

EXTERNAL WORKS KEY

32.50

RET = RET = RET

31.60

900mm

URL = URL = URL

450mm

FOE = FOE = FOE

ACC = ACC = ACC

ACC = ACC = ACC

ACC = ACC = ACC

FGB = FGB = FGB

32.60

1.5%

5.00

1:1

DENOTES RETAINING STRUCTURE AS CLIENTS STANDARD DETAILS RETAINED HEIGHTS ARE FOR RETAINED DEPTH ONLY AND DO NOT ALLOW FOR HANDRAIL OR PARAPET WALL. HANDRAILS/RAILINGS/STRUTS AS CLIENT DETAILS TO COMPLY WITH APPROVED DOCUMENT

DENOTES DEPTH OF FACING BRICKWORK IN ADDITION TO STANDARD 150mm between FFL/DPC and FLAG LEVEL

DENOTES LOCATION OF FLAG ON EDGE MAX. RETAINED HEIGHT 450mm

CLASS A LINEAR DRAINAGE CHANNEL

CLASS B LINEAR DRAINAGE CHANNEL

CLASS C LINEAR DRAINAGE CHANNEL

DENOTES LOCATION OF FENCE & GRAVEL BOARD MAX. RETAINED HEIGHT 550mm

DENOTES FINISHED GROUND / SURFACE LEVEL

DENOTES PROPOSED GRADIENTS

ACCESS RAMP TO COMPLY WITH APPROVED DOCUMENT PART 11 SECTION 6.14 1:1 IN 15 MAX. GRADIENT OVER A MAXIMUM DISTANCE OF 10m 1:1 IN 12 MAX. GRADIENT OVER A MAXIMUM DISTANCE OF 5m

DENOTES SITE BOUNDARY LEVEL FROM TOPO. SURVEY

DENOTES BATTER SLOPES

ACCESS RAMP TO BE FORMED BUT TURNED TO SHAPE USING DRIVEWAY SURFACING MATERIAL

DENOTES EXTERNAL STEPS (AS PER APPROVED DOCUMENT M SECTION 1.8) 150mm MAX RISE 300mm MIN. GOING WITH HANDRAILS FOR 3 OR MORE STEPS OR WHERE MORE THAN 600mm HIGH BRICKWORK OR CAPPING TO SIDES OF STEPS FOR 2 OR MORE STEPS (INDICATED BY * ON DRAWINGS)

YARD GULLY TO CONNECT TO PRIVATE SEW SYSTEM

DOUBLE DAMP PROOF COURSE

DENOTES DEPTH OF FACING BRICKWORK IN ADDITION TO STANDARD 150mm BETWEEN FFL/DPC AND FLAG LEVEL

—ACO—ACO—ACO— CLASS A LINEAR DRAINAGE CHANNEL

CHANNEL

DENOTES LOCATION OF FENCE &

1-35
DENOTES PROPOSED
GRADIENTS

MAXIMUM DISTANCE OF 10m 1 in 12
max. GRADIENT OVER A MAXIMUM
DISTANCE OF 5m

ACCESS RAMP AS ABOVE BUT FORMED
TO SHAPE USING DRIVEWAY SURFACING

150mm MAX RISE
300mm MIN. GOING
WITH HANDRAILS FOR 3 OR MORE STEPS OR

SW SYSTEM
DOUBLE DAMP PROOF COURSE

RETAINING FEATURES AND STRUCTURES
SHOWN ON THESE DETAILS ARE

IT IS INCUMBENT UPON THE CLIENT TO
ENSURE THAT THEY CONSULT WITH THEIR
STRUCTURAL ENGINEERS FOR THEM TO

GUIDELINES AND COP'S

RELATION TO THE DESIGN LEVELS, THE PROPOSED FLOOR LEVELS SHOWN MUST BE CHECKED ON SITE BY THE SITE AGENT OR ENGINEER IN RELATION TO A

FOUNDATIONS TO BE DESIGNED / CONSTRUCTED TO TAKE INTO ACCOUNT THE PROXIMITY AND DEPTH OF

CONTRACTOR/CLIENT SHOULD NOTE THE
EXISTENCE OF EXISTING BURIED PLANT AND OR
OVERHEAD POWER CABLE(S) BEFORE WORK

HOUSE AND POWER SUPPLIERS GUIDELINES TO SATISFACTION OF THE CDM CO-ORDINATOR

UNDERTAKERS REQUIREMENTS AND PROTECTED ACCORDINGLY DURING THE WORKS

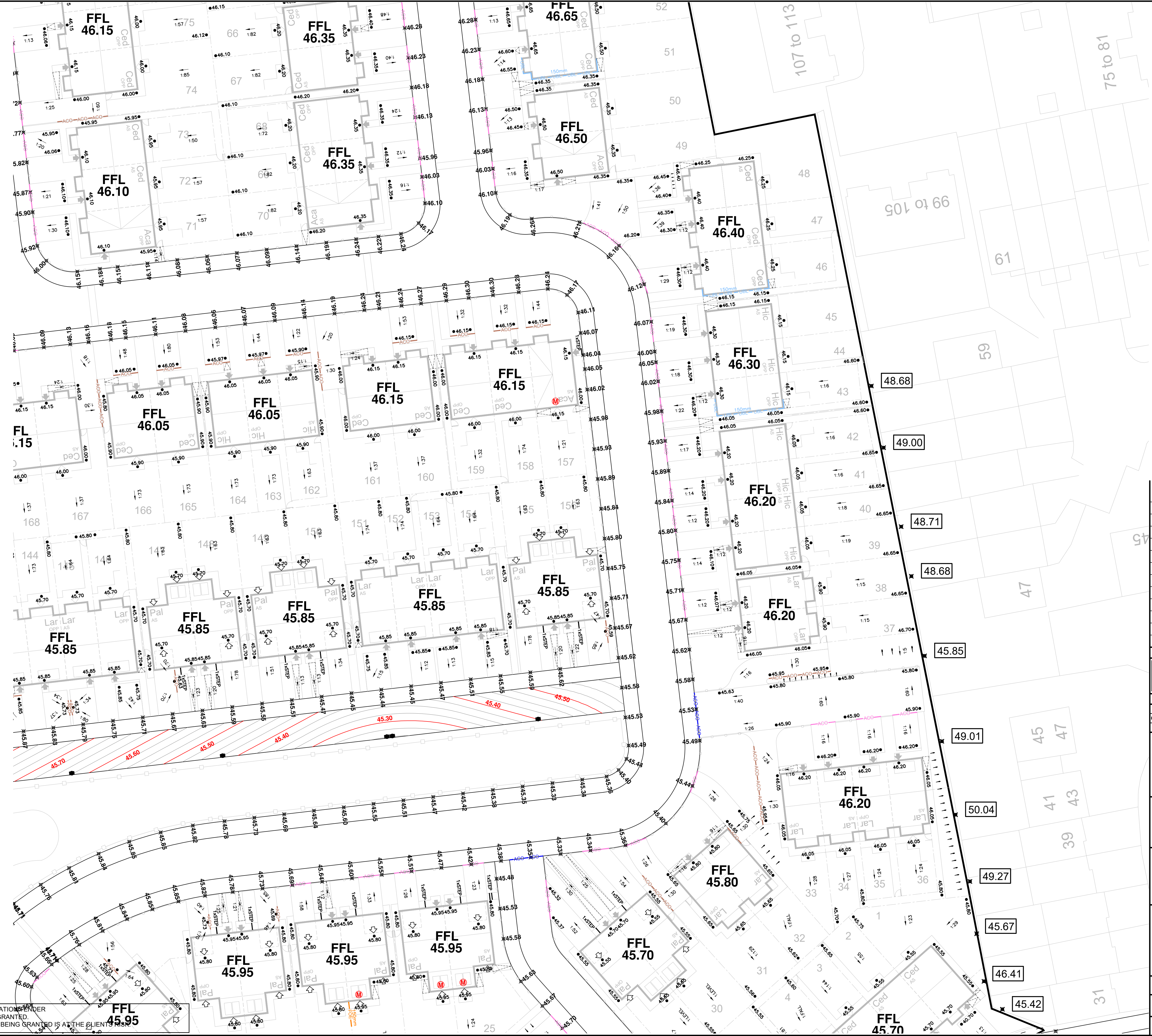
COVERS IN ROAD TO BE GRADE D400 AND BE 150mm DEEP. MANHOLE COVERS IN CAR PARKING AREAS AND DRIVES TO BE GRADE B125. WHILST

WHERE THE FLOOR LEVELS OF PLOTS ARE RAISED

SPECIFICATION FOR THE TYPE OF FILL TO BE USED, AND METHOD OF COMPACTION. IN SUCH INSTANCES PLEASE REVERT BACK TO REFA FOR FURTHER

THIS DRAWING IS BASED ON PLANNING

CLIENT TO ENSURE THE ABOVE LAYOUT IS CURRENT BEFORE
USING THIS DRAWING FOR CONSTRUCTION PURPOSES



1. All adoptable sewers and associated works are to comply fully with "Design and Construction Guidance" & Local Practices
2. All highway works to be to adoptable standards and to comply fully with the Local Authority specification.
3. All private drainage works are to comply fully with part H of the Building Regulations
4. All existing invert levels to be checked by the Contractor at the start of works and any discrepancies notified to REFA.
All levels are based on topographical survey information provided by others.
5. All materials to bear the relevant B.S.Kitemark and comply fully with the specifications.
All concrete & concrete products must use Sulphate resistant cement (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur)
6. All opening notices etc. as required under highways acts etc. are to be obtained prior to commencement of work.
All works are to be inspected by LA, NHBC or Relevant Water Authority as applicable.

C.D.M. REGULATIONS 2015

In line with the above regulations we are obliged to inform the Client of their responsibilities under section CDM 15/1, and residual risks that may be encountered in the construction of these works.

All design work has been carried out with Health and Safety aspects given full consideration.

Wherever possible risks have been eliminated from the design, however, due to the very nature of this type of work it is not possible to remove all the risks from the design.

We would also respectfully remind the Client of his obligations to take all reasonable steps in ensuring that only competent Contractors who have a valid safety policy are employed.

They should also provide satisfactory responses at all times as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by REFA below:-

1. Support / treatment for ALL excavation work.
2. Guarding to edges of excavations to prevent people, materials and vehicles falling into excavation.
3. Guarding of excavations outside working hours to prevent unauthorised access.
4. Undermining to adjacent roads or structures.
5. Confined space operations.
6. Dealing with existing services.
7. Traffic management on existing highways.
8. Procedure to be followed in event of accident or emergency.
9. Method of working where contaminated ground is present on site.
10. Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.

The above list is by no means exhaustive but it does highlight operations that present a risk to contractors and the general public.
For clarification on any item please contact REFA.

[illegible]

Client

KELLEN HOMES

Job title

**BENNETT STREET
MANCHESTER**

Drawing title

EXTERNAL WORKS

DRG 2

REFA

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CONSULTING ENGINEERS

CIVIL • STRUCTURAL

GEOTECHNICAL • ENVIRONMENTAL

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