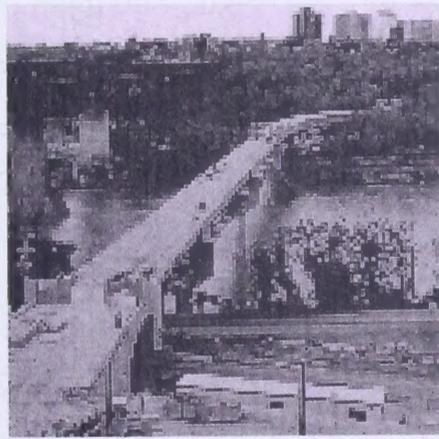


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**ALBERTA  
TRANSPORTATION  
AND UTILITIES  
ANNUAL REPORT  
1990/91**



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# 1990/91 ANNUAL REPORT

**Alberta**

TRANSPORTATION  
AND UTILITIES

ISSN 0836-1509



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# Alberta

TRANSPORTATION  
AND UTILITIES

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208 Legislature Building  
Edmonton, Alberta  
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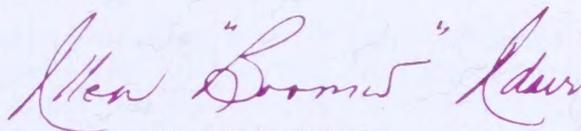
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403/427-2080

The Honourable  
Gordon Towers  
Lieutenant-Governor  
Province of Alberta

Sir:

I have the honour to submit to you the Annual Report of Alberta Transportation and Utilities for the fiscal year ending March 31, 1991.



Allen "Boomer" Adair  
Minister of Transportation  
and Utilities

## DEPUTY MINISTER'S MESSAGE



I am pleased to note that, once again, the skilled and capable staff in the department have responded to the challenge of achieving restraint in our operations in accordance with the policy of the government, without compromising the safety or the delivery of our programs to all Albertans.

Our department regional staff have developed a good working relationship with local municipalities whereby the department encourages and supports the latter in managing the construction of secondary highways.

In 1990/91, approximately \$609 million was expended on the construction and maintenance of provincial highways.

During this second year of the \$500 million Alberta Cities Transportation Partnership, some \$150 million was provided to assist Alberta cities with the development of their transportation systems. Alberta towns, villages and summer villages receive financial assistance for transportation projects under the Streets Improvement Program. Funding under this program exceeded \$12 million in this fiscal year.

The department continued its policy of privatizing maintenance activities such as mowing and seeding of rights-of-way, centre line painting and guardrail installation. This allows greater flexibility and efficiency in the utilization of department equipment and manpower while, at the same time, enhancing growth within private sector contractors.

Landmark legislation created the framework for incorporating Regional Airports Authorities in Alberta. Both the Edmonton and Calgary Regional Airports Authorities were incorporated under the new legislation, and negotiations continued between those Authorities and the Federal Government to manage the international airports serving each region.

An Advisory Committee on Barrier-Free Transportation was established in response to recommendations from the Action Plan of the Premier's Council on the Status of Persons with Disabilities. This Committee is guiding the development of barrier-free transportation systems and pedestrian environments in Alberta.

The department continued its proactive approach to environmental protection and public consultation. An environmental impact assessment was completed with public input on a proposed interchange at the junction of Highway 16X and SH 794 adjacent to the Wagner Natural Area west of Edmonton. This consultative process resulted in modifications protecting the natural area which were well received.

In achieving a department goal of equalizing access to, and the cost of, utility services across Alberta, a comprehensive review was undertaken of the municipal water/wastewater assistance programs. As a result, a new program was developed and approved by Cabinet for implementation in the 1991/92 fiscal year.

Access to U.S. markets highlights major export-oriented alternative routes to the coast via Coutts and the U.S. highway network. The Canadian Vehicle Weight and Dimension Study concluded that harmonization and liberalization of truck weights and dimensions between Alberta and neighbouring jurisdictions in the United States, can provide substantial savings to the trucking industry. Based on these findings, negotiations are underway between these jurisdictions and Alberta.

A stylized, cursive signature in purple ink that reads "H. Alton".

Harvey M. Alton

# CONTENTS

<b>PROVINCIAL TRANSPORTATION</b>	<b>6</b>
Construction and Maintenance:	
Accomplishments and Initiatives	6
Policy and Planning	15
Engineering and Right-of-Way	15
Fleet and Materials Resources	18
Research and Development	18
<b>MUNICIPAL INFRASTRUCTURE</b>	<b>19</b>
City Transportation	19
Rural Transportation	20
Municipal Water and Wastewater Assistance	21
<b>MOTOR TRANSPORT SERVICES</b>	<b>23</b>
Alberta Motor Transport Board	25
<b>RURAL UTILITIES</b>	<b>26</b>
Rural Gas	26
Rural Electrification	27
Grants to Individuals	27
<b>ADMINISTRATIVE SERVICES</b>	<b>28</b>
Financial Services	28
Personnel Services	28
General Services	29
Information Systems	29
Internal Audit Services	29
<b>APPENDICES</b>	<b>31</b>

# PROVINCIAL TRANSPORTATION

## CONSTRUCTION AND MAINTENANCE: ACCOMPLISHMENTS AND INITIATIVES

### Construction

Road and bridge construction and a variety of preventive maintenance measures provide safe and efficient transportation systems for users of Alberta's highways. During the year, many construction and maintenance initiatives were completed to satisfy this departmental objective.

Construction was completed on 2814 kilometres of primary and secondary highways, resource, park and approach roads. In 1990, 34.7 million cubic metres of earth were moved and eight million tonnes of granular base course was placed. Approximately 343 thousand tonnes of cement stabilized base course were laid and four million tonnes of asphaltic concrete were mixed and placed.

The following major initiatives were undertaken in 1990/91:

- **HIGHWAYS 1 AND 16 FOUR-LANING PROGRAM:** Despite extensive wet periods over the course of the year, construction was under-way on 22 projects in 1990. This program is slated for completion in late 1991.
- **HIGHWAY 63 WIDENING PROGRAM:** In 1990, two projects were completed on the widening of Highway 63 to Fort McMurray. A third project was carried over into 1991. This program accommodates the expected increased traffic needs and heavy wide load requirements that accompany the heavy oil sands projects in the Fort McMurray area.
- **HIGHWAY 2 MEDIAN WIDENING PROGRAM:** Work was completed under this initiative from south of the Penhold interchange to south of Red Deer to enhance safety and improve the operation of Highway 2 from Airdrie to Red Deer.
- **EXPORT HIGHWAY PROGRAM:** One four-laning project was completed and another was started on Highway 2 between Calgary and Fort Macleod. Work also began on a final paving project on Highway 2. This program will provide a four-lane highway link from Edmonton and Calgary to Interstate Highway 15 in Montana.

- **SECONDARY HIGHWAYS 2000 PROGRAM:**

The objective of this program, announced in spring 1989, is to complete the surfacing of the secondary highway system by the year 2000. In 1990/91, 672 kilometres of base course and 475 kilometres of final paving were completed. Now 51 per cent or 7712 kilometres of the secondary highway system is surfaced. As a result of the present economic situation, this program's projected completion date may be delayed by one or two years.

- **PEACE RIVER PULP MILL INFRASTRUCTURE:** Three major road projects were completed on the transportation infrastructure for the Peace River Pulp Mill. Work continued on the piers and installation of the huge girders began on the bridge over the Peace River on SH 686.

- **ALBERTA PACIFIC PULP MILL TRANSPORTATION INFRASTRUCTURE:** Preliminary engineering, design, acquisition of rights-of-way, clearing of rights-of-way, contract preparation and project tendering were the major areas of activity in this program. Bridge approaches were also graded for a new bridge over the Athabasca River. The program was created to provide a public road infrastructure to serve the Al-Pac Pulp Mill.

- **SKID RESISTANCE PROGRAM:** A skid resistant surface (seal coat) was applied to 750 lane-kilometres of paved primary highways, 31 lane-kilometres of paved secondary highways, and 17 lane-kilometres of paved approach roads. During the year, an additional 198 lane-kilometres were also contracted to the private sector to apply skid resistant surface. A high-float emulsion skid resistant surface was applied to 129 lane-kilometres of primary highways, 117 lane-kilometres of secondary highways, 4.5 lane-kilometres of approach roads and 13 lane-kilometres of local roads in Improvement Districts.

The department has two Seal Coat Camps. At year end, one camp had been disbanded while the other will continue to apply skid resistance treatment to primary highways. More work will be tendered to the private sector in 1991.

- **EROSION CONTROL PROGRAM:** The seeding and erosion control crews were disbanded at the end of 1990/91. During the year, 182 seeding and erosion control projects were completed for a total of 7454 hectares of rights-of-way, earth borrow areas and gravel pit restoration. This type of work will continue under tender to the private sector.

- **CONSTRUCTION OF CAMPSITES AND REST AREAS:** The Ranchland Teepee Rest Area was landscaped and a playground was constructed during the past year. The Rosedale Suspension Bridge day use area was upgraded to a Class II Rest Area status.

An agreement in principle was struck between Alberta Recreation and Parks and the department to transfer responsibility of roadside campsites to local authorities or to Alberta Recreation and Parks. The department will continue to manage all six of the province's rest areas.

- **AVIATION:** Pavement overlays were completed on the Castor, Red Deer and Viking airports. A slurry seal surface coating was also applied to the Athabasca, Bow Island, Coronation and Three Hills airport runways. Extensive drainage improvements were undertaken at the Spirit River Airport.

## Maintenance

The department completed maintenance operations on 37 829 kilometres of primary highways, approach and improvement district roads. Other responsibilities included 16 provincial airports, 62 forestry airstrips, the Civilian Air Terminal at Medley, seven ferries and six rest areas.

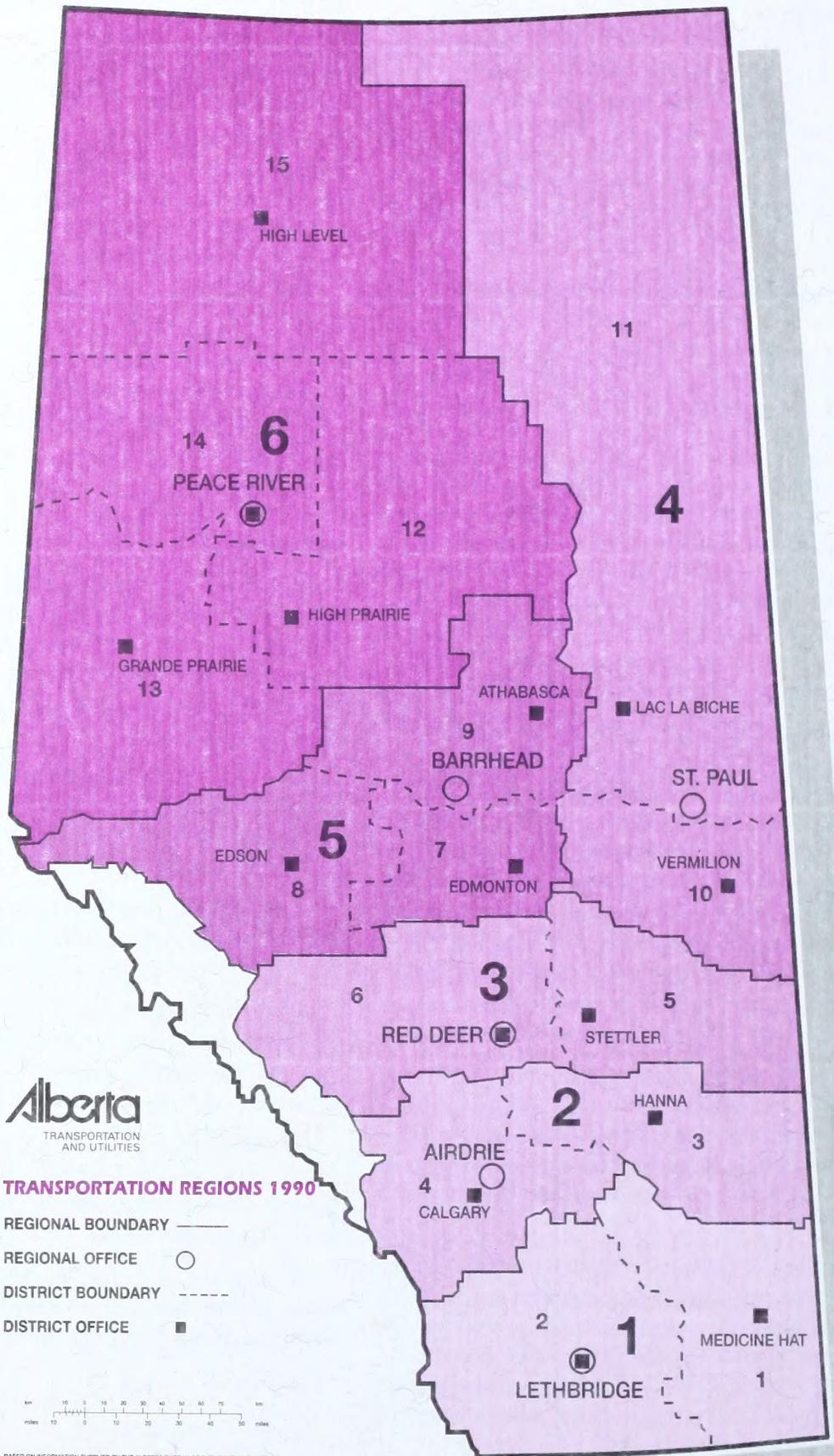
In conjunction with site development, accommodations were upgraded for staff at the Crowfoot Ferry site and the old LaCrete Ferry was painted and steel ramp construction was started at the site.

The department continued to operate six of its seven ferries. Operation of the seventh, the Finnigan Ferry, was contracted to the private sector.

Under the Highway Clean-Up Campaign, 64 128 bags of litter were collected from 9349 kilometres of highways. The litter was collected by some 11 050 children and 4458 adults representing 625 clubs.

Local officials and aviation staff met to discuss airport development and operations, and liaison continued with aviation related industries/organizations such as the Alberta Aviation Council.

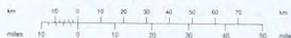
Regional and district staff also met regularly with elected officials from rural and urban municipalities to review and resolve local transportation and utility issues.



**Alberta**  
TRANSPORTATION  
AND UTILITIES

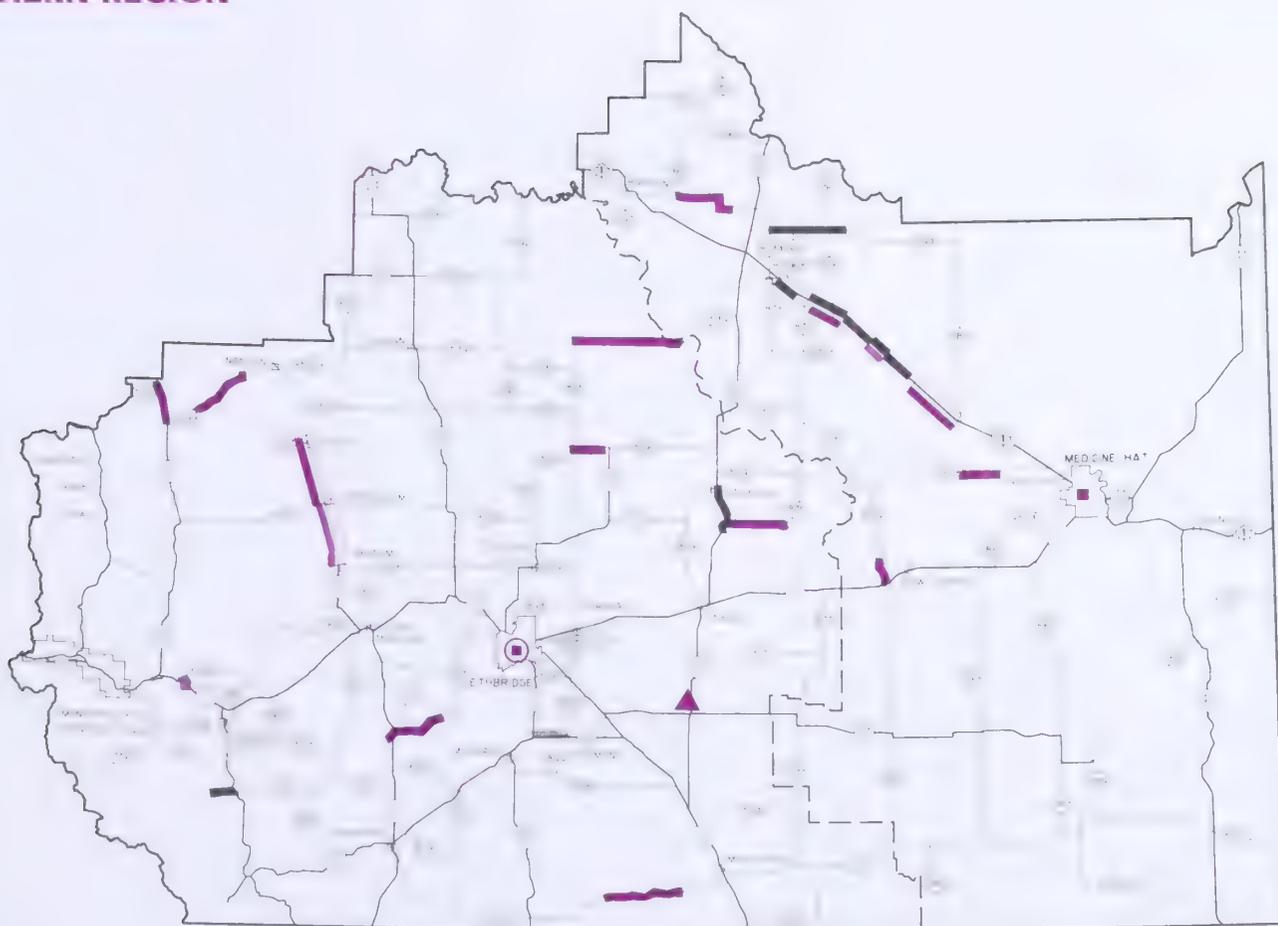
**TRANSPORTATION REGIONS 1990**

- REGIONAL BOUNDARY ———
- REGIONAL OFFICE ○
- DISTRICT BOUNDARY - - - - -
- DISTRICT OFFICE ■



BASED ON INFORMATION SUPPLIED BY THE ALBERTA BUREAU OF SURVEYING AND MAPPING

## SOUTHERN REGION



- REGIONAL OFFICE
- DISTRICT OFFICE
- REGIONAL & DISTRICT OFFICE

### LEGEND

- GRADING
- SURFACING
- PAVEMENT REHABILITATION

- RECONSTRUCTION
- TWINNING
- BRIDGE DECK REHABILITATION
- NEW BRIDGE CONSTRUCTION

## CONSTRUCTION

The region completed 27 of the 32 construction contracts during the year for a total of 103 kilometres of grading, 138 kilometres of base course, 170 kilometres of asphalt paving and 51 kilometres of seal coat application. A crushing job and three major pit run stockpiling projects were started with the construction of the Oldman River Dam. Preliminary survey work and design on 179 kilometres of primary and secondary highways was also undertaken.

Engineering consultants assisted local counties and municipal districts with 18 construction contracts and day labour projects on 173 kilometres of the secondary highway and local road systems. Regular grants were provided to the respective counties and municipal districts, towns and villages for road and street improvement projects and dust control programs.

Bridge structures completed during the year include the Highway 3 structure which crosses the Castle River and nine standard bridges. Thirty-five bridge-size culverts were installed across the region.

Structures on the Oldman River and the Crowsnest River were removed under the Oldman River Dam project and two bridges were completed on SH 510 which crosses the dam reservoir.

Construction was undertaken on ten bridges under the Irrigation Canal Rehabilitation Program.

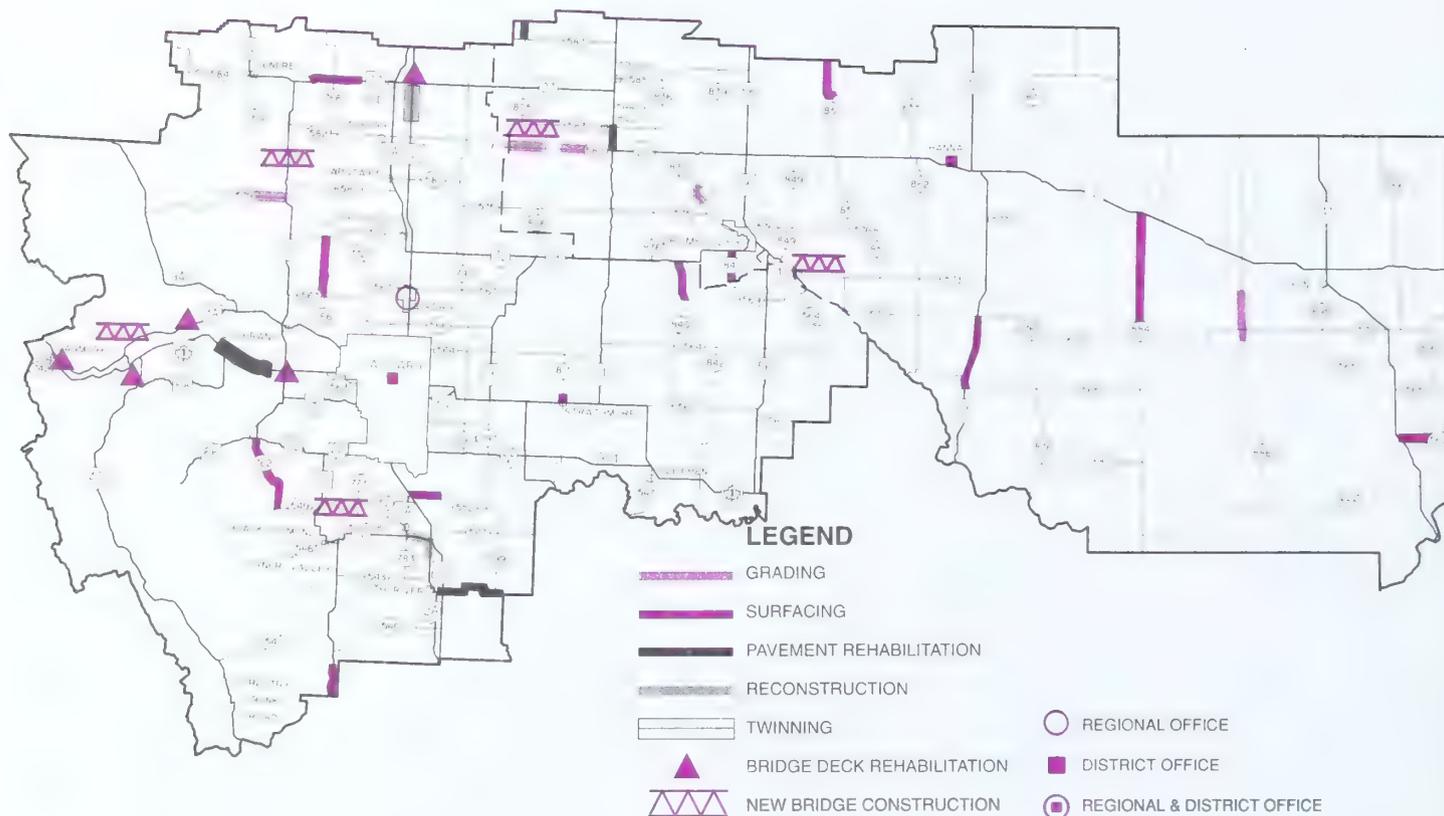
The weather conditions during the summer were ideal and as a result, much progress was made on all construction projects.

## MAINTENANCE

Work was completed on schedule under the bridge maintenance program for 30 standard bridges, 40 major structures and six bridge-size culverts.

Maintenance activities were completed on schedule despite above normal moisture in the early spring, and sand and salt supplies were taxed to the limit during November and December due to severe winter conditions.

## SOUTH CENTRAL REGION



### CONSTRUCTION

Twenty-four contracts for 28 major projects were managed by the region for a total of 121 kilometres of grading, 79 kilometres of granular base course, 128 kilometres of asphaltic stabilized base course, 37 kilometres of asphaltic concrete pavement, 104 kilometres of pavement rehabilitation, and 45 kilometres of double seal coat. The region also provided engineering assistance on 14 contracts to municipalities.

Under the Highway 2 Median Widening Program, a ten kilometre project was started on Highway 2 north of the Didsbury interchange to south of the Olds interchange.

Major surfacing projects were completed on a 21 kilometre section of Highway 22 north of Chain Lakes and on a 20 kilometre section of Highway 36 between SH 565 east and SH 570.

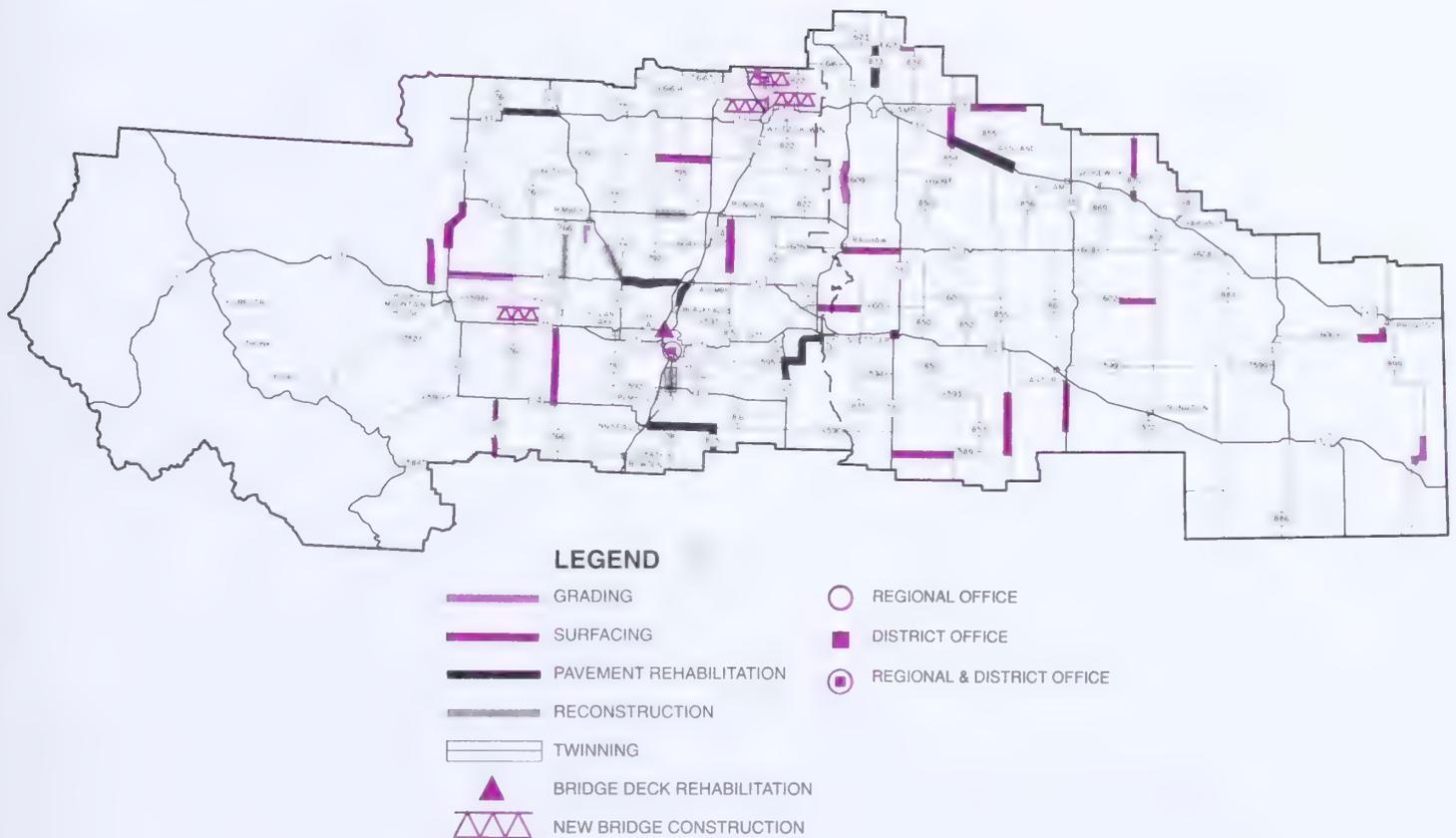
Major bridge structures were completed over the Sheep River at Turner Valley and over the Little Red Deer River near Cremona. Upgrading and rehabilitation continued on Highway 10X bridges.

Although a wet spring delayed construction somewhat, favourable weather over the balance of the year made up for the delays and construction continued on schedule.

### MAINTENANCE

A maintenance facility beautification program was continued in the region.

## CENTRAL REGION



### CONSTRUCTION

Construction continued on 20 projects under the Secondary Highway 2000 Program. Of these projects, 13 were administered by municipalities or counties through engineering consultants. Total construction included 129 kilometres of grading, 170 kilometres of base course, 367 kilometres of asphaltic concrete pavement, 120 kilometres of pavement rehabilitation, and sidesloping of 124 kilometres of narrow pavement.

Paving projects were completed on Highway 22 south of Caroline and north of Rocky Mountain House bringing Highway 22 in this region to a paved standard which eliminates the need for spring weight restrictions. Under the Highway 2 Median Widening Program, the section from the Penhold overpass to south of Red Deer was also undertaken. Pavement overlay continued on sections of Highways 2A, 12, 13, 21, 21A, and SHs 833, 590, 805 and 766.

Modern structures replaced two bridges on Highway 2A between Wetaskiwin and Millet to accommodate heavy truck weights. Other bridge construction included a major bridge over Lobstick Creek west of Bentley, a major culvert at Pipestone Creek and 20 smaller bridge and culvert structures.

### MAINTENANCE

In July, the Red Deer area experienced extensive flooding which necessitated the replacement of several culverts that were washed out and numerous repairs to damaged bridges, culverts and roads.

Other activities during the year included the installation of flashing warning lights on the rear of all winter snowplow/sanding trucks to improve public safety. The relocation of guardrails away from road shoulders and close to overpass piers reduced collision potential and eliminated snow drifting on the highway surface. New pavement patching techniques in the form of a seal coat application over patched areas was used on Highway 2. This will extend the life of the pavement and postpone the need for a pavement overlay.

# NORTH EAST REGION

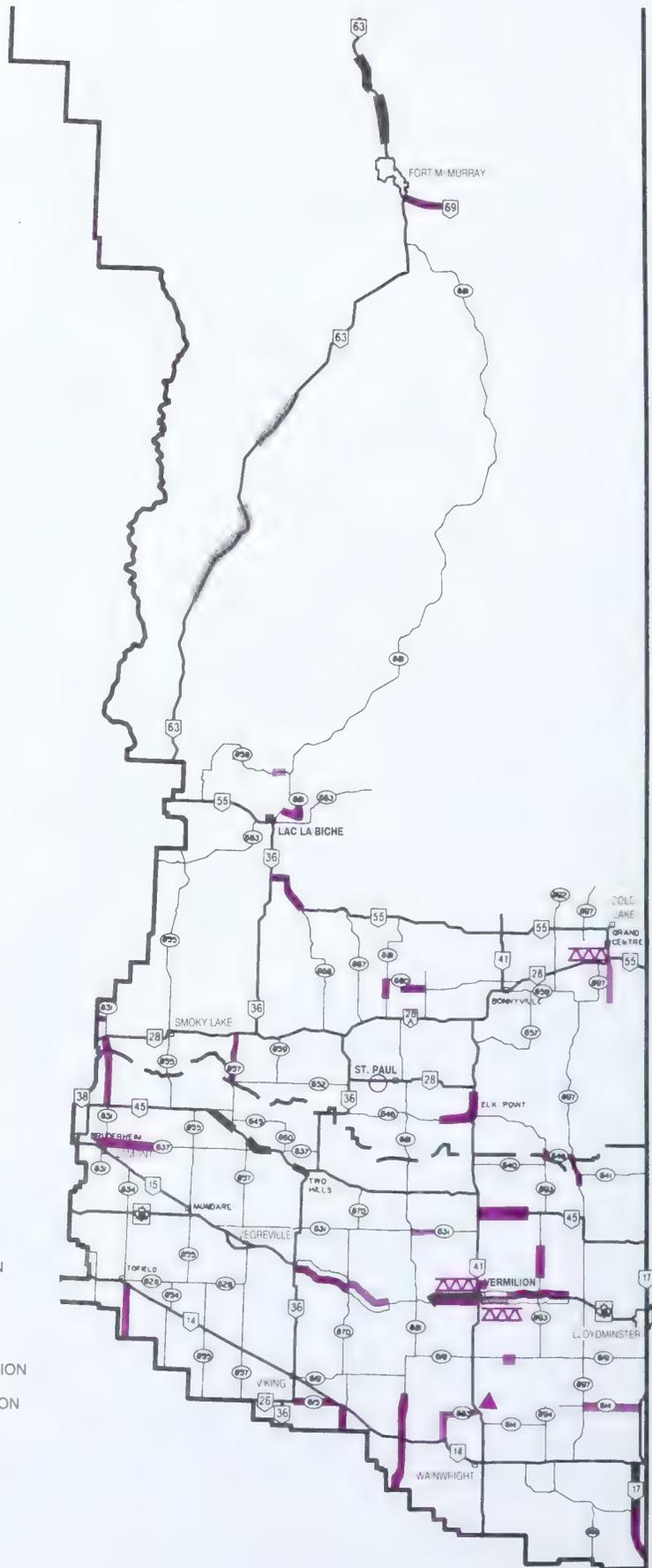
## CONSTRUCTION

Construction was undertaken on 38 major contracts for a total of 71 kilometres of grading, 103 kilometres of grading, base and paving, 112 kilometres of base course, 34 kilometres of grading and base course and 219 kilometres of paving. In Improvement District No. 18, 64 kilometres of roadway was constructed and 852 kilometres were gravel surfaced.

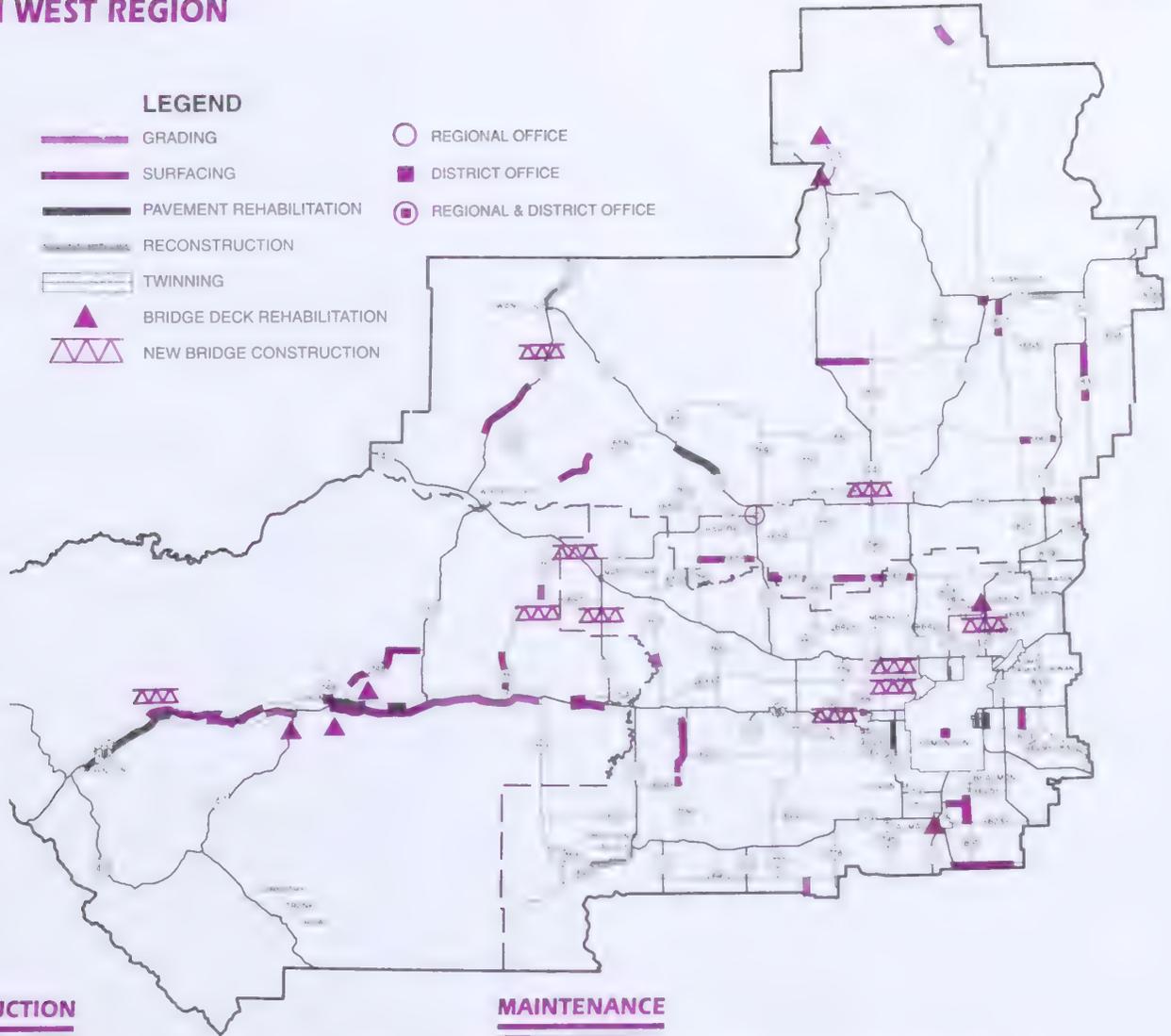
Work continued on schedule under a number of programs during 1990/91. Under the Highway 16 Twinning Program five major projects were undertaken and three projects continued within the Highway 63 Grade Widening Program. Paving progressed with approximately 40 kilometres of base course remaining to complete Highway 55 (the Northern Woods and Water Route) from Highway 36 east to Cold Lake. Construction was on schedule on the Canadian National Railway overpass on Highway 41 at Vermilion. Bridge construction was completed on 17 bridges, and eight bridge structures on secondary highways and local roads and on four bridge culverts on primary highways.

## MAINTENANCE

Primary highway maintenance activities proceeded on schedule during the year with repairs to four standard bridges and two major bridges and two bridge culverts. Similar work was employed on local roads and secondary highways involving 37 standard bridges, 13 major bridges and four bridge culverts.



# NORTH WEST REGION



## CONSTRUCTION

Construction continued on the Yellowhead Trans Canada Highway with five grading projects and nine base and paving projects from east of Wildwood to east of Hinton. One contract involved the largest recycling project undertaken in Alberta in which 224 000 tonnes of asphaltic concrete pavement were produced. Various thicknesses and percentages of recycled mix were evaluated under this project as part of the Strategic Highway Research Program (SHRP) and the Canadian Strategic Highway Research Program (C-SHRP) test sections.

During the year, 92 kilometres of grading, 193 kilometres of base course, 28 kilometres of combined grading and base course, 277 kilometres of paving and 49 kilometres of combined base and paving was completed on primary and secondary highways. In addition, 1 117 kilometres were graveled on local, forestry roads and secondary highways in Improvement Districts and 55 kilometres were graded on the local road system.

## MAINTENANCE

Maintenance activities returned to normal with only a few extreme rainfalls experienced during the year as compared to the previous year's record high precipitation.

# PEACE RIVER

## CONSTRUCTION

Twenty-six lump sum grading contracts were undertaken for local road construction. The region implemented a tendered hourly rate process using the Quotation Method to select equipment for day labour hire and enable interested equipment owners to bid on work. This has resulted in cost savings over standard government rates.

Construction on primary and secondary highway systems, approach roads and resource roads involved a total of 54 kilometres of grading, 119 kilometres of base course, 210 kilometres of paving, 15 kilometres of primary highway reconstruction, ten kilometres of grading and base course and four kilometres of base course and paving.

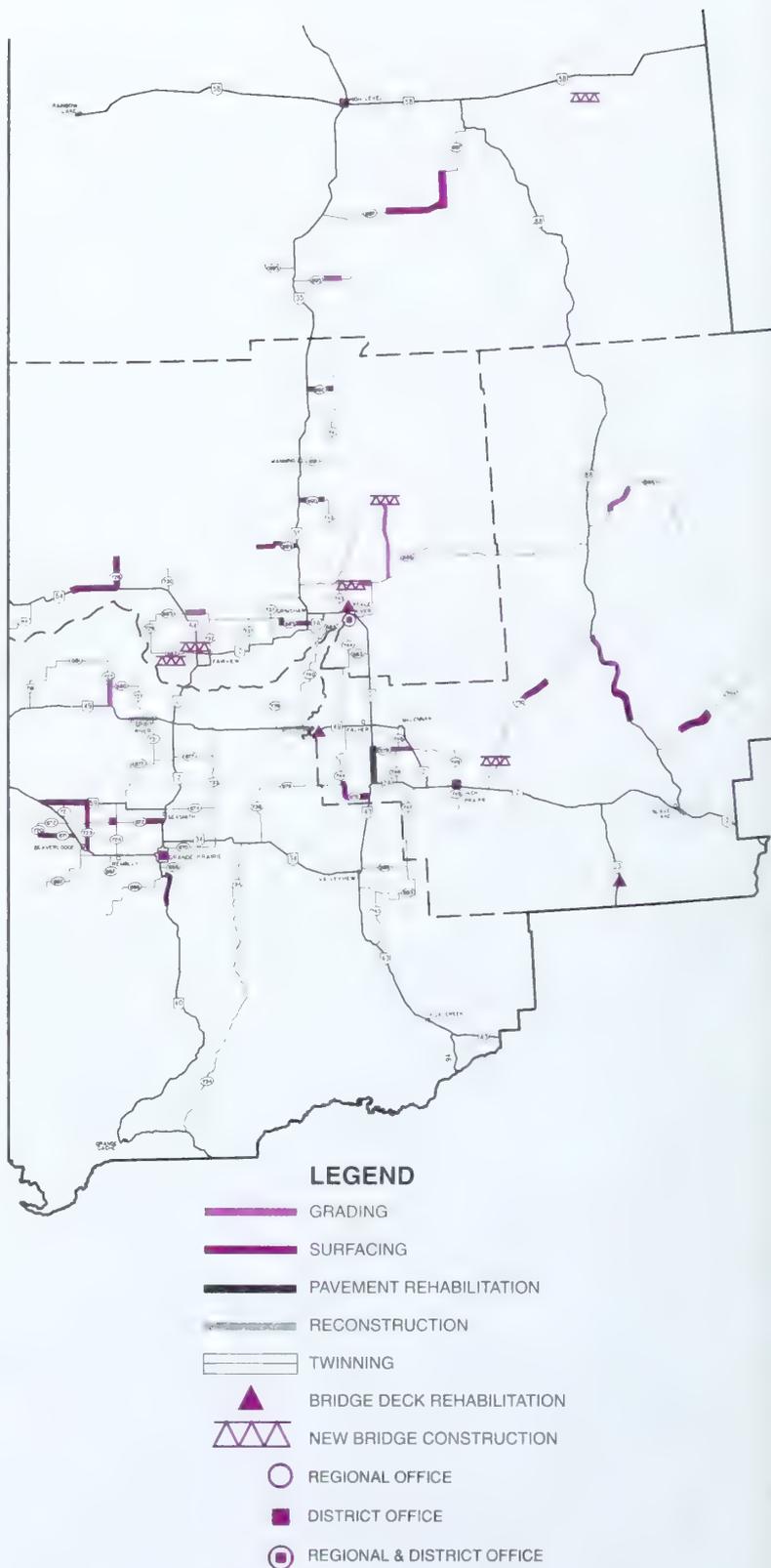
In Improvement Districts and Indian Reserves, road construction included 266 kilometres of grading, 4222 kilometres of graveling, 36 kilometres of dust abatement and nine kilometres of asphalt surfacing.

Bridge work progressed on the piers over the Peace River east of the Peace River Pulp Mill and a start was made to erect four 734 metre long, 4.5 metre deep girders. Piers were also built and girders erected over the Little Cadotte River on the north-south haul road and major bridges were completed over the Boyer River south of Rocky Lane, over the Hines Creek west of Fairview and the Narrows on Lesser Slave Lake south of Grouard. A total of 15 bridge size culverts and two small bridges were installed.

## MAINTENANCE

Extremely wet conditions were experienced in the Grande Prairie and Peace River Districts. A deluge in June caused severe flooding in the Grande Prairie District which required 48 hour closures on Highway 2 between Rycroft and Sexsmith and Highway 49 in the Wanham area. A number of roads, bridges and culverts were washed out or damaged by floating debris and required clean up and road and bridge restoration. Flood damage to a lesser extent occurred near Peace River and High Prairie suffered continuous rainfall and abnormal snowfall levels in November and December.

A high performance epoxy wearing surface was applied to bridge decks at Watino, Hotchkiss and to two decks in the Peace River District. The Swan River bridge at Kinuso was strengthened and the deck surface replaced with an impervious membrane and asphalt wearing surface. Concrete deck patching was performed by department crews and eight reinforced concrete deck overlays were completed by local contractors. A maneuverable man lift was also installed on the mobile trolley used under bridge decks to repaint truss members in order to reduce operating costs and increase efficiency.



## **POLICY AND PLANNING**

### **National and Provincial Policy**

National and provincial policies are important in the development of efficient, integrated transportation systems for Albertans today and in the future. Alberta's growth as a trading province will rely on an efficient, integrated system of transportation involving all modes of transportation. The department represents the province's needs and interests in this area in national forums.

The new Regional Airports Authorities Act and Regulations came into force in the summer of 1990 and provides the framework for the business affairs of Airports Authorities in Alberta. It is anticipated they will improve regional economic development. This legislation is the first of its type in Canada and was used to incorporate the current Airports Authorities in Calgary and Edmonton.

In 1990/91, the department was instrumental in the creation of a provincial-federal participatory process to develop policies for bilateral air agreement negotiations. A major role was played in providing input into the Canada-U.S. air bilateral negotiations.

An Advisory Committee for Barrier-Free Transportation was established in response to the recommendations of the Premier's Council on the Status of Persons with Disabilities. Its members include representatives from across disability areas, seniors, urban and rural municipalities and the bus and taxi industry. The Advisory Committee is helping the development of barrier-free transportation and pedestrian environments.

A position paper was presented by the Minister to the Royal Commission on the National Passenger Transportation System. The paper focuses on the importance of an efficient integrated system and alternative measures for funding future developments. This commission was earlier established by the Prime Minister and headed by Mr. Lou Hyndman.

### **Planning for the Future**

Travel patterns and needs have been analyzed to ensure that highway network plans accommodate the future transportation requirements of Albertans. This analysis serves to guide project planning and priorities.

The initial stage of a long-range transportation plan for highway networks was completed. Using a 20 year model of highway sufficiency, the plan identifies intersection improvements, link upgrades and paving requirements. This plan is designed as a working document and will be updated with shifts in the province's economic and population growth and traffic patterns.

Municipal authorities also receive department assistance with regional and local planning initiatives. The Bow-Canmore corridor was studied to aid local government, industry and the province in further planning for tourism development, and an earlier study of all-weather road costs for northeastern Alberta was updated in response to a request by local communities. Regional models in Calgary (1991) and Edmonton (1992) will also provide valuable information on highway requirements arising from growth in these large urban areas.

National and provincial environmental initiatives shaped many planning activities over the past year. The department provided input to Alberta Environment on the federal Green Plan and to Alberta's Clean Air Strategy. As a result of new provincial legislation, project screening and planning processes were reviewed. An environmental assessment involving public input was completed for a proposed interchange of the Highway 16X and SH 794 junction adjacent to the Wagner Natural Area west of Edmonton. Mitigation and protection measures for the natural area were recommended and introduced to the design for the interchange. This process showed the department's proactive approach toward environmental protection and public participation.

## **ENGINEERING AND RIGHT-OF-WAY**

### **Planning Provincial Highway Development**

An extensive provincial traffic data collection program gathers the necessary information to plan and upgrade Alberta's highway system, evaluate operational conditions and analyze safety concerns. In support of long range system development, detailed analysis and 20 year projections on traffic flow and lane requirements for the primary highway network, and the initial phase of a consolidated traffic information system were completed.

A number of field investigations and operational reviews were conducted to eliminate or mitigate various operational, safety and planning concerns. The reviews and investigations contributed to 115 improvements in railway crossings, roadway intersections, illumination sites and highway speed limits. All communities with a population of 500 or more now have primary highway lighting, either where the highway passes through the community or at the main access point.

Private development proposals continued to be assessed to ensure that public and long term development needs are met in the overall transportation infrastructure planning process.

To address social, environmental and engineering concerns related to the process of planning highway extensions, the department seeks input from the public, local authorities and other government departments. During the year, planning initiatives included the Alberta Pacific pulp mill transportation infrastructure and the proposed Highway 16X interchange adjacent to the Wagner Natural Area. Public feedback and environmental concerns were incorporated into plans for the interchange. Planning and design work continued to upgrade the Export Highway to the American border. Input was provided to the new Environmental Protection and Enhancement Act and the proposed provincial wetland policy through public review panels. Archaeological and palaeontological investigations and mitigation initiatives were also undertaken on a number of roadway projects.

### **Right-of-Way Acquisition**

Policies, procedures and services are provided for the acquisition, management and disposal of property. In 1990/91, 700 transactions were concluded for right-of-way property totalling over \$7 million. Ninety-eight per cent of these transactions were reached by mutual purchase agreements and only four required use of the full expropriation process.

The department continued to increase use of private sector services - private firms carried out approximately 70 per cent of legal surveys and all independent property appraisals.

### **Effective and Efficient Engineering and Construction**

Further staff development and training in micro-based geometric design and the decentralization process for design activities to the regional level was continued in 1990. Regions now perform 75 per cent of the department's roadway design. Arrangements were finalized to decentralize aggregate location and remedial geotechnical construction activities to the regions.

The department developed and published standards for curve superelevations and access management and these were distributed to municipalities and counties for use on roadways under their jurisdictions. The efficiency of the survey and design process increased through the acquisition of total station equipment and hand-held computerized data collection devices and staff training.

Two major bridges comprising 75 per cent of the capital value of all such bridges were designed by the private sector. In addition to 57 direct agreements with private engineering consultants that totalled approximately \$2 million, the private sector also provided over \$8 million in engineering services to 104 department-funded roadway construction projects administered by rural municipalities.



New technology was applied to the pavement evaluation program and to complex foundation and landslide projects to provide more cost-effective roadway and bridge designs. The department participated in Canadian and U.S. Strategic Highway Research Programs which include design, construction and testing of pavement field test installations. New materials, equipment and processes continued to be investigated and evaluated, highlighted by the construction of another large test section of hot in-place recycled asphalt pavement. Several other projects during the year included:

- an agreement was reached with several regulatory and standard-setting agencies to permit the use of concrete slab methods to economize pipeline protection at roadway crossings
- the development and implementation of new guard-rail standards in a field test installation to improve occupant safety in vehicles that collide with guard-rails
- studies were conducted on geogrid pavement reinforcement, premium grade asphalts, large-aggregate asphalt pavement mixes, use of reclaimed asphalt concrete pavement for cold mix, and various others topics. Advanced techniques were utilized for automated traffic monitoring and production of plans and photo mosaics.



### **Protection of Alberta's Road and Bridge Investment**

Pavement evaluation and bridge inspection programs continued to provide a factual, experience-based framework for rational programming and design of cost-effective highway and bridge rehabilitation and reconstruction measures. These programs and the management systems they serve are an important contributor to the protection of the huge provincial investment in Alberta's transportation infrastructure.

To maintain and extend the life of the highway network, \$33 million in pavement rehabilitation and approximately \$6 million in bridge deck rehabilitation was performed in 1990/91. As a result of continued bridge strengthening programs, only 16 primary highway bridges and 99 secondary highway bridges required posting below the 62.5 tonne maximum vehicle weight by year end.

The department provided bridge inspection training to 32 employees from counties, municipal districts, cities and their consultants to enable them to carry out this function on standard structures within their jurisdictions.

### **Construction Contracts**

Several department construction camps were disbanded and standards and specifications were developed in order to enhance the cost-effective competitive tendering process for their work to the private sector during the year. These construction camps were involved in seal coat, seeding and erosion control and signing and guardrail installation. The number of local road grading contracts increased to 31 and replaced the less efficient equipment rental day labour operations.

A total of 191 roadway and 32 bridge contracts were publicly tendered through the department's central tendering system. The use of End Product Specifications was increased to 19 paving contracts. Contractors involved in this process are responsible for aggregate and asphalt supply and have a financial interest in work quality. Another 14 contracts required or permitted the contractor to supply their own source of aggregate.

Despite the Persian Gulf War and the resulting dramatic increases in the price of crude oil, asphalt costs did not increase due to the fixed price supply contracts already in place for departmental projects. Asphalt costs represent a major component of surfacing costs.

Severe flooding in parts of central and northern Alberta in 1989 and 1990 required extensive repairs to an unusually large number of bridge sites including a large concrete arch culvert on Highway 39 over Weed Creek. A nine year \$18 million program was completed, providing 140 bridges for irrigation canal reconstruction under the Alberta Heritage Savings Trust Fund and administered by Alberta Environment.

The largest girders installed in Canada using the launching method were placed on a bridge under construction on SH 686 over the Peace River.

In Southern Alberta, more than two million cubic metres of aggregate was salvaged through public tender from beneath the future Oldman River Dam reservoir. This aggregate will be used on provincial and municipal roadways in the years ahead. The High Load Corridor which enables highway movement of loads up to nine metres high between key Alberta locations was extended another 70 kilometres to bring the total length to 1770 kilometres.

## FLEET AND MATERIALS RESOURCES

The effectiveness of highway maintenance activities depends on the reliability of the fleet and material services. An equipment management system enabled the department to target efficiency improvements through a reduction in materials inventories, improvements to overall inventory turnover levels, increases in fleet utilization levels, reductions in fleet operational costs and ensuring the effectiveness of fleet repair services from the private sector. Other activities included:

- the redesign of the single axle plow truck to provide increased payload, higher reliability, improved operator ergonomics and improved fuel economy
- consideration of environmental issues through projects involving recycled engine oil, evaluation of natural gas as a fuel for light trucks, re-use of heavy truck filters and recycling of engine antifreeze
- a new public safety awareness campaign to inform highway users of the improved warning lights used by plow trucks during ice control operations.

## RESEARCH AND DEVELOPMENT

The department is committed to implementing technical solutions to enhance the efficiency and effectiveness of its construction, maintenance and other operations. A departmental Research Advisory Committee guides priorities in annual and five-year plans. Co-operative projects with other jurisdictions and agencies are encouraged to exchange technology and to share the costs of research investment. Information is shared and technology is transferred across the department's decentralized regional and district structure.

During the year, the department investigated asphalts, pavements, concrete structures and highway maintenance operations through participation in the Canadian and U.S. Strategic Highway Research Programs, a \$150 million international co-operative research program.

Environmental objectives remained the focus during the 1990/91 applied research program. Projects included recycling of wastes, erosion control, use of environmen-

tally friendly products, and the development of a department strategy to demonstrate alternative fuels.

Adaptation of new technologies remained a high priority with the infusion of expert systems into department operations relating to bridge maintenance, shop operations and highway access control. Application of satellite technology to surveying and data gathering operations were investigated. Research was also conducted to improve and optimize techniques for maintenance operations and illumination problems on roads and bridges.

To improve the department's technology transfer and communications capabilities, a departmental technology transfer seminar was organized to pass research results to field staff. Videoconferencing was also investigated and publication of Transearch was continued.

# MUNICIPAL INFRASTRUCTURE

## CITY TRANSPORTATION

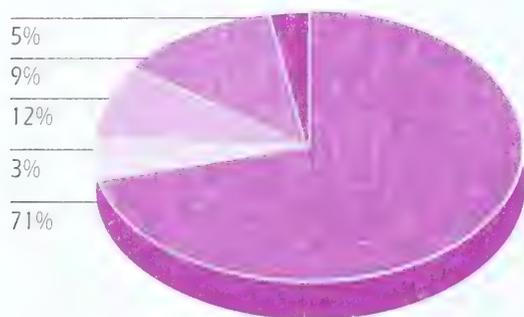
As part of a provincial commitment since 1931, urban centres receive annual assistance with capital and operating costs to develop and operate effective roadway and public transit systems. A three year \$500 million program known as the Alberta Cities Transportation Partnership was launched in 1989/90. The Partnership program has five components: Basic Capital; Community Safe Streets; Primary Highway Connectors; Public Transit Operating; and Primary Highway Maintenance.

In 1990/91, \$150 million was allocated under the Partnership program as grants to assist 16 cities and the County of Strathcona (Sherwood Park). The grants provided to each jurisdiction are outlined in the table below. These dollar amounts have been rounded to the nearest hundred:

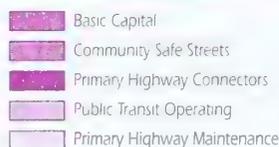
Airdrie	\$ 926 500
Calgary	63 594 400
Camrose	389 000
Drumheller	499 800
Edmonton	45 358 200
Fort McMurray	2 870 000
Fort Saskatchewan	977 600
Grande Prairie	1 462 300
Leduc	1 002 500
Lethbridge	4 965 900
Lloydminster	804 900
Medicine Hat	6 326 400
Red Deer	9 696 400
Spruce Grove	949 800
St. Albert	3 255 600
Wetaskiwin	724 600
County of Strathcona (Sherwood Park)	3 728 600
	\$147 532 500
Public Transit Operating Grants to other Towns, Villages, etc	2 318 300
Multi-jurisdictional projects	320 700
<b>TOTAL GRANTS</b>	<b>\$150 171 500</b>

Percentage breakdowns of assistance provided are detailed in Figure 1.

## Alberta Cities Transportation Partnership Distribution of 1990/91 Grants



### Grant Type



## 1990/91 Major Projects

The following list describes projects which significantly enhanced urban transportation systems:

### CALGARY

- Brentwood NW LRT Extension and Charleswood Drive Interchange
  - Completed construction of a one kilometre LRT extension with major station and parking facility.
  - Completed construction of a major interchange at Charleswood Drive and Crowchild Trail.

### EDMONTON

- Ring Road (Anthony Henday Drive)
  - Completed construction of a four-lane arterial road from Whitemud Drive to Stony Plain Road.

### RED DEER

- Major Continuous Corridor and Railway Relocation Project
  - Completed relocation of the CPR mainline through the city to an alignment west of Highway 2 and relocation of the downtown railway yard to the northwest part of the city.

### FORT MCMURRAY

- Abasand Drive Improvements (Athabasca Avenue to Hospital Street)
  - Stabilized three slide areas and created underground road drainage. Resurfaced the roadway and added pedestrian sidewalks.

### FORT SASKATCHEWAN

- Reconstruction of 99 Avenue between 101 Street and 108 Street
  - Completed reconstruction and widening of the roadway to a four-lane undivided urban standard.

### SHERWOOD PARK

- Baseline Road Twinning
  - Completed reconstruction and twinning of the roadway from Broadmoor Boulevard to Highway 21.

## RURAL TRANSPORTATION

### Streets Improvement Program/Community Safe Streets Program

Towns, villages and summer villages receive cost-shared financial assistance under the Streets Improvement Program (1989) to construct capital street improvements. Projects such as grading, gravelling, base course paving, sidewalks, curb and gutter, roadway drainage, bridges and related works qualify for assistance.

Under the Community Safe Streets Program, municipalities were provided with financial assistance to create street improvements that enhance public safety. Projects such as traffic control devices, improved street illumination, and pedestrian safety installations are eligible under this program.

During 1990/91, \$12 545 000 was provided under the Streets Improvement Program and nearly \$422 000 under the Community Safe Streets Program for 138 eligible projects for a total expenditure of over \$12 967 000.

## Road Grants to Counties, Municipal Districts and Special Areas

Counties, municipal districts and special areas receive funds annually to develop and upgrade roadways to a uniform provincial standard. Grants are allocated for projects such as grading, gravelling, base course, dust abatement and engineering related costs. Assistance provided over the past year is outlined below in dollar amounts rounded to the nearest hundred:

Regular Road Grants	\$23 915 200
Dust Abatement	\$ 2 590 500
Hamlet Streets Assistance Grants	\$ 270 800
Engineering Assistance Grants	\$ 749 000
Discretionary Grants	\$ 1 032 500
Special Areas Grants	\$ 1 526 000
	\$30 084 000

## MUNICIPAL WATER AND WASTEWATER ASSISTANCE

Through programs in existence since 1979, municipalities have been eligible to receive assistance with capital costs to construct water/wastewater facilities. A comprehensive review of these programs was conducted in 1990 to evaluate eligibility criteria, funding formulas, water conservation strategies and future program and budget needs. The analysis suggested a new program for municipal water/wastewater facilities be developed. As a result, a program was developed and approved by Cabinet for implementation in the 1991/92 fiscal year.

### Alberta Municipal Water Supply and Sewage Treatment Grant Program

This grant program provided cost-shared financial assistance to cities (under 100 000 population), towns, villages, summer villages, regional commissions and hamlets to construct water supply and treatment and wastewater treatment facilities. The program ensured that an adequate and safe supply of water and acceptable levels of sewage treatment are available to all Alberta residents.

Over 200 projects received funds under the program including: a water supply line to the Peace River for the Town of Fairview; a sewage treatment facility for the Town of High River; and a water supply and distribution system for the Village of Botha.

In addition to funding, the department advises municipalities on technical and financial details related to their projects. Decision making remains focused at a local level. During 1990/91, approximately \$23 million was expended for the construction of 204 water supply and treatment and wastewater treatment facilities.

### Regional Utilities Program

The program provides cost-shared assistance to two or more municipalities to construct multi-municipal water/wastewater facilities. The program focus has been modified to supply grants to municipalities and decrease departmental involvement to enable local authorities to construct and manage the project to suit their priorities.

Grants totalling approximately \$5 million helped upgrade the St. Albert sewage lift station among other projects. The St. Albert station is part of the Capital Region Sewage System which provides sewage service to 13 municipalities in the Edmonton area and was constructed under this program during the 1980's.

The Kinuso water line project involved the construction of a waterline from the Hamlet of Faust's water treatment plant to the Village of Kinuso. This waterline serves Kinuso residents and area farmers.

A number of studies and preliminary designs for multi-municipal projects also received program funds. These studies review the feasibility of implementing regional systems and develop cost estimates to aid the decision making process.

### Northern Supplementary Fund

Financial assistance is provided through this fund to northern Alberta communities within the jurisdiction of the Northern Alberta Development Council to improve water and wastewater facilities. Northern communities received \$1 500 000 towards the construction of these facilities over the past year.

## **Other Municipal Assistance**

The Utilities Officers Grant Program ended in 1990/91. The program provided financial assistance to counties, municipal districts, special areas and improvement districts to assist with the costs of employing a utilities officer. The program began in the early 1970's during a period of high construction activity under the Rural Gas Program. Activity in that program has slowed in recent years and the Utilities Officers Grant Program was allowed to lapse. Sixty-two rural municipalities received some \$1 487 500 during this final year under the program.

# MOTOR TRANSPORT SERVICES



## Collision Reduction

A number of safety initiatives were established to create a safer motoring environment on Alberta highways. These initiatives include a spring/fall seatbelt safety information campaign, the introduction of the National Safety Code (NSC) program to the private carrier industry, and more than 12 000 inspections of large commercial vehicles under the Commercial Vehicle Safety Alliance (CVSA). The department provided private and public carriers with administrative assistance to ensure compliance with NSC standards.

The provincial seatbelt usage rate rose to 88 per cent in 1990/91 and was further encouraged during the annual safety information campaigns. Provincial roadway fatalities were the lowest in twenty years.

Data systems for the Alberta Collision Information System were revised to provide individuals with improved information regarding collision locations, highway quality, and identification of problem vehicles, drivers and locations.

Policies, procedures, regulations and signage were amended in consultation with the province's commercial trucking industry to improve safety within log hauling operations. Administrative mechanisms were also developed for a future Commercial Vehicle Inspection Program (CVIP).

## Administrative Services

Economic regulation in the trucking industry continued to be reduced to improve service to the transportation industry. This series of reforms incorporated a review of policies, procedures and regulations.

Commercial carriers administration requirements were eased by simplifying the process to acquire operating authorities. This allowed carriers to focus on other operational activities. New fees based on a user pay principle were introduced for Intra Provincial Operating Authority applications, renewals and single trip permits.

Payment options for services were modified to improve flexibility for users through the introduction of Mastercard and credit card service that allows for direct credit to the account of the Provincial Treasurer.

The first motor transport enforcement course was taught at a Canadian college. The course was formed in cooperation with Lethbridge Community College and is offered as an elective in the College's law enforcement program. Other non Alberta Transportation and Utilities enforcement agencies were provided training in CVSA checks during the year by divisional training staff.

A total of 123 189 permits were issued to regulate the movement of oversize loads on Alberta highways. Revenue generated from permit sales and user pay fees was approximately \$7 million, an increase of \$923 970 from 1989/90.

### **Protection of the Highway Infrastructure**

Several programs were designed to strategically manage the trucking industry to protect the investment in the province's highway infrastructure.

The Automated Road Ban Information System (ARBIS) provides the public and industry with road ban information on a 24-hour toll free access. Industry was also kept abreast of roads which are not normally banned in the spring, as well as truck route information through the cities via the Alberta Highway Map and Weight Guide.

Efforts continued to complete the final phase of the Transportation Association of Canada weight and dimension standards for Alberta and expand the transport corridor from Cochrane to Sundre for extremely high loads.

Four new Static Weigh Scale sites were developed at DeWinton, Rycroft, Castor and Wainwright and the Cochrane Vehicle Inspection Station (VIS) site was converted to a mobile inspection site. This allows farmers and motor carriers in these areas to check vehicle and axle weights to assure their vehicles are within acceptable weight limits.

Construction was completed on vehicle inspection facilities located in Leduc and Balzac. These facilities ensure commercial vehicles meet CVSA fitness criteria regardless of time or weather.

An agreement between Montana and Alberta was initiated to allow commercial vehicles to haul Alberta weights from the border to Shelby, Montana on Interstate Highway 15. This agreement will allow the



trucking industry, manufacturers and producers to increase pay loads to Shelby and improve product competitiveness via reduced shipping costs. Negotiations continued with British Columbia and Montana to provide joint VIS operations near the border.

Commercial vehicle safety and road protection were encouraged through the City Truck Enforcement Program to all provincial cities except Spruce Grove.

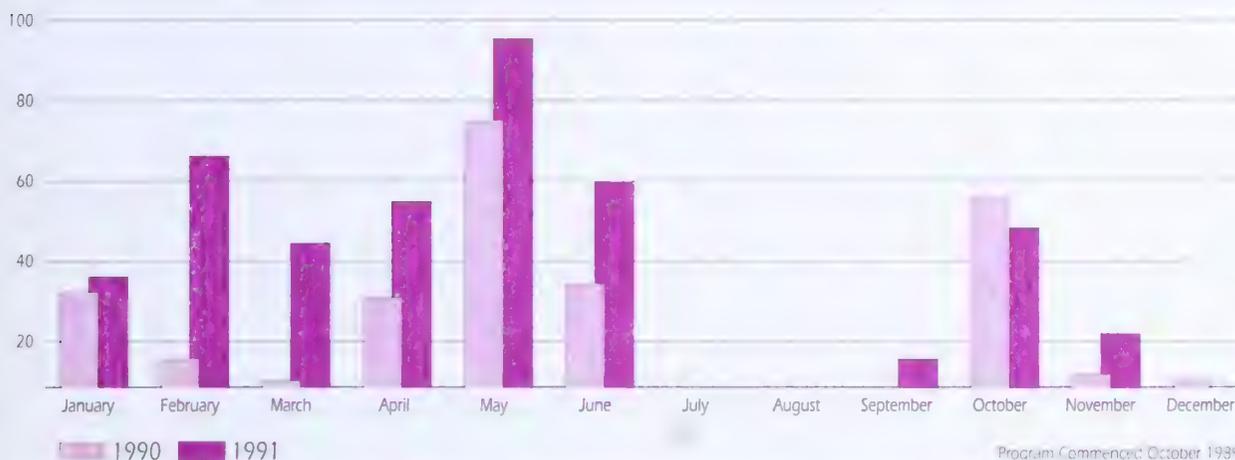
Educational and training programs were delivered to local governments and members of the commercial transport industry. Seminars on the standards and regulations for equipment use in Alberta were attended by trucking industry representatives and equipment manufacturers.

### **Safety Education**

The traffic safety message is delivered through a chain of programs to users of the province's highway system. Recent activities focused on an elementary school program - Mobile Safety City, and a safety training course for participants of the Highway Clean-Up Campaign.

The Mobile Safety City was presented to 363 schools during 1990/91 to increase awareness of the dangers of road and railway crossings. The objective of the program is to provide an interactive learning environment for children in Early Childhood Services and grade one. Children are exposed to pedestrian activities through scaled down simulations of intersections, crosswalks, railway crossings, and traffic and pedestrian lights and must learn safe crossing techniques. The program has attracted interest from jurisdictions outside Alberta and other countries.

## Mobile Safety City: No. of Presentations Fiscal Year 90/91 = 363 presentations



Development of a self-delivery option was initiated to broaden the audience base of existing safety education programs for teachers and safety officials. As well, a training course highlighting safe highway clean-up procedures was completed for 4-H Club members participating in the annual Highway Clean-up Campaign.

The safe use and protection of Alberta's highways were promoted by the department through trade shows and career fairs throughout the province.

## ALBERTA MOTOR TRANSPORT BOARD

The Alberta Motor Transport Board has met its goal of implementing full regulatory reform for the extra provincial trucking industry of Alberta; the Board will continue to exercise its delegated authority from the Federal Government under the Motor Vehicle Transport Act (Canada) 1987. This federal Act includes a "sunset" provision, and will revert to fitness and safety only entry controls on and after January 1, 1993.

Through Alberta's relaxed entry controls, Alberta truckers have successfully captured a substantial share of the north/south truck traffic resulting from the implementation of the Canada/U.S. Free Trade Agreement.

The Board was advised of some vehicles failing to pass safety inspection, and that the Director, National Safety Code, has downgraded the carrier's safety rating to "unsatisfactory." In some cases, the Board suspended the carrier's operating authority certificate, allowing them to operate only with vehicles that had passed full mechanical safety inspection.

The trucking industry, in general, were very supportive of the action taken by the Motor Transport Board and considered it to be a very positive step towards a higher level of safety on Alberta's highways.

Public passenger transportation with bus parcel express service, is one of the life lines for the continued well being of smaller communities in rural Alberta. Based on a carrier's application, the Board must weigh the ongoing viability of any particular bus route against the public input indicating the continued need to receive adequate public bus passenger/express service.

During this fiscal year, the Board considered applications from Alberta's major bus passenger carrier to reduce or eliminate scheduled service on some routes, where public ridership had dropped off drastically. The Board did approve some reduction in service, and in other cases the carrier either modified or withdrew his application.

The Board will work with the bus industry to ensure that Albertans receive the best scheduled route bus service, over the widest possible highway network, but if the current ridership trend continues, there could be some cutbacks in service in the future.

The Board will continue to work toward breaking down regulatory barriers, and to minimize "paper work" for the truck and bus industry, and for a wider relaxation of entry controls between jurisdictions.

# RURAL UTILITIES

## RURAL GAS

This program provides rural Albertans with financial assistance to obtain natural gas service through a network of rural gas distributors and is unique to Alberta. This service ensures that natural gas is available to consumers at a reasonable cost.

Since its inception in 1973, over 133 000 natural gas service points were installed through an infrastructure of gas distribution pipelines totalling 97 000 kilometres in length. This total includes the 3605 service installations and 2100 kilometres of pipeline installed in 1990/91. The pipeline network is the largest of its kind in the world and reaches most agricultural areas of the province, as shown in the following plan:

Grants totalling over \$372 million, or approximately 60 per cent of the program capital cost of \$627 million, have been provided to rural gas distributors since 1973. This includes approximately \$9 million in grant payments during the past year. The program contributes to Alberta's rural economy through annual fuel cost savings of approximately \$150 million to rural residents and rural based industry. In addition, the private sector and municipal utilities which operate under the program contribute the following capital and operating expenditures to the rural economy:

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▪ Overall capital and operating expenditures	\$112 148 000
▪ Direct employment	885 person-years
▪ Total salaries for direct employment	\$ 24 945 000

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Gas Alberta serves as the gas supply broker for most of Alberta's small rural gas utilities. The program manages a natural gas supply pool of more than 16 billion cubic feet each year, and uses the economies of scale from this pool to provide rural gas utilities with secure and reliable gas supplies at a reasonable price. In 1990, Gas Alberta reduced its common pool price for gas supplies by a further \$0.05 per gigajoule, the fourth year in a row that prices have been reduced as a result of gas industry deregulation.

## RURAL ELECTRIFICATION

The Rural Electrification Revolving Fund has provided financing for new electrical services to provincial farmers since 1953. Lending activities were extended in 1987 to assist rural electrification associations with the rebuilding of distribution systems. Approximately \$183 million in loans have been issued through the lifetime of this program and include 1232 loans in 1990/91 for a total of \$6 million in loans and grants. The following list describes program activity over the past year:

- a total of \$3 844 177 was issued in loans for new electrical services
- seventy-two non-interest bearing loans totalling \$809 411 were issued to rural electrification associations to rebuild and improve distribution systems
- payments on outstanding loans during the year totalled \$3 918 598
- at year end, the outstanding balance on the Rural Electrification Revolving Fund was \$38 469 440.

### *Grant Activities:*

A Part 2 recoverable grant program was introduced in April of 1990. Some \$980 000 was advanced to reduce the cost of expensive electrical service and repayment of these grants is contingent upon additional connections to existing services.

Grants totalling \$70 000 were issued to assist the Alberta Federation of Rural Electrification Associations achieve self-sufficiency as well as other special project initiatives for a total expenditure of some \$180 000.

## GRANTS TO INDIVIDUALS

### *Heating Fuel Rebate Programs:*

- Through the Primary Agricultural Producers Natural Gas Rebate Program 3200 farmers received an average rebate of \$800 each to assist with the cost of natural gas used in farm production facilities. Rebate payments totalled \$2.6 million compared to \$1.9 million in the year before. This program lapsed December 31, 1990.

- The Remote Area Heating Allowance Program was extended to December 31, 1993. The program reduced heating costs by an average of \$335 for 3000 Albertans who use propane or heating oil where natural gas service is not economically available. Total cost of rebates in 1990/91 was over \$1 million compared to approximately \$.8 million for the previous year.
- Senior citizen home owners each received a grant of \$100 under the Senior Citizens Home Heating Grant Program. The grant monies assist seniors with heating costs regardless of the type of fuel used. Over 111 000 seniors received assistance in 1990/91 and more than \$83 million has been issued under the program since 1982. This program concluded on December 31, 1990.

### *Alberta Farm Water Grant Program*

The Alberta Farm Water Grant Program provides cost-shared financial assistance to farmers and ranchers to construct water transmission systems for domestic or stock-watering purposes. The department also provides technical advisory services to develop farm water transmission systems to meet local needs. This advice includes technical, surveying and licensing data and is dispensed to individuals and groups of farmers to construct permanent systems.

The program provided approximately \$7 million to Alberta farmers to build water transmission facilities due to drought related conditions in 1990/91 and was distributed among 616 individual farms and 737 farms in 25 water co-operatives or group projects.

This program was terminated on July 27, 1990. Funding will continue to be provided over the next three years to cover all applications received prior to July 27, 1990.

# ADMINISTRATIVE SERVICES

The main focus has been on the continuous improvement of existing levels of service and communications between the operating areas of the department and administration.

## FINANCIAL SERVICES

Several major activities are highlighted as follows:

- Departmental policies and procedures were developed to address specific needs in response to the implementation of the Goods and Services tax by the Federal Government. Internal and external assistance was provided through: staff training sessions; support for contractors and suppliers in light of payment and collection of the new tax; discussions with contractors and suppliers regarding the government's position of non-payment of the tax.
- A matrix outlining the spending authorities of expenditure officers was amended and implemented in October 1990. The matrix was developed in 1989/90 to strengthen departmental financial accountability and was reviewed by management across the department. It defines the scope of authority for department staff and promotes consistent application.
- The "Financial Management for Non-Financial Managers" seminar was extended to all staff this fiscal year. The seminar was developed in support of the greater delegation of financial authority to operational work groups.
- A computer based model for budget preparation was developed to streamline the annual budget preparation process. This has resulted in improved reporting abilities and reduced manpower costs.
- A financial report distribution system was piloted in conjunction with Alberta Public Works, Supply and Services. This system allows users quick access to reports at a reduced cost.

## PERSONNEL SERVICES

Significant activities are outlined below:

- A training module was created to involve line managers in the classification decision process. The module provided managers with the skills to participate in two project committees that developed generic position descriptions for functions within a division. As a result, line managers gained an increased understanding of position responsibilities and allocation decisions.

- A matrix was developed to define approval levels for the application of provisions of the Master Agreement and the Regulations pertaining to Opted Out and Excluded or Management Employees.
- A Sexual Harassment Program was developed and presented to 3000 department employees. This program includes comprehensive policies and procedures for dealing with this issue.
- A Long Service Awards Program was created to recognize employees with more than ten years of public service.
- A task force was sponsored and chaired by the department to improve safety in the road construction industry. The task force was formed in cooperation with the Alberta Roadbuilders and Heavy Construction Association and Alberta Occupational Health and Safety. Recommendations will be tabled early in the new year.

## GENERAL SERVICES

Highlights of 1990/91 are as follows:

- A new high volume copier, the Xerox 5090, and a full colour copier, the Canon CLC500, were acquired to service department needs previously met by outside sources. The Canon CLC500 has connection peripherals that allow personnel to print copies from slides, VCR and video.
- A computerized system was introduced to the stationery and supplies inventory. The new system provides a record of existing supplies and back order status.
- Recycled stationery product use significantly increased throughout the department.
- The Alberta Special Products Evaluation List (ASPEL) database was developed. Information on over 400 specialized products and equipment tested or developed within the department is currently recorded on this database.
- Two new vendors were added to the Transportation Library to enhance information services. These vendors allow the library to perform online searches of prominent Canadian newspapers and corporate information services.

- The new Alberta Records Transfer System was designed and installed to allow the department to electronically request and receive approval for the disposition of records.
- Insurance requirements were formalized for club members who participate in the Annual Highway Clean Up campaign.

## INFORMATION SYSTEMS

Electronic data processing (EDP) systems and hardware play an increasing role in supporting departmental planning, engineering, program management and administrative functions. An update to the department's Strategic Information Systems Plan (SISP) was commenced to further integrate computer systems, enhance data sharing, reduce duplication and ensure that EDP priorities reflect departmental business priorities. This plan will be completed in 1991/92. A Data Resource Management Committee was also formed to ensure the integrity and security of corporate data.

New systems and enhancements to existing systems were developed during the year to support traffic engineering, materials engineering, rural electrification loans and highway maintenance over the past year. Progress continued in the development of systems for the National Safety Code program and the Commercial Vehicle Inspection Program. Microcomputers continued to be installed and an office automation strategy was adopted that enabled obsolete word processing equipment to be replaced.

## INTERNAL AUDIT SYSTEMS (IAS)

Audits provide the department with the means to assess the effectiveness of its operations. The Internal Audit Services (IAS) was created in June 1989 and conducts audits or special investigations at the request of the Deputy Minister and members of the Audit Committee.

Twelve audits and four special investigations were undertaken in 1990/91. Activities included an examination of Districts 7 and 13 in an audit of the Private Equipment Rental - Truck Haul (PERTH) process, and an examination of each region for alternative methods of program delivery under Regional Bridge Operations Program. By year end, seven audits and three special investigations had been completed.

Engineering Audits, the most important component, was the third addition to IAS operations. The first activity of this component was the review of the Lump Sum Contracting process in the Grande Prairie District. A major review of the engineering component of Regional Bridge Operations in Airdrie was also completed to complement previous information obtained on the administrative and operational components of the program.

# ORGANIZATIONAL ROLES IN ALBERTA TRANSPORTATION AND UTILITIES

Responsibilities are noted under each agency, division and branch.

## MOTOR TRANSPORT BOARD

- manages the regulatory system governing the intra and extra provincial truck and bus industry; within the framework of the Alberta Motor Transport Act, and as delegated to the Board by the Federal Motor Vehicle Transport Act, 1987.

## ALBERTA RESOURCES RAILWAY

- accountable for revenues generated from railway usage
- annually assesses required railway maintenance.

## INTERNAL AUDIT SERVICES

- provides the department with a means of assessing the effectiveness and efficiency of its operations.

## LEGAL SERVICES

- provides legal services to the department through seconded Attorney General's Department employees.

## PUBLIC COMMUNICATIONS

- provides public relations counsel and communications services supporting departmental policies, programs and activities.

## PLANNING AND DEVELOPMENT

- provides advice and recommendations to the department and government on policies, programs and plans.
- provides leadership and co-ordination for the application of new technologies and information systems throughout departmental operations.

### **Policy Development**

- provides direction for strategic planning for the department

- develops and evaluates transportation policies, programs and legislation affecting all modes.

### **Systems Planning**

- provides long-range planning for an integrated multi-modal Alberta transportation system.

### **Research and Development**

- plans and manages applied research and technology transfer programs to benefit the department's construction, maintenance and other operations.

### **Information Systems**

- plans and manages the application of electronic data processing (EDP) systems and hardware in departmental operations.

## **ADMINISTRATION**

- provides administrative support services necessary for the delivery of departmental programs.

### **Financial Services**

- provides financial planning co-ordination and a controllership function aimed to ensure efficient and effective financial policies, procedures and controls.

### **General Services**

- provides a variety of essential services, including accommodation and facilities planning, records management, library, insurance and office support.

### **Personnel Management**

- provides expert personnel management services aimed to enhance the effectiveness of the human resources of the department.

## **ENGINEERING AND OPERATIONS**

- primary focus is on the design and delivery of the department's capital construction (roadway, bridge and airport) and maintenance programs.

### **Regional Operations**

- responsible for the development, scheduling and fiscal control of major construction programs.
- provides management and field implementation for the delivery of construction and maintenance of the provincial transportation system.

### **Engineering Services**

- provides engineering services, contracting services, and design and materials standards for the department's roadway and airport construction and maintenance programs.

### **Property Services**

- provides policy development and standards for land acquisition and management and monitors the property administration process.

### **Operational Planning Services**

- responsible for translating the future requirements of the provincial roadway system into specific location and function plans, and to recommend operational improvements to the existing system.

### **Bridge Engineering**

- responsible for the engineering, design and delivery of the department's capital bridge programs and bridge maintenance standards.

### **Equipment Supply and Services**

- provides fleet, materials and shop services, supporting the department's operations.

## **MOTOR TRANSPORT SERVICES**

- Ensures a safe and effective surface transportation user environment based on the optimum use of transportation resources while minimizing abuse of the transportation network. Develops and implements standardized legislation, regulations, and operating practices on the international, national and provincial level leading to uniform and safe standards for the movement of people and goods.

### **Engineering**

- develops weight and dimension regulations, policies and procedures which balance highway user needs with the physical capabilities of the road to provide a high standard of highway safety.
- integrates Alberta's weight and dimension standards with international and national bodies to develop effective and uniform regulations and codes of practice for North America.
- provides consultative advice to industry on evaluation of equipment and standards.
- provides additional seasonal protection for highways by using a system of winter weights, road bans and permits.

### **Support Services**

- provides administrative, communications and training, and operational support services within the division.
- provides for permit issuance and division finance and revenue collection.
- provides secretariat services for Motor Transport Board operations.

### **Transport Field Operations**

- as the enforcement arm of the department, ensures public vehicle compliance with applicable Provincial/Federal Statutes and Regulations.
- integrates Alberta's enforcement efforts to develop a uniform program of enforcement that is firm yet fair across North America.
- provides joint enforcement services with Montana and British Columbia.

### **Safety and National Safety Code (NSC)**

- provides direction and leadership to ensure the safe transportation of people and goods on Alberta's highways.
- administers Alberta's Railway Legislation as it pertains to safety and operating practices on non-federally chartered railways.
- takes positive, pro-active steps to reduce motor vehicle collisions and their accompanying injuries and fatalities.
- administers the NSC and integrates Alberta's programs into national and international heavy truck safety efforts.

### **Planning and Statistics**

- provides planning, research, business analysis and policy development to the division.
- operates the Alberta Collision Information System (ACIS).
- provides one stop shopping for a wide variety of statistics and other information related to the motor transport industry.

## **SUPPORT PROGRAMS**

- provides financial assistance programs and related technical, advisory and regulatory services to urban and rural municipalities and individuals.

### **Gas Utilities**

- manages, co-ordinates and administers all aspects of the department's involvement in the rural gas utility industry.

### **Municipal Services**

- delivers a variety of financial, technical and advisory services to cities, towns, villages, summer villages, municipal districts, counties and special areas with respect to transportation and utilities infrastructure.
- administers utilities officers assistance to rural municipalities.

### **Urban Transportation**

- provides financial, technical and advisory services to the province's 17 urban centres respecting transportation projects.
- liaises with city council and administrations ensuring the program meets cities' road priorities and that projects utilizing program funds are consistent with the department's overall transportation system.

### **Utility Services**

- administers the department's grant, rebate and loan programs to individual Albertans in support of rural electrification, farm water systems and reducing heating fuel costs.

ALBERTA TRANSPORTATION AND UTILITIES  
**REVOLVING FUND OPERATIONS**  
YEAR ENDED MARCH 31, 1991

	1991 (\$'000 000)	1990 (\$'000 000)
<b>Transportation Revolving Fund:</b>		
Total Assets	\$93.1	\$96.3
Current Liabilities	6.7	10.4
Advances from the Province of Alberta (maximum \$200 million)	87.0	81.8
Surplus (deficit)	(0.7)	4.0
Revenue	72.3	72.3
Expenses	77.0	72.6
Net Income (Loss) for the year	\$ (4.7)	\$ (0.3)
<b>Rural Electrification Fund:</b>		
Total Assets	\$39.9	\$68.5
Advances from the Province of Alberta (maximum \$75 million)	39.3	67.9
Loan repayments	4.3	3.7
Loan advanced	\$ 4.7	\$ 7.8
<b>Gas Alberta Operating Fund:</b>		
Total Assets	\$10.8	\$15.6
Current Liabilities	4.1	5.1
Advances from the Province of Alberta (maximum \$12 million)	5.2	10.0
Surplus	1.5	0.5
Revenue	28.3	26.4
Expenses	27.3	26.3
Net Income (Loss) for the year	<b>\$ 1.0</b>	<b>\$ 0.1</b>

## ALBERTA TRANSPORTATION AND UTILITIES

**GENERAL REVENUE FUND**

YEAR ENDED MARCH 31, 1991

**Budget Estimates, Special Warrants, Transfers and Expenditures**

(CLASSIFIED BY CONTROL GROUP)

	Budget Estimates	Prior Year Liability	Special Warrants	Transfers	Total Authorization	Actual Expenditures
Manpower	\$147 215 693		\$ 761 700		\$147 977 393	\$140 517 018
Supplies and Services	463 157 100	(\$4 244 102)	15 284 646		474 197 644	478 549 759
Grants	254 291 878				254 291 878	256 825 630
Fixed Assets	14 259 900		41 000		14 300 900	12 381 356
Other	66 780				66 780	51 526
	\$878 991 351	(\$4 244 102)	\$16 087 346		\$890 834 595	\$888 325 289
Operating	\$195 322 151	(\$1 551 402)	\$ 8 400 000	\$ 236 722	\$202 407 471	\$207 395 121
Capital	683 669 200	(2 692 700)	7 687 346	(236 722)	688 427 124	680 930 168
	\$878 991 351	(\$4 244 102)	\$16 087 346	\$ 0	\$890 834 595	\$888 325 289

**REVENUE**

(CLASSIFIED BY SOURCE)

	1991 (\$'000)	1990 (\$'000)
Payments from the Government of Canada	\$ 3 462	\$ 3 191
Fees, Permits and Licenses	7 167	6 192
Refunds of Expenditure	1 041	6 056
Cost sharing agreements	9 901	7 881
Sales of assets and other revenues	16 014	2 870
<b>Total Revenue</b>	<b>\$ 37 585</b>	<b>\$ 26 190</b>

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