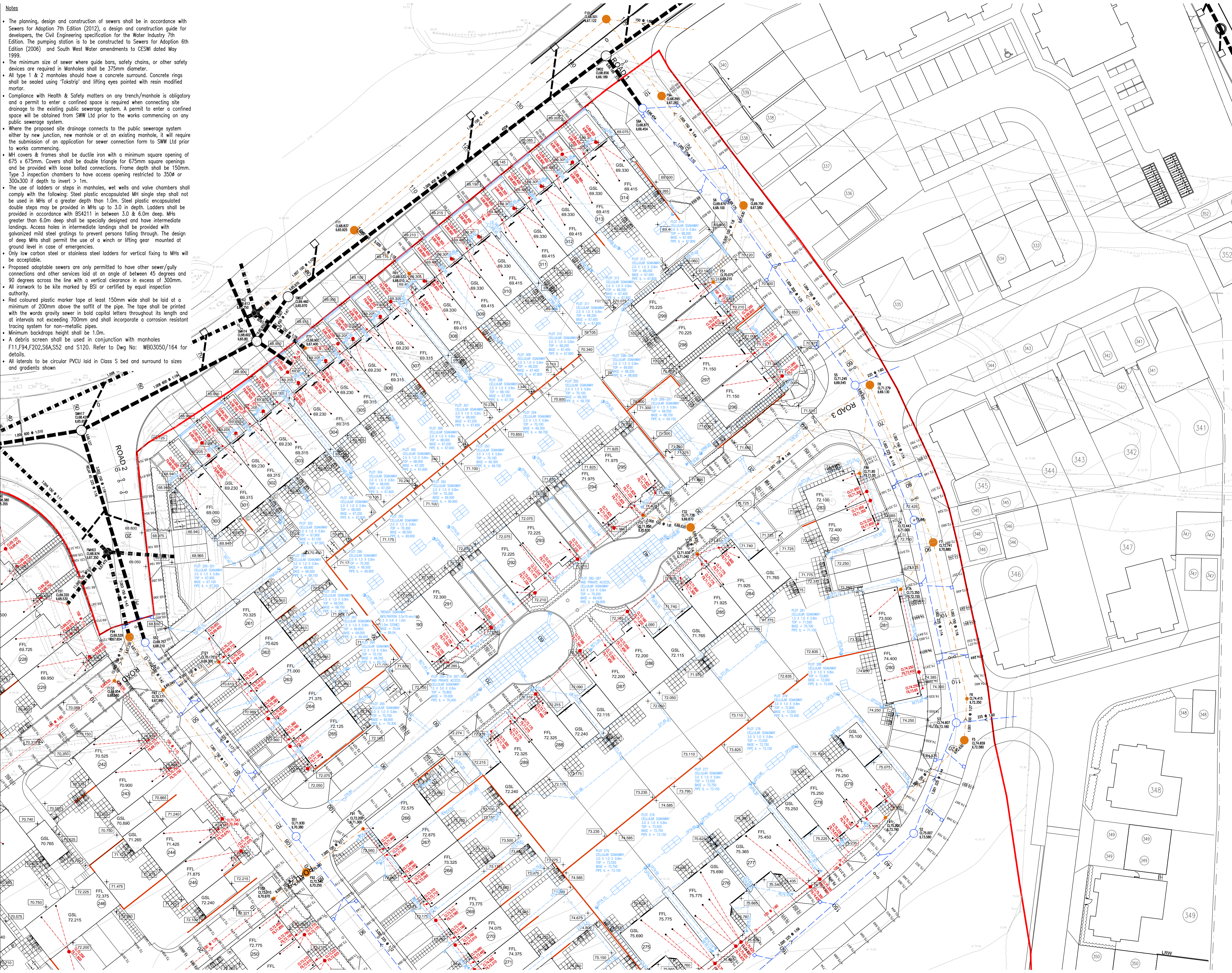


Notes

- The planning, design and construction of sewers shall be in accordance with Sewers for Adoption 7th Edition (2012), a design and construction guide for developers, the Civil Engineering specification for the Water Industry 7th Edition. The pumping station is to be constructed to Sewers for Adoption 6th Edition (2006) and South West Water amendments to CESWI dated May 1999.
- The minimum size of sewer where guide bars, safety chains, or other safety devices are required is Manholes shall be 375mm diameter.
- All type 1 & 2 manholes should have a concrete surround. Concrete rings shall be sealed using 'Tokstrip' and lifting eyes pointed with resin modified mortar.
- Compliance with Health & Safety matters on any trench/manhole is obligatory and a permit to enter a confined space is required when connecting site drainage to the existing public sewerage system. A permit to enter a confined space will be obtained from SWW Ltd prior to the works commencing on any public sewerage system.
- Where the proposed site drainage connects to the public sewerage system either by new junction, new manhole or at an existing manhole, it will require the submission of an application for sewer connection form to SWW Ltd prior to works commencing.
- MH covers & frames shall be ductile iron with a minimum square opening of 675 x 675mm. Covers shall be double triangle for 675mm square openings and be provided with loose bolted connections. Frame depth shall be 150mm. Type 3 inspection chambers to have access opening restricted to 350x or 300x300 if depth to invert > 1m.
- The use of ladders or steps in manholes, wet wells and valve chambers shall comply with the following: Steel plastic encapsulated MH single step shall not be used in MHs of a greater depth than 1.0m. Steel plastic encapsulated double steps may be provided in MHs up to 3.0 in depth. Ladders shall be provided in accordance with BS4211 in between 3.0 & 6.0m deep. MHs greater than 6.0m deep shall be specially designed and have intermediate landings. Access holes in intermediate landings shall be provided with galvanized mild steel gratings to prevent persons falling through. The design of deep MHs shall permit the use of a winch or lifting gear mounted at ground level in case of emergencies.
- Only low carbon steel or stainless steel ladders for vertical fixing to MHs will be acceptable.
- Proposed adoptable sewers are only permitted to have other sewer/gully connections and other services laid at an angle of between 45 degrees and 90 degrees across the line with a vertical clearance in excess of 300mm.
- All ironwork to be kitemarked by BSI or certified by exact inspection authority.
- Red coloured plastic marker tape at least 150mm wide shall be laid at a minimum of 200mm above the soffit of the pipe. The tape shall be printed with the words 'GRAVITY SEWER' in bold capital letters throughout its length and at intervals not exceeding 700mm and shall incorporate a corrosion resistant tracing system for non-metallic pipes.
- Minimum backdrops height shall be 1.0m.
- A debris screen shall be used in conjunction with manholes F11,F94,F202,56A,552 and S120. Refer to Dwg No: WBO3050/164 for details.
- All laterals to be circular PVCU laid in Class S bed and surround to sizes and gradients shown



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are not considered significant.
Relevant data is included in the Pre-Construction Information Pack
Signed: _____ Date: _____

DO NOT SCALE THIS DRAWING
CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

KEY

- ADOPTABLE HIGHWAY WATER SEWER AND MANHOLE
- ADOPTABLE FOUL WATER SEWER AND MANHOLE
- EXISTING FOUL SEWER
- EXISTING STORM SEWER
- FOUL OFF LINE STORAGE
- PRIVATE POLYSTORM CELLULAR SOAKAWAY
- RETAINING WALL
- PRIVATE SW RODDING EYE
- PRIVATE SW ACCESS CHAMBER
- PRIVATE SW CATCHPIT
- PRIVATE SW GULLY
- PRIVATE FW ACCESS CHAMBER
- FW SPUR ACCESS
- SPOT LEVEL

NOTE
SOAKAWAY SIZES ADDED TO DRAWING USING CURRENT INFILTRATION TEST INFORMATION AVAILABLE. FURTHER INFILTRATION TESTING MUST BE UNDERTAKEN IN ACCORDANCE WITH BRE 365 AT DESIGN DEPTHS SHOWN TO SUIT VARIABILITY OF EXCAVATED GROUND WITH MIN TESTING TO BE AGREED WITH THE ENGINEER



K	Laterals note added to suit SWW requirements	NC	17.11.14
J	Gullies near Road 1 - CH10 re-positioned to connect to storm sewer 56A. SW adoptions amended.	MLS NC	08.10.14
H	New storm (56A) and foul (F94) manholes added according to on-site changes.	MLS NC	08.09.14
-	For previous revisions, refer to dwg series.	MLS	08.09.14
Rev	Detail	By	CHK Date

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Client: **LINDEN HOMES**
Project: **EASTERN BOWL WHITE ROCK RESIDENTIAL DEVELOPMENT TORBAY**

Drawing Title: **PHASE 1 ENGINEERING LAYOUT SHEET 1 OF 3**

FOR APPROVAL			
Project No:	Discipline:	Drawing No:	
WBO3050	C	110	
Scale:	Date:	Revision:	
1:250	OCT 13		
Drawn:	Checked:	Sheet Size:	
MRD	JP	A1	K