Touring build plan

Worked Example | BP-EX-01 | Revision 1.1 | Fictional client: Coastal Touring Household

Vehicle scenario: Australian Ford Everest Platinum, MY2026.50, 3.0L V6 diesel, ten-speed automatic, full-time 4WD. No VIN, option sheet or actual vehicle inspection has been supplied. This example illustrates the depth and decision process of a Build Plan; it does not approve a real vehicle.

Recommendation

Keep the first stage light and reversible. Retain the factory fuel tank and suspension while the owner establishes measured axle loads and actual touring range. Use removable internal storage, a portable compressor and a modest communications installation. Defer permanent drawers, a roof platform and a larger fuel tank until their complete net mass and exact fitment are confirmed.

Client objectives

Two adults, sealed-road commuting and occasional gravel-road camping in Western Australia. No trailer, roof tent, competition use or mine-site operation is assumed. Preserve everyday comfort, access to the third row and room for recovery equipment.

Decision boundary

The worked loading calculation is deliberately close enough to the limit to expose trade-offs. Its numbers are labelled assumptions. A report for a real client would replace them with dated weighbridge tickets, approved vehicle limits and written supplier evidence before accepting the final scope.

Inputs and unknowns

Item	Recorded basis	Status
Kerb / GVM	2,465 / 3,150 kg	Catalogue-held Ford MY2026.50 source; confirm exact vehicle
Front / rear axle	1,470 / 1,770 kg	Catalogue-held ratings; VIN/option applicability unresolved
GCM / braked towing	6,250 / 3,500 kg	Catalogue-held; towing not part of this brief
Measured starting vehicle	2,500 kg total: 1,280 front, 1,220 rear	Fictional weighed baseline for arithmetic only
Baseline contents	Full factory fuel, no occupants or touring cargo; factory spare included	Explicit scenario assumption; no actual ticket exists
Roof allowance	Unknown for this installation	Do not substitute static roof capacity or platform rating

The catalogue source was recorded as verified on 17 September 2026. The current web retrieval of the large Ford PDF was not completed during specimen production. These figures are not newly certified by this example.

Information required before ordering

VIN/build date and factory options; tyre and wheel load ratings; complete fitted item masses; roof-system instructions and vehicle-specific restrictions; actual loaded front and rear axle readings; intended cargo and passenger roster.

Unknowns are not zero. A missing mass does not become a spare capacity allowance.

Options and exclusions

Category	Candidate / status	Decision and reason
Fuel range	Retain OEM 80 L tank	Preferred stage 1. Log actual consumption and reserve requirements before increasing capacity.
Replacement tank	ARB Frontier TAD124, 120 L	Official ARB product page located. Net fitted mass and exact vehicle fitment need written confirmation. Defer.
Replacement tank	Long Ranger TR97, 127 L	Catalogue-held net added dry mass 25.62 kg; fuel delta is additional. Installation evidence requires exact-variant check. Defer.
Storage	Removable secured cases; no SKU selected	Preferred. Procure only after a measured mass and restraint plan. Retains layout flexibility.
Storage	Permanent drawer system; supplier to propose	Rejected at stage 1: unknown installed mass, lost third-row access and reduced usable load allowance.
Roof	Rhino-Rack Pioneer 6, catalogue SKU 62100	A product reference, not confirmed Everest fitment. Platform mass is not complete system mass. Defer.
Suspension	Retain serviceable factory system	No mass/rating uplift is assumed. Review ride height and loading after weighing.

No brand relationship or paid ranking is represented. These are candidates with specific evidence gaps, not a shopping list ready for purchase.

Worked mass assessment

The following masses and axle distributions are fictional, supplied scenario inputs. They demonstrate arithmetic only. No axle distribution is inferred from a catalogue total.

Load state	Front kg	Rear kg	Total kg
Illustrative baseline	1,280	1,220	2,500
Two occupants (assumed measured allocation)	110	60	170
Water 40 L plus containers	0	45	45
Camping / food / personal cargo	15	125	140
Recovery and tools	5	30	35
Removable storage, fridge, power and radio	10	85	95
Illustrative loaded total	1,420	1,565	2,985
Catalogue-held limit	1,470	1,770	3,150
Arithmetic margin only	50	205	165

Check: 2,500 + 170 + 45 + 140 + 35 + 95 = 2,985 kg. Front + rear = total in every row. The 165 kg total margin does not make 165 kg available at the front axle; its illustrative margin is only 50 kg.

Why the larger tank waits

For a 127 L replacement versus the assumed 80 L original, an illustrative diesel density of 0.84 kg/L gives 47 x 0.84 = 39.48 kg extra fuel. Adding the catalogue-held 25.62 kg dry net difference gives 65.10 kg. The total would become 3,050.10 kg, leaving 99.90 kg to GVM before any other change. Density, actual fill, hardware and axle effect require verification.

Do not add the original 80 L of fuel again if already included in the measured baseline.

Cost and installation scope

Scope	Cost basis	Action before acceptance
ARB TAD124 candidate	Official page showed $1,586 product and $320 estimated fitting on 22 Sep 2026	Indicative $1,906 sum only. Confirm taxes, freight, fuel, exact fitment and quote validity. Not selected.
Removable storage and restraints	No current supplier quotation	Ask for separate item, bracket, restraint and labour lines; record installed mass.
Power / fridge / communications	No exact SKU or price approved	Size to measured demand; ask installer to document cable protection, fusing and access.
Weighing and alignment	No current local quote	Obtain charges, booking and measurement method directly.
Total build budget	Not established	No complete total is presented while core line items are unquoted.

Installer brief

Keep equipment clear of airbags, seat travel and emergency access. Confirm restraint loads and mounting approvals. Record every removed OEM item and included fluid. Provide warranty and inspection requirements with the handover.

The single current ARB price is a candidate comparison input; it is not an introductory advisory price, accepted quotation or assurance of stock. Historical price-list figures have not been used as current RRP.

Staged delivery and acceptance

Stage	Deliverable	Release condition
1 - Establish baseline	VIN/options record; actual axle ticket; load inventory	Owner confirms what fuel, people and equipment were on the scales.
2 - Reversible essentials	Secured removable storage; agreed radio and portable equipment	Written fitment, net mass, installed cost and restraint evidence accepted.
3 - Measure real use	Loaded axle ticket and actual trip consumption log	All loaded-state constraints checked independently.
4 - Reconsider range / roof	Revised comparison if evidence shows a real need	Exact roof/tank limitations, total and axle effects resolved.
5 - Handover	Final parts list, instructions, warranties and revision record	Owner signs off actual configuration and unresolved limits.

Alternatives if margins are inadequate

Reduce cargo or water carried, remove heavy convenience items, choose lower-mass equipment, or change the vehicle/load requirement. A suspension lift does not by itself increase any legal mass limit. Escalate approval questions to the manufacturer and appropriate qualified specialist.

Limitations

Road conditions, travel remoteness, tyres, roof dynamics, load restraint and towing constraints need their own checks. This specimen is not route advice, a compliance certificate or permission to exceed any vehicle, component or road limit.

Evidence and handover register

E1 - Ford Motor Company of Australia, Everest MY2026.50 specifications, source recorded 23 April 2026, catalogue verification 17 September 2026. Exact column: Platinum 3.0L V6 / ten-speed / full-time 4WD. No new web verification is claimed.

https://www.ford.com.au/content/dam/Ford/au/nameplate/everest/brochure/vehicle-brochure/fordvf1370-my2650-everest-spec-sheet-23apr.pdf

E2 - ARB Australia, TAD124 product page, checked 22 September 2026. Evidence supports displayed product identity, 120 L capacity and indicative listed prices; it does not settle complete fitted mass or the client vehicle approval.

https://www.arb.com.au/product/tad124-arb-frontier-120l-long-range-fuel-tank-ford-everest

E3 - Long Ranger Next Gen Everest installation document, catalogue-held source for TR97. Net dry mass basis and actual application must be checked before ordering.

https://thelongranger.com.au/wp-content/uploads/2022/12/NEXTGEN-2022.pdf

Outstanding item	Responsible party	Evidence required
Actual mass / axle loads	Vehicle owner + weighbridge	Dated ticket with loading state
Exact fitment and net mass	Chosen manufacturer / installer	Written SKU/application and mass breakdown
Roof and tyre limits	OEM / component maker	Instructions for exact configuration
Cost and delivery date	Suppliers + owner	Accepted itemised quotation
Final review	FitFourby + owner	Updated revision with all limitations retained

Revision 1.1 contains fictional client information and illustrative loads only. No Boltstress or other customer permission, agreement or endorsement is implied.