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AGO d/a ltr, 29 Apr 1980

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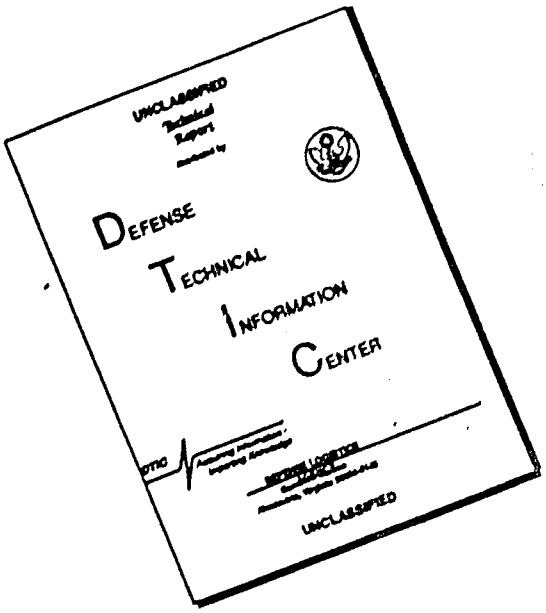

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO
AGAM-P (M) (2 Feb 68) FOR OT RD-674107 6 February 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 864th Engineer Battalion (Const), Period Ending 31 October 1967

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2. Information contained in this report is provided to insure appropriate benefits in the future from Lessons Learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 864TH ENGINEER BATTALION (CONST)
APO 96240

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EGACBC-3 7 November 1967

SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending (31 October 1967)

THRU: Commanding Officer
35th Engineer Group (Construction)
APO 96312

Commanding General
18th Engineer Brigade
APO 96377

Commanding General
US Army Engineer Command Vietnam (PROV)
ATTN: AVCC-P & O
APO 96491

Commanding General
United States Army, Vietnam
ATTN: AVCGH-DH
APO 96307

Commander in Chief
United States Army, Pacific
ATTN: GPOP-OP
APO 96588

TO: Assistant Chief of Staff for Force Development
Department of the Army (ACSFOR DA)
Washington, D. C. 20310

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Section 1, Significant Organization or Unit Activities.

1. The battalion is organized under TOE 5-115E, dated 5 August 1965. Its attached units are the 171st Engineer Detachment (Well Drilling), 40th Engineer Detachment (Well Drilling), Asphalt Platoon of the 102nd Engineer Company (Construction Support), and the 569th Engineer Company (TOPO) (CORPS).

2. During the period covered by this report, several changes in attachments have been made and a number of changes are imminent. On 17 October 1967, the 40th Engineer Detachment (WD) arrived in country and was attached to the battalion. The 171st Engineer Detachment (WD) was relocated from Hon Tre Island to Nha Trang in preparation for movement and reassignment to another

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Engineer Battalion along with the 40th Engineer Detachment (WD). The 588th Engineer Detachment (WD) is with the battalion on TDY awaiting reassignment for attachment. The 610th Engineer Company's (Construction Support) Asphalt Platoon was placed in direct support of the battalion for paving operations in Nha Trang in late September and during October. The Rock Crushing Section of the 610th Engineer Company (CS) was also placed in direct support of the battalion in the latter half of October to operate their 75 TPH crusher on Hon Tre Island. The 569th Engineer Company (TOPO) was attached for administrative control only, since their location is in the proximity of the battalion here in Nha Trang.

3. The period was highlighted by the relocation of the battalion headquarters on 20 August 1967 from Cam Ranh to Nha Trang. This move was accompanied by a significant shift in construction capability to the Nha Trang area. All construction projects in Cam Ranh were essentially completed at the time of the move, so that there was little impact on the overall construction program at Cam Ranh. However, the movement of Company A, the engineer equipment and maintenance company, was deferred because the available facilities for the battalion in Nha Trang were extremely limited. Upon the relocation of Company A, the battalion base of operation in Nha Trang will be fully developed leaving a tailored highway construction task force consisting of Company D augmented with quarry, material hauling, and maintenance elements at Dong Ba Thin to accomplish project work on coastal Highway QL-1. Control will be greatly simplified over that which existed during the major portion of this period.

The project work in the Nha Trang area gathered momentum as a larger portion of the battalion concentrated there. The project work on Hon Tre Island passed through an extremely critical phase. By the end of the period the major phase of this project, the Hon Tre Island road from the LCU Ramp to the operational facilities at the top of a 482 meter elevation, was essentially complete. The cantonment facilities and all associated structures were turned over to the using agency. The water supply system will be operational as soon as the installation of a chlorinator is completed. The power distribution system remains to be completed. The completion of the overall project, which started in mid-1965, will release troops and equipment to other high priority projects in this area.

The project known locally as "Pie Slice", involves the completion of work started by a contractor on a 2500 man cantonment. In this period, the work continued through an extremely important phase in which most facilities reached a BOD status. As the period ended only three major structures have not been fully completed and turned over for the use of the using agency. Major remaining work consists of completion of the interior road system.

Several significant tasks were started and entirely completed in this period. In this group is the project for the asphalt overlay of Duy Tan

Street (Beach Road), the upgrading of Long Van Gate and its connecting road, and the paving of Taxiway 8 on the Air Force Base. Late in the period a requirement developed for the renovation of the First Field Forces of Vietnam Chapel. The battalion responded promptly to this request and as the period came to an end, this project was approximately fifty percent completed.

A major project, completed by the end of August, required the construction of minimal revetment protection for Army Aviation aircraft stationed at the Nha Trang Airfield. By prefabricating the revetments in five unit modules, a high degree of protection was developed in a short period in an efficient construction operation.

On numerous occasions during the period, the battalion was operating three multi-unit crusher plants and two asphalt batch plants in support of assigned projects. Because of this fact and the amount of additional equipment operated over the TOE, maintenance training and maintenance management efforts had to be redoubled. Favorable results in the maintenance standing is being achieved as the deadline rate dropped from the range of 12 and 13 percent at the start of the period to 6.1 percent at the close of the period.

In the area of statistics during this period, the battalion used 64,150 tons of rock, poured 3,925 cubic yards of concrete, constructed 224,280 square feet of standard three and standard four billets, built 125,330 square feet of various other structures, 19,520 square feet of covered storage, 38,550 square yards of stabilized hardstands and hauled 316,100 cubic yards of fill. Specific activities of each of the subordinate units are as follows:

a. Headquarters and Headquarters Company continued to perform its normal support function after it relocated from Cam Ranh to Nha Trang on 20 August. The S-2/S-3 Section was heavily committed to the design and survey of the assigned QL-1 National Highway reconstruction project during this quarter. In addition to the survey requirements on Highway QL-1, there was a heavy requirement for survey work to support construction of hardstands, roads, and buildings in Nha Trang. The soils technicians of this company were fully employed on the same projects. The S-4 Section was required to employ maximum effort to maintain a supply rate adequate to support construction during this quarter. Their mission was especially difficult because of the movement and increased dispersion of the companies in the battalion. Additional handling and coordination were required to get materials and equipment from Cam Ranh Bay to Nha Trang. It became necessary to designate an officer to serve as a full time supply coordinator stationed near the depot during this quarter. The Communications Section has operated two control stations, one in Cam Ranh Bay, and the other in Nha Trang. The distance involved, and non-availability of authorized modern communications equipment made this a difficult mission to accomplish. As the period ended, the first sets of the newly authorized radios were being received.

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b. Company A was heavily involved in the operation of three quarries during this quarter. With the completion of Phase II of QL-1, the need for the quarry in Ba Ngoi initially lessened. Earlier plans called for development of a new quarry at Suoi Vinh to support Highway QL-1 construction as it proceeded north. In late August after two weeks of exploratory drilling and clearing, it became clear that the required crushed rock could be supplied with less effort at an earlier date by expanding the quarry at Ba Ngoi. For this reason plans to develop a quarry at the Suoi Vinh site were abandoned. By the latter half of October, the expanded quarry production rates at Ba Ngoi were proving the wisdom of this decision. During the first two months of this quarter, rock production at the Ba Ngoi Quarry dropped from an average last quarter of 600 cubic yards per day to 300 cubic yards per day. This reduction during August and September resulted from the requirement to increase emphasis on the quarry operation at Hon Tre Island. The rock production at the Hon Tre Quarry remained about as last quarter: 200 cubic yards per day through the 75 TPH plant. In the later days of operation of this plant, however, daily rates of 1,000 cubic yards were being achieved.

When the battalion moved to Nha Trang, the requirement to operate a third multiple-unit crushing plant was assigned to Company A as the 200 TPH unit at Nha Trang was put into operation. The battalion was now employing 10 crusher units, i.e., primaries, intermediates, and secondaries, on a daily basis. Since the 200 TPH unit at Nha Trang was formerly operated by the RMK contractor, we were able to augment our personnel with a small number of Vietnamese employees.

Asphalt operations continued at a medium to heavy pace as during the last quarter in Cam Ranh. The repairs to the plant in Cam Ranh in the early part of this period began to pay off in increased operational reliability. As a result more paving was done from the 864th Engineer Battalion plant than from the RMK contractor operated plant in Cam Ranh. Paving projects supported by this plant and paving team during this period included portions of Phase III of Highway QL-1, support of the 87th Engineer Battalion on several major roads and hardstand projects in Cam Ranh, and a civic action project in Ba Ngoi.

In addition to the asphalt paving operations at Cam Ranh, Company A activated the 100 TPH plant in Nha Trang formerly operated by the RMK contractor. This project began in mid-September and was completed by the end of that month. The plant was operated in support of paving projects of B Company. The paving consisted of selected Nha Trang city streets and an airfield parking apron for the Air Force.

The nature of projects on which the battalion was employed placed a heavy burden on the organizational maintenance forces during this period. Increased emphasis was placed on maintenance performance and the average deadline rate had been reduced to an average sustained level of 6.5 percent.

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c. Company B, relocated to Nha Trang on 29 July 1967. Its major project after that move was the completion of a 2500 man cantonment and headquarters complex nicknamed Project Pie Slice. This project had been initiated by contract construction and turned over to this battalion for completion. It has been an interesting and challenging project because of the technical construction recuired. This project features hot and cold potable water systems, and a water-borne sewage system. Six large prefabricated structures, and 60,000 square yards of roads and operational hardstands are other highlights of the project. This company has hauled and placed 60,000 cubic yards of fill for a large list of projects in the Nha Trang area. A new road around Hawk Hill was required to alleviate public relations problems in a small Vietnamese village at the base of the hill. This road was a significant undertaking but was completed in two weeks. A communications center building was started this quarter, and is another project requiring higher qualified technical skills than is normally found in troop construction. This building, when completed, will be air conditioned, have an acoustical ceiling, insulated walls, and a tile floor. Added to its vertical and horizontal construction work load, this company was assigned the operational control of the plants supporting assigned paving and construction projects. This operational control arrangement was utilized because of the numerous conflicting project support requirements which must be coordinated on an hourly basis.

d. The scope of operations for Company C changed drastically during this period as the movement of the major portion of the battalion to Nha Trang resulted in the redistribution of many of its project responsibilities. It permitted the company to focus its attention on the completion of its major projects on Hon Tre Island and continuation of construction operations in the Camp McDermott 7,000 man cantonment project. At the end of the period the Hon Tre Island work was nearing completion. Delays were caused by a series of crusher breakdowns, but by the end of October only a few hundred yards of rock were needed. Two QL-1 highway bridge operational support projects were completed during this period. One involved redecking an existing bridge and the other involved removing a Class 60 bridge used as a bypass during construction of a permanent bridge at the same location.

e. On 12 August 1967, Company D, the first engineer unit to arrive at Cam Ranh in June 1965 moved its base camp from South Beach, Cam Ranh, to the Dong Ba Thin Army Compound, 3.8 miles north of the intersection of Highway QL-1 and My Ca Road. At this same time the earthmoving platoon of D Company was again reunited with the remainder of the company as it relocated from a temporary base camp in a ROK Army Compound approximately 5 miles north of Ba Ngoi. The earthmoving platoon had been operating from that location since 6 June 1967, during construction on Phase II of Highway QL-1. This series of moves reflected the direction of future operations as the highway project proceeded northward.

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In moving to Dong Ba Thin, D Company initially occupied a vacant cantonment started by the 14th Engineer Battalion (Combat), 35th Engineer Group, at Dong Ba Thin. This cantonment had been designated to house an Aviation unit and Company D was scheduled to utilize this site until November 1967. The early arrival of the Aviation unit required an earlier relocation of Company D. Work is reaching completion on a new base camp in Dong Ba Thin which will house the force of approximately 250 men assigned and attached to this company. This new area is scheduled for occupancy by the 572nd Engineer Light Equipment Company, eventually, after Company D is scheduled to relocate north again about April or May of 1968 as the road construction continues northward.

Projects worked on by this unit during this reporting period include the construction of Highway QL-1, Phase III, from Dong Ba Thin to Suoi Vinh, five miles in lenth. To date a total of 12,425 cubic yards of 2 inch minus rock and 64,916 cubic yards of fill materials have been placed on the road. Eight-tenths of a mile of road at the "STRATCOM" Receiver Site has also been completed. This road connects the site with Highway QL-1 in the vicinity of My Ca Road. By the middle of October, work was finished on a 200 TPH rock crusher headwall and site facility at the Ba Ngoi Quarry. Road maintenance responsibilities along QL-1 from Ba Ngoi north to Dien Khanh, which included pot-hole repair, the raising of road shoulders, and the improvement of existing drainage were also assigned.

f. The Asphalt Platoon of the 102nd Engineer Company (CS), attached to the battalion continues to operate the asphalt plant in the Cam Ranh area. During the period they have paved 11 kilometers of road to MACV Standard, 9 kilometers of all weather roads, and produced 2,580 tons of asphalt.

g. The 171st Engineer Detachment (WD), still attached to Company C, completed their well drilling operations on Hon Tre Island after reaching a 204' depth. This, along with Well #1, drilled by the 171st, and Well #3, presently being dug by an Air Force contractor, should be sufficient to supply potable water for the cantonment area on Hon Tre.

h. The 40th Engineer Detachment (WD) arrived in country on 17 October 1967 without their major mission equipment and was attached to the battalion. This unit is scheduled to accompany the 171st Engineer Detachment to Ban Me Thout in the very near future.

i. The 569th Engineer Company (TOPO) (CORPS) was attached to the battalion on 1 September 1967 for administrative control only.

4. The battalion had scheduled training for 13 half-days during the period. Mandatory subjects are presented on Sunday mornings and in the evenings. Some classes were cancelled during the period, since the battalion often worked on Sunday mornings on a seven-day a week schedule. Normal command inspections were also [illegible] on Sunday mornings in preparation for the upcoming Annual General Inspection in December 1967.

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Section 2, Part I, Observations (Lessons Learned).

a. Administration

Personnel

ITEM: Shortage of personnel with specialized skills.

DISCUSSION: Many projects now in the construction program of this battalion require wiring and plumbing of a highly sophisticated nature. Although the TOE provides personnel in these skills, the level of proficiency of both electricians and plumbers now available is very low. Primarily the personnel in the slots are being trained as work progresses rather than arriving school trained. As a result, the electrical and plumbing work on a project normally cannot keep pace with the vertical construction.

OBSERVATION: It is essential that more skilled personnel of this type be assigned to construction platoons so that a balanced structural team can keep pace with the vertical effort.

b. Equipment

Maintenance

ITEM: Maintenance of excess equipment.

DISCUSSION: To accomplish its missions the 864th Engineer Battalion maintains about 148 pieces of construction equipment in excess of its standard TOE authorization. The battalion received only the equipment and in most cases only a limited number of operators, and no additional mechanics.

OBSERVATION: This situation put an excessive work load on the assigned maintenance personnel and has had an adverse impact on our maintenance standards. Because of this situation it has been necessary to redouble emphasis and attention to maintenance management. Because of the lack of personnel, the time allowed for maintenance has had to be extended and operator maintenance has been strongly enforced. As reported earlier, the deadline rate has been reduced to fifty percent of its level at the start of this period. The participation of all commanders and NCO's in this effort is considered to be absolutely mandatory.

ITEM: Arc welding support for crusher operations.

DISCUSSION: To attain the maximum number of hours in which rock processing equipment is kept operational, welding must be continually available for metal repairs and for build-up of hard surfacing on jaws and rollers. Sharing of welding sets with other construction activities was not found to work well. The crusher plant support equipment such as dozers, trucks and shovels, etc.,

also require daily welding attention on surfaces that are in frequent contact with the blast rock. The single arc welder authorized Company A of the Construction Battalion is not sufficient to keep up with the welding requirements for the vehicles and the dispersed crushing equipment.

OBSERVATION: All rock crusher sets should have an arc welding set readily available.

Transporting Concrete

ITEM: Concrete transit-mix truck.

DISCUSSION: When a unit construction program requires the placing of concrete at a high rate, it is obvious that that unit has outgrown the production capability of the 16S mixer. This battalion has met this requirement by borrowing transit-mix trucks and working from our central batch plant. Transit-mix trucks work well to increase the ability to place concrete rapidly.

OBSERVATION: Concrete placement work can be expedited by use of transit-mix trucks. Based on time experiences in charging the trucks and travel between the batch plant and work site, it has been found that the use of two trucks provides the ideal arrangement.

Compaction Equipment

+ ITEM: Gasoline driven tampers.

DISCUSSION: Gasoline driven tampers were used extensively in backfilling around culverts. These tampers were loaned to the unit by the Air Force.

OBSERVATION: The gasoline driven hand tampers are superior to the pneumatic hand tamper presently issued. It has the advantage of being a self-contained unit.

Computers

+ ITEM: Computers.

DISCUSSION: The artillery has computers for fire direction and survey which reduce computation for field surveys, meterological data, etc., to a matter of seconds. If a construction battalion had a type of computer with a flex writer and fast read-in tapes for the handling of design and calculation work, more efficient and rapid engineering service could be provided.

OBSERVATION: For engineer computations at the battalion level, consideration should be given to improving the equipment to assist in reducing the numerous man hours expended computing survey notes, performing highway and bridge design, and the compilation of data on many reports.

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Dozers

ITEM: Modification of ripper teeth.

DISCUSSION: In ripping the existing road bed or a pre-French penetration macadam pavement on Highway QL-1, penetration to the required depth could not be obtained. The ripper would ride up out of the material. A special cutting edge was fabricated and welded to the bottom and the slope of the ripper shoe.

OBSERVATION: The modified ripper tooth allowed a faster, better job as well as extended the life of the shoe.

c. Construction Operations

Fill Materials for Stabilization

ITEM: The use of sand as fill material in road construction.

DISCUSSION: During this reporting period extensive use of sand was made for filling and stabilizing. Many areas were encountered where saturated clay veins created difficult foundation problems. These areas were excavated and back-filled with well graded sand. Sand was also used as a blanket in highway embankments to cut off capillary action.

OBSERVATION: Excellent results were obtained in the stabilization of low bearing materials through the use of sand.

Vertical Design

ITEM: Design of projects with materials not normally found in supply channels.

DISCUSSION: A project was assigned for the construction of a communications center. The project design specified materials not available in supply channels such as coke or activated charcoal to be used for encasing the grounding system for the building equipment. The charcoal was available on the open market but there was no means for making such a purchase, although of nominal cost. In this case the inability to make a fifteen dollar purchase was threatening to delay progress on an urgently needed facility. It may be noted with some humor that the operations officer donated personal funds to solve the problem in this case.

OBSERVATION: Either design with materials available, or authorize local purchase funds be made available. This project was again able to proceed at a rapid pace when the non-standard material was purchased and the grounding system was completed.

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Highway Design

ITEM: Effects of ground water on highway embankment construction and improper pavement thickness due to traffic loads and densities.

DISCUSSION: Portions of Highway QL-1 completed in April and May 1967 have failed. These failures of the base were caused by inadequate design. Corps of Engineers manuals for highway design recommend that the subgrade be raised 4 to 6 feet above water tables or the environmental tidal basin water level. Seeyle's design manual recommends a minimum of 5 feet. These dimensions reduce the threat of moisture penetrating by capillary action through the subgrade, subbase and into the base course. High water marks during heavy rains must also be observed and taken into consideration. This factor was not adequately provided for in earlier construction where failures have occured. Design charts being utilized in the current design directive to determine pavement thicknesses are drawn for a CBR of 80, based on a minimum requirement for base course. Soaked CBR tests on the base course material being used have revealed a CBR of 65. By adjusting the minimum CBR line on the chart, a greater pavement thickness will be required and higher CBR's must be attained in the zone immediately under the base course.

The current thickness of asphaltic concrete specified is not sufficient to sustain the actual traffic density which travels Highway QL-1. Presently a study is being conducted to sustain the opinion that the traffic density does exceed 250 vehicle having a weight over 6,000 lbs per day, per lane. A three quarter ton truck is in this category. Seeyle's design manual recommends a thickness of four (4) inches for the finished wearing surface if the traffic density exceeds this figure. The LOC directive only specifies 2" rural and 3" urban.

OBSERVATION: To build a highway sufficient to withstand the seasonal ground water action and heavy duty traffic and leave behind a completed military construction project requiring only minor maintenance attention, the grade levels are being raised, base and subsequent courses are being redesigned, and a request has been submitted to increase the asphalt thickness. All of these features are supported by standard engineering references and constitute good engineering practice. The higher embankments will require slightly more right-of-way than that which is presently specified by design directive. The alternative would be the anticipation of a continued high rate of failures in rebuilt roads.

d. Logistics

Transportation

ITEM: Transportation of materials.

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DISCUSSION: This unit is now separated farther from its supply source than had been its earlier operating experiences. All construction material must be transported long distances. Since the "goose neck" on a 25 ton trailer accounts for a great portion of the trailer length, much of the bea area of the trailer is lost for cargo hauling.

OBSERVATION: If four stake and platform trailers were provided for the battalion and utilized for hauling, the amount of time spent hauling construction materials would diminish by at least one-third. Also a roll-on, roll-off system on material movement could be put into operation.

Section 2, Part II, Recommendations.

There are no additional recommendations to those contained in the observations in Part I.

LAURENCE L. HEIDERL
LTC, CE
Commanding

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EGA-CO (7 November 1967) 1st Ind
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending (31 October 1967)

DA, HEADQUARTERS, 35TH ENGINEER GROUP (CONST), APO 96312, 23 November 1967

TO: Commanding General, 18th Engineer Brigade, APO 96377

1. I have reviewed the Operational Report - Lessons Learned submitted by the 864th Engineer Battalion and consider it an accurate account of unit activities and accomplishments.

2. I concur with the observations and recommendations of the battalion commander with the following additional comments:

a. Section 2, Part I b, Transit Mix Trucks:

This headquarters has noted the need throughout the 35th Engineer Group for this item of equipment. The large concrete floors of aircraft hangars and other concrete pads, which are being sited at ever increasing distances from centrally located batch plants, require a transit mix truck for the placement of quality concrete.

b. Section 2, Part I c, Highway Design:

(1) A highway elevation of four to six feet above the water table is deemed appropriate only in those low coastal regions which are susceptible to seasonal floods or which have unstable subgrade conditions such as paddy areas.

(2) The performance of CBR tests on base course material is not a recommended practice due to the large aggregate particle size encountered. The CBR of base course material is assigned based on the type of material and the method of placement. During construction, the quality, compaction requirements and gradation of the base material must be strictly followed in order to insure that the assigned value is actually obtained. Therefore, I do not concur in the lowering of the design CBR of the base course from the assigned value of 80.

(3) The request for an increase in thickness of the asphaltic surface of QL-1 is pending receipt of the traffic density survey being conducted by the 864th Engineer Battalion.

JOHN A. HUGHES
COL, CE
Commanding

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AVBC-C (7 Nov 67) 2nd Ind CPT Storat/dlr/DBT-163 16.
SUBJECT: Operational Report - Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending (31 October 1967)

Headquarters, 18th Engineer Brigade, APO 96377 28 NOV 1967

TO: Commanding General, U.S. Army Engineer Command, Vietnam (Prov), ATTN: AVCC-P&O, APO 96375

1. This headquarters has reviewed the report submitted by the 864th Engineer Battalion (Const), as indorsed, and considers it an accurate description of the unit's activities and accomplishments during the reporting period ending 31 October 1967.

2. Concur with the observations and recommendations of the Battalion Commander, as modified by Group Commander's Indorsement with the following comments added:

Reference Section 2, Part I, para c - Fill Materials for Stabilization. Well graded sands and gravelly sands with little or no fines provide a good to excellent foundation when not subjected to frost action. These type sands have excellent drainage characteristics and a California Bearing Ratio (CBR) which varies from 20 - 60 for compacted and soaked specimens. Sand does not cut off capillary action when used as a surface blanket in highway embankments since sand is affected by the capillary phenomenon. Well graded sand should be compacted at optimum moisture content to maximum density to avoid temporary loss of supporting capacity of loose submerged sand resulting from a sudden strong shock (liquefaction phenomenon).

HAROLD J. ST CLAIR
Colonel, CE
Deputy Commander

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AVCC-P&O (7 Nov 67) 3rd Ind
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65) for Quarterly Period Ending 31 October 1967

HEADQUARTERS, UNITED STATES ARMY ENGINEER COMMAND
VIETNAM (PROV), APO 96491 8 DEC 1967

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DH, APO 96375

The subject report, submitted by the 864th Engineer Battalion (Const), has been reviewed by this headquarters and is considered adequate.

Reference Section 2, Part I, page 8, item concerning computers. The installation of a computer at battalion level would not fully utilize its capability in addition to requiring maintenance specialists and air conditioned facilities.

FOR THE COMMANDER:

PAUL A. LOOP
Colonel, CE
Chief of Staff

Cys Furn:
CG, 18th Engr Bde
CO, 35th Engr Gp
CO, 864th Engr Bn

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AVHGC-DST (7 Nov 67) 4th Ind
SUBJECT: Operational Report-Lessons Learned (RCS CSFOR-65), for Quarterly Period Ending (31 October 1967)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96375 27 DEC 1967

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT, APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 October 1967 from Headquarters, 864th Engineer Battalion (Construction) (CW4A) as indorsed.

2. Pertinent comments follow:

a. Reference item concerning shortage of personnel with specialized skills, page 7. This problem is a continuing one within units required to perform more sophisticated missions than were planned for in their TOE. Construction engineer MOS for Carpenter, Mason and Plumber are in the 51 series, electricians are in the 52 series. Both have a skill level of 2 which is comparable to an apprentice/journeyman level. The trainee may have been trained as either a carpenter or a construction and utility worker and advanced by OJT to his present MOS. There are no advanced service school courses in these trades. As a result, skill is dependent upon unit training and on-the-job proficiency. With the increasing complexity of base camp development, consideration should be given by DA to reappraising the skill level required, and the training to be provided within this MOS group.

b. Reference item concerning ARC welding support for crusher operations, page 7. Both Headquarters, 864th Engineer Battalion and Headquarters, Engineer Command are aware of procedures to obtain additional equipment by means of an emergency request and by normal MTOE action.

c. Reference item concerning design of projects with materials not normally found in supply channels, page 9. Concur. However, the required items could have been purchased through an Imprest Fund (USARV Regulation 37-6, 29 April 1967) or through procurement procedures designed for local purchase under the provisions of USARV Regulation 715-1, 11 February 1967.

3. A copy of this indorsement will be furnished to the reporting unit through channels.

FOR THE COMMANDER:

for JOHN V. GETCHELL
Captain, AGC
Assistant Adjutant General

cc: HQ, 864th Engr Bn
HQ, US Army Engr Comd

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SUBJECT: Operational Report for the Quarterly Period Ending 31 October 1967 from HQ, 864th Engr Bn (Const) (UIC: WCW4AA) (RCS CSFOR-65)

HQ, US ARMY, PACIFIC, APO San Francisco 96558 12 JAN 1968

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

HEAVRIN SNYDER
CPT, AGC
Asst AG