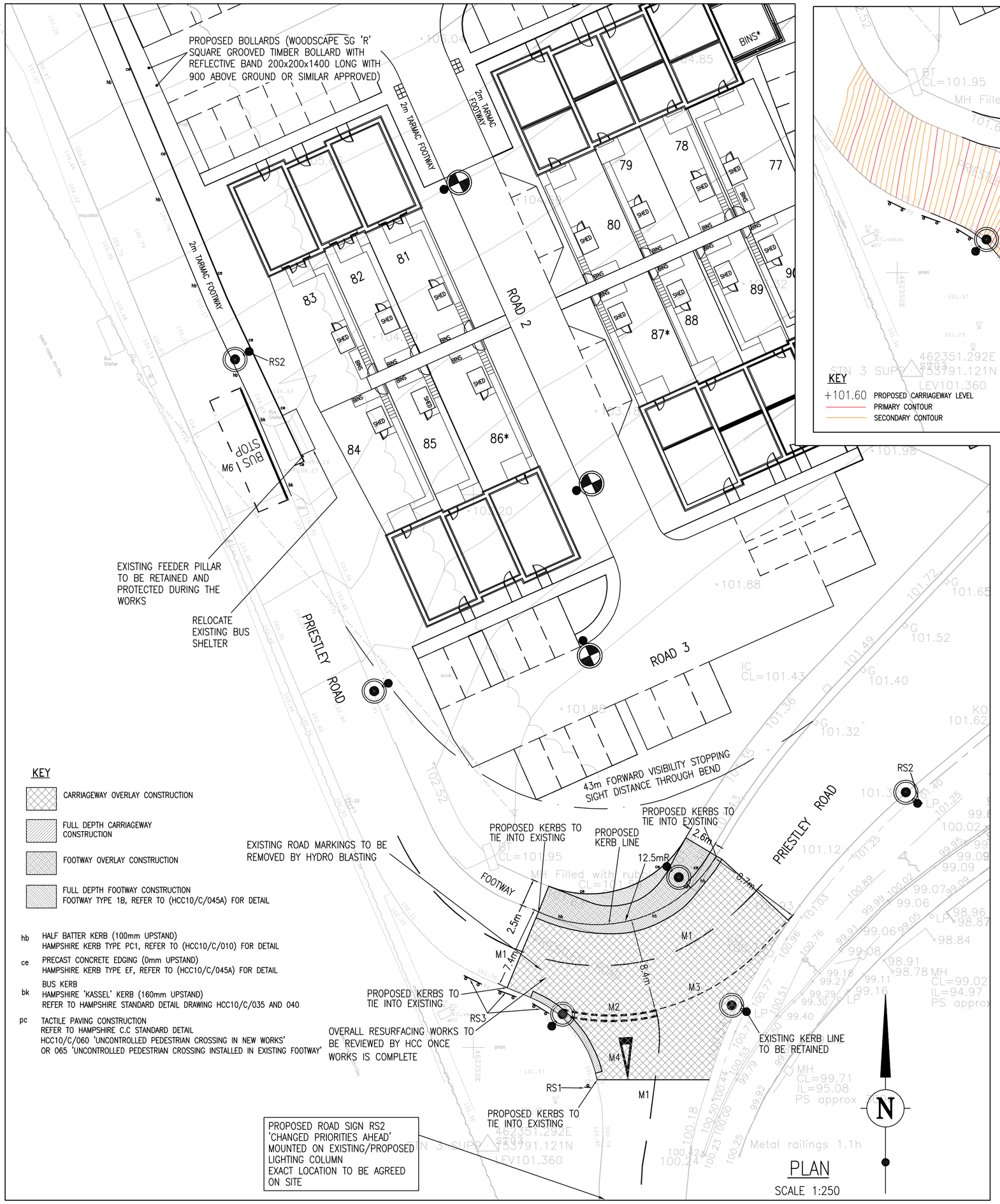
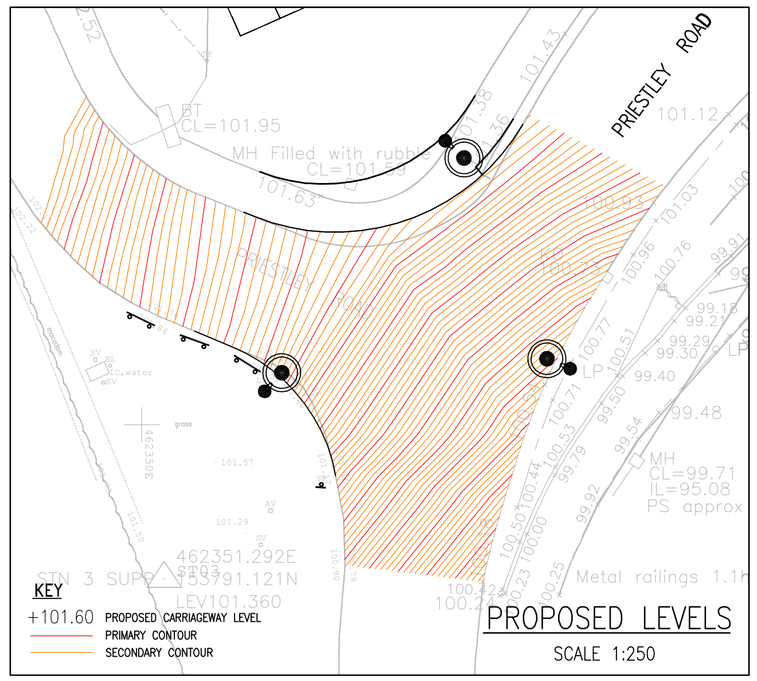
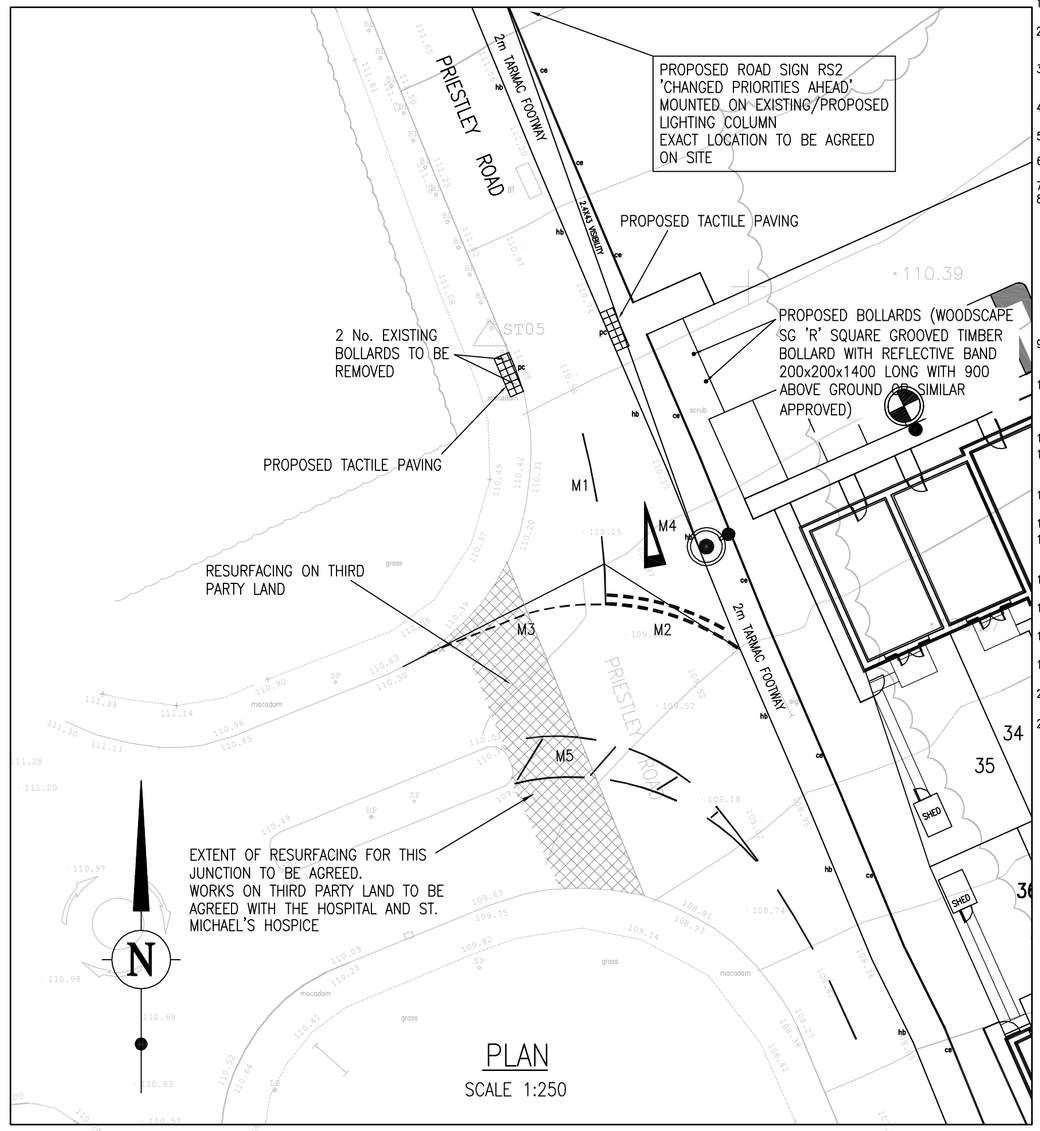






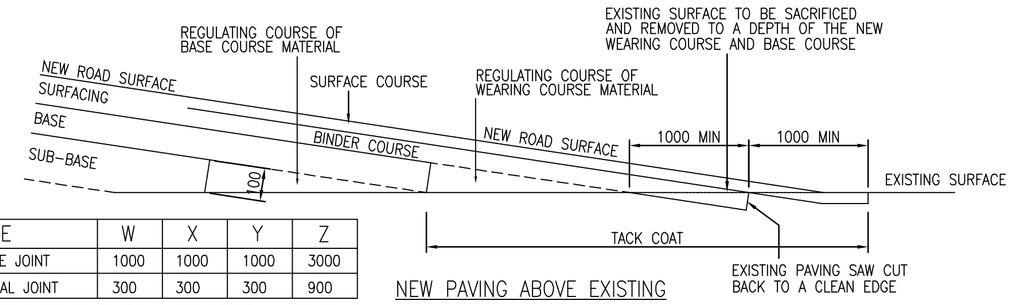
NOTES

1. All adoptable highways and footpaths to be constructed in accordance with Hampshire County Council specification and standard details.
2. All adoptable drainage works to be constructed as detailed in the Water Authorities Association Publication 'Sewers For Adoption 6th Edition', or as stipulated in Thames Water Addendum.
3. All laterals from adopted sewers to first private chamber to be 150mmø minimum. All house drainage to be 100mm dia. unless shown otherwise, laid in accordance with BS 8301.
4. Where finished ground levels fall towards a building, an open gully is to be provided at the foot of all rainwater pipes.
5. All drain connections beneath the highway are to be surrounded with concrete where cover is less than 1.2m.
6. All drain and sewer pipes are to be laid soffit to soffit, unless shown otherwise.
7. Refer to house type working drawings for exact position of soil waste pipes.
8. Preformed private inspection chambers, size and type:–

Type	Dia	Depth to invert	Symbol FW	Symbol SW
A	225mm	450mm	●—●	○—○
B	225mm	600max	●—●	○—○
C	450mm	450 min–3000 max. (1000 to 3000 depth with 350ø reduced access cover)	●—●	○—○
D	PCC to BS8301	> 1000	■	□
F	Adoptable demarcation chamber		■	□

Refer to standard detail drawings for types A–D. Refer to Typical Sewer Detail drawing for Type F

9. House drainage to be bedded on granular material and backfilled with suitable 'as dug' material, as described on the Typical House Drainage Details drawing or as advised by the Engineer.
10. Pipe protection of house drainage runs is required in accordance with the Typical House Drainage Details drawing. The Contractor shall satisfy themselves and agree with the Site Management the actual extent of the pipe protection required.
11. Slotted concrete posts are to be used with concrete gravel boards.
12. Rainwater gutters and downpipes have been calculated and sized using 'OSMA' products fixed at a 1/600 fall. Terraced blocks using 'Superline', detached, semi's and garages using 'Roundline'.
13. Adoptable lay–bys shall be of similar construction to the main carriageway unless stated otherwise.
14. Sewer trench backfill to be in accordance with the Typical Sewer Detail dwg.
15. All private drives and hardstandings taking access across a footway require 1.5 X 1.5m visibility splays both sides & no planting or obstructions over 600mm in height.
16. Setting out of street lights (adoptable) shall be agreed with the Highway Inspector prior to erection.
17. Vision splays / forward visibility in soft landscaped areas to be demarked by continuous concrete edgings.
18. Position & invert levels of all existing sewers to be confirmed prior to construction & any discrepancies reported to the Engineer.
19. Refer to Pre–Construction Information Pack & Construction Phase Health & Safety Plan prior to the commencement of works.
20. All proposed signs and road markings shall be constructed in accordance with The Traffic Signs Regulations and General Directions (TSRGD) 2016.
21. Visibility splays / forward visibility are shown based on design speed of 30mph, a "y" distance of 43m as per the Manual for Streets.

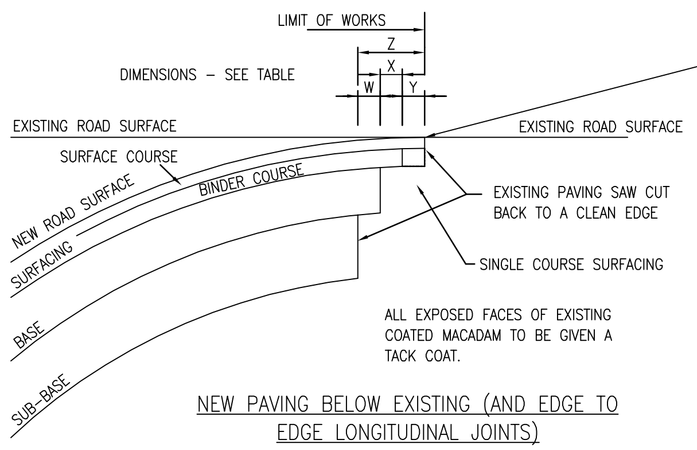


USE	W	X	Y	Z
TRANSVERSE JOINT	1000	1000	1000	3000
LONGITUDINAL JOINT	300	300	300	900

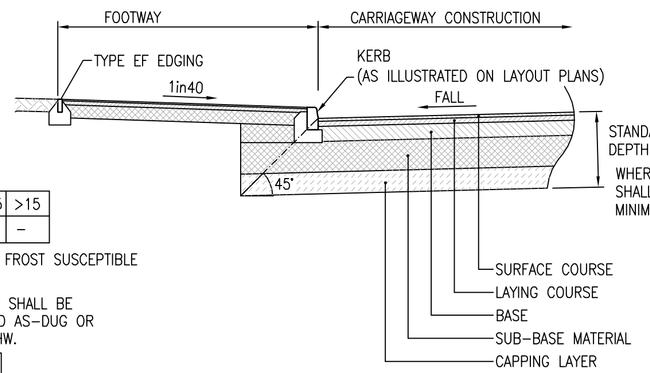
CORES TO BE TAKEN TO CONFIRM WIDTH OF TIE–IN. LOCATIONS AS AGREED WITH HCC

NEW PAVING ABOVE EXISTING

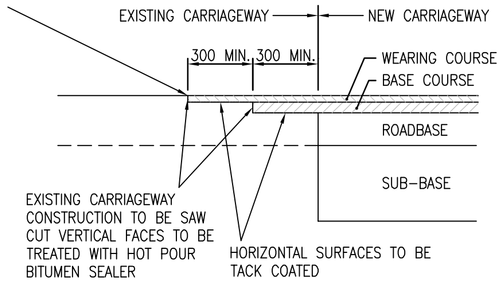
TYPICAL TIE–IN DETAIL
N.T.S



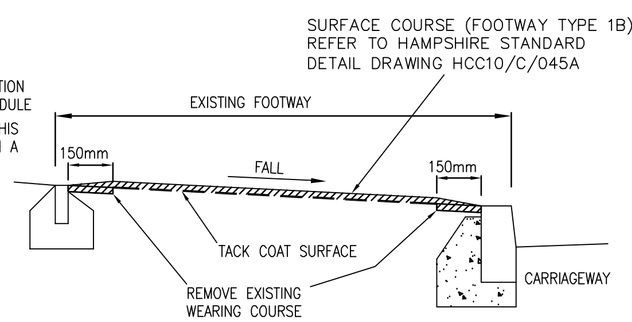
NEW PAVING BELOW EXISTING (AND EDGE TO EDGE LONGITUDINAL JOINTS)



NEW CARRIAGEWAY CONSTRUCTION
N.T.S



TYPICAL STEPPED CONSTRUCTION JOINT BETWEEN NEW & EXISTING CARRIAGEWAY



FOOTWAY OVERLAY CONSTRUCTION
N.T.S

PROPOSED ROAD MARKINGS SCHEDULE (SEE NOTE 20)					
REF.	DIAG. No.	LENGTH (mm)	GAP (mm)	WIDTH (mm)	DESCRIPTION
M1	1004	4000	2000	100	WARNING CENTRELINE
M2	1003A	600	300	200	DOUBLE GIVEWAY LINE
M3	1009A	600	300	100	EDGE OF CARRIAGEWAY AT ROAD JUNCTION
M4	1023A	3750	1250	–	GIVEWAY TRIANGLE
M5	1040	–	–	–	CHEVRON MARKINGS
M6	1025.1	–	–	–	BUS STOP MARKINGS

PROPOSED FULL DEPTH CARRIAGEWAY CONSTRUCTION (ALSO APPLIES FOR BELLMOUTHS TO RESIDENTIAL ROADS)						
LAYER	MATERIAL	THICKNESS	NOMINAL SIZE OF AGGREGATE	GRADE OF BINDER	COMMENTS	STANDARD "FULL" ROAD CONSTRUCTION DEPTH
SURFACE COURSE	CHIPPED HOT ROLLED ASPHALT: HRA 35/14 F 'SURF'	45mm	0/14mm	40/60 PEN BITUMEN	IN ACCORDANCE WITH S.H.W. CLAUSE 911 ** & TO BS EN 13108 PART 4 : PSV = 68+	
BINDER COURSE	ASPHALT CONCRETE: AC 20 HDM BIN	60mm	0/20mm	40/60 PEN BITUMEN	TO BS EN 13108 PART 1	
BASE	ASPHALT CONCRETE: AC 32 HDM BASE	170mm	0/32mm	40/60 PEN BITUMEN	TO BS EN 13108 PART 1	
SUB BASE	GRANULAR SUB BASE MATERIAL TYPE 1	225mm			IN ACCORDANCE WITH S.H.W. CLAUSE 891AR	
CAPPING	GRANULAR FILL MATERIAL TYPE 6F4/6F5	–			SEE TABLE BELOW	

CBR OF SUBGRADE (%)	<2	2–5	5–15	>15
CAPPING THICKNESS (mm)	600	350	250	–

MINIMUM TOTAL THICKNESS 450 IF SUB–GRADE IS FROST SUSCEPTIBLE

NOTE
WHERE ANY SOFT SPOTS ARE ENCOUNTERED THEY SHALL BE FULLY REMOVED AND BACKFILLED WITH COMPACTED AS–DUG OR IMPORTED MATERIAL TO THE REQUIREMENTS OF SHW.

CONFIRM CBR VALUES BY LOCAL INSITU TESTING (AS AGREED WITH THE HIGHWAY INSPECTOR)

PROPOSED SIGN SCHEDULE (SEE NOTE 20)								
REF.	DIAG. No.	NUMBER OF SIGNS	NUMBER OF POSTS	DESCRIPTION	SIZE (mm)	MOUNTING HEIGHT (m)	LOCATION	ILLUMINATION	COMMENT
RS1	510	1	–	GIVEWAY TRIANGLE	600 WIDE x 600 HIGH	2.100	TO BE FIXED TO EXISTING LAMP COLUMN	TOP MOUNTED LIGHTING (11 WATT)	
RS2	7014	3	–	PERMANENT CHANGE IN ROAD PRIORITY WORDS 'CHANGED PRIORITIES AHEAD'	–	2.100	TO BE FIXED TO EXISTING LAMP COLUMN EXACT LOCATION TO BE AGREED ON SITE		TEMPORARY SIGN USE RESTRICTED TO NOT MORE THAN 3 MONTHS
RS3	515	3	6	NEW CHEVRONS	1800 WIDE x 400 HIGH	1.500	TO BE FIXED NEW POSTS	RETRO REFLECTIVE MATERIAL TO BE USED	

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THE REGISTER FOR QUALIFIED CONTRACTORS

REVISIONS				
K	MINOR AMENDMENTS TO SUIT HCC COMMENTS	CL	BH	29.03.17
J	BUS SHELTER NOTE REVISED	CL	BH	29.03.17
H	MINOR AMENDMENTS TO SUIT HCC COMMENTS	CL	BH	27.03.17
G	SUBBASE THICKNESS INCREASED TO 225mm AS PER HCC COMMENTS	CL	BH	20.03.17
F	RESURFACING AT PRIESTLEY ROAD/HOSPITAL ACCESS ADDED	CL	BH	28.02.17
E	RESURFACING AT PRIESTLEY ROAD/HOSPITAL ACCESS ADDED	CL	BH	20.01.17
D	REVISED TO SUIT HCC COMMENTS	FP	BH	24.11.16
C	REVISED TO SUIT HCC COMMENTS	FP	BH	20.10.16
B	PROPOSED LEVELS AND ROAD SIGNS ADDED	DM	BH	29.09.16
A	UPDATED TO LOCAL AUTHORITY REQUIREMENTS	DM	BH	17.06.16
Rev	Description	Drn	Chk	Date

DRAWING STATUS			
Preliminary Issue		Submitted for S104	
Planning Issue		Issued for Tender	
Submitted for S38		Issued for Construction	
Submitted for S278		As Built	

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BOVIS HOMES

JOB TITLE
ALDERMASTON TRIANGLE
BASINGSTOKE

DRAWING TITLE
S278 OFFSITE HIGHWAY WORKS
PROPOSED LAYOUT AND DETAILS

DATE	DRAWN	CHECKED	ISSUE CHECKBOX
29.09.16	DJLM	BH	

DRAWING No.	REV	SCALE
5039.600	K	AS SHOWN @ A1

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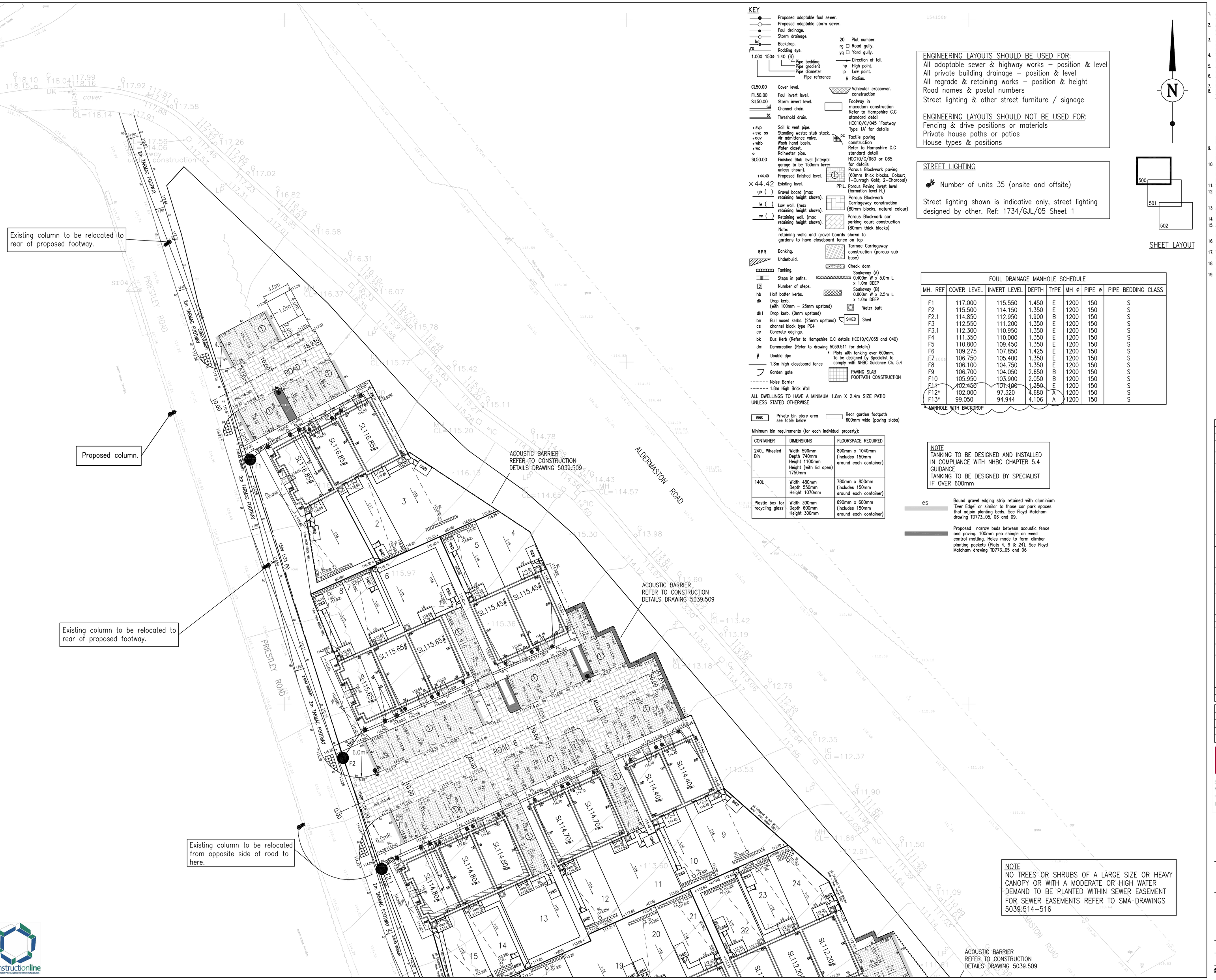

KEY

- Proposed adoptable foul sewer.
- Proposed adoptable storm sewer.
- Foul drainage.
- Storm drainage.
- bd Backdrop.
- re Rodding eye.
- 1.000 150ø 1:40 (S) — Pipe bedding; Pipe gradient; Pipe diameter; Pipe reference
- 20 Plot number.
- rg Road gully.
- yg Yard gully.
- Direction of fall.
- hp High point.
- lp Low point.
- R Radius.
- CL50.00 Cover level.
- FIL50.00 Foul invert level.
- SIL50.00 Storm invert level.
- cd Channel drain.
- td Threshold drain.
- svp Soil & vent pipe.
- sw; ss Standing waste; stub stack.
- aav Air admittance valve.
- whb Wash hand basin.
- wc Water closet.
- o Rainwater pipe.
- SL50.00 Finished Slab level (integral garage to be 150mm lower unless shown).
- +44.40 Proposed finished level.
- ×44.42 Existing level.
- gb ( ) Gravel board (max retaining height shown).
- lw ( ) Low wall. (max retaining height shown).
- rw ( ) Retaining wall. (max retaining height shown).
- Note: retaining walls and gravel boards shown to gardens to have closeboard fence on top
- Banking.
- Underbuild.
- Tanking.
- Steps in paths.
- [2] Number of steps.
- hb Half batter kerbs.
- dk Drop kerb. (with 100mm – 25mm upstand)
- dk1 Drop kerb. (0mm upstand)
- bn Bull nosed kerbs. (25mm upstand)
- cs channel block type PC4
- ce Concrete edgings.
- bk Bus Kerb (Refer to Hampshire C.C details HCC10/C/035 and 040)
- dm Demarcation (Refer to drawing 5039.511 for details)
- Double dpc
- 1.8m high closeboard fence
- Garden gate
- Noise Barrier
- 1.8m High Brick Wall
- Vehicular crossover. construction
- Footway in macadam construction Refer to Hampshire C.C standard detail HCC10/C/045 'Footway Type 1A' for details
- PC Tactile paving construction Refer to Hampshire C.C standard detail
- HCC10/C/060 or 065 for details
- ① Porous Blockwork paving (60mm thick blocks. Colour; 1–Curragh Gold; 2–Charcoal)
- PPIL Porous Paving invert level (formation level FL)
- Porous Blockwork Carriageway construction (80mm blocks, natural colour)
- Porous Blockwork car parking court construction (80mm thick blocks)
- Tarmac Carriageway construction (porous sub base)
- Check dam
- Soakaway (A) 0.400m W x 5.0m L x 1.0m DEEP
- Soakaway (B) 0.800m W x 2.5m L x 1.0m DEEP
- Water butt
- SHED Shed
- PAVING SLAB FOOTPATH CONSTRUCTION

ALL DWELLINGS TO HAVE A MINIMUM 1.8m X 2.4m SIZE PATIO UNLESS STATED OTHERWISE

BINS Private bin store area see table below

Rear garden footpath 600mm wide (paving slabs)

* Plots with tanking over 600mm. To be designed by Specialist to comply with NHBC Guidance Ch. 5.4

Minimum bin requirements (for each individual property):

CONTAINER	DIMENSIONS	FLOORSPACE REQUIRED
240L Wheeled Bin	Width 590mm Depth 740mm Height 1100mm Height (with lid open) 1750mm	890mm x 1040mm (includes 150mm around each container)
140L	Width 480mm Depth 550mm Height 1070mm	780mm x 850mm (includes 150mm around each container)
Plastic box for recycling glass	Width 390mm Depth 600mm Height 300mm	690mm x 600mm (includes 150mm around each container)

ENGINEERING LAYOUTS SHOULD BE USED FOR:
All adoptable sewer & highway works – position & level
All private building drainage – position & level
All regrade & retaining works – position & height
Road names & postal numbers
Street lighting & other street furniture / signage

ENGINEERING LAYOUTS SHOULD NOT BE USED FOR:
Fencing & drive positions or materials
Private house paths or patios
House types & positions

STREET LIGHTING

Number of units 35 (onsite and offsite)

Street lighting shown is indicative only, street lighting designed by other. Ref: 1734/GJL/05 Sheet 1

N

500
501
502

SHEET LAYOUT

FOUL DRAINAGE MANHOLE SCHEDULE

MH. REF	COVER LEVEL	INVERT LEVEL	DEPTH	TYPE	MH ø	PIPE ø	PIPE BEDDING CLASS
F1	117.000	115.550	1.450	E	1200	150	S
F2	115.500	114.150	1.350	E	1200	150	S
F2.1	114.850	112.950	1.900	B	1200	150	S
F3	112.550	111.200	1.350	E	1200	150	S
F3.1	112.300	110.950	1.350	E	1200	150	S
F4	111.350	110.000	1.350	E	1200	150	S
F5	110.800	109.450	1.350	E	1200	150	S
F6	109.275	107.850	1.425	E	1200	150	S
F7	106.750	105.400	1.350	E	1200	150	S
F8	106.100	104.750	1.350	E	1200	150	S
F9	106.700	104.050	2.650	B	1200	150	S
F10	105.950	103.900	2.050	B	1200	150	S
F11	102.450	101.100	1.350	E	1200	150	S
F12*	102.000	97.320	4.680	A	1200	150	S
F13*	99.050	94.944	4.106	A	1200	150	S

MANHOLE WITH BACKDROP

NOTE
TANKING TO BE DESIGNED AND INSTALLED IN COMPLIANCE WITH NHBC CHAPTER 5.4 GUIDANCE
TANKING TO BE DESIGNED BY SPECIALIST IF OVER 600mm

es Bound gravel edging strip retained with aluminium 'Ever Edge' or similar to those car park spaces that adjoin planting beds. See Floyd Matcham drawing TD773_05, 06 and 09.

Proposed narrow beds between acoustic fence and paving, 100mm pea shingle on weed control matting. Holes made to form climber planting pockets (Plots 4, 9 & 24). See Floyd Matcham drawing TD773_05 and 06

NOTE
NO TREES OR SHRUBS OF A LARGE SIZE OR HEAVY CANOPY OR WITH A MODERATE OR HIGH WATER DEMAND TO BE PLANTED WITHIN SEWER EASEMENT FOR SEWER EASEMENTS REFER TO SMA DRAWINGS 5039.514–516

NOTES

1. All adoptable highways and footpaths to be constructed in accordance with HCC specification
2. All adoptable drainage works to be constructed as detailed in the Water Authorities Association Publication 'Sewers For Adoption 6th Edition', or as stipulated in Thames Water Addendum.
3. All laterals from adopted sewers to first private chamber to be 150mmø minimum. All house drainage to be 100mm dia. unless shown otherwise, laid in accordance with BS 8301.
4. Where finished ground levels fall towards a building, an open gully is to be provided at the foot of all rainwater pipes.
5. All drain connections beneath the highway are to be surrounded with concrete where cover is less than 1.2m.
6. All drain and sewer pipes are to be laid soffit to soffit, unless shown otherwise.
7. Refer to house type working drawings for exact position of soil waste pipes.
8. Preformed private inspection chambers, size and type–

Type	Dia	Depth to invert	Symbol	FW	SW
A	225mm	450mm			
B	225mm	600max			
C	450mm	450 min–3000 max. (1000 to 3000 depth with 350ø reduced access cover)			
D	PCC to BS8301	> 1000		■	□
F	Adoptable demarcation chamber			■	□

Refer to standard detail drawings for types A–D. Refer to Typical Sewer Detail drawing for type F

9. House drainage to be bedded on granular material and backfilled with suitable 'as dug' material, as described on the Typical House Drainage Details drawing or as advised by the Engineer.
10. Pipe protection of house drainage runs is required in accordance with the Typical House Drainage Details drawing. The Contractor shall satisfy themselves and agree with the Site Management the actual extent of the pipe protection required.
11. Slotted concrete posts are to be used with concrete gravel boards.
12. Rainwater gutters and downpipes have been calculated and sized using 'OSMA' products fixed at a 1/600 fall. Terraced blocks using 'Superline', detached, semi's and garages using 'Roundline'.
13. Adoptable lay–bys shall be of similar construction to the main carriageway unless stated otherwise.
14. Sewer trench backfill to be in accordance with the Typical Sewer Detail dwg.
15. All private drives and hardstandings taking access across a footway require 1.5 X 1.5m visibility splays both sides & no planting or obstructions over 600mm in height.
16. Setting out of street lights (adoptable) shall be agreed with the Highway Inspector prior to erection.
17. Vision splays / forward visibility in soft landscaped areas to be demarked by continuous concrete edgings.
18. Position & invert levels of all existing sewers to be confirmed prior to construction & any discrepancies reported to the Engineer.
19. Refer to Pre–Construction Information Pack & Construction Phase Health & Safety Plan prior to the commencement of works.

Rev	Description	Drn	Chk	Date
	REVISIONS			
S	F12 UPDATED ON MANHOLE SCHEDULE	CL	BH	27.04.17
R	BLOCKWORK AT DEMARCATIONS AMENDED	CL	BH	24.04.17
Q	SHED AND GARDEN PATHS AMENDED	LC	BH	31.03.17
P	PRIVATE DRAINAGE REVISED. SHED AND GARDEN PATHS AMENDED.	LC	BH	29.03.17
N	PRIVATE DRAINAGE REVISED AS PER COMMENTS FROM PRE–START MEETING	BH	BH	20.02.17
M	PAVING HATCHING REVISED AS PER BOVIS COMMENTS. REAR GARDEN PATHS TO PLOTS 1 TO 3 AND 13 REVISED. REAR GARDEN PATH ADDED TO KEY. TANKING NOTE REVISED. DEMARCATIONS ADDED TO PRIVATE DRIVES.	DM	BH	26.01.17
L	PATHS TO SHEDS ADDED, HATCH TO FOOTPATHS ADDED, CS/DK KERBS ADDED TO EDGE OF PARKING AREAS/DRIVES, TANKING NOTE ADDED, STREET LIGHTING DESIGN UPDATED, REFERENCE TO ACOUSTIC BARRIER UPDATED, PARKING AREA ADJACENT TO PLOT 84 UPDATED, ADDITIONAL LEVELS TO JUNCTIONS WITH PRIESTLEY ROAD ADDED	DM	BH	20.01.17
K	SECTION 38 STREET LIGHTING DESIGN UPDATED	TA	BH	08.12.16
J	UPDATED SUBSTATION LAYOUT ADDED. NOISE BARRIER AND 1.8m HIGH BRICK WALLS ADDED AS PER FLOYD MATCHAM DRAWING TD773_01J	TA	BH	10.11.16
H	FOUL WATER SEWER ROUTE REVISED, PRIVATE DRAINAGE AND MANHOLE SCHEDULE UPDATED TO SUIT	DM	BH	27.10.16
G	NOTE REGARDING SEWER EASEMENTS ADDED	DM	BH	28.09.16
F	THICKNESS TO ROAD 6 AND 7 AND ADJACENT PARKING BAYS INCREASED. KEY UPDATED TO SHOW BLOCKWORK CAR PARKING COURT CONSTRUCTION	DM	BH	02.08.16
E	NOTE ADDED	CL	BH	12.07.16
D	BAY WIDTH AT PLOTS 23 & 24 UPDATED.	CL	BH	07.07.16
C	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV AC. GARDEN SHEDS AND WATER BUTTS ADDED	DM	BH	05.07.16
B	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV Z.	DM	BH	30.06.16
A	SITE LAYOUT, ROAD LAYOUT, LEVELS AND DRAINAGE REDESIGNED TO SUIT LATEST ARCHITECT DRAWING 1045.P1,100 (90 UNIT SCHEME) AND LATEST SURVEY DATED 31.05.16 AND TO THE REQUIREMENTS OF THE LOCAL AUTHORITY	DM	BH	17.06.16

DRAWING STATUS			
Preliminary Issue		Submitted for S104	
Planning Issue		Issued for Tender	
Submitted for S38		Issued for Construction	22.07.16
Submitted for S278		As Built	

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BOVIS HOMES

JOB TITLE
ALDERMASTON TRIANGLE
BASINGSTOKE

DRAWING TITLE
ENGINEERING LAYOUT
ONSITE WORKS
SHEET 1 OF 3

DATE	DRAWN	CHECKED	ISSUE CHECKBOX
FEBRUARY 17	DJLM	RMEH	

DRAWING No.	REV.	SCALE	
5039.500	S	1:250	@ A1

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NOTE
TANKING TO BE DESIGNED AND INSTALLED IN COMPLIANCE WITH NHBC CHAPTER 5.4 GUIDANCE
TANKING TO BE DESIGNED BY SPECIALIST IF OVER 600mm

ROAD MARKINGS SCHEDULE					
REF.	DIAG. No.	LENGTH (mm)	GAP (mm)	WIDTH (mm)	DESCRIPTION
M1	1004	4000	2000	100	WARNING CENTRELINE
M2	1003	600	300	200	DOUBLE GIVEWAY LINE
M3	1009	600	300	100	EDGE OF CARRIAGEWAY AT ROAD JUNCTION
M4	1023	3750	1250	–	GIVEWAY TRIANGLE
M5	1040	–	–	–	CHEVRON MARKINGS
M6	1025.1	–	–	–	BUS STOP MARKINGS
M7	1062	–	–	–	SOLID TRIANGLE RAMP MARKING

ENGINEERING LAYOUTS SHOULD BE USED FOR:
All adoptable sewer & highway works – position & level
All private building drainage – position & level
All regrade & retaining works – position & height
Road names & postal numbers
Street lighting & other street furniture / signage

ENGINEERING LAYOUTS SHOULD NOT BE USED FOR:
Fencing & drive positions or materials
Private house paths or patios
House types & positions

STREET LIGHTING
Number of units 35 (onsite and offsite)

Street lighting shown is indicative only, street lighting designed by other. Ref: 1734/GJL/05 Sheet 1

N

500
501
502
SHEET LAYOUT

KEY

- Proposed adoptable foul sewer.
- Proposed adoptable storm sewer.
- Foul drainage.
- Storm drainage.
- bd Backdrop.
- re Rodding eye.
- 1.000 150ø 1:40 (S) — Pipe bedding, Pipe gradient, Pipe diameter, Pipe reference
- 20 Plot number.
- rg Road gully.
- yg Yard gully.
- Direction of fall.
- hp High point.
- lp Low point.
- R Radius.
- CL50.00 Cover level.
- FIL50.00 Foul invert level.
- SIL50.00 Storm invert level.
- cd Channel drain.
- td Threshold drain.
- Vehicular crossover. construction
- Footway in macadam construction Refer to Hampshire C.C standard detail HCC10/C/045 'Footway Type 1A' for details
- pc Tactile paving construction Refer to Hampshire C.C standard detail HCC10/C/060 or 065 for details
- Porous Blockwork paving (60mm thick blocks. Colour: 1–Curragh Gold; 2–Charcoal)
- PPIL Porous Paving invert level (formation level FL)
- Porous Blockwork Carriageway construction (80mm blocks, natural colour)
- Porous Blockwork car parking court construction (80mm thick blocks)
- Tarmac Carriageway construction (porous sub base)
- Check dam
- Soakaway (A) 0.400m W x 5.0m L x 1.0m DEEP
- Soakaway (B) 0.800m W x 2.5m L x 1.0m DEEP
- Water butt
- SHED Shed
- • svp Soil & vent pipe.
- • sw; ss Standing waste; stub stack.
- • aav Air admittance valve.
- • whb Wash hand basin.
- • wc Water closet.
- o Rainwater pipe.
- SL50.00 Finished Slab level (integral garage to be 150mm lower unless shown).
- +44.40 Proposed finished level.
- ×44.42 Existing level.
- gb ( ) Gravel board (max retaining height shown).
- lw ( ) Low wall. (max retaining height shown).
- rw ( ) Retaining wall. (max retaining height shown).
- Note: retaining walls and gravel boards shown to gardens to have closeboard fence on top
- Banking.
- Underbuild.
- Tanking.
- Steps in paths.
- 2 Number of steps.
- hb Half batter kerbs.
- dk Drop kerb. (with 100mm – 25mm upstand)
- dk1 Drop kerb. (0mm upstand)
- bn Bull nosed kerbs. (25mm upstand)
- cs channel block type PC4
- ce Concrete edgings.
- bk Bus Kerb (Refer to Hampshire C.C details HCC10/C/035 and 040)
- dm Demarcation (Refer to drawing 5039.511 for details)
- # Double dpc
- 1.8m high closeboard fence
- Garden gate
- Noise Barrier
- 1.8m High Brick Wall
- * Plots with tanking over 600mm. To be designed by Specialist to comply with NHBC Guidance Ch. 5.4
- PAVING SLAB FOOTPATH CONSTRUCTION

ALL DWELLINGS TO HAVE A MINIMUM 1.8m X 2.4m SIZE PATIO UNLESS STATED OTHERWISE

- Rear garden footpath 600mm wide (paving slabs)
- es Bound gravel edging strip retained with aluminium 'Ever Edge' or similar to those car park spaces that adjoin planting beds. See Floyd Matcham drawing TD773_05, 06 and 09.
- Proposed narrow beds between acoustic fence and paving, 100mm pea shingle on weed control matting. Holes made to form climber planting pockets (Plots 4, 9 & 24). See Floyd Matcham drawing TD773_05 and 06

NOTES

1. All adoptable highways and footpaths to be constructed in accordance with HCC specification
2. All adoptable drainage works to be constructed as detailed in the Water Authorities Association Publication 'Sewers For Adoption 6th Edition', or as stipulated in Thames Water Addendum.
3. All laterals from adopted sewers to first private chamber to be 150mmø minimum. All house drainage to be 100mm dia. unless shown otherwise, laid in accordance with BS 8301.
4. Where finished ground levels fall towards a building, an open gully is to be provided at the foot of all rainwater pipes.
5. All drain connections beneath the highway are to be surrounded with concrete where cover is less than 1.2m.
6. All drain and sewer pipes are to be laid soffit to soffit, unless shown otherwise.
7. Refer to house type working drawings for exact position of soil waste pipes.
8. Preformed private inspection chambers, size and type–

Type	Dia	Depth to invert	Symbol FW	Symbol SW
A	225mm	450mm	●	○
B	225mm	600max	●	○
C	450mm	450 min–3000 max. (1000 to 3000 depth with 350ø reduced access cover)	●	○
D	PCC to BS8301	> 1000	■	□
F	Adoptable demarcation chamber		■	□

Refer to standard detail drawings for types A–D. Refer to Typical Sewer Detail drawing for Type F

9. House drainage to be bedded on granular material and backfilled with suitable 'as dug' material, as described on the Typical House Drainage Details drawing or as advised by the Engineer.
10. Pipe protection of house drainage runs is required in accordance with the Typical House Drainage Details drawing. The Contractor shall satisfy themselves and agree with the Site Management the actual extent of the pipe protection required.
11. Slotted concrete posts are to be used with concrete gravel boards.
12. Rainwater gutters and downpipes have been calculated and sized using 'OSMA' products fixed at a 1/600 fall. Terraced blocks using 'Superline', detached, semi's and garages using 'Roundline'.
13. Adoptable lay–bys shall be of similar construction to the main carriageway unless stated otherwise.
14. Sewer trench backfill to be in accordance with the Typical Sewer Detail dwg.
15. All private drives and hardstandings taking access across a footway require 1.5 X 1.5m visibility splays both sides & no planting or obstructions over 600mm in height.
16. Setting out of street lights (adoptable) shall be agreed with the Highway Inspector prior to erection.
17. Vision splays / forward visibility in soft landscaped areas to be demarked by continuous concrete edgings.
18. Position & invert levels of all existing sewers to be confirmed prior to construction & any discrepancies reported to the Engineer.
19. Refer to Pre–Construction Information Pack & Construction Phase Health & Safety Plan prior to the commencement of works.

BINS Private bin store area see table below

Minimum bin requirements (for each individual property):

CONTAINER	DIMENSIONS	FLOORSPACE REQUIRED
240L Wheeled Bin	Width 590mm Depth 740mm Height 1100mm Height (with lid open) 1750mm	890mm x 1040mm (includes 150mm around each container)
140L	Width 480mm Depth 550mm Height 1070mm	780mm x 850mm (includes 150mm around each container)
Plastic box for recycling glass	Width 390mm Depth 600mm Height 300mm	690mm x 600mm (includes 150mm around each container)

Rev	Description	Drn	Chk	Date
T	BLOCKWORK AT DEMARCATIONS AMENDED	CL	BH	24.04.17
S	GARDEN PATHS AND SHEDS AMENDED	LC	BH	31.03.17
R	PRIVATE DRAINAGE REVISED. SHED AND GARDEN PATHS AMENDED.	LC	BH	29.03.17
Q	PRIVATE DRAINAGE REVISED AS PER COMMENTS FROM PRE–START MEETING	BH	BH	20.02.17
P	PAVING HATCHING REVISED AS PER BOVIS COMMENTS. REAR GARDEN PATH ADDED TO KEY. TANKING NOTE UPDATED. DEMARCATIONS ADDED TO PRIVATE DRIVES. EDGING TO PARKING COURTS REVISED.	DM	BH	26.01.17
N	PATHS TO SHEDS ADDED, HATCH TO FOOTPATHS ADDED, CS/DK KERBS ADDED TO EDGE OF PARKING AREAS/DRIVES. TANKING NOTE ADDED, STREET LIGHTING DESIGN UPDATED, REFERENCE TO ACOUSTIC BARRIER UPDATED, PARKING AREA ADJACENT TO PLOT 84 UPDATED. ADDITIONAL LEVELS TO JUNCTIONS WITH PRIESTLEY ROAD ADDED	DM	BH	20.01.17
M	SECTION 38 STREET LIGHTING DESIGN ADDED	TA	BH	09.12.16
L	NOISE BARRIER AND 1.8m HIGH BRICK WALLS ADDED AS PER FLOYD MATCHAM DRAWING TD773_012	TA	BH	10.11.16
K	FOUL WATER SEWER ROUTE REVISED, PRIVATE DRAINAGE UPDATED TO SUIT	DM	BH	27.10.16
J	RAISED TABLE ADDED TO JINCTION BETWEEN ROAD 1 AND ROAD 5, LEVELS, ROAD MARKINGS AND KERBS UPDATED TO SUIT, NOTE REGARDING SEWER EASEMENTS ADDED, PARKING BAY GENERAL ARRANGEMENT FOR PLOTS 49–54 AND 77–80 UPDATED TO COMPLY WITH LIFETIME HOMES	DM	BH	28.09.16
H	SURFACE WATER DRAINAGE AND REAR GARDEN EXTERNAL WORKS REVISED, KEY UPDATED TO SHOW BLOCKWORK CAR PARKING COURT CONSTRUCTION	DM	BH	02.08.16
G	NOTE AND CLOUD ADDED	CL	BH	29.07.16
F	NOTE ADDED	CL	BH	12.07.16
E	RAMP TO THE EAST OF PUBLIC OPEN SPACE ADDED	CL	BH	08.07.16
D	BAYS AT PLOTS 23 & 24 UPDATED. BELLMOUTH TO ROAD 4 SHOWN.	CL	BH	07.07.16
C	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV AC. GARDEN SHEDS AND WATER BUTTS ADDED	DM	BH	05.07.16
B	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV Z.	DM	BH	30.06.16

REVISIONS

Preliminary Issue		Submitted for S104	
Planning Issue		Issued for Tender	
Submitted for S38		Issued for Construction	29.07.16
Submitted for S278		As Built	

DRAWING STATUS

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BOVIS HOMES

JOB TITLE
ALDERMASTON TRIANGLE
BASINGSTOKE

DRAWING TITLE
ENGINEERING LAYOUT
ONSITE WORKS
SHEET 2 OF 3

DATE	DRAWN	CHECKED	ISSUE CHECKBOX
FEBRUARY 17	DJLM	RMEH	

DRAWING No. 5039.501 REV T SCALE 1:250 @ A1

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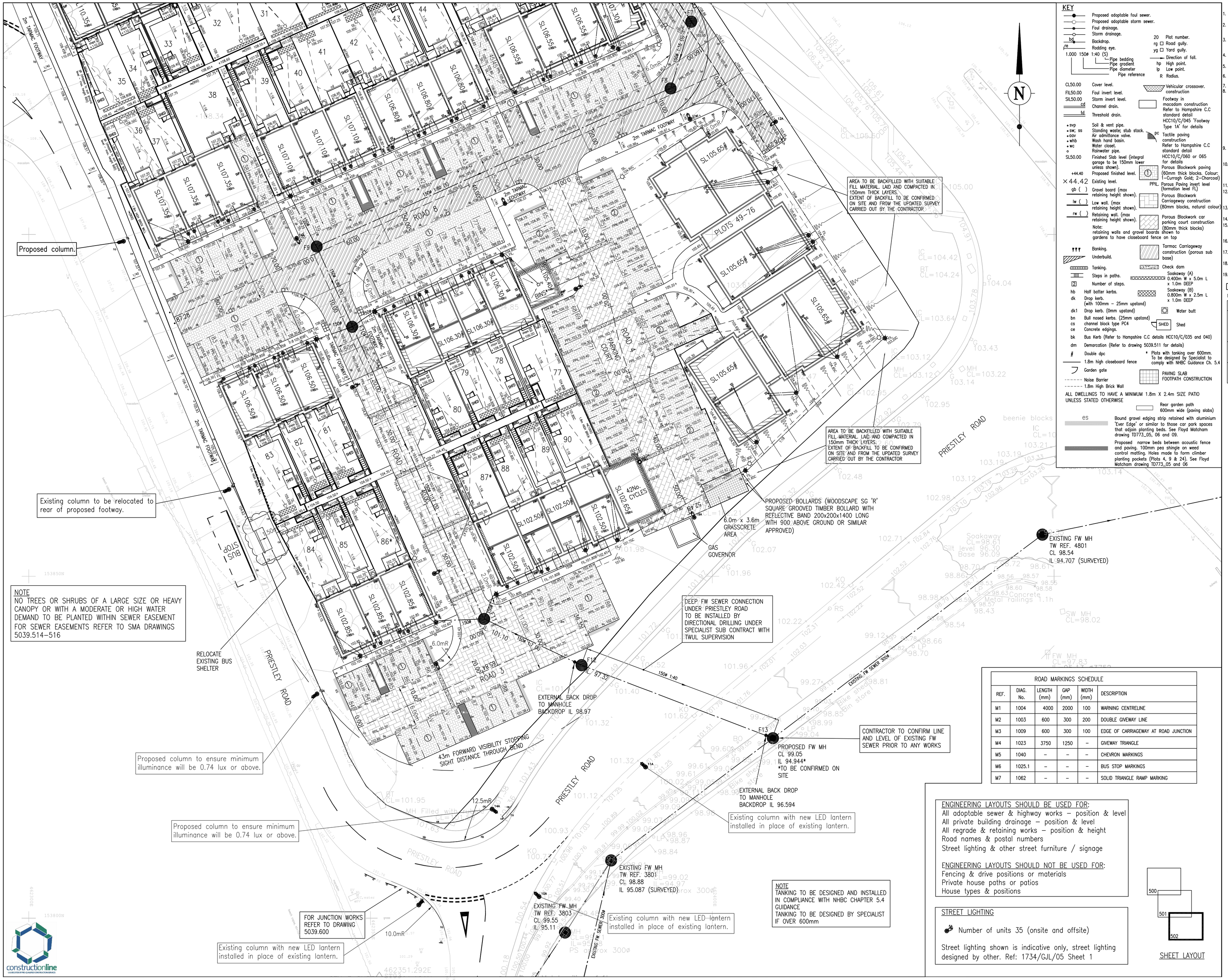

KEY

- Proposed adoptable foul sewer.
- Proposed adoptable storm sewer.
- Foul drainage.
- Storm drainage.
- bd Backdrop.
- re Rodding eye.
- 1.000 150ø 1:40 (S) Pipe bedding, Pipe gradient, Pipe diameter, Pipe reference
- 20 Plot number.
- rg □ Road gully.
- yg □ Yard gully.
- Direction of fall.
- hp High point.
- lp Low point.
- R Radius.
- CL50.00 Cover level.
- FIL50.00 Foul invert level.
- SIL50.00 Storm invert level.
- cd Channel drain.
- td Threshold drain.
- svp Soil & vent pipe.
- sw; ss Standing waste; stub stack.
- adv Air admittance valve.
- whb Wash hand basin.
- wc Water closet.
- o Rainwater pipe.
- SL50.00 Finished Slab level (integral garage to be 150mm lower unless shown).
- +44.40 Proposed finished level.
- ×44.42 Existing level.
- gb ( ) Gravel board (max retaining height shown).
- lw ( ) Low wall. (max retaining height shown).
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- Note: retaining walls and gravel boards shown to gardens to have closeboard fence on top
- Banking.
- Underbuild.
- Tanking.
- Steps in paths.
- [2] Number of steps.
- hb Half batter kerbs.
- dk Drop kerb. (with 100mm – 25mm upstand)
- dk1 Drop kerb. (0mm upstand)
- bn Bull nosed kerbs. (25mm upstand)
- cs channel block type PC4
- ce Concrete edgings.
- bk Bus Kerb (Refer to Hampshire C.C details HCC10/C/035 and 040)
- dm Demarcation (Refer to drawing 5039.511 for details)
- # Double dpc
- 1.8m high closeboard fence
- Garden gate
- Noise Barrier
- 1.8m High Brick Wall
- Vehicular crossover. construction
- Footway in macadam construction Refer to Hampshire C.C standard detail HCC10/C/045 'Footway Type 1A' for details
- PC Tactile paving construction Refer to Hampshire C.C standard detail HCC10/C/060 or 065 for details
- ① PPIL Porous Blockwork paving (60mm thick blocks. Colour: 1–Curragh Gold; 2–Charcoal) Porous Paving invert level (formation level FL)
- Porous Blockwork Carriageway construction (80mm blocks, natural colour)
- Porous Blockwork car parking court construction (80mm thick blocks)
- Tarmac Carriageway construction (porous sub base)
- Check dam
- Soakaway (A) 0.400m W x 5.0m L x 1.0m DEEP
- Soakaway (B) 0.800m W x 2.5m L x 1.0m DEEP
- Water butt
- SHED Shed
- * Plots with tanking over 600mm. To be designed by Specialist to comply with NHBC Guidance Ch. 5.4
- PAVING SLAB FOOTPATH CONSTRUCTION
- Rear garden path 600mm wide (paving slabs)
- es Bound gravel edging strip retained with aluminium 'Ever Edge' or similar to those car park spaces that adjoin planting beds. See Floyd Matcham drawing TD773_05, 06 and 09.
- Proposed narrow beds between acoustic fence and paving. 100mm pea shingle on weed control matting. Holes made to form climber planting pockets (Plots 4, 9 & 24). See Floyd Matcham drawing TD773_05 and 06

ALL DWELLINGS TO HAVE A MINIMUM 1.8m X 2.4m SIZE PATIO UNLESS STATED OTHERWISE

BINS Private bin store area see table below

Minimum bin requirements (for each individual property):

CONTAINER	DIMENSIONS	FLOORSPACE REQUIRED
240L Wheeled Bin	Width 590mm Depth 740mm Height 1100mm Height (with lid open) 1750mm	890mm x 1040mm (includes 150mm around each container)
140L	Width 480mm Depth 550mm Height 1070mm	780mm x 850mm (includes 150mm around each container)
Plastic box for recycling glass	Width 390mm Depth 600mm Height 300mm	690mm x 600mm (includes 150mm around each container)

NOTES

1. All adoptable highways and footpaths to be constructed in accordance with HCC specification
2. All adoptable drainage works to be constructed as detailed in the Water Authorities Association Publication 'Sewers For Adoption 6th Edition', or as stipulated in Thames Water Addendum.
3. All laterals from adopted sewers to first private chamber to be 150mmø minimum. All house drainage to be 100mm dia. unless shown otherwise, laid in accordance with BS 8301.
4. Where finished ground levels fall towards a building, an open gully is to be provided at the foot of all rainwater pipes.
5. All drain connections beneath the highway are to be surrounded with concrete where cover is less than 1.2m.
6. All drain and sewer pipes are to be laid soffit to soffit, unless shown otherwise.
7. Refer to house type working drawings for exact position of soil waste pipes.
8. Preformed private inspection chambers, size and type–

Type	Depth to invert	Symbol	FW	SW
A	225mm – 450mm		○	○
B	225mm – 600max		○	○
C	450mm 450 min–3000 max. (1000 to 3000 depth with 350ø reduced access cover)		○	○
D	PCC to BS8301 > 1000		■	□
F	Adoptable demarcation chamber		■	

Refer to standard detail drawings for types A–D. Refer to Typical Sewer Detail drawing for Type F

9. House drainage to be bedded on granular material and backfilled with suitable 'as dug' material, as described on the Typical House Drainage Details drawing or as advised by the Engineer.
10. Pipe protection of house drainage runs is required in accordance with the Typical House Drainage Details drawing. The Contractor shall satisfy themselves and agree with the Site Management the actual extent of the pipe protection required.
11. Slotted concrete posts are to be used with concrete gravel boards.
12. Rainwater gutters and downpipes have been calculated and sized using 'OSMA' products fixed at a 1/600 fall. Terraced blocks using 'Superline', detached, semi's and garages using 'Roundline'.
13. Adoptable bay–bays shall be of similar construction to the main carriageway unless stated otherwise.
14. Sewer trench backfill to be in accordance with the Typical Sewer Detail dwg.
15. All private drives and hardstandings taking access across a footway require 1.5 X 1.5m visibility splays both sides & no planting or obstructions over 600mm in height.
16. Setting out of street lights (adoptable) shall be agreed with the Highway Inspector prior to erection.
17. Vision splays / forward visibility in soft landscaped areas to be demarked by continuous concrete edgings.
18. Position & invert levels of all existing sewers to be confirmed prior to construction & any discrepancies reported to the Engineer.
19. Refer to Pre–Construction Information Pack & Construction Phase Health & Safety Plan prior to the commencement of works.

ROAD MARKINGS SCHEDULE

REF.	DIAG. No.	LENGTH (mm)	GAP (mm)	WIDTH (mm)	DESCRIPTION
M1	1004	4000	2000	100	WARNING CENTRELINE
M2	1003	600	300	200	DOUBLE GIVEWAY LINE
M3	1009	600	300	100	EDGE OF CARRIAGEWAY AT ROAD JUNCTION
M4	1023	3750	1250	–	GIVEWAY TRIANGLE
M5	1040	–	–	–	CHEVRON MARKINGS
M6	1025.1	–	–	–	BUS STOP MARKINGS
M7	1062	–	–	–	SOLID TRIANGLE RAMP MARKING

ENGINEERING LAYOUTS SHOULD BE USED FOR:
All adoptable sewer & highway works – position & level
All private building drainage – position & level
All regrade & retaining works – position & height
Road names & postal numbers
Street lighting & other street furniture / signage

ENGINEERING LAYOUTS SHOULD NOT BE USED FOR:
Fencing & drive positions or materials
Private house paths or patios
House types & positions

STREET LIGHTING

Number of units 35 (onsite and offsite)

Street lighting shown is indicative only, street lighting designed by other. Ref: 1734/GJL/05 Sheet 1

Rev	Description	Drn	Chk	Date
	REVISIONS			
T	MAINTENANCE STRIP AROUND BUS STOP ADDED AS PER HCC REQUEST	CL	BH	02.05.17
S	F12 RELOCATED AS PER BOVIS REQUEST	CL	BH	27.04.17
R	APARTMENT SUBSTRUCTURE REVISED AS PER FINC DETAILS	CL	BH	13.04.17
Q	PRIVATE DRAINAGE REVISED, SHED AND GARDEN PATHS AMENDED. F10 & F11 REVISED. BAYS: 68–73 LAYOUT REVISED. PATIO DOORS OF PLOTS 84–86 AMENDED	LC	BH	31.03.17
P	PRIVATE DRAINAGE REVISED AS PER COMMENTS FROM PRE–START MEETING	BH	BH	20.02.17
N	PAVING HATCHING UPDATED AS PER BOVIS COMMENTS. REAR GARDEN PATH ADDED TO KEY. TANKING NOTE UPDATED. DEMARCATIONS ADDED TO PRIVATE DRIVES. EDGING TO PARKING COURTS REVISED. LIGHTING ADDED TO CYCLE STORE STRUCTURE	DM	BH	26.01.17
M	PATHS TO SHEDS ADDED, HATCH TO FOOTPATHS ADDED, CS/DK KERBS ADDED TO EDGE OF PARKING AREAS/DRIVES, TANKING NOTE ADDED, STREET LIGHTING DESIGN UPDATED, REFERENCE TO ACOUSTIC BARRIER UPDATED, PARKING AREA ADJACENT TO PLOT 84 UPDATED. ADDITIONAL LEVELS TO JUNCTIONS WITH PRIESTLEY ROAD ADDED	DM	BH	20.01.17
L	GAS GOVERNOR AND GRASS CRETE LAYOUT REVISED. PRIVATE DRAINAGE AND PARKING AREAS AMENDED TO SUIT. SECTION 38 STREET LIGHTING DESIGN UPDATED.	TA	BH	09.12.16
K	NOISE BARRIER AND 1.8m HIGH BRICK WALLS ADDED AS PER FLOYD MATCHAM DRAWING TD773_01J	TA	BH	10.11.16
J	GAS GOVERNER AND ASSOCIATED TURNING AREA ADDED	DM	BH	27.10.16
H	BAYS 54 AND 55 AND ADJACENT FOOTPATH LAYOUT REVISED TO CATER FOR FIRE HOSE TRACK	DM	BH	30.09.16
G	LEVELS TO ROAD 4 UPDATED, NOTE REGARDING SEWER EASEMENT ADDED PARKING BAY GENERAL ARRANGEMENT TO PLOTS 49–54, 77–80 AND 87–90 UPDATED TO COMPLY WITH LIFETIME HOMES	DM	BH	28.09.16
F	SURFACE WATER DRAINAGE AND REAR GARDEN EXTERNAL WORKS REVISED. KEY UPDATED TO SHOW BLOCKWORK CAR PARKING COURT CONSTRUCTION	DM	BH	02.08.16
E	NOTE AND CLOUD ADDED	CL	BH	29.07.16
D	FOOTPATH OMITTED ADJACENT PLOT 36 AND 84. NOTE ADDED	CL	BH	12.07.16
C	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV AC. GARDEN SHEDS AND WATER BUTTS ADDED	DM	BH	05.07.16
B	SITE LAYOUT UPDATED TO ARCHITECT LAYOUT REV Z.	DM	BH	30.06.16

Preliminary Issue		Submitted for S104	
Planning Issue		Issued for Tender	
Submitted for S38		Issued for Construction	22.07.16
Submitted for S278		As Built	

DRAWING STATUS

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BOVIS HOMES

JOB TITLE
ALDERMASTON TRIANGLE
BASINGSTOKE

DRAWING TITLE
ENGINEERING LAYOUT
ONSITE WORKS
SHEET 3 OF 3

500 / 501 / 502
SHEET LAYOUT

DATE	DRAWN	CHECKED	ISSUE CHECKBOX
FEBRUARY 17	DJLM	RMEH	

DRAWING No. 5039.502 REV T SCALE 1:250 @ A1

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