STATE OF NEW JERSEY

REFLECTORIZED LICENSE PLATE SELECTION COMMISSION

August 2, 1990

Assemblyman Robert E. Littell, Chairman
Senator Francis J. McManimon, Vice-Chairman
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Colonel Clinton L. Pagano, Sr.
Director, Division of Motor Vehicles
Department of Law and Public Safety
25 South Montgomery Street
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Dear Colonel Pagano:

The ReflectORIZED LICENSE PLATE SELECTION COMMISSION, created under section 2 of P.L.1989, c.202 (C. 39:3-33.9), hereby respectfully submits this report in compliance with the provisions of its enabLING LEGISLATION.

The commission has accomplished its task by selecting the color scheme and design of a new reflectORIZED registration plate for the State of New Jersey. The commission directs that the color scheme and design of the new plate shall be as follows:

**Background Color:** Goldfinch yellow across the top one third of the plate with the color fading to pale yellow over the remaining two thirds of the plate surface.

**Color of Words, Symbols, and Alphanumeric Sequence:** Black.

**New Jersey:** As a graphic design on the reflective sheeting and centered across the top for all registration plates.

**Shape of the State:** Embossed in the center of the plate between the six character alphanumeric sequence for standard passenger automobile plates and omitted on special plates whenever it would interfere with the alphanumeric sequence.

**Garden State:** As a graphic design on the reflective sheeting and centered across the bottom for all standard passenger automobile plates. (N.J.S.A.39:3-33.2 requires the words "Garden State" to be imprinted on each passenger automobile registration plate.) When the space across the bottom is needed to designate the vehicle type, a reflective sheeting without the "Garden State" graphic design will be used and, across the bottom, words designating the vehicle type will be embossed.

The commission is comprised of five members: one appointed by the Speaker of the General Assembly, one by the President of the Senate, and three by the Governor. The commission was charged with the task of selecting the color scheme and design for a new reflectorized registration plate while considering the needs of law enforcement and highway safety, aesthetics, cost, and the ability of the corrections system to produce the new plate. P.L.1989, c.202 required the commission to organize within 60 days, and report its choice within 180 days, after the effective date of December 8, 1989.

In addition to creating the commission, P.L.1989, c.202 requires the Division of Motor Vehicles to implement a phase-in program for the issuance of the new registration plate. P.L.1989, c.202 states that the purpose of this issuance is to "change the color scheme and style of the registration plates in use prior to the issuance in order to provide for greater contrast between the background of the plate and the lettering and to ensure that all plates are fully treated with a reflectorized material designed to increase their nighttime visibility and legibility."

Senator Frank X. Graves, Jr. was appointed to the commission by Senate President John Russo, Assemblyman Robert E. Littell was appointed by Assembly Speaker Chuck Hardwick, and Colonel Clinton L. Pagano, Sr., then Superintendent of State Police, was appointed by Governor Thomas H. Kean. These three members attended the commission's organizational meeting on February 5, 1990, at which time Senator Graves was selected the Chairman, Assemblyman Littell the Vice-Chairman, and plans for future meetings were made.

After the death of Senator Graves on March 4, 1990, Senate President John A. Lynch appointed Senator Francis J. McManimon to the commission. The second meeting of the commission was held on April 9, 1990; Assemblyman Littell was selected the Chairman and Senator McManimon the Vice-Chairman.

On April 26, 1990, Governor Jim Florio appointed to the commission Steven Adams, creative director of the advertising agency of Keyes Martin in Springfield; Janice Conklin, a free-lance graphic artist; and Charles Walton, President of the New Jersey Automobile Dealers Association. Colonel Pagano resigned as a member to become an advisor to the commission.
At the commission's second meeting on April 9, 1990, the members engaged in a lengthy discussion with Leonard Black, Chief of the Bureau of State Use Industries in the Department of Corrections. Among Mr. Black's responsibilities is the operation of the Auto Tag Shop at Bayside State Prison in Leesburg, Cumberland County. Mr. Black supplied and narrated a video of the Auto Tag Shop's production process. This video and Mr. Black's answers to questions provided the commission members with a comprehensive and necessary understanding of the registration plate manufacturing process. Information elicited during this discussion with Mr. Black concerned the process by which registration plates are manufactured; the two methods by which a registration plate can be reflectorized; the changes needed to accommodate the Auto Tag Shop to the making of a new reflectorized plate; what additional equipment is needed and its cost; the cost of new embossing dies if the words or numbers on the plate are changed; the specifications needed in a contract with a supplier of reflective sheeting; and the time frame within which the new plate, after its selection by the commission, can be made and an inventory compiled. The commission was assured that the Auto Tag Shop, originally built 20 years ago to make reflectorized plates, can now readily be converted to that process.

Two methods are being used by other states to reflectorize registration plates. Seven states use a beads-on-paint process whereby tiny particles of glass or silicon are sprinkled on the wet paint of a plate. The other 42 states apply reflective sheeting to their plates. P.L.1989, c.202 requires the new registration plates to be "fully treated with a reflectorized material designed to increase their nighttime visibility and legibility." In consideration of the requirements of P.L.1989, c.202 and after reviewing statements on the reflectivity and longevity provided by the two methods, the commission members agree that the use of reflective sheeting is preferred and would meet the requirements of law.

Also at the second commission meeting, the members studied several samples of a plate with a new color scheme and design developed at Assemblyman Littell's request. The members agreed that the needs of law enforcement and highway safety demand that the new plate provide excellent light reflection and maximum contrast between the background color and the color of the words, symbols and alphanumeric sequence. Although a white background, provides the best light reflection, too many other states in the nation already have plates with a white background. Therefore, a new plate with a white background would not be distinctive enough to be readily identified as a New Jersey plate. The next best choice is a yellow background, the background color used in the first sample plates.

The members studied these first samples and discussed the features of each, such as the placement and graphic style of the words "New Jersey" and "Garden State," the size and shape of the alphanumeric sequence, and the placement of a small square, either outlined or "debossed," in the left hand corner of the plate to mark the place where in the future a registration sticker may be placed. The commission recommends that the Division of Motor of Vehicles implement the use
of registration plate inserts. These inserts should be attached to the registration plate to indicate that the vehicle possesses a valid registration certificate and to assist in ensuring compliance with compulsory motor vehicle insurance requirements.

In addition, the members discussed the merits of embossing the words "New Jersey" and "Garden State," as opposed to including them as a graphic design on the reflective sheeting prior to its application to the plate. At the conclusion of the second meeting, the members requested additional samples with color schemes and designs that were variations on the first samples.

The public was invited to testify at the third meeting of the commission held on May 9, 1990. The members heard testimony from Assemblyman D. Bennett Mazur, Mr. James Terry of Clifton, and David Pointon, regional administrator for 3M Traffic Control Materials Division, manufacturers of reflective sheeting.

Assemblyman Mazur submitted for the commission's review samples of a plate with a sky-blue background, a white silhouette of a seagull in the center of the plate, blue or black words and alphanumerics, and the "Seashore State," rather than "Garden State," across the bottom of the plate. Assemblyman Mazur suggested that the commission select a plate which advertises an attractive feature of the State; the registration plate, he maintained, should promote the State.

The commission members commented that the seagull silhouette was distracting and made reading the alphanumeric sequence difficult. The purpose of a registration plate is for vehicle identification and distracting extras, such as the seagull silhouette, prevent quick and accurate identification of the vehicle.

Mr. James Terry of Clifton demonstrated for the commission sample plates of his own invention. The alphanumeric sequences of Mr. Terry's plates were translucent; consequently, they required moving the small registration plate light bulb on a vehicle from above to behind the plate so that the light would shine from behind and illuminate the alphanumerics.

It was pointed out that P.L.1989, c.202 requires the issuance of a new registration plate which is "fully treated with a reflectorized material designed to increase ... nighttime visibility and legibility." Mr. Terry's suggested plate would not meet the requirements of the law. In addition, the effectiveness of Mr. Terry's suggested plate depends on a working light bulb. Light bulbs, however, do burn out or may be deliberately removed, thereby rendering this plate ineffective.

David Pointon, the regional administrator for 3M Traffic Control Materials Division, described the reflective sheeting which 3M manufactures and noted that 42 states apply reflective sheeting to their registration plates, with 41 using 3M sheeting and equipment. Seven states use the beads-on-paint process, whereby tiny particles of glass or
silicon are added to the wet paint on a plate, to increase nighttime visibility. In addition, Mr. Pointon presented a video of the plate production process in Minnesota, specifically to show how reflective sheeting is applied to a registration plate, and submitted a paper entitled "License Plate Design Considerations."

After the speakers' presentations, the members discussed the second set of sample plates developed at the commission's request. The members unanimously agreed that the new plate should be clear and uncluttered in design so as to be readily identified as a New Jersey plate and so that its alphanumeric sequence is accurately and easily read by day or night. Once again, a clear and uncluttered design was deemed necessary for law enforcement and highway safety purposes. The members also agreed that the plate should be aesthetically pleasing so that it projects a positive image of New Jersey.

Following a discussion of the features of the second set of samples, the members indicated a preference for the plate with a gradated yellow background fading to pale yellow, and the color green for the words "New Jersey" and "Garden State," the symbol of the State, and the alphanumeric sequence. The commission named the background color "goldfinch yellow." It was noted that this plate was simple, but attractive, with a fresh and distinctive appearance. The color and design of the plate was distinctive within the region, and possibly even the nation, so that it would readily identify New Jersey as the issuing state.

The members agreed that it would be an excellent choice provided that under conditions of darkness its visibility, reflectivity, design, legibility, and color contrast were equal to or better than those of the other samples. It was necessary to ensure that, among other considerations, the colors seen by day would also be visible at night.

The members decided to schedule a nighttime meeting to field test, under conditions of darkness, the sample plates developed by the commission.

The commission next met on the evening of June 7, 1990 at the New Jersey Automobile Dealers Association building in Trenton. The members once again reviewed all the sample plates and discussed in particular the size and placement of the words "New Jersey" across the top of the plate and "Garden State" across the bottom. It was indicated that these should be positioned on the plate so that even with the use of a license plate bracket or holder, they would be visible and legible. (Although license plate brackets or holders which cover the words on a plate are illegal, they are still widely used.) Legibility is important so that the plate can always and quickly be identified as a New Jersey plate and the alphanumeric sequence read and remembered for identification.

At approximately 9:00 p.m., the meeting was moved to the association's parking area. All lights illuminating the area were turned off. The sample plates were positioned on the back of one vehicle and
illuminated by another vehicle's headlights at distances of approximately 160 feet, 80 feet, and 40 feet. For contrast, the current blue and buff plate and a reflectorized plate with a white background and black alphanumeric identification sequence were viewed first. Then, the sample plates developed by the commission, specifically the plates with the solid yellow and gradated goldfinch yellow backgrounds and blue, black and green words, symbols, and alphanumeric sequences were positioned for viewing. Photographs of all the samples were taken by a photographer from the Division of Motor Vehicles.

The consensus of the members was that the plate favored earlier -- the one with a gradated goldfinch yellow background and green words, symbol, and alphanumeric sequence -- was not as visible or as legible as those with the blue or black words, symbols and sequences. It was noted that the green on the sample plate was a transparent ink and that possibly a darker green or an opaque green ink would provide better results.

The members decided that three more sample plates should be developed and an additional nighttime meeting scheduled for the final field test. The three new samples would have a goldfinch yellow gradated background fading to pale yellow, and blue, black, and dark green words, symbols, and alphanumeric identification sequences.

On June 28th, the commission met for a second field test. Under conditions identical to the first field test, the three plates were positioned on the back of one vehicle and viewed from distances of approximately 160 feet, 80 feet, and 40 feet.

In terms of visibility, reflectivity, and design of the whole, the three plates were relatively equal. Aesthetically, however, the dark green plate was the most appealing, but the black plate provided a sharper and more easily read alphanumeric sequence. The members narrowed the choice to the dark green or black plate. The members noted that the nighttime legibility provided by the black plate is essential for law enforcement and highway safety purposes.

Although the green plate was not significantly worse in terms of legibility and sharpness of image, the color black for the words, symbol and alphanumeric sequence made that plate sharper, crisper, and easier to read. The plate with the black alphanumeric sequence on a background of goldfinch yellow fading to pale yellow was deemed to be superior for the purposes of highway safety, vehicle identification, and law enforcement.

The members would like to acknowledge the contributions of the late Senator Frank X. Graves, Jr. in making this selection and report possible. Senator Graves understood the need for a new registration plate, sponsored legislation in the Senate to require the new reflectorized plate, and worked diligently toward the enactment of that legislation. Senator Graves served briefly as Chairman of this commission, which owes much to his understanding, interest, and effort.
In conclusion, the members of the Reflectorized License Plate Selection Commission, having considered the needs of law enforcement, highway safety, aesthetics, costs, and the ability of the corrections system to produce the new plate, unanimously select the registration plate described in this report as the new reflectorized registration plate for the State of New Jersey. A sample of the new plate is submitted with this report.

Respectfully submitted,

[Signature]

Assemblyman Robert E. Littell
Chairman

[Signature]
Charles Walton
Senator Francis J. McManimon
Vice-Chairman

[Signature]
Steven Adams
Janice Conklin

Attachment: P.L.1989, c.202

cc: Honorable Jim Florio, Governor
    Honorable John A. Lynch, President of the Senate
    Honorable Joseph V. Doria, Jr., Speaker of the General Assembly
AN ACT concerning reflectorized motor vehicle registration plates, amending R.S.39:3-33 and supplementing chapter 3 of Title 39 of the Revised Statutes.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. R.S.39:3-33 is amended to read as follows:

39:3-33. The owner of an automobile which is driven on the public highways of this State shall display not less than 12 inches nor more than 48 inches from the ground in a horizontal position, and in such a way as not to swing, an identification mark or marks to be furnished by the division; provided, that if two marks are issued they shall be displayed on the front and rear of the vehicle; and provided, further, that if only one mark is issued it shall be displayed on the rear of the vehicle; and provided, further, that the rear identification mark may be displayed more than 48 inches from the ground on tank trucks, trailers and other commercial vehicles carrying inflammable liquids and on sanitation vehicles which are used to collect, transport and dispose of garbage, solid wastes and refuse. Motorcycles shall also display an identification mark or marks; provided, that if two marks are issued they shall be displayed on the front and rear of the motorcycle; and provided, further, that if only one mark is issued it shall be displayed on the rear of the motorcycle.
The identification mark or marks shall contain the number of the registration certificate of the vehicle and shall be of such design and material as prescribed pursuant to section 2 of P.L. 1989, c.202 (C.39:3-33.9). All identification marks shall be kept clear and distinct and free from grease, dust or other blurring matter, so as to be plainly visible at all times of the day and night.

The director is authorized and empowered to issue registration plate inserts, to be inserted in and attached to the registration plates or markers described herein. They may be issued in the place of new registration plates or markers; and inscribed thereon, in numerals, shall be the year in which registration of the vehicle has been granted.

No person shall drive a motor vehicle the owner of which has not complied with the provisions of this subtitle concerning the proper registration and identification thereof, nor drive a motor vehicle which displays a fictitious number, or a number other than that designated for the motor vehicle in its registration certificate.

A person convicted of displaying a fictitious number, as prohibited herein, shall be subject to a fine not exceeding $500.00 or imprisonment in the county jail for not more than 60 days.

A person violating any other provision of this section shall be subject to a fine not exceeding $100.00. In default of the payment thereof, there shall be imposed an imprisonment in the county jail for a period not exceeding 10 days. A person convicted of a second offense of the same violation may be fined in double the amount herein prescribed for the first offense and may, in default of the payment thereof, be punished by imprisonment in the county jail for a period not exceeding 20 days. These penalties shall not apply to the display of a fictitious number.

(cf: P.L.1983, c.428, s.1)
2. (New section) a. The Director of the Division of Motor Vehicles shall implement a phase-in program for the issuance of reflectorized motor vehicle registration plates in this State, the planning of which shall begin immediately for the issuance which shall begin on the first day of the seventh month following the report of the Reflectorized License Plate Selection Committee established pursuant to this section of this 1989 amendatory and supplementary act, P.L.1989, c.202 (C.39:3-33.9), except that the division shall first use any existing supplies of nonreflectorized plates which it orders prior to the commencement of the issuance. The purpose of the issuance shall be to change the color scheme and style of the registration plates in use prior to the beginning of the issuance in order to provide for greater contrast between the background of the plate and the lettering and to ensure that all plates are fully treated with a reflectorized material designed to increase their nighttime visibility and legibility. The color scheme and style of the new plates shall be selected by the Reflectorized License Plate Selection Commission hereby created. The commission shall consist of five members, three appointed by the Governor, one by the President of the Senate, and one by the Speaker of the General Assembly. The commission shall select the color scheme and design of the new reflectorized license plate after considering the needs of law enforcement and highway safety, aesthetics, cost and the continued ability of the corrections system to manufacture the plate. The commission will first meet within 60 days of the effective date of this act and shall report its choice to the Director of the Division of Motor Vehicles within 180 days of this act becoming effective. The markings on the plates shall be in accordance with specifications prescribed by the director.

For a period of six years commencing on the first day of the seventh month following enactment of this 1989 amendatory and supplementary act, P.L.1989, c.202 (C.39:3-33 et al), the division may charge in addition to an annual motor
vehicle registration fee, an additional annual fee not to exceed $0.40 for the costs of the issuance of reflectorized motor vehicle registration plates in this State.

b. The Director of the Division of Motor Vehicles shall promulgate rules and regulations pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) in order to effectuate the purposes of this act.

c. The director shall submit an annual progress report on the planning and implementation of the reflectorized motor vehicle registration plate phase-in program to the Governor and members of the Legislature with the first report to be submitted one year after enactment of this 1989 amendatory and supplementary act. The annual report submitted after the fourth year of implementation shall contain a recommendation as to the advisability and feasibility of a general recall of all plates of an earlier design that are still in use at the completion of the phase-in program. This report shall also contain the director's recommendation of a funding source for the ongoing costs associated with the continued issuance of reflectorized plates. The last report shall be submitted after the completion of the phase-in program.

3. This act shall take effect immediately.

PUBLIC SAFETY
Motor Vehicles

Requires the issuance of reflectorized motor vehicle registration plates.