The Village Crier

national accelerator laboratory

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RE-ROUTE BATAVIA ROAD TRAFFIC ON NAL SITE

The permanent rerouting of Batavia Road near its northwestern terminus on the National Accelerator Laboratory site will take place on the weekend of December 12-13, 1970.

Rudy Dorner, NAL Site Manager, said that no vehicular traffic would be able to travel Batavia Road at the cutting point after Sunday, December 13.

Dorner said that a detour will be established; that the detour would be marked and that special guards would be assigned for the first week to assist motorists in locating the new route.

Dorner said that the detour would take traffic east-bound on Wilson Road, beyond the present turn-off point at Batavia Road, to McChesney Road. Then, the new routing will take traffic south on McChesney Road to Batavia Road.

At the end of McChesney Road, the traffic flow will turn southeast on Batavia Road to make connections with the recently-completed Road D to the Main Site or to continue on Batavia Road leading to the NAL Village and to Illinois Route 59.

Dorner pointed out that guard posts still would be manned at major access points to NAL. Access to all of the NAL site will continue to be limited from 8:00 p.m. to 6:00 a.m., he said.

Construction crews have been at work for the last week in improving McChesney Road so that it will be able to handle the increased traffic, Dorner said.

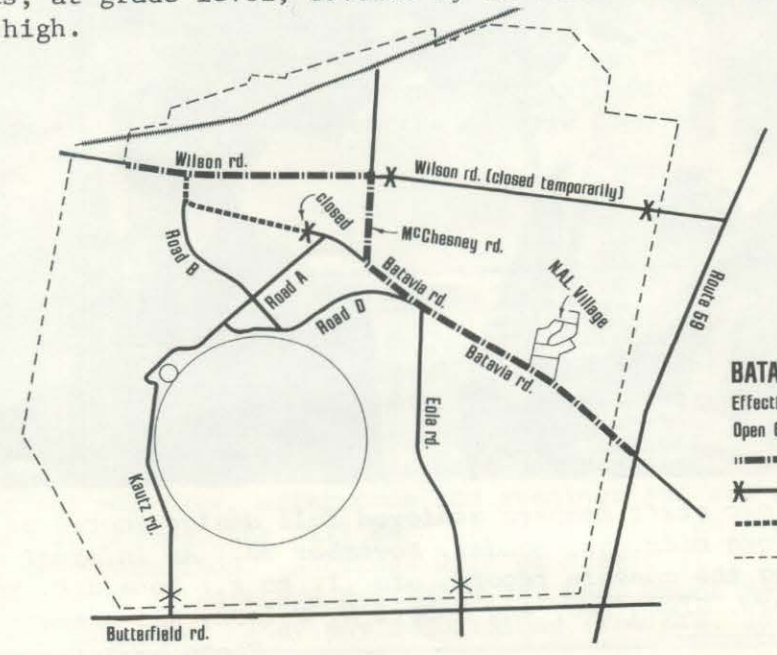
The cutting of Batavia Road is required for work to proceed on schedule on the NAL Meson Laboratory-Phase II in the area on both sides of Batavia Road. E. Parke Rohrer, DUSAF Project Manager, announced last week that notice to proceed on Meson Laboratory-Phase II had been formally issued on December 2. The contract has been awarded to the Miller-Davis Construction Company of Melrose Park, Illinois, for a bid of $1,467,000. The Meson Lab Phase II consists of the construction of a network of interconnected concrete enclosures, at grade level, covered by an earth berm, resulting in a mound approximately 35 feet high.

For NAL,

DUSAF,

Sub-Contractor

Employees



Map by

Geno Loro, DUSAF

NAL LINAC ACHIEVES FULL DESIGN ENERGY OF 200 MeV

On Sunday afternoon, December 1, 1968, ground-breaking ceremonies took place on the NAL site. The ground-breaking was for construction of the Linear Accelerator Enclosure. Glenn Seaborg, Chairman, U.S. Atomic Energy Commission, AEC Commissioner James Ramey and Congressman Melvin Price, of Illinois, were among the participants in the ceremony on that cold, snowy day.

....IN THE CONTROL ROOM: Testing the various elements of Linac's complex control and recording panels are (l. to r.):Physicist Cyril Curtis, Curtis Owen, physicist, and Larry Sobocki, designer, Linac....

While construction crews rushed to complete the first permanent structure at the Main Site, the Linac Section, directed by Donald Young, worked in temporary laboratory buildings in the NAL Village to design and re-design various elements of the linear accelerator. They were among the pioneers, both literally and figuratively, at NAL.

The linac enclosure was completed at the end of December, 1969, and the Linac Section began its move of manpower and equipment to its new and permanent home, well ahead of schedule. On January 15, 1970, the Village Crier reported: "About a year from now, the Linac Section hopes to be celebrating the arrival of a 200 MeV beam from the linear accelerator." The Cockcroft-Walton pre-accelerator, to provide the first stage of proton beam acceleration in the NAL system, had been imported from Switzerland and was tested in early months of this year.

The Linac Section has achieved a series of milestones in recent months:

At 1:50 p.m. on Thursday, July 30, 1970, a proton beam in the Linac was accelerated to 66 Million Electron Volts to achieve the highest energy yet recorded at NAL.

At 6:00 a.m., Friday, October 9, 1970, a proton beam was detected in

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....A HAPPY OCCASION: Linac staff members achieved full design energy of the NAL Linac of 200 MeV just before midnight, Monday, November 30. An informal celebration followed. Here, reviewing the console record, are (l. to r.) Donald E. Young, Linac Section Leader; Ed Hubbard, Glenn Lee, and Robert R. Wilson, NAL Director....

Photo by Anthony Donaldson

NAL LINAC ACHIEVES FULL DESIGN ENERGY OF 200 MeV (Continued from Page 2)

Station A-3 of the Main Accelerator.

A beam had been accelerated previously to 139 MeV in the first six tanks of the Linac on Friday, September 25. This beam was then guided through the Booster and injected into the Main Ring.

The next two months were feverish and productive ones in the Linac Section as physicists, engineers and technicians pressed to achieve the full design energy of the NAL Linac of 200 MeV as soon as possible -- hopefully before Thanksgiving Day, but certainly before Christmas. They worked to assemble the final three tanks into the Linac system. The RF systems were operated at increasingly higher power.

At about midnight, Monday, November 30, the proton beam was accelerated through the Linac's nine cavities for the first time. Shortly after that -- Tuesday morning, December 1 -- the protons were accelerated through the analyzing magnet into the beam dump at 200 MeV and this process was continued for about 15 minutes while both a photographic and a data processing print-out record was made of this historic event.

....ANXIOUS MOMENTS: Protons are being accelerated through Linac's nine cavities for the first time at 200 MeV. Here, at the control console, are (above) Robert Goodwin and Mike Shea.

Robert R. Wilson, NAL's Director, and Edwin Goldwasser, Deputy Director, joined the Linac staff to toast those present with champagne and to celebrate the occasion, which literally took place on the second anniversary of the ground breaking for the Linac enclosure. Among Linac personnel on hand were Leon Beverly, William Carl, Cyril Curtis, Anthony Donaldson, Wayne Ganger, Robert Goodwin, Edward Gray, James Hickey, James Hogan, Raymond Hren, Robert Kocanda, Santo LaMantia, Glenn Lee, Robert Mau, Daniel Matias, Frank Mehring, Curtis Owen, Maxwell Palmer, Reid Rihel, Michael Shea, Donald Tokarz, Gregg Urban, Lester Wahl, James Wendt, Roy Wickenberg, Eugene Woods and Donald Young. Edward Hubbard, Booster, and Harry Howe, Radiation Physics, were also present.

"It was a combination of teamwork and planning that helped us to make this achievement several months before we had planned for it originally," said Don Young. In the months ahead, we will devote much of our time and energy to tuning up the system so that we will be able to transmit more protons with better quality toward the Booster."

Development of the NAL Linac was the result of teamwork, too, with the AGS Conversion Group at the Brookhaven National Laboratory on Long Island in the State of New York. There, the 200 MeV linear accelerator designed by Brookhaven's group reached its full design energy on Wednesday, November 18, at 1:44 a.m., only about 12 days before the NAL accomplishment. So now the world has two 200 MeV proton linear accelerators -- and both of them are in the United States.

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INSURANCE INQUIRIES INVITED

If you have a question about any health insurance claim, Charles Marofske, NAL Personnel Manager, suggests that you bring it to the attention of Mrs. Mildred Meyer, who is conversant with insurance matters. If you wish, or if the claim is complex, Mrs. Meyer will arrange for you to communicate directly with the Claims Department of Connecticut General Insurance Company in Chicago to discuss the disposition of your claims. Mrs. Meyer may be reached at Extension 225.

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MAIN RING'S FINAL PRE-CAST SECTION LOWERED INTO PLACE

On January 2, 1970, DUSAF, the architect-engineer and construction management firm for the National Accelerator Laboratory, awarded a contract to the Corbetta Construction Company of Illinois, which has its headquarters in suburban DesPlaines. The contract was to construct the final five-sixths of the NAL Main Accelerator Enclosure.

NAL's main synchrotron will be housed in this ring-shaped enclosure approximately 20,600 feet in total length. The tunnel, which, incidentally, is located in both DuPage and Kane counties, is four miles in circumference and 1.24 miles in diameter. The "Main Ring," as it is called, will house 774 bending magnets and about 240 focusing magnets.

....*Physicist Ernest Malamud, Main Ring, is pleased as final section is put in place....*

At approximately 4:00 p.m., Monday afternoon, November 30, the final pre-cast concrete section was placed in the Main Accelerator Enclosure. A beer and pizza party with Charles Marofske, NAL Personnel Manager, as maitre'd, followed for Corbetta, DUSAF and NAL staff members. A repeat of the "final closing" was held for the news media at 1:00 p.m. Tuesday, afternoon, December 1.

It took ten minutes to mix the cement used to bind the pre-cast concrete section to the slab. Then the concrete was transported by hoist to workmen waiting in the tunnel area. In another 10 minutes, the effort was completed. Then Robert R. Wilson, NAL's Director, and E. Parke Rohrer, DUSAF Project Manager, scrambled down the muddy excavation to shake hands with cement finishers and laborers who had worked so hard to complete the enclosure several weeks before schedule.

"I was pleased especially by the efficiency and competence of the Corbetta workmen in their performance on the Main Ring Enclosure," said Parke Rohrer. He added that NAL had been fortunate, by and large, to have found a series of experienced professional sub-contractors to work on general construction of the Laboratory. He also thanked Corbetta and other sub-contractors for their cooperation in the NAL and DUSAF equal employment opportunity and affirmative action programs.

Corbetta was given its formal notice to proceed with construction on its $7,300,000 contract nearly 11 months ago. The first one-sixth of the Main Ring Enclosure had been constructed by the Schless-Madden Joint Venture, of Batavia, also hailed by Rohrer for their competence. Hundreds of workmen with varying skills have worked on the accelerator enclosure.

The Main Ring Enclosure consists of 1,790 pre-cast concrete sections. Each section is nine feet high, 10 feet wide, 10 feet long and 10 inches thick. The sections are placed on a poured concrete slab approximately 20 feet below ground. Special vehicles are planned for moving equipment and personnel.

....*Corbetta Construction Co. workmen prepare to spread grout to bind final pre-cast enclosure in NAL's Main Ring....*

In the completed tunnel, accelerator magnets are located close to the outside wall, leaving an 86-inch clear space for vehicles and personnel. Above ground, utilities for the main accelerator will be distributed through 24 service buildings spaced uniformly along the inside perimeter of the ring. Each building will be about 2,000 square feet in area. Most already have been completed. They will contain magnet power supplies, cooling-water pumps, heat exchangers, vacuum-pump power supplies, ventilation equipment and circuitry for control multiplexing and transmission. Six utility buildings will contain additional equipment

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MAIN RING'S FINAL PRE-CAST SECTION LOWERED INTO PLACE (Continued from Page 4)

....An overview of the informal ceremony to observe the closing of the Main Accelerator with pre-cast concrete sections....

....E. Parke Rohrer, DUSAF's project manager, and RRW congratulate Corbetta workmen on completion of their work on four-mile-in-circumference Main Ring Enclosure....

related to the cooling towers to be located nearby. The four-mile enclosure, along with associated service and access buildings, contains some 36,000 cubic yards of concrete. About 2,750 tons of reinforcing steel also were used in the enclosure. Tunnel excavation alone involved transporting about 960,000 cubic yards of earth. Earth shielding is being used to cover the entire enclosure and the entire tunnel will be covered in the next few weeks.

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NAL PROTONS CONTINUE SCHEDULE

The NAL Protons were defeated, 65-34, by the Netzley Imperials in their fourth game of the season in the Naperville YMCA league last week. The Protons will oppose the Richport Realtors in their next game at 7:30 p.m. Thursday, December 10, in the old gymnasium at the Naperville High School. Bobby McNeal, Booster, was the high point man for the Protons, scoring 12 points in the game against the Imperials. Henceforth, all games will start at 7:30 p.m.

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BIKE PICKUP DECEMBER 14

On Monday, December 14, bicycles will be picked up from the offices and laboratories of all NAL sections by the Materials Handling staff for winter storage and renovation. Please have your NAL bikes ready when the storage crew arrives.

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FREE TICKETS TO "CIVILISATION" AVAILABLE

The 137th meeting of the American Association for the Advancement of Science will be held at Chicago's Conrad Hilton and Pick-Congress hotels December 26-31. A tour of NAL is included in the program. In addition, approximately 100 free tickets to a post-Christmas week showing of the 13-part color production titled "Civilisation" by Sir Kenneth Clark, the art historian, have been made available for NAL employees. Showings are scheduled for mornings, afternoons and evenings and are arranged so that, over a three or four-day period, one will be able to view the entire widely-acclaimed British Broadcasting Co. production. Showings will be staged at the International Ballroom, Conrad Hilton. Free tickets are available for NAL, DUSAF and sub-contractor employees, their wives and children. They may be obtained from Mrs. Jodi Eskey, Extension 348.

MARK YOUR CALENDARS

NAL's third annual Christmas Dance will be held at the Villa Olivia Country Club in Elgin on Friday evening, December 18, starting at 7:00 p.m. Tickets are on sale at the NAL cafeteria; they are $6.00 per person and cover dinner, dancing and all drinks.

DUSAF's Christmas celebration will be held at the Brookwood Country Club, Addison, Friday evening, December 18.

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HERE COME THE BRIDES....

Cathy Leonard, Purchasing, became the bride of David Matthews on October 10 at Saint Irene's Church in Warrenville. Mr. and Mrs. Matthews are now residing in Wheaton.

Mary Cloonan, Accounting, and Raymond Puccetti, Argonne, said their vows on November 21 at the United Methodist Church in Geneva. The newlyweds plan to make their home in Geneva.

Sue Anderson, R.F., and Joel Meissick, Main Ring, tied the knot October 31 at the Annunciation Church in North Aurora. The couple returned to NAL after a one month honeymoon. They plan to make their home in North Aurora.

Bill Pear, NAL Construction, and Linda Jones, of Brookfield, were married November 20 in the United Methodist Church, Brookfield. They spent their honeymoon at Lake Geneva, Wisconsin.

Denise Wahlquist, Business Office, became the bride of Mitch Blayney November 21. The couple will reside at Four Lakes.

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IT'S DOUBLES AT THE READS

[redacted] Congratulations!

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DISCOUNT TICKETS AVAILABLE FOR PRO BASKETBALL

The NAL Personnel Office has received coupons which offer discounts of $1.00 on tickets valued at $4.00, $3.00 and $2.00 for the professional basketball game featuring the Chicago Bulls vs. Philadelphia '76ers on Friday evening, February 5, at the Chicago Stadium.

If you wish any of these coupons, please stop by the Personnel Office for a coupon free of charge.

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CLASSIFIED ADS

FOR SALE - Ampex stereo system,reel-to-reel tape recorder (Ampex) 4 track, tuner AM & FM, amplifier, speakers (8" woofer & 3½" tweeter), Garrard turn table module X10. 8 track cartridge player. Value $800. Will sell for $500 or trade in for Altec Lansing speakers. Call 897-3751 from 5:00 to 8:00 p.m.

WANTED - 2 used radios. Call Carl Pallaver, Extension 242.

WANTED - Driver or rider to Palos Park. Call Extension 242, Mike Morgan.

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