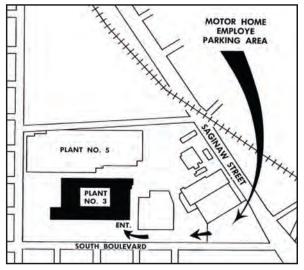
# The Beginning of a Classic... The Manufacturing of the GMC Motorhome

BY JANET FREY | 1976 PALM BEACH | MILFORD SQUARE, PENNSYLVANIA | GMCMI SECRETARY AND BILL BRYANT | PREVIOUS OWNER OF 1976 PALM BEACH | PLEASANT VALLEY, NEW YORK | GMC MOTORHOME HISTORIAN

> Have you ever wondered where our much admired GMC Motorhomes began life? Well, wonder no more. Due to some incredible research by your Managing Editor, and documentation and knowledge provided by Bill Bryant, GMC Motorhome Historian, we are able to provide you with the Story of Plant 3, the birthplace of the GMC Motorhome.

#### **Pontiac West Assembly**

The Pontiac West Assembly (also known as GMC Truck & Coach, GM Truck Validation Center, and Pontiac Centerpoint Campus Validation Center) was a General Motors manufacturing facility located in Pontiac, Michigan. The manufacturing complex occupied an irregular 82 acre site bounded on the North by Rapid Street, on the South by South Boulevard West, on the East by the Grand Trunk Western Railroad/Saginaw Street (later named Woodward Avenue), and on the West by Franklin Road. The complex included GMC Truck & Coach Plant 1, 3, 4, and 5, as well as numerous administrative and support buildings.



From the GMC Motorhome Employee Handbook.

#### **History of** the Site 1908 Originally, the site was The Rapid Motor Vehicle In November. In March, the Rapid Motor On September 16, home to many separate Vehicle Company was William C. Durant William C. Durant gained privately owned founded General formally organized. In control of Rapid Motor Vehicle parcels, including 1905 a 35,000 sq. ft. truck Company and made it a Motors Company. various manufacturing assembly plant was built General Motors subsidiary. companies and some at 25 Rapid Street abutting private homes. the Grand Trunk Western On August 1, a 1909 Rapid GENERAL MOTORS COMPANY. Railroad tracks. General truck became the first commercial vehicle to climb Motors acquired Rapid Here are some Certificate of Incorporation. Motor Vehicle Company, Pike's Peak in Colorado. highlights of the Fished on Converse on Succession on States making it Plant #1. property that housed the Pontiac West Assembly. HENRY, Sales Manu

1906 Ad

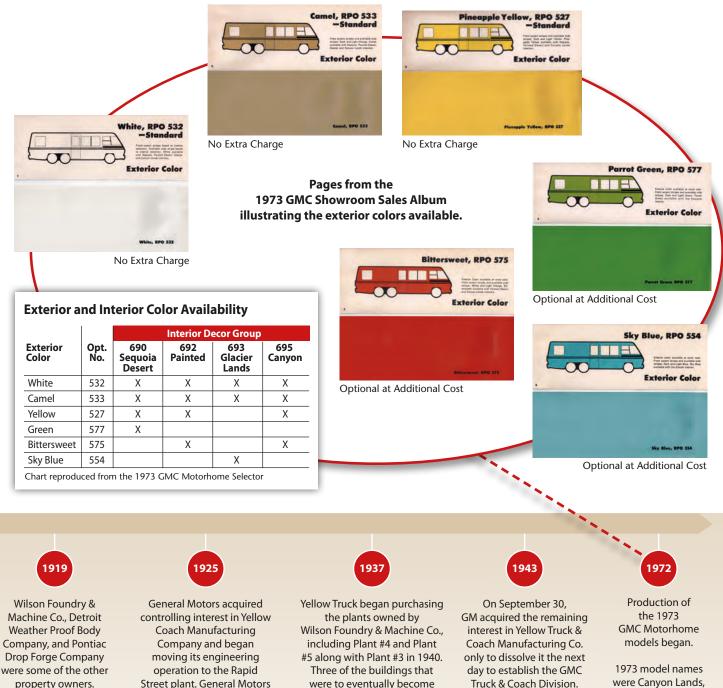
Company ceased to exist when General **Motors Truck Company** was created and all of General Motors truck subsidiaries were absorbed into the new business unit. In 1912 the Rapid brand name was discontinued in favor of GMC.

Pontiac West Plant, then the Rapid Motor Co., as it appeared in 1905.



The Rapid Truck that climbed Pikes Peak in a parade.

Δ



1917 Ad

renamed the company to Yellow Truck and Coach Manufacturing Company.



1937 Yellow Coach Model

Pontiac West were acquired from the Wilson Foundry Company, a firm that manufactured castings such as motors.

The Wilson Foundry & Machine Co. was the largest producer of automobile castings in the world and produced engines for Whizzer motorcycle.

Wilson Foundry & Machine Co. Employee Badge





1948 Ad

Glacier, Painted Desert, and Sequoia and offered in 23' and 26' lengths.



Timeline continues on next page



From the GMC Motorhome Employee Handbook.

## **The Employee Handbook** A Bit About the GMC Motorhome

While many of us have read the story of the GMC Motorhome in some detail, here is some information from a different perspective: the GMC Employee Handbook!

#### Here is their (condensed) version:

In 1968, GMC's Product Development Department was looking into mini buses to connect commuters to mass transit. During this investigation, various sized vehicles were studied as to their market potential. Out of this evolved a new chassis and body design with a potential for a variety of applications, including a motorhome. By 1970, work intensified and in early 1972 it was announced that GMC Truck & Coach would produce and market, in 1973, the world's finest motorhome.

#### Note from Handbook to employees:

SOUTH BOULEVARD

"And so, you are helping to record another chapter in the illustrious history of GMC Truck & Coach which started at the turn of the century! Remember, our customers expect quality-they depend on us!"



**Note:** Demolishing the Pontiac West facility produced two million square feet of concrete.



Download PDF of handbook at: gmcmi.com/ gmc-motorhomeodds-ends

The handbook also included some information on the motorhome that they would be manufacturing: The

GMC Motorhome utilizes frontwheel drive, a low wide frame, tandem independent rear suspension, and an aluminum and molded-fiberglass body. There will be 23 and 26 foot models in the 10,500 pound gross vehicle weight class.

More notes to employees: "There are few, if any, jobs in which ability alone is sufficient. Needed also is loyalty, sincerity, enthusiasm, and team play."

GMC Motorhome dealerships were separate, stand-alone facilities. GMC Truck dealerships did not automatically become motorhome dealers. (Read about dealerships in the Fall 2019 issue of *GMC Vintage RVing* at gmcmi.com/gmc-vintage-rving.)

And, another cheer for the employees was: "The difference between success and failure is doing a thing nearly right and doing it exactly right."



From the GMC Motorhome Employee Handbook.

#### O GMC MOTOR HOME EMPLOYE HAND · BOOK TI bi (U

### Original Copy from 1973-74 Tour Brochure **Plant NO. 3 Birthplace of the GMCMH**

The following copy is from a 1973-1974 three-panel brochure handed out during tours of GMC Plant No. 3. (Unfortunately, all we have is a photocopy of one.) Plant No. 3 in Pontiac, Michigan, had been outfitted with equipment and tooling. This was one of GM's older plants, and it had a split-level floor plan.

Within the walls of the GMC's historic Plant 3 you will see a revolution in motorhome building technology, as the best of traditional production line techniques combined with startling new methods and materials to make the GMC Motorhome the finest in the industry.

Plant 3 operates on two levels. On the upper level, you will see the body shell grow, starting with the welding of many rugged aluminum frame members into a truss-like structure that is as rigid as a bridge but far lighter. Onto this structure, in a system unique with GMC, side and roof panels are bonded with a radical new adhesive that is stronger and certainly more attractive than convention riveting.

The "body in white", as the unpainted shell is called, then moves into the paint area where it receives the deep, lustrous baked finish which is so much a part of the motorhome's beauty.

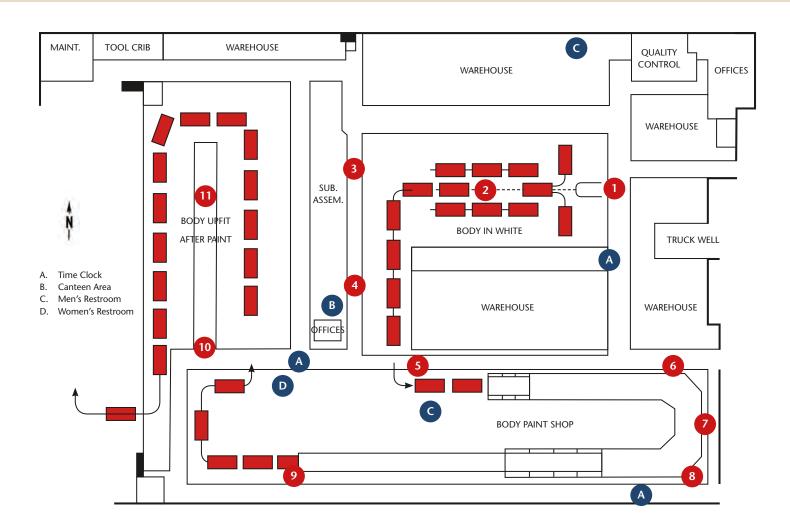
Then on to successive work stations where teams of skilled workers install the lights, trim, interior equipment, and windows.

Meanwhile, on the lower level, the chassis has been taking shape. It starts with the fabrication of the rugged steel perimeter frame. Mounted on a conveyor, the frame moves steadily along – a new work station every 15 minutes – as subassemblies are built up and added: air suspension units, wheels and tires; hydraulic brakes and brake lines; power steering; engine, transmission, and GMC's exclusive frontwheel drive.

Finally, the completed chassis moves into position under the completed body on the upper level. Then comes the dramatic body drop, as body and chassis are mated and permanently secured into a single, strong, durable unit.

After final quality-control testing and inspection, the exterior of the new GMC Motorhome is now complete, as well as the interior of the driver's compartment. It is now ready to move to Gemini to have the rest of the interior fitted out and be made ready for delivery. Original Copy and Recreated Map from 1973-74 Tour Brochure

### Plant No. 3 – Second Floor Body Line





Top roof assembly fixture.

Body side frame assembly fixture.

Photos courtesy of Bill Bryant

#### 1. Roof and Side Panel Assembly

- Welding aluminum extrusions into rugged, truss-line structures
- Space-age adhesive used to "glue" exterior panels to side and top frames
- Adhesion, curing under controlled heat and pressure

#### 2. Main Framing Fixture

- Joining roof and sides into single unit
- Welding bottom cross members
- Extreme accuracy required so that interior modules will fit

#### 3. Final Body Fitting

- Front and rear molded fiberglass panels fitted and installed
- Plywood installed
- Body shell now complete, rigid enough to sit on dolly without supporting fixtures

#### 4. Final Body Fitting

- Doors fitted
- Interior joints and seams caulked
- Body now ready for painting

#### 5. Undercoating

- Pre-cleaning wash to remove impurities
- Sanding to remove rough spots
- Spraying with primer coat



Top roof panel to frame bonding entering cure oven.



Body assembly.



Body assembly.



Body ready to be mated to chassis.

#### 6. Final Sanding

• Thorough inspection, rubbing out of all remaining rough spots

#### 7. Final Sealing

• Interior seams sealed with Plastisol plastic

#### 8. Painting Preparation

- "Blow-off" and air suction removal of dust
- "Tack-off", rubbing all over with tacky cloth
- Magnetized blow-off for fiberglass panels
- Spraying two wet coats of high-gloss enamel
- Flow-out booth where paint smooths out
- Baking oven to set and harden finish coat

#### 9. Paint Completion

- Thorough inspection to detect flaws
- Paint touch-up line, if necessary, for paint repair

#### 10. Body Trim Line

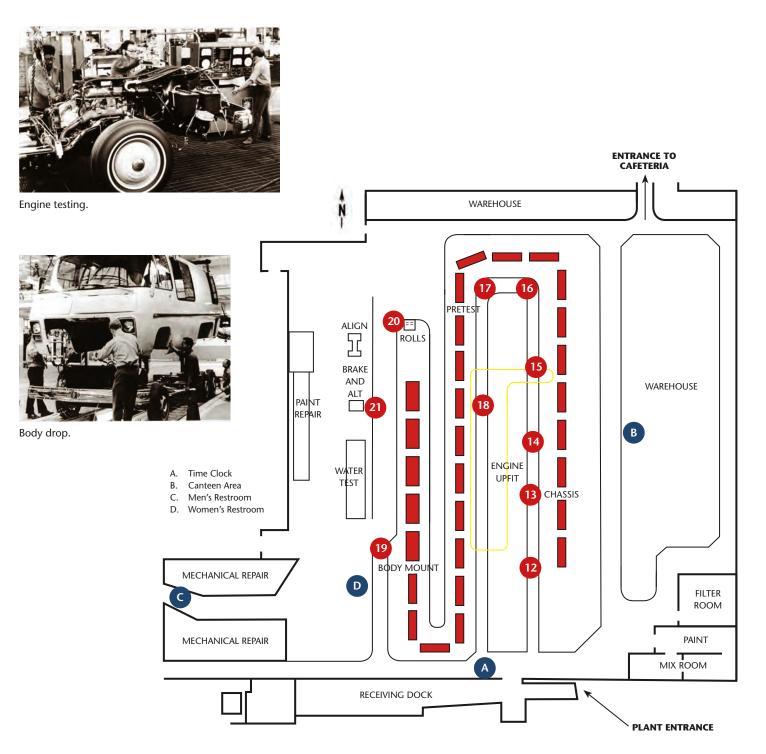
- Team operation, men stay with motorhome until body is complete
- Installation of exterior lights
  and wiring
- Front and rear insulation
- Side Trim
- Dashboard subassembly
- Side windows
- Windshield

#### 11. Final Body Inspection

- Overall inspection
- Testing electrical system
- Checking vacuum heater controls

#### Original Copy and Recreated Map from 1973-74 Tour Brochure

### **Plant No. 3 – First Floor** Chassis Line



Photos courtesy of Bill Bryant

#### 12. Frame Assembly

- High-strength steel frame members placed in "Pin-up Buck" for precision alignment
- Frame members bolted together
- Frame mounted on conveyor
- Three-man "team" of workers stays with chassis until completed

#### 13. Suspension Installed

- Front and rear subassemblies and front-wheel drive units inspected, installed
- Adjustable torsion bar front suspension
- Self-adjusting rear air suspension, no axle

#### 14. Engine Assembly

- Starts with basic Oldsmobile V-8
- On moving line accessories are added: carburetor, starter, air conditioning, power steering, transmission, etc.

#### 15. Engine Installation

- Engine transferred on hoist, lowered into chassis
- Three-point mounting

#### 16. Brake System Filling

- Brakes filled, tested on machine
- Brake system is evacuated, filled, and tested

#### 17. Fluid System Filling

- Fuel tank filled
- Overhead hoses used to fill radiator, transmission, crankcase, power steering
- All systems filled, ready to go

#### 18. Vehicle Start-up

- Engine started and warmed up
- Transmission tested in all gears
- Thorough inspection for fluid leaks
- Exhaust emissions checked



Spraying of foam insulation.



Check of motorhome engine/drive train.



Bear Alignment station.



Final assembly.



#### **Final Assembly**

#### 19. Body Mount

- Completed body from upper level lowered onto completed chasis
- Body-setting team takes over, stays with vehicle to the end
- Body indexed to frame, bolted in place
- All air and electrical lines hooked up

#### 20. Dead Roll Test

- With front wheels on rollers, engine is started
- Transmission shift points checked
- Cruise control checked
- Testing for excessive noise

#### 21. Audit Lane

- Complete final inspection
- Front wheel alignment test
- Brakes tested on rollers for stopping force, possible imbalance, etc.
- Paint inspection and repair
- Water leak test

The Motorhome is now ready to be driven to the Gemini Plant for interior fitting out – a nearly 25-mile road test in which all operational systems are checked out.

### **1973-74 Model Interiors** Interiors by Gemini

### Gemini was responsible for upfitting of the GMC Motorhome interiors for 1973 and 1974.

GMC had decided to vendor out the interior upfitting. Bids were received from four manufacturers: Open Road, Sportcoach, Muntz Corp., and PRF Industries. Muntz Corp. had returned the most attractive bid, but they were located in California. GMC officials desired someone closer to Pontiac, Michigan. While PRF Industries was not the lowest bidder the decision to go with them was made since their location was 25 miles from the Pontiac Plant and further negotiations brought their bid close to GMC's price point.

PRF Industries was owned by Peter R. Fink, the Builder of Travco and Sightseer Motorhomes. A new PRF division was formed to build the GMC interiors, Gemini Corporation, Mt. Clemens, Michigan. Rumor has it that Peter Fink named the new corporation



"Gemini" because it was "GM & I", rumor also has it that his zodiac sign may have been Gemini, take your pick on which (or both) you want to believe.

GMC Motorhomes were manufactured in the Pontiac, Michigan plant and were driven the 25 miles to Mt. Clemens. This 25 mile drive provided the newly manufactured coaches with a "shakedown" trip prior to the interiors being installed. The Gemini facility designed and built all of the furniture, assembled all the modules, applied the Texolite laminate, and installed everything...bringing it all through the motorhome rear access opening.

A number of start-up concerns had to be resolved. Between the motorhome body manufacturing tolerances and the interior module tolerances (which were affected by temperature and humidity) changes had to be implemented to make things fit.

Every subassembly had to have a drawing and GMC part number. This was not a simple task. The complexity of fifteen different floor plans and the many available options contributed to a complicated interior assembly process as well. Approvals of the many different state and federal requirements had to be reviewed and met also. Gemini had a target of completing the interiors of thirty two coaches per day, the best they achieved was closer to twenty per day.



These photos are of a Bittersweet (orange) coach is an early 1973 GMC Motorhome through the Gemini facility.

Photos courtesy of Bill Bryant

#### Pages from the 1973 Showroom Sales Album illustrating the interior options.





Glacier Interior Trim Group-RPO 693





Painted Desert Interior Trim Group-RPO 692





Bob Stelter, GMC (right) is receiving first unit "keys" from D.W. Jones, PRF.



Note: no hub caps or stripes.





Sequoia Interior Trim Group-RPQ





Photo of Gemini employees. Note ... employee circled is GMCMI Member Frank Griffin.

#### An Interview with Frank Griffin

1976 Palm Beach | Grand Blanc, Michigan

NONE

GAL

DIM TE RH

ct

CON

DRIVE

ASM ASM ASM ASM TEL

POWER

DRW

DIN

101844 CAB

NONE

GAU

STOP

NO

#### BY JANET FREY | GMC VINTAGE RVING MAGAZINE EDITOR

I was able to chat with Frank about his involvement with the GMC Motorhome when he worked as a foreman installing interiors. He was with GMC for about a year and a half at the

> beginning of the manufacturing process. His most significant memory was working in a small space. The body of the GMC Motorhome was virtually a box closed at both ends, and the interior was assembled last. While installing the interiors, they sometimes ran out of space. So, when the materials were not sized correctly, it was up to the workers to make the necessary adjustments. If an engineer was notified of the problem, the solution was to "make it fit". Frank said that he learned a lot from the people on the line. Many had a history of working in RV manufacturing, and that knowledge often was critical in the completion of the interiors. Frank was responsible for overseeing the complete installation, so he became a "jack of all trades".

> > After his involvement with the GMC Motorhome manufacture, he went on to own five GMCs over the years. His first was purchased in 2003 and required a lot of work. But due to his experience, he was able to do it himself. As he says, it is a lot of fun and pain! He presently has two GMC Motorhomes, noting that if the opportunity presents itself and a GMC Motorhome is available, it is good to take advantage. As an aside, he

mentioned that his daughter has a GMC Motorhome. His latest GMC has an electric fireplace. He wondered if he would get a reaction if he put some stovepipe up the side of the motorhome, complete with smoke?



### **1975-78** GMC Motorhomes & Transmodes

#### What is the Difference?

A **GMC Motorhome** is a coach completed by GMC in total (inside and out).

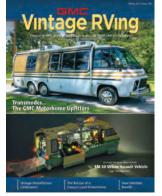
A **GMC Transmode** is an empty GMC coach upfitted by someone else. We invite you to learn more about the GMC Transmode (motorhome and commercial coaches) by reading two of our previous *GMC Vintage RVing* magazines (information below).

The GMC Transmode, an "empty GMC coach", advertised as "The Mobile Anything" for those who wanted to build their own interiors was available from 1975 through 1978. Since GMC no longer offered the 23-foot unit as a motorhome, it was available only as a Transmode to be upfitted by others.

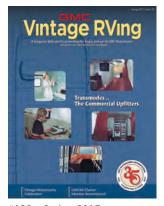
#### **GMC Motorhome Interiors Return to GMC**

There had been a number of problems with the Gemini interior build, primarily the level of quality (which was a common concern during the 1970s) and a slower interior build than desired. The new plans being very different than the 1973-74 build at Gemini as well as bringing the build in-house left no place for Gemini in GMC's plans. These changes ended the need and association with Gemini which had been formed for just this purpose.

Starting with the 1975 models, GMC had decided to upscale and improve the overall quality especially the areas customers had complained about with the earlier coaches. The interior needed a serious upgrade to accomplish this, new seating with Flexsteel, better quality fabrics, new furniture modules by Grand Rapids Furniture Co., and Imron exterior paints played a large part in this effort now being done in house at GM Plant 4.



#138 – Winter 2017 Transmodes... The GMC Motorhome Upfitters



#139 – Spring 2017 Transmodes... The Commercial Upfitters

#### Model Build by Year

Model Year	1973	1974	1975	1976	1977	1978				
GMC Motorhome Interiors done by GMC										
Canyon Lands	Х	Х								
Glacier	Х	Х								
Painted Desert	Х	Х								
Sequoia	Х	Х								
Eleganza SE		Х								
Glenbrook			Х	Х						
Eleganza II			Х	Х	Х	Х				
Palm Beach			Х	Х	Х	Х				
Edgemonte				Х						
Coca Cola					Х	Х				
Kingsley					Х	Х				
Transmode Motorhome Upfitters*										
Avion			Х	Х						
Birchaven				Х	Х	Х				
Cresmont			Х	Х						
Midas			Х	Х						
Landau			Х							
Royale				Х	Х	Х				
	'8 GMC N	lotorhom	ere done ne Interio nes – Interi	rs were d	one by Gl					
Coca Col	a Interior	s done by	/ GMC. Ga	adabouts	finished	by L.R.P.				

Coca Cola Interiors done by GMC. Gadabouts finished by L.R.P.

\*This chart is not all inclusive for Transmode Motorhome Upfitters.

#### **Production by Model Year**

	GMC Interiors		Transn		
Model Year	23 foot	26 foot	23 foot	26 foot	Total
1973	461	1,598	0	0	2,059
1974	168	1,496	0	0	1,664
1975	0	1,196	36	425	1,657
1976	0	2,413	549	298	3,260
1977	0	1,694	253	455	2,402
1978	0	689	178	1,012	1,879
Total	629	9,086	1,016	2,190	12,921

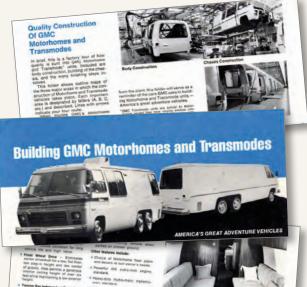


For more information on the Transmodes (motorhome and commercial) check out the two magazines (left) available at: gmcmi.com/gmc-vintage-rving.

#### Original Copy and Recreated Map from 1976 Tour Brochure

### **Plant No. 4** 1975-Fall 1977 Interior Line

The following copy is from a 1976 brochure handed out during tours. The Body and Chassis Construction was similar as the previous brochure but now the addition of the interior finishing was added.



And a generation of the second second



Brochure available at gmcmi.com/literature.



GMC Motorhomes conveyed sideways on dollies along assembly line.

In brief, this is a factory tour of how quality is built into GMC Motorhome and Transmode\* units. Included are body construction, building of the chassis, and the many finishing steps involved.

This folder shows outline maps of the three major areas in which the construction of Motorhome and Transmode vehicles takes place. Each important area is designated by letters (A, B, C, etc.) and described. Lines with arrows indicated your tour route.

When touring GMC's Motorhome plant, this folder will assist you in knowing where you are and what you are seeing as the vehicles take shape. Away from the plant, this folder will serve as a reminder of the care GMC uses in building Motorhomes and Transmode units – America's great adventure vehicles.

\*GMC Transmode units are similar to the Motorhome except they have varying window configurations and unfinished interior for upfitting as special purpose vehicles for both business and recreation.



Remnants after carpets have been cut.



Upfitting of interior modules.

#### Original Copy and Recreated Map from 1976 Tour Brochure

### **Plant No. 4** 1975-Fall 1977 Interior Line

#### AREA A

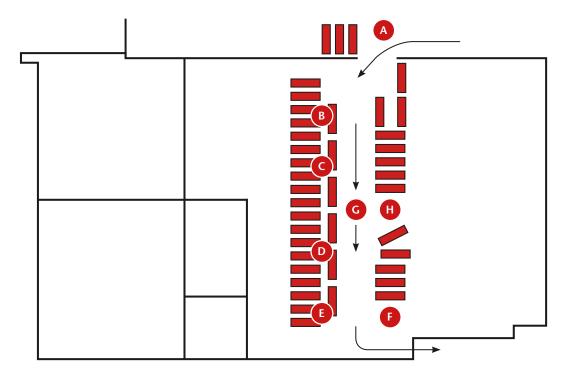
GMC Motorhome interior finishing begins in a separate building. Here, carpeting is installed in the driver's section. Grills and head light bezels are put in place. The rear "cap" (panel) is removed to faciliate installing major interior components throught the rear of the vehicle.

#### AREA B

Motorhomes are conveyed sideways on dollies along the interior finishing assembly line. Furnace and ducts are installed, then the four largest modules – bath, gallery, refrigerator, and wardrobe go in place. This is followed by fresh water tanks and water pump.

#### AREA C

Fresh water system is checked for leaks and filled with an anti-freeze solution to protect the system during shipping. Ceiling panels, living quarter lighting, overhead cabinets, and curtains are then installed.



#### AREA D

Soft ware, including beds, seating, floor carpeting, and drapes are put in place here. Next, the rear "cap" (panel) is reinstalled and sealed against leaks. The spare tire is then added.

#### AREA E

Front end alignment is checked here and adjustments made.

#### AREA F

Further repair work, if needed, is performed in this area.

#### AREA G & H

Here, the unit is cleaned inside and out and loose items, such as tables and tools are secured. Final inspection completed, the GMC Motorhome is now ready for shipment to the dealer.



Completed motorhomes.



Modules and supplies for interiors.

### **Plant No. 2-Building 29** Fall 1977-July 1978

In August 1977 production from Plant 3 and 4 was moved to Plant 2-Building 29, also in Pontiac, Michigan.

Per a September 9, 2008 email from James Cote, GMC Motorhome Supervisor of Industrial Engineering, "In Fall 1976, I was asked to return to the GMC operation (after a short absence) to take charge of the project to move the operation to Plant 2-Building 29 from Plant 3 and 4 to make room for the G-10 Van operation. We did that move with no loss of production and within budget.

A fundamental difference that made better use of the floor space. We had to reduce from 425,000 sq. ft. to I think

around 275,000 sq. ft. plus some 50-75,000 sq. ft. in remote warehouse to be able to fit in the new location.

The move gave us a chance to completely rethink the way we were building the GMC based on then years of experience and to make many improvements in the process not feasible before. Many employees on the line had input into this and we tested many ideas ahead of time, as you can well imagine, in production."

Plant 2-Building 29, was used through the end of production in 1978.

## **The End** GMC Motorhome Production Ends

A press release datelined Pontiac, November 11, 1977 read as follows: "GMC Truck and Coach Division of General Motors plans to discontinue producing luxury Motorhomes and similar TransMode multi-purpose vehicles and convert those plant facilities to expand truck operations", a GM vice president said today.

Robert W. Truxell, General Manager of GMC Truck and Coach said, "As a result of this action, GMC will be able to utilize production facilities more effectively for servicing growing truck demands." Production finally ended in July of 1978.

Total Production for 1973-1978 = 12,921

#### A Final Note

As Bill and I were reviewing this extraordinary amount of information regarding the birthplace of GMC Motorhome from the beginning to end, we came to a realization: The GMC Motorhome is a 40+ year-old vehicle that is still being used today and the site of its manufacture was deconstructed with consideration given to reuse, recycle, and care for the environment. It is truly a "green" machine!

Credits: Wikipedia, GM Heritage Center, nailhed.com, "The First Century of GMC Truck History" compiled by Donald E. Meyer, James Cote, and Bill Bryant's Archives.

Article Disclaimer: Significant attempts to accurately portray the GMC Motorhome history has been our goal. Many of these details have been found in era documentation and publications as well as some first-person accounts. Please provide feedback should you have additional data or corrections to offer.

Image from the 1978 GMC Motorhome Brochure

