RIVIAN METRO M1

Product Requirements Document

"Adventure, Optimized for Where You Actually Live"

Created by
Chetan Jonnalagadda
linkedin.com/in/cjonn

PM Portfolio Project

December 2025

My Approach

This PRD was developed through a structured research and analysis process, applying product management frameworks to a real market opportunity. Here's how I approached it:

Research Methodology

1. **Market Research:** Analyzed consumer behavior data from Strategic Vision's 250,000-person New Vehicle Experience Study to understand how truck/SUV owners actually use their vehicles versus how they're marketed.

2. **Competitive Analysis:** Studied Rivian's announced R2/R3/R3X lineup, pricing strategy, and positioning to identify whitespace in their portfolio.

3. **Customer Insights:** Reviewed Consumer Reports owner satisfaction data, Rivian forum discussions, and CivicScience brand tracking to understand buyer demographics and pain points.

4. **Strategic Frameworks:** Applied RICE scoring for feature prioritization, developed user personas based on demographic data, and structured user stories with testable acceptance criteria.

Key Insight

The central insight driving this PRD: **~70% of truck/SUV owners go off-road once a year or less,** yet they pay a premium for off-road capability they never use. Rivian's brand is built on "adventure," but their customers predominantly live in urban areas (California, Texas) and use their vehicles for commuting and daily errands. This gap represents a significant opportunity.

The question I sought to answer: What if Rivian built a vehicle optimized for how their customers *actually live,* rather than how they *aspire to live?*

1. Executive Summary

The $180B Problem Nobody's Solving

70% of truck and SUV owners never go off-road, But 100% of them live somewhere. Rivian has built its brand on adventure yet the vast majority of adventure vehicle owners use their vehicles for commuting, groceries, and school runs.

According to Strategic Vision's 250,000-person survey, **nearly 70% of truck owners go off-road once a year or less**. Even Jeep Wrangler, the most iconic off-road vehicle, sees only 10-15% of owners actually taking their vehicles off-road.

Rivian's R2 and R3 are steps toward accessibility, but they're still positioned as "adventure" vehicles with adventure-optimized features (ground clearance, all-terrain capability, etc.) that urban buyers don't need and pay a premium for.

The Opportunity

Rivian Metro M1 is purpose-built for the 70%, the urban drivers who *identify* with adventure but *live* in cities. It strips away the "adventure tax" (excess ground clearance, off-road modes, oversized tires) and reinvests in what urban drivers actually need: compact dimensions, tight turning radius, superior parking sensors, and urban-optimized autonomy.

Metric	Target
Target MSRP	**$39,999** ($32,499 after federal tax credit)
Annual Volume Target (2028)	**75,000 units**
Target NPS	**>65** (beat Tesla's 55)
Tesla Model Y Conquest Rate	**30%** of Metro buyers

Strategic Rationale

1. **Capture the "Aspirational Adventurer" segment:** Younger millennials (25-34) show 48% interest in Rivian but can't afford the current lineup. Metro is their entry point.
2. **Reduce adventure tax:** By optimizing for urban use cases, we can reduce vehicle cost by ~$5,000 vs R3 while maintaining Rivian design DNA.
3. **Protect brand positioning:** Metro isn't "not adventure", it's "adventure for the city." The branding maintains Rivian's identity while expanding TAM.
4. **Leverage existing platform:** Built on R2/R3 midsize platform with urban-specific modifications, reducing development cost and time-to-market.

2. Market Analysis

Competitive Landscape

Rivian's announced lineup (R2, R3, R3X) addresses price accessibility but maintains adventure positioning. This leaves a strategic gap for pure urban buyers who find "adventure" branding irrelevant or who don't want to pay for off-road capability they'll never use.

Vehicle	Price	Positioning	Ground Clear.	Urban Focus
Metro M1	$39,999	Urban	6.5"	★★★★★
Rivian R3	~$37,000	Adventure Lite	~9"(est.)	★★★☆☆
Rivian R2	$45,000	Adventure	~9.8"	★★☆☆☆
Tesla Model Y	$44,990	Tech/Utility	6.6"	★★★☆☆
Hyundai Ioniq 5	$43,350	Tech/Design	6.1"	★★★★☆

Target Market Size

- **US EV Market (2024):** ~1.2M units annually, growing 25% YoY
- **Urban EV Segment:** ~40% of EV buyers are in metropolitan areas with limited off-road use
- **Addressable Market:** ~480,000 units/year of urban-focused EV buyers
- **Metro M1 Target Share:** 15% of addressable market = 72,000 units

3. User Personas

Persona 1: The Tesla Defector

Maya Chen, 34 | Product Designer | San Francisco, CA
Household Income: $185,000
Current Vehicle: Tesla Model 3

Background

Maya bought her Model 3 four years ago because she wanted "the best EV." She loves the tech and charging network but has grown frustrated with Tesla's brand association and the "rental car" interior feel. She's never taken it off-road and never will, she uses it for her 12-mile commute and weekend trips to visit her parents in Sacramento.

Pain Points

- Embarrassed by Tesla brand association ("I'm not a tech bro")
- Interior feels cheap and utilitarian
- Wants something that reflects her design sensibility
- Rivian R1S is appealing but too big and too expensive for city life

What Maya Wants from Metro

- Premium interior that "feels designed"
- Easy parking in SF's tight spaces
- Brand she's proud to be associated with
- Doesn't need and doesn't want to pay for off-road features

> *"I love Rivian's design, but I need a vehicle that fits in my garage, not one that can cross rivers."*

Persona 2: The Urban Professional

Marcus Thompson, 29 | Financial Analyst | Chicago, IL
Household Income: $95,000
Current Vehicle: None (uses CTA + Uber)

Background

Marcus has been car-free for 5 years living in downtown Chicago. But he's getting promoted, moving to a neighborhood with worse transit, and his girlfriend lives in the suburbs. He's ready to buy his first car as an adult and he wants it to be electric. He's environmentally conscious but not an "outdoor person." Hiking is not his thing.

Pain Points

- Most EVs feel like "outdoor lifestyle" vehicles he doesn't identify with
- Budget is tight needs to be under $40K
- Worried about parallel parking (hasn't done it in years)
- Apartment building has limited EV charging infrastructure

What Maya Wants from Metro

- Affordable entry point to premium EV ownership
- Advanced parking assist (he's nervous about it)
- Great urban autonomy features for Chicago traffic
- Brand that feels sophisticated, not "outdoorsy"

> *"I want an EV that says ' I care about the environment, Not I go Camping Every Weekend"*

Persona : The Empty Nester Downsizer

Patricia & Robert Kim, 58 & 61 | Semi-Retired | Austin, TX
Household Income: $220,000
Current Vehicle: Toyota Highlander

Background

With their kids out of the house, the Kims no longer need a 3-row SUV. They're environmentally conscious (they just installed solar panels) and want to go electric. But at 61, Robert doesn't want a "rough ride" or a vehicle that's hard to get in and out of. They looked at Rivian's R1S, loved the design but it's bigger than they need.

Pain Points

- Most EVs are either too techy (Tesla) or too utilitarian
- Rivian's current lineup is bigger than they need
- Want comfortable ride quality, not "sporty"
- Concerned about ease of entry/exit as they age

What the Kims Wants from Metro

- Right-sized vehicle for two people + occasional grandkid visits
- Comfortable, smooth ride for daily errands
- Premium interior that matches their home aesthetic
- Easy to operate intuitive controls, not buried in touchscreens

"We don't need a truck that can climb mountains. We need one that can get us to brunch in comfort."

4. Feature Requirements & Prioritization

Features are prioritized using RICE scoring: **Reach × Impact × Confidence ÷ Effort.** Priority levels: P0 = Must Have (Launch Blocker), P1 = Should Have (Critical), P2 = Nice to Have (Post-Launch).

P0: Must Have (Launch Blockers)

Feature	RICE Score	Rationale
Compact Dimensions	95	Core differentiator vs R2/R3
300+ Mile Range	92	Table stakes for EV market
NACS + Supercharger Access	90	Critical for charging anxiety
360° Parking Camera System	88	Urban parking essential
Sub-$40K MSRP	87	Price is primary barrier

P1: Should Have (Critical for Success)

Feature	RICE Score	Rationale
Auto-Parallel Parking	78	Urban driver pain point
Highway Hands-Free Driving	75	#1 requested Rivian feature
Tight Turning Radius (<34 ft)	72	City maneuverability
Premium Interior Materials	**70**	**Tesla conquest driver**

P2: Nice to Have (Post-Launch)

Feature	RICE Score	Rationale
Urban Navigation Mode	58	Parking spot integration
V2H (Vehicle-to-Home)	52	Home backup power
Ambient Lighting Package	45	Premium feel differentiator

5. User Stories & Acceptance Criteria

US-001: Parallel Parking Assistance

As a nervous urban driver, I want the car to automatically parallel park so that I don't have to stress about tight city parking spaces.

Acceptance Criteria:
1. System detects viable parallel parking spots when driving <15 mph
2. Visual indicator appears on dashboard when spot is detected
3. Single button press initiates parking sequence
4. System handles steering; driver controls brake/accelerator
5. Successful park in spots with ≥18" clearance front and rear
6. Abort option available at any time via steering input

US-002: 360° Parking View

As a driver in a crowded parking garage, I want a birds-eye view of my surroundings so that I can avoid hitting obstacles, pillars and other vehicles.

Acceptance Criteria:
7. 360° surround view activates automatically when vehicle is in Reverse
8. View is stitched from 4+ cameras with <50ms latency
9. Dynamic guidelines show projected vehicle path
10. Proximity warnings for objects within 24" of vehicle
11. User can tap screen to switch between individual camera views

US-003: Highway Hands-Free

As a commuter with a 45-minute highway drive, I want hands-free driving on mapped highways so that I arrive fatigued and can respond to messages safely.

Acceptance Criteria:
12. Hands-free mode available on 150,000+ miles of mapped highways
13. System maintains lane centering and adaptive speed control
14. Driver monitoring camera ensures eyes remain forward
15. Audio/visual alerts for lane changes, exits, and construction zones
16. Graceful handoff to driver with 10-second warning for unmapped sections

6. Technical Requirements

Platform & Architecture

Component	Specification
Platform	Modified R2/R3 midsize platform with shortened wheelbase
Drivetrain	Single-motor RWD (base), Dual-motor AWD (optional)
Battery	75 kWh LFP (base), 90 kWh NMC (extended range)
Range	300 miles (base), 350 miles (extended range)
Charging	NACS port, 200kW DC fast charging (10-80% in <25 min)
Dimensions	175" L × 72" W × 62" H (similar to VW ID.4)
Ground Clearance	6.5" (optimized for urban, not off-road)
Turning Radius	33.5 ft (class-leading for urban maneuverability)

Key Dependencies

- CATL Battery Supply Agreement: LFP cells for base model (confirmed Q2 2025)
- Normal, IL Manufacturing Line: Shared with R2, requires line configuration for Metro
- Autonomy Platform: Requires Gen 2 camera system and updated neural net
- NACS Certification: Tesla Supercharger network access (Rivian already certified)

7. Risks & Success Metrics

Key Risks

Risk	Likelihood	Impact	Mitigation
Brand Dilution	Medium	High	Position as "urban adventure" not "not adventure"
R3 Cannibalization	Medium	Medium	Clear feature differentiation; stagger launch timing
Price Target Miss	Low	High	LFP chemistry; reduced feature set vs R3
EV Tax Credit Changes	High	High	Price without credit must still be competitive

Success Metrics

1. **Sales Volume:** 25,000 units Year 1, 50,000 Year 2, 75,000 Year 3
2. **Customer Acquisition Cost:** <$1,500 per vehicle (leverage Rivian brand awareness)
3. **Net Promoter Score:** >65 (maintain Rivian's industry-leading satisfaction)
4. **Tesla Conquest Rate:** 30% of Metro buyers are former Tesla owners
5. **Gross Margin:** >15% by Year 2 (path to profitability)
6. **Brand Perception:** No decline in "adventure" brand association scores

8. Go-to-Market Timeline

Phase	Timeline	Milestones
Phase 1	Q1-Q2 2027	Concept reveal, reservations open ($100 deposit)
Phase 2	Q3-Q4 2027	Validation builds, supplier lock-in, pricing finalized
Phase 3	Q1 2028	Production start (Normal, IL), fleet pilot (5K units)
Phase 4	Q2 2028	Consumer launch: CA, TX, FL, NY (top urban markets)
Phase 5	Q4 2028	National rollout, ramp to 75K annual capacity

9. Appendix

Data Sources

- [Strategic Vision New Vehicle Experience Study](#) (250,000 respondents)
- [Consumer Reports 2026 Auto Brand Report Card](#)
- [CivicScience Rivian Brand Tracker](#)
- [Rivian CFO Claire McDonough - Reuters Auto Conference](#) (Nov 2025)
- [InsideEVs Rivian Autonomy Day Coverage](#) (Dec 2025)
- [Rivian R2/R3 Announcement Coverage](#)

Document Control

Author	Chetan Jonnalagadda
Version	1.1
Last Updated	December 12, 2025
Type	PM Portfolio Project
Contact	linkedin.com/in/cjonn