



## Wi SYSTEM DETAILS

The Wi System is a versatile method of replacing traditional windposts and lintels in masonry construction. The Wi System and its constituents incorporate a number of patents, patent applications, community design registrations and trademarks. All rights are reserved © Wembley Innovation Ltd, 2019.



# INDEX

## Wi COLUMN COMPONENTS

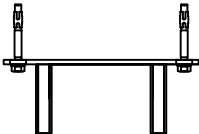
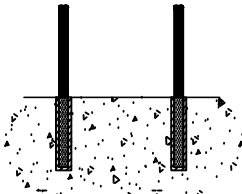

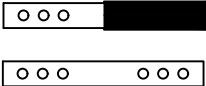
# Wi BEAM COMPONENTS


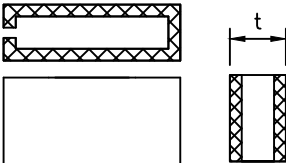
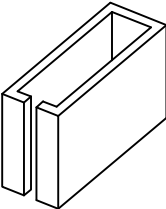
## Wi TROUGH LINTEL COMPONENTS

## Wi SYSTEM PRINCIPAL DETAILS 1 - 25

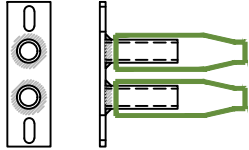
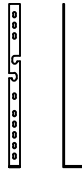

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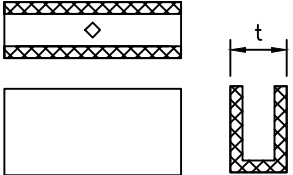
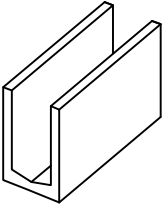
# Wi COLUMN COMPONENTS

HEAD FIXING BRACKET	
BASE FIXING	
SOCKET ENDED 16mm REBAR ( SINGLE CONTINUOUS LENGTH IN COLUMN)	
225mm MASONRY TIE WITH OR WITHOUT DE-BONDING SLEEVE	

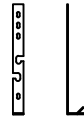

C40 Wi CONCRETE MORTAR AVAILABLE IN SILOS, 1 TON BAGS AND 25kg BAGS FROM CPI ( REFER TO USER MANUAL FOR MIXING GUIDANCE)	
Wi COLUMN BLOCK t= 100mm,140mm, 190mm, 215mm	 


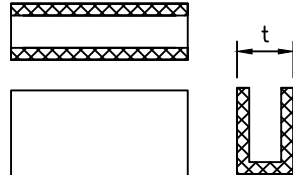
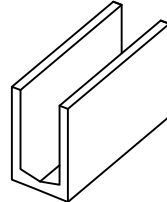
## Wi BEAM COMPONENTS

Wi BEAM CLEAT C/W DEBONDING SLEEVES	
TRANSFER ROD - LONG	
16mm Diameter REBAR ( MINIMUM LAP LENGTH IN BEAMS IS 500mm)	

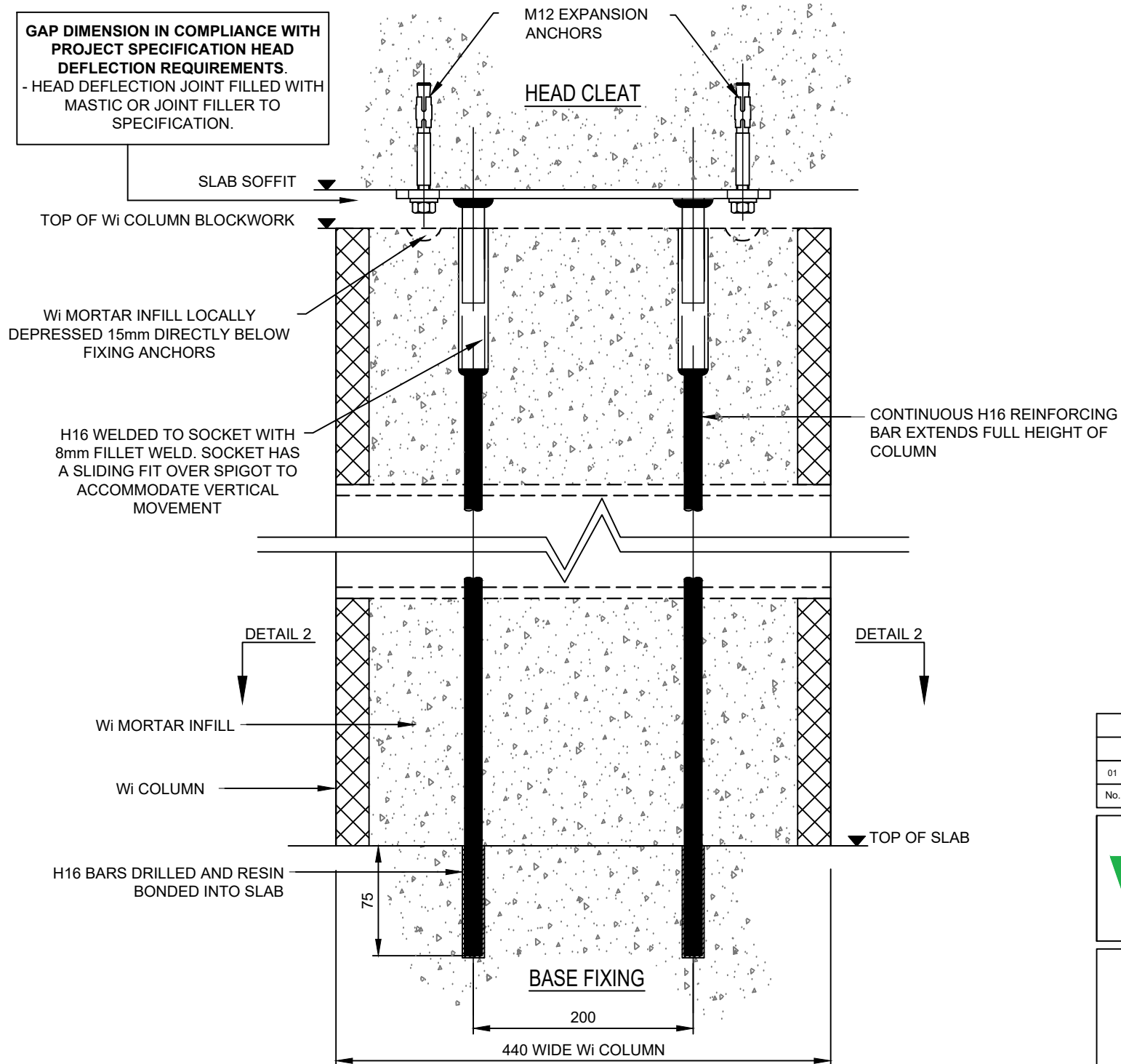
C40 Wi CONCRETE MORTAR AVAILABLE IN SILOS, 1 TON BAGS AND 25kg BAGS FROM CPI ( REFER TO USER MANUAL FOR MIXING GUIDANCE)	
Wi BEAM U-BLOCK WITH KNOCK-OUT RECESS FOR TRANSFER ROD HOLE  t=100mm, 140mm, 190mm, 215mm	 

## Wi TROUGH LINTEL COMPONENTS

TRANSFER ROD - SHORT	
16mm Diameter REBAR	

C40 Wi CONCRETE MORTAR AVAILABLE IN SILOS, 1 TON BAGS AND 25kg BAGS FROM CPI (REFER TO USER MANUAL FOR MIXING GUIDANCE)	
Wi TROUGH BLOCK t=100mm, 140mm, 190mm, 215mm	 

**GAP DIMENSION IN COMPLIANCE WITH PROJECT SPECIFICATION HEAD DEFLECTION REQUIREMENTS.**  
 - HEAD DEFLECTION JOINT FILLED WITH MASTIC OR JOINT FILLER TO SPECIFICATION.



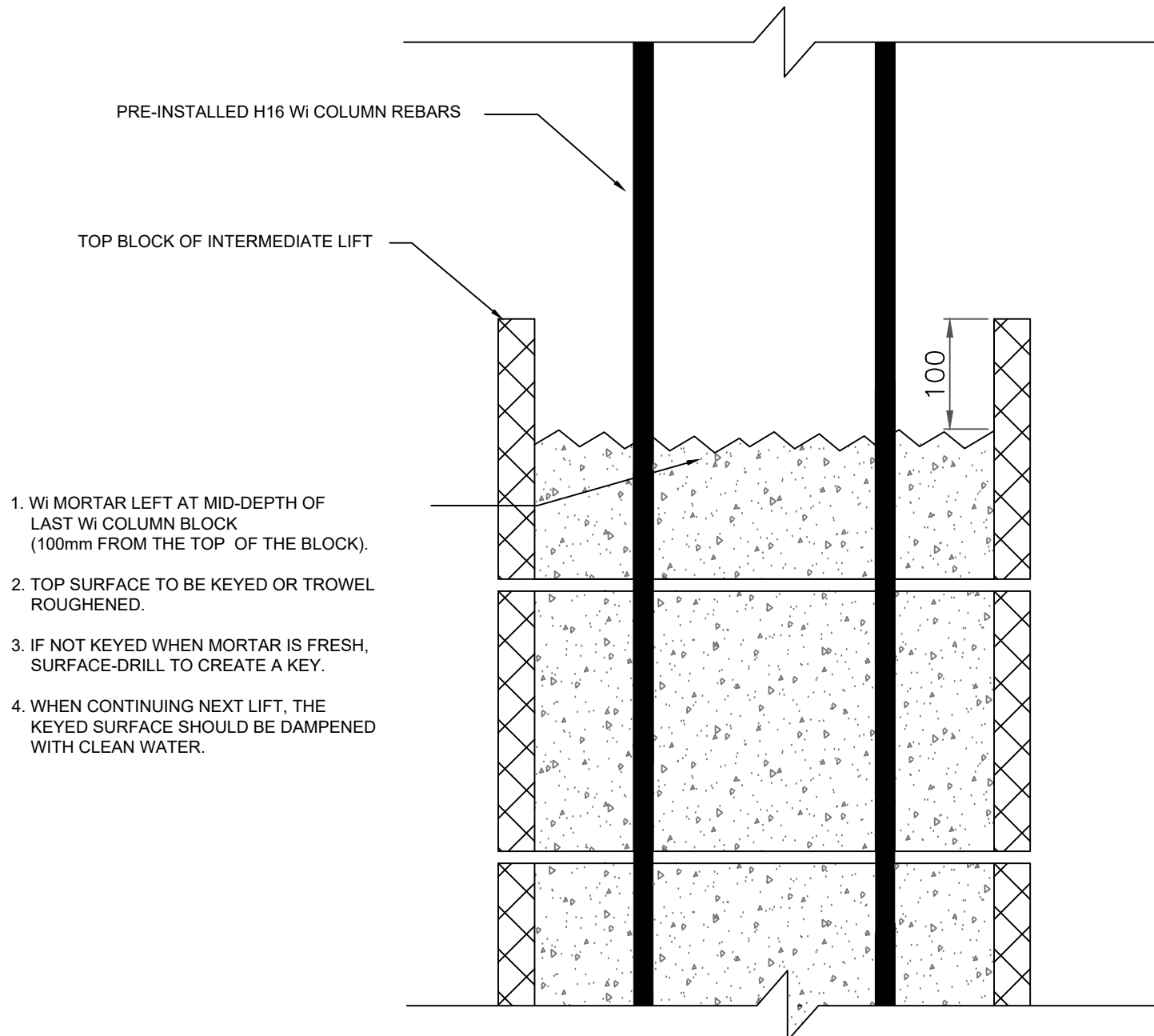
01	General Revision	22/02/17
No.	Revision/Issue	Date

**WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

DETAIL 1

Wi COLUMN HEAD AND  
BASE FIXING DETAILS



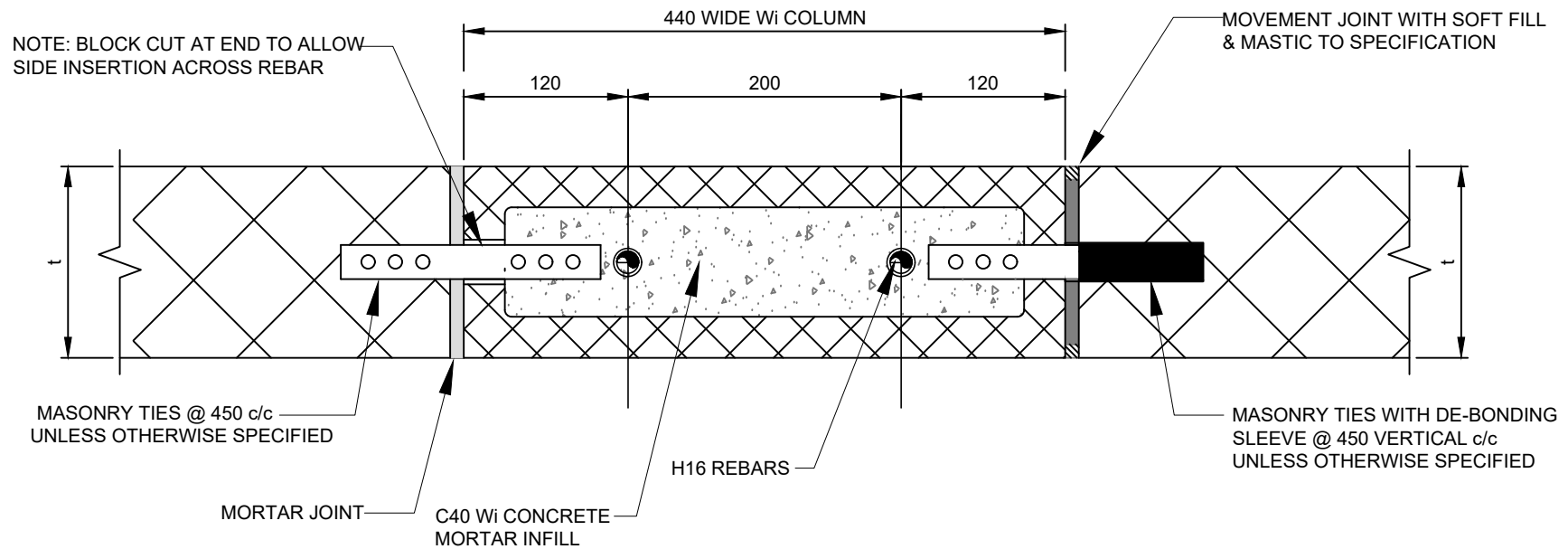
01	FIRST ISSUE	21/06/19
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 1A**

**Wi COLUMN DAY JOINT**



SECTIONAL PLAN

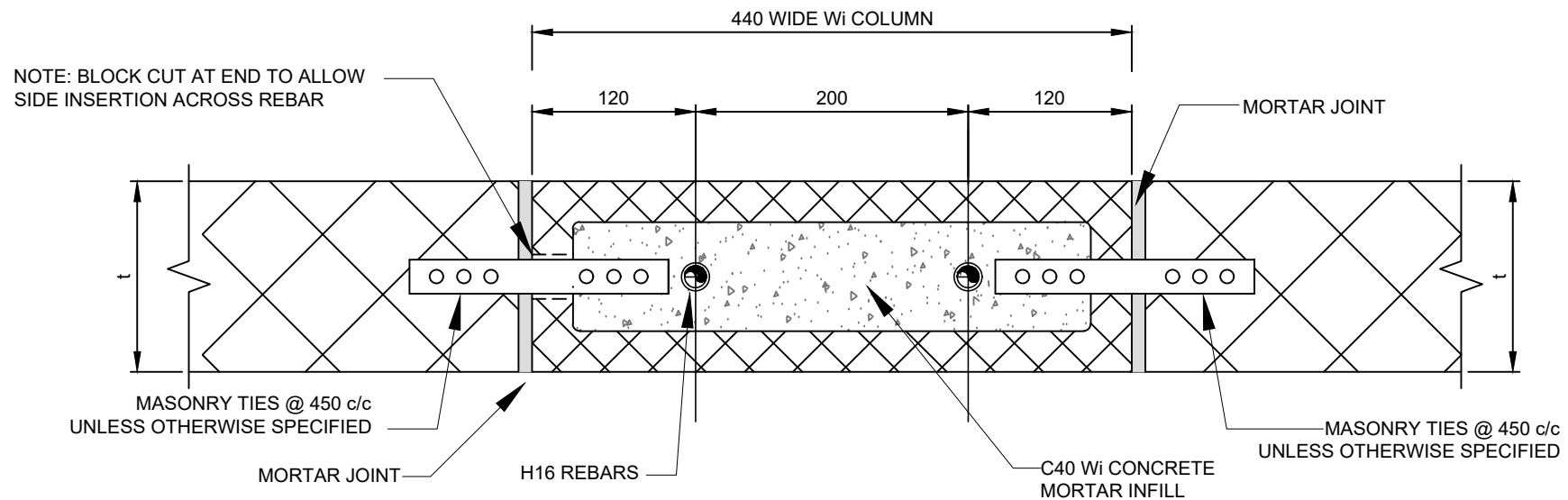
01	General Revision	22/02/17
No.	Revision/Issue	Date

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PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 2**  
**Wi COLUMN WITH**  
**BONDED & SLEEVED TIES**





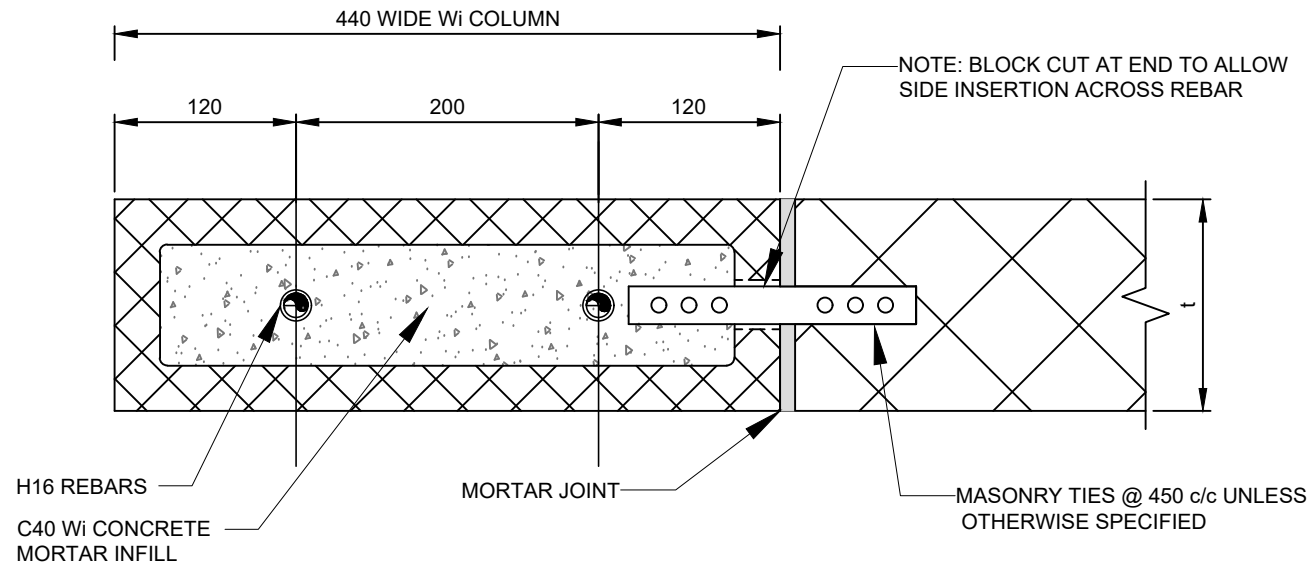
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No.	Revision/Issue	Date
02	Detail renumbered	21/06/19
01	General Revision	22/02/17

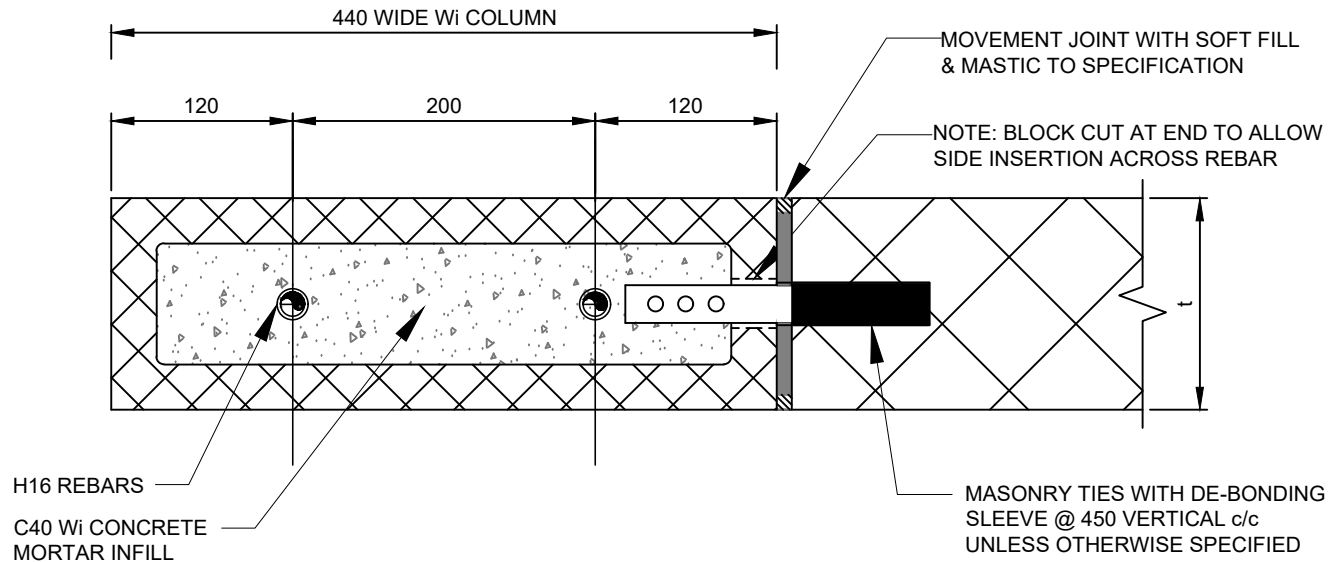
**W<sub>i</sub>WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 3**  
**Wi COLUMN WITH**  
**BONDED TIE JOINTS**



**DETAIL 4A - WALL JUNCTION WITH BONDED TIE - SECTIONAL PLAN**



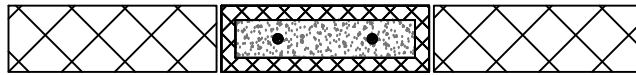
**DETAIL 4B - WALL JUNCTION WITH DEBONDED TIE - SECTIONAL PLAN**

02	Details number revised	20/06/19
02	Detail 3A added	10/11/17
01	General Revision	22/02/17
No.	Revision/Issue	Date

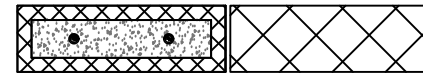
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INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

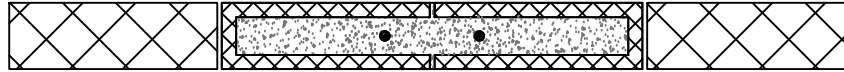
**DETAIL 4**  
**Wi COLUMN AT**  
**END OF WALL**



PLAN COURSE 3



PLAN COURSE 3



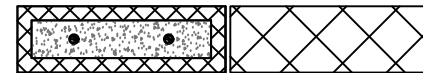
PLAN COURSE 2



PLAN COURSE 2

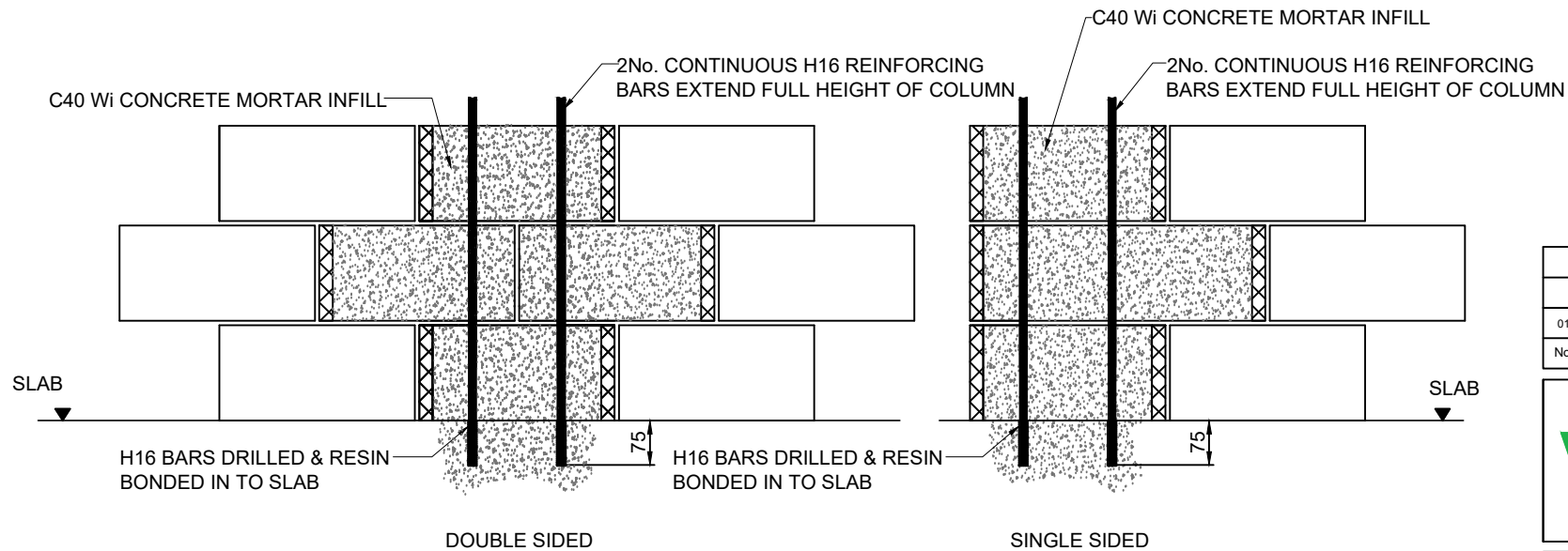


PLAN COURSE 1



PLAN COURSE 1

### SECTIONAL PLANS



### SECTIONAL ELEVATIONS

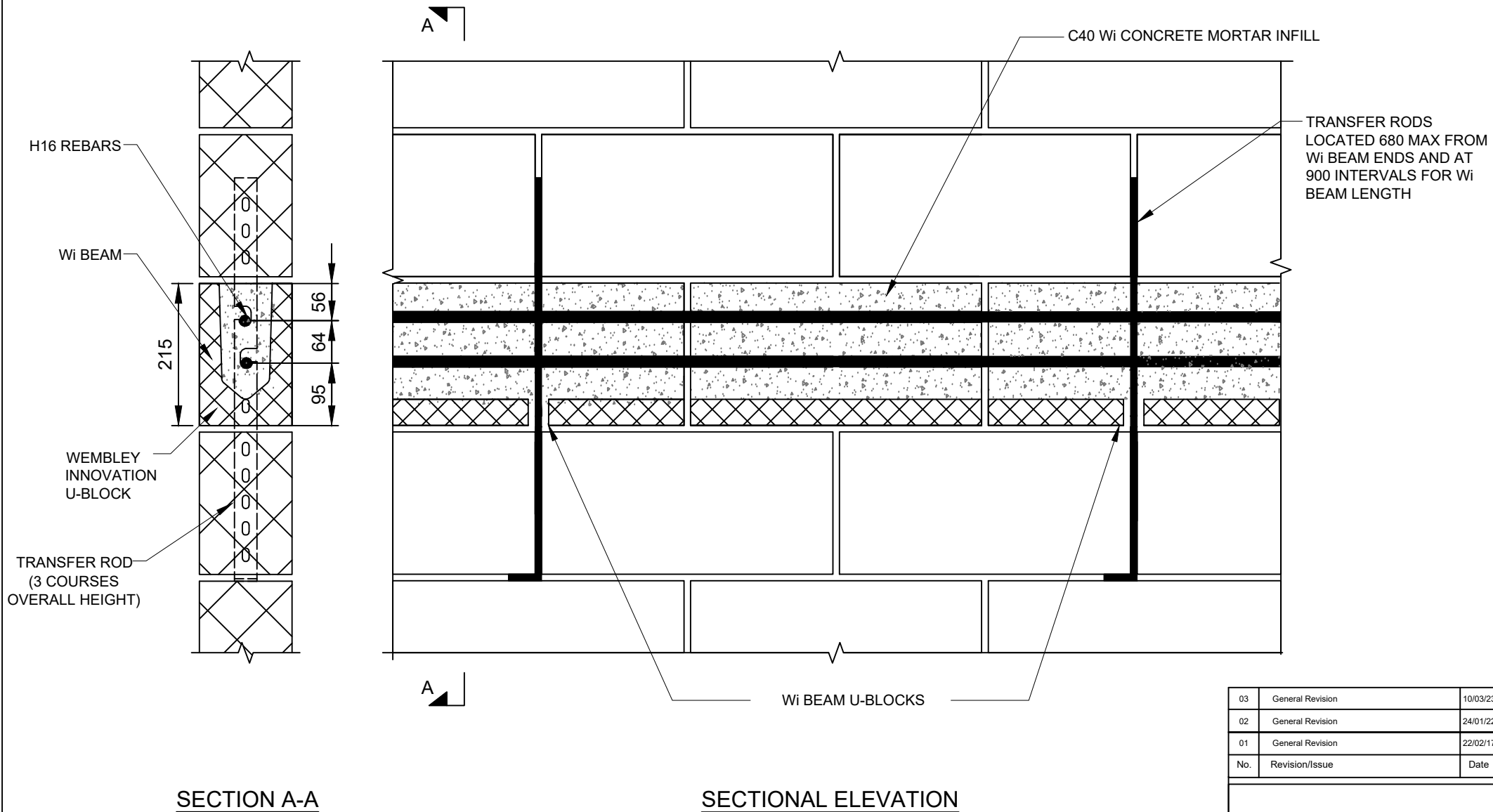
01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION


PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 5**

**BLOCK BONDED Wi  
COLUMNS**



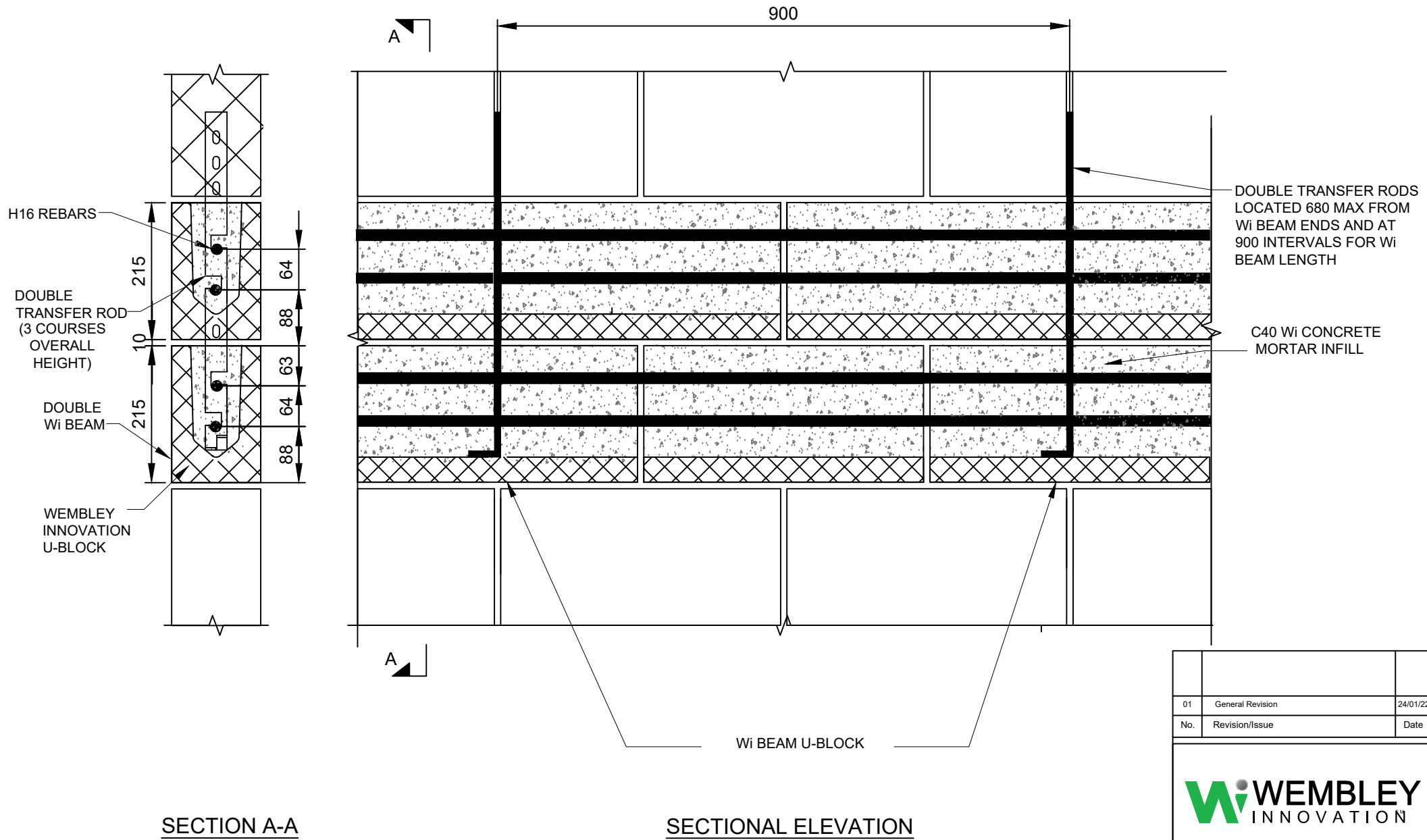
03	General Revision	10/03/23
02	General Revision	24/01/22
01	General Revision	22/02/17
No.	Revision/Issue	Date



PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 6**

**Wi BEAM DETAIL**



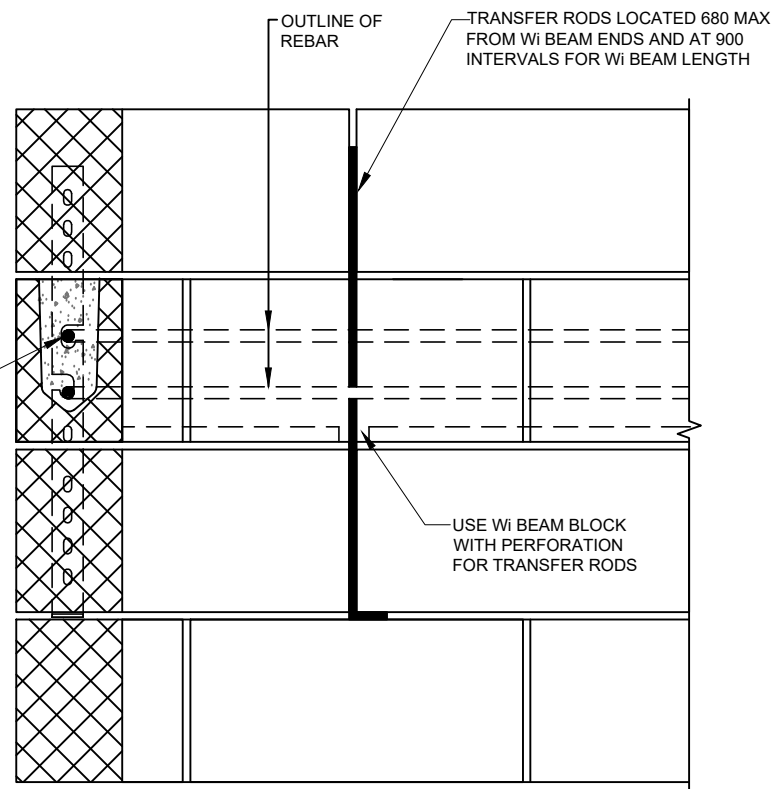
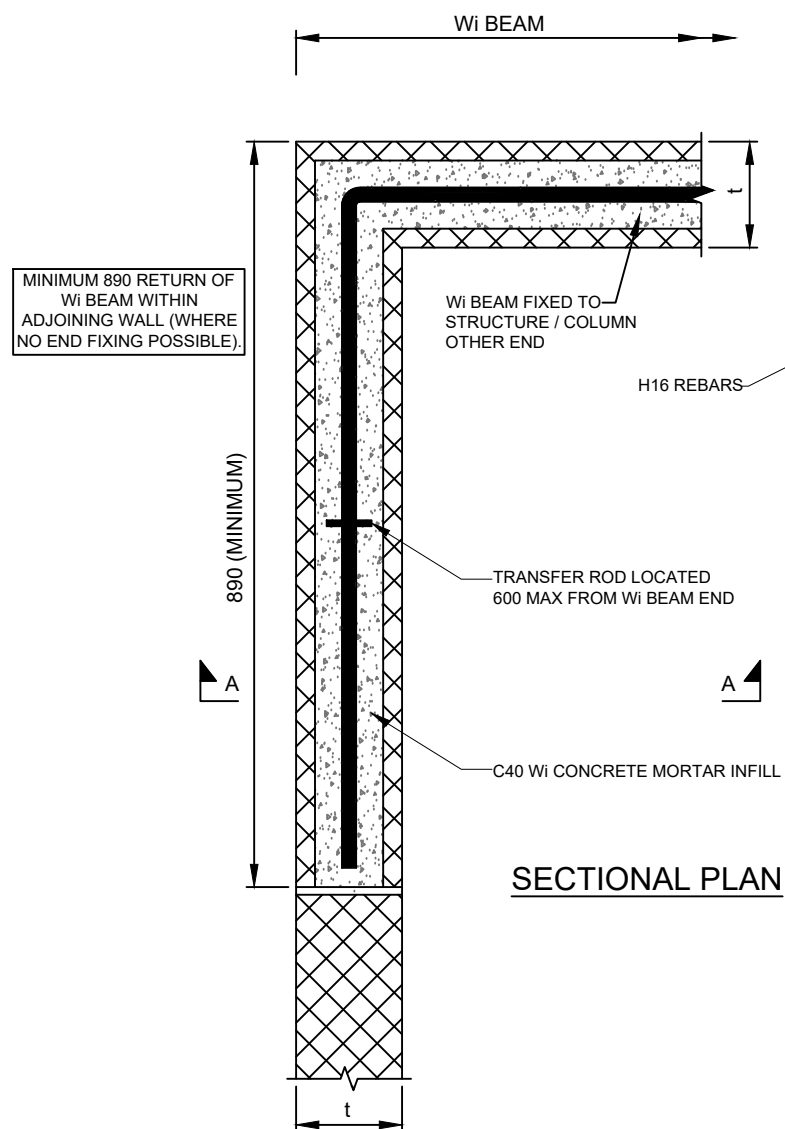
01	General Revision	24/01/22
No.	Revision/Issue	Date

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INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 6B**

**DOUBLE Wi BEAM DETAIL**



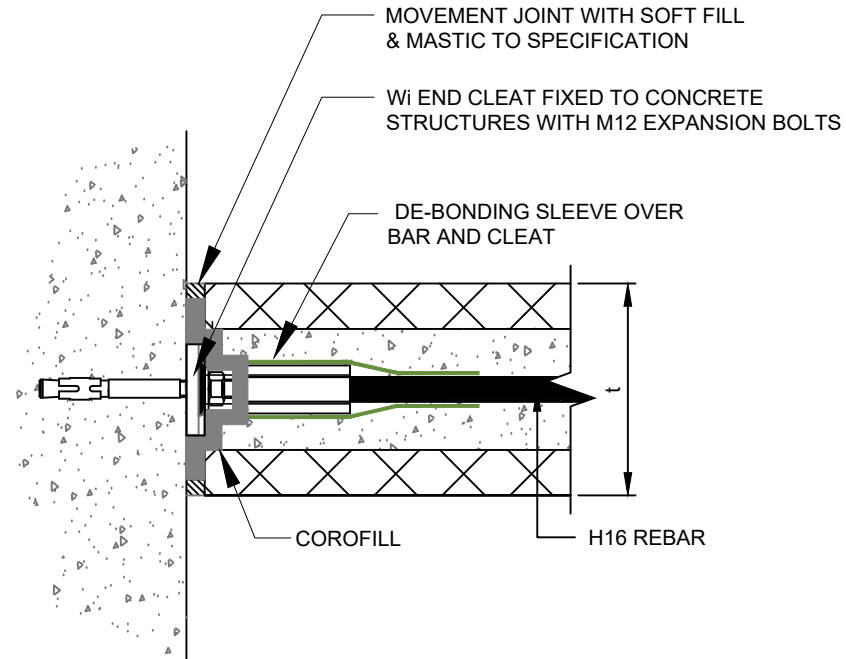
01	General Revision	22/02/17
No.	Revision/Issue	Date



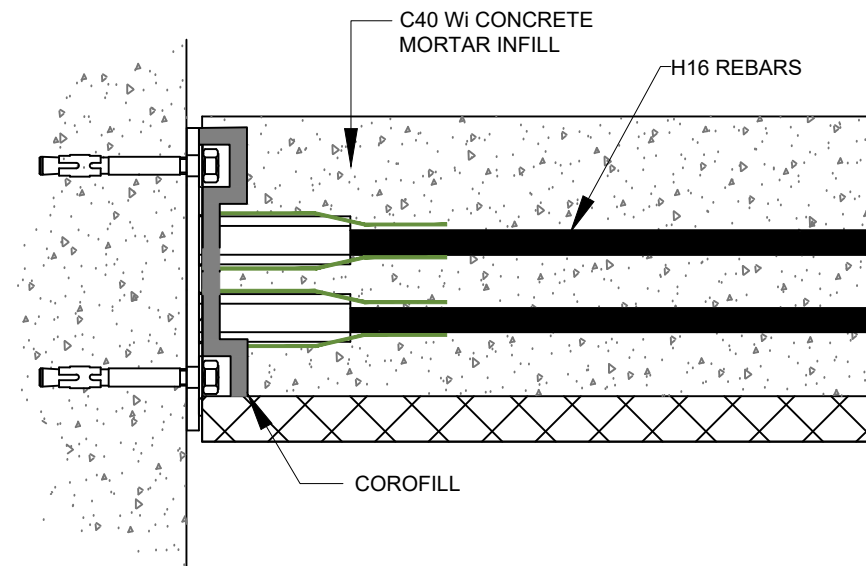
## PRINCIPAL Wi SYSTEM DETAILS

### DETAIL 7

Wi BEAM WITH END RETURN



SECTIONAL PLAN



SECTIONAL ELEVATION

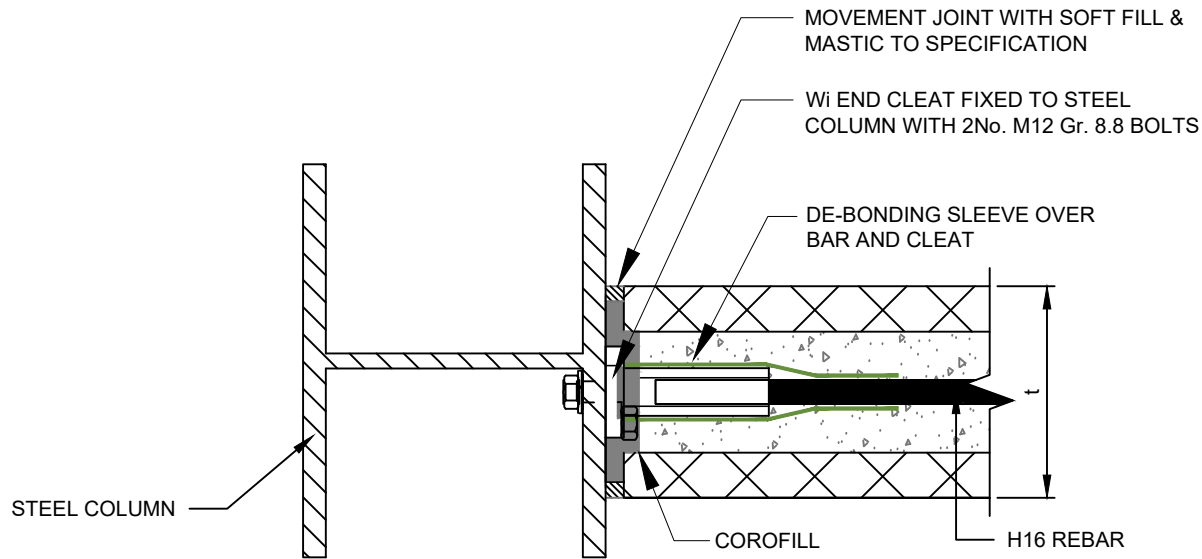
01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

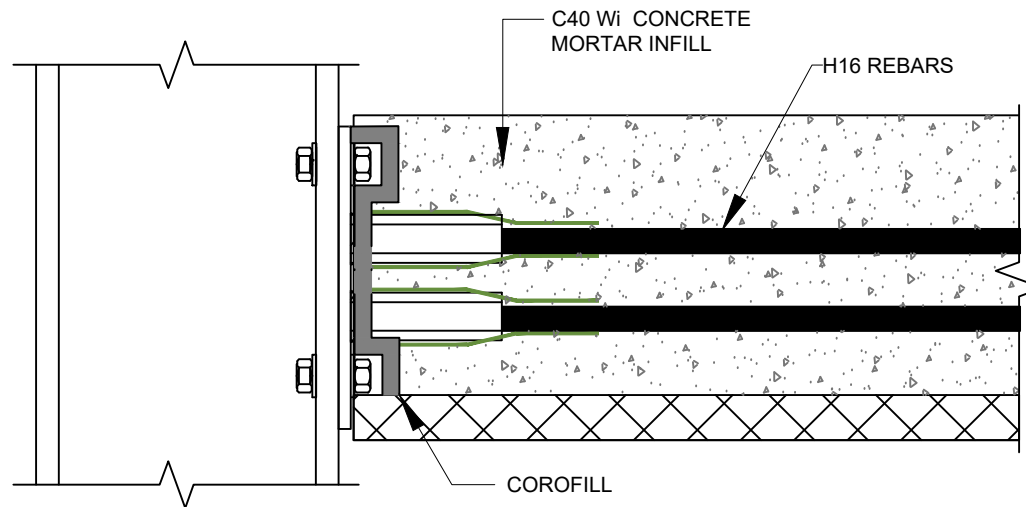
PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 8**

**Wi BEAM FIXED TO  
CONCRETE STRUCTURE**



SECTIONAL PLAN



SECTIONAL ELEVATION

01	General Revision	22/02/17
No.	Revision/Issue	Date

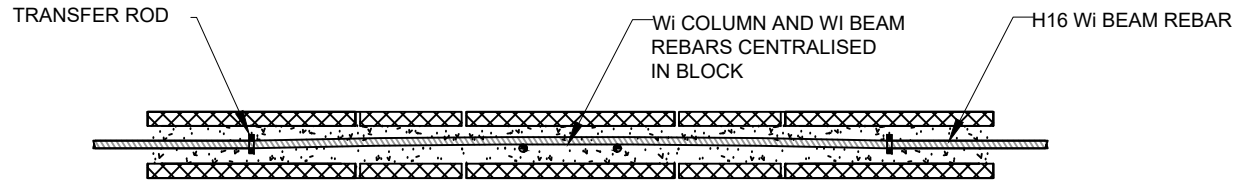
**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

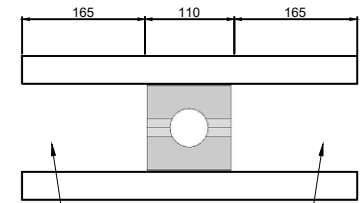
**DETAIL 9**

**Wi BEAM FIXED TO STEEL  
COLUMN**



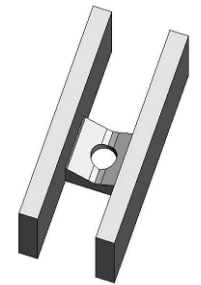


SECTIONAL PLAN



ENDS TO BASE OF U-BLOCK CUT AND CENTRAL RECESS KNOCKED-OUT TO ALLOW THROUGH-FLOW OF Wi MORTAR BETWEEN Wi COLUMN AND Wi BEAM

ADAPTED Wi BEAM U-BLOCK PLAN VIEW



ADAPTED Wi BEAM U-BLOCK ISOMETRIC VIEW

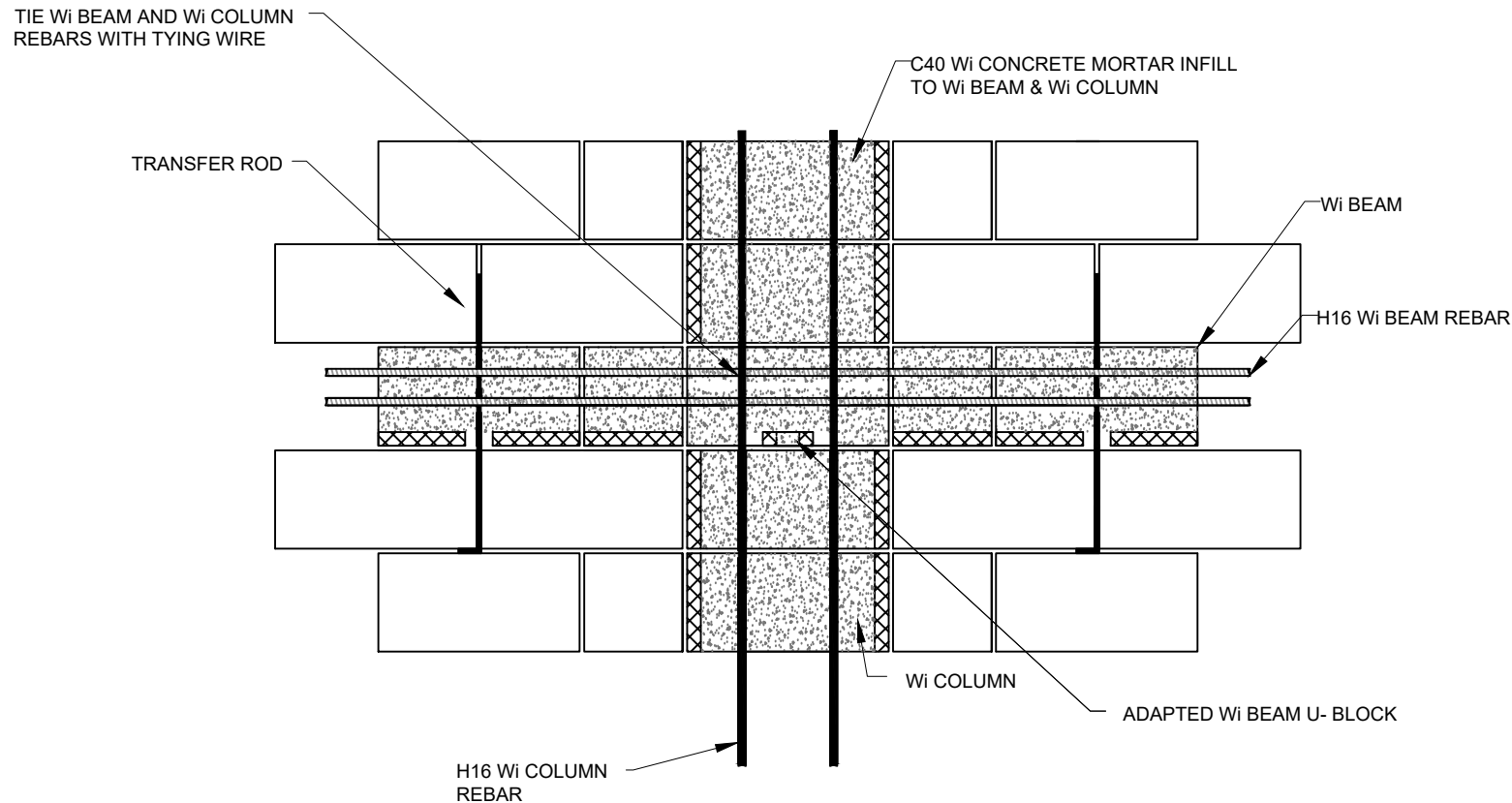
02	General Revision	20/06/19
01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

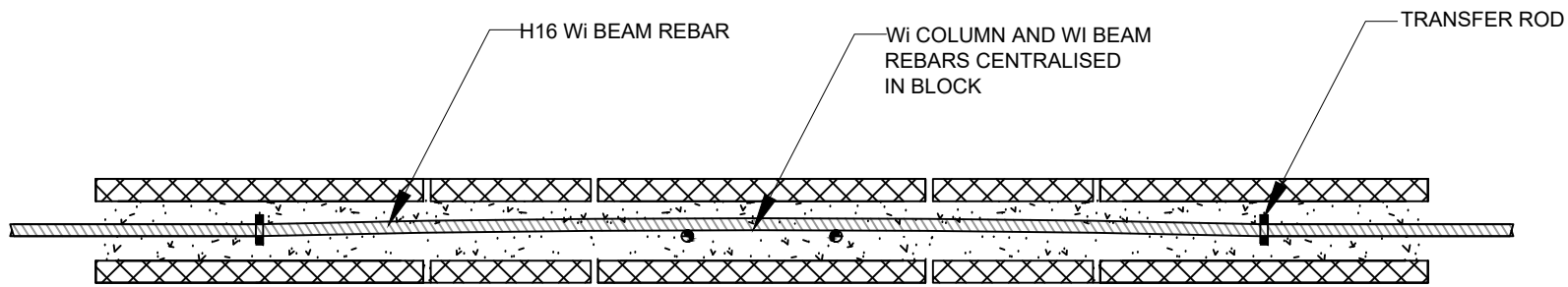
PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 10**

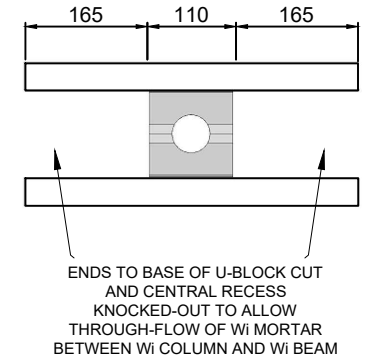
**Wi COLUMN - Wi BEAM  
DOUBLE CONNECTION**



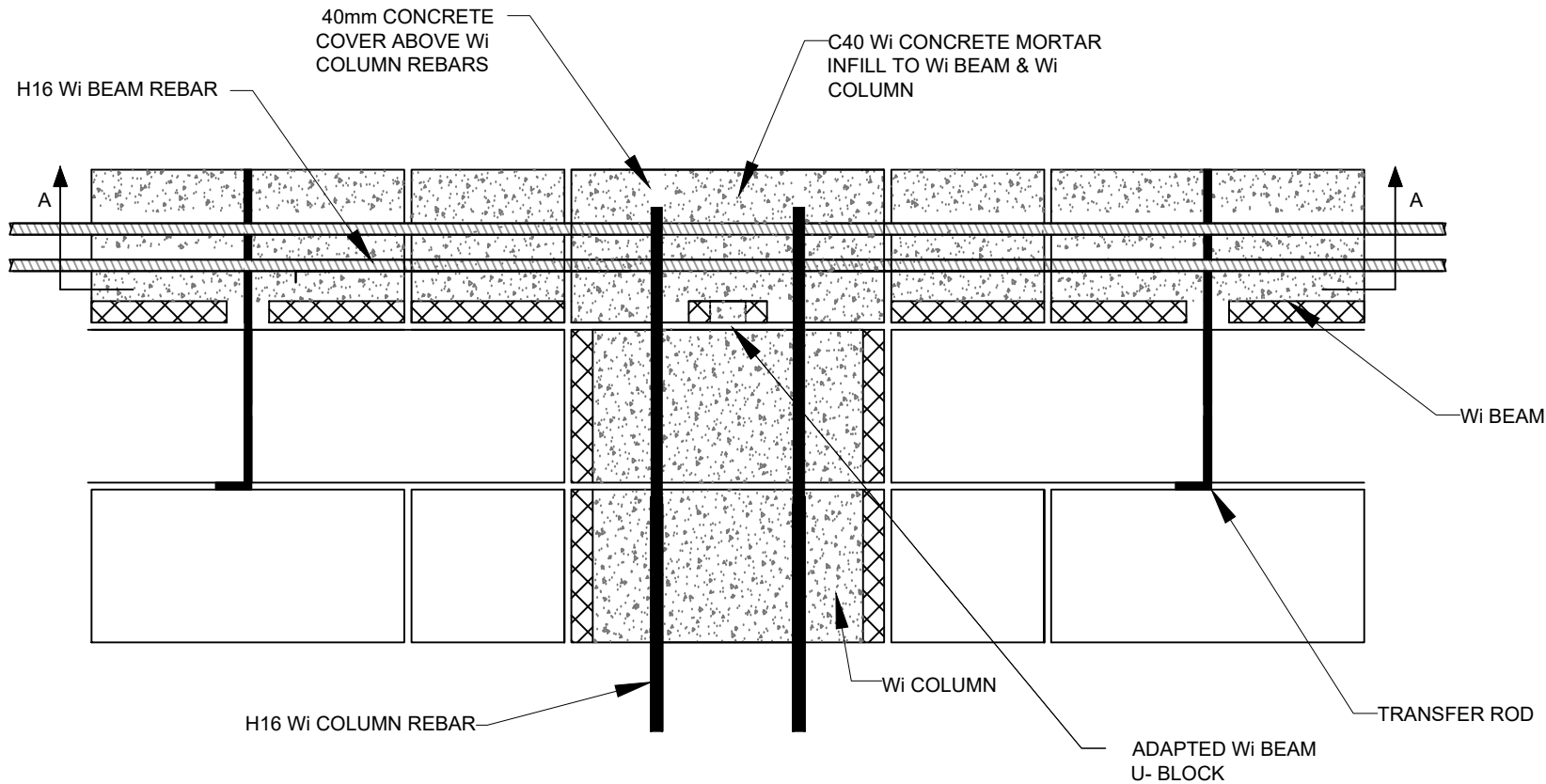
SECTIONAL ELEVATION



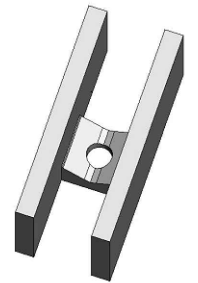
**SECTION A-A**



**ADAPTED Wi BEAM U-BLOCK  
PLAN VIEW**



**SECTIONAL ELEVATION**



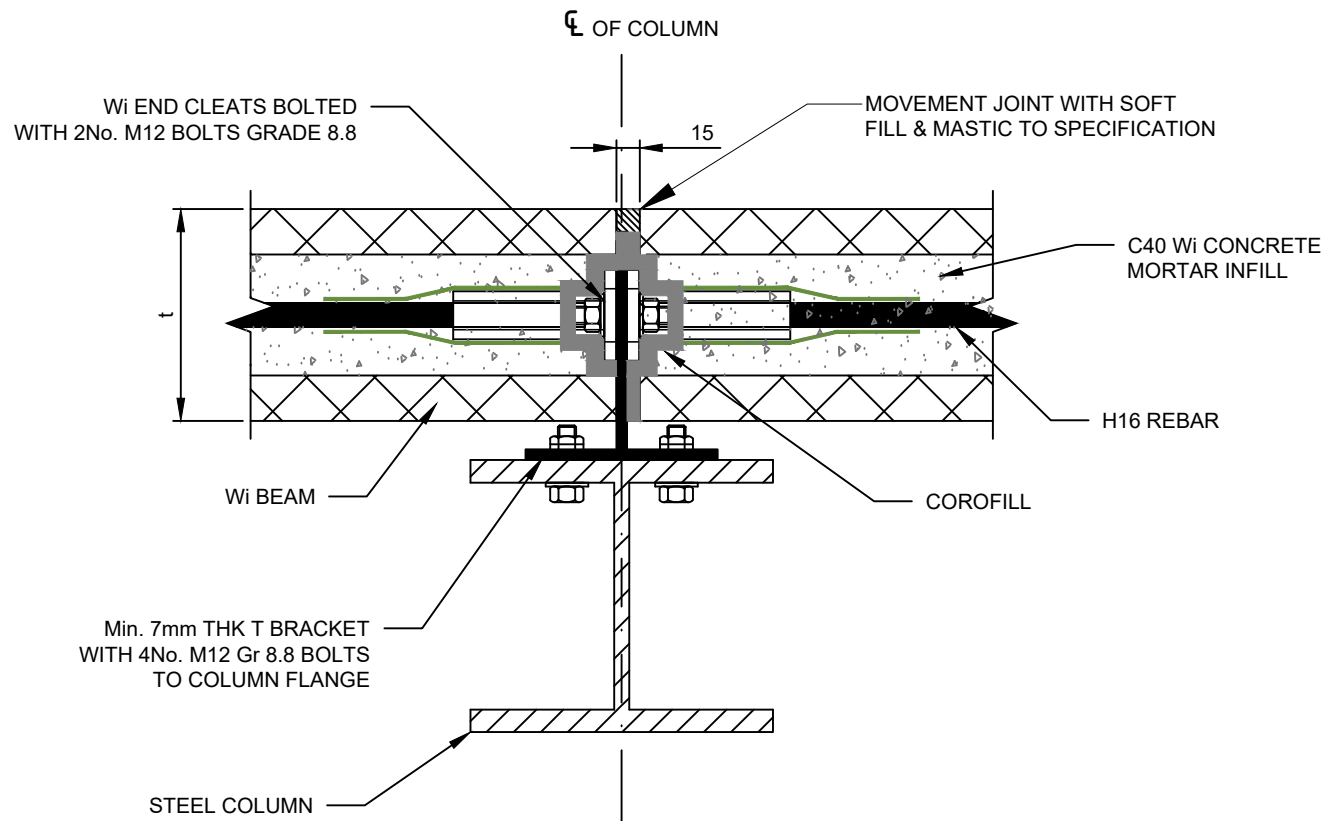
**ADAPTED Wi BEAM U-BLOCK  
ISOMETRIC VIEW**

01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 11**  
**Wi COLUMN TERMINATION**  
**AT Wi BEAM COURSE**



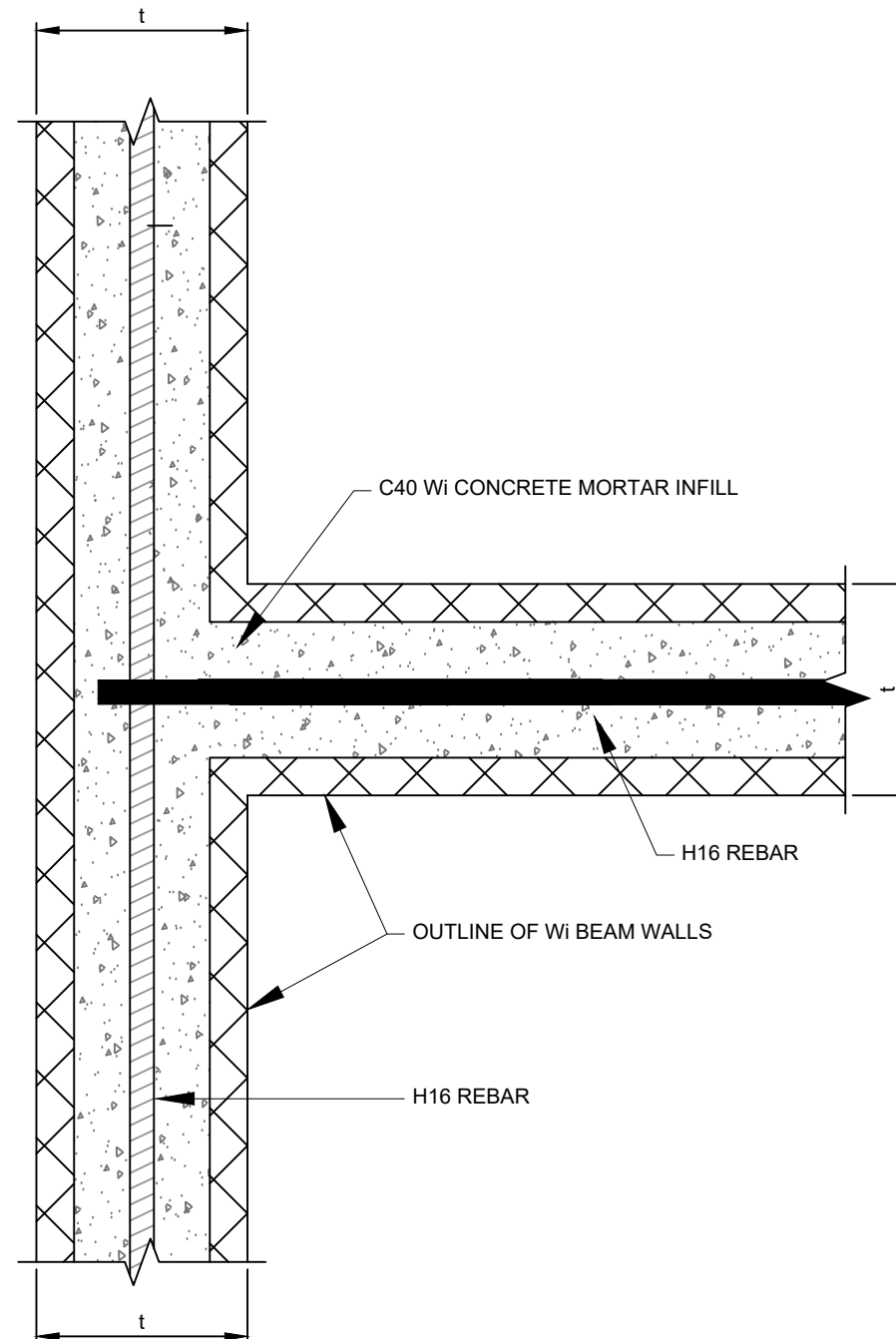
SECTIONAL PLAN

01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 12**  
**CONNECTION OF Wi BEAMS**  
**TO OFFSET STRUCTURAL**  
**STEEL COLUMN**



SECTIONAL PLAN

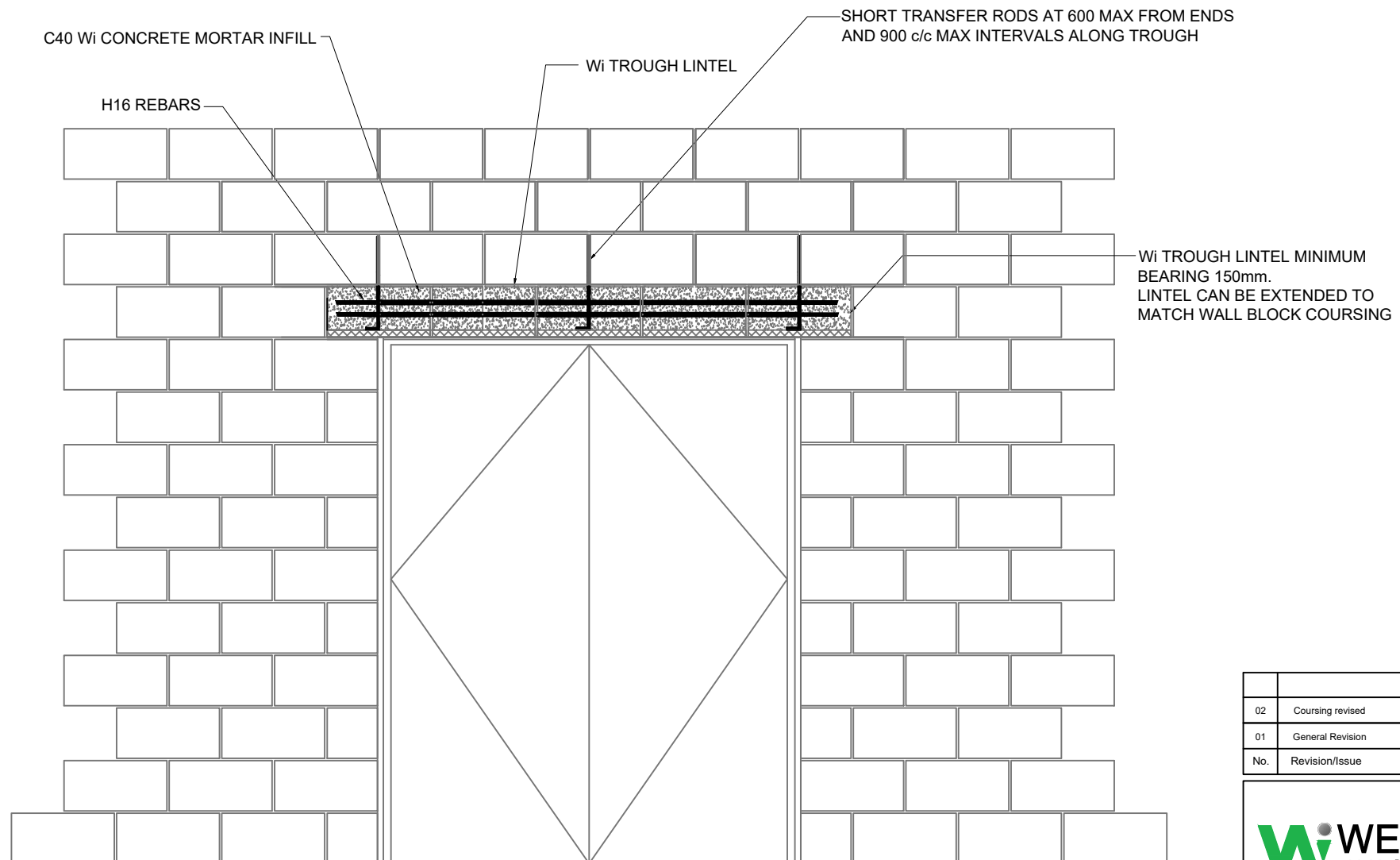
01	General Revision	22/02/17
No.	Revision/Issue	Date

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INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 13**

**Wi BEAM  
T - CONNECTION**



SECTIONAL ELEVATION

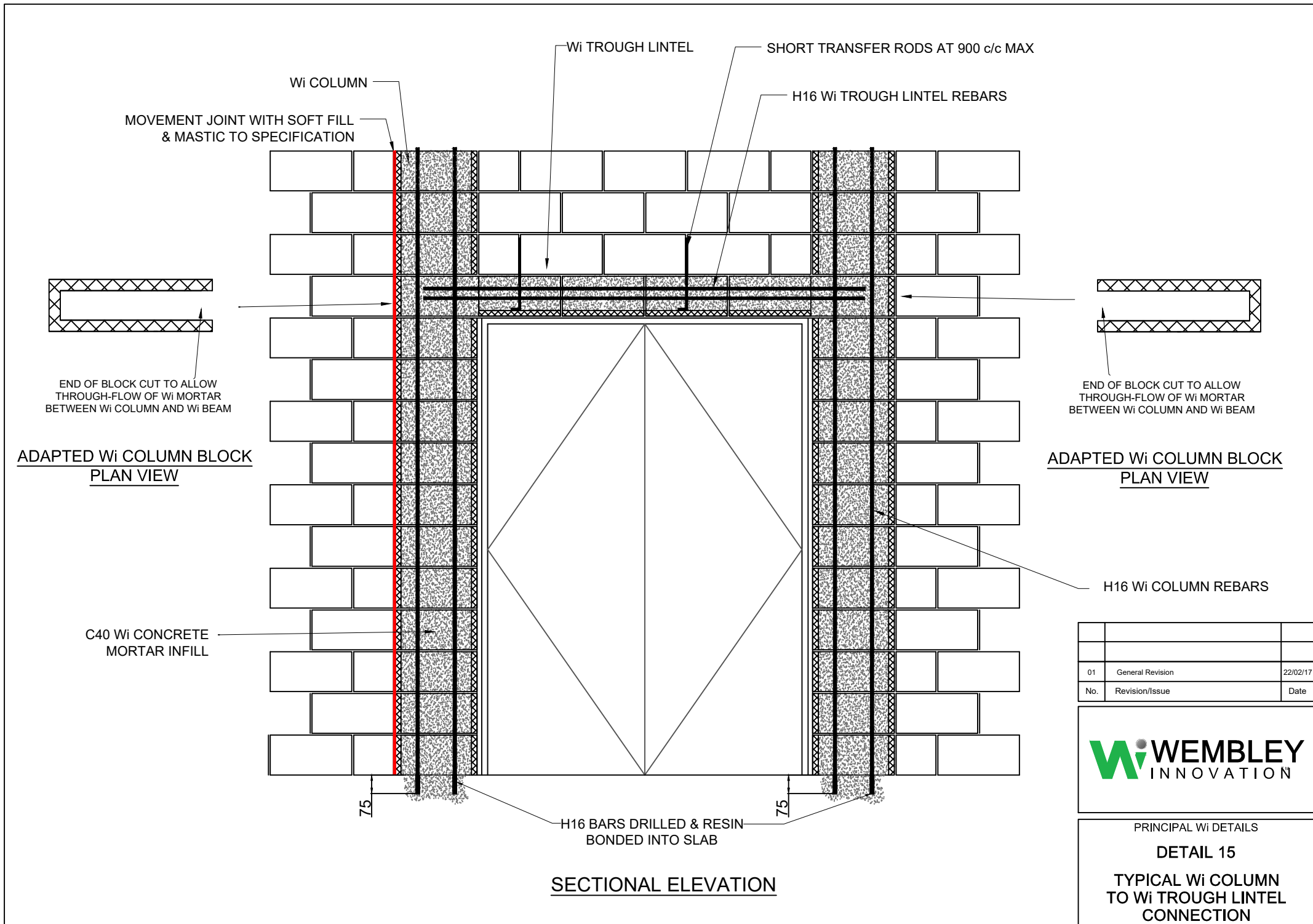
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01	General Revision	22/02/17
No.	Revision/Issue	Date

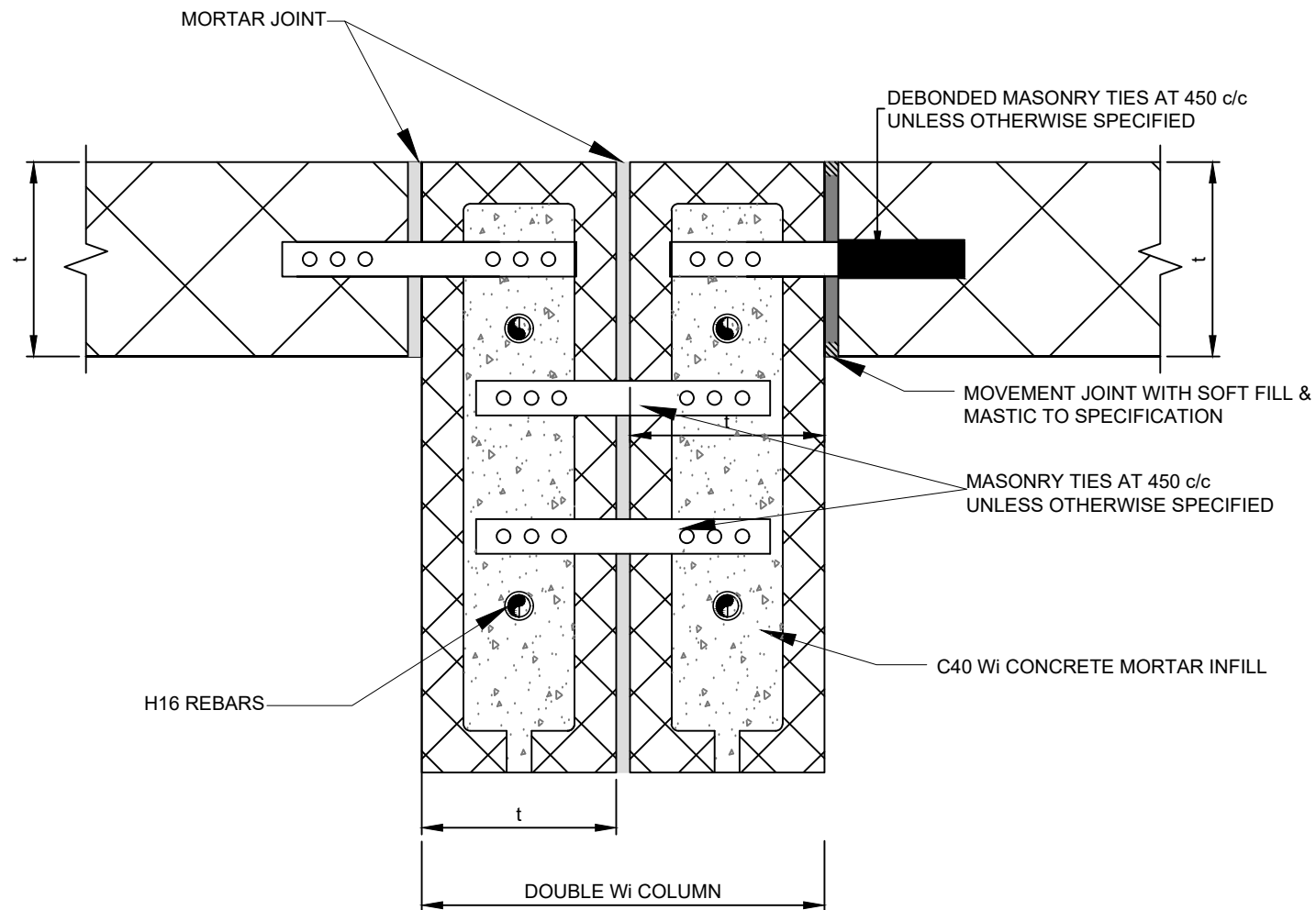
**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi DETAILS

**DETAIL 14**

**Wi TROUGH LINTEL TO  
DOOR OPENING**





SECTIONAL PLAN

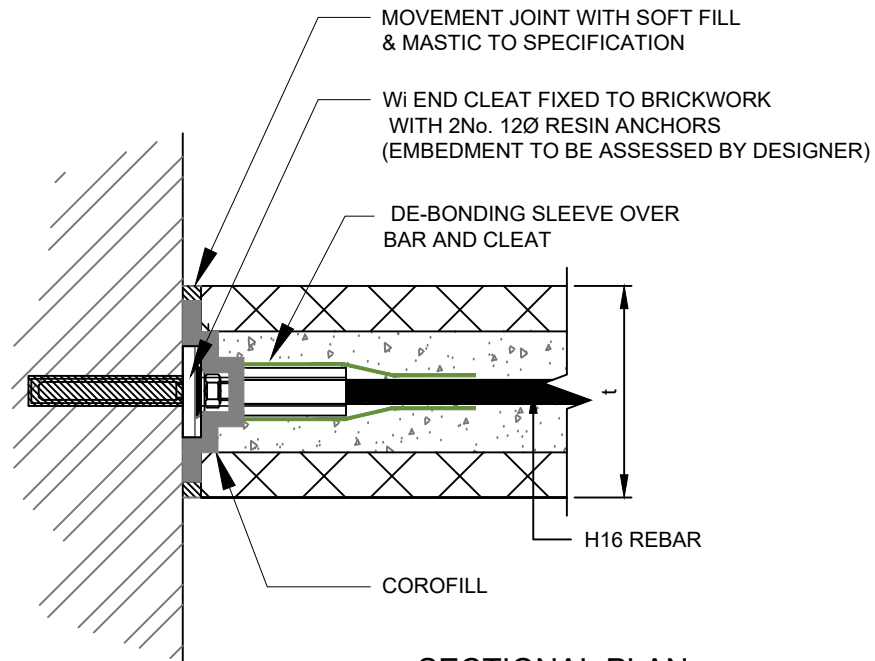
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No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

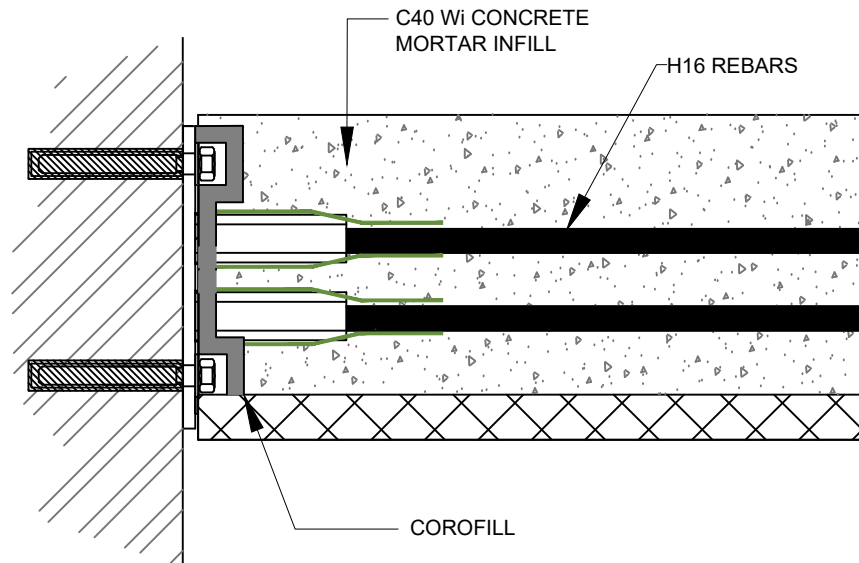
PRINCIPAL Wi SYSTEM DETAILS

DETAIL 16

ROTATED DOUBLE  
Wi COLUMN



SECTIONAL PLAN



SECTIONAL ELEVATION

01	General Revision	22/02/17
No.	Revision/Issue	Date

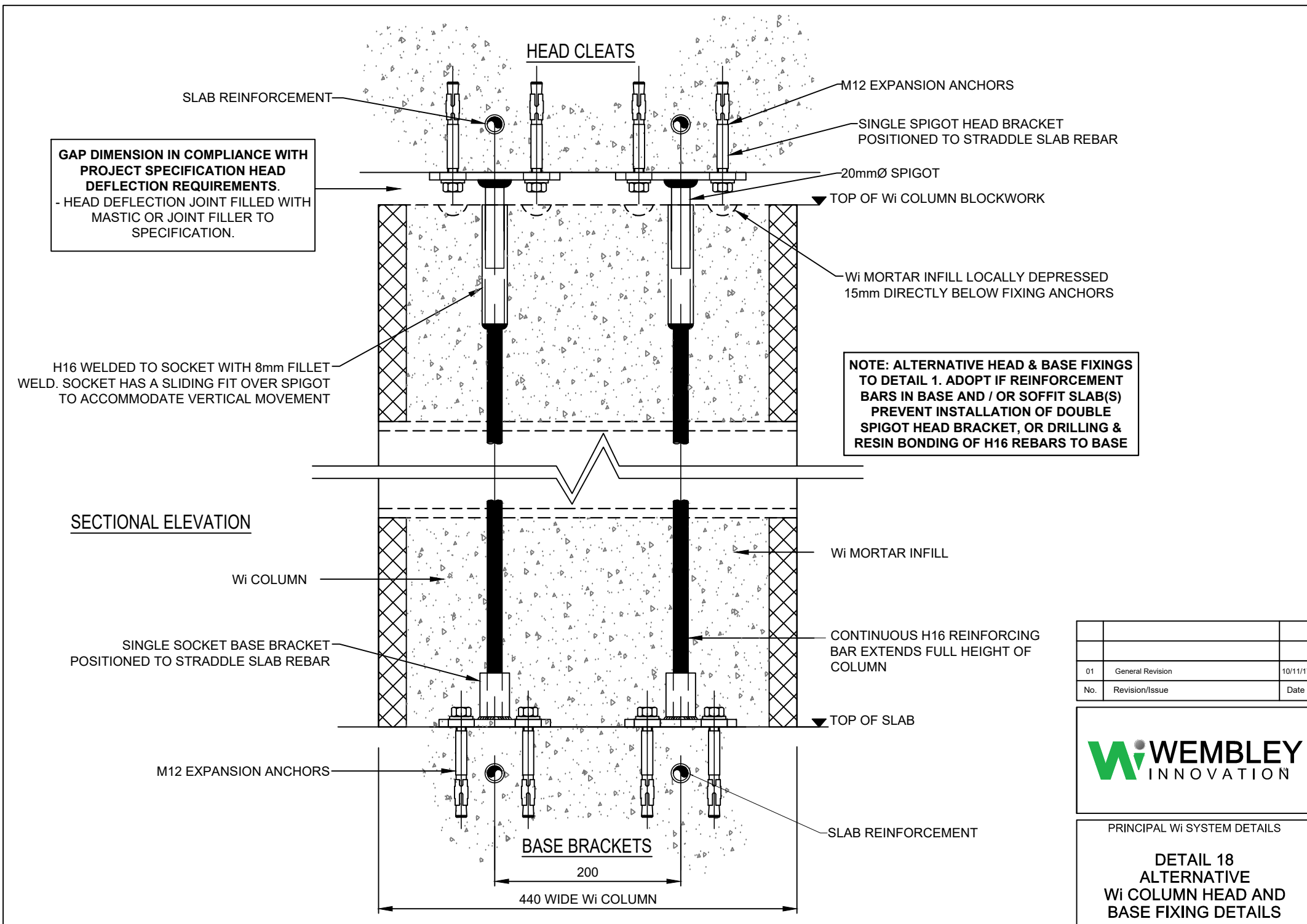
**Wi WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 17**

**Wi BEAM FIXED TO  
BRICKWORK WALL**



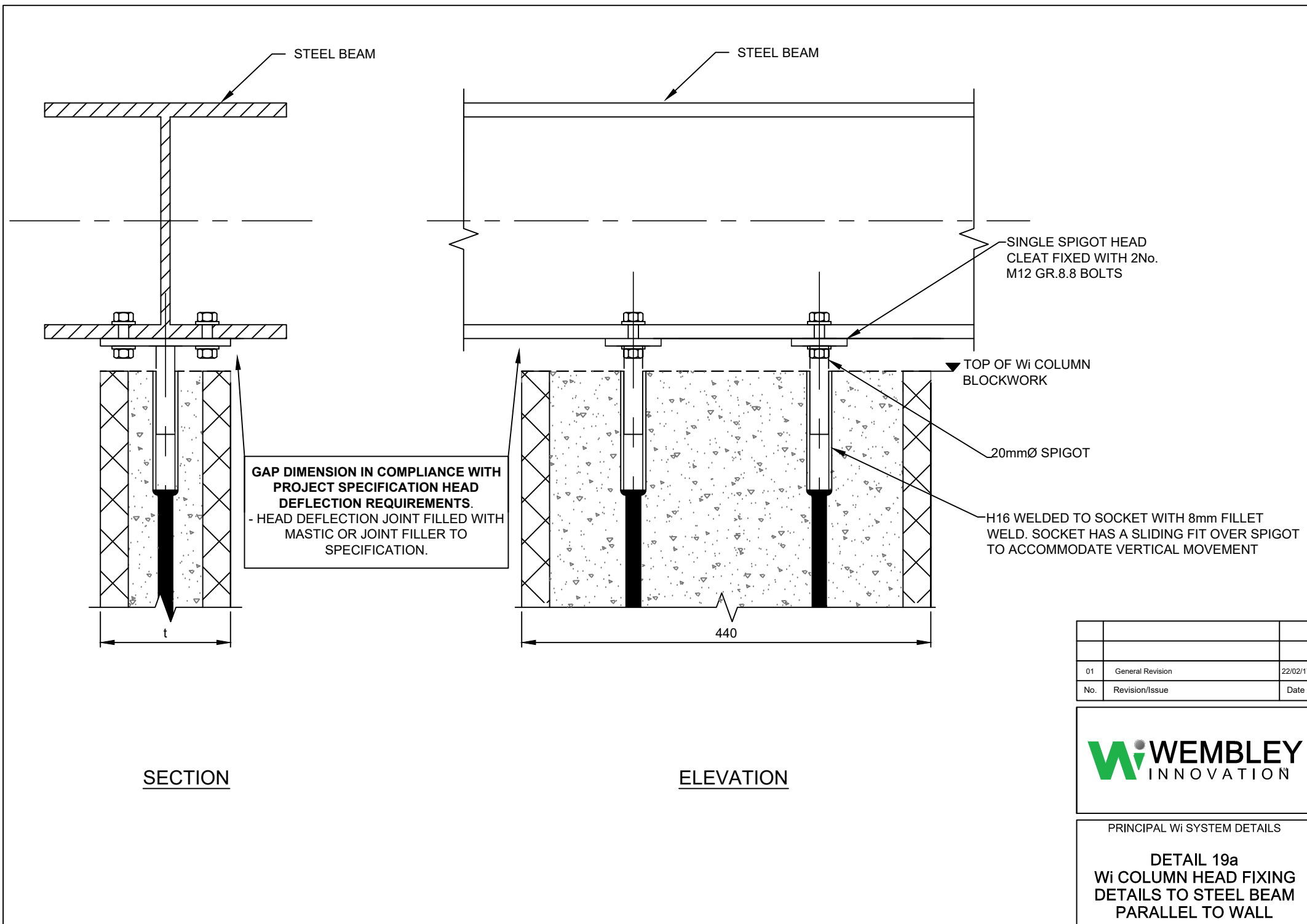


01	General Revision	10/11/17
No.	Revision/Issue	Date

**WEMBLEY**  
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PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 18**  
**ALTERNATIVE**  
**Wi COLUMN HEAD AND**  
**BASE FIXING DETAILS**

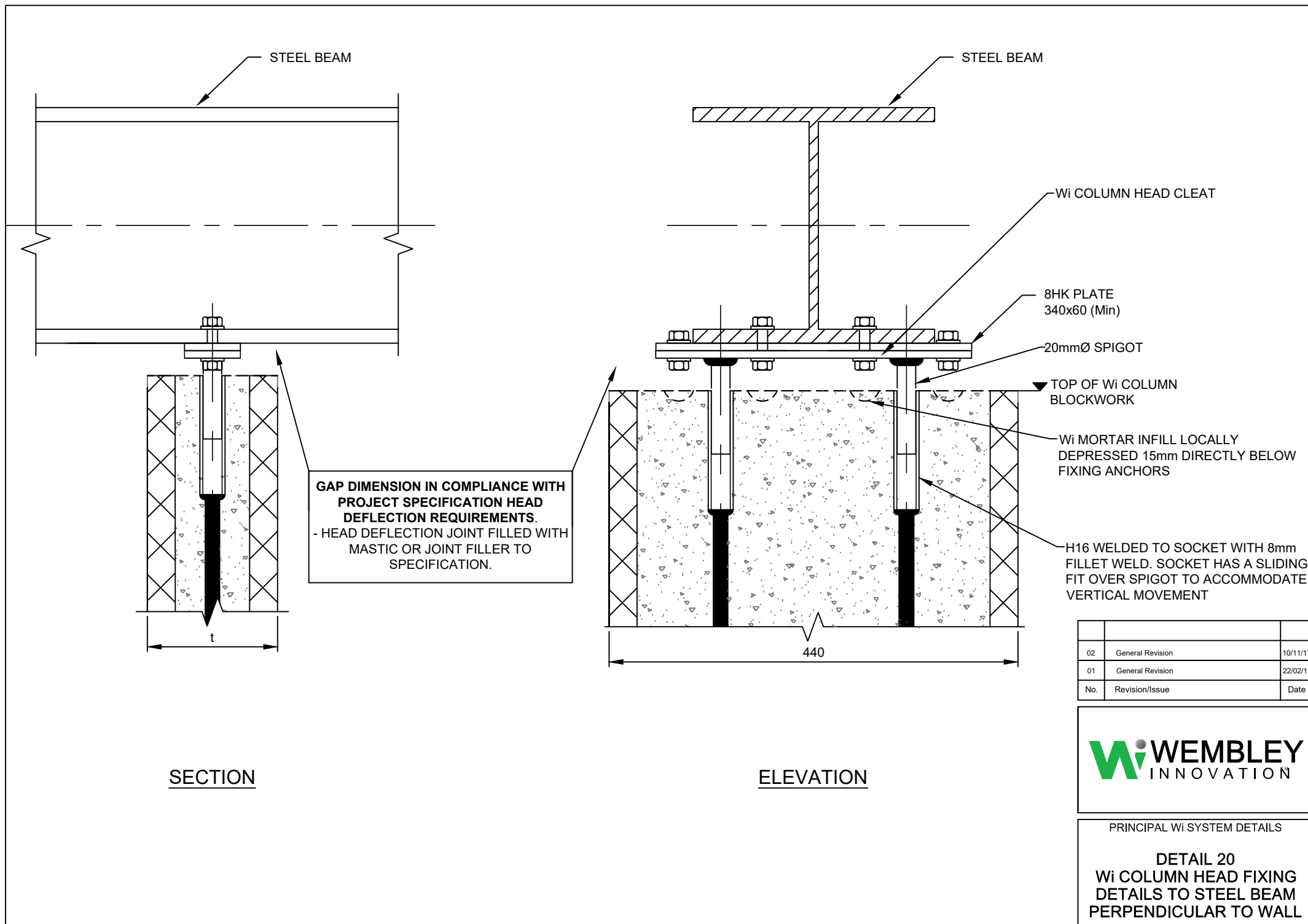


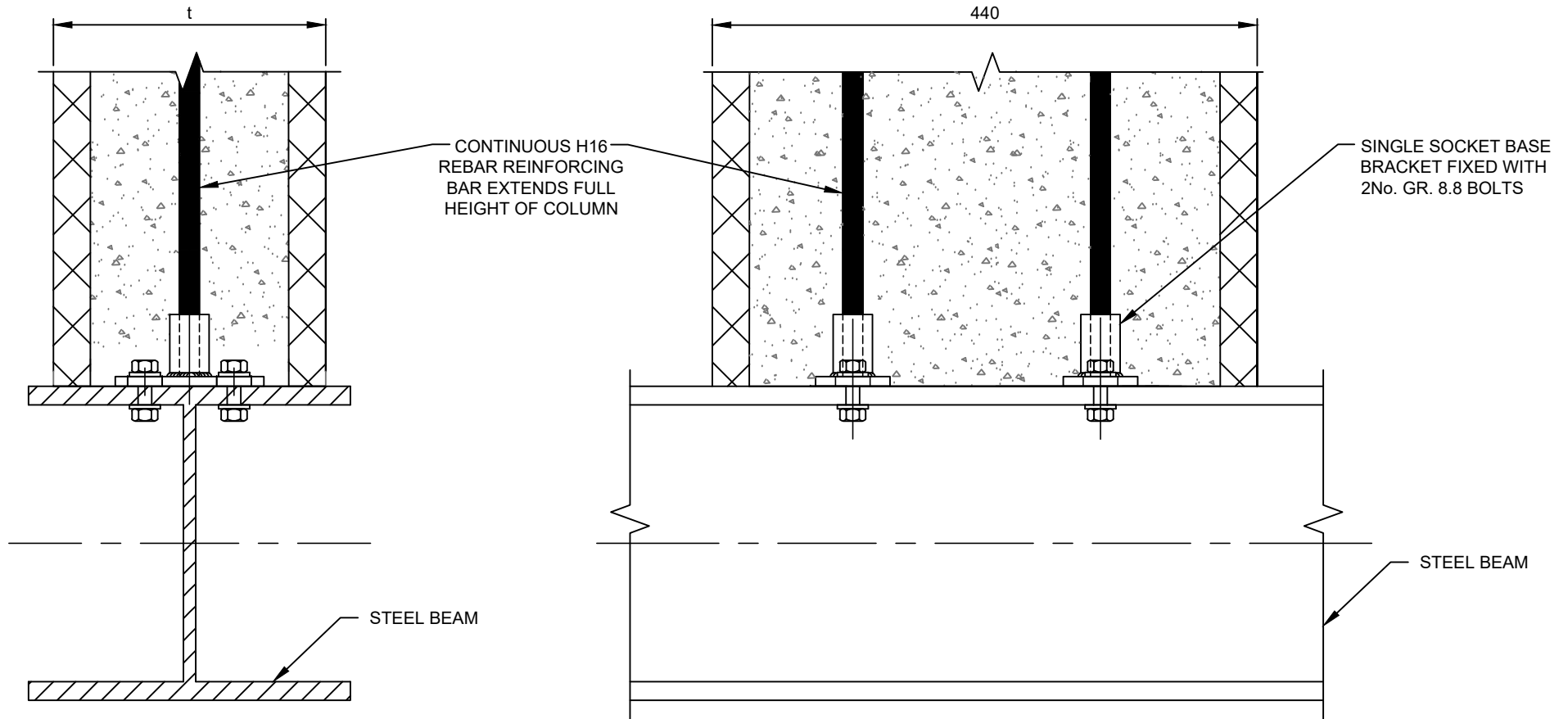
01	General Revision	22/02/17
No.	Revision/Issue	Date



PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 19a**  
**Wi COLUMN HEAD FIXING**  
**DETAILS TO STEEL BEAM**  
**PARALLEL TO WALL**



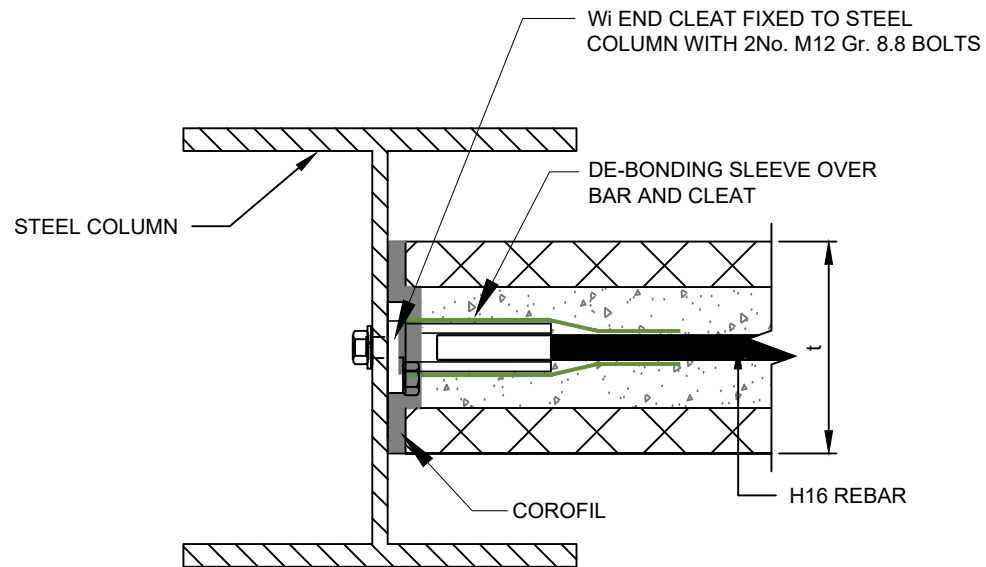


01	General Revision	22/02/17
No.	Revision/Issue	Date

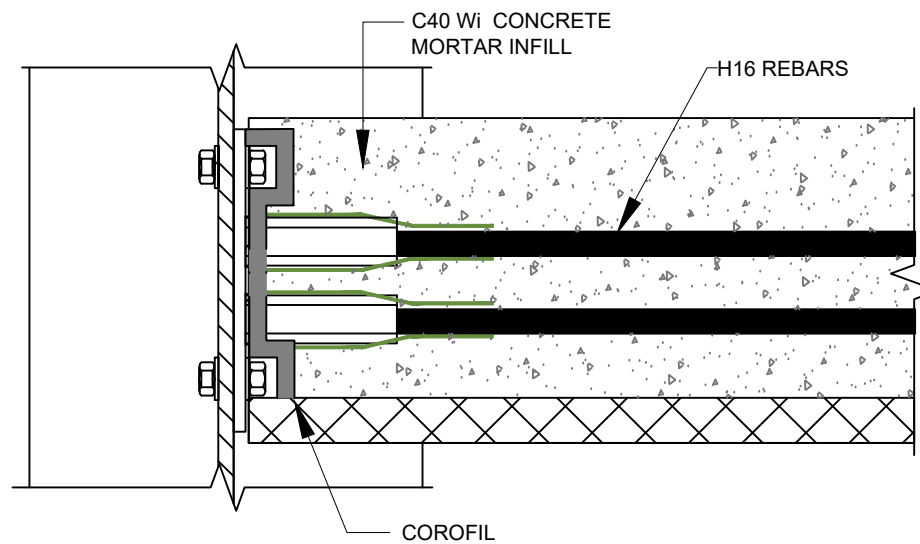
**WEMBLEY**  
INNOVATION

PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 21**  
**Wi COLUMN BASE FIXING**  
**DETAILS TO STEEL BEAM**



SECTIONAL PLAN



SECTIONAL ELEVATION

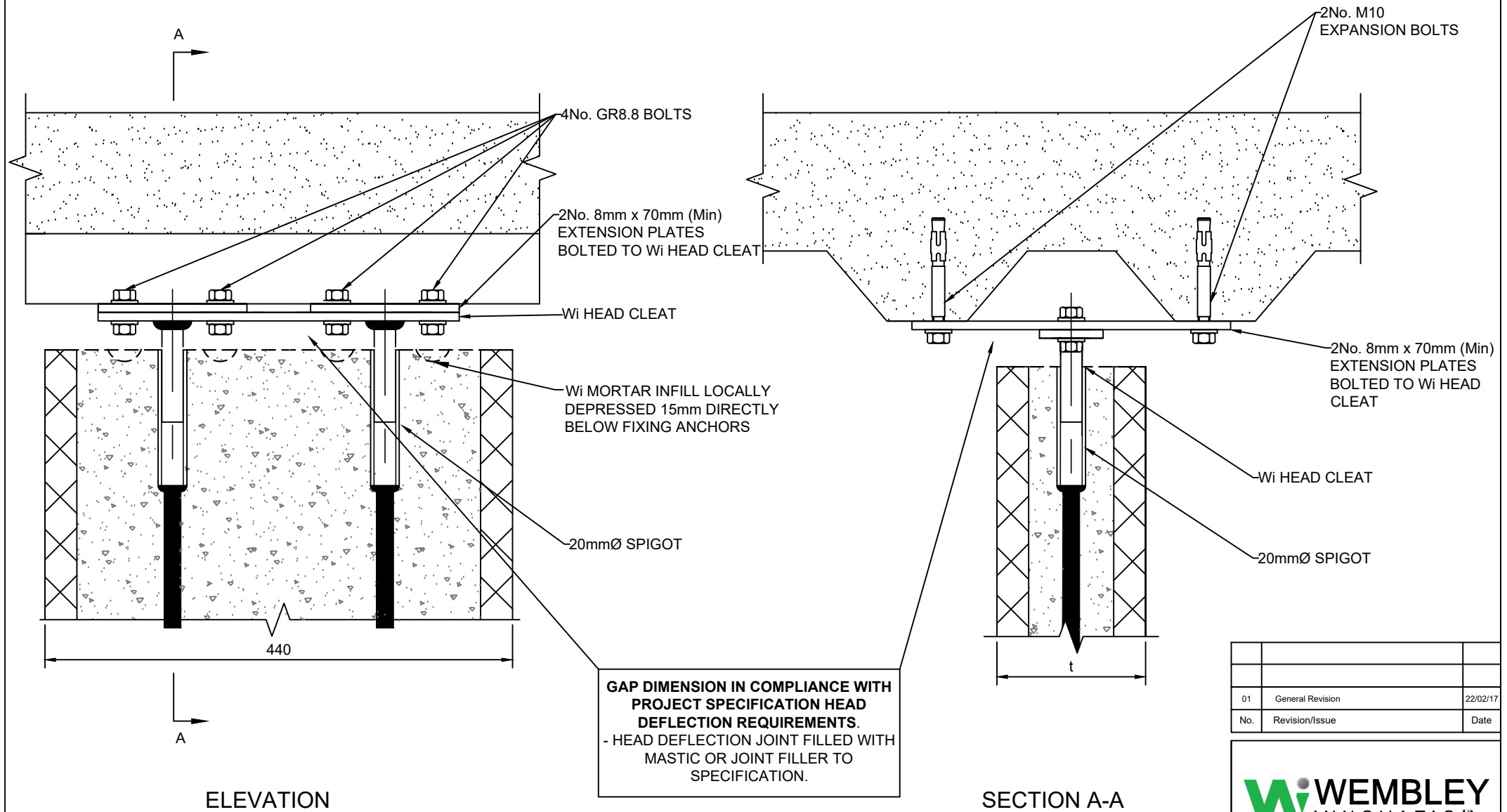
01	General Revision	22/02/17
No.	Revision/Issue	Date

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PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 22**

**Wi BEAM FIXED TO STEEL COLUMN WEB**



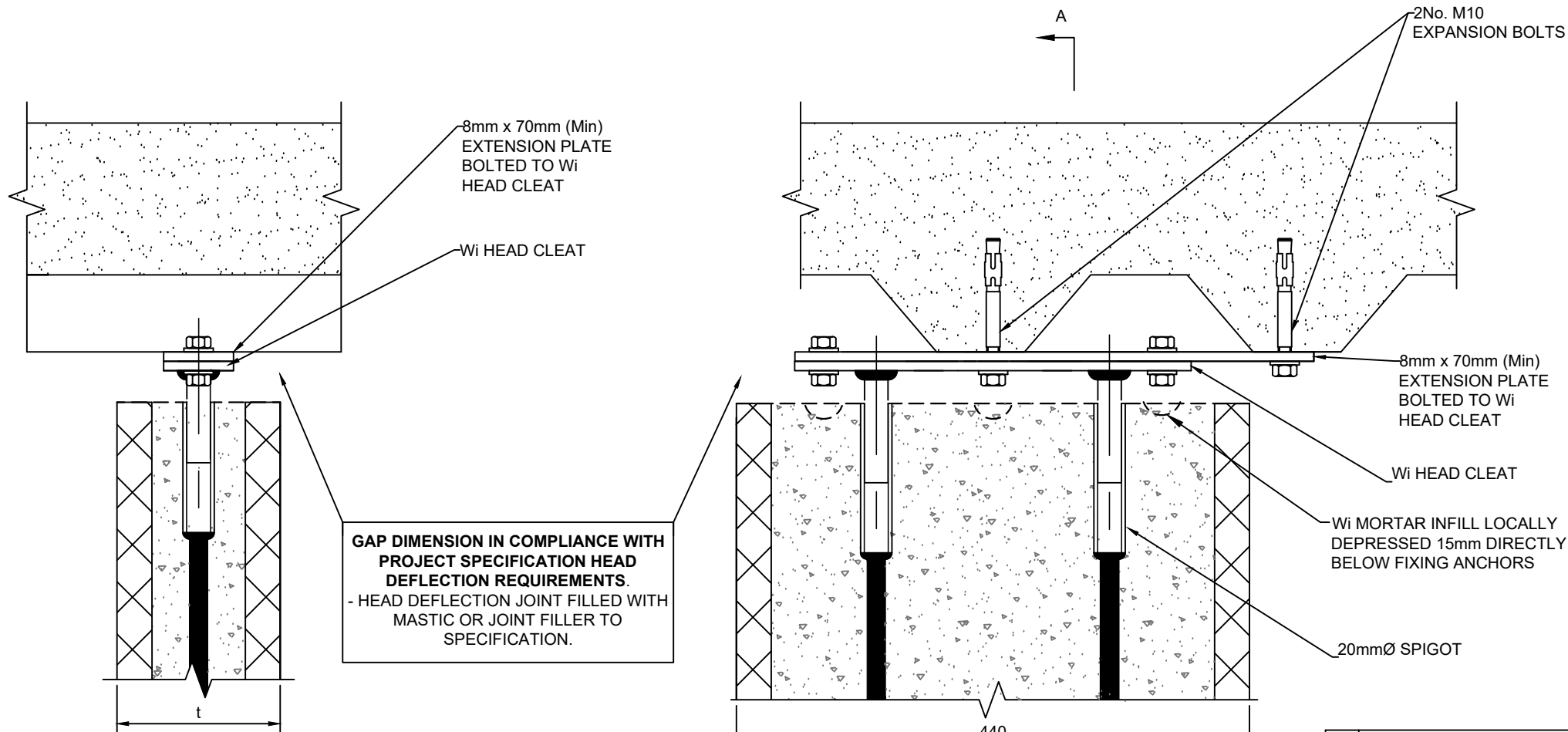
01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
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PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 23**

**Wi HEAD CLEAT CONNECTION  
TO PROFILED DECKING -  
PARALLEL TO TROUGH**



01	General Revision	22/02/17
No.	Revision/Issue	Date

**Wi WEMBLEY**  
INNOVATION

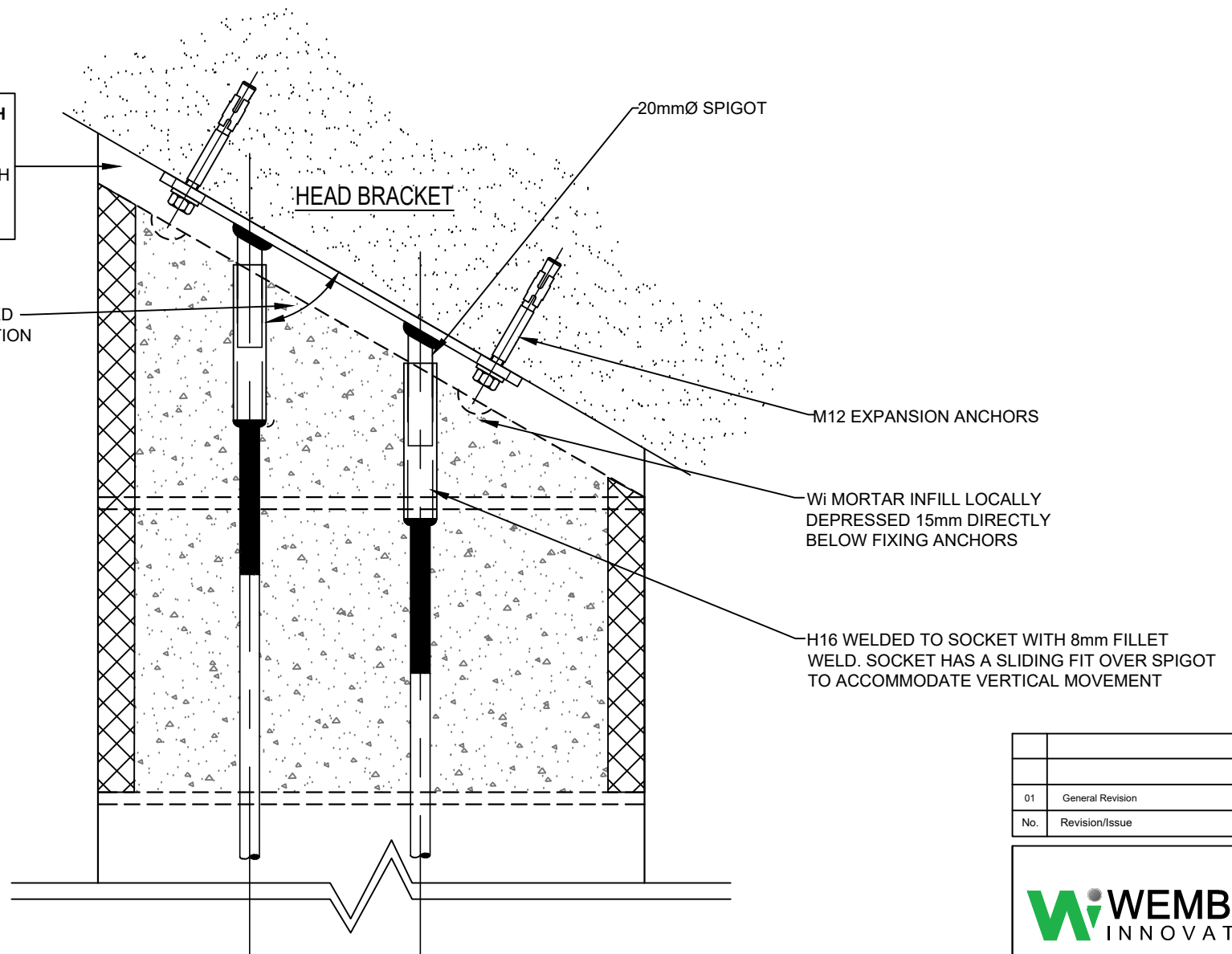
PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 24**

**Wi HEAD CLEAT CONNECTION  
TO PROFILED DECKING -  
ACROSS TROUGH**

**GAP DIMENSION IN COMPLIANCE WITH  
PROJECT SPECIFICATION HEAD  
DEFLECTION REQUIREMENTS.**  
- HEAD DEFLECTION JOINT FILLED WITH  
MASTIC OR JOINT FILLER TO  
SPECIFICATION.

ANGLE TO BE CONFIRMED  
FOR BESPOKE FABRICATION  
OF HEAD CLEAT



01	General Revision	22/02/17
No.	Revision/Issue	Date

**WEMBLEY**  
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PRINCIPAL Wi SYSTEM DETAILS

**DETAIL 25**

WiC ANGLED HEAD CLEAT  
FIXING DETAILS





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"Wi COLUMN", "SLOT BLOCK", "U-BLOCK", "Wi BEAM" and the "Wi" device mark are registered Community trade marks of Wembley Innovation Limited.

The Wi BEAM / Wi COLUMN building system and its components are the subject of a number of Community design registrations (CDRs),  
patent and patent applications, including:

CDRs 000881263-0001 to 0005, 005810579-0001 to 0004, 002391136-0001 to 0002, 000992136-0001, 001126635;

UK & EU patent Nos. 2440531, 2442543, 2054563, 2313575, 2469272, 2509149, 2935715, 2250323, 2444258, 2485397, 1711069.3;

EU Trademarks 006884936, 006885396, 008355141, 008355166, 008807612;

International patent Nos. 2007280305, 2659536, 575214, 12/309795, 2726735, 2009254997, 2313575, 2013366093, 2892704, 708518, 9523194.