

For general release

REPORT TO:	STREETS AND ENVIRONMENT SCRUTINY SUB-COMMITTEE 23 JULY 2014
AGENDA ITEM:	8
SUBJECT:	STREET LIGHTING PFI - UPDATE
LEAD OFFICER:	Jo Negrini, Executive Director, Development & Environment
CABINET MEMBER:	Cabinet Member for Transport and Environment
LEAD PERSON AT THE MEETING:	Steve Iles, Head of Highways and Parking

ORIGIN OF ITEM:	This item is contained within the initial Work Programme 2014-15 for the Streets & Environment Sub-Committee.
BRIEF FOR THE COMMITTEE:	To provide an update on the progress of the Core Investment Programme for Street Lighting PFI (Private Finance Initiative) joint project between Croydon Council and Lewisham Council.

1. EXECUTIVE SUMMARY

This report provides an update to the committee on the progress of the Street lighting Core Investment Programme.

1.1. Background**What is Private Finance Initiative (PFI) funding?**

The government recognised that, across the county, many local authorities are faced with a backlog in the replacement of capital equipment be it schools, hospitals, roads or street lighting. In order to tackle this backlog, the government provides PFI funding to support capital investment projects. The funding – PFI credits – is a grant from central government to the local authorities which covers the anticipated capital investment.

A second key objective of the PFI funding programme is that the risks and responsibilities associated with running a public service should be placed where they can best be managed: i.e. the ‘service’ element is transferred to the same organisation that is undertaking the ‘capital replacement’ element. In the case of this project, that means Croydon & Lewisham transferred our existing street lighting services to an external street lighting Service Provider Skanska Laing

(SKL).

A condition of the PFI grant is that the authorities agree a relationship with a Service Provider that is based on the Treasury's standardised PFI Model Contract. The Model Contract incorporates best value by obligating the Service Provider to maintain the equipment appropriately and for the authorities to pay for such a service.

2. Service scope

- 2.1. The scope of the service includes the provision of street lighting services including the design, installation and operational maintenance of existing and new apparatus. The table below represents the apparatus quantities within the scope at service commencement and the expected quantity upon completion of the initial Core Investment Programme (CIP).
- 2.2. Under the contract all of the existing equipment will be replaced or otherwise brought up to modern standards within the first five years, along with de-illumination of illuminated signs and bollards where ever possible due to changes in the Traffic Signs Regulations Guide (TSRG)
- 2.3. Under the contract the equipment will be maintained and operated for the whole of the 25 years and then handed back to the councils in a satisfactory condition.
- 2.4. The contract was awarded in December 2010 and financial close was achieved in April 2011. The contract was mobilised shortly after with a service commitment in July 2011.

Item	Description	@ Service Commencement
1	Lighting Columns – Deemed to comply **	4,252
2	Lighting Columns – Non Deemed to Comply	38,039
3	Illuminated traffic signs	6,471
4	Non – Illuminated traffic signs*	0
5	Illuminated bollards	1,933
6	Non – illuminated bollards	0
7	Subway lighting points	19
8	Feeder Pillars	100
	Total	50,814

*Both authorities have undertaken to de-illuminate their stock of illuminated traffic signs and bollards where possible.

**It should be noted that although the Deemed to Comply lighting columns are within project scope this apparatus will not be replaced during the CIP, it will however receive a lantern change to ensure the unit is connected to the central management system.

3. Performance Management

3.1. The contract has a suite of Performance Standards as set out in the Project Agreement & Output Specification, the performance is reviewed on a monthly basis as part of the “Monthly Monitoring Report” and this is linked directly to any financial adjustments for failing to meet the minimum requirements set out each performance standard.

Linked to these Performance Standards are Method Statements detailing how the Service Provider is intending to deliver the Performance Standard?

Performance Standards

Performance Standard	Description
PS1	Core Investment Programmes
PS2	Planned Maintenance, Inspection and Testing
PS3	Operational Responsiveness and Reactive Maintenance
PS4	Contract Management and Customer Interface
PS5	Strategic Assistance and Reporting
PS6	Working Practices
PS7	Reporting to the Authority
PS8	NOT USED
PS9	Central Management System

For the purpose of this report as requested by the Committee it focusses on the progress of the Core Investment Programme (PS1).

4. Performance Standard 1- Core Investment Programmes

4.1. The Core Investment Programme (CIP) covers a period of five (5) years from the Service Commencement Date (July 2011). The CIP has been prioritised considering the crime level, age, structural and/or electrical condition of the stock, operational efficiency and lighting levels, taking into account the results of the due diligence carried out on the Croydon Central System.

4.2. The Service Provider shall design and install new apparatus during the five year CIP across both boroughs to the current relevant standards. The Payment Mechanism sets out that the Service Provider only gets paid once the schemes are certified as complete and not based on the predicted Milestones. There are 10 No Milestones (6 monthly) within the CIP programme please see section 6 below for the full details.

- 4.3. The Service Provider will work with the Authority at a strategic level to amend the CIP if necessary, to take into account the objectives for the Authority around safety and security, improved housing, town centre re-development, transportation schemes and environmental management and sustainability.
- 4.4. The presence of the Croydon Central System (CCS) is the major deciding factor for programming the works in Croydon, as the network architecture requires the works to be carried out from outside to in i.e. working from the outer part of the borough into the middle, thereby isolating and abandoning the CCS on a limb by limb basis. This requirement will feed into a ward by ward, and sub-ward by sub-ward, programme for ease of geographical planning and execution.
- 4.5. In Lewisham the CIP is geographically based on a ward basis for programme efficiency, but also considers Metropolitan Police crime figures and the presence of an inter-connected network.

5. The Replacement Strategy

- 5.1. The Service Provider's replacement strategy is based upon the following key principles:
- CCS abandonment from the "outside in" on a ward by ward basis
 - Design bank based flexibility in the replacement programme
 - Parallel delivery teams to reduce risk of delay
 - Replacement within both Boroughs at any one time to ensure a sharing of the benefits of the Project and improved risk management.
 - Replacement of illuminated signs and bollards in conjunction with lighting works
 - Use of asset condition survey data to influence future years' programmes
 - Operational efficiency and best value
 - Early consultation as described in Method Statement 5 (Consultation) to solicit Authority input
 - Consideration given to transportation schemes, improvement plans and Authority requests
- 5.2. There are a number of temporary CCS Feeder Points that need to remain in situ on a temporary basis, to provide power to an adjacent street in order to maintain an electrical supply to the Lighting Points, which will be treated as a snagging item only once they have been de-energised by disconnection from the CCS. Until this point in time, the status of all such Temporary CCS Feeder Points will be recorded on the Management Information System (MIS) as a 'neutral snagging' item to ensure they remain visible and are reported on, until they can be removed of part of an adjacent street or scheme.

Temporary CCS Feeder Points will be recovered as soon as it is practically possible to do so after they are no longer required for the electrical supply of adjacent Lighting Columns. Skanska & UK Power Networks are working closely to ensure a continuous programme is in place for these feeder points to be removed.

Due to the nature of the works and the complexity of power network the programme has been affected and subject to delays.

The project calendar is approaching Milestone 6 at 31st July 2014, which is highlighted below:

Milestone	Milestone Completion Date	Total Lighting Points removed
1	6 months after planned service commencement date	207
2	12 months after planned service commencement date	3,107
3	18 months after planned service commencement date	7,148
4	24 months after planned service commencement date	12,009
5	30 months after planned service commencement date	16,885
6	36 months after planned service commencement date	22,915
7	42 months after planned service commencement date	28,940
8	48 months after planned service commencement date	34,316
9	54 months after planned service commencement date	39,683
10	60 months after planned service commencement date	46,665

Current performance

Period	Lighting points installed	Lighting Points connected by UKPN & PCN	Lighting points certified
June14	20,655	14,590	14,207

As of May's monthly performance report the number of lighting points removed as detailed above was 14,207, it is important to note that the number of lighting points installed is 20,655 thus there are 6,448 lighting points without a power supply. This reflects the CIP is currently behind schedule by approximately 8 months.

6. Programme by ward

As part of the tender submission Skanska submitted the year one programme and an indicative programme for years 2-5. Please see appendix 1

The Service Provider was charged with the development of an improvement plan focusing on recovering the slippage to the programme. The plan consists of both a best case and likely case scenario. T, the likely case scenario

To assist the Service Provider to recover the delay in the CIP the authority has agreed to allow wards to be pulled forward such as Coulsdon East & Coulsdon West as these wards are less complex due to the absence of the Croydon Central System (CCS) and the Triple Concentric Main (TCC). Appendix 2- Core investment Programme

6.1. Project Challenges

Undertaking the connections, disconnections & transfers to remove and install new lighting points drops into two categories:-

- **Contestable works** - Contestable works are Jointing works that require connection directly to a mains cable. These are elements of the work that can only be completed by the Distribution Network Operator (DNO) (UKPN).
 - **Non – Contestable works** - Jointing works that do not involve connection to mains cable. These are elements of the works that can be completed by either an Independent Connections Provider (ICP) or the DNO
- 6.2. Approximately 70% of Croydon’s street lighting infrastructure is connected to a dedicated street lighting power supply. This arrangement, known locally as the Croydon Central System (“CCS”), was originally developed by the local authority in the early 1900’s. The CCS is switched by the Distribution Network Operator (“DNO”) UK Power Networks.
- 6.3. The on-going maintenance problem of the CCS has resulted in the DNO placing an embargo on the re-use of this network and once all the old lighting points are taken off it as they are intending to abandon it. All new or replacement lighting columns installed are therefore removed from the CCS and connected onto the DNO “LV mains network”.
- 6.4. The Service Provider, UKPN and the authority have been aware of the need to abandon this network and have worked to minimise the disruption to the street lighting service whilst we transverse through the CIP period. The CCS is extremely complex and needs to be decommissioned limb by limb but still maintaining a network to serve remaining lights. Stump columns were always a necessity to maintain the integrity of the network; these stumps are being removed as soon as practically possible without compromising the ability to maintain the CCS network. There are approximately **650** stumps and to date some **140** stumps have been removed with a further **53** over the next month. UKPN and the Service Provider are working closely to ensure a regular stump removal programme is in place.

The stumps are all labelled and recently the labels have been reviewed and now provide better clarity as to what they are and a contact number should members of the public want to call in.

It is important to note all lighting columns in Lewisham are connected to the DNO network and therefore are not affected by this issue.

- 6.5. Design – initial challenges with agreement on differing expert interpretation of the design standards have substantially been resolved.
- 6.6. Jointing Resources – Both Skanska and UKPN have been resourcing the

programme but the number of jointers has been inconsistent and the outputs per jointing team vary, thus making it very difficult to programme schemes.

- 6.7. Jointing Solution for new service connections on TCC Main – UKPN & Skanska have been working to optimize the number of UKPN jointing on this network, the challenge is the restrictions on shutdowns are limited to customers in a road being off supply for 6 hours. To forward plan these works UKPN have Authorised Person (AP) resource to survey, plan and organise shutdowns to maximize the number of joints during anyone shutdown.
- 6.8. The condition of the existing UKPN network infrastructure, particularly the Link Boxes being life –expired, was raised by UKPN as an issue for organising shutdowns of the TCC. To shut down the cable this is done through Link boxes (this allows the power to be isolated within the chamber), this has proved difficult due to the condition of Link Boxes. UKPN have a link box replacement programme and are working with Skanska to align with the requirements of the PFI CIP programme
- 6.9. Croydon borough has been surveyed and the extent of the types of cable network can be seen in Appendix 3

7. Improvements to recover delay to date

- 7.1. Jointing Resource - Increased jointing resources implemented over the past 12 months jointing teams have been increased from 8 teams to 18 teams now covering borough boroughs.
- 7.2. Shutdown Planning - Dedicated resource from UKPN to survey, plan and organise shutdowns
- 7.3. Link Box conditions - Survey for shutdowns identifies life-expired Link Boxes. UKPN then attempt to facilitate a replacement link box to be installed under its Link Box replacement programme.
- 7.4. Survey of TCC Network and designing away from TCC network where possible
- 7.5. Original 10,000 TCC new services – currently reduced to 8,800 this review is ongoing.

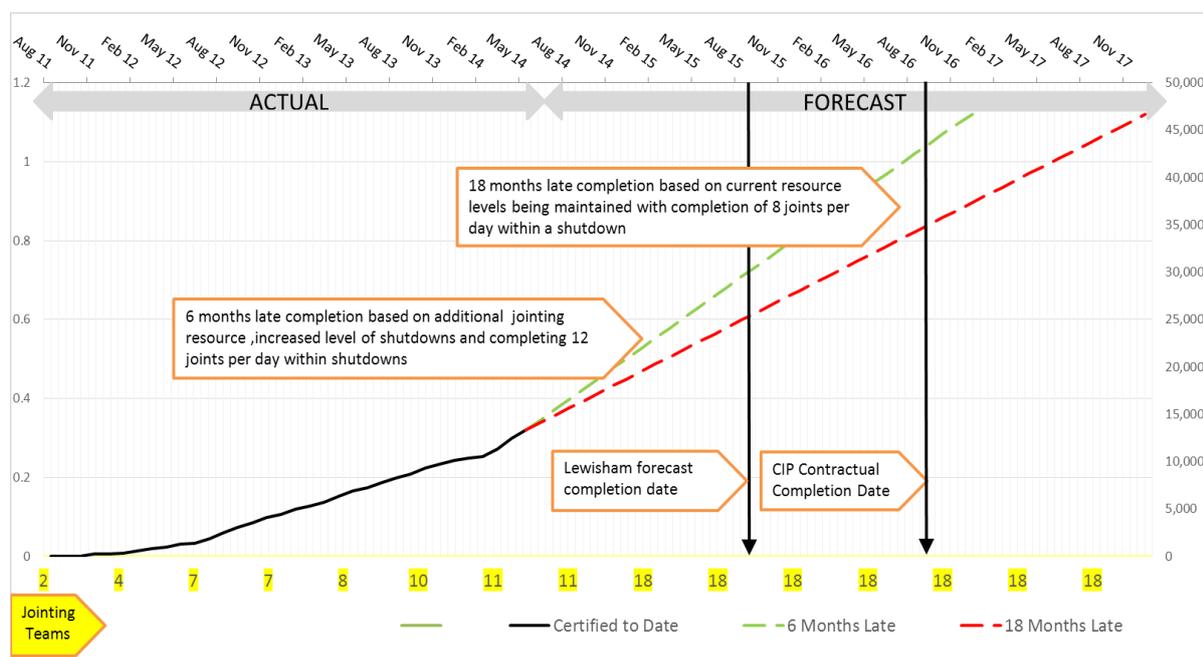
8. Current & Forward improvements

- 8.1. The council, Skanska and UKPN continue to work on developing improved productivity on the Core investment programme, these measures include:-
 - Pursue Asset Owner agreement with Client and Internally within Skanska as Owner (this has been discounted due to authority legal advice)
 - Additional jointing teams from UKPN
 - Additional Utilities resource to manage UKPN, investigating new solutions that are within the market.
 - Increase the number of shutdowns for TCC.

- Skanska Utilities implemented through Asset Owner Agreement to improve productivity
- Co-location of Jointing resource to project office driving improved communication and productivity with Jointing resource and its supervision
- A forward plan for year 4 and 5 program
- The plan moving forward within Croydon is to progress two working fronts in a logical manner.
- Investigation alternative solutions with UKPN on jointing of TCC cable
- Planning on removals of stumps detailed from recently received information on the CCS network from UKPN – separate follow up resource teams removing the CCS stump
- Moving progression on Year 4 and 5 wards allows Skanska to improve productivity on standard LV cable networks which is detailed below as the more prominent TCC networks are within the northern wards of Croydon

9. What this is expected to deliver

The Service Provider was charged with the development of an improvement plan focusing on recovering the slippage to the programme. The plan consists of both a best case and likely case scenario. The likely case scenario currently sets out the overall programme will slip by approximately 18months. Considering the improvements to date and improvements being considered currently the overall core investment programme is expected to recover and is currently projected to be approximately 6months late.



The project continues to drive for continuous improvement and where practically possible is seeking to improve the expected delay in completing the 5 year programme. Please see appendix 4- Core investment Programme expected case

10. Consultation

Consultation on the delivery of the CIP programme is split into two categories:-

10.1. Strategy Consultation

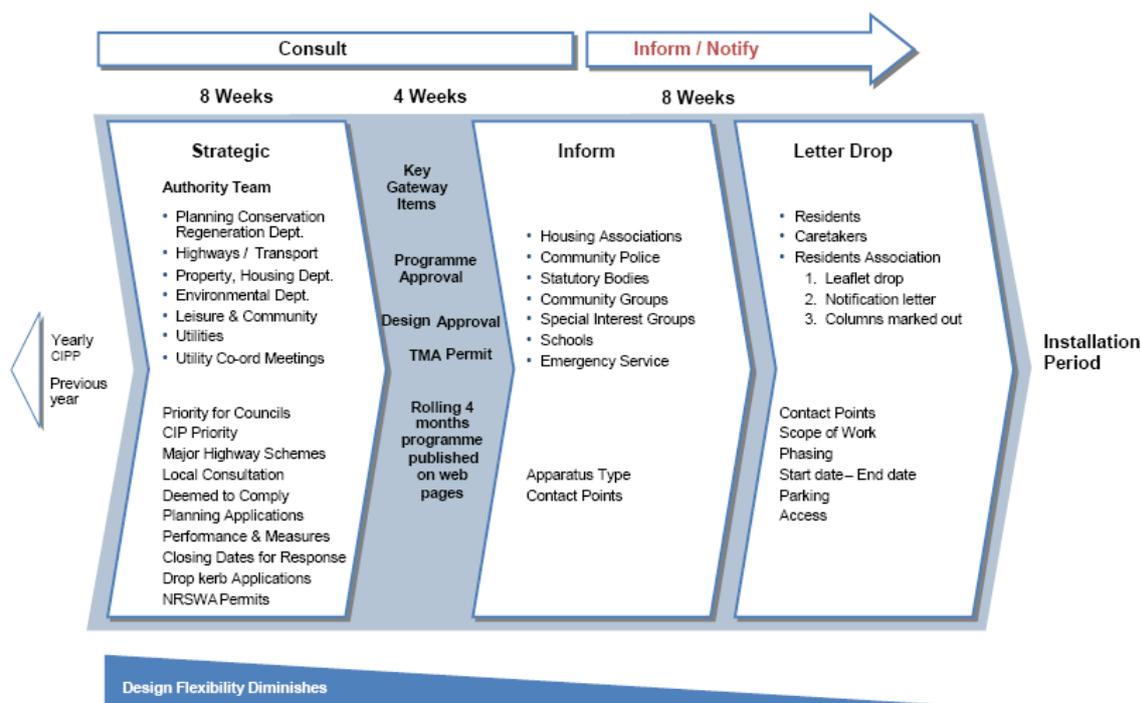
The Service Provider proposes that the strategic consultation between the Service Provider and Authority representatives be conducted via a series of Core Investment Programme (CIP) consultation meetings, where the proposed Investment Programmes for the following year will be discussed and approved. The attendees for these meetings will need to be agreed as soon as possible.

10.2. Operational communication

The Service Provider understands that after the strategic consultation has taken place and the CIP agreed, in reality there will be limited opportunity to amend the plan at the behest of a resident or stakeholder group without creating a myriad of forums and solutions that may hinder efficient programme delivery.

The purpose of operational-level communication is to ensure that residents and other stakeholders are aware in a timely manner of works starting as the CIP requires detailed planning in order to complete the works with minimum disruption to local communities. Effective local communication will therefore contribute to the efficient delivery of the CIP.

The Service Provider will use a leaflet drop to provide this notification for all programmed works under the CIP. This leaflet will be distributed to affected residents 8 weeks before the Apparatus replacement is undertaken, further reinforced by a start notification letter 4 weeks before installation commences.



Appendices

Number and list any attached appendices

Appendix 1 – Core investment Programme at service commencement

Appendix 2 – Core investment Programme (current)

Appendix 3 – TCC and CCS Location heat map

Appendix 4 - Core investment Programme expected case

CONTACT OFFICER: Steve Iles – Head of Highways & Parking services

BACKGROUND DOCUMENTS:

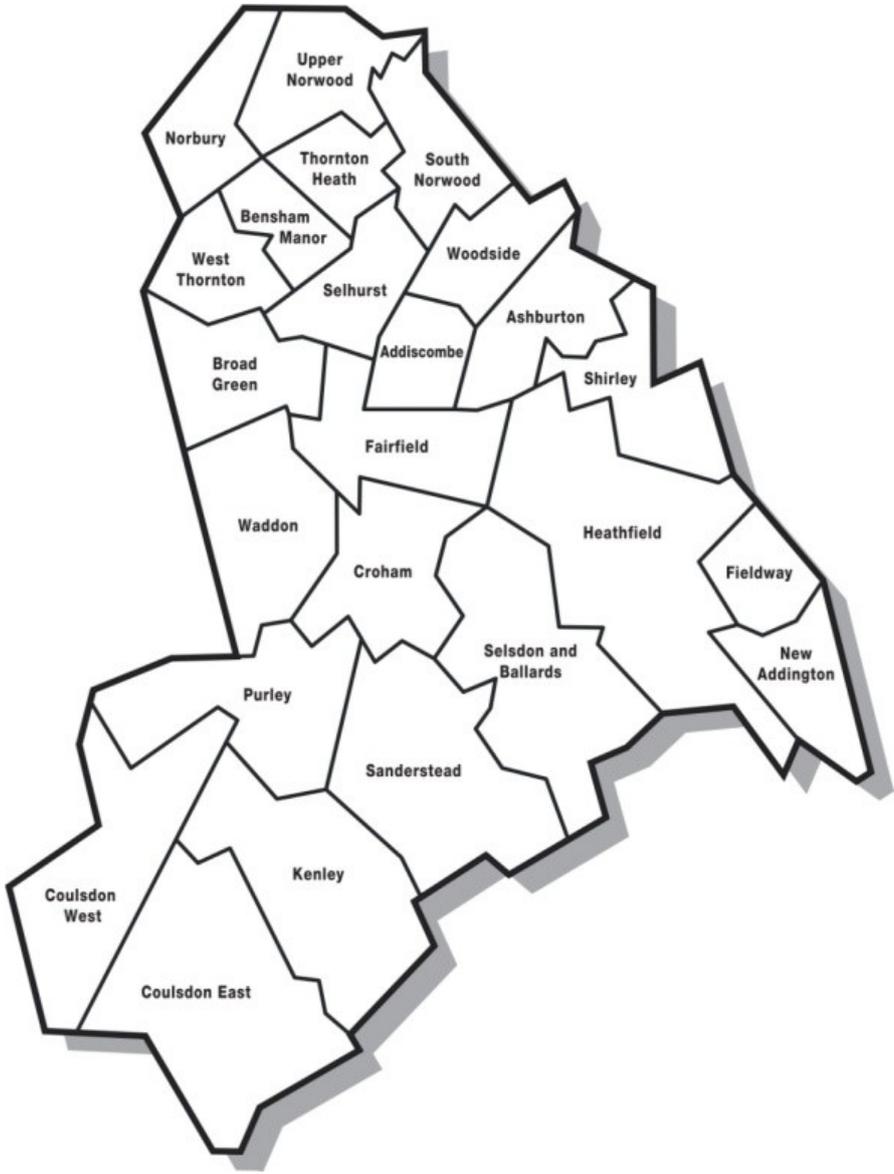
Final Business Case

<http://www.croydon.gov.uk/contents/departments/transportandstreets/pdf/stlight.pdf>

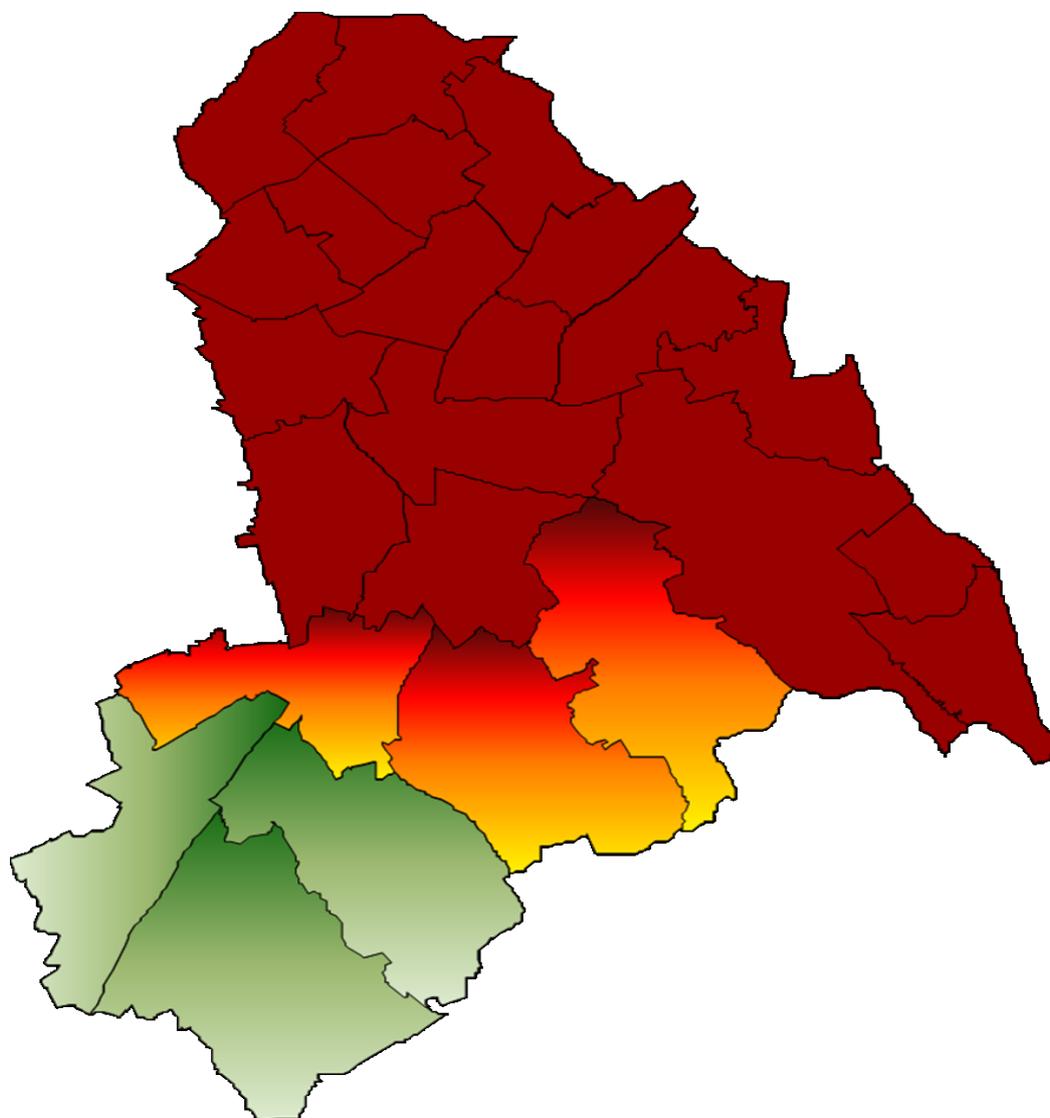
Appendix 1 - Core investment Programme at service commencement

<p>Year 1 New Addington Fieldway Shirley Ashburton</p> <p>Year 2 South Norwood Upper Norwood Norbury West Thornton Broad Green Thornton Heath</p> <p>Year 3 Woodside Bensham Manor Selhurst Addiscombe Fairfield Waddon</p> <p>Year 4 Heathfield Selsdon & Ballards Purley Croham</p> <p>Year 5 Sanderstead Coulsdon West Kenley Coulsdon East</p>	
---	--

Appendix 2- Core investment Programme (current)

<p>Year 1 New Addington Fieldway Shirley Ashburton</p> <p>Year 2 South Norwood Upper Norwood Norbury West Thornton Broad Green Thornton Heath</p> <p>Year 3 Woodside Bensham Manor Selhurst Addiscombe Fairfield Waddon Coulston West (Part) Coulston East (Part)</p> <p>Year 4 Heathfield Selsdon & Ballards Purley Croham</p> <p>Year 5 Sanderstead Coulston West (Part) Kenley Coulston East (Part)</p>	
---	---

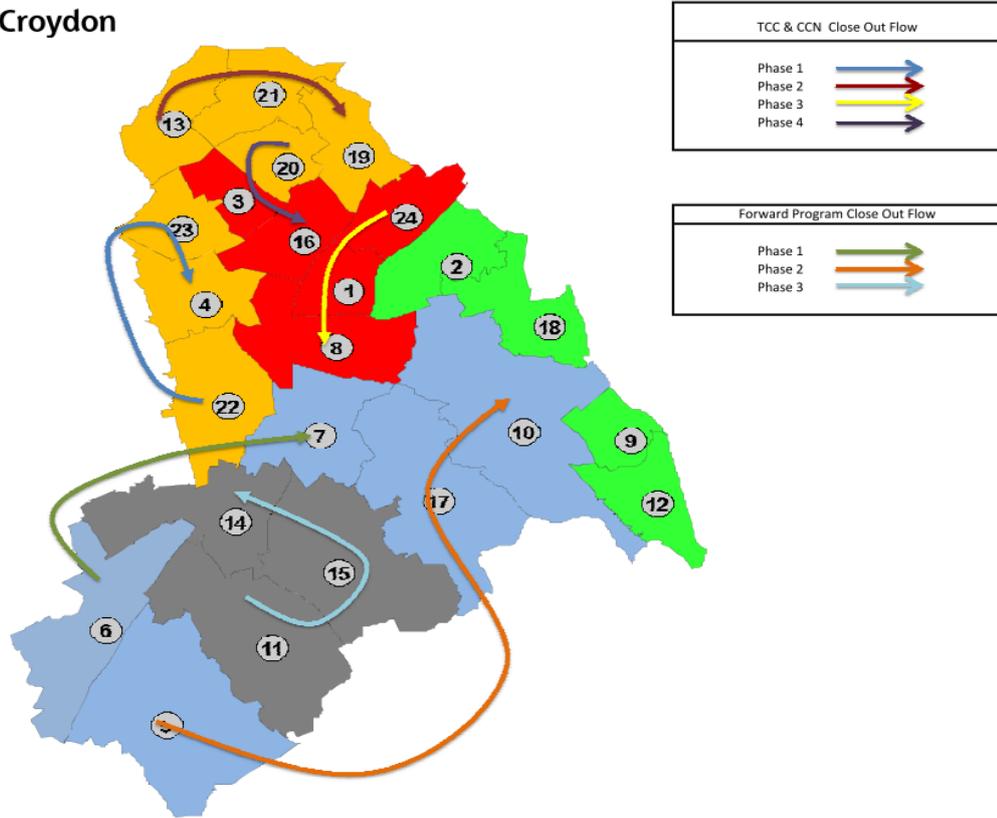
Appendix 3 – TCC and CCS Location heat map



Ward	Year	Ward	Croydon Central Netwo
2	Y1	Arboretum	Above 60%
3	Y1	Fieldway	Above 60%
12	Y1	New Addington	Above 60%
18	Y1	Shirley	Above 60%
4	Y2	Broad Green	Above 60%
13	Y2	Narbury	Above 60%
13	Y2	South Norwood	Above 60%
20	Y2	Thornton Heath	Above 60%
21	Y2	Upper Norwood	Above 60%
22	Y2	Waddon	Above 60%
23	Y2	West Thornton	Above 60%
1	Y3	Addiscombe	Above 60%
3	Y3	Benham Manor	Above 60%
8	Y3	Fairfield	Above 60%
16	Y3	Selhurst	Above 60%
24	Y3	Woodside	Above 60%
7	Y4	Graham	Above 60%
10	Y4	Heathfield	Above 60%
14	Y4	Purley	20%
17	Y4	Selhurst and Ballards	20%
5	Y5	Cauldron East	10%
6	Y5	Cauldron West	10%
11	Y5	Kenley	10%
15	Y5	Sanderstead	20%

Appendix 4- Core investment Programme expected case

Croydon



Ward	Year	Ward	Total	Outstanding	Design	WIP	% Certified
2	Y1	Ashburton	955	73	22	51	92%
9	Y1	Fieldway	639	3	3	0	100%
12	Y1	New Addington	662	19	17	2	97%
18	Y1	Shirley	1080	97	97	0	91%
4	Y2	Broad Green	1138	843	389	454	26%
13	Y2	Norbury	797	492	192	300	38%
19	Y2	South Norwood	989	795	492	303	20%
20	Y2	Thornton Heath	715	645	173	472	10%
21	Y2	Upper Norwood	964	502	306	196	48%
22	Y2	Waddon	1125	627	324	303	44%
23	Y2	West Thornton	709	339	140	199	52%
1	Y3	Addiscombe	710	710	334	376	0%
3	Y3	Bensham Manor	600	585	65	520	3%
8	Y3	Fairfield	1386	1321	880	441	5%
16	Y3	Selhurst	832	819	224	595	2%
24	Y3	Woodside	721	721	408	313	0%
7	Y4	Croham	0	0	0	0	0%
10	Y4	Heathfield	0	0	0	0	0%
17	Y4	Selsdon and Ballar	0	0	0	0	0%
5	Y4 (Y5)	Coulsdon East	1358	1245	1245	0	8%
6	Y4 (Y5)	Coulsdon West	1166	1166	1145	21	0%
11	Y5	Kenley	0	0	0	0	0%
15	Y5	Sanderstead	0	0	0	0	0%
14	Y5 (Y4)	Purley	0	0	0	0	0%