

Complete Website Specification

CBD Pet Products B2B Platform

Texas-Compliant • THC-Free • B2B-First

Version 1.0 | November 2025

1. Executive Summary

This specification defines a compliance-first, B2B-centric website for selling THC-free CBD pet products to commercial retailers in Texas and beyond. The site functions primarily as a credibility and lead generation machine rather than a traditional e-commerce store.

Strategic Objectives

1. **De-risk partnerships:** Demonstrate regulatory compliance to retailers, vets, and payment processors
2. **Convert retailers without human intervention:** Self-service wholesale portal with COA verification
3. **Establish authority:** Educational content positioning you as a trusted industry resource
4. **Payment processor approval:** Clean, compliant presentation that passes underwriting review

Core Brand Positioning

"Veterinarian-conscious, THC-free CBD for pets — built for retailers who care about compliance."

2. Site Architecture

2.1 Complete Site Map

The following structure prioritizes B2B conversion while maintaining DTC capability:

Route	Purpose & Content
/	Homepage with hero, trust badges, featured products, retailer CTA
/products	Product catalog with filtering (oils, chews, topicals, sprays)
/products/[slug]	Product detail with dosing calculator, ingredients, COA link
/our-standards	Sourcing, CO2 extraction, testing protocols, certifications
/lab-results	Searchable COA database by batch number with PDF viewer
/texas-compliance	DSHS licenses, legal summary, THC-free verification, SB 3 updates
/for-veterinarians	Research library, formulation details, clinic partnership info
/wholesale	Retailer application form (public-facing)
/portal	Protected wholesale portal: pricing, ordering, assets, training
/resources	Blog/articles for SEO and education
/faq	Frequently asked questions (SEO value + reduces support load)
/about	Company story, team, mission, Texas roots
/contact	Contact form, business hours, location
/cart, /checkout	DTC purchase flow with wholesale upsell (see 3.8)

2.2 User Flow Priorities

Primary Flow (B2B Retailer):

Homepage → Our Standards → Lab Results → Texas Compliance → Wholesale Application
→ Portal Access

Secondary Flow (DTC Consumer):

Homepage → Products → Product Detail → Cart → Checkout

Veterinary Flow:

Homepage → For Veterinarians → Lab Results → Contact/Wholesale

3. Core Features by Section

3.1 Homepage

Hero Section:

- Headline: "Veterinarian-Formulated, THC-Free CBD for Pets — Texas Proud"
- Subheadline: "Third-party tested. DSHS licensed. Built for retailers who care."
- Primary CTA: "Become a Retail Partner" (links to /wholesale)
- Secondary CTA: "Shop Products" (links to /products)
- **★ Hero Image Strategy:** Do NOT use generic "dog with bottle" stock photo. Instead, photograph your actual product on the shelf of a real Texas store.
 - **If you have retail partners:** Use their shelf. Update as you add more prominent partners.
 - **If zero partners yet:** Stage a "test store" photo — real product on a real shelf at a friend's store, pet-friendly business, or even your own staged setup. Authenticity > perfection.
 - **⚠ REPLACE IMMEDIATELY:** The moment you have even one respectable store carrying you (Tomlinson's, Hollywood Feed, any recognizable indie), replace the staged photo with a real one. Real shelf > everything.

Trust Badge Row:

- "THC-Free Verified"
- "3rd Party Lab Tested"
- "Texas DSHS Licensed"
- "CO2 Extracted"
- **⚠ NASC Seal — DO NOT DISPLAY until actually obtained.** NASC has slowed pet CBD approvals dramatically in 2025. Displaying "NASC pending" or placeholder can backfire during payment processor underwriting. Add this badge only after certification is in hand.

Featured Products Grid:

- 3 product cards with image, name, brief description, price
- Hover state reveals "View Details" button

Retailer Partners Section:

- "Trusted by Texas Retailers" heading
- Logo carousel of partner stores (add as you sign them)
- CTA: "Join our retail network"

★ ADD IMMEDIATELY: "As Seen In" / "Carried By" Ticker

Retailers are herd animals — seeing familiar logos is the fastest trust shortcut in this industry. Add a scrolling ticker or static logo row at the bottom of the homepage that auto-updates when you add new partners.

- **Start small:** Even 2-3 stores is enough to launch the section
- **Admin CMS:** Build a simple "Partners" collection in Sanity — logo image + name + optional URL
- **Auto-populate:** Homepage queries this collection and renders logos automatically
- **Priority order:** Display most recognizable names first (Tomlinson's, Hollywood Feed, etc.)
- **Update immediately:** The moment you have even one respectable store, replace any staged content with real logos

Why Choose Us Section:

- 3-column layout with icons
- Column 1: Compliance First — "Full Texas DSHS licensing and COA transparency"
- Column 2: Quality Assured — "USDA organic hemp, CO2 extraction, third-party tested"
- Column 3: Retailer Support — "Wholesale pricing, marketing materials, training"

CRITICAL ASSET: Retailer Quick Look One-Pager (PDF Download)

Add a prominent "Download Retailer Quick Look" button on the homepage. This 1-page PDF becomes your #1 offline sales tool — retailers forward it to owners/managers constantly.

- **PDF Contents:**
 - Logo + "THC-Free • Texas DSHS Licensed" header
 - Top 3 SKUs with Wholesale Price + MSRP side by side
 - Margin % at a glance (e.g., "52-58% typical margin")
 - Key differentiators: THC-free, CO2 extracted, 3rd party tested
 - QR code linking directly to wholesale application
 - Contact info: email, phone
- **Placement:** Button in hero section OR sticky footer bar

3.2 Products Section

Product Listing Page (/products):

- Filter sidebar: Category (Oils, Chews, Topicals, Sprays), Pet Type (Dog, Cat, All), Strength
- Sort options: Price, Bestselling, Newest
- Grid of product cards (responsive: 3 columns desktop, 2 tablet, 1 mobile)
- Each card: Image, product name, brief tagline, price, "View Details" button

Product Detail Page (/products/[slug]):

- Image gallery with zoom functionality
- Product name, tagline, price
- Size/strength selector
- Quantity selector with Add to Cart button
- **Interactive Dosing Calculator:** Weight input (lbs/kg toggle) → Recommended dose output
 -  **Disclaimer Modal (First Use):** On first interaction, display modal: "This calculator provides general guidance only. It is not medical advice. Always consult your veterinarian before giving CBD to your pet." User must acknowledge before using calculator. Store acknowledgment in localStorage.
- Tabbed content: Description, Ingredients, How to Use, Lab Results
- COA link/button: "View Certificate of Analysis" (opens PDF or links to /lab-results)
- **Required Disclaimers (footer of product info):**
 - "This product has not been evaluated by the FDA."
 - "Not intended to diagnose, treat, cure, or prevent any disease."
 - "Consult your veterinarian before use."

3.3 Lab Results / COA Portal

KILLER FEATURE: Batch-Specific QR Codes

Every product ships with a QR code on the label that links directly to THAT EXACT BATCH's COA — not a search page. Retailers and vets can scan in-store and show skeptical customers the lab results instantly. This is a permanent competitive moat that takes 2 hours to implement but no competitor offers.

QR Code Implementation:

- Generate unique QR code for each batch number
- QR links to: yourdomain.com/coa/[BATCH-NUMBER]
- Landing page shows COA summary + PDF download — no login required
- Downloadable QR image for printing on product labels
- Track scans per batch (analytics: which stores are using this feature)

Search Interface:

- Batch number search field with autocomplete
- Product dropdown filter
- Date range filter

Results Display:

- Card for each COA showing: Batch #, Product, Test Date, Lab Name, Pass/Fail status
- Quick-view summary: CBD content, THC content (must show 0.0% or ND), Contaminant status
- "View Full Report" button → Opens PDF in modal or new tab
- "Download PDF" button
- "Get QR Code" button → Downloads print-ready QR image

3.4 Texas Compliance Page

This page is your competitive advantage. Structure:

- **Our Licenses Section:**
 - CHP Manufacturing License number and expiration
 - Retail Hemp Registration number and expiration
 - Optional: Scanned license images (redact sensitive info)
- **Texas Hemp Law Summary:**
 - Plain-English explanation of Texas Health & Safety Code Ch. 443
 - What THC limits mean
 - Labeling requirements summary
- **SB 3 Update Section:**
 - Current status of legislation
 - How your THC-free formulation ensures compliance regardless of outcome
 - Last updated date (show you're monitoring)
- **Retailer Assurance:**
 - "When you stock our products, you're protected by..." statement

3.5 Wholesale Portal

★ HIGH-CONVERSION FLOW: Instant EIN Verification

The #1 conversion leak in B2B is "apply and wait." Instead: instantly verify EIN via API (TaxJar or Middesk, ~\$0.10/lookup), auto-create portal login, and email credentials in <60 seconds. Result: 3-4x more completed applications. You can still manually revoke bad actors later.

Public Application Page (/wholesale):

- Benefits overview: Wholesale pricing (40-60% margin), marketing support, exclusive access
- **Streamlined form fields:** Business name, EIN/Tax ID, Contact name, Email, Phone, Business type (retailer/vet/distributor)

- **★ Bot Protection:** Cloudflare Turnstile (free, invisible captcha) on form submission — blocks fake applications without friction
- **Instant verification flow:**
 - Step 1: User submits form (Turnstile validates)
 - Step 2: API validates EIN in real-time (TaxJar/Middesk, \$0.10/lookup)
 - Step 3: If valid → auto-create account, generate temp password
 - Step 4: Email credentials + welcome kit within 60 seconds
 - Step 5: Redirect to portal with "Account created!" success message
- **Fallback for invalid EIN:** "We couldn't verify your Tax ID. Our team will review manually within 24 hours."
- **Admin flag system:** New accounts auto-approved but flagged for review; can revoke if suspicious

Protected Wholesale Portal (/portal) — Requires Login:

- **Dashboard:** Account overview, recent orders, quick reorder
- **Product Catalog:** All products with wholesale pricing (tiered by volume)
- **Ordering:** Add to cart, MOQ enforcement (minimum 100 units), checkout
- **Order History:** Past orders with reorder functionality
- **Marketing Assets:** Downloadable product images, sell sheets, POS displays, brochures
- **Training:** Product knowledge videos, FAQ document
- **COA Access:** Direct links to all current batch COAs

3.6 For Veterinarians Section

- Formulation details (without making claims)
- Research library: Links to published studies on CBD and pets (you're presenting research, not making claims)
- Downloadable PDF: "CBD for Veterinary Professionals" information packet
- Contact form specifically for veterinary inquiries
- Partnership benefits for veterinary clinics

★ LEAD-GEN: Free Vet Sample Request Form

Huge conversion driver for veterinary partnerships. Gated to licensed DVMs only.

- **Form fields:** Name, Clinic Name, State License Number, Email, Phone, Products of interest
- **Verification:** Manual review of license number before shipping (prevents abuse)
- **Sample kit:** 1-2 product samples + info packet + COA copies + wholesale pricing sheet
- **Follow-up:** Automated email 7 days after delivery asking for feedback

3.7 Resources / Blog

- Article listing with category filter
- Categories: Pet Wellness, CBD Education, Retailer Tips, Industry News, Compliance Updates
- **★ "Compliance Updates" category:** Own the Google results when Texas hemp laws shift. Set up monitoring for law changes.
- Individual article pages with related posts

★ SEO QUICK WINS: Publish These 3 Posts First (Rank in <60 Days)

These specific titles target high-intent, low-competition keywords that drive wholesale leads:

1. **"2025 Texas Hemp Laws for Retailers: What Changed After the Veto & Executive Order"**
 - Target: Store owners googling "can I sell CBD in Texas 2025"
2. **"How to Read a Pet CBD COA in 2025 (Free Checklist)"**
 - Target: Retailers evaluating vendors, vets researching products
3. **"THC-Free vs Broad-Spectrum Pet CBD: What Vets Need to Know"**
 - Target: Veterinary clinics considering CBD partnerships

Additional safe content topics:

- "How to Choose a Safe CBD Product for Your Dog"
- "Understanding Broad-Spectrum vs. Isolate CBD"
- "What to Look for in Third-Party Lab Testing"
- "5 Signs Your Senior Pet Could Use Mobility Support"

3.8 Cart & Checkout

Cart Page (/cart):

- Line items with quantity adjusters
- Subtotal, estimated tax, estimated shipping
- "Continue Shopping" and "Proceed to Checkout" CTAs

★ B2B CONVERSION: Wholesale Upsell on Checkout

Before payment selection, display a subtle but prominent banner: "Are you a business owner? Apply for wholesale pricing and save 40%+ →" This converts DTC browsers into wholesale leads without interrupting consumer purchases.

Checkout Page (/checkout):

- Shipping address form
- Billing address (checkbox: "Same as shipping")
- **Payment method selection:**
 - Option 1 (Default): "Pay by Bank (ACH) — Save 2%" → AeroPay
 - Option 2: "Pay by Credit Card" → PaymentCloud
- Order summary sidebar
- Terms checkbox + Place Order button

3.9 FAQ Page

Dedicated FAQ page (/faq) captures high-intent SEO traffic and reduces support load.

- Accordion-style Q&A format
- Categories: General, Products, Ordering, Wholesale, Compliance
- Search bar for finding specific questions
- FAQ schema markup for Google rich snippets
- **Priority questions to include:**
 - "Is CBD legal for pets in Texas?"
 - "Will your products make my pet high?"
 - "How do I verify your lab results?"
 - "What's the difference between broad-spectrum and THC-free?"
 - "How do I become a wholesale partner?"
 - "Do you ship to all 50 states?"

4. Technical Stack

4.1 Recommended Architecture

Component	Choice & Rationale
Framework	Next.js 14+ (App Router) — SSR for SEO, React ecosystem, API routes
Styling	Tailwind CSS 3.4+ — Utility-first, design system friendly
Database	PostgreSQL (via Supabase or Neon) — Relational, scalable, free tier
ORM	Prisma — Type-safe, migrations, excellent DX
Authentication	NextAuth.js v5 — Credentials + email for wholesale portal
Payments (Primary)	AeroPay (ACH) — ~1% fees, offer "Pay by ACH, save 2%"
Payments (Backup)	PaymentCloud (Credit Cards) — CBD-approved, use as backup
EIN Verification	Middesk or TaxJar — ~\$0.10/lookup for instant wholesale approval
File Storage	Cloudflare R2 or AWS S3 — COA PDFs, product images, assets
Email	Resend or Postmark — Transactional emails, order confirmations
CMS	Sanity or Contentful — Blog posts, product content management
Hosting	Vercel — Optimized for Next.js, easy CI/CD
Analytics	Google Analytics 4 + Hotjar — Traffic + heatmaps/recordings
Age Verification	Custom modal component — 21+ verification on first visit

4.2 Key Dependencies

package.json dependencies:

```
next, react, react-dom, tailwindcss, @prisma/client, next-auth,
@tanstack/react-query, zustand (state), framer-motion, react-hook-form, zod,
lucide-react, date-fns, sharp (images), react-pdf, qrcode, @middesk/sdk (EIN
verification)
```

5. Visual Design System

5.1 Color Palette

Colors communicate trust, nature, and professionalism. Avoid anything that feels like a "CBD startup."

Name	Hex	Usage
Forest Green	#1B4D3E	Primary - headers, CTAs, trust badges
Sage Green	#2D7A5F	Secondary - hover states, accents, links
Warm Gold	#C4A962	Accent - highlights, badges, premium feel
Warm Off-White	#F8F7F5	Background - main page background
Pure White	FFFFFF	Cards, modals, content areas
Near Black	#1A1A1A	Primary text, headings
Dark Gray	#4A4A4A	Body text
Medium Gray	#6B6B6B	Secondary text, captions
Light Border	#E5E5E5	Borders, dividers, subtle lines
Success Green	#22C55E	Success states, pass indicators
Error Red	#EF4444	Error states, fail indicators

5.2 Typography

Font Family:

- Primary:** Inter (Google Fonts) — Clean, professional, excellent readability
- Fallback:** system-ui, -apple-system, sans-serif

Type Scale (using clamp for fluid sizing):

Element	Size (clamp)	Weight
H1 / Hero	clamp(2.5rem, 5vw, 4rem)	700 (Bold)
H2 / Section	clamp(1.75rem, 3vw, 2.5rem)	600 (Semibold)
H3 / Subsection	clamp(1.25rem, 2vw, 1.5rem)	600 (Semibold)
Body	clamp(1rem, 1.5vw, 1.125rem)	400 (Regular)
Small / Caption	clamp(0.75rem, 1vw, 0.875rem)	400 (Regular)

5.3 Spacing System

Use a consistent 4px base unit:

```
4px (1), 8px (2), 12px (3), 16px (4), 24px (6), 32px (8), 48px (12), 64px (16),
96px (24), 128px (32)
```

5.4 Selective Visual Effects

Apply modern CSS thoughtfully — trust over flash:

Subtle Glass Effect (Navigation Only):

```
background-color: transparent;
background-image: linear-gradient(45deg, transparent, transparent 5px, #f0f0f0 5px, #f0f0f0 10px);
background-size: 10px 10px;
```

Multi-Layer Shadows:

```
/* Card shadow */
box-shadow: 0 1px 2px rgba(0, 0, 0, 0.04), 0 4px 8px rgba(0, 0, 0, 0.04),
0 8px 16px rgba(0, 0, 0, 0.04); /* Elevated card (hover) */
box-shadow: 0 2px 4px rgba(0, 0, 0, 0.04), 0 8px 16px rgba(0, 0, 0, 0.06),
0 16px 32px rgba(0, 0, 0, 0.06);
```

Smooth Transitions:

```
transition: all 200ms cubic-bezier(0.4, 0, 0.2, 1);
```

6. Component Specifications

6.1 Navigation Component

Position: sticky top-0Height: 72px desktop, 64px mobileBackground: rgba(255, 255, 255, 0.85) with backdrop-blurZ-index: 50Contains:- Logo (left)- Nav links: Products, Our Standards, Lab Results, For Retailers, Resources- CTA button: "Wholesale Login" (right)- Mobile: Hamburger menu with slide-out drawer

6.2 Button Components

Primary Button:

Background: #1B4D3E (forest green)Text: white, font-weight 600Padding: 12px 24pxBorder-radius: 8pxHover: background #2D7A5F, transform scale(1.02)Active: transform scale(0.98)Focus: ring-2 ring-offset-2 ring-primary

Secondary Button:

Background: transparentBorder: 2px solid #1B4D3EText: #1B4D3E, font-weight 600Padding: 12px 24pxBorder-radius: 8pxHover: background rgba(27, 77, 62, 0.1)Active: transform scale(0.98)

Ghost Button:

Background: transparentText: #1B4D3E, font-weight 500Padding: 8px 16pxHover: text #2D7A5F, underline

6.3 Card Components

Product Card:

Background: whiteBorder-radius: 16pxPadding: 0 (image fills top)Box-shadow: multi-layer (see 5.4)Overflow: hiddenStructure:- Image container (aspect-ratio: 1/1, object-fit: cover)- Content area (padding: 24px) - Product name (H3, semibold) - Tagline (body, gray) - Price (H3, forest green) - CTA button (full width)Hover:- Slight elevation (translate Y -4px)- Shadow increase- Image slight scale (1.05) with overflow hidden

COA Result Card:

Background: whiteBorder: 1px solid #E5E5E5Border-radius: 12pxPadding: 24pxStructure:- Header row: Batch # (bold) + Status badge (Pass/Fail)- Product name- Test date- Lab name- Quick stats row: CBD %, THC % (should show 0.0%), Contaminants- Action buttons: View Report, Download PDF

Trust Badge:

Background: rgba(27, 77, 62, 0.05)Border: 1px solid rgba(27, 77, 62, 0.1)Border-radius: 8pxPadding: 12px 16pxDisplay: flex align-center gap-8pxContains:- Icon (24x24, forest green)- Text (small, semibold, forest green)

6.4 Form Components

Text Input:

Background: whiteBorder: 1px solid #E5E5E5Border-radius: 8pxPadding: 12px 16pxFont-size: 1remFocus:- Border: 2px solid #1B4D3E- Box-shadow: 0 0 0 3px rgba(27, 77, 62, 0.1)- Outline: noneError:- Border: 2px solid #EF4444- Error message below (small, red)Label:- Position above input- Font-weight 500Margin-bottom 8px

Search Input:

Same as text input but:- Padding-left: 48px (room for icon)- Search icon positioned absolute left- Clear button appears when has value

6.5 Modal Components

```
Overlay:- Background: rgba(0, 0, 0, 0.5)- Backdrop-filter: blur(4px)- Z-index: 100
Modal Container:- Background: white- Border-radius: 16px- Max-width: 600px (content), 90vw (mobile)- Max-height: 90vh- Overflow-y: auto- Box-shadow: large elevation- Padding: 32px
Animation:- Fade in overlay (200ms)- Scale up modal from 0.95 to 1 (200ms)
```

6.6 Age Verification Modal

⚠ TEXAS DSHS REQUIREMENT (Oct 2025): Emergency rules now require 21+ verification for any site selling consumable hemp products. This modal is legally required.

Trigger Rules:- Fires on EVERY visit unless "Remember me" was checked- Check localStorage for age_verified flag- If flag missing or expired → show modal immediately- Modal renders BEFORE any page content loadsAnti-Bypass Measures (Critical):- Browser back button must NOT skip modal (use history.replaceState)- Direct URL access to any page still triggers modal- Modal cannot be dismissed by clicking overlay- No close (X) button- Escape key does NOT close modal- Tab focus trapped within modalContent:- Logo- "Age Verification Required"- "You must be 21 or older to enter this site."- "Are you 21 or older?"- Two buttons: "Yes, I'm 21+" (primary), "No" (secondary, redirects to google.com)- Checkbox: "Remember my choice for 30 days" (sets localStorage with expiry)Styling:- Centered on screen, z-index: 9999- Overlay prevents scroll (body overflow: hidden)- Overlay is opaque (no peeking at content)- Clean, professional, not intimidating

7. Micro-Interactions & Animations

Keep animations subtle and purposeful. This is a B2B site, not a portfolio.

7.1 Page Transitions

- Fade in new page content (opacity 0 to 1, 200ms)
- Subtle slide up (translateY 10px to 0, 200ms)
- Use Framer Motion's AnimatePresence for smooth transitions

7.2 Scroll Animations

- Elements fade in as they enter viewport (Intersection Observer)
- Stagger children in lists/grids (50ms delay between items)
- No parallax effects (distracting for B2B)

7.3 Interactive Element States

Buttons:

- Hover: scale(1.02), background color shift (200ms ease)
- Active: scale(0.98) (100ms)
- Loading: spinner icon, disabled state, reduced opacity

Cards:

- Hover: translateY(-4px), shadow elevation increase (200ms)
- Active: translateY(-2px)

Links:

- Hover: color shift, underline animation (width 0 to 100%)

7.4 Loading States

Skeleton Screens:

- Gray placeholder blocks matching content layout
- Subtle shimmer animation (gradient sweep left to right)
- Use for: product grids, COA search results, portal data

Button Loading:

- Replace text with spinner
- Disable button
- Reduce opacity to 0.7

7.5 Success/Error Feedback

Toast Notifications:

- Slide in from top-right
- Auto-dismiss after 5 seconds
- Success: green left border, checkmark icon
- Error: red left border, X icon

Form Validation:

- Inline error messages appear with fade + slide
- Input border animates to red

- Shake animation on submit with errors (subtle, 200ms)

8. Accessibility Requirements

Target WCAG 2.1 AA compliance. Non-negotiable for a professional B2B site.

8.1 Color Contrast

- Normal text: minimum 4.5:1 contrast ratio
- Large text (18px+ bold or 24px+): minimum 3:1 contrast ratio
- Interactive elements: visible focus indicators
- Never rely on color alone to convey information

8.2 Keyboard Navigation

- All interactive elements reachable via Tab
- Logical tab order (follows visual flow)
- Skip-to-content link at top of page
- Escape key closes modals
- Enter/Space activates buttons
- Arrow keys navigate dropdowns

8.3 Screen Reader Support

- Semantic HTML (header, nav, main, section, article, footer)
- Proper heading hierarchy (h1 → h2 → h3, no skips)
- ARIA labels for icon-only buttons
- Alt text for all images (descriptive for content, empty for decorative)
- aria-live regions for dynamic content (toasts, form errors)
- aria-expanded for dropdowns and accordions

8.4 Motion & Animations

- Respect prefers-reduced-motion media query
- Disable or reduce animations when user preference set
- No auto-playing videos with motion

CSS implementation:

```
@media (prefers-reduced-motion: reduce) { *, *::before, *::after {  
    animation-duration: 0.01ms !important;      animation-iteration-count: 1 !important;  
    transition-duration: 0.01ms !important;   }}
```

8.5 Focus Management

- Visible focus ring on all interactive elements
- Focus trap in modals (Tab cycles within modal)
- Return focus to trigger element when modal closes
- Never remove outline without replacement

9. Dark Mode Implementation

Recommendation: Defer dark mode to Phase 2. Focus on a polished light theme first. However, structure CSS for easy addition later.

9.1 CSS Custom Properties Setup

```
:root { --color-bg-primary: #F8F7F5; --color-bg-secondary: #FFFFFF; --color-text-primary: #1A1A1A; --color-text-secondary: #4A4A4A; --color-border: #E5E5E5; --color-accent-primary: #1B4D3E; --color-accent-secondary: #2D7A5F; } [data-theme="dark"] { --color-bg-primary: #121212; --color-bg-secondary: #1E1E1E; --color-text-primary: #F5F5F5; --color-text-secondary: #B0B0B0; --color-border: #333333; --color-accent-primary: #4A9F7E; --color-accent-secondary: #6BC4A0; }
```

9.2 Dark Mode Considerations

- Adjust glass morphism opacity (higher in dark mode)
- Reduce shadow intensity
- Lighten accent colors for contrast
- Ensure images have appropriate dark mode variants or overlays
- Store preference in localStorage
- Respect prefers-color-scheme media query as default

10. Performance Optimizations

Target Core Web Vitals: LCP < 2.5s, FID < 100ms, CLS < 0.1

10.1 Image Optimization

- Use Next.js Image component for automatic optimization
- Serve WebP/AVIF formats with fallbacks
- Implement responsive images (srcset)
- Lazy load below-fold images
- Specify width/height to prevent layout shift
- Use blur placeholder for loading state

10.2 CSS Performance

- Use will-change sparingly (only on animating elements)
- Prefer transform/opacity for animations (GPU-accelerated)
- Implement CSS containment for complex layouts
- Purge unused Tailwind classes in production

10.3 JavaScript Optimization

- Code split by route (automatic with Next.js App Router)
- Dynamic imports for heavy components (modals, PDF viewer)
- Debounce search inputs (300ms)
- Virtualize long lists (react-virtual for 50+ items)

10.4 Network Optimization

- Enable Vercel Edge caching
- Cache API responses with React Query (staleTime: 5 minutes)
- Preload critical assets
- Use CDN for static assets (Vercel handles this)

11. Payment Integration

Critical Note: Do NOT use Stripe, PayPal, or Square for CBD products. They will freeze your funds. Use CBD-specialized processors.

11.1 Recommended Strategy (November 2025)

★ OPTIMAL SETUP: AeroPay (Primary) + PaymentCloud (Backup)

PaymentCloud's holds have gotten worse in late 2025 (30-45 days on new accounts). Use AeroPay (ACH) as primary processor. Offer retailers "Pay by ACH, save 2%" — they love it, and your effective fee drops to ~1%. Keep PaymentCloud as credit card backup for customers who insist.

11.2 Processor Comparison

Processor	Rates	Notes
AeroPay ★ PRIMARY	~1% (ACH)	Bank transfer. Lowest fees. 2-3 day settlement. Offer "2% discount" for ACH.
PaymentCloud (Backup)	2.9-3.9% + \$0.30	Credit cards. 30-45 day holds. ⚠️ Now requires 6 months processing history on new CBD accounts.
DigiPay (Tertiary)	3.5-4.5% + \$0.25	Ready as fallback if PaymentCloud drags or declines. Apply in parallel.

⚠️ **PROCESSOR APPLICATION STRATEGY:** Apply to AeroPay, PaymentCloud, AND DigiPay simultaneously. Approval timelines are unpredictable (2-6 weeks). PaymentCloud's new 6-month history requirement may delay or decline new CBD merchants. Having DigiPay pre-approved gives you a credit card fallback if PaymentCloud stalls.

11.3 Checkout Flow

Payment Method Selection:

- **Option 1 (Default):** "Pay by Bank (ACH) — Save 2%" → AeroPay
- **Option 2:** "Pay by Credit Card" → PaymentCloud
- **Option 3 (Wholesale only):** "Request Net 30 Invoice" → Manual review

11.4 Integration Architecture

Flow:
 1. Cart → Checkout page
 2. Collect shipping + billing info
 3. Select payment method (ACH default, CC backup)
 4. On submit → API route creates payment intent
 5. AeroPay: Bank linking flow / PaymentCloud: Card form
 6. Webhook receives payment confirmation
 7. Update order status in database
 8. Send confirmation email
 9. Redirect to success page

11.5 Wholesale Portal Payments

- Support Net 30 terms for approved retailers (manual invoicing initially)
- ACH payment option via AeroPay for lower transaction costs
- Credit card option via PaymentCloud for convenience
- Track payment status in order history

12. Database Schema

PostgreSQL schema via Prisma ORM:

12.1 Core Models

```
// User & Authenticationmodel User { id String @id @default(cuid()) email String @unique passwordHash String? name String? role UserRole @default(CUSTOMER) createdAt DateTime @default(now()) updatedAt DateTime @updatedAt // Relations wholesaleAccount WholesaleAccount? orders Order[] cart Cart?}enum UserRole { CUSTOMER WHOLESALE ADMIN}// Wholesale Accountmodel WholesaleAccount { id String @id @default(cuid()) userId String @unique user User @relation(fields: [userId]) businessName String taxId String businessType String // retailer, vet, distributor status WholesaleStatus @default(PENDING) approvedAt DateTime? pricingTier PricingTier @default(STANDARD) creditTerms String? // "NET30", etc. createdAt DateTime @default(now())}enum WholesaleStatus { PENDING APPROVED REJECTED SUSPENDED}enum PricingTier { STANDARD // 40% margin PREFERRED // 50% margin DISTRIBUTOR // 60% margin}
```

12.2 Product Models

```
model Product { id String @id @default(cuid()) slug String @unique name String tagline String? description String category ProductCategory petType PetType @default(ALL) // Pricing retailPrice Decimal @db.Money wholesalePrice Decimal @db.Money // CBD Info cbdMgPerServing Int servingsPerUnit Int // Inventory sku String @unique inStock Boolean @default(true) // Media images ProductImage[] @Relations variants ProductVariant[] coas COA[] orderItems OrderItem[] createdAt DateTime @default(now()) updatedAt DateTime @updatedAt}enum ProductCategory { OIL CHEW TOPICAL SPRAY}enum PetType { DOG CAT ALL}model ProductVariant { id String @id @default(cuid()) productId String product Product @relation(fields: [productId]) name String // "30ml", "60ml", "150mg", "300mg" sku String @unique retailPrice Decimal @db.Money wholesalePrice Decimal @db.Money inStock Boolean @default(true)}
```

12.3 COA & Compliance Models

```
model COA { id String @id @default(cuid()) batchNumber String @unique productId String product Product @relation(fields: [productId]) // Lab Info labName String testDate DateTime // Results cbdContent Decimal // Percentage thcContent Decimal // Should be 0.0 or ND passStatus Boolean @default(true) // Contaminants pesticides Boolean @default(true) // true = passed heavyMetals Boolean @default(true) microbials Boolean @default(true) residualSolvents Boolean @default(true) // Files pdfUrl String // S3/R2 URL qrCodeUrl String? // Generated QR code image createdAt DateTime @default(now())}model License { id String @id @default(cuid()) type LicenseType number String issuedBy String // "Texas DSHS" issueDate DateTime expirationDate DateTime documentUrl String? // Scanned license isActive Boolean @default(true)}enum LicenseType { CHP_MANUFACTURING RETAIL_HEMP OTHER}
```

12.4 Order Models

```
model Order { id String @id @default(cuid()) orderNumber String @unique @default(cuid()) userId String user User @relation(fields: [userId]) // Type orderType OrderType @default(RETAIL) // Totals subtotal Decimal @db.Money tax Decimal @db.Money shipping Decimal @db.Money total Decimal @db.Money // Status status OrderStatus @default(PENDING) paymentStatus PaymentStatus @default(PENDING) // Shipping shippingAddress Json trackingNumber String? // Items items OrderItem[] createdAt DateTime @default(now()) updatedAt DateTime @updatedAt}enum OrderType { RETAIL WHOLESALE}enum OrderStatus { PENDING PROCESSING SHIPPED DELIVERED CANCELLED}enum PaymentStatus { PENDING PAID FAILED REFUNDED}model OrderItem { id String @id @default(cuid()) orderId String order Order @relation(fields: [orderId]) productId String product Product @relation(fields: [productId]) variantId String? quantity Int unitPrice Decimal @db.Money totalPrice Decimal @db.Money}
```

13. Environment Variables

Required .env.local configuration:

```
# DatabaseDATABASE_URL="postgresql://user:pass@host:5432/db"#
NextAuthNEXTAUTH_URL="https://yourdomain.com"NEXTAUTH_SECRET="generate-with-openssl-rand-ba
se64-32"#
Payment Processors# AeroPay (Primary -
ACH)AEROPAY_API_KEY="..."AEROPAY_SECRET_KEY="..."AEROPAY_WEBHOOK_SECRET="..."#
PaymentCloud
(Backup - Credit
Cards)PAYMENTCLOUD_API_KEY="pk_live_..."PAYMENTCLOUD_SECRET_KEY="sk_live_..."PAYMENTCLOUD_W
EBHOOK_SECRET="whsec_..."#
EIN Verification (Instant Wholesale Approval)#
Choose one:
TaxJar or Middesk (~$0.10/lookup)MIDDESK_API_KEY="..."#
ORTAXJAR_API_KEY="..."#
Cloudflare
Turnstile (Bot Protection -
Free)NEXT_PUBLIC_TURNSTILE_SITE_KEY="..."TURNSTILE_SECRET_KEY="..."#
File Storage
(Cloudflare
R2)R2_ACCESS_KEY_ID="..."R2_SECRET_ACCESS_KEY="..."R2_BUCKET_NAME="cbd-assets"R2_ENDPOINT="
https://account.r2.cloudflarestorage.com"R2_PUBLIC_URL="https://assets.yourdomain.com"#
Email (Resend)RESEND_API_KEY="re_..."EMAIL_FROM="orders@yourdomain.com"#
CMS
(Sanity)NEXT_PUBLIC_SANITY_PROJECT_ID="..."NEXT_PUBLIC_SANITY_DATASET="production"SANITY_AP
I_TOKEN="..."#
AnalyticsNEXT_PUBLIC_GA_ID="G-XXXXXXXXXX"NEXT_PUBLIC_HOTJAR_ID="XXXXXXX"#
Site ConfigNEXT_PUBLIC_SITE_URL="https://yourdomain.com"NEXT_PUBLIC_SITE_NAME="Your Brand
Name"
```

14. SEO Configuration

14.1 Meta Tags Strategy

Homepage:

Title: "THC-Free CBD Pet Products | Texas DSHS Licensed | [Brand Name]" Description: "Veterinarian-formulated, third-party tested CBD products for dogs and cats. USDA organic hemp, CO2 extracted. Shop wholesale or retail. Texas compliant." Keywords: CBD pet products, CBD for dogs, CBD for cats, THC-free CBD, Texas CBD

Product Pages:

Title: "[Product Name] | THC-Free CBD [Oil/Chews] for [Dogs/Cats] | [Brand]" Description: "[Product tagline]. [X]mg CBD per serving. Third-party tested. View lab results. Free shipping on orders over \$X." Structured Data: Product schema with price, availability, reviews

14.2 Technical SEO

- Generate sitemap.xml automatically (next-sitemap)
- robots.txt allowing all public pages, blocking /portal/*
- Canonical URLs on all pages
- Open Graph tags for social sharing
- JSON-LD structured data: Organization, Product, LocalBusiness, FAQPage

14.3 Content SEO

- Blog posts targeting long-tail keywords
- Internal linking between related products and articles
- Alt text on all images with keyword integration
- FAQ schema on relevant pages

15. Deployment Checklist

15.1 Pre-Launch Checklist

1. All environment variables configured in Vercel
2. Database migrations run on production
3. Payment processor webhook endpoint tested
4. SSL certificate active (automatic with Vercel)
5. Custom domain configured
6. Email sending tested (order confirmations, wholesale applications)
7. All disclaimers and legal text reviewed by attorney
8. Age verification modal functional
9. COA PDFs uploaded and searchable
10. License numbers displayed correctly
11. Mobile responsiveness tested on real devices
12. Cross-browser testing (Chrome, Safari, Firefox, Edge)
13. Accessibility audit passed
14. Performance audit (Lighthouse score 90+)
15. 404 and error pages styled
16. Analytics tracking verified

15.2 Post-Launch Tasks

1. Submit sitemap to Google Search Console
2. Set up uptime monitoring (UptimeRobot, Vercel checks)
3. Configure error tracking (Sentry)
4. Set up database backups
5. Monitor Core Web Vitals weekly
6. Review Hotjar recordings for UX issues

16. Summary & Next Steps

16.1 Implementation Phases

★ LAUNCH SEQUENCING: Don't Build Everything Day One

Get live and collecting retailer applications as fast as possible. Add the full gated portal once you have 10-15 real accounts begging for it.

Phase 1: Lean MVP (Weeks 1-4) — GET LIVE FAST

- **Build ONLY these pages:**
 - Homepage (with Retailer Quick Look PDF download)
 - Products (catalog + detail pages)
 - Texas Compliance (licenses displayed)
 - Lab Results (COA search + batch-specific QR codes)
 - Wholesale Application (with instant EIN verification)
 - Basic DTC checkout (AeroPay + PaymentCloud)
- Age verification modal
- Mobile responsive
- **Goal:** Start collecting retailer applications immediately

Phase 2: Wholesale Portal (Weeks 5-8) — After 10-15 Applications

- Protected wholesale login system
- Tiered wholesale pricing display
- Wholesale ordering with MOQ enforcement
- Marketing asset downloads (images, sell sheets)
- Order history and quick reorder
- **Trigger:** Build this when retailers are actively asking for self-service ordering

Phase 3: Content & Polish (Weeks 9-12)

- Blog/Resources section with CMS integration
- SEO quick-win articles published
- For Veterinarians section
- Training videos for retailers
- Advanced analytics integration
- Performance optimization

16.2 Budget Estimate

Item	One-Time	Monthly
Legal review (compliance copy)	\$1,500 - \$3,000	-
Development (if outsourced)	\$8,000 - \$15,000	-
Vercel Pro	-	\$20
Supabase (Database)	-	\$25
Cloudflare R2 (Storage)	-	~\$5
Resend (Email)	-	\$20
Sanity CMS	-	Free tier
Domain + SSL	\$20/year	-
TOTAL (Year 1)	\$9,500 - \$18,000	~\$70/mo

16.3 Critical Success Factors

1. **Legal Review First:** Have a Texas cannabis attorney review ALL copy before launch
2. **THC-Free Positioning:** Make this unmistakably clear throughout the site

3. **COA Transparency:** Every product batch must have an accessible, current COA
4. **Payment Processor Selection:** Apply to PaymentCloud EARLY — approval can take 2-4 weeks
5. **Mobile-First Testing:** Many retailer owners check sites on phones between customers

Appendix A: Future Considerations

The following items are documented for future implementation. These are not MVP requirements but should be planned for as the business scales.

A.1 Shipping & Fulfillment Logic

Target Timeline: Phase 2-3 (after 50+ orders/week)

MVP Approach (Launch):

- Flat-rate shipping: \$7.99 retail, \$14.99 wholesale
- Free shipping threshold: \$75 retail, \$500 wholesale
- Manual fulfillment from single warehouse location
- Tracking number entered manually after shipment

Future Enhancements:

- **★ Real-time carrier rates (EasyPost preferred):** EasyPost is cheaper than ShipStation (~\$0.05 per rate request vs. monthly fee). Calculate actual USPS/UPS/FedEx rates at checkout based on weight, dimensions, and destination. Integrate early if order volume spikes.
- **Warehouse vs. Dropship logic:** If using contract manufacturer fulfillment, implement routing rules to determine whether order ships from your warehouse or manufacturer
- **Lead time differentiation:**
 - Retail orders: 1-2 business days processing
 - Wholesale orders: 3-5 business days processing
 - Display estimated delivery date at checkout
- **Backorder management:**
 - Allow orders on out-of-stock items with clear messaging
 - Automated restock notifications
 - Inventory sync with manufacturer
- **Zone-based shipping:** Different rates/carriers for Texas (fast, cheap) vs. national (standard) vs. restricted states (block checkout)

Database Additions (Future):

```
model ShippingZone { id String @id @default(cuid()) name String // "Texas Local", "Continental US", "Restricted" states String[] // ["TX"], ["CA", "NY", ...], ["ID", "SD"] carrier String // "USPS", "UPS", "FedEx" baseRate Decimal @db.Money freeThreshold Decimal? @db.Money leadTimeDays Int isActive Boolean @default(true)}model InventoryRecord { id String @id @default(cuid()) productId String variantId String? quantity Int reorderPoint Int @default(50) reorderQty Int @default(200) lastUpdated DateTime @updatedAt}
```

A.2 Net Terms Automation

Target Timeline: Phase 3 (after 10+ active wholesale accounts)

MVP Approach (Launch):

- Net 30 handled manually via invoicing (QuickBooks Online)
- Track payment status in spreadsheet initially
- Manual approval for credit terms
- Order marked "paid" in database when payment received
- **★ DAY ONE PREP:** Wire the Invoice database model from launch (see schema below) even if you're not automating yet. This prevents painful migration later when you add QuickBooks Online API sync. Store invoiceNumber, amounts, dates, and status from day one.

Future Enhancements:

- **QuickBooks Online API integration:** Sync invoices bidirectionally — create invoice in your DB, push to QBO, pull payment status back
- **Automated invoice generation:** Generate PDF invoice on wholesale order, email to customer with payment link
- **Credit limit enforcement:**
 - Set credit limit per wholesale account (\$2,000, \$5,000, \$10,000 tiers)
 - Block new orders if outstanding balance exceeds limit
 - Dashboard warning when approaching limit
- **Aging reports:**
 - Current, 1-30 days, 31-60 days, 61-90 days, 90+ days buckets
 - Automated reminder emails at 25 days, 30 days, 45 days
 - Admin dashboard for collections overview
- **Payment terms options:** Net 15, Net 30, Net 45, COD, Prepay based on account history
- **Early payment discount:** 2% discount if paid within 10 days (2/10 Net 30)
- **ACH autopay:** Allow retailers to authorize automatic payment on due date

Database Additions (Future):

```
model Invoice { id String @id @default(cuid()) invoiceNumber String
@unique orderId String order Order @relation(fields: [orderId])
wholesaleAccountId String // Amounts subtotal Decimal @db.Money tax
Decimal @db.Money total Decimal @db.Money amountPaid Decimal
@db.Money @default(0) // Dates issueDate DateTime @default(now()) dueDate
DateTime paidDate DateTime? // Status status InvoiceStatus
@default(PENDING) // Files pdfUrl String? // Payment tracking payments
Payment[] } enum InvoiceStatus { DRAFT PENDING PARTIAL PAID OVERDUE VOID } model Payment
{ id String @id @default(cuid()) invoiceId String invoice
Invoice @relation(fields: [invoiceId]) amount Decimal @db.Money method
PaymentMethod reference String? // Check #, transaction ID receivedDate DateTime
@default(now()) notes String? } enum PaymentMethod { ACH CHECK CREDIT_CARD
WIRE } // Add to WholesaleAccount model: // creditLimit Decimal? @db.Money // paymentTerms
String @default("NET30") // autoPayEnabled Boolean @default(false)
```

A.3 Human CBD Products (Future Brand)

Target Timeline: 12-18 months post-launch (separate initiative)

Strategic Recommendation:

Human CBD products should be a completely separate brand, website, and business entity. Do NOT add human products to this pet-focused site. Here's why:

- **Regulatory complexity:** Human consumables have different FDA oversight, labeling requirements, and state-by-state rules
- **Brand dilution:** Pet owners trust pet-specific brands; mixing confuses positioning
- **Liability separation:** Separate LLCs protect each business from cross-contamination of legal issues
- **Payment processing:** Some processors treat human vs. pet CBD differently; separate accounts reduce risk

Recommended Architecture:

- **Sibling brand:** "[Brand] Wellness" or similar human-focused name
- **Sibling repository:** Separate codebase, can share component library if desired
- **Separate database:** Own customer data, orders, products
- **Shared manufacturer:** Same contract manufacturer for cost efficiency
- **Shared COA infrastructure:** Possibly share lab results portal backend (different frontend)
- **Cross-linking:** Footer link "CBD for Humans" → sister site (and vice versa)

A.4 Additional Future Features

Phase 2 Candidates (Months 3-6):

- **Subscription/Auto-ship:** Recurring orders for retail customers (10% discount, cancel anytime)
- **Loyalty program:** Points per dollar spent, redeemable for discounts
- **Review system:** Product reviews with photo upload (moderated)
- **Referral program:** Retailer refers retailer, both get credit
- **Live chat:** Intercom or Crisp for real-time support

Phase 3 Candidates (Months 6-12):

- **Retailer locator:** "Find a store near you" map for consumers
- **Wholesale reorder reminders:** Email retailers when it's time to restock based on order history
- **Sales rep portal:** If you hire reps, dashboard for their accounts and commissions
- **Multi-language support:** Spanish for Texas market
- **Advanced analytics:** Customer lifetime value, cohort analysis, churn prediction
- **API for distributors:** Allow large distributors to pull inventory/pricing programmatically

Long-Term Candidates (Year 2+):

- **White-label portal:** Allow large retailers to have branded ordering pages
- **EDI integration:** Electronic data interchange for major distributors
- **Marketplace expansion:** Chewy, Amazon (if policies allow), Faire integration
- **Mobile app:** Retailer ordering app for quick reorders
- **AI chatbot:** Product recommendations, dosing guidance (with disclaimers)

A.5 Ongoing Compliance Monitoring

Target Timeline: Continuous (build into operations)

SB 3 Response Plan:

- Monitor Texas Legislature session updates weekly during active sessions
- Maintain relationship with cannabis attorney for rapid legal interpretation
- THC-free formulation already positions you for compliance regardless of outcome
- Prepare communication templates for retailers if law changes

License Renewal Tracking:

- CHP Manufacturing License: Renew annually (\$258)
- Retail Hemp Registration: Renew annually (\$155)
- Set calendar reminders 60 days before expiration
- Update website immediately upon renewal

COA Management:

- Every new batch requires new COA before sale
- Upload COA to portal within 24 hours of receipt from lab
- Archive old COAs (keep accessible for 3+ years)
- Quarterly audit: Verify all products on site have current COAs

Multi-State Expansion Checklist:

If expanding beyond Texas, research state-by-state before shipping:

- Idaho, South Dakota: Highly restrictive — verify current law before shipping

- California: Proposition 65 warning requirements
- Each state: Check if registration/licensing required for out-of-state sellers
- Implement state-based checkout restrictions if needed

A.6 Implementation Priority Matrix

Feature	Timeline	Trigger	Effort
Real-time shipping rates	Phase 2	50+ orders/week	Medium
Backorder management	Phase 2	First stockout	Low
Invoice automation	Phase 3	10+ wholesale accts	Medium
Credit limit enforcement	Phase 3	First late payment	Medium
Subscription/Auto-ship	Phase 2	Customer requests	High
Retailer locator map	Phase 3	20+ retail partners	Medium
Human CBD brand	Year 2	Pet brand profitable	Very High
Multi-state compliance	Ongoing	Out-of-state orders	Low-Med

This specification provides a complete blueprint for building a compliant, professional, and conversion-optimized CBD pet products website. The B2B-first approach positions you for sustainable growth while the clean, trustworthy design will pass payment processor and retailer scrutiny.

— End of Specification —