Clark County Department of Building & Fire Prevention

4701 West Russell Road, Las Vegas, NV 89118 ~ (702) 455-3000

Vehicle Body Shop
Building Permit Guide

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Part I. General Information

This guide is intended to clarify the minimum Clark County Department of Building submittal requirements to obtain applicable permits for all vehicle repair, body shops, collision repair centers, and similar occupancies that use, form, shape, and sand (machine and by hand) plastic and composite body filler materials, applies flammable or combustible spray finishes (paint, sealer, coatings, resins, etc.), performs powder coating finishing or treatments, dip tank operations in which articles or materials are passed through contents of tanks, vats, or containers of flammable or combustible liquids (coating, finishing, treatment, and similar processes), application of dual-component coatings or Class I or Class II liquids when applied by brush or roller in quantities exceeding 1-gallon (4L), and similar operations in continuous or intermittent processes. The term "vehicle" includes, but is not limited to cars, trucks, vans, motorcycles, recreational vehicles, trailers, and similar. The term powder coating includes the application of combustible powders by powder spray guns, electrostatic powder spray guns, fluidized, beds, electrostatic fluidized beds, and similar operations.

Operations that use or generate combustible dusts and spray finishing that use flammable or combustible materials must obtain both applicable Clark County Department of Building and Clark County Fire Department permits. Additional applications and permits from other Clark County entities may further be required. All spraying finishing operations performed inside of a building shall be conducted in an approved spray booth, spraying area, or spraying room approved for such use.

NOTE: Non-applicability: This guide does not apply to spray finishing utilizing flammable or combustible liquids which do not sustain combustion, including liquids that have no fire point when tested in accordance with ASTM D92 and liquids with a flashpoint greater than 95oF (35oC) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.

Due to the wide-ranging and diverse applications represented by spray finishing, this guide is intended only to offer basic information and guidance and does not intend to represent a complete review or determination of all Clark County requirements, laws, and ordinances governing this subject.

Part II. Applicant's Responsibility

Applicants are responsible for submitting complete applications with architectural, structural, mechanical, plumbing, electrical, fire protection, and all other pertinent information to demonstrate compliance. It is the responsibility of the owner and design professional to ensure that a diligent design and the application of code requirements are accomplished.

Part III. Prerequisites

A hazardous material inventory list identifying the type and quantity of all hazardous materials planned along with their respective Material Safety Data Sheet (MSDS) sheets for materials including the plastic

body filler, powder coating materials, solvents, paints, treatments, and similar hazardous materials shall be provided as part of the submittal process.

Part IV. Applicable Codes

Currently adopted version of the following:

- International Building Code (IBC) with Southern Nevada Code Amendments
- Uniform Mechanical Code (IBC) with Southern Nevada Code Amendments
- National Electrical Code (NEC) with Southern Nevada Code Amendments
- International Fire Code (IFC) with Southern Nevada Code Amendments
- NFPA 30, Flammable and Combustible Liquids Code
- NFPA 33, Spray Application Using Flammable or Combustible Materials
- NFPA 34, Dipping and Coating Processes Using Flammable or Combustible Liquids
- NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids
- Clark County Development Services Policy and Procedure BP-PP-075, Paint Spray Booths.

Part V. Submittal Package

At the time of permit application, three (3) complete sets of plans, drawn to an indicated scale, must be submitted for review and approval. All plans shall be stamped, sealed, and signed by a Nevada registered design professional practicing in the area of their expertise.

Part VI. Plan Contents

Submitted design package shall include, but is not limited to, the following information:

Architectural Plans: (Sealed by an Architect registered in Nevada.)

- Business name, property address, floor and/or suite number and name of business.
- Site plans depicting location of building or tenant space, property lines, building footprint, location of mechanical unit(s), and easements (Include dimension from mechanical units to all property lines and structures).
- Location of the space/ area under consideration.
- The name and anticipated usage of each room.
- Elevation, plan, reflected ceiling and section details as necessary to thoroughly depict the proposed arrangement.
- Parapet or screening methods for both ground-related and rooftop units (Rooftop screening must be architecturally compatible with the building if the equipment extends above the roofline).
- Designate the use of building or tenant space (i.e., office, factory, etc.) and occupancy groups.
- Specify type of construction of the building, location of all fire walls, occupancy separations, etc.
- The type and location of all spray booths, dust-producing equipment, dust collection and exhaust systems including their adjacent operations associated with the systems.

- Presence and required separations from other incompatible processes such as hot work (welding and cutting), open flames, spray applications of hazardous materials, and similar.

Mechanical Plans: (Sealed by a Mechanical Engineer registered in Nevada.)

- Manufacturer's information fully describing the use and characteristics of all spray finishing operations, paint booth(s), paint mixing rooms, and powder preparation rooms including their specific application equipment proposed for use in the project.
- Complete system design calculations to include minimum airflows and velocities to be provided throughout all locations of the dust collection/ exhaust systems.
- Equipment layout over the floor plan including their size, gauge, etc. of ducts and outlets.
- Provisions for required make up air.
- A system flow diagram.
- Specifications for exhaust and dust collection systems, fans, filter media, and associated equipment.
- The type of heating and/ or drying systems proposed to be used.
- Type of ventilation, exhaust, or collection system.
- The type of control and interlock systems between spraying finishing, coating, drying, and similar systems with the ventilation system to be provided.
- Dimension distances from proposed exhaust outlet to supply ducts, windows, doors, and property lines.

Electrical Plans: (Sealed by an Electrical Engineer registered in Nevada.)

- Symbol schedule of all symbols and abbreviations used.
- One-line drawing of the complete electrical system showing system voltage, phase configuration, conductor sizes/ types, etc.
- Electrical and static grounding and bonding details.
- Lighting and power floor plans including fixture types, receptacles, switches, outlets, etc. (identify if new, existing, relocated, etc.
- NEMA enclosure type.
- Identification of any hazardous or classified electrical areas by Electrical Code type.

Part VII. Other Information

The following provides specific interpretations necessary for the design and review of the applicable project documents but do not represent or identify all applicable requirements.

Note: That when conflicts between applicable code requirements arise, the most restrictive requirements of the International Building Code (IBC) and the Clark County Fire Code shall apply:

- The occupancies identified in this guide are defined as F-1, moderate-hazard occupancies and may further have allowable H-2 and H-3 areas contained within them provided code complaint separation between them are provided.

- The entire building shall be provided with an automatic sprinkler system per the 2010 Building Administrative Code of Clark County Section 22.02.170 (N)(4). The automatic sprinkler system shall extended into all spray booths, plenums, exhaust ducts, filter boxes, mixing, and similar areas as required by IBC and Clark County Fire Code requirements.

- The maximum amount of hazardous materials allowed for storage and use shall not exceed the amounts identified in the building and fire codes. If these amounts are exceeded, the overall occupancy will be defined as an H-2 occupancy.

- Spray finishing operations conducted within buildings used for Group A (assembly), Group E (educational), Group I (institutional), or Group R (residential) shall be located in a spray room(s) protected with an approved automatic sprinkler system and separated vertically and horizontally from other areas by at least a minimum 1-hour fire barrier in accordance with the IBC. In other occupancies, spray finishing shall be conducted in a spray room, spraying area, or spray booth that are compliant to IBC and CCFC requirements. Compliant rooms or spray booths further include pre-engineered/ pre-manufactured rooms or booths listed or approved by a nationally recognized testing laboratory for the applicable hazards.

- Code compliant spray rooms, spraying areas, and spray booths enclosing spray finishing operations that use flammable or combustible liquids are not in of themselves, code defined as representing H occupancies.

- Liquid paint mixing and storage areas are defined as representing High-Hazard Group H Division 3 occupancies. Mixing rooms larger than 500-square feet shall be located on an outside wall. Powder preparation rooms are defined as representing High-Hazard Division 2 occupancies.

- The sanding (machine and by hand) and shaping of plastic body filler material and similar combustible materials, powder coating operations, and similar can generate sufficient quantities of finely divided dust particles that meet the code definition of "Combustible Dusts" and if suspended in air and ignited, could result in rapid burning or potential detonation. As such, any building or portion of a building or area having a combustible dust hazard is defined as a Group H, Division 2 occupancy without code exception or modification.

- Combustible dust producing operations require special dust collection, ventilation, mechanical, electrical, and other such systems specifically listed and approved for the unique hazards represented by this type of operation.

- If the combined H-2 and H-3 areas in the F-1 building exceed 1,000-square feet, all building walls must be set back from property lines at least 30 feet (415.3.1.2).

- At no time shall spray applied finishes, powders, or similar be applied outside of the listed spray booth or spray room. In addition, the following statement must be placed on the plans and posted within the painting area: "Spray applied finishes shall not be used outside of approved spray booth or mixing area".

- Electrical wiring and equipment for spray finishing operations using flammable or combustible liquids and in combustible dust areas shall be designed in accordance with IBC, Clark County Fire Code, the National Electrical Code (NEC), and other applicable codes, standards, and regulations as adopted or amended by Clark County.

- The mechanical ventilation and exhaust systems shall comply with applicable Clark County Fire Code, IBC, UMC, and other requirements as adopted and amended by Clark County.

- Each spray booth/spray room shall have an independent exhaust duct system discharging to the outside. Air exhausted from spray finishing operations shall not be re-circulated back into the building.

- A fire department inspection clearance is required before a Certificate of Occupancy will be issued.

Department Of Building & Fire Prevention Locations & Services

MAIN OFFICE 4701 W. Russell Road Las Vegas, NV 89118 (702)455-3000	On-Site Plan Submittals All "Walk-Through" Plan Review / Permitting Functions Residential Tract Submittal / Permitting All Sub-Trade (Electrical, Plumbing & Mechanical) Permitting Building Inspection Scheduling Functions Fire Prevention Inspection Services Records	Temporary Certificate of Occupancy Submittals Building Inspections Building Inspector Inquiries Amusement / Transportation Systems Operation Certificates Approved Fabricators Quality Assurance Agency Listing
LAUGHLIN OFFICE Regional Government Center 101 Civic Way Laughlin, NV 89029 (702)298-2436	Building Inspection Services Fire Prevention Inspection Services	
OVERTON OFFICE 320 North Moapa Valley Blvd. Overton, NV 89040 (702)397-8089	Building Inspection Services Fire Prevention Inspection Services	

Automated Phone System (702) 455-3000

Option 1: For all Inspection services or to report a building code violation.
Option 2: For information regarding on-site permits or new plan submittals.
Option 3: For the Building Plans Examination division or QAA information.
Option 4: For the Zoning Plans Examination division.
Option 5: For information or copies regarding land development, construction documents, plans or permits.
Option 6: To speak with Management staff.
Option #: For hours of operation, Office location and website information.

Other Clark County Departments/Divisions/Districts

Air Quality & Environmental Management	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-5942
Public Works, Development Review Services	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-6000
Comprehensive Planning	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-4314
Fire Department	575 E. Flamingo Road, Las Vegas NV	(702) 455-7316
Las Vegas Valley Water District	1001 S. Valley View Boulevard, Las Vegas NV	(702) 870-2011
Southern Nevada Health District	625 Shadow Lane, Las Vegas NV	(702) 759-1000
Water Reclamation District	5857 E. Flamingo Road, Las Vegas NV	(702) 668-8888

State of Nevada

Division of Water Resources	400 Shadow Lane, Suite 201, Las Vegas NV	(702) 486-2770
Nevada State Contractors Board	2310 Corporate Circle, Suite 200, Henderson NV	(702) 486-1100

Utilities

Nevada Power	6226 W. Sahara Avenue, Las Vegas NV	(702) 402-5555
Southwest Gas	5241 Spring Mountain Road, Las Vegas NV	(877) 860-6020

www.clarkcountynv.gov/building