	1,918	3,248	1,562	4,810
2019	742	358	1,100	1,250	598	1,849	1,320	636	1,955	3,312	1,592	4,904
2020	752	363	1,114	1,267	606	1,873	1,337	644	1,981	3,355	1,613	4,968
2021	763	368	1,131	1,286	615	1,901	1,357	653	2,010	3,405	1,637	5,041
<b>Total</b>	<b>3,692</b>	<b>1,782</b>	<b>5,474</b>	<b>6,224</b>	<b>2,979</b>	<b>9,202</b>	<b>6,567</b>	<b>3,164</b>	<b>9,731</b>	<b>16,483</b>	<b>7,924</b>	<b>24,407</b>

Level 2 Forecast	North Wales			SW & Mid Wales			South East Wales			Total		
	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total
2017	320	154	474	473	226	699	489	236	725	1,282	616	1,898
2018	329	159	487	485	232	718	502	242	744	1,316	633	1,949
2019	335	162	497	495	237	732	512	247	759	1,342	645	1,987
2020	339	164	503	501	240	741	519	250	769	1,359	654	2,013
2021	344	166	511	509	243	752	526	254	780	1,380	663	2,043
<b>Total</b>	<b>1,668</b>	<b>805</b>	<b>2,472</b>	<b>2,463</b>	<b>1,179</b>	<b>3,641</b>	<b>2,548</b>	<b>1,228</b>	<b>3,776</b>	<b>6,679</b>	<b>3,211</b>	<b>9,890</b>



Level 3 Forecast	North Wales			SW & Mid Wales			South East Wales			Total		
	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total	Manual	Non-Manual	Total
2017	282	136	418	534	256	789	582	280	863	1,398	672	2,070
2018	290	140	430	548	262	811	598	288	886	1,436	690	2,126
2019	295	143	438	559	268	826	610	294	903	1,464	704	2,168
2020	299	144	444	566	271	837	618	297	915	1,483	713	2,196
2021	304	147	450	575	275	850	627	302	929	1,505	723	2,229
<b>Total</b>	<b>1,471</b>	<b>710</b>	<b>2,180</b>	<b>2,782</b>	<b>1,331</b>	<b>4,113</b>	<b>3,034</b>	<b>1,461</b>	<b>4,495</b>	<b>7,286</b>	<b>3,502</b>	<b>10,789</b>

## Appendix J. **Gap analysis with estimates of training**

This appendix provides the gap analysis with estimates of training by regional area.

Occupation	LFT forecast demand risk factor				CSN ARR	Estimated training supply				LFT forecast risk	CSN ARR risk	Overall risk
	North Wales	SW & Mid. Wales	South East Wales	Overall Wales		North Wales	SW & Mid. Wales	South East Wales	Overall Wales			
Senior, exec. & business managers	0.88	0.87	1.18	1.02	70	Limited construction training L4+				Medium	Medium	Medium
Construction project managers	0.92	0.89	1.20	1.04	50	Limited construction training L4+				Medium	Medium	Medium
Other construction process	0.85	0.83	1.12	0.97	-	Not identified in datasets				Low	Low	Low
Non-construction professionals	0.89	0.87	1.18	1.02	250	Occupations span large footprint, not				Low	Low	Low
Construction trades supervisors	0.81	0.76	1.00	0.88	80	20	10	10	40	Low	Medium	Medium
Wood trades and interior fit-out	0.90	0.88	1.24	1.05	380	610	590	1,810	3,010	Medium	Low	Medium
Bricklayers	0.94	0.95	1.33	1.13	200	310	430	890	1,630	High	Low	Medium
Building envelope specialists	0.92	0.95	1.33	1.12	50	10	0	20	30	High	Medium	High
Painters and decorators	0.98	0.95	1.29	1.11	140	80	80	340	500	High	Low	Medium
Plasterers and dry liners	0.76	0.74	1.01	0.87	70	290	190	530	1,010	Low	Low	Low
Roofers	0.85	0.85	1.17	1.00	50	50	0	10	60	Low	Low	Low
Floorers	1.02	0.97	1.34	1.15	-	10	0	40	50	Medium	Low	Medium
Glaziers	0.92	0.91	1.24	1.06	50	0	0	10	10	Medium	Medium	Medium
Specialist building operatives	0.85	0.86	1.13	0.99	-	60	10	40	110	Low	Low	Low
Scaffolders	0.89	0.89	1.17	1.02	-	0	0	90	90	Low	Low	Low
Plant operatives	0.76	0.82	1.02	0.90	50	240	0	50	290	Low	Low	Low
Plant mechanics/fitters	0.91	0.95	1.20	1.06	50	10	0	20	30	High	High	High
Steel erectors/structural	0.63	0.69	0.88	0.76	-	Very limited training available in Wales				Low	Low	Low
Labourers	0.80	0.81	1.07	0.93	210	Not identified in datasets				Low	Low	Low
Electrical trades and installation	0.93	0.88	1.20	1.04	180	380	600	420	1,400	Medium	Low	Low
Plumbing and heating trades	0.91	0.87	1.22	1.04	90	610	730	1,280	2,620	Medium	Low	Low
Logistics	0.80	0.79	0.97	0.88	50	Not identified in datasets				Low	Low	Low
Civil engineering operatives	0.82	0.75	0.70	0.74	50	30	0	110	140	Low	Low	Low
Non-construction operatives	0.84	0.83	1.07	0.94	0	Occupations span large footprint, not				Low	Low	Low
Civil engineers	0.98	0.88	1.13	1.02	70	20	70	220	310	Low	Low	Low
Other construction professionals	0.68	0.67	0.93	0.80	250	Occupations span large footprint, not				Low	Low	Low
Architects	0.84	0.87	1.23	1.03	50	10	0	120	130	Medium	Low	Medium
Surveyors	0.89	0.89	1.26	1.06	100	20	90	130	240	High	Low	Medium
<b>Total</b>	<b>0.87</b>	<b>0.85</b>	<b>1.16</b>	<b>1.00</b>	<b>2,320</b>	<b>2,760</b>	<b>2,800</b>	<b>6,140</b>	<b>11,70</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>