Project Management Plan

Incorporating

CONSTRUCTION PHASE PLAN

Prepared Under Regulation 23(1)(a) - All CDM related items are boxed

The purpose of this Plan is to pro-actively communicate to the Client and Project Team how Mansell will plan, implement, control, monitor and review the Safety, Health, Environmental and Quality Project objectives.

For: Unite Integrated Solutions

Job No. & Title:	Unite / Travis Perkins		
Contract Address:	11-13 St Pancras Way London NW1 OPT		
Start Date:	**3rd December 2012**	**Contract Period:** (Calendar Weeks)	**85 week traditional scheme**

For the purpose of this Project, the following Mansell Management System "Roles" will be fulfilled as follows:

Operations Manager:	Chris Abbott	**Commercial Manager:**	Steve Barnett
Planner:	Rob Gibson	**Design Manager:**	
Contract Manager:		**Site Manager:**	
Surveyor:		**Buyer:**	Ian Shields

The contract review, Directors New Contract Briefing, for this project was held on (date), in accordance with the Production – Mobilisation Process (PM-PR-01).

Reviewed and Approved			
Revision	**CM Initial**	**Date**	
Original			**********
A			
B			
C			
D			

Project Management Plan

Controlled Issue: Unite – Luke Engmann; Collaton Safety Ltd – Martyn Cawse; Above Mansell Staff

Project Management Plan

THE MANSELL MANAGEMENT SYSTEM – A Summary

The Mansell Management System confirms the "Mansell Way" – our integrated Risk Management approach and framework, together with best practice tools, that ensure Customer requirements, Statutory and Regulatory obligations, objectives and targets and our Policies are all met, monitored and reviewed.

Integration and compliance with the Safety, Quality and Environmental standards – OHSAS 18000, ISO 9000 and ISO 14000 – is confirmed by 3rd party assessment and Registration.

Our integrated Safety, Health, Environmental and Quality Policy Statement is contained within The Management System Summary (MS-MA-01). This document also provides an overview of the entire Mansell Management System; how the aims of exceeding Customer expectation, collaborative team working and Supply Team management are achieved.

CDM requirements for a Construction Phase Plan are met by our Project Management Plan. The Project Management Plan is at the heart of the Mansell Management System process of risk management. A Project Management Plan is developed for each Project to provide the tools to effectively manage the Mansell Management System and Customer requirements in harmony. Subcontract Management Plans are then developed to confirm the co-ordination and management requirements to the Supply Team.

An integral part of the Project Management Plan is the Work Activity Schedule - identifying all site activities from set up to final clean and stakeholder liaison to Customer interfaces - to determine appropriate control arrangements. A series of Standard Risk Control Arrangements – SRCAs - (SM-WI-42) exists within the Mansell Management System to provide a minimum Mansell standard for typical activities.

Mansell objectives and targets are established at Company level, and at Business level - within Budget Packs - and at Site level, along with Customer objectives and targets - within the Project Management Plan.

Staff roles and responsibilities are confirmed in Job Descriptions and within the Mansell Management System Processes, where activities and accountabilities are defined. The Project Management Plan provides facility to expand upon these roles and responsibilities on a Project by Project basis to suit Customer requirements.

Staff are made aware of the importance of their activities and contribution to achieving objectives and targets through Inductions and by way of Project allocated Mansell Management System Manuals – containing all relevant Processes. Staff competence and training is monitored through an appraisal process, gauged by the Job Description and Company training standards.

Project Management Plan

Index

1.0 DESCRIPTION OF THE PROJECT
1.1 Project Description

1.1.1 Site Layout

The demolition / construction works comprise: set up / welfare facilities; removal of asbestos containing materials; demolition of existing building; breaking out existing concrete slabs and foundations; piling, foundation and drainage installation: reinforced concrete superstructure works; external masonry and cladding works; roof works including green roof; mechanical and electrical services; finishes and decorations; external hard and osft landscaping works, installation of new electric, gas and water services.

The site layout plan has been prepared in accordance with SRCA 06, and is in appendix A and displayed on site.

1.1.2 Partnering/Framework

1.1.3 Contract Requirements

The development comprises of cluster flat bedrooms and studios in a combination of 116 flats [including 36 studios] over 9 floors [1st to 9th]. The cluster flats and studios provide 563 beds in total.
The development also incorporates the provision of retail, materials storage & associated facilities for Travis Perkins plc, together with Unite ancillary accommodation including laundry, office, plant, and separate reception area; refuse storage, common room and other ancillary space in a communal block and bicycle storage. Hard and soft landscaping, including green roof.
Refer to Appendix for the Demolition Plan and Method Statement.

1.1.4 Contract Documents

A copy of the documents that comprise the Employer's Requirements will be retained on site.

1.1.5 Programme

A construction Programme reference Unite/Travis Perkins, dated 12/07/12 has been prepared in accordance with the Production – Mobilisation Process (PM-PR-01). See Appendix C

Detailed Specialist Programmes are agreed with each Subcontractor.

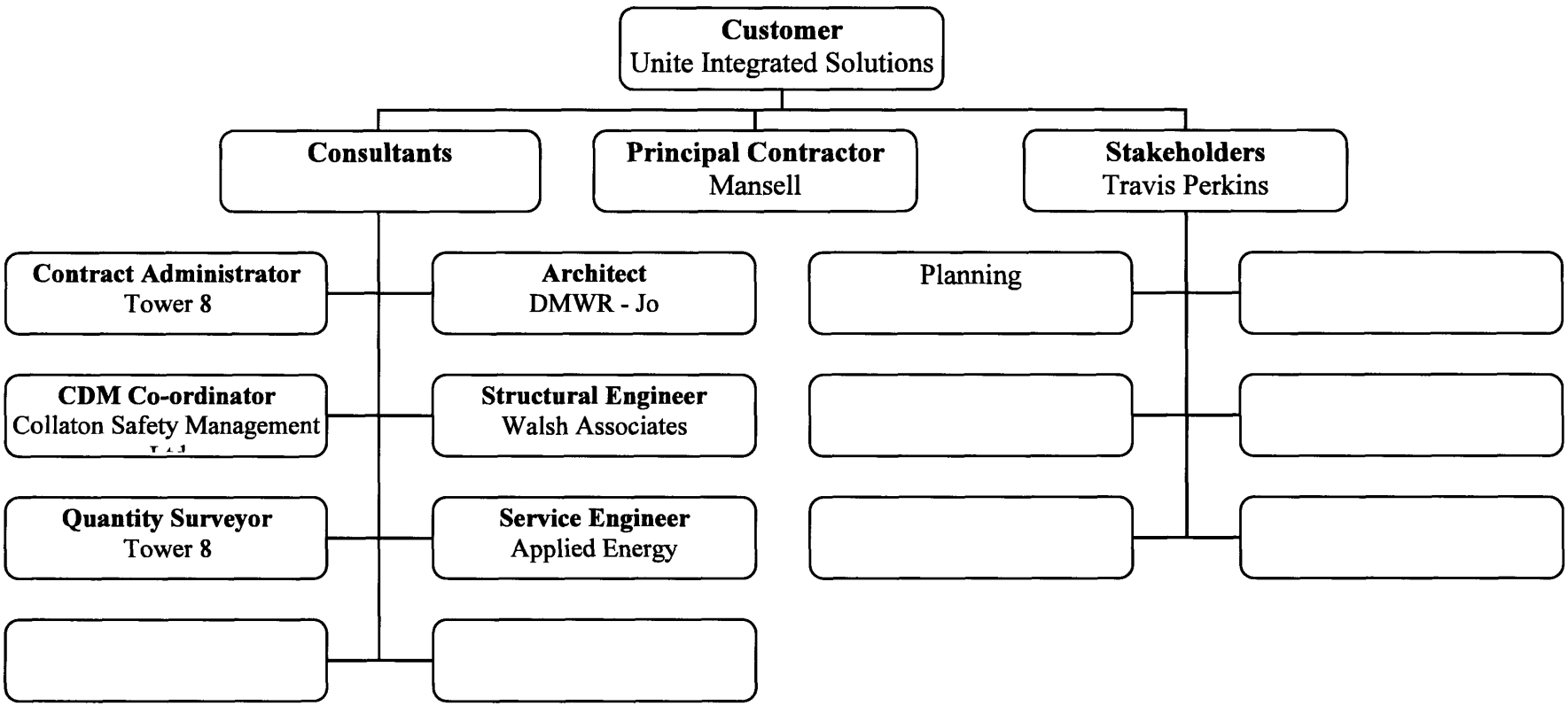
1.2 Details of Customer, CDM Co-ordinator, Designers, Principal Contractor, other Consultants and Stakeholders

1.2.1 Contact Details

	Name/Contact	Tel/Fax/E-Mail
Customer	Unite Integrated Solutions plc	0117 302 7000
Consultants:		
CDM Co-ordinator	Collaton Safety Management Limited	01752 872 817
Contract Administrator	Tower 8	0207 659 5545
Architect	DMWR	0207 928 0456
Structural Engineer	Walsh Associates	0207 089 6800
Quantity Surveyor	Tower 8	0207 659 5545
Service Engineer	Applied Energy	01932 860860
Other Consultants:	RBA – Acoustics	0207 620 1950
Principal Contractor	Mansell	0207 490 1220
Stakeholders:	Travis Perkins	
	Ted Baker	
	St Mango's Hostel	
	Royal Veterinary College	

Project Management Plan

1.2.2 Organisational/Relationship Chart



1.3 Existing Information

1.3.1 Relevant Information Contained within the Pre-Construction Information Pack

Refer to the Collaton Safety Management "Pre-Tender/Construction Health and Safety Information Pack" Ref 11003 Issue No 1, dated 1st August 2011 which includes the following

- Pre construction information
- Asbestos report
- Site Specific Hazards
- Land Registry details
- F10
- Phase II Geo-Environmental Assessment [WSP July 2010]

1.3.2 Existing Health and Safety File

Within the Collaton Safety Management pre construction info pack there is no reference to an existing health and safety file.

1.3.3 Land Use and Restrictions

The site is located 300m North of St Pancras Station, within in a busy mixed residential, commercial and industrial area of London, so special consideration needs to be given to site access/egress, site security, on site welfare arrangements, noise and dust pollution.
Surrounding Land use
North: College Grove, eight storey student accommodation.
South: Homeless shelter, three storey brick building with 2m basement.
East: St Pancras Way, which is one way traffic, with St Pancras Hospital and a sorting office beyond.
West: four storey brick building with the Royal Veterinary College beyond.
As tower crane usage will be an integral part of the logistics strategy, over sail and part wall issues will need to be addressed.

1.3.4 Details of Existing Structures

General details of the existing structures to be demolished and services are included within the tender documentation.

In General terms the buildings that are to be demolished comprise a mixture of steel frame with envelop of metal sheet cladding and brickwork, and traditional masonry boundary walls.

The buildings and site live and operational building services. There is minimal information on these and a full site survey is required to establish the whereabouts of all services prior to works starting.

1.3.5 Details of Existing Traffic/Pedestrian Systems and Restrictions

Vehicular construction traffic access to the site is to be via St Pancras Way, a two lane one way street. A Traffic Management plan will need to be developed to establish access for the various phases of the project which primarily comprise of: demolition, superstructure works and finishing's.

It is envisaged that the pavement and parking bays adjacent to the East elevation of the site will be occupied for welfare facilities and unloading areas for materials. Access to the site for demolition will be via the existing entrance; once the buildings are demolished additional access will be gained in the location of the permanent access points, for substructure and superstructure works.

There will not be any parking available on site.

See provisional logistics plan attached.

1.3.6 Details and Location of Existing Services

There is minimal information on existing services, therefore a full site survey is required to establish the whereabouts of all services prior to works starting.

1.3.7 General Ground Conditions and Ground Investigation Report

1.3.8 Asbestos Surveys

A Refurbishment / Demolition Survey has been undertaken within the buildings that are to be demolished by OHS, the report is contained in the pre construction information pack. It identifies the presence asbestos in the within fuse boxes and down pipes.

1.3.9 Other Hazardous Materials

As noted in the WSP Phase II Geo-Environmental Assessment [July 2010] 6.2.1, "Although not considered to pose a potential risk to future site users and controlled water receptors, maintenance and construction workers involved in below ground works should be made aware of the petroleum hydrocarbon concentrations in the perched groundwater and appropriately mitigated the potential risks."

1.3.10 Protection and Preservation of Existing Features

Party wall agreements to be in place and condition survey to be carried out prior to works starting on site.

1.3.11 Planning Status and Constraints

Planning consent has been received by Unite Integrated Solutions plc, by Camden Council. Ref2011/1586/P, dated 21 July 2011.
This along with the conditions can be found in Volume 2 Section 5 of the Employers Requirements.

1.3.12 Setting-Out

Setting-out will be to the relevant consultants drawings.

2.0 COMMUNICATION AND MANAGEMENT OF THE WORK

2.1 Management Structure

2.1.1 Roles and Responsibilities

The Safety, Health, Environmental and Quality provisions of this Project shall be under the direction of the management team indicated on the Organisation Chart within the chain of responsibilities identified below and in accordance with those detailed in the Mansell Management System:

Regional Managing Director	To ensure all Health, Welfare, Safety, Security, Quality and Environmental obligations are met across the business and the Mansell Management System (MMS) is implemented. To ensure all relevant obligations are observed on all projects across the business.
Operations Manager	To ensure all projects are delivered safely, on time and to **the Customers requirements across the business.**
Commercial Manager	To ensure financial control is maintained and safe **competent Specialists are appointed on projects across the business.**
Planner	To ensure a Construction Programme is prepared that **allows sufficient time for the safe completion of all activities.**
Design Manager	To ensure that design control is maintained on Design and **Build projects.**
Contract/Project Manager	To ensure statutory and project Safety, Health and **Environmental specific obligations are observed, specified quality achieved and project completion on time.**
Site Manager/Agent	To plan, control, monitor and review the works, co-ordinate Subcontractors and ensure project specific requirements and obligations are met with regard to Safety, Health, Environmental and Quality issues.
Resident Liaison	To provide the link between Residents and the Mansell

Officer	Delivery Team.
Surveyor	To maintain financial control and appoint safe and **competent Subcontractors.**
Buyer	To procure materials and equipment and advise on **alternative products.**
Regional SHEQ Manager	To advise on all relevant corporate and legislative health, **safety and environmental obligations and implementation of the MMS. Undertake internal audits and facilitate continuous improvement.**
Fire Marshall	To monitor the effective operation of the Emergency **Arrangements.**
Temporary Works Co-ordinator	To ensure that all temporary structures are designed, erected, maintained and dismantled correctly.
MEWP Co-ordinator	To ensure that the use of MEWP's are managed
Appointed Person/ Lift Co-ordinator	To ensure that Lifting Plans are prepared and that all lifts **are managed.**
First Aider	To provide emergency aid to injured parties.

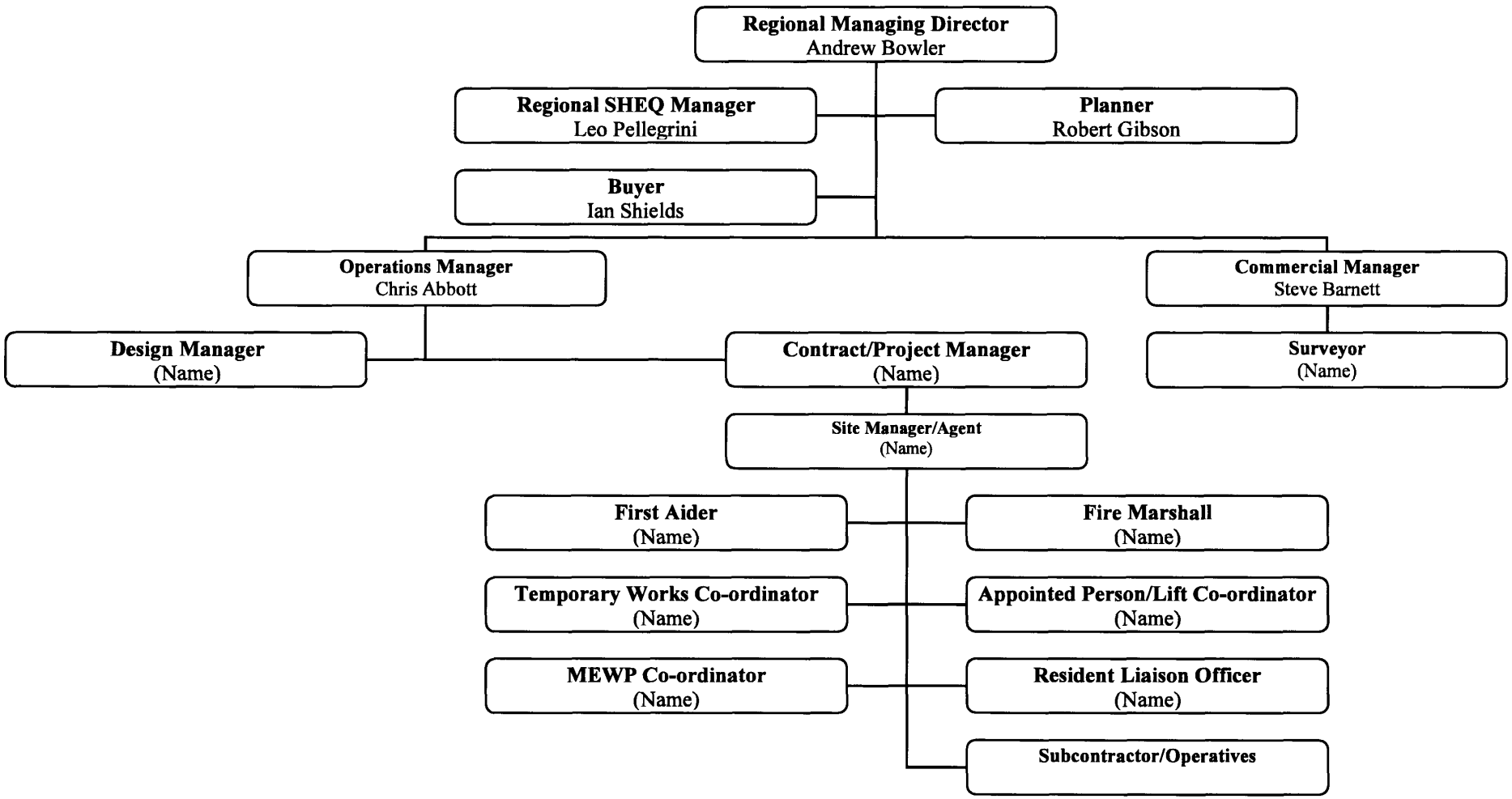
Other Responsibilities:

2.1.2 Mansell Project Team

	Name	Tel/Fax/E-Mail
Regional Managing Director	Andrew Bowler	0207 490 1220
Operations Manager	Chris Abbott	0207 490 1220
Commercial Manager	Steve Barnett	0207 490 1220
Planner	Robert Gibson	0207 490 1220
Design Manager		
Contract/Project Manager		
Site Manager/Agent		
Resident Liaison Officer		
Surveyor		
Buyer		
Regional SHEQ Manager		
Fire Marshall		
Temporary Works Co-ordinator		
MEWP Co-ordinator		
Lift Co-ordinator		
First Aider		
Others:		

Project Management Plan

2.1.3 Mansell Structure Chart



2.1.4 System Compliance

2.2 Safety, Health, Environmental and Quality Performance
2.2.1 Corporate Objectives and Targets

Health, Safety and Environmental

Safety: No fatalities of major disabling injuries; a maximum AFR 0.16 and maximum AFR for major accidents of 0.10; and no Enforcement Notices
"Zero Harm": initiative to be realised, through implementation of Safety improvement measures including the Behavioural Safety programme
Environment: Reduce waste direct to landfill <18% of all waste
Learning Events: promote recording of hazards and near-misses

Non Conformances: 10% reduction in priority 1 non conformance rate (based upon 2009 levels)

Journey plan: Zero Harm 100& Compliance with journey plan

Customer Satisfaction

Customer Feedback Surveys: Achieve an overall customer feedback score of 91%
Partnering/Frameworks: Achieve 70% of workload through partnering and frameworks.
Account Settlement: Achieve a 60% success rate in the settlement of final accounts within a three-month period from practical completion.
Customer Feedback Surveys: Achieve an overall customer feedback score of 91&

Defects: Achieve a customer feedback rating on 86%

Completion to original contract time: Complete 65% of all projects to the original specified period, excluding extensions of time.

Employee Satisfaction

Staff Performance Development Reviews: 100% of staff appraisals to be completed in each appraisal period.
Induction Training: 100% of new employees to be inducted.
Recruitment and Retention: Reduce "voluntary turnover" to <13%

Employee feedback
Communication and Team Building: Hold a minimum of two employee communication meetings per annum and receive 75% positive feedback.

Team meetings
75% effectiveness of team meetings

2.2.2 Business Unit Objectives and Targets

As corporate targets.

2.2.3 Project Specific Objectives and Targets

Safety, Health and Environment

To complete the project safely and without accident by managing the high-risk issues of construction activities that may cause serious injuries:

Safety:	Preventing falls of people and materials	SRCAs 19, 21, 22 and 23
	Work with/near fragile materials	SRCA 20
	Traffic routes and segregation of vehicles and pedestrians (including the public)	SRCAs 9, 12 and 54
	Maintenance of plant and equipment	SRCAs 49, 50 and 52
	Control of lifting operations	SRCAs 48 and 51
Health:	Asbestos works, or work that may involve finding Asbestos	SRCAs 25 and 26
	Contaminated land	SRCA 15
Environment:	Waste	SRCA 18
	Pollution	SRCAs 6 and 17

Others:

Behavioural Observations - iTIP
Behavioural Observations are actively encouraged to promote peer-to-peer reviews. These observations will be captured by those undertaking the observation on the iTIP cards (SS-FM-51)

The frequency of observations as a minimum will be 10 per week.

The target will be to achieve 100% compliance on each issue identified above during all inspections and audits.

Quality (Customer Satisfaction)

To achieve 100% Customer Satisfaction with Product and Service, to eliminate Defects, complete within the original Contract Period, settle the Final Account within 3 months of completion, and to achieve Repeat Business with the Customer.

Others:

2.2.4 Monitoring

The Health and Safety arrangements and performance of the Project will be monitored in accordance with the System Requirements Process (MS-PR-01), utilising periodic Site Inspections, Audits and Director's Safety Tours.

Weekly inspections will be undertaken by the Site Manager, recorded in the Inspection Register (SS-FM-17) and the Contract Manager will monitor compliance as part of the Monthly Team Review (CM-AG-08).

Any weaknesses will be highlighted to the Managers of those responsible, in addition to any immediate remedial actions implemented at the time – by way of an Unsafe Action/Condition Notification (SM-FM-36).

Specific proposals for monitoring on this project are:

Contract Manager	- Monthly (minimum)	CM-AG-08
Site Manager	- Weekly (minimum)	SS-FM-17
Regional SHEQ Manager	- Monthly (minimum)	Tr@ction

Subcontractors' own Safety Advisors will also monitor their operations – the timing of these visits will be agreed by the Site Team but will aim to be monthly.

2.2.5 Auditing

Business Unit Audit Plans will be prepared in accordance with the System Requirements Process (MS-PR-01). SRCA 01 (SM-WI-42) audits will be undertaken during the first visit by the Regional SHEQ Manager.

2.2.6 Review of Performance

Monthly Team Reviews (CM-AG-08) will be held to review performance on the Project and achievement of the Project objectives and targets.

During the Project, overall Health and Safety performance of the Supply Team is assessed and recorded; at the latest, as part of the Post Contract Review (CM-AG-05). This information is taken into account when placing future orders.

Visits from Enforcing Authorities will be recorded (SS-FM-25), with all observations acknowledged and disseminated to relevant parties for action.

Non-Conformity is recorded on a Site Instruction (SM-FM-02) and notified to the Supply Team.

2.2.7 Effective Corrective and Preventive Action

2.3 Liaison

2.3.1 Liaison with the Subcontractors

The Mansell Project Manager or Site Manager will be responsible for dealing with and responding to Subcontractor correspondence and complaints regarding production matters; commercial matters will be dealt with by the Commercial Manager or Senior Surveyor.

Liaison on production and safety matters will be via regular Production Meetings and Safety Liaison Meetings: commercial liaison will be via monthly valuation meetings.

2.3.2 Liaison with the Customer

The Mansell Project Manager will be responsible for dealing with and responding to Unite correspondence and complaints regarding production matters; commercial matters will be dealt with by the Commercial Manager.

Liaison will be via fortnightly design meetings, monthly site progress meetings and monthly valuation meetings.

2.3.3 Liaison with the Design Team

The Mansell Project Manager will be responsible for dealing with and responding to Design Team correspondence and complaints regarding design and production matters; commercial matters will be dealt with by the Commercial Manager.

Liaison will be via fortnightly design meetings, monthly site progress meetings and monthly valuation meetings.

2.3.4 Liaison with Other Stakeholders

The Mansell Project Manager will be responsible for dealing with and responding to 3rd Party/Stakeholder correspondence and complaints whilst the works are being undertaken.

A monthly newsletter will be displayed on the hoardings for local residents and interested parties to read which will provide an update on progress and identifying critical activities planned for the next four weeks.

The Mansell Project Manager will liaise with the local Environmental Health Officer and Highways Officer over arrangements for the delivery of materials, removal of waste, erection of cranes and generally the potential impact of construction traffic and site operations to ensure that any possible nuisance is minimised.

2.4 Consultation

2.4.1 Consultation with the Workforce

A suggestion box will be placed in the welfare facilities for operatives to comment on and provide suggestions for improving site safety.

In addition, a Site Safety Committee will meet monthly with all Subcontract Foreman to discuss current and future activities.

All major Subcontractors on site will be asked to proactively spend time each month with their Operatives to provide Tool Box Talks and other learning to avoid potential incidents occurring. In this respect, a simple "Incident" report card system will be introduced to capture near-miss incident information.

2.4.2 Consultation with the Design Team

The Mansell Project Manager will be responsible for consulting with the Design Team regarding design and production matters, during fortnightly design meetings and monthly site progress meetings.

2.4.3 Consultation with Other Stakeholders

The Mansell Project Manager will be responsible for consulting with 3rd Part/Stakeholders whilst the works are being undertaken, by way of the Public Notice, monthly newsletters and an "open-door" policy.

The Mansell Project Manager will be responsible for consulting with the local Environmental Health Officer, Highways Officer and other interested parties regarding construction process impacts, during regular meetings.

2.5 Exchange of Information

2.5.1 Information Required

Prior to commencement on site a Drawing Release Schedule will be prepared and co-ordinated by the Project Manager in accordance with the Construction Programme, to suit the Pre-Construction, Design and Construction phases of the programme. The IRS will be reviewed and updated during fortnightly design meetings and monthly site progress meetings.

Once on site, the Mansell Project Manager will continue to update the Drawing Release Schedule for review during design and progress meetings. Additional requirements will be confirmed in Technical Query's to the designers.

2.5.2 Design Control/Responsibilities and Approvals

Mansell have complete design responsibility for the provision of student accommodation living units at Unite/Travis Perkins, discharged by the appointment of the Architect and lead designers, along with the Structural Engineer. These designs will be supplemented by Specialist contractors designing the Piling, M&E and Lift installation.

Designs must be submitted to Unite for comments, as well as Collaton (the CDM Co-ordinator) for review, before Mansell provide final design approval.

2.5.3 Temporary Works Design and Co-ordination

The crane base and piling mat will be designed by a Structural Engineer.

The erection and dismantling of the Tower Crane will be undertaken by TBA.

2.5.4 Document Control

All Project records will be controlled and retained in accordance with the Site Administration Work Instruction (PM-WI-04).

The Drawing Register will be maintained by the design teams.

2.6 Change Management

2.6.1 Changes

Changes will be issued to each Specialist via the site instruction system

Concessions will only be sought via the Mansell Project Manager, following review with the design team of the potential impact on existing risk assessments.

2.6.2 Authority

Authorised Unite changes can only be issued by Chris Sorrenti as Employer's Change Orders (ECO's); such changes will be accepted by Mansell.

2.7 Selection and Control of Subcontractors

All Subcontractors and Suppliers will be procured in accordance with the Supply Team Subcontractor Process (ST-PR-01/02). This includes safety, quality and environmental competency assessments.

2.7.1 Subcontractors

The following key Specialist trades and companies will be engaged on this project:

1. Substructure – Galldris
2. Superstructure - Atlantic
3. Scaffolding –
4. Mechanical and Electrical – Briggs & Forrester
5. Heat Recovery System -
6. Lifts – Kone
7. Aluminium Facade – McMullens
8. Brick Facade – McMullens
9. Windows – McMullens
10. Partitioning –
11. Roofing –
12. Decorations –
13. Soft Flooring -
14. Furniture –

The following Unite appointed specialists will also be engaged on this project:

1. Circuit Laundry – Laundry equipment
2. Cable Com – IT equipment

3. CCTV – Kings Security

2.7.2 Suppliers

The following Unite preferred suppliers will be engaged on this project:

1. Kitchens –
2. Bathroom Pods – Off Site Solutions
3. Doors, Skirtings and Architraves - Cotswold
4. Ironmongery – T&A
5. White Goods –

2.7.3 Customer Artisans and Named Subcontractors/Suppliers

N/A

2.7.4 Storage and Handling

The site layout plan identifies the main material unloading points to the site Pocock Street.

2.8 Exchange of Health and Safety Information between Contractors

A detailed Work Activity Schedule (SM-FM-21) is produced for each Project. All relevant Standard Risk Control Arrangements (SM-WI-42) are issued to each Subcontractor for review and to provide specific information to satisfy all Health, Safety and Environmental requirements.

2.9 Security, Site Induction and Training

2.9.1 Security

A photo-card or finger scanner operated turnstile system will be used on site to ensure that only authorised personnel access the works. A security guard will issue the cards and ensure that minimum PPE is worn and that site inductions have been received prior to working.

The perimeter of the site will be hoarded to restrict unauthorised access, with separate access for personnel. The banksman and yard labourer will ensure that the vehicle access gate is kept locked and not used by personnel.

Outside of working hours and once the internals commence the site will be monitored by night and week-end security guards. The guards, cameras and turnstile system will be provided by TBA

Inductions will be provided to all operatives and staff by the Mansell Site Managers (on rotation) in the dedicated training room.
There will be a Hazard and Safety Information Board displayed at the main entrance.

2.9.2 Training

A Site Induction, CSCS and Operative Training Register (SM-FM-30) will be held on site.

Toolbox Talks will be carried out on the project and recorded on the Toolbox/Safety Talk Register (SM-FM-28). The Toolbox Talks will be programmed to ensure they are applicable to the scope of works at the time of delivery.

2.10 Welfare Facilities and First Aid

Welfare facilities and the First Aid station will form part of the main office.

2.11 Reporting and Investigation of Accidents and Incidents, Including Near Misses

The Accident Book (SS-FM-01) is held within the Site Office. All accidents and incidents will be reported and investigated in accordance with the Accident and Incident Reporting and Investigation Process (SS-PR-02).

There are no specific Unite reporting requirements.

2.12 Risk Assessments and Method Statements

Mansell Standard Risk Control Arrangements (SM-WI-42) set minimum standards for typical hazardous activities. These are identified on the Work Activity Schedule (SM-FM-21). Additional local arrangements will be added as necessary and specific control methods (Risk Assessments, Method Statements, CoSHH, Manual Handling, Noise and Vibration Assessments) will be developed with the Specialists concerned prior to any works commencing on site.

Mansell will review and accept the Subcontractors Risk Assessments and Method Statements prior to commencement on site.

2.13 Site Rules

The Site Rules and site information will be displayed on the Site Noticeboard. All operatives, staff and visitors will be Inducted and expected to uphold the rules. These include:

Part 1 Corporate and Statutory Safety Posters and Notices

Part 2 Site Safety Induction (SS-WI-02)

Part 3 Full participation in the Considerate Constructors scheme

2.14 Fire and Emergency Procedures

Emergency Procedures Notice (SS-FM-39) and Emergency Arrangements (SS-FM-22), *both appended to this Plan*, will be detailed within the Site Rules and displayed in site accommodation and storage containers.

This is an integral part of the Project Management Plan and Work Activity Schedule.

During the construction of the frame and fit-out of the buildings, a temporary alarm system will be progressively installed, with emergency information/call points on each floor.

3.0 ARRANGEMENTS FOR CONTROLLING SIGNIFICANT RISKS

The Work Activity Schedule (SM-FM-21), *appended to this Plan*, identifies all hazardous activities, associated Standard Risk Control Arrangements, specific control methods and the relevant Subcontractors for this Project.

The high-risk issues noted below, Pre-construction Information Pack, existing site conditions, Construction Programme and index of Standard Risk Control Arrangements will be used to identify all potential activities that may cause a significant risk or impact, in accordance with the Work Activity Schedule Work Instruction (SM-WI-09).

Safety permits will be implemented as determined by the controls confirmed in the Work Activity Schedule.

The high-risk issues are accommodated as follows:

3.1 Safety Risks

All significant safety risks are identified on the Work Activity Schedule.

3.1.1 Public Safety

3.1.2 Temporary and Permanent Services

3.1.3 Falls

- Installation of external envelope cladding to Main Building. Exposure to potential falls will be reduced through change to a unitised system being installed through a handrail edge protection system with Operatives also on harnesses when "landing" the panels
- Installing 7 new lifts. Work area will be locked off and restricted to Lift installation operatives.
- Tower crane operations. These will be in accordance with the Balfour Beatty Manual for Tower Crane Procurement and Operation
- Roof works. Undertaken whilst the perimeter scaffold is in place.

3.1.4 Fragile Materials

All new construction will be of robust materials, following the principal of designing out the use of fragile materials.

3.1.5 Lifting Operations

Specific risks include:

1. Demolition works
2. Tower crane operations for off-loading and vertical material movement
3. Mobile crane operations for erection and dismantling of the tower crane

All lifting operations will be controlled by a Lifting Plan.

3.1.6 Dealing with Service Providers

Key activities include:

- Installation of new substation by EDF
- New incoming supplies for Water, Gas and Telecoms
- New sewer connection

The Mansell Project Manager will be responsible for liaison with Utility providers.

3.1.7 Maintenance of Plant and Equipment

There will be fortnightly Tower crane inspections, as well as six-monthly independent inspections

3.1.8 Ground Conditions

Refer to the ground condition survey

3.1.9 Traffic Management

Vehicular access and egress to the site will be controlled by Traffic Marshall's, managing the reversing of vehicles. The vehicular entrances gates will be kept shut when not in use.

Traffic and operatives on site will be segregated, with a separate turnstile entrance on St Pancras Way for Operatives & visitors.

A hard standing inside the vehicular entrance will be used for taking deliveries and off-loading vehicles.

3.1.10 Storage of Hazardous Materials

Diesel will be stored in self-contained tanks, adjacent to the generators.

Gas cylinders will be kept within locked cages.

3.1.11 Unstable Structures

Not applicable.

3.1.12 Adjacent Land Use

Not applicable.

3.1.13 Other Significant Safety Risks

None

3.2 Health Risks

All significant health risks are identified on the Work Activity Schedule.

3.2.1 Removal of Hazardous Materials (including Asbestos and Contaminated Land)

All site waste will be removed via skips and by a licensed skip.

Plasterboard waste will be kept in separate skips and recycled by our skip company.

3.2.2 Manual Handling

Horizontal movement of materials will be mechanically aided by use of pallet trucks, internally or the Tower Crane externally.

Vertical movement of material will be mechanically aided by use of the Tower Crane, or hoist serving the Tower Building once the internal works commence.

3.2.3 Use of Hazardous Materials

Will be designed out of the works wherever possible.

3.2.4 Reducing Noise

The impact of noise nuisance will be managed by:

- Demolition works – utilise where practicable quiet methods of demolition
- Piling operations – ensuring permitted working hours are not exceeded by providing sufficient time to commence and complete each pile

Sub and Super Structure work, including falsework erection and dismantle and installation of concrete - ensuring permitted working hours are not exceeded by providing sufficient time to commence and complete each operation.

Installation of external cladding – change the construction method to a unitised system that relies on off site manufacture and simple placing/positioning once on site

General construction process – maintenance of a solid perimeter hoarding to act as a barrier to noise break out; use of quiet generators; strict adherence to the permitted construction working hours; and avoidance of weekend working throughout the duration of the project

3.2.5 Reducing Vibration

The key risk of vibration arises from the piled foundations, which has been significantly reduced by use of a Continual Flight Augered (CFA) piling method.

Generally, vibration nuisance will be minimised through compliance with SRCA 70 - Noise and Statutory Nuisance.

3.2.6 Other Significant Health Risks

3.3 Environmental Risks

All significant environmental risks are identified on the Work Activity Schedule.

3.3.1 Air Quality

The creation of dust during the demolition work, substructure, superstructure and brickwork activities will be managed in accordance with SRCA 70 - Noise and Statutory Nuisance.
Although there will be absolute minimal dust created

3.3.2 Land Water and Sewage Quality

There are no known water courses etc on site, however the potential for pollution will be managed in accordance with SRCA 17 - Environmental Concern – Water.

The Geo-Technical survey information indicates ground water at a level approximately 2 metres below the lowest excavated level; there should therefore be no need to discharge any ground water.

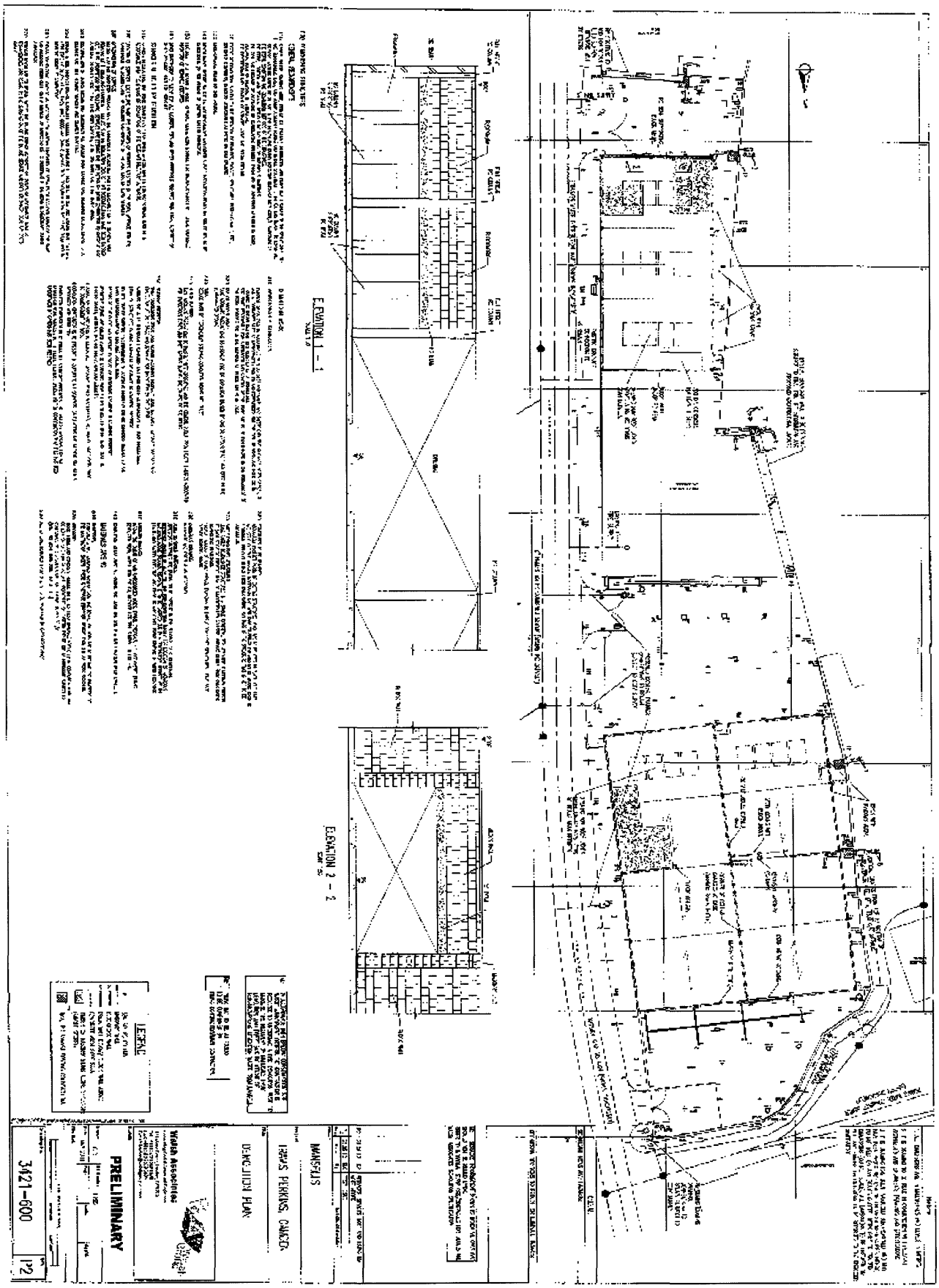
3.3.3 Waste Management

The Site Waste Management Plan (SM-FM-33) identifies the waste being produced, the waste category and removal options being implemented. Waste generally will be managed in accordance with SRCA 18 – Waste Management.

3.3.4 Contaminated Land

One 12m² hotspot identified in the Card Geotechnics report.

Project Management Plan



Our Ref: Meth/KW/17
17th October 2012

OUTLINE METHOD STATEMENT

DEMOLITION OF EXISTING TRAVIS PERKINS DEPOT 11 -13 ST PANCRAS WAY, LONDON NW1

Contracts Manager:	Michael Samson	Office 01442 878800
Site Manager:	Patrick Donoghue	Mobile No. 07703 129626.
Contract Surveyor:	Kevin Wood	Office: 01442 878800
Our client: (main contractor)	Mansell	
	Chris Abbott – Operations Manager	0207 490 1220
Our structural Engineer:	Contractor Design Service (CDS)	
	Jeremy Allen	01920 877077

Demolition plan- Walsh Associates 3421-600(p2)

1. CONTENT

The purpose of this document is to outline the proposed methods of working for the access and the safe completion of the demolition of existing building – consisting of existing light industrial warehouse buildings currently operating as a Travis Perkins builders merchants.

2. MANDATORY SECTIONS

2.1 Site Set-up

Welfare facilities mobile portacabin (oasis unit) – to include site office, canteen, drying room and toilet facilities – organized by main contractor.

All power will be supplied using super silenced diesel generators.

Any water put into containers will be clearly marked for drinking purposes.
Operatives will receive a series of Tool Box Talks as works progress – relating to the specific tasks they are carrying out.

All temporary power to the site will be 110v.

Normal working hours to be from 08.00 to 17.00, Monday-Friday inclusive.
If required Saturday working 08.00-13.00 –subject to agreement with M/C

2.1.2 Preparation works for the demolition of existing warehouses

Main Considerations:

- Segregation of concrete oversite adjacent to veterinary elevations, excavate shallow trench and fill with granular material to reduce vibration transmission prior to demolition works
- Public footpath to rear boundary. For purposes of this document we have assumed public footpath remains closed during project – arranged by main contractor
- Close proximity of neighbouring Royal Veterinary College
- No.9 St Mungos property has 2.5 metre deep basement/lightwell wall on southern end of site
- Community liaison organsed by main contractor.

A schedule of condition survey of the existing roadway, pavement, manholes, adjacent buildings, external and boundary wall etc will be carried out and agreed with Client's representative.

Asbestos:
Refurbishment and Demolition Asbestos Survey (R&D) to be carried out prior to commencing demolition – TBA one Travis Perkins vacate the building

In accordance with summary of the current type 2 survey ref.J10566

- Notifiable works separate Method Statement and notification to be issued pending the results of the R&D survey

- Non-notifiable asbestos removal by Davis and Samson – methodology described later in document.

Methodology:

- Work to be carried out as per Programme – 11 weeks contract duration.

2.1.3 Demoliton of 2no. warehouse structures

Building Description – the warehouse to be demolished require trial hole to determine actual structural detail.
Assume for purposes of method statement RC frame with masonry infill, overclad with modern plastic panel sheeting Roofs are barrel vault concrete supported by RC beams and columns

Main warehouse open plan for timber storage

Sales warehouse has been divided internally into retail areas, blockwork and plasterboard partitions.
All works to be carried out will not have any influence on the stability of the boundary wall on adjoining land to the veterinary college. A small section in poor condition on the corner of College Grove will be carefully removed opposite Beaumont Court, site will be secured at all times, permanenet 2.4m high ply hoarding to be erected

Saw cut approximately 90 linear metres concrete over site along the veterinary boundary wall to segregate slab to minimise noise/vibration transmission.
Excavate with 3 ton mechanical excavator 300m x 300m deep trench and fill with granular material upto existing ground level
.
To minimise noise disturbance to adjoining court occupants, hardcore from demolition to act as 'cushion' to minimise airborne noise and ground vibration.

Arisings generated from main structure separated at source.

Source local tips for different waste strategy, minimise vehicle movement/carbon footprint.

Hoarding Specification
Erect hoarding to St Pancras Way boundary, main contractor to organize licence for footpath and hoarding including any lighting provisions.

2.4 metre high 18mm external quality plywood decorated one side with gloss paint
100 x100mm timber posts placed in 'weighted barrels' positioned on the site boundary with 3no.100 x 50mm soft wood treated C16 rails

Outline Demolition Stages: 11 weeks duration period

- Liaise with Veterinary college and post newsletter/occupiers letter
- Site set-up and welfare
- Services disconnections confirmation
- Removal of notifiable asbestos
- Soft strip internally
- Removal of non notifiable asbestos roof panels
- Systematic demolition – top down
- Site safety external audit
- Break out oversite and foundation
- Crushable arisings to 6F2
- Clear site and produce Health and Safety File

Method of Works:
Carry out site surveys prior to commencing work, ensure:

Services disconnection certificates received, mark location with physical post and record on site drawing

Soft strip operations:

Prior to the soft strip identify as per the asbestos survey any non notifiable asbestos,to be removed by our asbestos awareness trained operatives wearing additional PPE including P3 disposal masks and asbestos overalls working in accordance with current HSE legislation .
Soft strip carried out by hand by operatives using demolition tools - access to higher internal level by alloy towers, erected by certified operatives.

- All materials separated at source to maximise re-cycling: Arisings loaded into separate roll on/off skips including: (see separate Waste Strategy Plan attached.)

- plasterboard
- timber
- plastics
- general rubbish
- rubble – brick,concrete and blockwork

Support to main structure during dismantling process

CDS our engineers initial proposals from visual site visit prior to trial hole confirmation by ourselves

Option 1
Cross brace the RC columns with a steel turfer system
Demolish the structure in bays starting one end and leave intermediates in-situ as long as possible, remove non structural elements including the infill barrel vault roof. 24 ton 360^0 excavator with multi-shear to remove each bay and systematically work through the structure repeating the operation

Option 2
Using RMD' slim shors' propping ahead 2no. bays,introduce cross bracing in tubular steel if necessary to tie upright and cross brace.As previous option work from one end of the structure repeating the exercise through the building,keep braced at all times to avoid sudden collapse.

Both options CDS our engineer to inspect and advise with additional trial holes in the fabric as works proceed

Once these investigations are completed our structural engineer to advise of findings and the method statement will be amended if necessary.

Any major deviations from original scheme to be discussed at site meetings prior to resubmitting proposals/continuing works.

Demolitions

External cladding plastic cladding removed by operatives working from mobile elevated platforms

Blockwork and masonry walls carefully demolished with 360^0 excavator under guidance of banksman to expose the structure to leave skeleton frame for propping as described above.
Water suppression systems on machines at the work face to reduce dust and designated operatives with using fire hoses used to dampen down arisings as work proceed

Substructure:

Before any excavations, the ground will be surveyed using a CAT.cable detector.

Break out concrete oversite with 360^0 machine with silenced heavy duty hydraulic breaker attachment
Foundation removed to 1.5 metre deep as above, arisings continuously crushed to 6F2 specification (independent test results by STATS) using mobile Extec 400 crushing unit (see separate document for crushing procedures) crushed generated stockpile adjacent to works in pre determined area on site.

On the perimeter of site different boundary details require treatment;
Batter back at 45^0 with spoil on site or await further instruction.

On the southern elevation extreme care required next to No.9 Mungas where 2.5 metre deep basement/light well – seek further instruction agree with client -TBA

Our package currently allows for obstruction fro the current building upto 1.5 metre deep.
Options to excavate further and backfill with 6F2 arisings if instructed

All above operations with 360^0 mechanical excavator under guidance of banksman

Drainage – redundant runs agreed prior to commencing demolition, 'bund' with stoppers remaining outlets to be salvaged.
Rodent control measures taken include clearing rubbish on commencement of demolition and removing off site to licenced landfill or recycling centre.
Ensure food waste from site welfare removed daily placed in sealed bags in designated skip,no eatingby operatives on site except in welfare area.
Following the CCTV survey by M/C seal redundant drains with purpose made stoppers to stop rodents entering via drainage pipes.
During works contiuously remove perishable arisings from site ,do not stockpile

General:

- As work proceeds, liaise with Client's representative to agree works complete or any variations required.
- Progress Reports produced weekly
- Weekly site meetings for site personnel
- Contract Management meetings at regular intervals

On completion of project complete Health and Safety File, including:

- Residual risks
- Services information
- Consignment Notes
- 'As built' drawing
- Asbestos records including disposal, air test and re-occupation certificate (if notifiable asbestos found)
- Sundry H&S information site specific

Handover project and receive written completion certificate from Mansell's Project Managers.

2.1.4 Movement of plant and materials

- All movements of plant and materials will be controlled by a qualified banksman.

- All lorries entering or leaving site will be guided by banksman.

St Pancras Way is a 'one-way street' therefore all vehicle movements to enter/exit site from main entrance gates.

All vehicles to turn around within the site area and leave site forwards

Any large vehicles to 'phone' ahead and inform site manager their intended arrival time and phone again when 5 minutes away from site to allow the site gateman to check St Pancras Way clear and marshall the vehicle onto site.

2.1.5 Method of scaffold erection – N/A

- No scaffold requirements for the project
- No temporary works required for the demolition process to be design by our structural engineers - CDS

2.1.6 Signs and Notices

'Danger Demolition' signs will be posted to the perimeter of each site area. Safety notices and emergency numbers will be displayed in the site canteen. Statutory notices will be displayed at site entrance. Fire stations will be located at each work area.

2.1.7 Systems/Codes of Practice

All relevant JWP standards and procedures, contract specifications and British standards will be followed during these works.

Abatement Noise Techniques –The Best Practicable Means (BPM) as section 72 of the control of pollution Act 1974 in accordanve with Demoliton Code Of Practice BS6187.

2.1.8 Statutory Records

All applicable statutory records will be kept and the appropriate registers completed at regular intervals. These are dept in the safety file located in the site office. They will be updated by either the Contracts supervisor or the Site Supervisor.

2.2 Hazards Identified

Movement of plant
Unloading of plant and materials
Demolition and falling debris
Services and drainage
Protection of public
Works at height
Oxypropane cutting

2.3 Public Interface Arrangements

All materials required for the project will be kept in a compound with the ability to secure items in a store within the compound.

2.4 Protection of and from Railway Infrastructure

N/A

2.5 Environment Protection Arrangement

Before any excavations, the ground will be surveyed using a CAT.cable detector.

Noise: monitor sound levels of works using MS400 hand held sound level meter in four predetermined location at four periods each working day and record on council Environmental Health Pollution control record.
Where noise levels are 3 dB(A) above predicted noise levels –check best practice and investigate noise reduction solution 'Best Practicle Means'

Vibration levels in accordance with BS5228:2009 Part 2.

Dust suppression at work face plus consider prevailing wind,location of stockpiles.Record in site diary ,identify source of any emissions and take immediate corrective action

2.5.2 Housekeeping

All surplus rubbish will be removed from the work areas at the end of each shift.

This will subsequently be placed in skips. Waste transfer details are kept in site/head office, recording the movement of this rubbish. Registered waste carriers licence is kept in the site safety file.

Site will be monitored for general tidiness.

2.5.3 Contamination

Drip trays will be used for static plant. All other plant will be checked to ensure there are no oil or diesel leaks.

Hazardous substances will be stored in accordance with manufacturers instructions.

Diesel will be stored in bunded tanks.

All demolition arisings will be stockpiled in a controlled manner prior to disposal off site.

2.6 Plant and Equipment

2 no. 20T excavator + attachments including hydraulic breaker and multi shear
1 no. WA380 wheel shovel
1 no. 3 ton mini excavator
Mobile Elevated Platforms (MEWPs)
1 mobile crushing unit Extec XR 400, including attendance 16 ton 360^0 excavator
Small plant and equipment demolition specific

2.6.1 Portable Tools

All plant that is supplied for the works will be tested. Records of the test status of the equipment will be maintained site. Plant on site is monitored and any signs of damage or fault will mean that the item will be removed form site and exchanged for a new one.

2.7 Personnel Involved

2.7.1 Labour Force

Each Shift: 1 x site manager
1 x site supervisor

3 x machine operators
4 x Demolition operatives

The site Construction Phase Plan includes details indicating the safety management lines of responsibility and also appropriate contact numbers. This will be available on site in the Site Safety File.

2.7.2 Contractors

2.7.2.1 Contracts Manager: is responsible for the supervision of the project, applying and monitoring safety, quality, technical and financial controls. He will liaise directly with the Client.

2.7.2.2 Contracts Supervisor: will provide information and supervision to the site supervisor for the contract from commencement to completion. He will ensure the satisfactory and smooth progression of the works in an efficient, economical, safe and quality conscious manner.

2.7.2.3 Site Supervisors/Foreman will ensure that the operatives under their control carry out the works detailed in the Method Statement, are made aware of its contents and carry out the works in accordance with its requirements.

They will ensure that operatives do not take any risks and will report any incident, however minor, to the Contracts Supervisor.

2.7.3 Training

When operatives attend the site for the first time they will attend an induction course carried out by either the Contract Supervisor or the Site Supervisor and on completion of this course they will sign a site induction form.

2.7.4 First Aid

A first aid trained person will be on site during the works. It is intended that the first aider will be our site supervisor. His name will be displayed as the contact name in the canteen.

2.8 Methodology

2.8.1 Brief description of the works

To carry out demolition works of 2no. warehouse buildings currently Travis Perkins builders merchants

2.8.1.1 The works comprise:

Site set up
Gain access and demolition of warehouse buildings (2no.)
Delivery of plant and materials

2.8.2 Procedure:

This Method Statement has been produced to outline the methods of work to be adopted in accordance with the following documents:

Site Safety Plan
Project Quality Plan
Health and Safety Policy

2.8.3 Programme of Works:
All works will take place during normal working hours.

2.8.4 Access and Egress:
All personnel will arrive at the compound and sign the Site Day Book. This book will also be signed when operatives leave site.

Induction briefings – to include emergency and evacuation procedures.

Care will be taken that both whilst works are being carried out or when stored, all plant and materials will be stacked neatly to enable a safe, clear route for personnel.

2.9 Briefing Arrangements
Operatives will be briefed by Site supervisor on the works to be undertaken.

2.9.1 Method Statements:
Copies of this Method Statement will be kept on site at all times for reference. The document will be discussed with the Foreman involved in the works prior to them starting, ensuring they are fully conversant with the method of working to be adopted.

3. OPTIONAL HEADINGS

3.1 Safety of Contractors Staff:
3.1.1 RIDDOR
Details regarding the reporting of accidents under RIDDOR are detailed within the site safety file. Contracts Manager is responsible under the company's Health & Safety Policy for administering and ensuring the implementation of the policy.

All incidents will be reported to Project Manager by the end of the shift in which the incident occurs.

3.1.2 P.P.E.
Individual assessments for the P.P.E. will be carried out for all operations associated with the works detailed in this Method Statement. Copies will also be kept in the Site Safety File for reference by operatives working with hazardous substances or involved in hazardous operations.

The Site Supervisor will advise operatives to ensure they are aware of any dangers and the correct P.P.E. A register will be kept in the site office recording any equipment issued.

As a minimum, all operatives on the site will be provided with a hi-visibility vest (highway approved on road). Safety boots and safety helmets to be worn at all times.

3.1.3 Work Permits and Licences:
In addition all personnel will carry out photo identification cards which will be carried at all times.

3.2 Communication and Liaison:
Site Safety file will detail contact telephone numbers.

3.3 Handback arrangement:
On completion of works.

3.4 Emergency Plans:
Prior to start of the works on site, the Site Foreman will confirm the emergency procedures that are to be employed.

All new personnel to the site are to be informed of the emergency and evacuation procedures and are to sign an induction sheet to confirm they understand these procedures.

The Site Manager to carry a mobile 'phone at all times should the emergency services need to be summoned due to an incident in the work area.

The First Aider's name will be displayed in the canteen and in the Site Office together with First Aid facilities. A notice will also be displayed indicating the location and telephone numbers of the nearest hospital casualty department and the nearest signal box.

First Aid boxes will be taken to the work site & also be located in the site canteen.

Details of the nearest Accident and Emergency Hospital Department will also be displayed.

Emergency telephone numbers and location of nearest hospital will be displayed in the Site Office

3.5 Supporting Information – see Appendix

4. RISK ASSESSMENTS – (all as detailed in original Risk Assessments)

5. C.O.S.H.H.

Individual assessments for C.O.S.H.H. will be carried out for all materials and processes in connection with these works in accordance with statutory legislation.

Copies will be kept in the site safety file for reference by operatives working with the hazardous substances or involved in hazardous operations.

The Site Supervisor will advise operatives to ensure they are aware of any dangers and wear the correct P.P.E. A register will be kept in the site office recording any equipment issued.

Handover Document - On completion of project,

All demolition will be carried out in accordance with BS 6187 2000 and current guidance notes.

All Plant operatives will be CITB registered.

Operatives to hold CSCS (or equivalent) cards

All plant will have current Lifting Certificate or Certificate of thorough examination as appropriate.

All asbestos removal will be carried out in accordance with the Asbestos at Work Acts, the ACOP Work with Asbestos Coatings, Asbestos Insulation and Asbestos Insulation Board and all current guidance notes.

All waste will be transported and disposed of in accordance with the Control of pollution (Amendment) ALT 1989 (we enclose a copy of our registration with Hertfordshire County Council).

All operatives will wear safety helmets and safety footwear at all times and appropriate PPE when required.

During dry or windy conditions, debris will be kept damped down with water sprays to minimise dust emissions.

16th October 2012

.....Date.....

Kevin Wood – MCIOB
Company Surveyor

Outline issue

Our Ref: Waste/17/KW
16th October 2012

Waste Management Strategy for works at

Former Travis Perkins 11-13 St Pancras Way London NW1

Contracts Manager:	Michael Samson	01442 878800
Site Manager:	Paddy Donoughue	07703 129626

All waste disposed from site carried out in accordance with our company procedures – attached (5 pages).

Environment Agency Hazardous Waste Registration Number – TBA

Waste being produced on site – main categories	% Recycled
- Glass	100
- Blockwork	100
- Concrete	100
- Macadam surfacing	100
- Lightweight metals	98
- Masonry brickwork	100
- Blockwork	90
- Plasterboard	85
- Fluorescent light tubes	100
- Constructional timber	95
- Decorative timber & joinery	95
- Carpet tiles	80
Overall target	**95%**

Our Ref. 082/17
16th October 2012

Disposal Methods in accordance with our Guidance Notes on Waste Disposal for General Demolition Materials

1. Hazardous Waste

Asbestos cement sheeting	If applicable – Pinden Quarry (Kent)
Arisings from Notifiable asbestos works if applicable subject to R&D asbestos surveyor (to be carried out)	Works by licenced approved subcontractors taken under consignment note to licenced tip for asbestos product - TBA

2. General Materials

Glass Metal Plastics Constructional timber	Recycled where practical or taken to landfill site* in accordance with our Guidance Notes: *Options: Onyx – Gerrards Cross Wood Recycling Services- St Albans Holywell Plant - Hemel Hempstead Shanks - Aylesbury

3. Crushable arisings:

Brickwork Roof tiles Concrete Macadam	Crush to .75mm down via mobile crushing unit – stockpile on site as directed

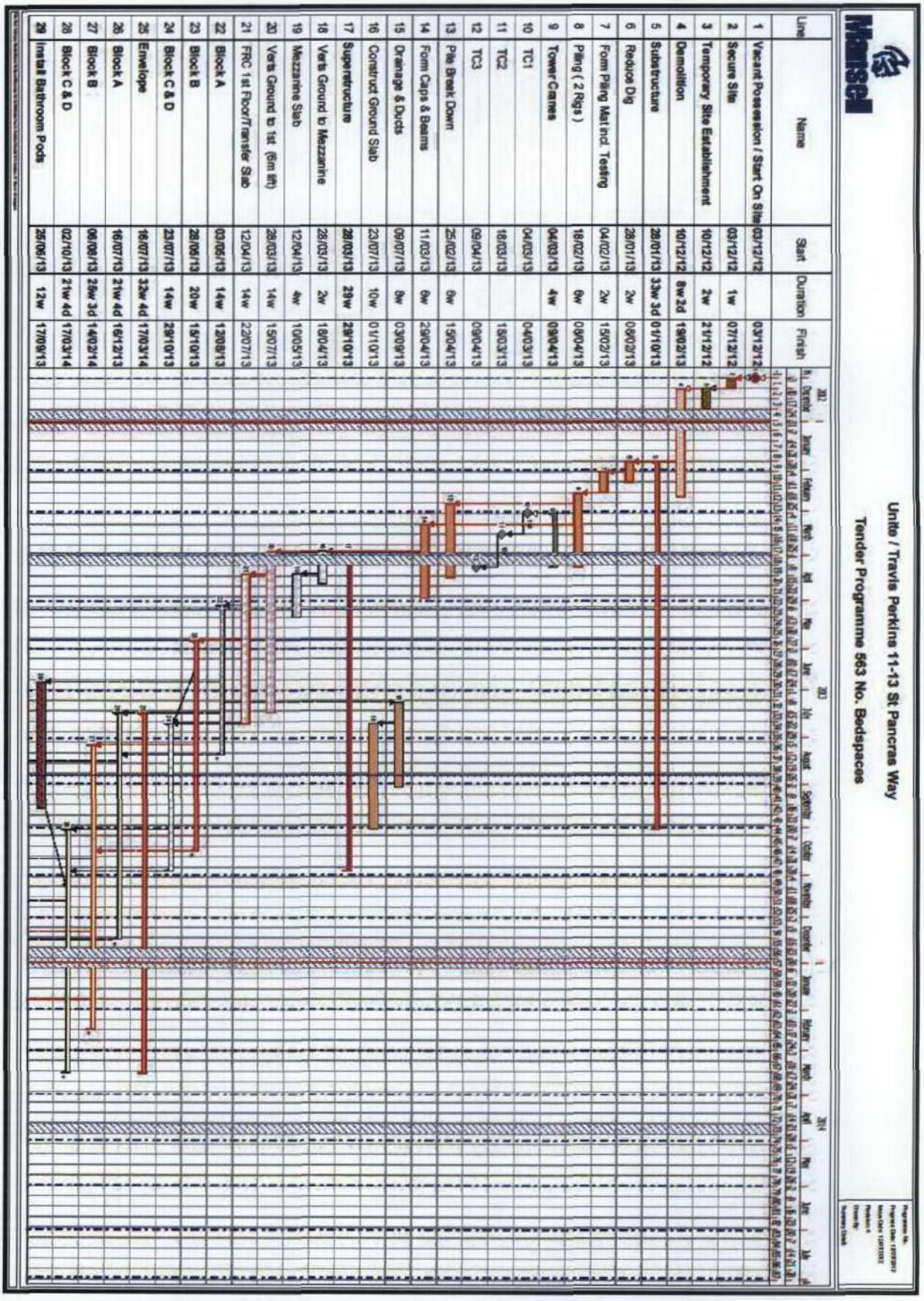
4. Excavated materials

If applicable to our contract	Disposal to locally sourced landfill site dependent on material criteria

Note: liaise with Client's engineers on any contamination issues or special waste disposal products on the site, prior to any disposal works

APPENDIX C

Project Management Plan



Line	Name	Start	Duration	Finish
1	Vacant Possession / Start On Site	03/12/12		03/12/12
2	Secure Site	03/12/12	1w	07/12/12
3	Temporary Site Establishment	10/12/12	2w	21/12/12
4	Demolition	10/12/12	8w 2d	19/02/13
5	Substructure	28/01/13	33w 3d	01/10/13
6	Reduce Dig	28/01/13	2w	08/02/13
7	Form Piling Mat incl. Testing	04/02/13	2w	15/02/13
8	Piling (2 Rigs)	18/02/13	6w	08/04/13
9	Tower Cranes	04/03/13	4w	09/04/13
10	TC1	04/03/13		04/03/13
11	TC2	18/03/13		18/03/13
12	TC3	09/04/13		09/04/13
13	Pile Break Down	25/02/13	6w	15/04/13
14	Form Caps & Beams	11/03/13	6w	29/04/13
15	Drainage & Ducts	09/07/13	8w	03/09/13
16	Construct Ground Slab	23/07/13	10w	01/10/13
17	Superstructure	28/03/13	29w	28/10/13
18	Verts Ground to Mezzanine	28/03/13	2w	18/04/13
19	Mezzanine Slab	12/04/13	4w	10/05/13
20	Verts Ground to 1st (6m lift)	28/03/13	14w	15/07/13
21	FRC 1st Floor/Transfer Slab	12/04/13	14w	22/07/13
22	Block A	03/06/13	14w	12/09/13
23	Block B	28/06/13	20w	18/10/13
24	Block C & D	23/07/13	14w	29/10/13
25	Envelope	16/07/13	32w 4d	17/03/14
26	Block A	16/07/13	21w 4d	16/12/13
27	Block B	06/08/13	26w 3d	14/02/14
28	Block C & D	02/10/13	21w 4d	17/03/14
29	Install Bathroom Pods	25/06/13	12w	17/09/13

Project Management Plan