





PROGRAMMING & SITE MANAGEMENT

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PROGRAMMING & SITE MANAGEMENT

INTRODUCTION

Detailed programming is key to the success of every construction project. The programme is determined by Production in line with the budgeted site delivery profile. Detailed programmes must be produced by the SMT to ensure the best use of available resources to deliver the project to the agreed budget.

INFRASTRUCTURE PROGRAMME

To meet the timescales communicated to our customers, infrastructure programmes must be completed in conjunction with roads and sewers / civils contractors, specialist contractors and utility providers.

Programme durations may be affected by off site works, planning or ecology restrictions for example, to ensure delays do not impact on programmes all technical, legal and commercial information must be available in a timely fashion.

On larger developments, infrastructure works may take place in phases, project meetings must track the progress and availability of key information to ensure that continuity of productivity is ensured.

Roads must be at a minimum base coat to allow a level running surface prior to use by telehandlers e.g. to feed substructure blockwork and mortar.



The COINS Gantt chart is the build programme which is created by the BUPD / Production Manager for the construction phase of the site. By following the identified build route, the BUPD / Production Manager can determine the build programme in agreement with the BUMD which should be then entered into COINS and a Gantt chart produced.

Build times are determined by using the standard programme templates within COINS. The appropriate programme template is allocated to individual plots based on the construction method, square footage and floor lift. This could be to build in 'buffer' plots to allow for HQL Guidance regarding environment for our customer, accelerating certain areas of a site, a strategy of holding plots at a certain stage or additional time required depending on the nature of the project. Production teams can create additional templates if required.

When completing build programme, particular attention should be paid to end of site programming to ensure accuracy and practicality of delivery of plots at this stage due to site constraints. Don't simply apply a build rate across the entire duration of the build and not take into account site specific constraints and HQL rules which may affect the build rate.

The completed COINS Gantt Chart will be issued to the SiteM prior to the start of every new site or phase and acts as the primary programme during the construction. If changes are made to the COINS build programme these should be reissued to the SiteM. It is important that the correct site team are assigned to the relevant build programmes to ensure they can update build progress accurately.

It is vitally important the COINS programmes are entered and updated weekly to accurately reflect the build stage. Live programmes can be moved using the interactive Gantt chart tools within COINS. The COINS programme provides completion dates to our customers, prompts the call-off for materials, releases WIP and many other business functions which are driven from COINS, including our Customer Relationship Management system. See overleaf for standard TW programme durations.

GUIDANCE FOR STANDARD TW PROGRAMME DURATIONS

BUILD PROGRAMME / COINS PROGRAMME & BUILD PROGRESS

GUIDANCE FOR STANDARD TW PROGRAMME DURATIONS

Rv A - Masonry Bungalow - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	40	45	45	50	55	60	60	65	70	74	75	75	80	80	85	86	87	90	21 weeks															
Rv A - Accelerated Masonry Bungalow - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	40	45	50	55	60	65	70	74	75	80	80	85	86	87	90	18 weeks																		
Rv A - Masonry Bungalow - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	40	45	45	50	50	55	60	60	65	70	74	75	75	80	80	85	86	87	90	22 weeks														
Rv A - Accelerated Masonry Bungalow - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	40	45	45	50	55	60	65	70	74	75	80	80	85	86	87	90	19 weeks																	
Rv A - Masonry 2 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	40	40	45	45	50	55	60	60	65	70	74	75	75	80	80	85	86	87	90	25 weeks												
Rv A - Accelerated Masonry 2 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	40	40	45	50	55	60	65	70	74	75	80	80	85	86	87	90	21 weeks															
Rv A - Masonry 2 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	15	40	40	45	45	50	50	55	60	65	70	74	75	75	80	80	85	86	87	90	26 weeks											
Rv A - Accelerated Masonry 2 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	40	45	50	55	60	65	70	74	75	80	80	85	86	87	90	22 weeks																
Rv A - Timber Frame 2 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	12	45	50	50	55	60	61	65	70	70	74	75	75	80	80	85	86	87	90	21 weeks															
Rv A - Accelerated Timber Frame 2 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	12	45	50	55	60	61	65	70	74	75	80	80	85	86	87	90	18 weeks																		
Rv A - Timber Frame 2 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	12	12	45	50	50	55	60	61	65	70	70	74	75	75	80	80	85	86	87	90	22 weeks														
Rv A - Accelerated Timber Frame 2 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	12	45	50	55	60	61	65	70	74	75	80	80	85	86	87	90	18 weeks																		
Rv A - Masonry 2.5 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	50	55	55	60	60	65	70	74	75	75	80	80	85	86	87	90	29 weeks							
Rv A - Accelerated Masonry 2.5 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	55	60	65	70	74	75	80	80	85	86	87	90	26 weeks											
Rv A - Masonry 2.5 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	15	20	20	25	40	40	45	45	50	50	55	55	60	60	65	70	74	75	75	80	80	85	86	87	90	30 weeks						
Rv A - Accelerated Masonry 2.5 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	15	20	20	25	40	40	45	45	50	55	60	65	70	74	75	80	80	85	86	87	90	28 weeks										
Rv A - Timber Frame 2.5 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	12	12	45	50	50	55	60	61	65	65	70	70	74	75	75	80	80	85	86	87	90	23 weeks													
Rv A - Accelerated Timber Frame 2.5 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	12	12	45	50	55	60	61	65	70	74	75	75	80	80	85	86	87	90	20 weeks																
Rv A - Timber Frame 2.5 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	12	12	45	50	50	55	60	61	65	65	70	70	74	75	75	80	80	85	86	87	90	24 weeks													
Rv A - Accelerated Timber Frame 2.5 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	12	12	45	50	50	55	60	61	65	65	70	74	75	75	80	80	85	86	87	90	22 weeks														
Rv A - Masonry 3 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	55	55	60	65	70	70	74	75	75	80	80	85	86	87	90	29 weeks								
Rv A - Accelerated Masonry 3 Storey - Less than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	55	60	65	70	74	75	75	80	80	85	86	87	90	27 weeks										
Rv A - Masonry 3 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	50	55	55	60	60	65	70	70	74	75	75	80	80	85	86	87	90	31 weeks						
Rv A - Accelerated Masonry 3 Storey - More than 1400 sqft	1	2	3	4	5	6	7	8	9	10	10	15	20	20	25	40	40	45	45	50	55	60	60	65	70	74	75	75	80	80	85	86	87	90	28 weeks									
Rv A - Masonry Flat Over Garage	1	2	3	4	5	6	7	8	9	10	10	15	15	40	40	45	45	50	55	60	65	70	74	75	80	80	85	86	87	90	23 weeks													
Rv A - Accelerated Masonry Flat Over Garage	1	2	3	4	5	6	7	8	9	10	10	15	40	45	50	55	60	65	70	74	75	80	80	85	86	87	90	21 weeks																
Rv A - Apartments Shell & Communal	1	2	3	4	5	6	7	8	9	10	15	15	20	25	25	30	35	35	37	37	37	40	40	45	45	45	50	50	55	55	60	60	65	70	74	75	75	80	80	85	86	87	90	33 weeks
Rv A - Individual Internal Apartments	50	55	60	60	65	70	74	75	80	80	85	86	87	90	10 weeks																													
Rv A Masonry Showhome	1	2	5	6,7,8	9	10	15	20	25	30	35	37	40	45	50	50	55	60	65	70	74	75	75	80	85	86	87	90	16 weeks															
Rv A Timber Frame Showhome	1	2	5	6,7,8	9	12	12	45	50	55	60	61	65	70	74	75	75	80	85	86	87	90	14 weeks																					

The above is a generic guidance note for programmes however, each site and plot should be assessed individually for accurate programme durations.

BUILD PROGRESS

Site progress should be entered on MSite via your mobile device as stages progress throughout the week by the SMT to ensure build is accurately recorded.

Much of our performance monitoring and communication relies heavily on the quality and integrity of the data input into our COINS system.

Plots should be progressed in line with actual physical stages. For example, if a plot's foundations are put in under the sales car park or if a plot is taken to certain stage for environment these should be declared and reflected in the

build programme. Show homes should be progressed through to Stage 85, however plots which are Sales offices and will be converted in time, should be progressed to Stage 55 and the gap should be again reflected in the build programme. Stock plots should continue to be built and progressed through to Stage 85.

HA plots that have no HQI should have stages 86 and 87 ticked by Production once the CML is received. This will automatically tick stage 90. Failure to do this can lead to higher recorded build durations.

To ensure a smooth efficient build, the SMT should be equipped with options from the Sales team at the relevant build stage, ensuring enough time is incorporated for processing and lead-in times. SMT should be given standard options by the Sales team, as set out in the Sales Manual, if an unsold plot achieves the relevant build stage.

The cut off stages for options have now been changed to ensure the appropriate lead in times are incorporated to ensure a smooth profile of build without causing unnecessary delays. This is outlined in Customer Options.

COINS BUILD STAGES & KEY BUILD STAGE DEFINITIONS



BUILD STAGE NUMBER	BUILD STAGE DESCRIPTION	COMMENTS
01	Build or Stage start	
02	Possible pile foundations	
03	Excavate and concrete foundations	
04	Sub-structure brickwork	
05	Foundation up to oversite	When progressed the customer will be shown an image of an oversite on Touchpoint.
06	External drain, services and backfill	
07	Scaffold base	
08	Ready for superstructure	
09	Commence superstructure	<p>Effective and efficient build quality is best achieved by not starting superstructures until the following list is complete. This is usually the build stage sales release a plot to be sold. This stage is a milestone.</p> <ul style="list-style-type: none"> – Oversite fully complete. – External drainage completed and backfilled – Service ducts / pipes are in place. – Scaffold bases are fully complete. – Drives constructed to base course or, if block paved, a running course. – Mains services in place. – Footpaths constructed to base course (This may not be possible in every situation due to the proximity of the plot to the road or where a footpath is not part of the design. It should however be considered a best practice and should be done where it can). – Adjacent plots are also complete to oversite so that no groundworks need to be carried out in a proximity to any scaffolding.
10	1st lift brickwork to joist	
12	Timber frame to wall plate	
15	1st floor joist and flooring	
20	2nd lift brickwork to joist	
25	2nd floor joist and flooring	
30	3rd lift brickwork to joist	
37	Over 4 storeys	
40	Brickwork to wall plate	



COINS BUILD STAGES & KEY BUILD STAGE DEFINITIONS

BUILD STAGE NUMBER	BUILD STAGE DESCRIPTION	COMMENTS
45	Roof tile complete	When progressed the customer will be shown an image of a roof on Touchpoint. It is important to achieve this point in the programme in good time to ensure internal trades are given adequate time to progress. Buffer plots maybe taken to roof for street scene. This stage, when progressed, cuts off the ability for customers to select options. All options should be with site at this point to ensure progress can continue including stock plot selections.
50	First Fix	When progressed the customer will be shown an image of a First Fix complete on Touchpoint.
55	First stage plaster	
60	Plaster complete	This stage when progressed cuts off the final customer options of carpets. Choices should be with the site team at this point.
61	Cladding / External Brickwork Complete	
65	Second Fix Carpenter	
70	Second Fix Plumber / Electrician	When progressed the customer will be shown an image of a Second Fix complete on Touchpoint.
74	Permanent services live	These form an important part of the build and need to be correctly planned. This stage is a milestone.
75	Paint complete	
80	Clean	
85	HQI Ready (Inspection Ready)	The plot is to be cleaned and final sign off by the SiteM to be completed that the plot is ready. This allows for the HQI to be undertaken. This is the final tick by the SiteM and allows for the HQI to be undertaken the following week. This is to be ticked the week before the HQI is undertaken.
86	Coming Soon: HQI Pass	Q1 2023 The HQI has been completed and has been marked as Customer Ready.
87	Coming Soon: CML Complete	Q1 2023 The plot has been inspected and passed by the warranty provider inspector.
90	Customer Ready	This stage is a milestone with no duration. Once the Customer Service department has ticked this stage it will show to the customer on Touchpoint that the plot has completed its quality assurance.

RECOVERY PROGRAMME



If a site or plot falls behind programme, it is imperative that an action plan is put into place at the earliest opportunity, to bring the programme back on target. If delays are not acted upon early, then programmes can become over-congested at the end of the build process. Completion dates will then have to be pushed back to ensure quality standards and the customer experience are not compromised. Recovery plans are for guidance only and must be practical, sustainable and should be amended for site specific circumstances.

The recovery plan allows the SiteM to re-plan works to hit the original build date in a reduced period, highlighting any changes in resource that will be required. For example, this could mean an increase in resource requirements. Delivery of quality in a safe manner should always take priority over hitting dates. An example of a recovery programme can be found in Appendix 2.0.

FOCUSED PROGRAMMING – WEEKLY / FORTNIGHTLY / 16 WEEK

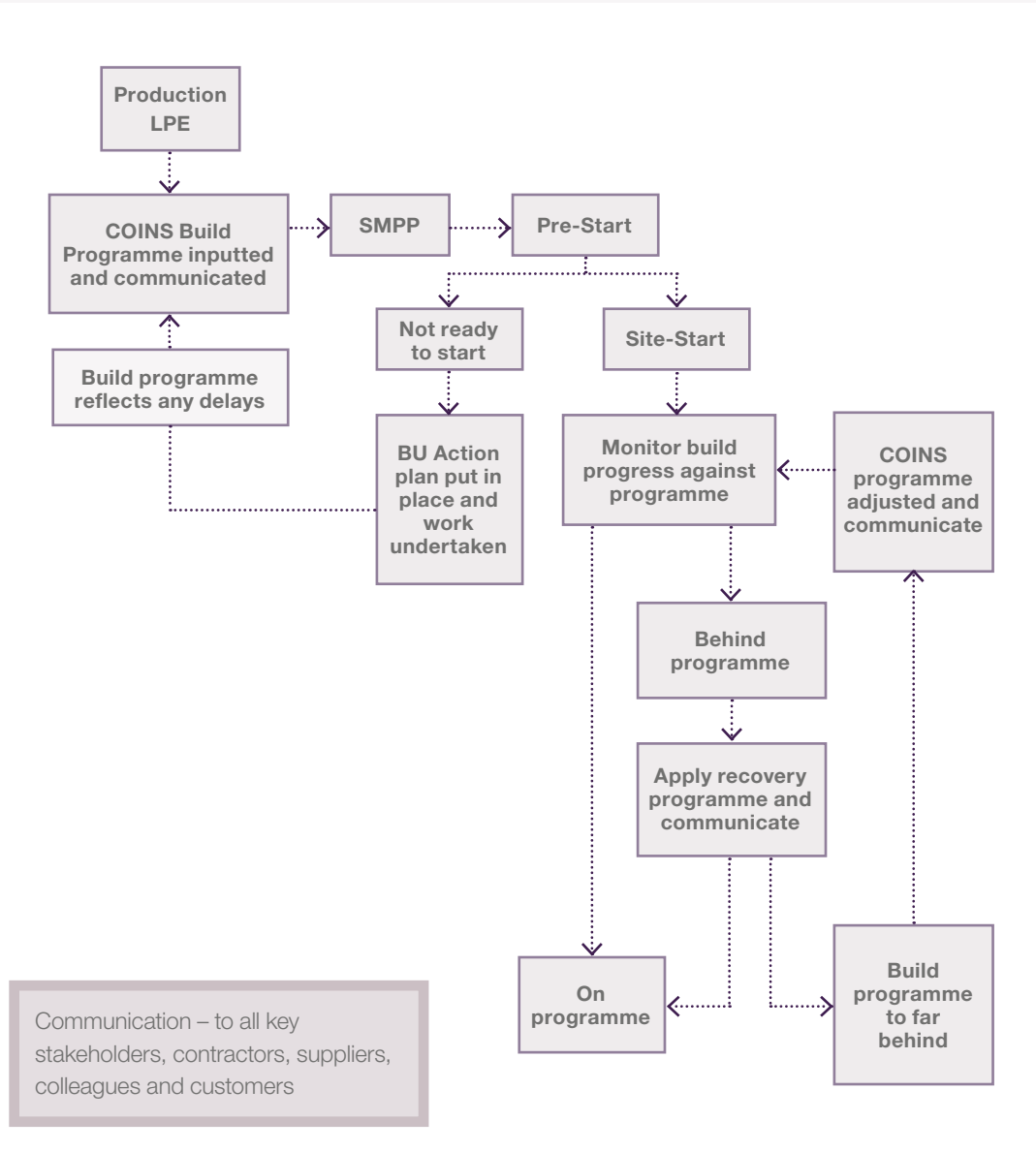
Site activities must be broken down into detailed plans. Weekly programming is completed by the SMT and is focused on the immediate detailed plan. The programme can be used to plan and organise labour and materials.

The programme should be sent by the SMT to the Contracts Manager of the subcontractor and the Production Manager on a weekly basis. The main copy is displayed in the site office for the attention of Site Management and the on site trades. An example of focused programming can be found in Appendix 3.0.



SITE PROGRAMME FLOW DIAGRAM

THE TABLE DEMONSTRATES THE CONTROL OF PROGRAMMING



BUILD TARGETS



To ensure a smooth profile of build throughout the year it is important we achieve our build programmes. The plot should achieve the target build stage at the beginning of the relevant month. The lines highlighted in yellow below demonstrate our half and full year targets. If a plot goes over the targets outlined in the below tables, this should be discussed with the Production Manager / BUPD to ensure a recovery strategy is implemented and a realistic timeline for delivery of this plot is communicated.

TRADITIONAL MASONRY BUILD TARGET

EXCAVATE AND CONCRETE FOUNDATIONS (STAGE 3)	COMMENCE SUPERSTRUCTURE (STAGE 9)	ROOF TILE COMPLETE (STAGE 45)	PLASTER (STAGE 60)	PAINT (STAGE 75)	BUILD COMPLETE (STAGE 85)
April	June	August	September	October	November
May	July	September	October	November	December
June	August	October	November	December	January
July	September	November	December	January	February
August	October	December	January	February	March
September	November	January	February	March	April
October	December	February	March	April	May
November	January	March	April	May	June
December	February	April	May	June	July
January	March	May	June	July	August
February	April	June	July	August	September
March	May	July	August	September	October

TIMBER FRAME BUILD TARGET

EXCAVATE AND CONCRETE FOUNDATIONS (STAGE 3)	COMMENCE SUPERSTRUCTURE (STAGE 9)	ROOF TILE COMPLETE (STAGE 45)	PLASTER (STAGE 60)	PAINT (STAGE 75)	BUILD COMPLETE (STAGE 85)
May	July	August	September	October	November
June	August	September	October	November	December
July	September	October	November	December	January
August	October	November	December	January	February
September	November	December	January	February	March
October	December	January	February	March	April
November	January	February	March	April	May
December	February	March	April	May	June
January	March	April	May	June	July
February	April	May	June	July	August
March	May	June	July	August	September
April	June	July	August	September	October



VISIBILITY TO THE CUSTOMER

In addition to many internal processes, COINS Progress also communicates directly to our customer, therefore it is vitally important this information is managed by our Production teams.

BUILD STAGE	TOUCHPOINT	CUSTOMER COUNTDOWN
Build Stage 5 – Foundation up to oversite	Generic image shown to a customer of an oversite	Customer is given a 2-month window based on the legal forecast (e.g. if the date on the 2A is 14/1/17 then the build stage will be January / February)
Build Stage 45 – Roof Tile Complete	Generic image shown to a customer of plot with a roof	
Build Stage 50 – First Fix	Generic image shown to a customer of First Fix complete	
Build Stage 70 – Second Fix	Generic image shown to a customer of Second Fix complete	Customer is given a 1-month window until Home Move In
Build Stage 90 – Customer Ready	Generic image shown to a customer of a completed house	Customer is given a date of Home Move In

Completion window for customers on Touchpoint narrows to 1 month when stage 74 is ticked AND the plot has exchanged contracts in COINS.

Ticking stage 90 does not give the customer a move in date. It stays as 1 month until the customer actually moves in and then it shows the legal completion date.

CUSTOMER OPTIONS



It is vitally important that all progress is updated and we ensure that our Sales Team are aware of build progress through the Weekly Site Update meetings with Sales Executive and Customer Relations Manager. Once the SMT have progressed past a certain build stage, this will prevent the customer being able to choose the following options:

PRODUCT CATEGORIES	BUILD STAGE CUT OFF MASONRY	BUILD STAGE CUT OFF TIMBER FRAME
Additional sockets	40	12
Alarm system (Inc. all extras)	40	12
Amtico	40	12
Appliances	40	12
Basin and bath taps	40	12
Bath screen	40	12
BT point	40	12
Carpets*	60	60
Cat cable	40	12
Door handles	40	12
Door range throughout	40	12
Doorbell	40	12
Doors and carcass	40	12
Downlights	40	12
Downlights – wet rooms	40	12
External power point	40	12
Fencing*	45	45
Floor tiling	40	12
Garage personnel door	4	4
Glazed doors (single and double)	40	12
Karndean	40	12
Kitchen	40	12
Kitchen sink and tap	40	12
Matwell	60	60
Mirrors	40	12
Moduelo	40	12
Outside light front	40	12
Outside light rear	40	12
Outside tap	40	12
Paving*	40	12
Plinth lights	40	12
Plumbing to garage	4	4
Power and light to garage	4	4
Premium underlay*	60	60
Sanitary ware	40	12



CUSTOMER OPTIONS

PRODUCT CATEGORIES	BUILD STAGE CUT OFF MASONRY	BUILD STAGE CUT OFF TIMBER FRAME
Shaver socket	40	12
Sheds	40	12
Showers	40	12
Splash backs	40	12
Switched Spur	40	12
Switches and sockets finish	40	12
Tile trim	40	12
Towel rails	40	12
Turf*	75	75
TV point	40	12
Unit lights	40	12
Upgrade double socket with USB	40	12
Vinyl*	60	60
Wall tiling	40	12
Worktops	40	12
Wardrobes*	60	60

*If there is unsold stock then these options can be added post Stage 85.
Lead-in times must be confirmed to enable a corrected forecasted legal completion date.

CUSTOMER OPTIONS – STOCK PLOTS

It is important that to ensure efficiency throughout the build and to drive smoothing the SMT should be equipped with options from the Sales department on stock plots prior to approaching the relevant build stage as set out in the Customer Options section above. The Sales department have standard set options for stock plots within their own manual which should be applied.



SITE SUPPORT TEAM MEETINGS

An important part of running an effective site is communicating with the Site Support Team. Attendees are to include the SiteM, Assistant SiteM and the Groundworks Supervisor. However, other members such as the 'blue hats' support team, Telehandler, General Site Operatives, other Trade Supervisors or any other personnel on site should attend. The Site Team meetings should be chaired by the SiteM and should be held at least once a month. The meeting minutes are to be noted and filed, with the outstanding actions reviewed at the following meeting.

TRADES MEETINGS

Trades meetings provide an opportunity for the Site Team to discuss various items with the appropriate contractors, such as volume of labour, build programme and key milestone events, quality of work, health and safety, forward planning, or any other business that is relevant.

Discussing these items in this meeting enables the subcontractors to manage their own business and workforce efficiently and to enable them to react more effectively to suit the needs of our business. As a minimum, contractors' meetings should occur quarterly, chaired by the SiteM. Any additional contractors' meetings should occur when necessary with the appropriate Contractor attendees. A copy of the trades' meeting agenda can be found in Appendix 4.0.

CONSORTIUM MEETINGS

Consortium meetings are important when two or more Principle Contractors are operating on a site. Effective programming and resource of the development should be considered as well as the main infrastructure in respect of traffic management, public safety and environmental constraints. Initial consortium meetings will be held (where possible) at least six weeks prior to the anticipated start on site date, and will be chaired by the agreed and appointed LCM. When TW is Principal Developer, the BU will take on the role of LCM, unless otherwise agreed.

At the start of the project, meetings are to be held fortnightly, primarily to cover the initial Health and Safety issues, infrastructure works, access points, roads and services and delivery arrangements. Thereafter, the meeting frequency will be reviewed and changed as necessary, once the initial works are completed. The agenda for the Consortium meeting can be found in Appendix 5.0.

SITE PROJECT REVIEW MEETINGS

Project Review meetings are required for the SiteM to gather and discuss information with relevant colleagues in other departments of the BU, which will benefit the running of the site.

This meeting should be chaired by the SiteM or Production Manager at least once a month, at which time the monthly valuation should be discussed, including Technical, Production and Subcontractor / Supplier performance, Sales and customer issues. The agenda for the Site Project Review meeting can be found in Appendix 6.0.



AFFORDABLE HOUSING

Most developments are designed to incorporate ‘affordable housing’, including rental or shared ownership. It should be remembered that HAs, often termed Registered Social Landlords (RSLs), are very important to TW and should be treated no different to any other customer.

The SiteM will be aware of the plots that have been allocated and the specification for these houses. A number of different specifications may be used for the different tenures of affordable homes. The SiteM must ensure they have received clear communication on the requirements in a timely manner.

Every RSL has different requirements, from appointing a Clerk of Work, to how they conduct meetings. All detail will be established at the beginning of the project to ensure smooth communication between both parties. We are the contractor in this scenario and RSL is our customer. Most contracts with RSLs include charges if TW are late to handover or not built to a high standard; so any delays throughout the build need to be closely monitored. It is important that the programme is followed at each stage.

KEY POINTS TO REMEMBER:

- A monthly report, as a minimum, should be submitted to the RSL, or its agent from the SiteM covering any delays, weather, HSE, progress on site, up to date programme.
- Any change requested by the RSL, or its agent, should be backed up in writing at the next progress meeting with the QS.
- Notices should be given by the SiteM / PM to the RSL usually at 12 weeks, 8 weeks and 4 weeks from handover.
- A Clerk of Works inspection will take place throughout the build and the and the Production Site Management Team (PSMT) should attend so they can see any areas of concern.

