

Thursday, 5th July, 2018

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM' BRANZ.529 2017

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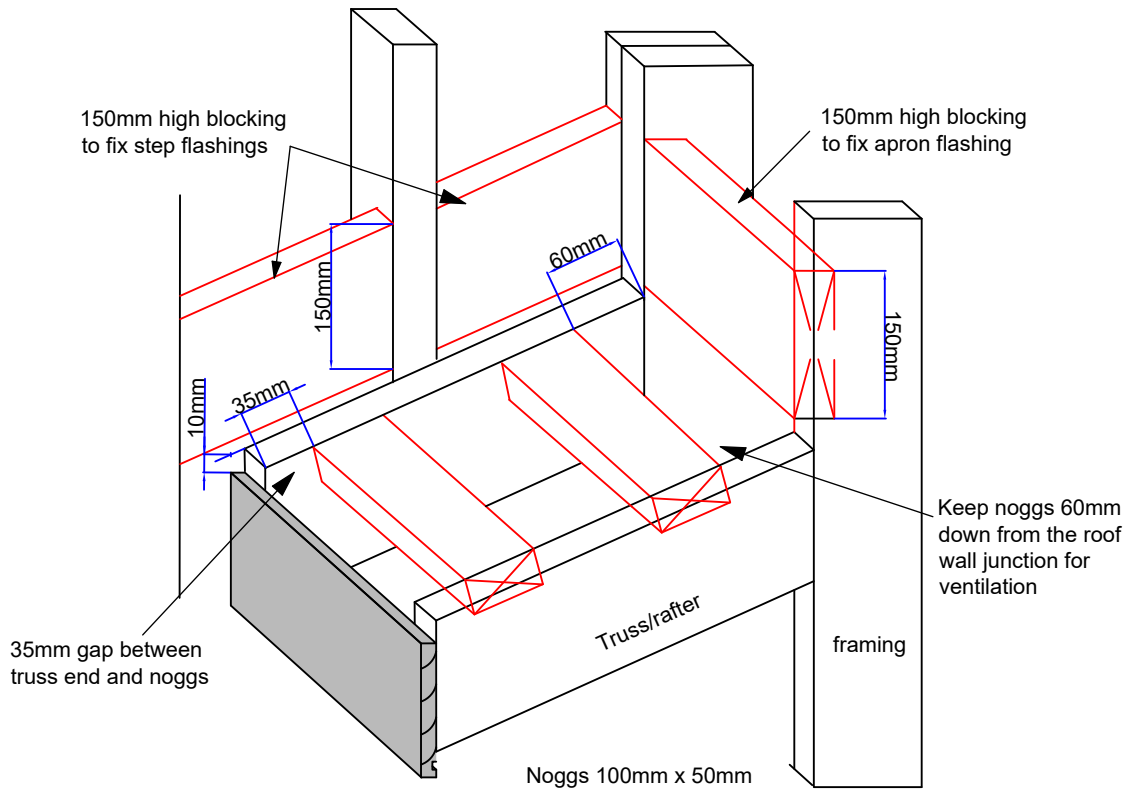
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THESE DETAILS HAVE BEEN COLLATED FOR THE BRANZ APPRAISAL USE ONLY. THEY ARE TO SERVE AS A GUIDELINE FOR CORRECT DETAILING OF 'GAF ASPHALT SHINGLE ROOFING SYSTEM'.

WHERE PRODUCT IS TO BE USED IT IS THE DESIGNERS RESPONSIBILITY TO ENSURE THAT THE CORRECT DETAILS ARE SHOWN ON THE PLANS AND SPECIFICATIONS.

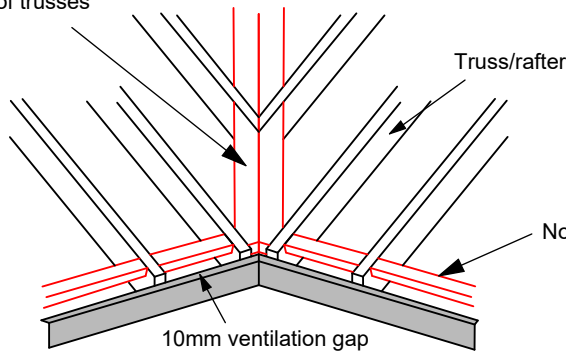
ROOFING LOGISTICS NZ LTD. WILL NOT BE HELD RESPONSIBLE OR LIABLE FOR ANY DAMAGES TO PROPERTY OR PRODUCT INSTALLED IN A MANNER OTHER THAN AS DIRECTED BY A TRAINED AND APPROVED APPLICATOR.

**For technical assistance call 0800 423355
or visit www.gafroofing.co.nz**

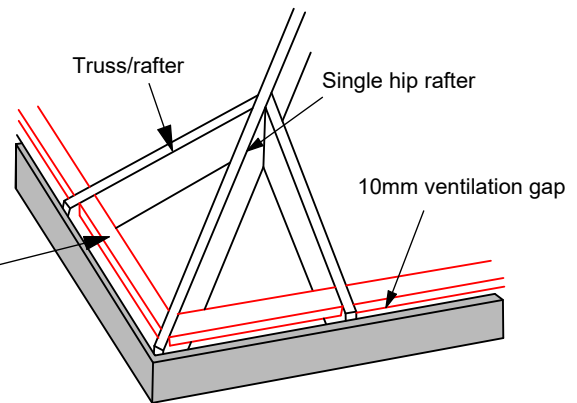


Wall roof intersection

Valley noggs flush with top of trusses

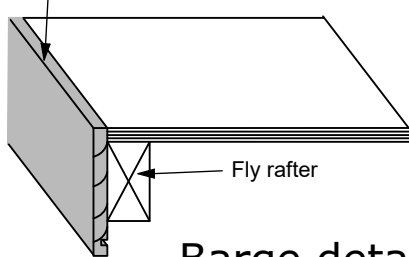


Valley detail

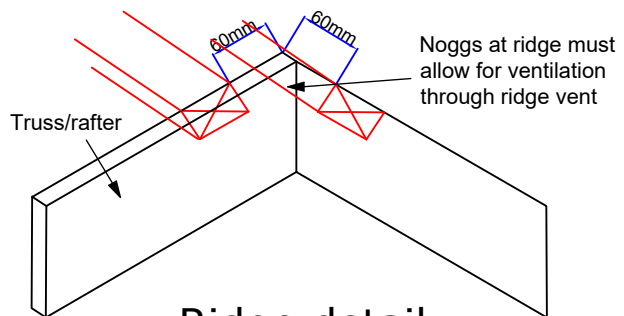


Hip detail

Facia as per plans

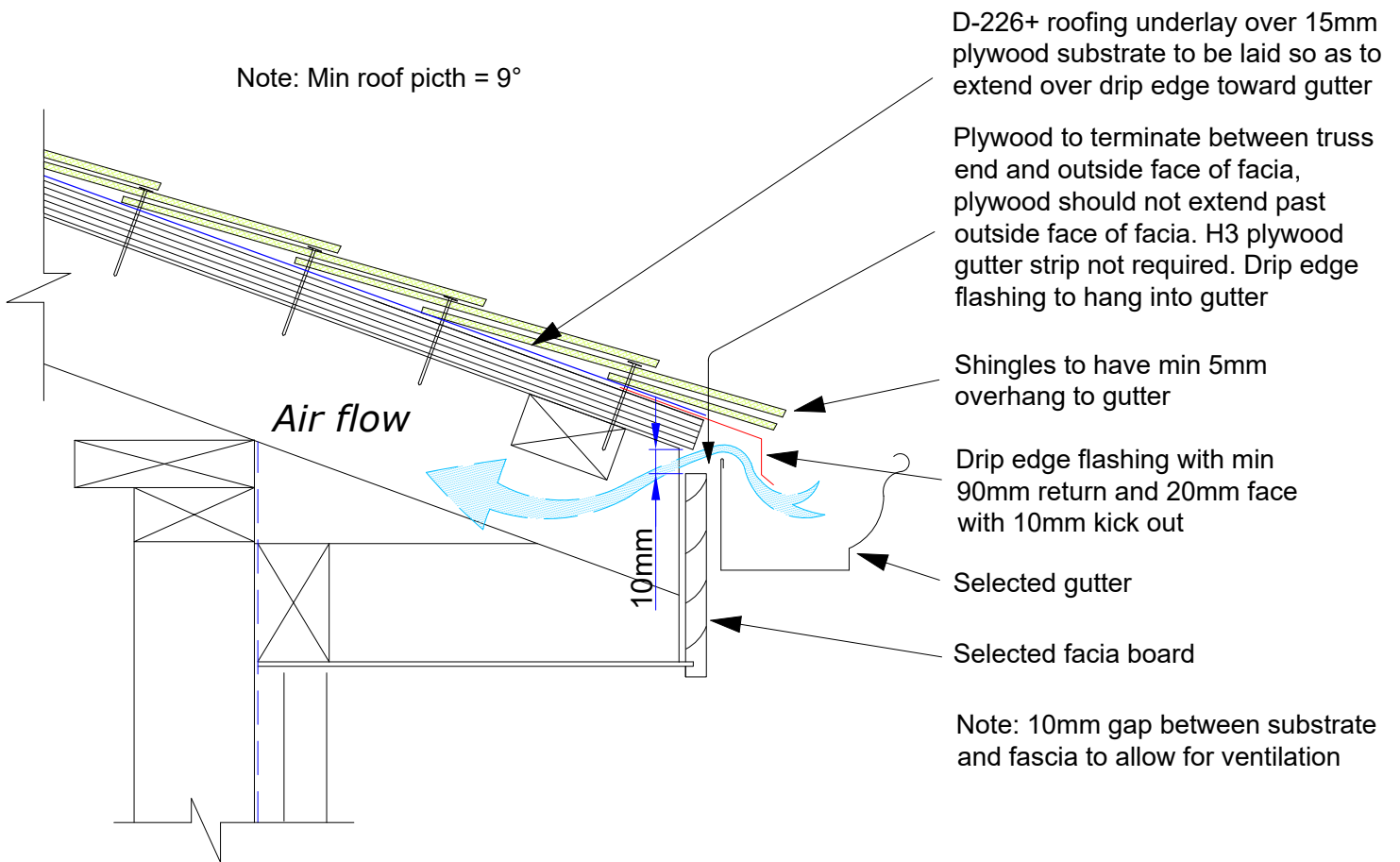




Barge detail



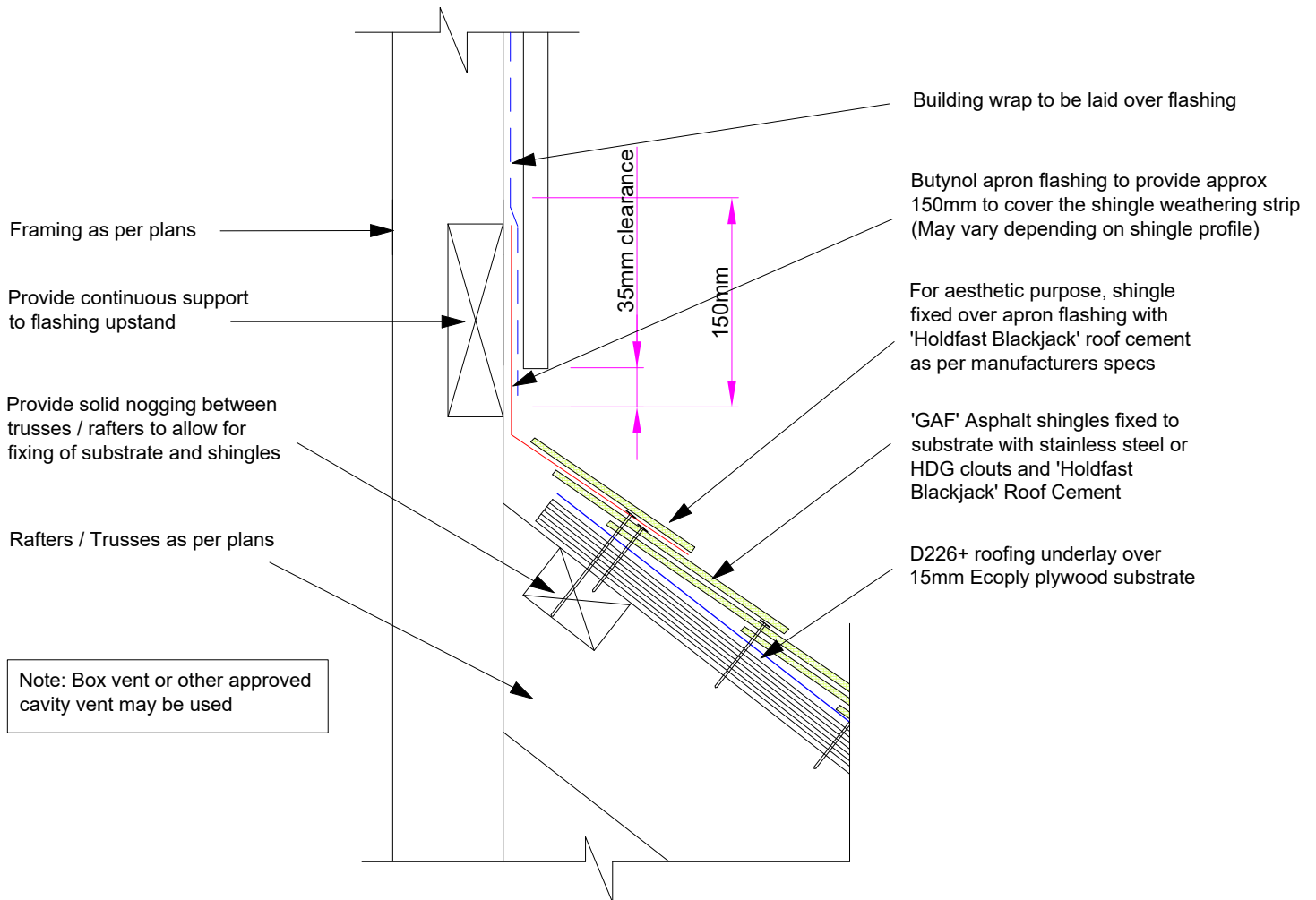
Ridge detail



CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



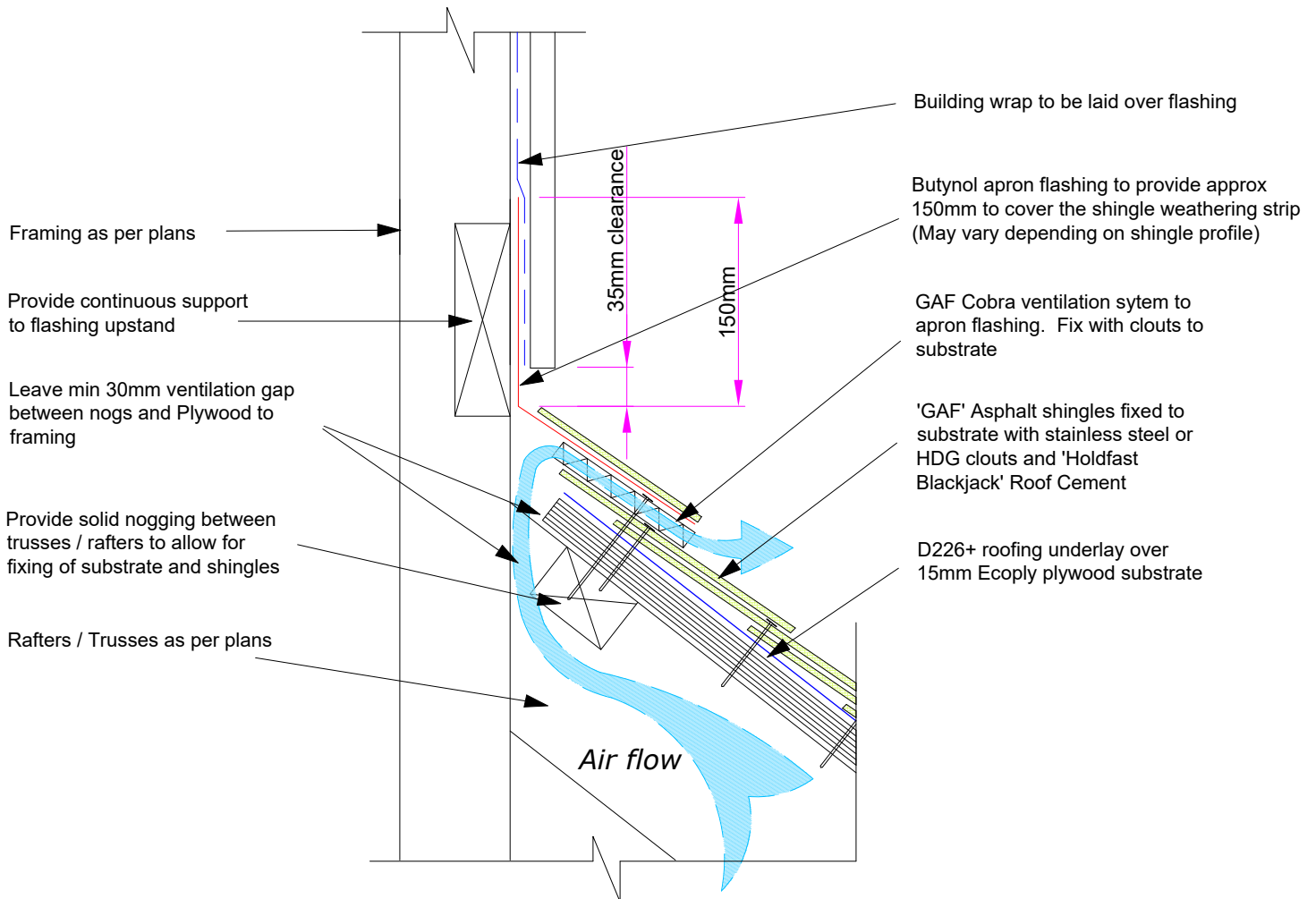
	DRAWING: EAVE DETAIL	DATE: 24 JUNE 2018	DETAIL: 3	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



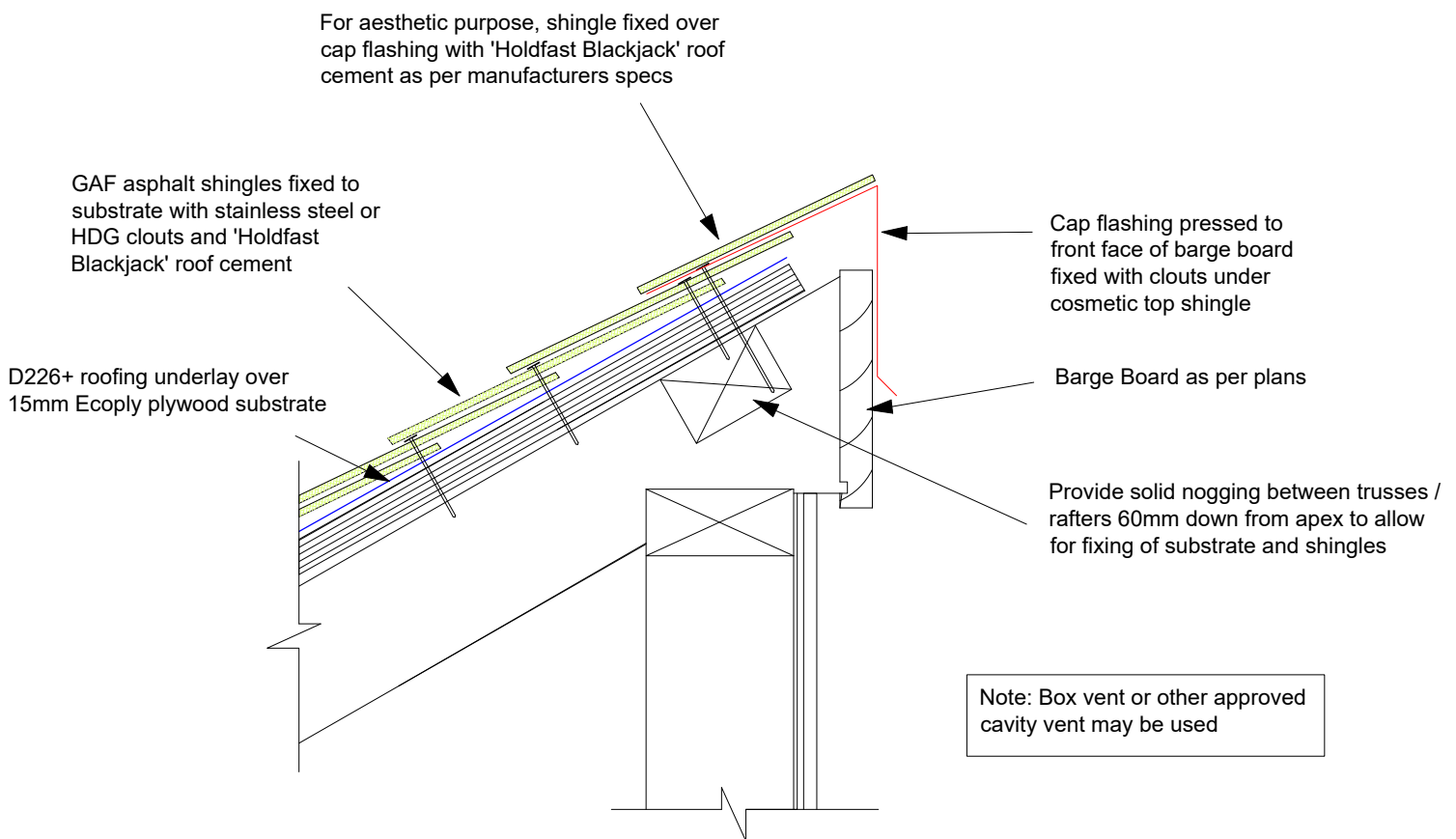
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	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



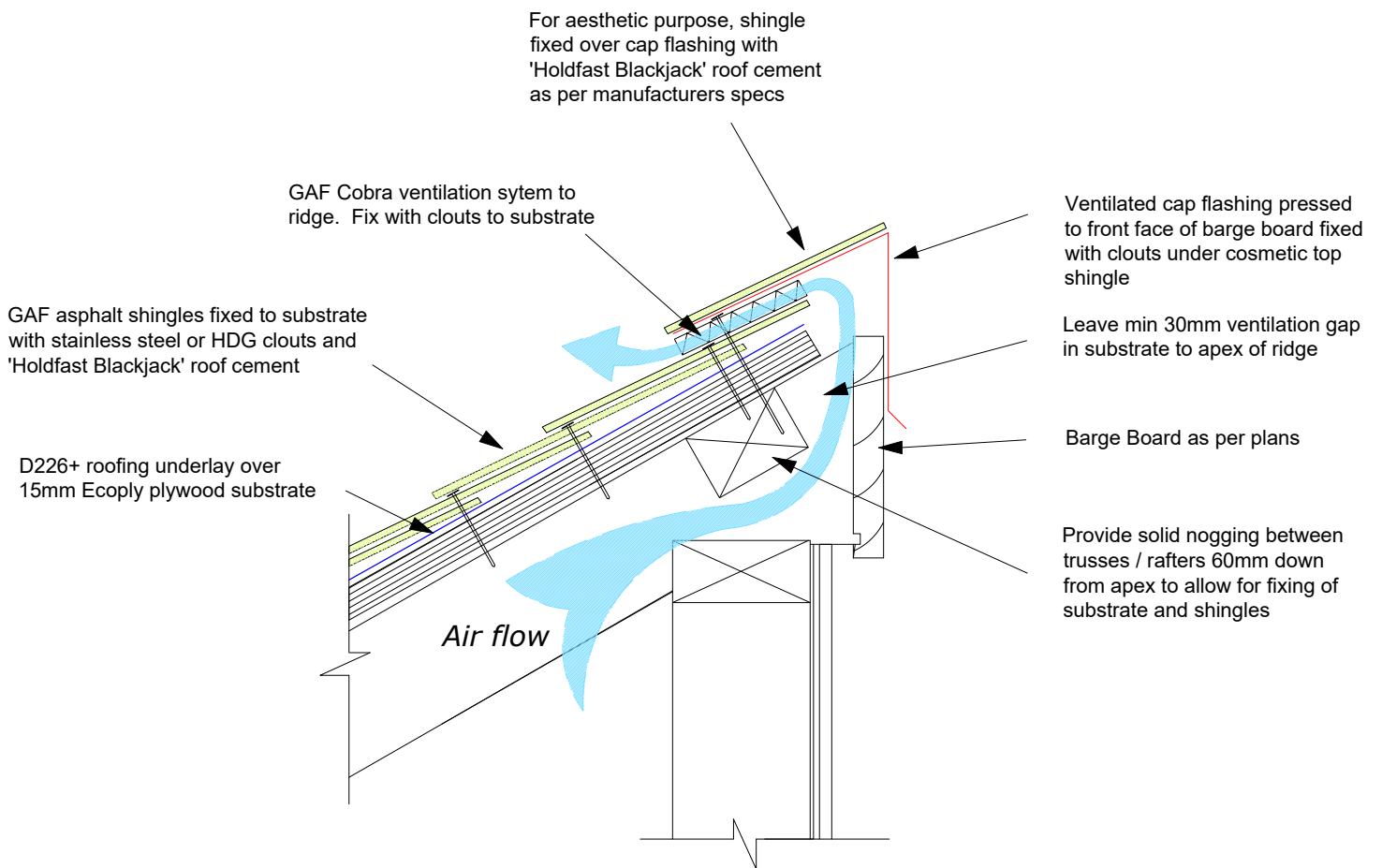
	DRAWING: APRON FLASHING WITH VENT	DATE: 24 JUNE 2018	DETAIL: 5	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



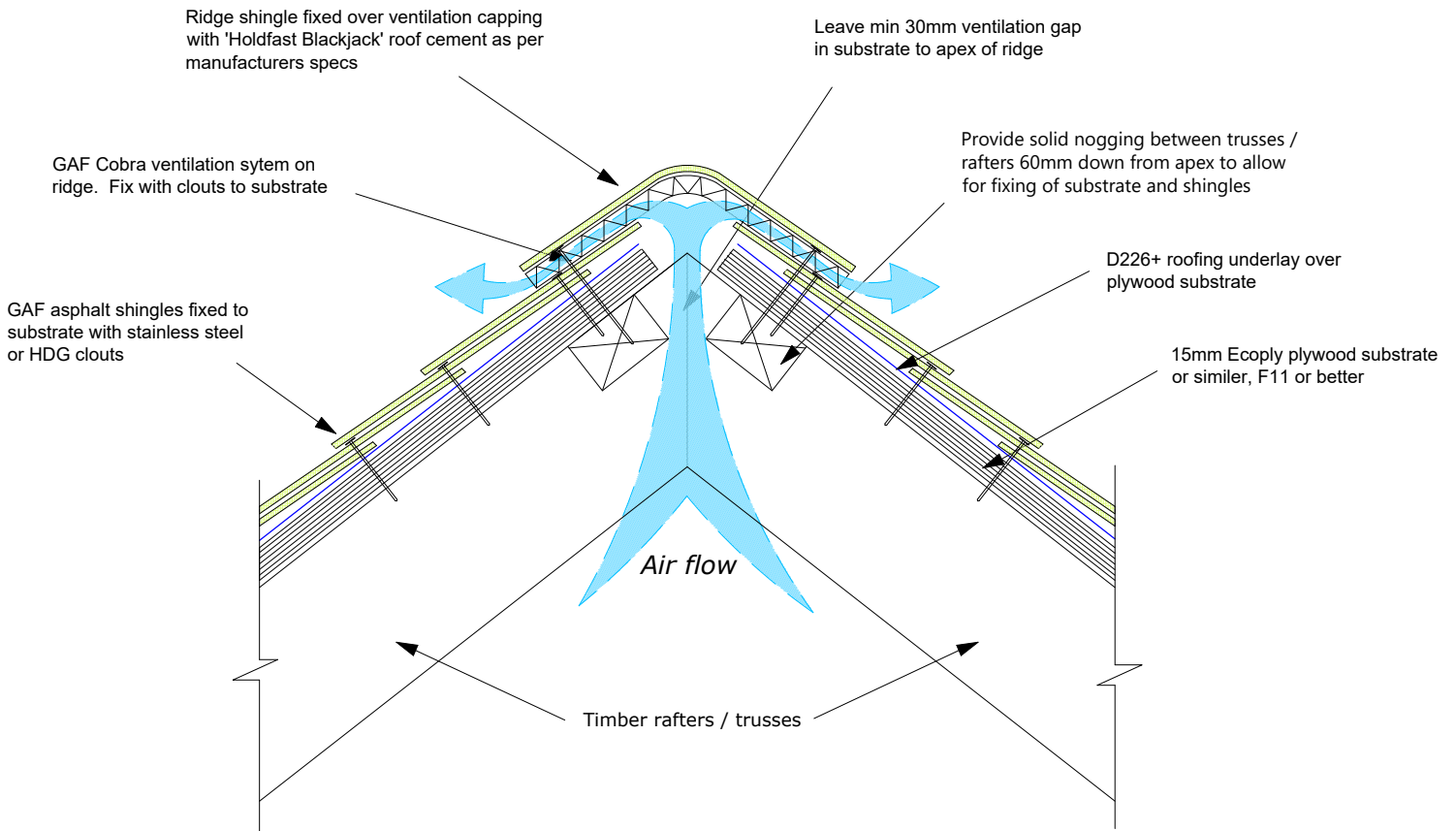
	DRAWING: ROOF/WALL RIDGE	DATE: 24 JUNE 2018	DETAIL: 6	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		



CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



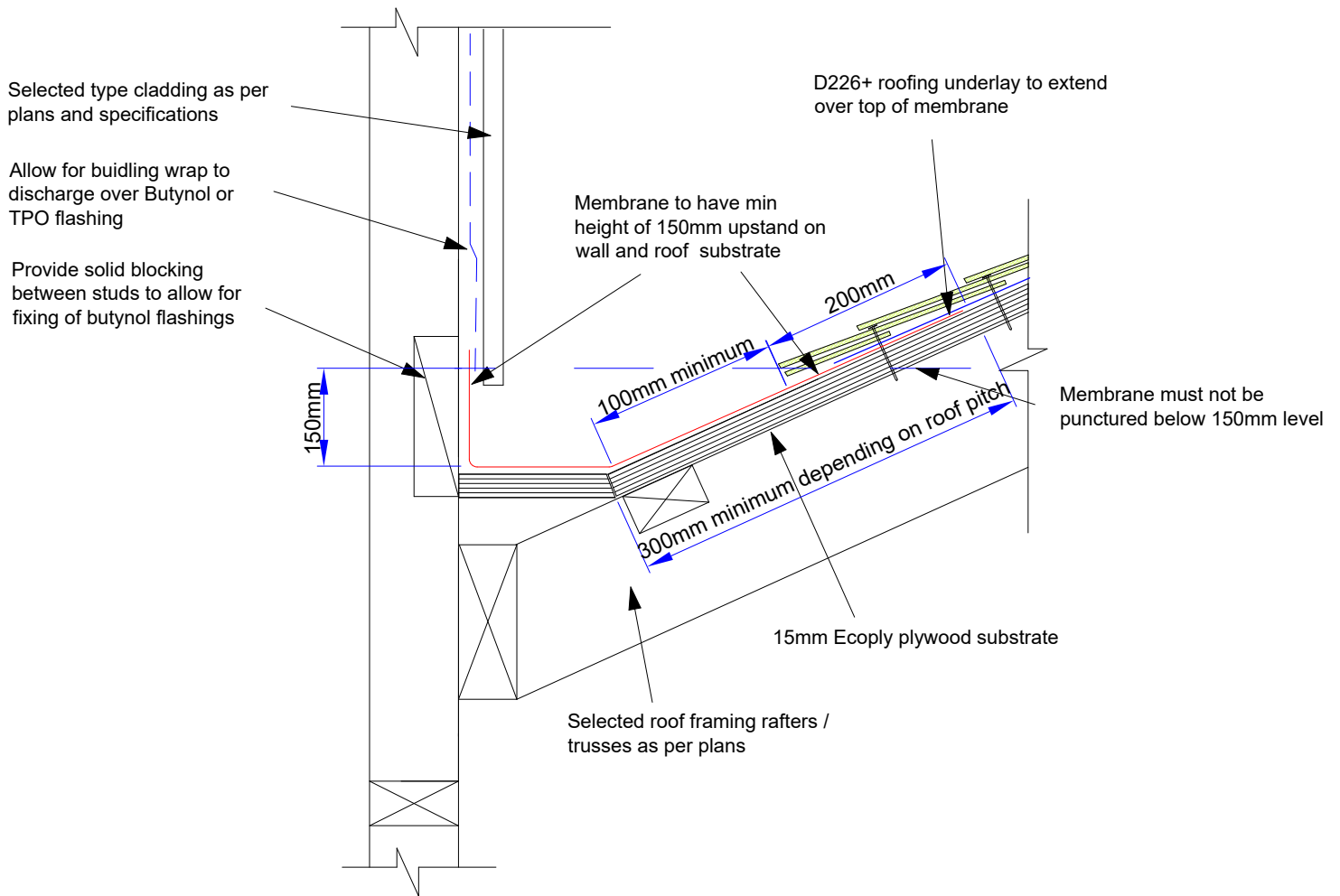
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	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		



CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



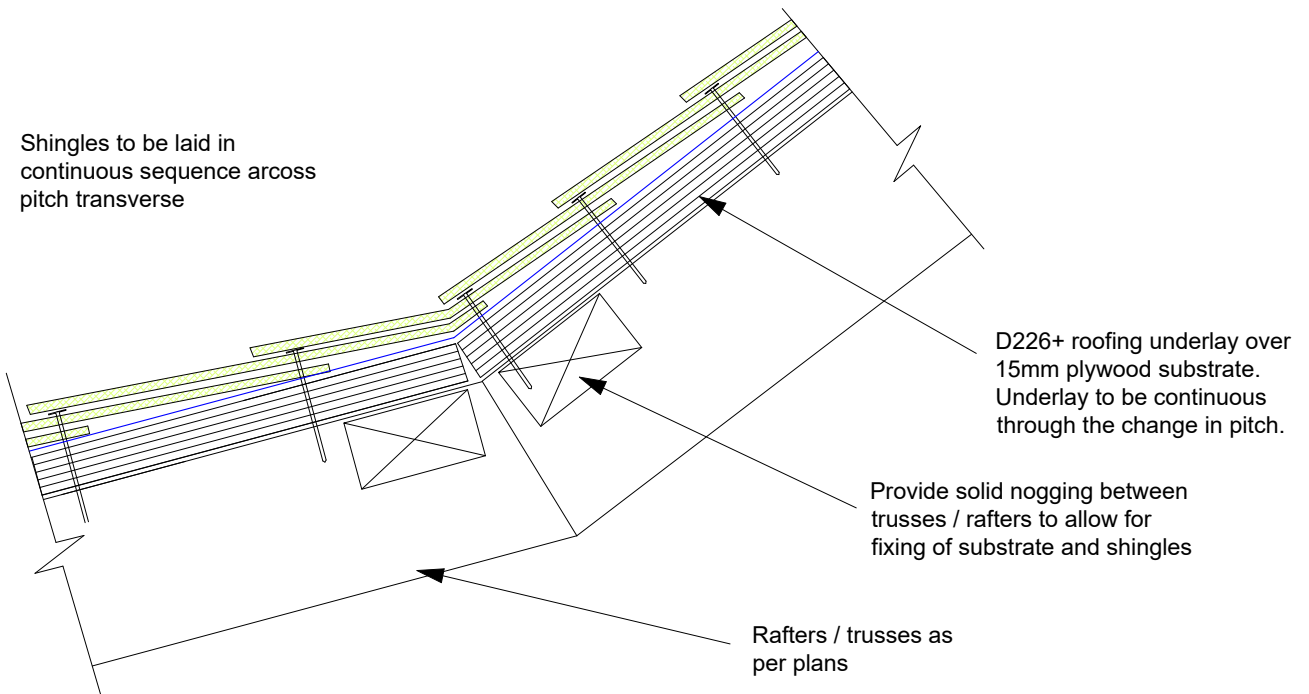
	DRAWING: RIDGE CLADDING	DATE: 24 JUNE 2018	DETAIL: 8	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: SLOPE TO WALL DETAIL	DATE: 24 JUNE 2018	DETAIL: 9	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: PITCH CHANGE DETAIL	DATE: 24 JUNE 2018	DETAIL: 10	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'

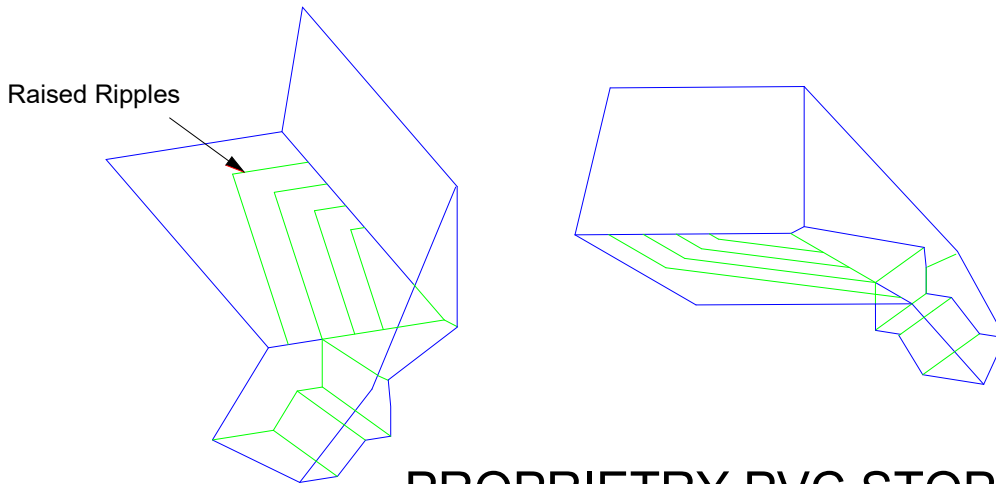
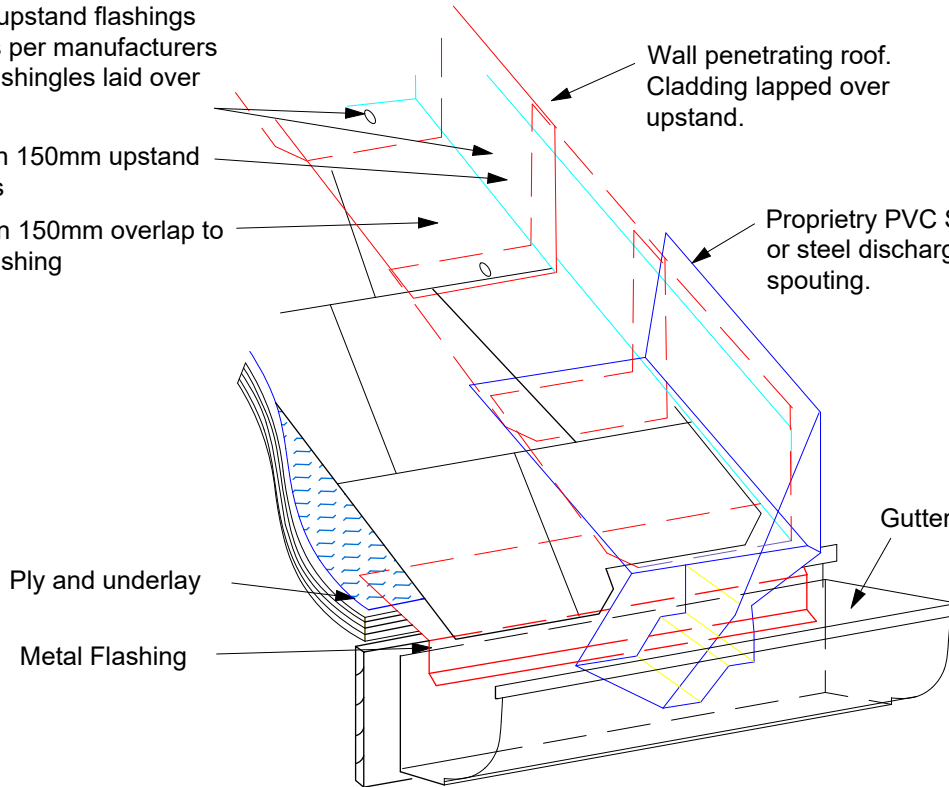
Butynol or upstand flashings installed as per manufacturers specs with shingles laid over

Provide min 150mm upstand to flashings

Provide min 150mm overlap to upstand flashing

Wall penetrating roof. Cladding lapped over upstand.

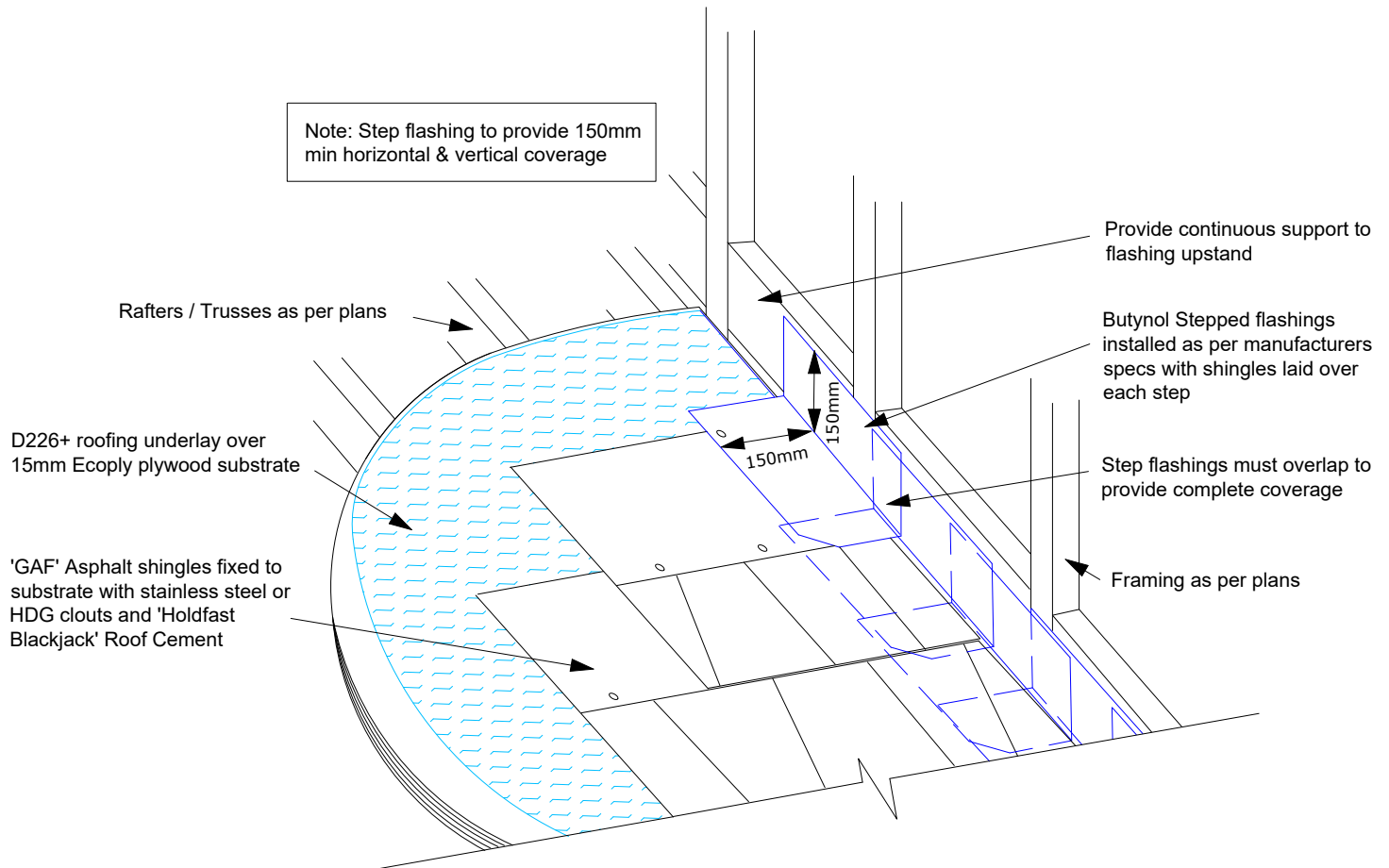
Proprietary PVC Stop end or steel discharge into spouting.



PROPRIETARY PVC STOP END ONE PIECE FLASHING

	DRAWING: GUTTER WALL JUNCTION	DATE: 24 JUNE 2018	DETAIL: 11	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

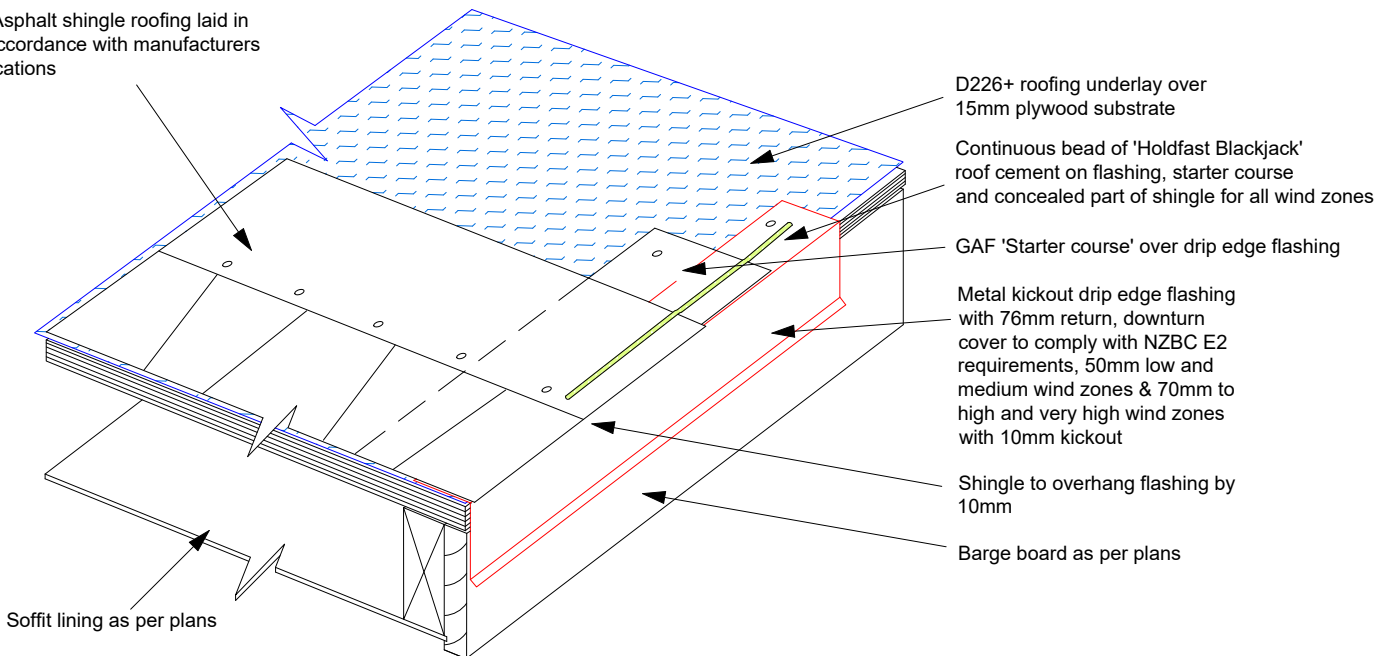
CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'





	DRAWING: STEP FLASHING DETAIL	DATE: 24 JUNE 2018	DETAIL: 12	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

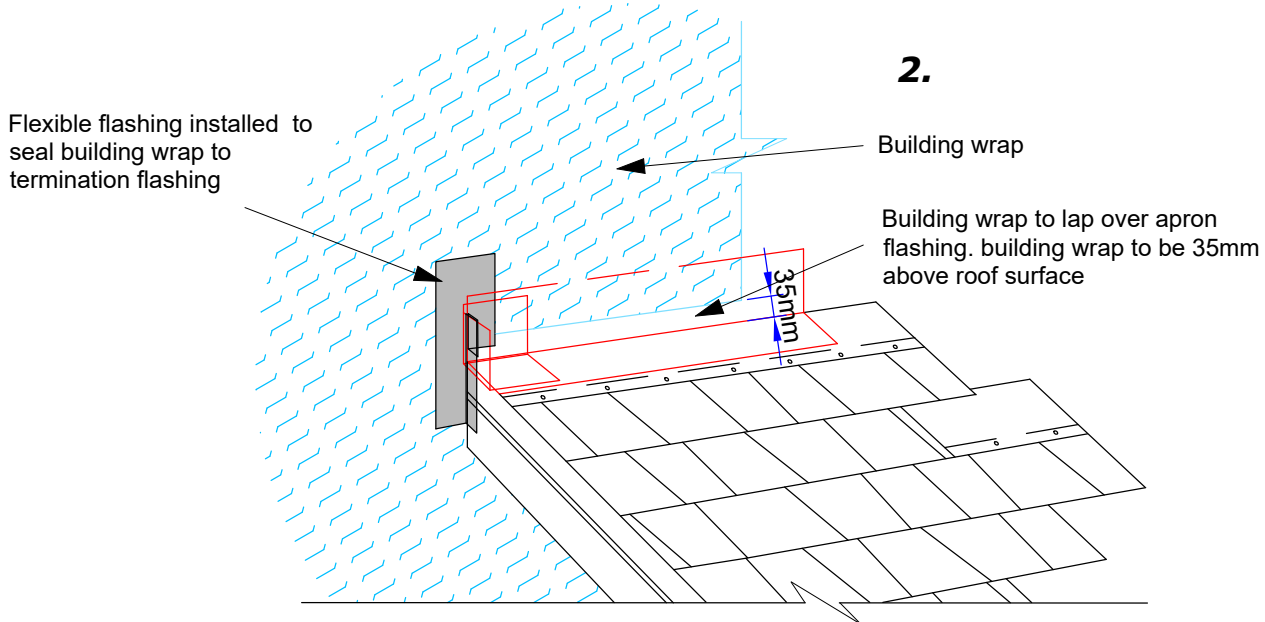
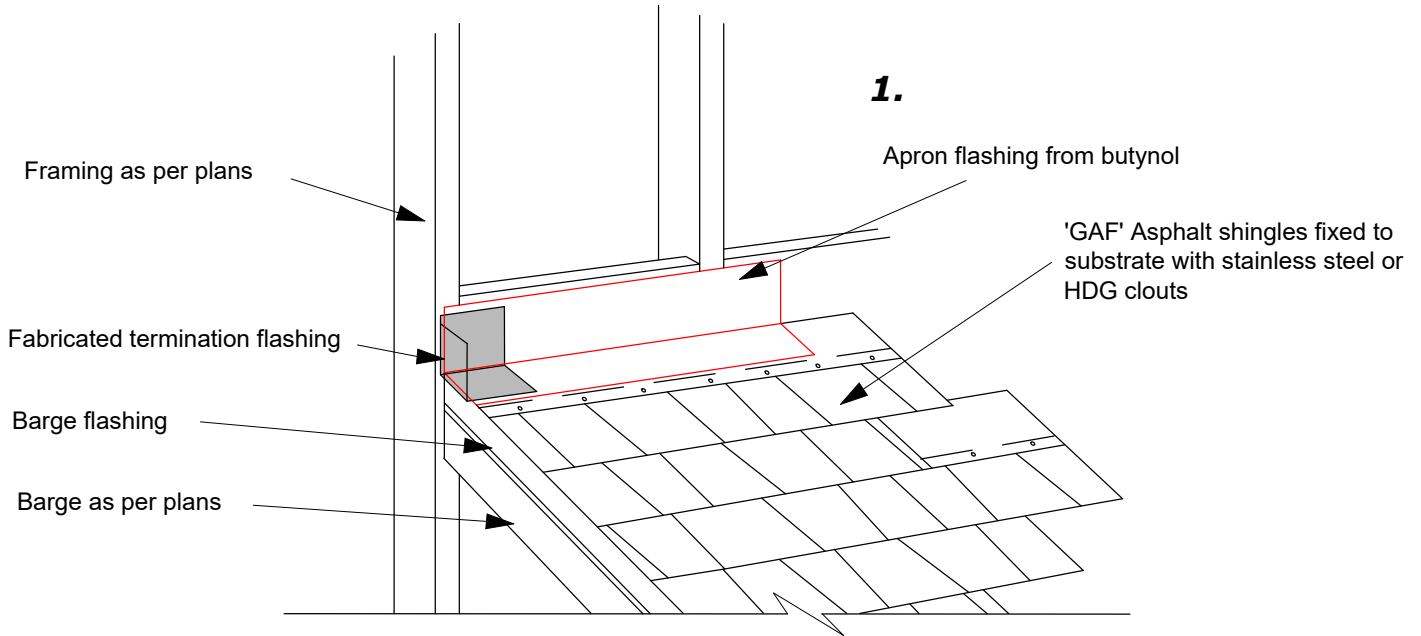
CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'

'GAF' Asphalt shingle roofing laid in strict accordance with manufacturers specifications



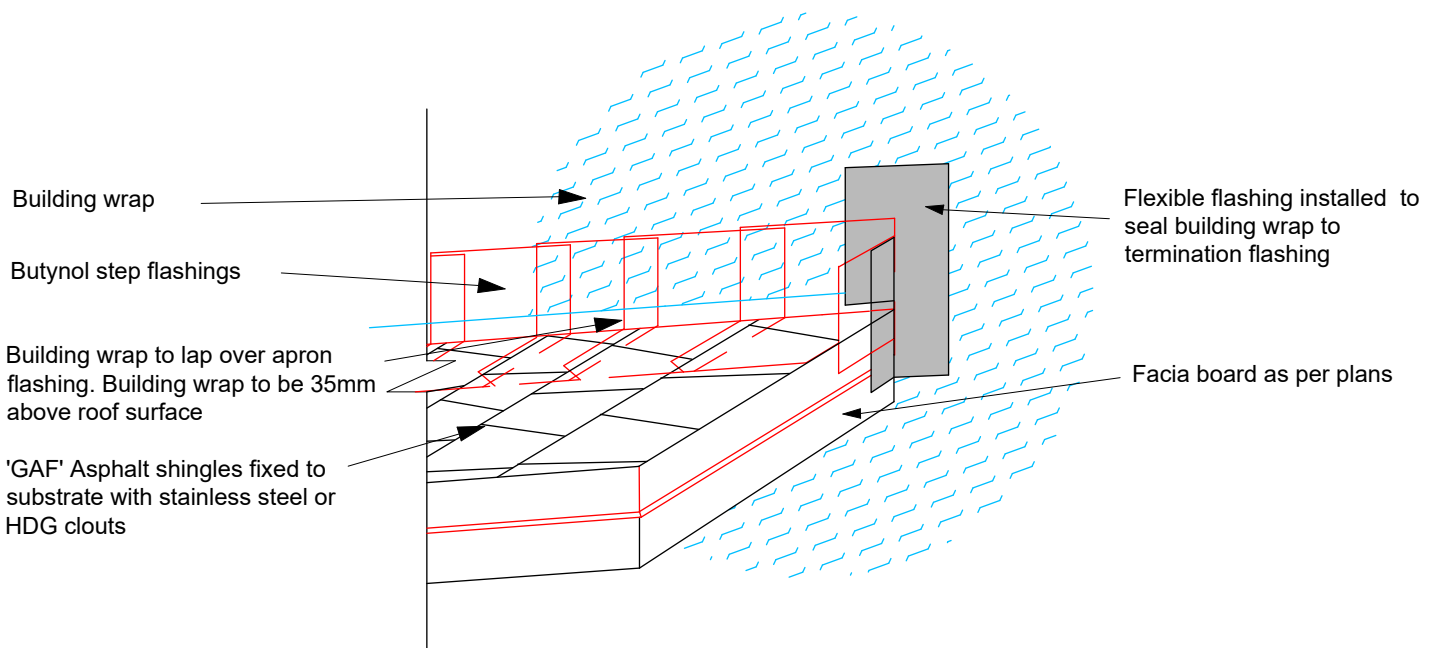
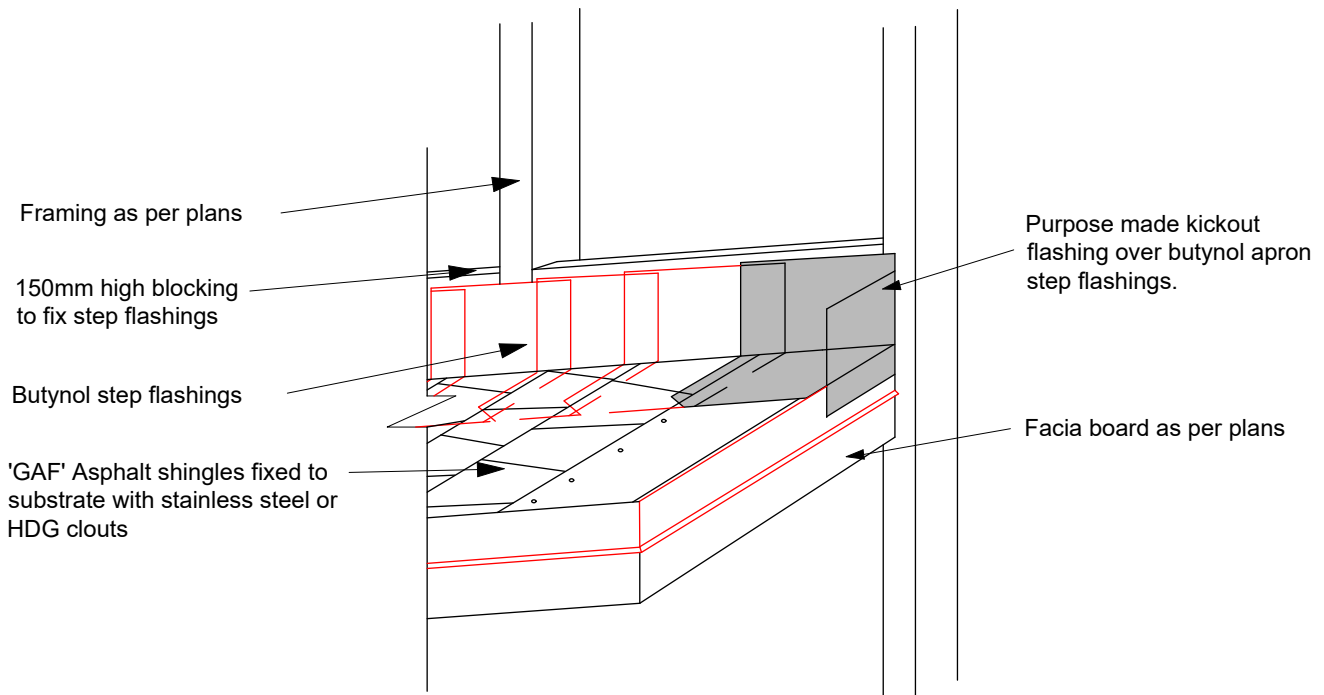
	DRAWING: BARGE END DETAIL	DATE: 24 JUNE 2018	DETAIL: 13	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



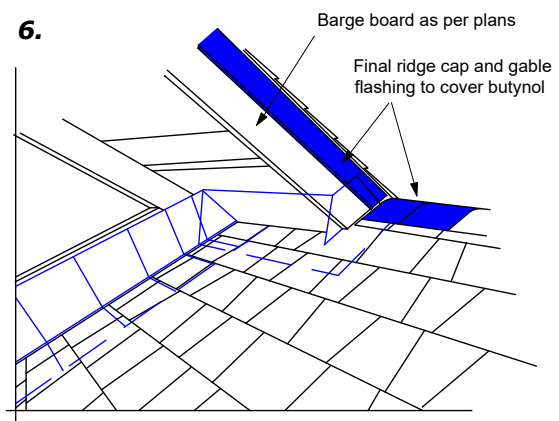
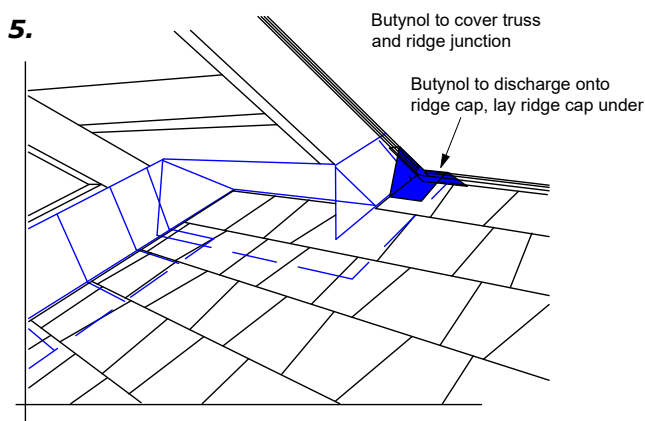
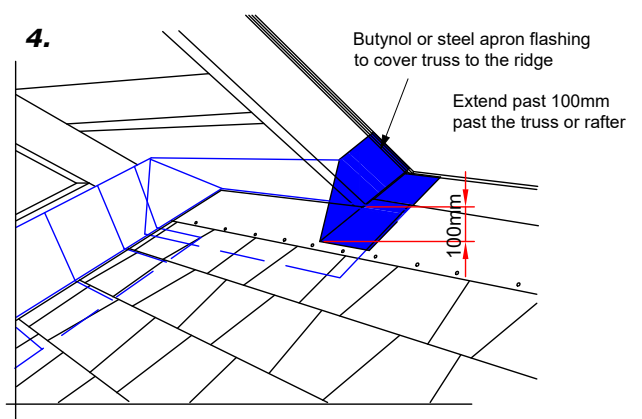
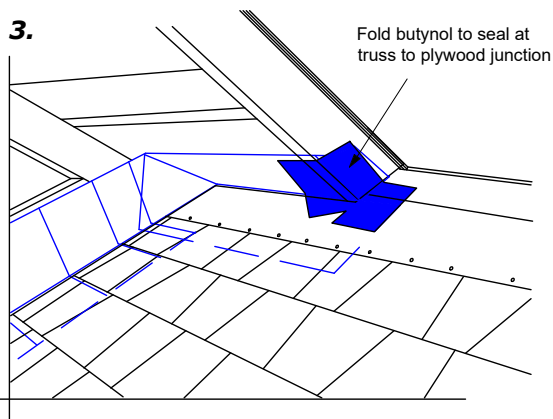
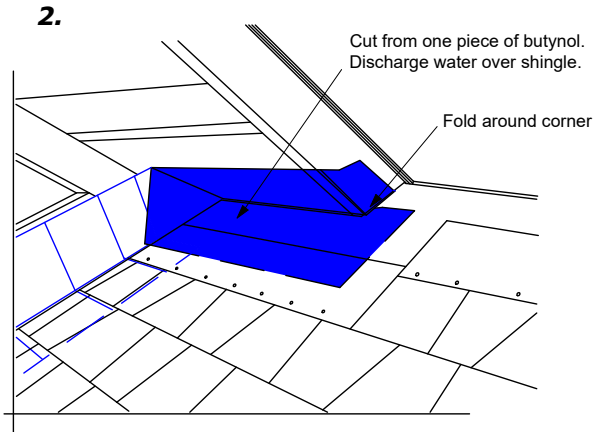
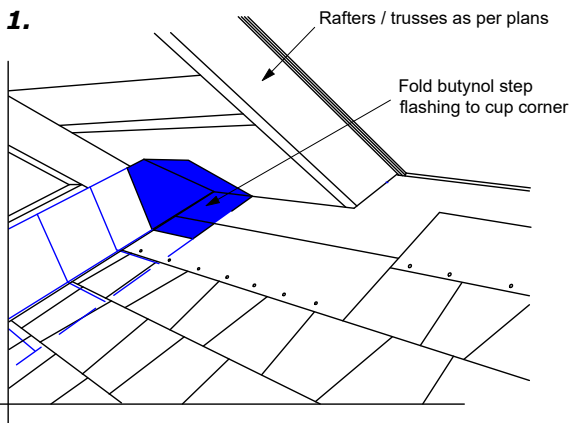
	DRAWING: APRON TERMINATION DETAIL	DATE: 28 JUNE 2018	DETAIL: 14	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



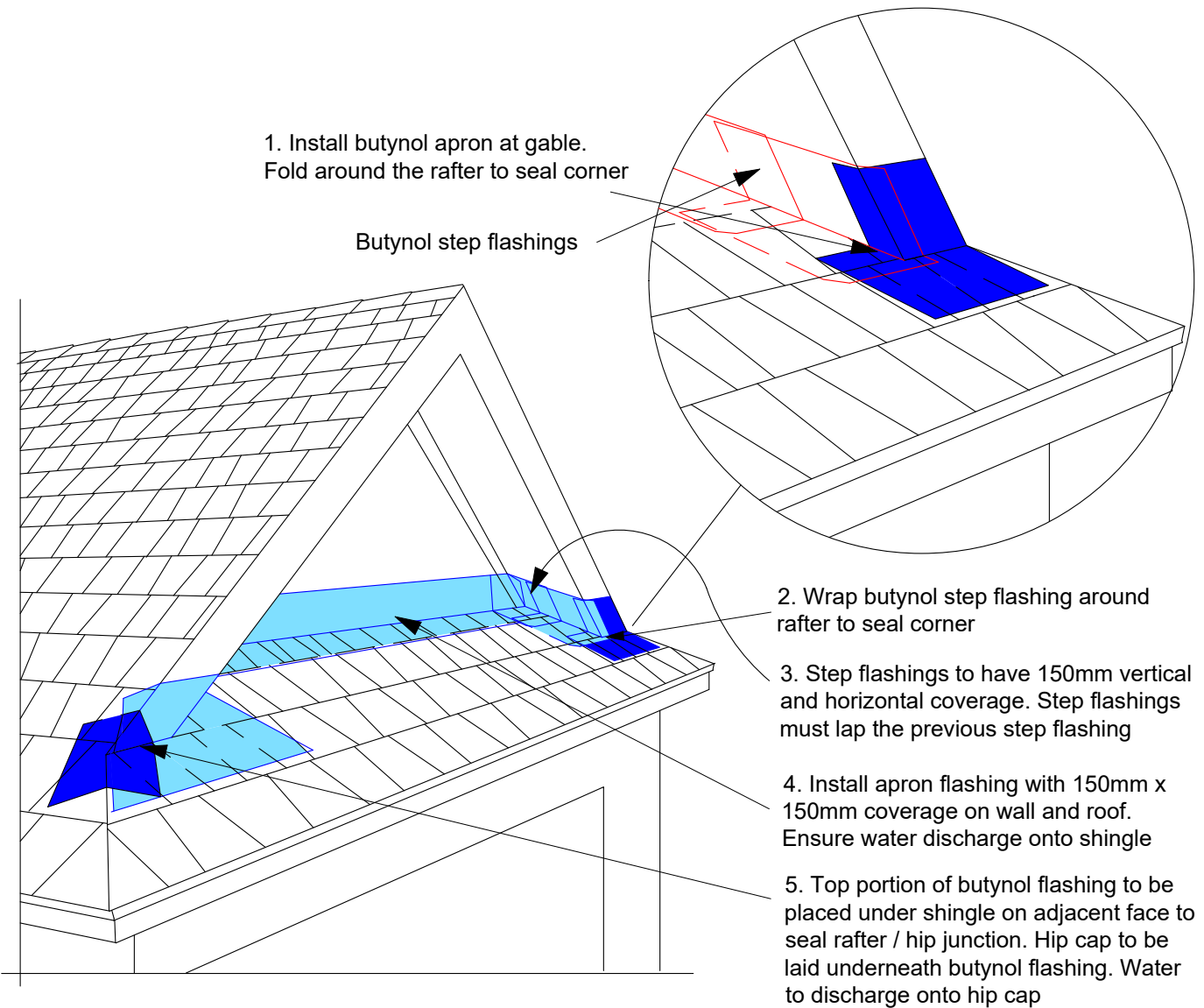
	DRAWING: KICK OUT FLASHING DETAIL	DATE: 28 JUNE 2018	DETAIL: 15	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



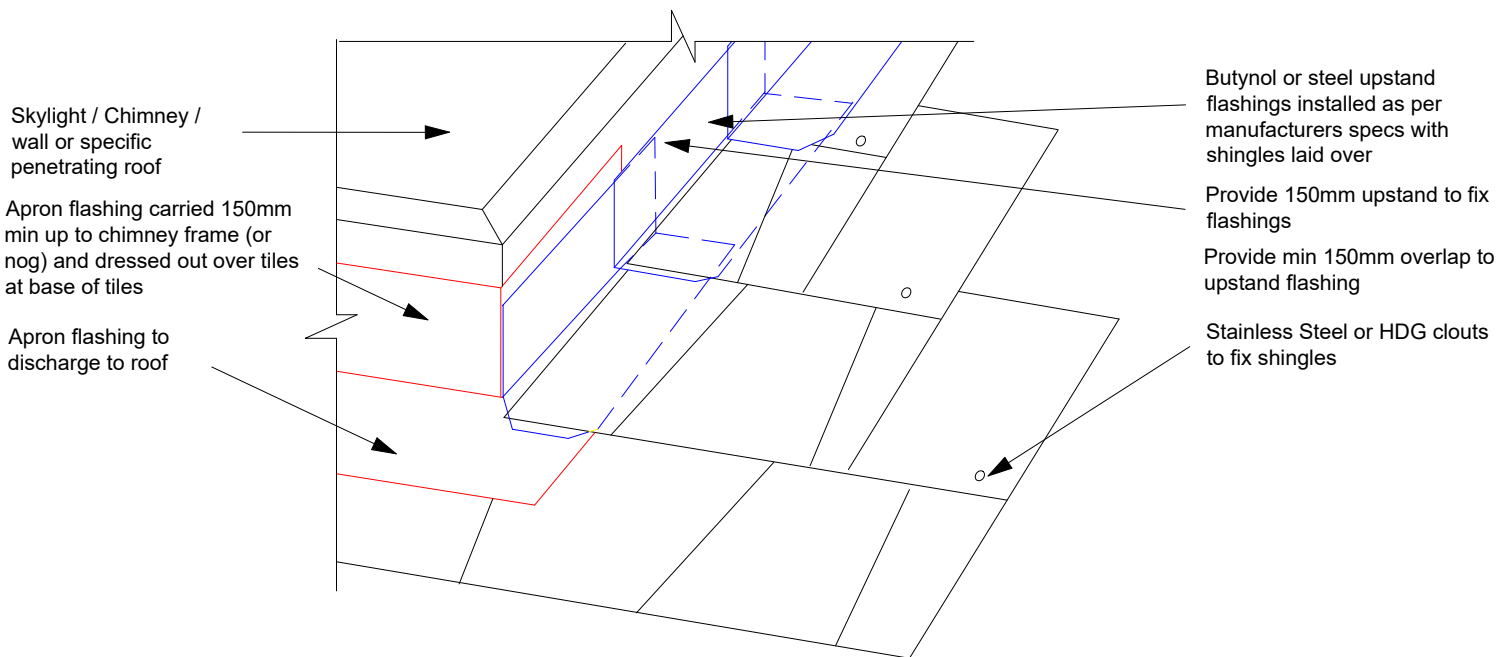
	DRAWING: GABLE TO RIDGE DETAIL	DATE: 24 JUNE 2018	DETAIL: 16	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



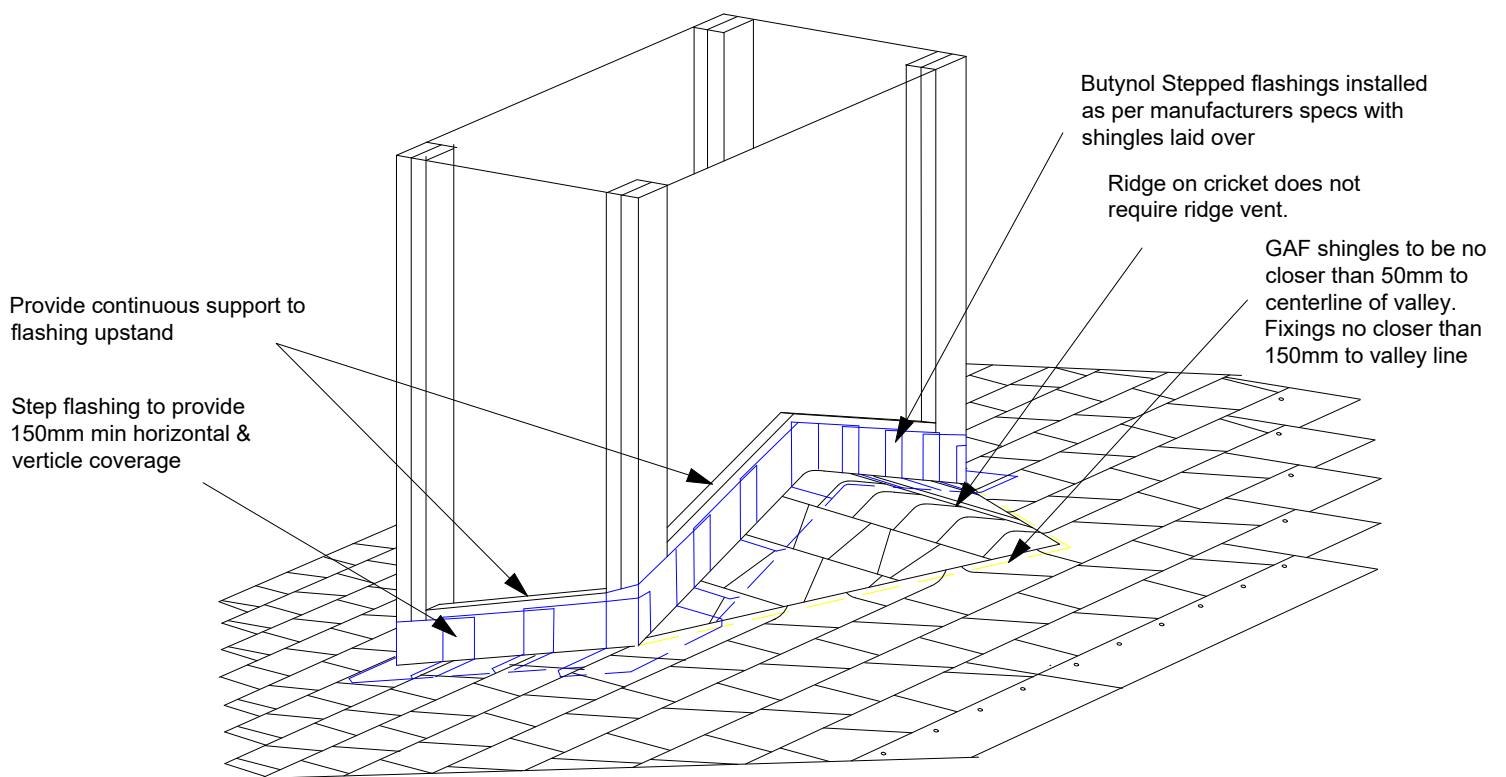
	DRAWING: DUTCH GABLE DETAIL	DATE: 28 JUNE 2018	DETAIL: 17	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



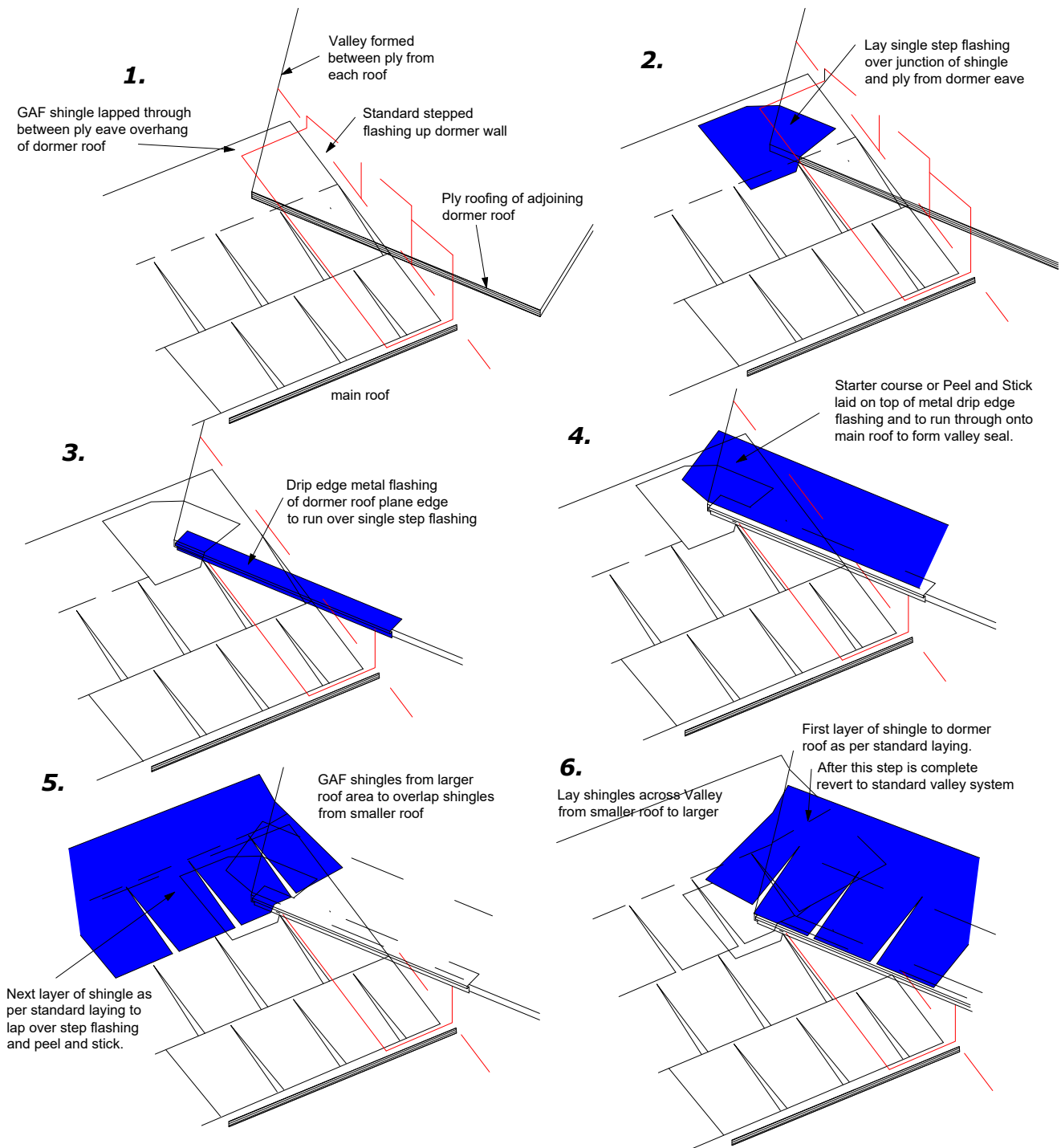
	DRAWING: SPECIFIC PENETRATION	DATE: 24 JUNE 2018	DETAIL: 18	
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: CHIMNEY CRICKET DETAIL	DATE: 26 JUNE 2018	DETAIL: 19	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: VALLEY TO DORMER DETAIL	DATE: 24 JUNE 2018	DETAIL: 20	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'

Down pipe spreaders are critical for water discharge onto the shingle roof

MAX 25m² CATCHMENT PER SPREADER SHALL BE PERMITTED TO DISCHARGE ONTO LOWER ROOF AREA

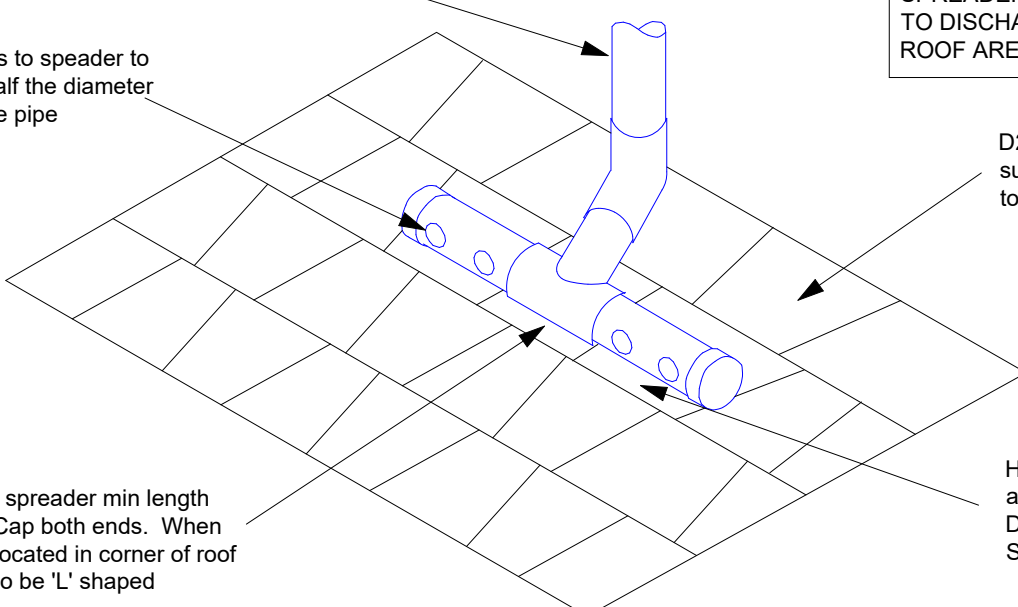
Downpipe from upper level roof

Holes to spreader to be half the diameter of the pipe

D226+roofing underlay over plywood substrate to be laid so as to spill over top of anti capillary hem

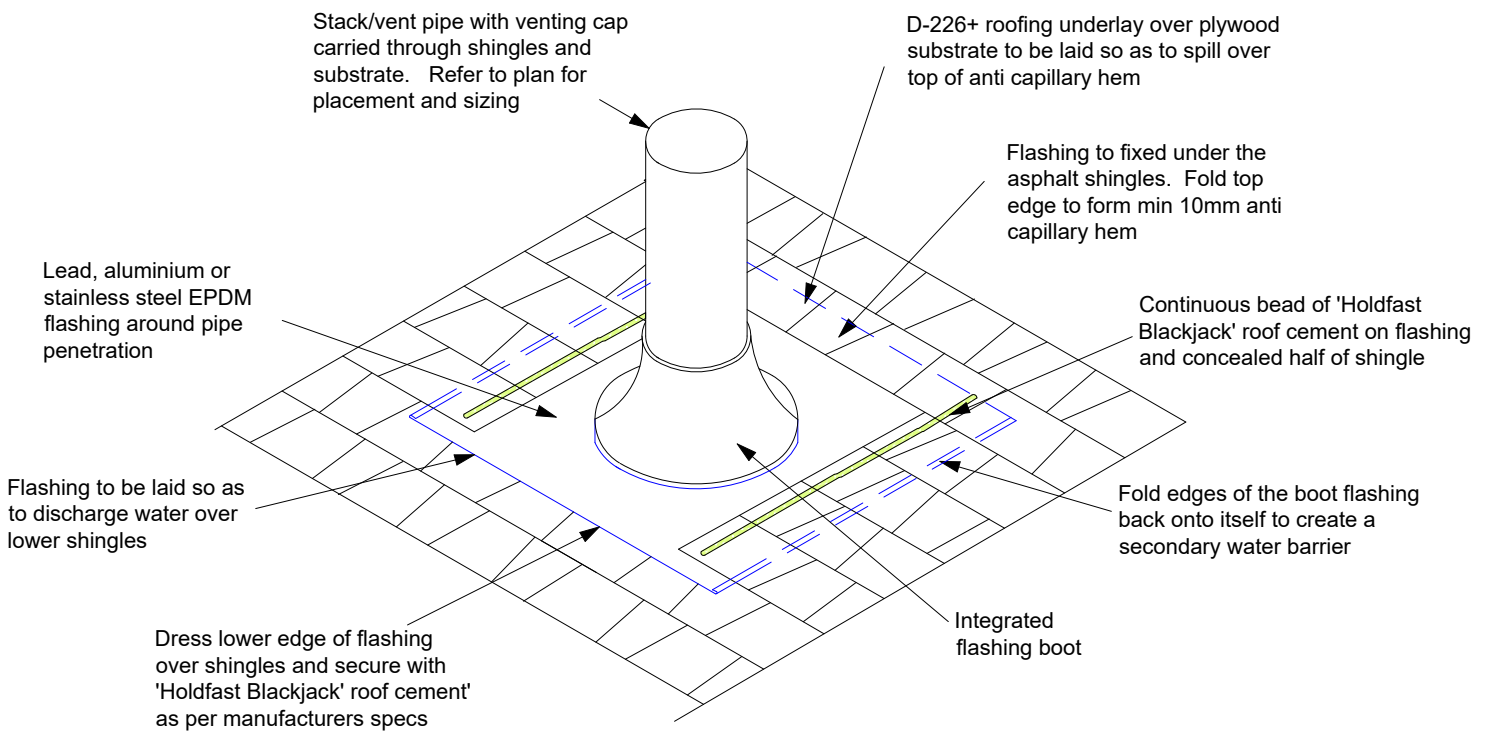
Rainwater spreader min length 600mm. Cap both ends. When spreader located in corner of roof spreader to be 'L' shaped

Holes in spreader to be located at midspan between shingles. DO NOT DISCHARGE OVER SHINGLE JUNCTION



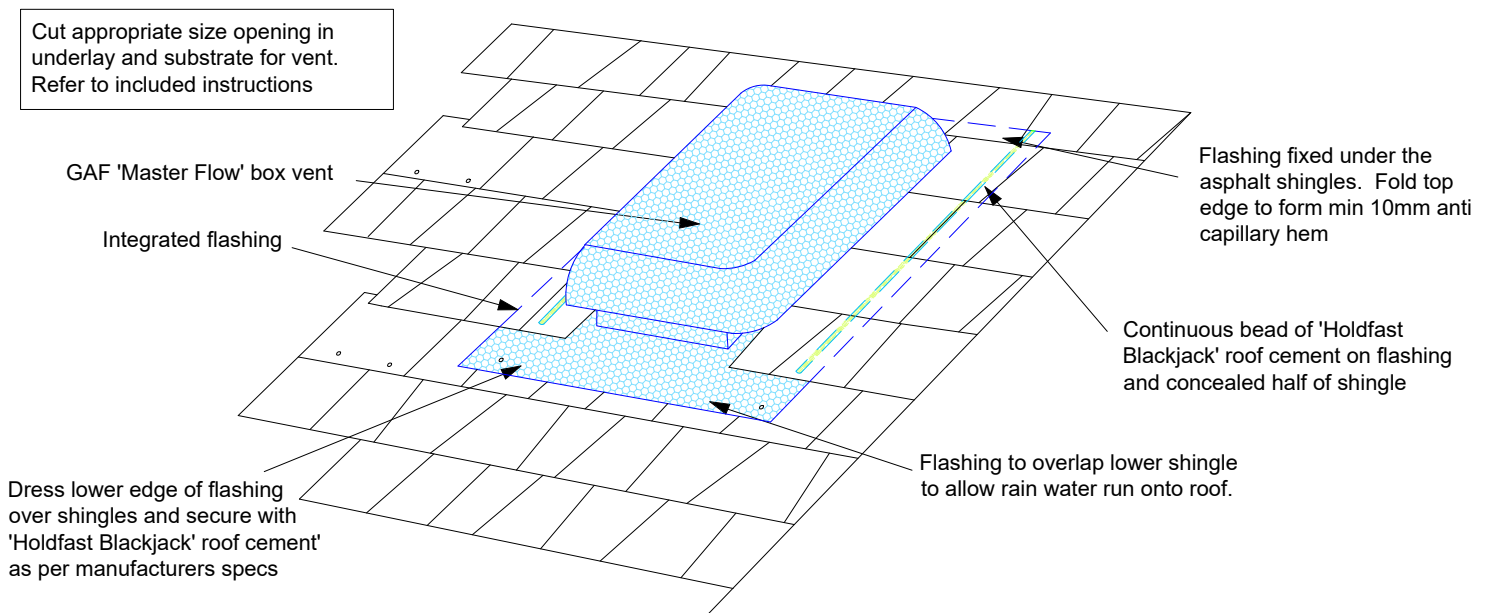
	DRAWING: RAIN WATER SPREADER	DATE: 24 JUNE 2018	DETAIL: 21	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		



CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



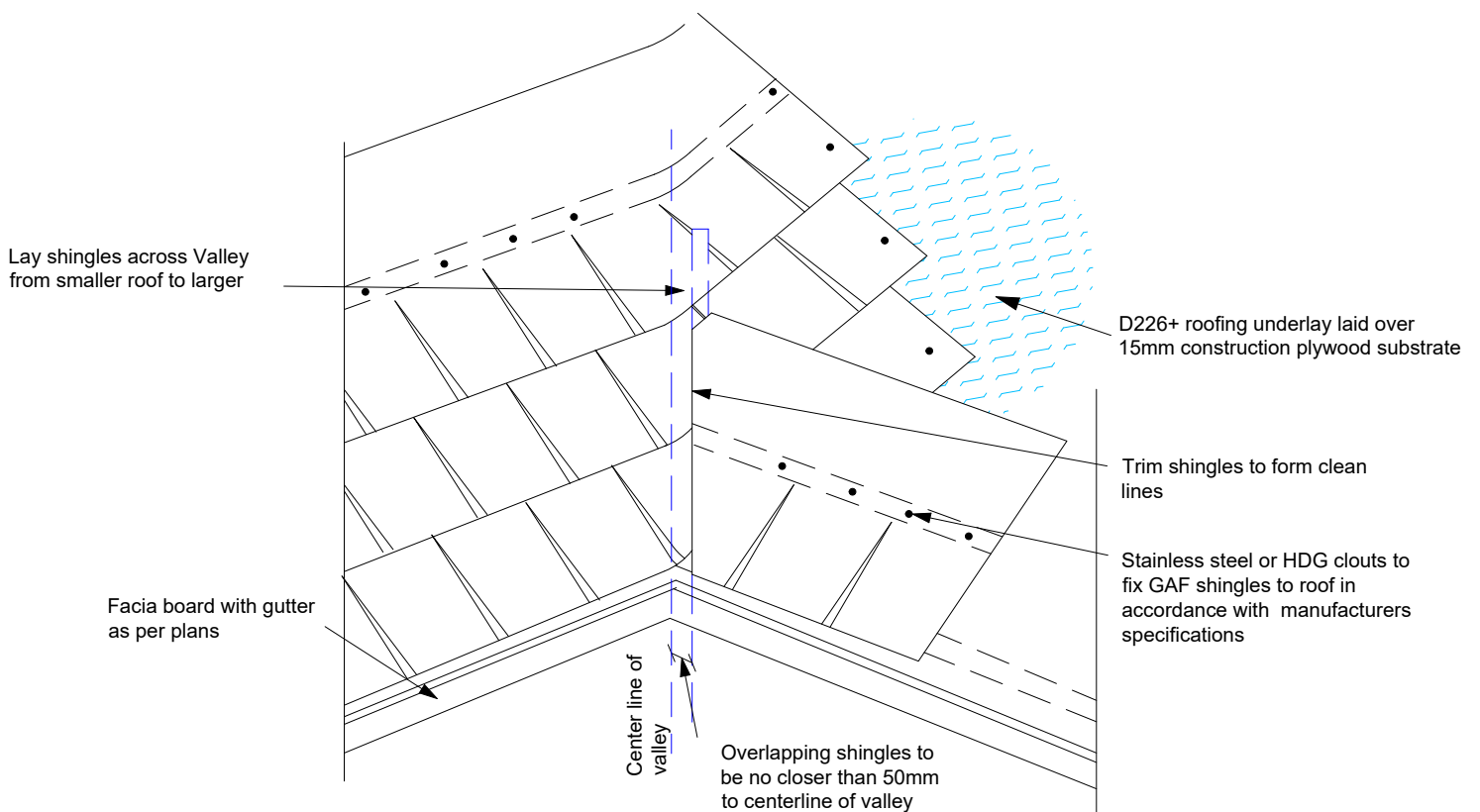
	DRAWING: PIPE PENETRATION DETAIL	DATE: 24 JUNE 2018	DETAIL: 22	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



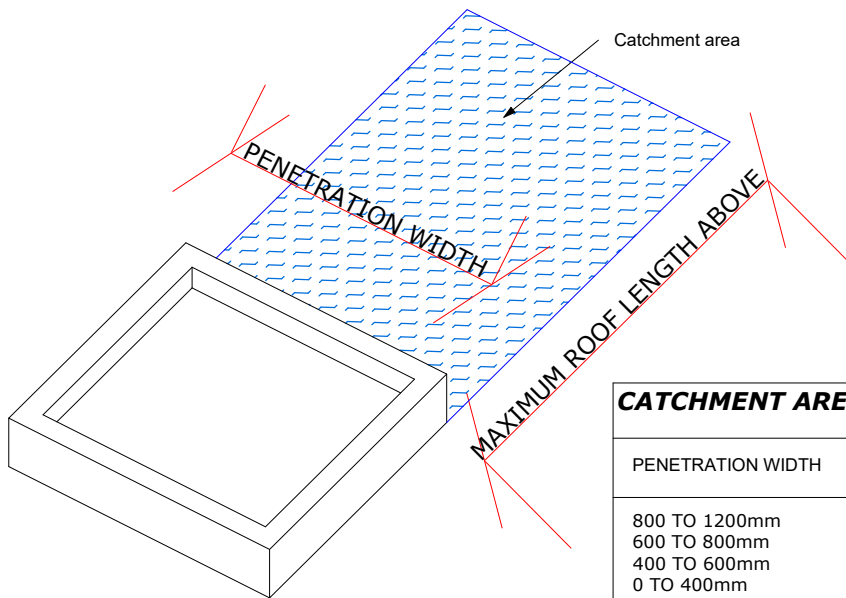
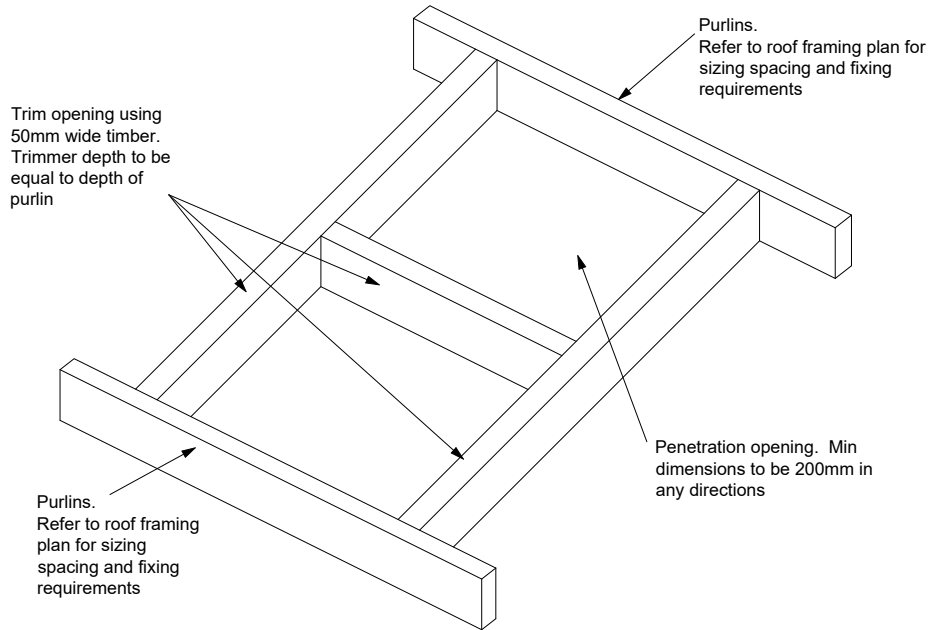
	DRAWING: MASTER FLOW BOX VENT	DATE: 28 JUNE 2018	DETAIL: 23	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: VALLEY CLADDING DETAIL	DATE: 24 JUNE 2018	DETAIL: 24	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

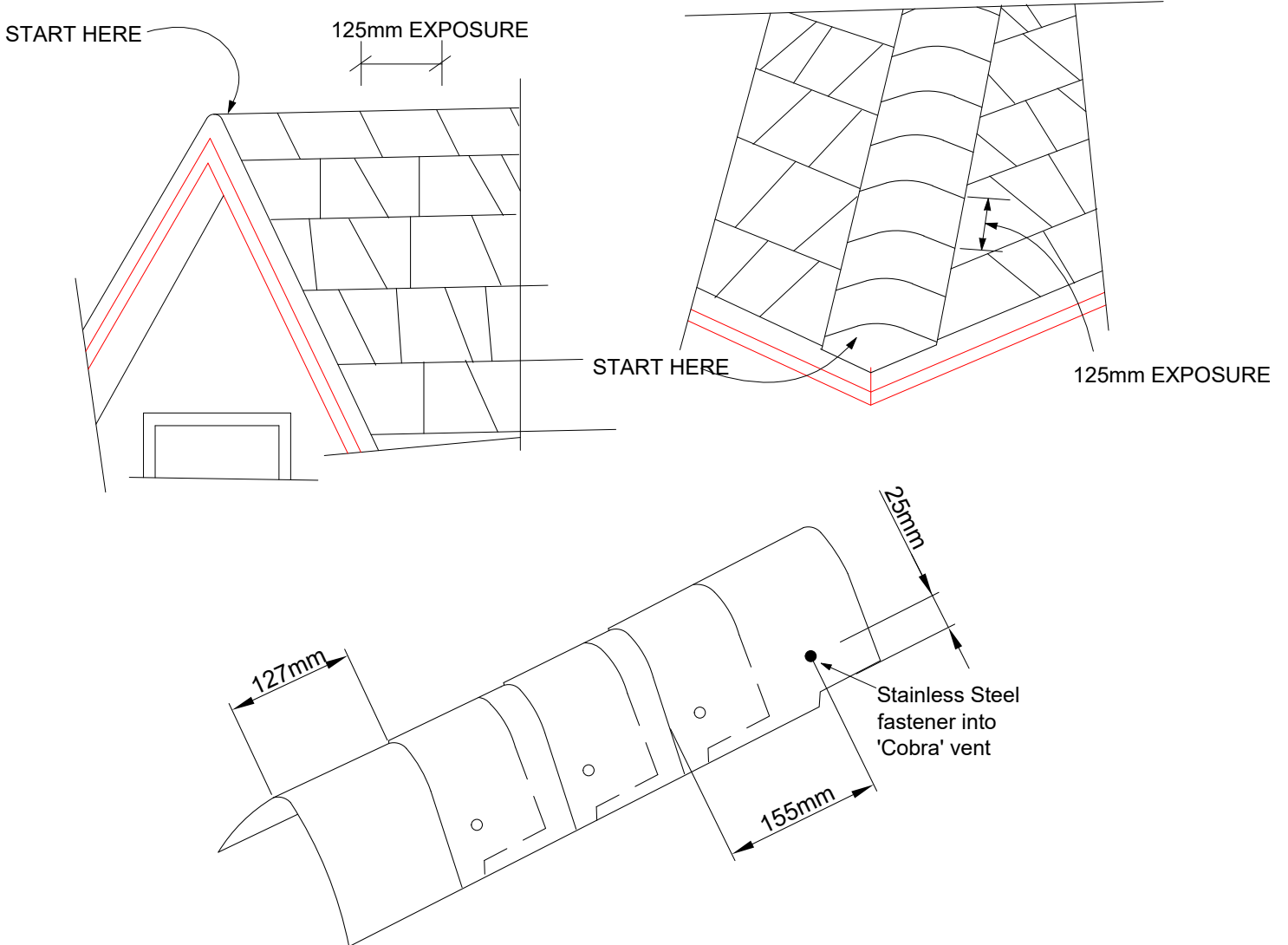
CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



PENETRATION WIDTH	MAX ROOF LENGTH ABOVE PENETRATION
800 TO 1200mm	4m
600 TO 800mm	6m
400 TO 600mm	8m
0 TO 400mm	10m

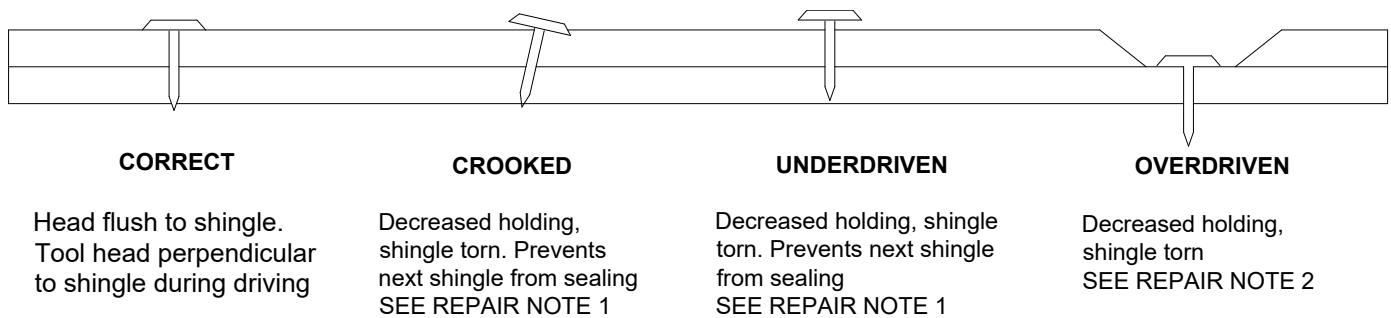
	DRAWING: PENETRATION OPENINGS	DATE: 24 JUNE 2018	DETAIL: 25	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'



	DRAWING: HIP & RIDGE CAPS	DATE: 24 JUNE 2018	DETAIL: 26	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'


REPAIR NOTE 1:

FLATTEN NAIL HEAD TO PREVENT INTERFERENCE WITH NEXT SHINGLE

REPAIR NOTE 2:

DRIVE ANOTHER NAIL NEARBY. SEAL OVERDRIVEN NAIL WITH 'HOLDFAST BLACK JACK' CEMENT



FASTENERS

While nailing is the preferred method for fixing raised roof profile shingles, GAF accept fastening methods according to the following instructions and in accordance with GAF specifications:

Always nail through the fastener line.
NAILS: refer to NZS 3604:2011 section 4.4 for corrosion protection requirements

10mm Head 12 gauge roofing nails. GAF recommends 30mm nails for new roofs and 40mm for roof overs. In cases where applying shingles to a roof that has an exposed overhang, (new roofs only) 20mm ring shank nails are allowed to be used from the eaves edge to a point up the roof that is past the outside wall line. 25mm ring shank nails are allowed for re-roof.

NOTE: an improperly adjusted nail gun can result in under driven nails that can cause a fish mouthed appearance and can prevent sealing

	DRAWING: FASTENING DETAIL	DATE: 24 JUNE 2018	DETAIL: 27	 BRANZ Appraised Appraisal No 529
	DETAILS FOR: ASPHALT SHINGLE ROOFING	SCALE: N/A		

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'

CONSTRUCTION NOTES:

READ THOROUGHLY BEFORE COMMENCING WORKS

ALL MATERIALS TO BE DRY AT THE TIME OF APPLICATION. UNDER NO CIRCUMSTANCES SHOULD ANY MATERIALS BE TORCH DRIED.

ALL SARKING AND SUBSTRATE MATERIALS TO BE DRY PRIOR TO LAYING OF WATERPROOF MEMBRANE. ENSURE ALL CONDENSATION AND RAINWATER HAS THOROUGHLY EVAPORATED PRIOR TO COMMENCEMENT OF WORKS.

ALL FLASHING AND FIXING MATERIALS TO BE CORROSION RESISTANT AND APPROVED FOR THE CORROSION ZONE AS SPECIFIED BY THE NEW ZEALAND BUILDING CODE AND NZS 3604:2011.

SEA SPRAY ZONES - TYPE 304 STAINLESS STEEL
ALL OTHER ZONES - TYPE 304 STAINLESS STEEL OR HOT DIP GALVANISED WITH ADDITIONAL PROTECTION AS PER NZS 3604:2011 4.4.4 AND 4.4.5 REQUIREMENTS.

FOR HIGH, VERY HIGH AND EXTRA WIND ZONES, THE NUMBER OF FIXINGS PER SHINGLE SHALL BE 6 NAILS PER TILE AND ALL SHINGLE RAKES AND EAVES TO BE GLUED WITH APPROVED ROOFING CEMENT.

PLYWOOD SUBSTRATE TO BE LAID WITH STAGGERED JOINTS TO SHEET EDGES. ALL SHEET EDGES SHALL BE SUPPORTED WITH NOGGS OR ROOF FRAMING FOR FIXING UNLESS A STRUCTURALLY TESTED AND APPROVED TONGUE IN GROOVE EDGE SHALL PROVIDE EQUIVALENT OR BETTER SUPPORT. GALVANISED 'H' CLIPS CAN BE USED FOR SQUARE EDGE PLYWOOD.

ALL SHEETS TO BE LAID WITH A 3mm INTER SHEET EXPANSION JOINT
PLYWOOD SUBSTRATE SHALL BE LAID WITH THE FACE GRAIN AT RIGHT ANGLES TO THE SUPPORTS, UNDER NO CIRCUMSTANCES SHALL THE SARKING / SUBSTRATE BE LAID DIAGONALLY. ALL SARKING / SUBSTRATES SHALL HAVE A MAX OF 18% MOISTURE CONTENT AT THE TIME OF APPLICATION OF MATERIALS.

D226+ OR BRANZ 529 SPECIFIED UNDERLAY USED WITH ASPHALT SHINGLE ROOFING.
SEE BRANZ.529 2012

ALL UNDERLAYS TO BE LAID WITH MIN 100mm END LAPS.

CONSTRUCTION DETAILS FOR 'GAF ASPHALT SHINGLE ROOFING SYSTEM'

FIXING SPECIFICATIONS

1 ROOF PENETRATIONS:

ROOF DECKS / SUBSTRATES SHOULD BE DRY, WELL SEASONED 150X25 BOARDS OR EXTERIOR GRADE PLYWOOD.

2 UNDERLAY:

APPLY D226+ ROOFING UNDERLAY OVER PLYWOOD SUBSTRATE IN ACCORDANCE WITH NZBC E2 REQUIREMENTS 8.1.5. ALL ROOF UNDERLAYS SHALL HAVE LAPS NO LESS THAN 100mm, ROOF UNDERLAYS SHALL BE LAID HORIZONTALLY, WITH THE UPPER SHEETS LAPPED OVER LOWER SHEETS TO ENSURE WATER IS SHED TO THE OUTER FACE OF THE UNDERLAY.

3 ROOF PITCH

MIN ACCEPTABLE ROOF PITCH = 9°. FOR ROOF PITCHES 9 - 12 DEGREES COMPLETELY COVER ROOF WITH 2 LAYERS OF UNDERLAY OR 1 LAYER OF 'PEEL AND STICK' IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS. FOR ROOF PITCHES 12 DEGREES AND GREATER COMPLETELY COVER ROOF AREA WITH 1 LAYER OF ROOFING UNDERLAY.

4 SHINGLE STARTER COURSE

USE GAF STARTER STRIP OR A STRIP SHINGLE INVERTED WITH THE HEADLAP APPLIED AT THE EAVE EDGE. WITH AT LEAST 10mm TRIMMED FROM THE END OF THE FIRST SHINGLE, START AT THE RAKE EDGE OVERHANGING THE EAVE 12mm TO 20mm. FASTEN 50mm FROM THE LOWER EDGE AND 25mm FROM EACH SIDE. SHINGLES MAY BE APPLIED WITH A COURSE ALIGNMENT OF 45° ON THE ROOF.

1. FIRST COURSE

START AT RAKE AND CONTINUE COURSE WITH FULL SHINGLES LAID FLUSH WITH THE STARTER COURSE.

2. SECOND COURSE

START AT THE RAKE WITH THE SHINGLE HAVING 145mm TRIMMED OFF AND CONTINUE ACROSS ROOF WITH FULL LENGTH SHINGLES.

3. THIRD COURSE

START AT THE RAKE WITH THE SHINGLE HAVING 285mm TRIMMED OFF AND CONTINUE ACROSS WITH FULL LENGTH SHINGLES.

4. FOURTH COURSE

START AT THE RAKE AND CONTINUE ACROSS WITH FULL LENGTH SHINGLES ACROSS ROOF.

5. FIFTH AND SUCCEEDING COURSES

REPEAT THE APPLICATION AS SHOWN FOR SECOND, THIRD AND FOURTH COURSES. DO NOT RACK SHINGLES STRAIGHT UP THE ROOF.

5 FASTENERS

ALWAYS NAIL THROUGH THE FASTENER LINE. SHINGLING NAILS: STAINLESS STEEL GUN NAILS WITH 9mm HEAD, SEMI RING SHANKED, 32mm OR 25mm IN LENGTH WITH A 3mm DIAMETER SHANK. GAF RECOMMENDS 30mm FOR NEW ROOFS AND 40mm FOR ROOF OVERS. IN CASES WHERE APPLYING SHINGLES TO A ROOF THAT HAS AN EXPOSED OVERHANG, (FOR NEW ROOFS ONLY), 20mm RING SHANK NAILS ARE ALLOWED TO BE USED FROM THE EAVE EDGE TO A POINT UP THE ROOF THAT IS PAST THE OUTSIDE WALL LINE. 25mm RING SHANK NAILS ALLOWED FOR REROOF. NOTE: AN IMPROPERLY ADJUSTED NAIL GUN CAN RESULT IN UNDERDRIVEN NAILS THAT CAN CAUSE A FISHMOUTHED APPEARANCE AND PREVENT SEALING FASTENERS SHOULD BE LONG ENOUGH TO OBTAIN A 19mm PENETRATION OR PENETRATE THROUGH SUBSTRATE, WHICHEVER IS LESS.

For technical assistance call 0800 423355 or visit www.gafroofing.co.nz