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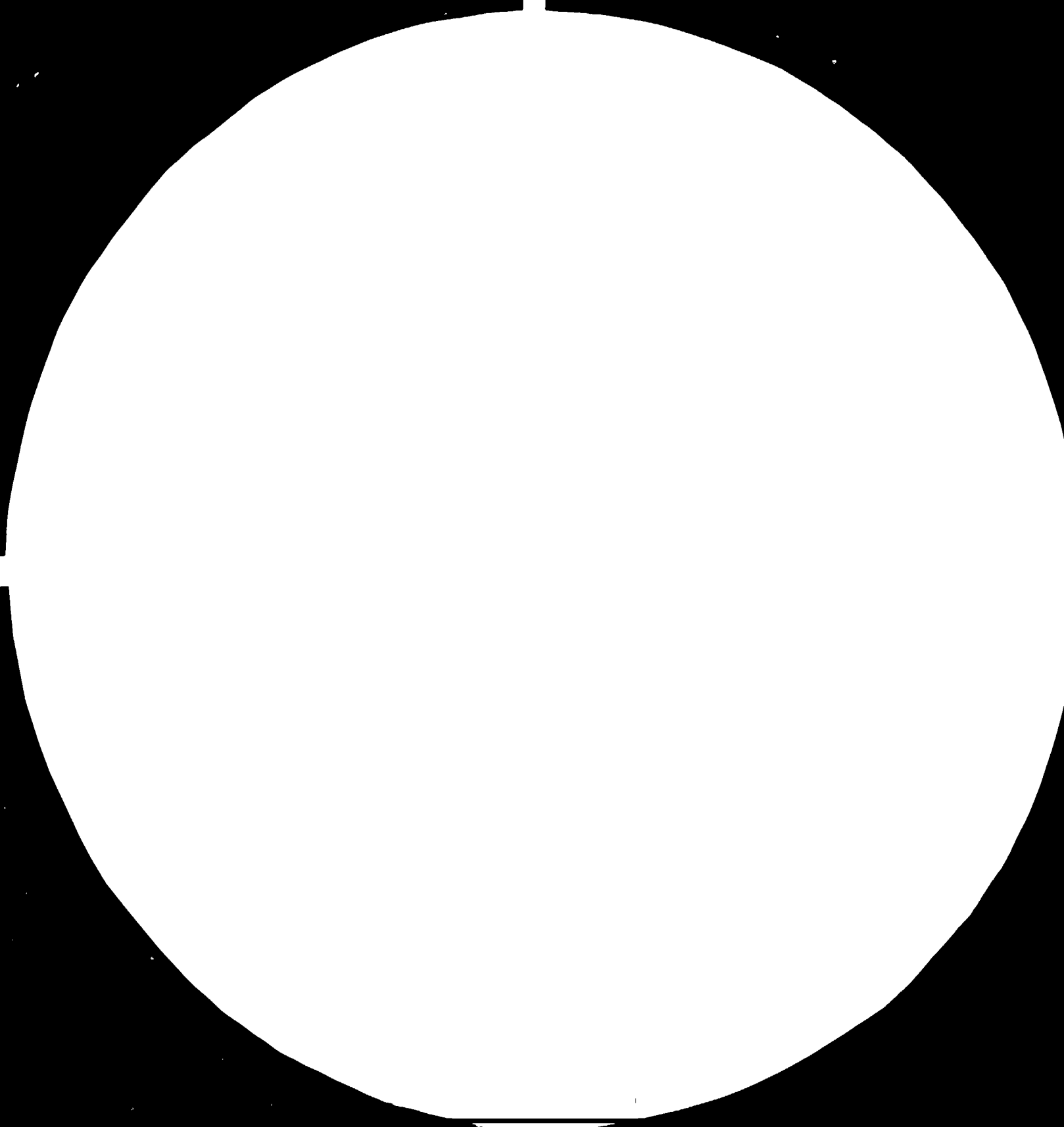
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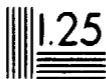
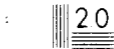
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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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DEVELOPMENT PROJECT SRL/81/007/11-02/31.7.0

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## Technical Report

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*Sri Lanka.*

FOOTWEAR DESIGN AND PATTERN CUTTING TRAINING  
LINKED WITH IMPROVEMENTS IN PRODUCT DEVELOPMENT  
FOR THE

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**Ceylon Leather Products  
Corporation. (CLPC)**

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PREPARED FOR THE GOVERNMENT OF SRI LANKA BY THE  
UNITED NATIONS DEVELOPMENT ORGANISATION ACTING AS  
EXECUTING AGENCY FOR THE UNITED NATIONS DEVELOPMENT  
PROGRAMME.

BASED ON THE MISSION OF

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**DON RUSSELL**, FRSA, ACPI, NDD

INTERNATIONAL CONSULTANT TO THE  
FOOTWEAR & LEATHER INDUSTRIES

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**March 1983**

The views expressed in this paper are those of the author and  
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This document has been prepared without formal editing.

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imply the endorsement of the UNITED NATIONS DEVELOPMENT  
ORGANISATION.

I. ACKNOWLEDGEMENTS.

The expert wishes to thank all those persons who willingly and generously assisted him in making the assignment a success, in particular the following :-

Ceylon Leather Products Corporation. (CLPC).

Chairman & Managing Director.

Mr. LAKSHAN R. WATAMALA,  
ACA., FCKA., MBEM., MIEM.

General Manager.

Mr. C. BATAWANGALA.

Factory Manager.

Mr. M. E. M. Piyasena.

Asst. Gen Man.

Mr. M. D. Sirimanne.

Chief Accountant.

Mr. V. Wijeyaratne.

Personnel Manager.

Mr. J.A.A.S. Ranasinghe.

Sales Manager.

Mr. A.J.P. Tisseverasinghe.

Maintenance Manager.

Mr. D.L.E. Dayananda.

U.N.D.P.

All members of the U.N.D.P. headquarters in Colombo.

U.N.I.D.O. Project Experts.

All members of the U.N.D.P. Team under the leadership of Mr. M. Bashir.

Project Counterpart

Mrs. Denise Savithri Mullegama Herath.

Trainees.

It should be recorded that the enthusiasm and dedication of the student group was very noticeable throughout the training, especially in overcoming the various difficulties of acquiring new skills with new equipment.

## II. SUMMARY.

1. This course of instruction and assistance to the D & D (Design & Development Dept.) of CLPC followed upon a Pattern Cutting and Grading Course given by the Chief Technical Officer during 1981. One of the students from this course had already been selected for a three month fellowship in Europe due to begin in April 1983 at the close of the current instructional period. The main objectives of the training schedule together with its contribution to the overall programme are set out in detail in the Work Programme and the Job Description (see Appendix 1.)
2. Equipment for the course which was being supplied by UNIDO was delayed in arriving in Colombo and the mission had to be postponed from mid 1982 until the present time.
3. The management of CLPC is open to consider all practical considerations and recommendations regarding possible improvements.
4. The materials supply situation within Sri Lanka is in a developing state and appears to provide components which are acceptable to the local market. There are quite a number of areas of potential sales which CLPC are not able to penetrate due to lack of equipment, materials or expertise. The Corporation uses mainly leather for both uppers and to a lesser extent for soles produced by its own tannery. Rubber is used for a large proportion of the soles often in the form of microcellular sheeting made from locally produced raw material. Supplies of high grade leathers are restricted and therefore limits the quality of the eventual footwear. Although crepe rubber soling is available in quantity it is not a practical material for local wear due to the high temperatures where softening in storage and wear reduces its lifespan.
5. Following the introduction in 1982 of Direct Moulded Rubber soles (DMS) (applicable to heavy duty work shoes and boots), the general line of development for soles is in the direction of improved bark tanned leather for the better grades and the advent later in 1983 of rubber moulded units for the more popular ranges.
6. The export potential of the footwear factory is limited at the present time but all new developments should be considered with this future possibility in mind.

### III . INTRODUCTION.

The Project comes under the general headings of ;

- a. Direct Support Projects
- b. Direct Training Projects

The priorities are set out in Appendix I B.

Operational Duration. Following briefing of the expert at UNIDO, Vienna in Dec. 1982 (at the termination of his previous project) he arrived in duty station on the morning of 18th Jan. 1983 and departure from duty was timed for 15th March '83.

#### Accomplishment of Objectives.

Training. The stated objectives of the project were accomplished as far as possible consistent with the fact that most situations are of an ongoing nature. The training of Designer/Pattern Cutters in developed countries on college or polytechnic courses usually takes a minimum of two years. This training is often supplemented by incompany courses during vacation time so it is necessary to make assessments of comparative advancement with this type of criteria in mind. It should also be pointed out that all the participants were taught new activities as well as being improved in their own specialisation, and these they were able to demonstrate at the close of the course.

Design Development Participation. A good deal of time was devoted to promoting efforts to accomplish various targets set by the expert, these being outlined and qualified under Activities. The new styles introduced during the period were appreciated by the Sales Organisation of CLPC and substantial sales are envisaged.

Export Development Assistance. The Digest set out in Appendix 5 was prepared for discussion with the new appointee Marketing Expert but he did not join the project during the period of this mission.

Improvements in Liason. The expert found a great deal of co-operation in his contact with all senior departmental heads of the Footwear Factory, Tannery and Leather Goods Factory. There had been some difficulties in this area but it is now hoped that steps have been taken to overcome these. Liason with outside suppliers etc. was relatively limited, in particular related to the tooling up of moulds and last making. There appeared no abnormal problems at the end of the mission.



#### IV. ASSESSIBLE

Following formal introduction to the Chairman and senior executives of the Corporation, a tour was made of the footwear factory and the tannery complex. It was generally agreed that after a preliminary survey and explanation of the current situation particularly relating to Design & Development (D & D), a Work Programme should be prepared by the expert covering the whole period of the mission. (See App. 1)

#### TRAINING

Personnel Selection. A counterpart had already been selected for this particular section of the project, Mrs. Denise Savithri Mallegama Herath, who has worked in the Design Office at CLFC for 2 years and had a reasonable working knowledge of the department. An assessment of her capabilities showed that her training within the footwear industry had not been formally organised to date, and that her general education was very suitable for the chosen career. (There are as yet no technically related courses in Sri Lanka in the further education programme). Her knowledge was based upon the day to day experience of incompany activities, is not in any great depth, and only small involvement in the decision making processes (this responsibility being vested in the Chief Designer who unfortunately had been absent from work a considerable time during the preceding few weeks.)

The volume of work within the D & D did not appear to be very great, so it was assumed that the various employees of the department should be reasonably available for training. Arrangements had already been initiated for some external applicants to attend the course. So final interviews were arranged and carried out in the presence of the expert. One MA Arts graduate was selected and he joined the design training for a probationary period of one week. Another similar candidate was later selected from the short list to commence as soon as available. A further candidate had been nominated from the Leather Goods Factory Design Office and subsequently another similar person attended from the same source. The existing Grading Machine Operator was later nominated to attend instruction.

A series of suggestions were made by the expert to make certain experimental changes of duties of D & D personnel, to improve their capabilities and widen their experience, also a new appointment at junior level to cope with the promotions throughout the structure. The staff were generally informed of these improvements and it was emphasised that they would be partly responsible for the training of their counterpart successor. This procedure produced a general feeling of revitalisation and was good experience in training more junior employees.

TRAINING - Location and Equipment.

When the expert arrived at duty station the D & D Office was in process of being transferred from the major factory building to a new area within the administrative block. This new location was found more suitable as it was very light and airy with good outlook from the second floor. Several days were employed in the siting of the furnishings, benches and machines together with the disposal of a great deal of old records and obsolete development material. Arrangements were made for some extra benches to carry the additional new machines being provided by UNIDO.

These machines comprised the following :-

- 1 Pattern Binding Machine
- 1 Pattern Binding Forming Machine
- 1 Pattern Shears (Bench mounted)
- 1 Pattern Vice " "
- 1 Vacuum Forming Machine
- 1 Eyelet Hole Punching Machine
- 1 Pattern Scouring & Finishing Machine
- 1 Flat Bed Sewing Machine (Single Needle)
- 1 Post Bed " " " "
- 1 " " " " " " with Trimmer)
- 1 " " " " " " Heavy Duty)

The Power Pattern Grading Machine was already relocated in the new site so it was mainly a question of testing, connecting electricity and applying noise and vibration insulation. Certain storage facilities and display cabinets were installed in suitable positions and the whole area gradually assumed an air of professional organization equal to many departments in advanced countries.

Instructional Activities. Upper Sewing Machine Training for  
Prototypes and Samples.

The instructional work on the new complement of sewing machines was partly carried out during the UNDP Upper Stitching Course (Feb. - April '83) running concurrently with the Design Course. Additional information and procedures relating particularly to D & D were explained and practised, one of the most important aspects being early warning about ill fitting patterns or stitching practicalities where early diagnosis can save much development time.

Direct Assistance Activities related to the Expansion and  
Modernisation Programme of the CLPC Shoe Factory. (See Appendix 4)

This programme is set out in detail in other project documents, suffice it to say that the implementation will have much effect upon the workload of the D & D Dept. With the introduction of a full complement of rubber sole moulding equipment, whole new ranges of men's, women's and children's shoe and sandal components are contemplated during 1983. All these components require preliminary design work preparing prototype working drawings for mould making, new upper patterns and general specifications for accurate fit. This was accomplished after extensive research had been carried out to select the most suitable lasts for each type together with the choice of appropriate sole units. The subsequent follow up into production moulds was accomplished through discussions with two representatives of international mould and last makers, these briefings being carried out by a committee of senior executives of CLPC and the expert. Discussions covered matters related to an acceptable mode of accomplishing high grade products within a reasonable time schedule and according to financial budget.

Progress was made within D & D in close co-operation with the Shoe Factory Manager who had been designated by CLPC to act as official liason person with the outside contractors. Special patterns and specifications were prepared over a period of some three weeks, model sizes, graded size patterns, lasted uppers and prototype model soles were completed. Most of this work was a new experience for members of the D & D but it did utilise quite a number of existing skills. The procedures to be adopted, together with high standards of accuracy, were the main points whilst the need to complete the work within strict time limits was kept constantly in the minds of all concerned.

Instructional Activities. Design Training.

As soon as the D & D Department became reasonably orderly following the move to new premises, some design training was commenced. Each participant was at a different stage of experience, so varied exercises were set at appropriate levels of difficulty to test expertise and proficiency. Emphasis was placed upon accuracy and discipline of work, the students worked diligently at their own pace, making steady progress.

Several methods of Form Cutting were demonstrated and practised, this work being carried out on various types of last and heel height. Slotted paper method, Scotch tape method, Canvas method and Vacuum method were all dealt with. Bottom patterns were described in their basic forms and these were created for the specific footwear being dealt with at various times.

The CLPC has only a limited variety of modern lasts shapes, but these were augmented by some additional models brought from Europe by the Expert. Some footwear styles currently available in Europe were also brought as examples of designs, materials, components, heel shapes, etc.

A further limitation is also exercised upon the shoe factory, as all its leather supplies emanate from the CLPC Tannery. No synthetic upper materials are utilised and most insoles are from indigenous leather. The last and material situation therefore constricted the instruction to those items currently available. Some new developments were discussed with the Tannery and some results were forthcoming. Some additional explanations were made regarding the new expansion programme, but very little practical work could be carried out with the students because the work was either too complicated or carried out in a very limited time. Most of the lasts required for this Project will not become available until late March '83 at the earliest. The one exception is the 7177 last now used in current production which is to have a new rubber unit for mens and boys ranges. Some new styles were produced by the students for this range and submitted to the Sales Manager for consideration in the coming months. These styles were well accepted.

A further practical aspect of the training covered the preparation of lasted uppers, suitably accurate, for submission to the overseas Mould Makers.

Instructional Activity. Design Presentation.

The expert gave some instruction in the various methods of presenting design work but due to the shortness of the course, the amount of time available for the students to practice was limited. A further factor which influenced the decision to curtail this aspect of the programme was that the policy of the Corporation seemed to require made up prototypes rather than the submission of sketches and drawings.

Instructional Activity. Pattern Making Machinery Training.

The employees engaged in the pattern making processes as well as the design trainees received demonstrations and supervised practice on all the new equipment. Stress was placed upon accuracy whilst cutting the pattern board on the bench shears. It was explained that the board patterns need to be undercut by 1 mm. when being prepared for binding to allow for the substance of the metal. This can be deducted from the grading models or a special small pin can be fitted into the grading machine. Measuring off the length of metal binding to avoid waste was explained and practiced, as was the curved shaping, angle shaping and terminal finishing. Terminal soldering was explained but not practiced as this was not considered necessary for the type of work carried out at CLPC. Soldering equipment is only available in the Engineering Workshop.

( The training for the various alternative types of bound effects was limited at the outset to the use of the large roller for uncomplicated runs around the pattern. The machine supplied was not fitted with a revolving head with the 4 variable side pressure posts or rollers. It was necessary for the expert to make up drawings and to have this adaption made locally. The subsequent training covered all varieties of normal working practices ).

It is now possible for the D & D to prepare its own grading models by the use of metal bound board patterns, without recourse to the Engineering Dept., thus speeding up the production of full ranges of patterns at more economical cost. Most of the work resulting from this instruction is easy to assimilate but constant practice is required to build up the accuracy standards and proficiency in producing the many intricate shapes required.

Direct Assistance Activity. New Range of Men's Sandals

The Sales Dept. urgently requested that a new range of men's sandals with micro rubber soles and heels be prepared, the expert made alterations to an existing last. Several new style ideas were prepared with the assistance of the students and these were received with enthusiastic acclaim by the Marketing Team. Some of the styles are now finding their way into the next range of footwear. See App. 2 for styles.

Style 126 was selected for men's sling back sandal, straight front heel,  
Style 938 " " " " open back slipper, wedgeheel.  
Style 938 " " " child's sandal with normal bulk sole.

Extreme urgency in developing these styles was requested by the Sales Manager so a pilot line of 100 prs of each style, comprising all sizes was organised. The students prepared the model patterns, carried out the grading and metal bound some 60 board patterns. The 300 prs were produced in D & D by hand cutting, upper stitching, buckle attaching, insole cutting and punching, etc. before handing over to the factory for lasting and sole attaching.

The Sales Department meanwhile organised the distribution of the shoes to retail outlets but due to this only taking place near the termination of the expert's mission, no assessment can be reported on the subsequent outcome. In principle the Sales Office appeared very confident of success.

It can be reported that the students experienced D & D work under strict time pressure to achieve the excellent results that were accomplished and this work will be very valuable in building up their confidence in future decision making.

Men's and Boy's Football Boot.

A further D & D task was placed before the project by the Chairman of CLPC to develop an all leather football boot upper with an available synthetic moulded sole complete with studs.

A current CLPC last was remodelled to fit the sole, upper pattern were prepared and trial uppers cut from locally available materials. This work was stitched by the Closing Course students and later passed to the factory for lasting and sole attaching. See Appendix 3 for style.

## V. FINDINGS

### Training.

1. Individual students took their opportunity to attend the course with determination and a great deal of hard work. They learnt much from the instructions and also from their own mistakes which will certainly help to register more correct procedures in the future. By occasionally working as a syndicate this helped to overcome personal shortcomings and adds vitality to the training by avoiding stalemates and tedious operations.
2. The materials supply position is somewhat limited and it will become increasingly difficult to present to the public a new image unless more varieties of uppers can be made.
3. The educational standard of the students was good and their selection for the course was justified, the biggest factor effecting the depth of training being the shortness of the course.
4. Training on the new equipment was carried out as far as possible on actual work passing through the department, so as not to waste valuable materials such as metal binding.
5. Tools and equipment belonging to individual trainees is somewhat below international standards.

### Export Potential.

6. Styling developments are somewhat behind competitive international standards. Efforts to upgrade are apparent but due to buoyant home sales, there is not much incentive at the moment.
7. The restricted number of alternative bottom units will limit the impact of the footwear range overseas.
8. With the introduction of a Marketing Expert soon, there will probably be extra demands upon the D & D to promote new styles, and this will no doubt cause staffing problems.
9. Under present worldwide trading conditions, it is not going to be easy to find outlets for the current range and it is going to be some time before the new introductions of lasts and sole moulds will be available.
10. When new manufacturing techniques are introduced, internationally acceptable quality standards have to be gradually built up and wear tested, it would not be prudent to enter into export trade until this has been established.

FINDINGS (Contd.)Design & Development Function.

11. During the period of the mission certain changes in D & D staff were evolving and it would appear that during late March a somewhat new structure will appear. With this rather uncertain position it has not been easy to make assessments of the capabilities of the design team or sound recommendations for their future role and appropriate training.
12. There is some good basic experience available amongst the design personnel but the main problem appears to be in the management and leadership field. In April, one of the senior employees will be starting a 3 month overseas fellowship and together with the additional absence of a Chief Designer, this will leave a rather weakened staff.
13. There will be a large influx of detailed pattern and design work to be dealt with during the next 6 to 9 months when a quantity of new lasts and sole moulds are being delivered and tested. This type of work involves a certain amount of expertise which has not been called upon before, especially in planning and systemising for bulk production.
14. There is need to improve the approach to upper cutting, preparing and stitching, before export standards are achievable within a reasonable time. Liaison with the Closing Training Course helped to promote this aspect but more depth will be required.
15. Maintenance and servicing of machinery and equipment requires more emphasis especially when machines are not in continuous use.
16. All the elements of a good fashion and design unit, whether physical, material or personnel, are now initiated but there is the need to consolidate this foundation by more advanced and concentrated period of training and assistance.
17. The introduction of a quick and flexible D & D system (Job Description item 2) into the production process had a very practical aspect but this was only on a very narrow front and dealt with the specific styles being developed. There is need for a wider ranging training scheme to cover other future eventualities.
18. The advice given by the expert regarding the tooling up processes (Job Description item 3) was again only dealt with on specific matters passing through the department during the lifespan of the mission. There will be many more occasions when the UNIDO supplied equipment could be more fully utilised to the benefit of CLPC but this would need demonstration and explanation once the trainees become more expert.



#### IV    RECOMMENDATIONS.

1. The time is now ripe for major decisions to be made regarding the future structure and staffing of D & D at CLFC Footwear Factory. This is being reviewed at present by the management and some decisions are in process of being implemented.
2. The graduates from the course only having experienced training in certain limited functions during this short period are in need of further training in depth to cope with the future commitments of the factory. Designers with good experience are very rare in Sri Lanka due to the small number of footwear enterprises and lack of training institutions, so apart from importing expertise, incompany training is essential. Unfortunately there do not appear to be any suitable teachers available, so a further course or courses appears crucial to the build up of a reliable D & D Dept.
3. In the expert's opinion direct assistance will also be necessary for D & D to cope with the many technical and marketing changes which are planned for CLFC during the next one or two years. This should take the form of planning and checking patterns for complete introduction of some 45 pairs of different sole moulds and the corresponding last plant. It is recommended that this quantity of new items and the preparation of new style ranges will be beyond the capabilities of the present staff within a reasonable time scale. The financial losses likely to be incurred through mistakes or heavy investment charges due to delays should be strongly considered.
4. Critical reviews should be carried out related to the impact of new styles on :
  - a. the projected factory economies through tighter factory controls in the areas of Cost Estimating, Cost Controls, Work Planning, Work Flow and Productivity.
  - b. any new Marketing Policies (export or domestic) which will evolve with the introduction of the proposed marketing project.

It is recommended that new systems should be introduced to cope with the possible increased work load as new developments take place.

RECOMMENDATIONS (Contd.)

5. The opportunity of introducing more heat embossing effects on leather uppers, especially in the sandal ranges should be strongly considered. The cost of these machines and the embossing plates are very cheap compared with the effects they achieve and only require a small labour content.
6. It is recommended that additional attention should be paid to developing a somewhat wider range of upper leathers to improve the possibility of presenting more attractive and more interesting footwear for both export and home markets.
7. It is recommended that a junior member of D & D staff be recruited (about 22 years) who has some draughtsmanship training and experience. This person could be trained to carry out much of the methodical and meticulous work related to lasts, bottom patterns and units.
8. A further quantity of metal pattern binding should be ordered soon to retain continuity from the small initial stock supplied with the machine.
9. A better pattern board should be sought out. It should be harder than the leather board at present being used for training. The board should be capable of withstanding the tendency to warp due to the humid conditions. A polished board is more appropriate to the needs.
10. Strong consideration should be given to the future possibility of including a small last making plant at the CLPC. This could be achieved by making use of a last model service and reproducing all the sizes of the copy last as required on a single foot last turning machine ( as employed on the U.N. Indonesian Project ). This would mean that the CLPC would not need to import bulk lasts and could save a considerable amount of delays and expense in foreign currency whilst aiming toward self-sufficiency. The machine is not too expensive and its origin is Taiwan. (Information available from UNIDO Vienna or The Director, I.R.D.L.A.I. (Research Inst. of the Footwear Leather & Plastic Industries, Jalan Sukonandi, Yogyakarta, Indonesia.

RECOMMENDATIONS (Continued)Personal Major Training.1. Mrs. Janice Savithri Milleema Karath. (Counterpart)

Considering the duration of employment within the Footwear industry at CLPC of only 2 years she has made very good progress with matters related to D & D. All round knowledge of the day to day control of her responsibilities shows a very good understanding of routine and problem solving. Her position has been made more difficult due to the problems in the management of the department which was outside her control. During April 1963 she will be attending a UNIDO Fellowship Course of Design and Pattern Cutting in Milan Italy. This should prove very beneficial in broadening experience and horizons of design matters, quality standards, alternative materials, lasts, components, etc. Upon return she should be more capable of carrying out her duties and be able to pass on useful assistance to various CLPC departments. There will be a great need for her to become more involved in the day to day management of D & D Dept., the overseas experience should provide more confidence and assurance in accomplishing better standards. It should be pointed out that there are many aspects of D & D work which she has not yet experienced and the remaining months of 1963 will require a great deal of effort to satisfy the needs of the expansion programme.

2. Mrs. W. Marie Jacintha Sodarasama.

In order to participate she was transferred from the Design Dept. of the Leather Goods Factory, this was an introduction to shoe design and pattern cutting so the standards she achieved were commendable. The quality of her paper pattern work is relatively high, showing good potential but as yet her experience is very shallow and could benefit by several more months of continuity training. There is need to build up personal confidence and carry more authority with junior members of staff, but this will come in time as more tasks are accomplished.

3. Mr. K. Tissa Perera

Was also transferred from Design Dept. of the Leather Goods Factory, but had some short experience in the footwear industry. This young man appears to have a good potential in the field of D & D and should be encouraged

to higher levels as quickly as possible. His greatest problem appears to be lack of experience in depth and this can only be overcome by continuous involvement in carrying out D & D work (preferably under supervision for a few months), in problem solving, and improving the day to day procedures and systems.

4. Mr. P. Jayasinghe

Had previously been trained up to Pattern Grading Machine Operator and was nominated to join the Design Course although his experience was limited on paper patterns. He has a good knowledge of shoe construction and has shown good application to the new work. He should be a valuable person within D & D as a link between the designers, the pattern makers and the factory management. He carried out some last remodelling under the supervision of the expert and shows an aptitude for this kind of work. So if it is feasible to consider a last producing plant, he could also be considered to assist in setting up this function. He is of necessity in need of further training to bring his full potential to the fore.

5. Mr. Jayath Weerasinghe

This participant was an external applicant for design training and was given a one week probationary trial in the form of an induction course. He proved quite satisfactory in his initial work but made a personal decision not to apply for a permanent position.

6. Mrs. Rajawathi Rajasinghe

Was interviewed (as 5 above) and joined the course, proved satisfactory, but decided not to continue with the course.

Pattern Trainers

7. Mrs. V. A. Mendis

Had previously been employed as upper cutter for D & D and was trained to use the pattern shears and given introductory instruction in pattern binding; requires further practice when the opportunity arises.

8. Mrs. Tilina Rajasinghe

Had been employed on upper stitching of prototype uppers, she received some instruction on the new machines supplied, but unfortunately contracted an illness near the end of the course and will not be allowed to continue her current work on doctor's orders.

9. Mr. Anthony Joseph

He was previously employed in preparation of bottom stock, lasting of samples & prototypes, sole attachment and finishing off processes. He has now been trained to work the pattern grading machine, but for a 3 month period he should work under the supervision of Mr. Jayasinghe. He has also carried out a short training programme involving the Pattern Shears, and Metal Pattern Binding Machine but requires more practice when the opportunity arises.

10. Mr. K. Sirisena

He was employed in a casual worker/messenger capacity but it has been found possible to give him more advanced work and he has been involved with the training for the new Pattern Making Machines and shows a good aptitude to work these, but will benefit from more practice.

11. Mr. Udaya Kumar

Joined the D & D from the factory to take over the task of preparing bottom stock, lasting of samples and prototypes and finishing off. He did not actually receive any special tuition during the course as he had plenty of new things to absorb with the quantity of prototypes and trials being produced by the designers for the various projects mentioned in the report.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO

23 February 1982

JOB DESCRIPTION

DP/SRL/81/007/11-02/31.7.D

**Post title** Shoe Designer/Pattern Cutter

**Duration** 2 months.

**Date required** June-July 1982 \*)

**Duty station** Colombo

**Purpose of project** The Government has decided to extend and to modernize the operations of the Ceylon Leather Products Corporation (CLPC) and to improve the product development capabilities of the plant. Therefore assistance in training of shoe designers and pattern makers and advice in the function of a fashion and designer unit within the CLPC is needed.

**Duties** The expert will be attached to the Ministry of Industry and Scientific Affairs, and will be assigned to work in the CLPC footwear plant. Under the guidance of the CTA of the project, the expert will be expected to:

- 1) Carry out a training programme related to designing, pattern cutting and economic material utilization through well designed patterns.
- 2) Introduce a system for quick and flexible introduction of new styles into the production process.
- 3) Advise in development of shoe engineering and tooling aspects for newly introduced products to ensure rational production.
- 4) Give guidance for development of a new shoe range for export markets, taking into consideration the technical capabilities of the CLPC plant and material availability.

The expert will also be expected to prepare a final report setting out the findings of the mission and the recommendations to the Government on further steps to be taken.

..../...

Applications and communications regarding this Job Description should be sent to:

Project Officer, UNIDO, Industrial Development Office, P.O. Box 1000,  
UNIDO, Via Mazzini 101, I-00185 Rome, Italy, Tel. 06/512100, Fax 06/512101

\*) The timing has to be coordinated with the arrival of the machinery and the split of the...

From D. Russell, V.M. Design Expert. Project SER/S1/007/11-02/51.7D

To Chief Technical Officer. " " "

Subject. AGREED WORK PROGRAMME. (Already submitted by the expert on 31st Jan. '65 for consideration by the project authorities and adjusted into acceptable form as follows :-

The contribution to the overall project will come under the following headings -

1. Direct assistance to the Design & Development Functions.
2. Direct Design Training content.
3. Additional associated tasks relating to future export potential.

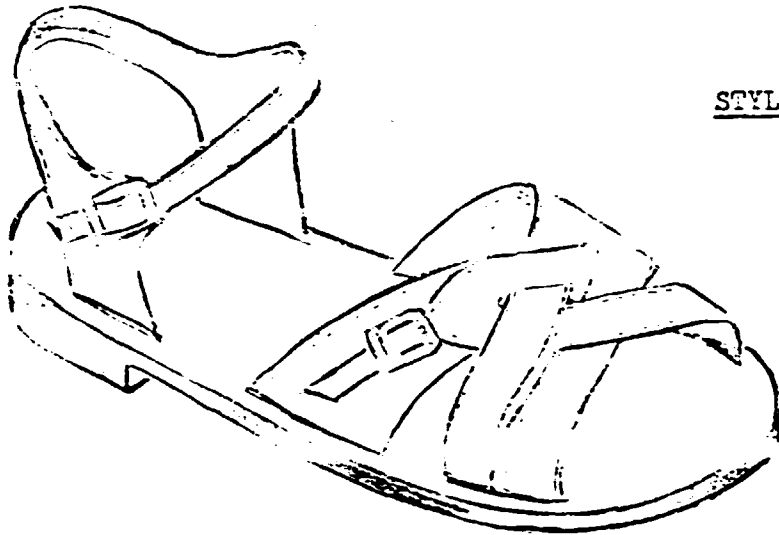
The following sub-headings are agreed for priority within the above categories.

- 1a. Assistance in selection and recruitment of D & D personnel.
- b. Relocation and replanning of Design & Pattern Office.
- c. Re-equipping and installation of pattern machinery.
- d. Review of the current work load and assistance with current production problems.
- e. Review of current systems and consideration for improvements.
- f. Assessment of D & D overall capabilities in the short term.
- g. " " potential in the long term.
- h. Review of communications of D & D with other CLPC units within the factory, the group of companies and outside contacts (suppliers, customers etc.)
- 2a. To assess the capabilities of the current D & D personnel.
- b. To forecast the usefulness of the personnel in the short term.
- c. To forecast the potential of the personnel in the long term.
- d. To recommend appropriate training for individuals.
3. Liason with the management of CLPC, its sales force and the proposed Marketing organisation regarding the Export potential of the Corporation.  
This could involve the setting up of basic guide lines with some recommendations for coping with the new work load of D & D.

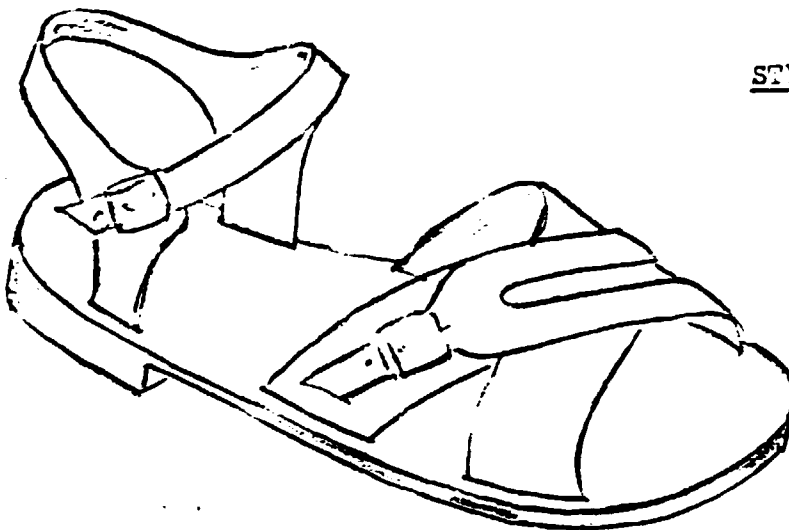
2 Feb. 1965

APPENDIX 2 A

STYLE D 126 A

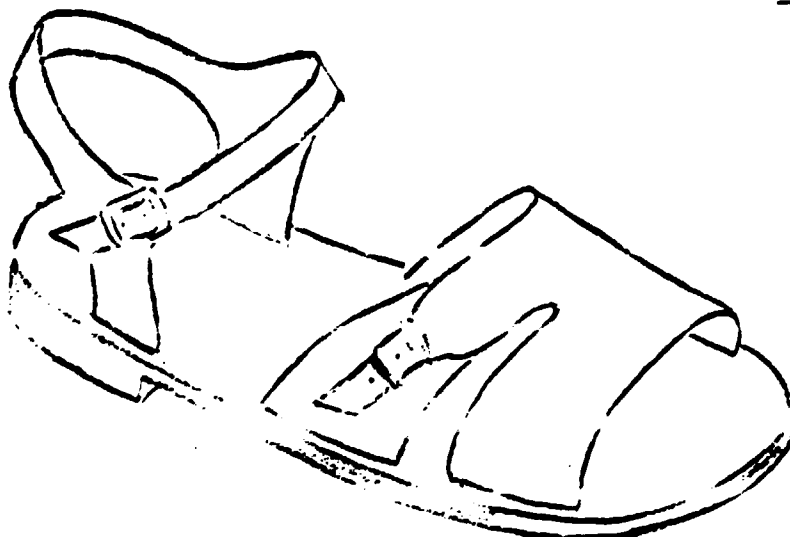


STYLE 126 B



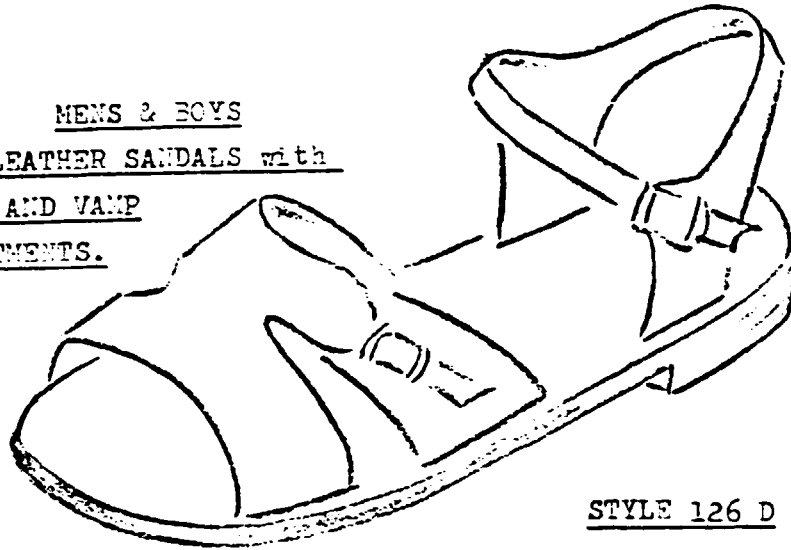
MENS AND BOYS  
LEATHER SANDALS  
WITH ANKLE AND  
VAMP ADJUSTMENT.

STYLE 127.

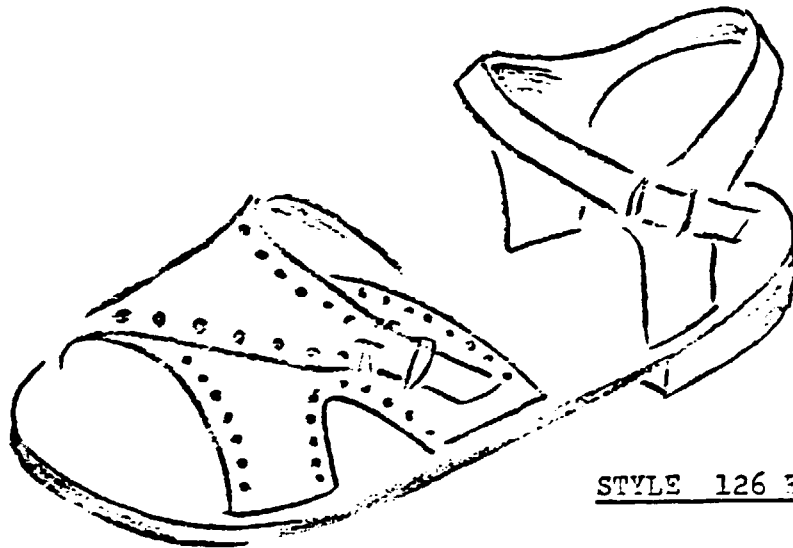




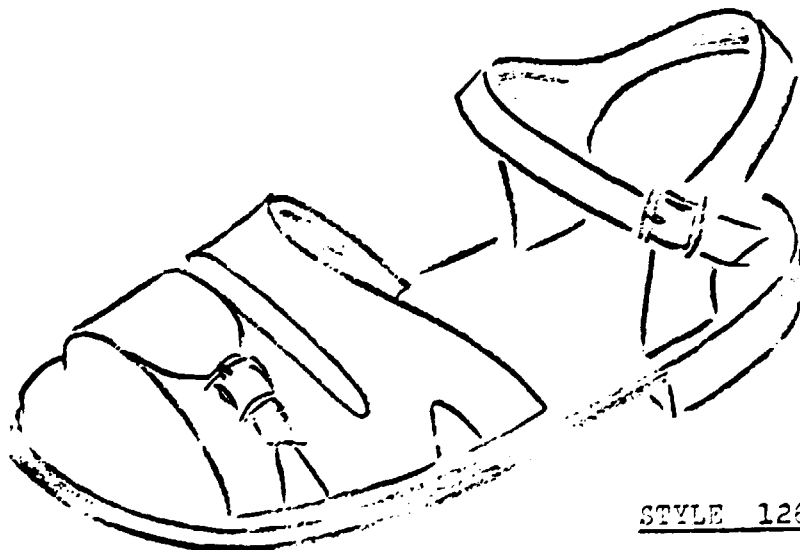
MENS & BOYS  
LEATHER SANDALS with  
ANKLE AND VAMP  
ADJUSTMENTS.



STYLE 126 D

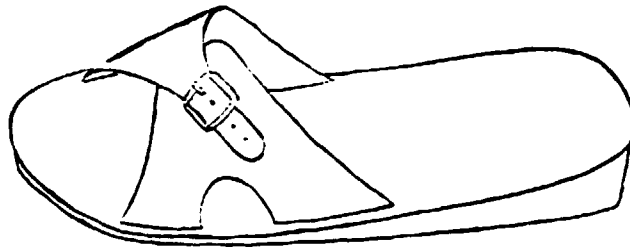


STYLE 126 E



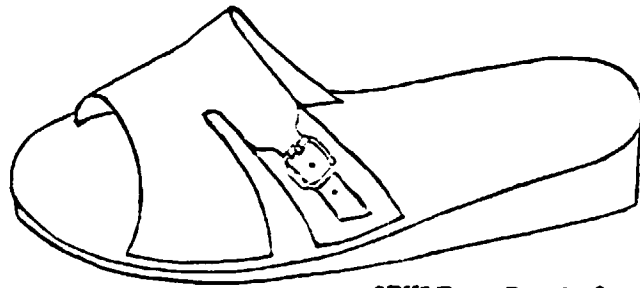
STYLE 126 F

APPENDIX 2 C.

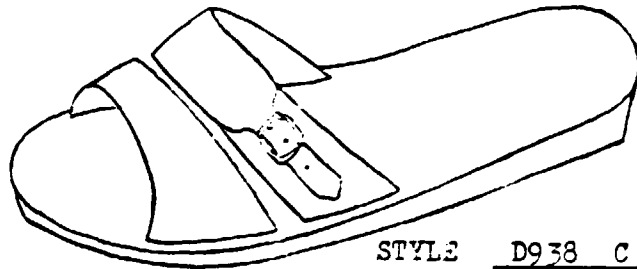


MEN'S LEATHER  
SLIPPERS WITH  
ADJUSTABLE  
VAMPS.

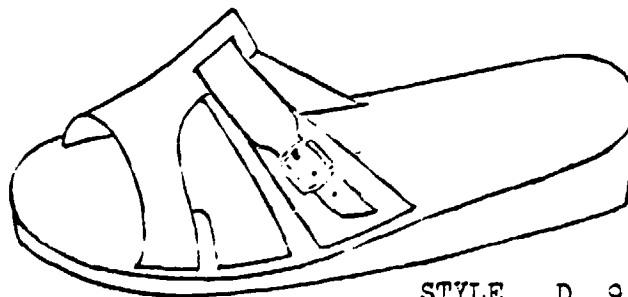
STYLE D 938 A



STYLE D 938 B



STYLE D938 C



STYLE D 938 D

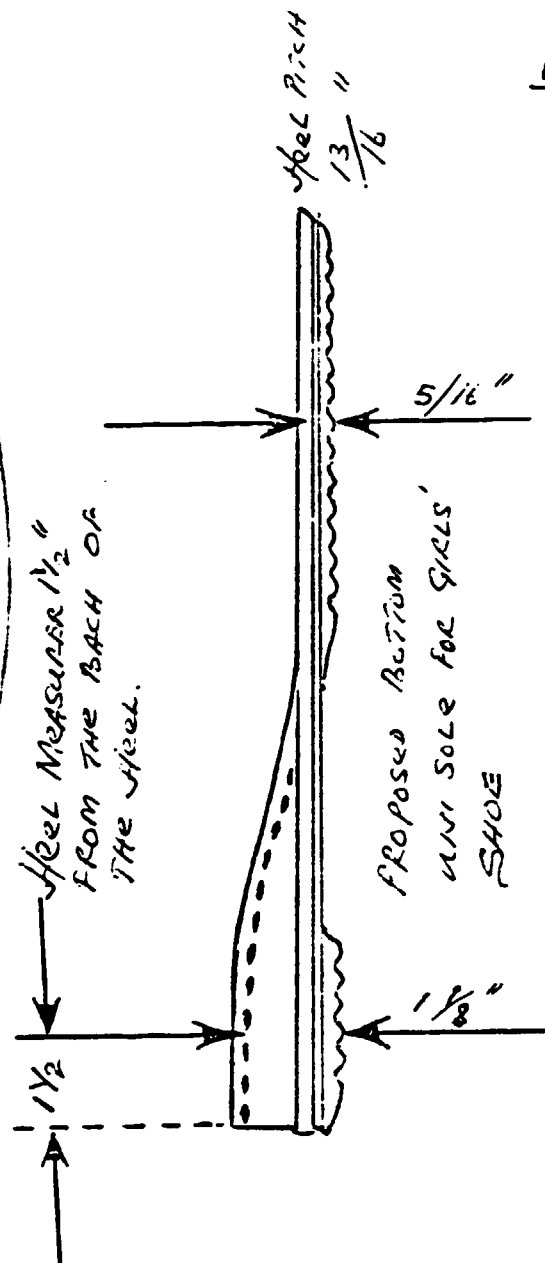
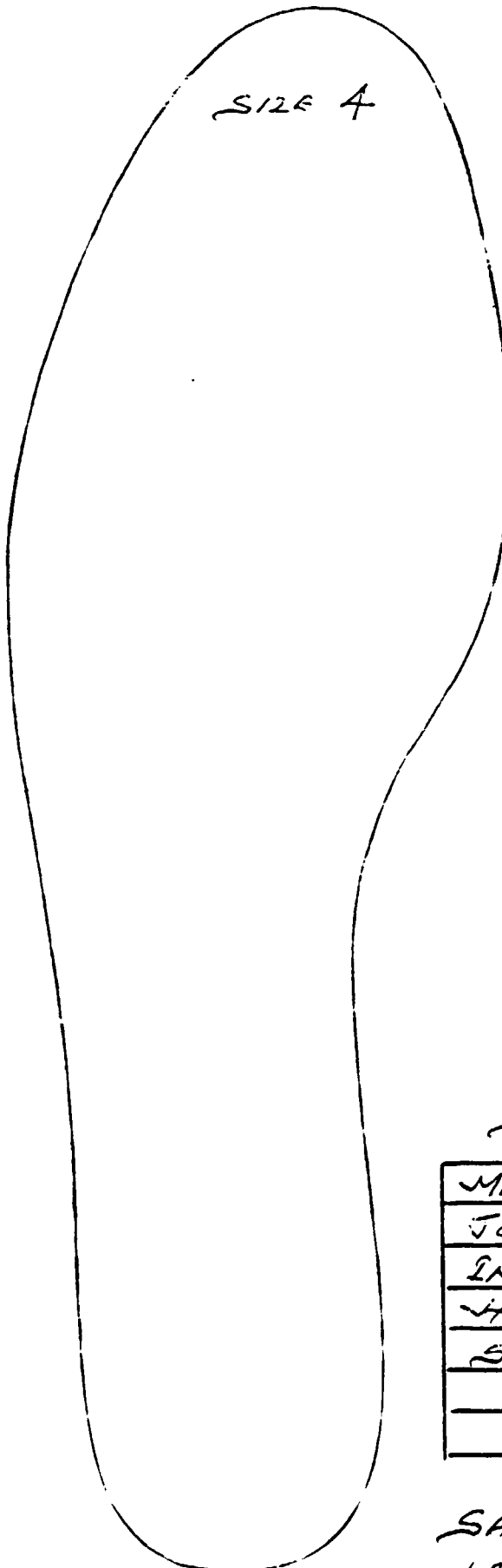
APPENDIX. 3

MENS & BOYS FOOTBALL BOOT  
STYLE DESIGNED FOR CLPC.  
BASED ON AN EXISTING LAST  
M 5778 WHICH WAS REMODELLED  
TO TAKE THE "CHEETAH" STUDED  
PREMOULDED PLASTIC SOLE  
ALREADY SAMPLED TO CLPC.



SIZE 5

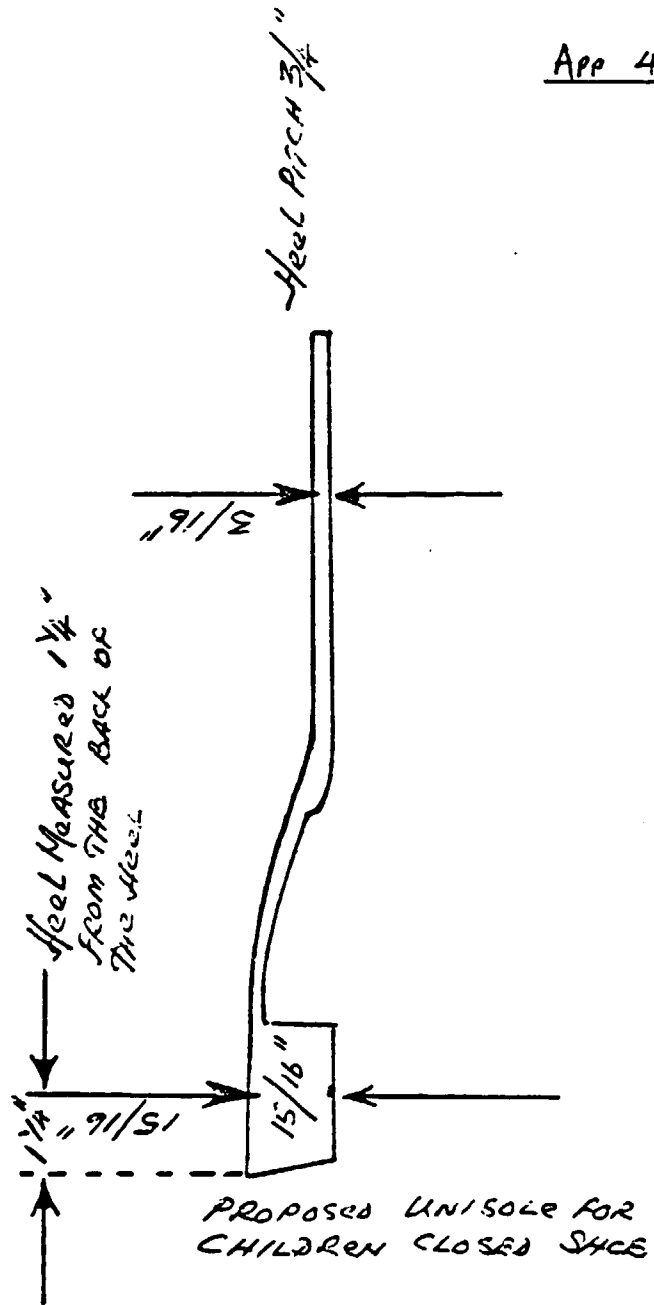
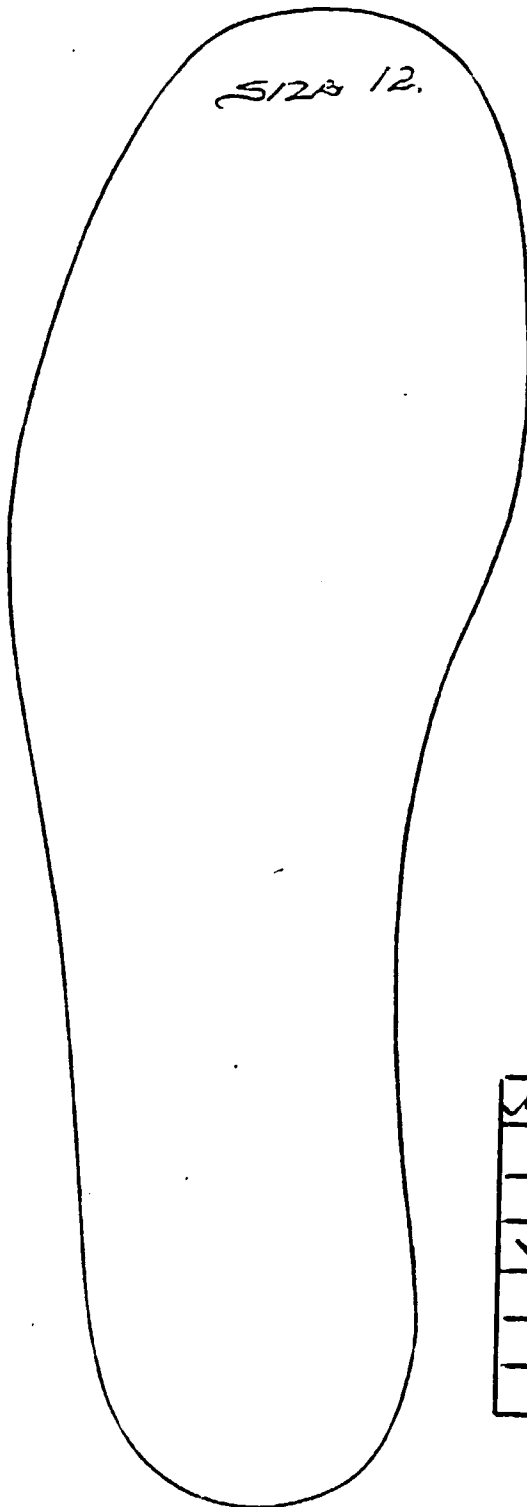
BLACK FULL GRAIN SIDE LEATHER  
WITH BLUE FLASH INSERT AND  
TOP BINDING.



SHAPE FOR INSOLE OF LAST

MEASUREMENTS - GIRLS' SIZE 4
JOINT GIRTH - $8 \frac{3}{3}$ " INCHES
INSTEP GIRTH - $8 \frac{5}{8}$ " INCHES
HEEL PITCH - $\frac{13}{16}$ " INCHES
SIZES FOR RANGE 05-2-7

SHAPE GIRLS' CLOSED SHOE  
LAST SIZE 4 STANDARD  
MEASUREMENTS

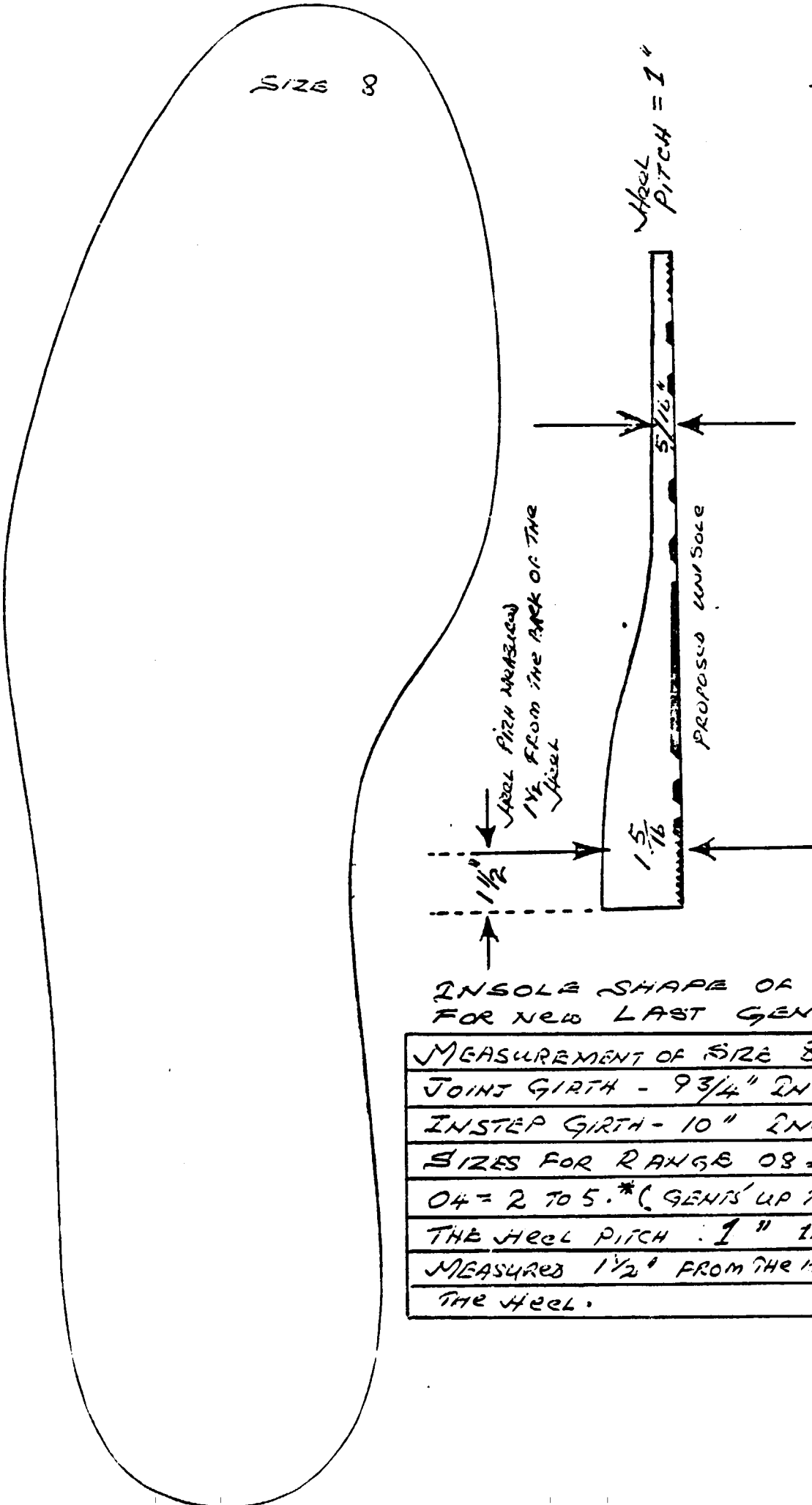


MEASUREMENTS - CHILDREN SIZE 12
JOINT GIRTH - $7\frac{4}{5}$ " INCHES
INSTEP GIRTH - $7\frac{6}{8}$ " INCHES
HEEL PITCH - $\frac{3}{4}$ " INCHES
SIZES FOR RANGES - 02 = 9 - 11
03 = 12 - 1

INSOLE SHAPE FOR LAST,  
CHILDREN STANDARD SIZE 12  
MEASUREMENTS.

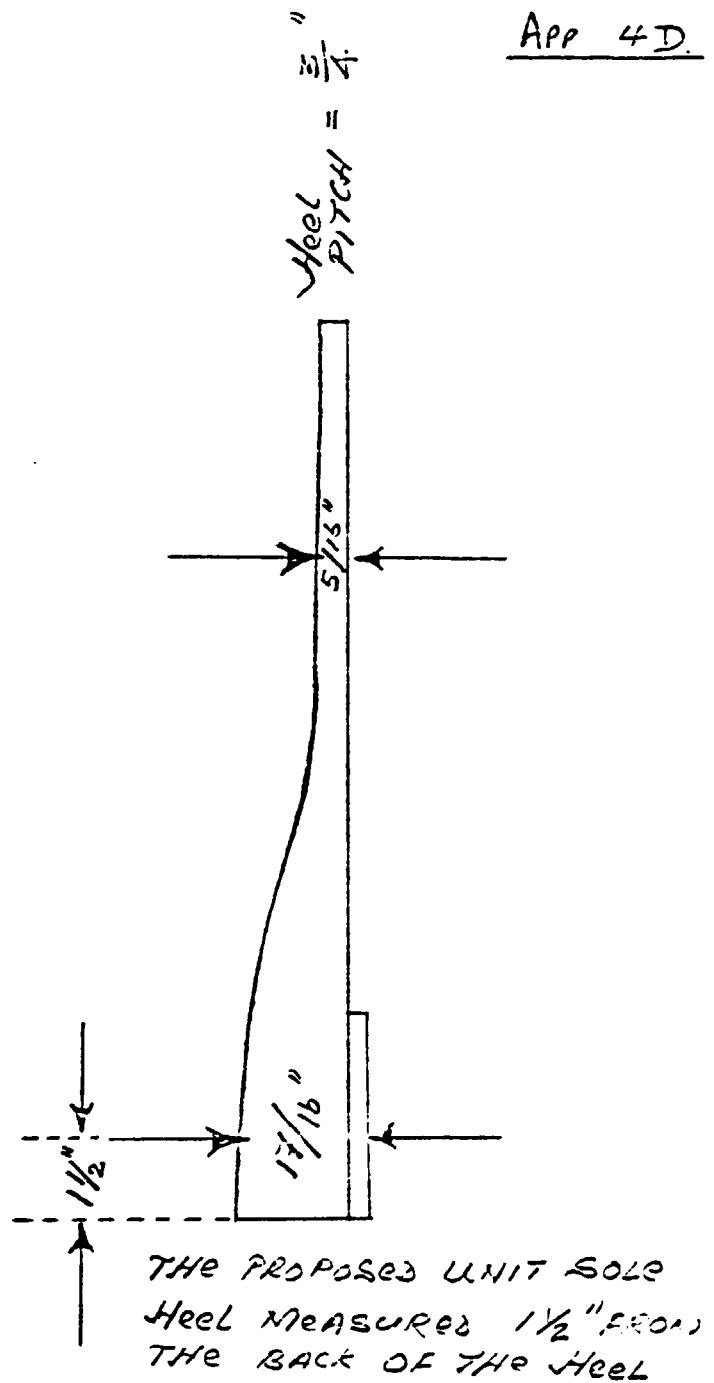
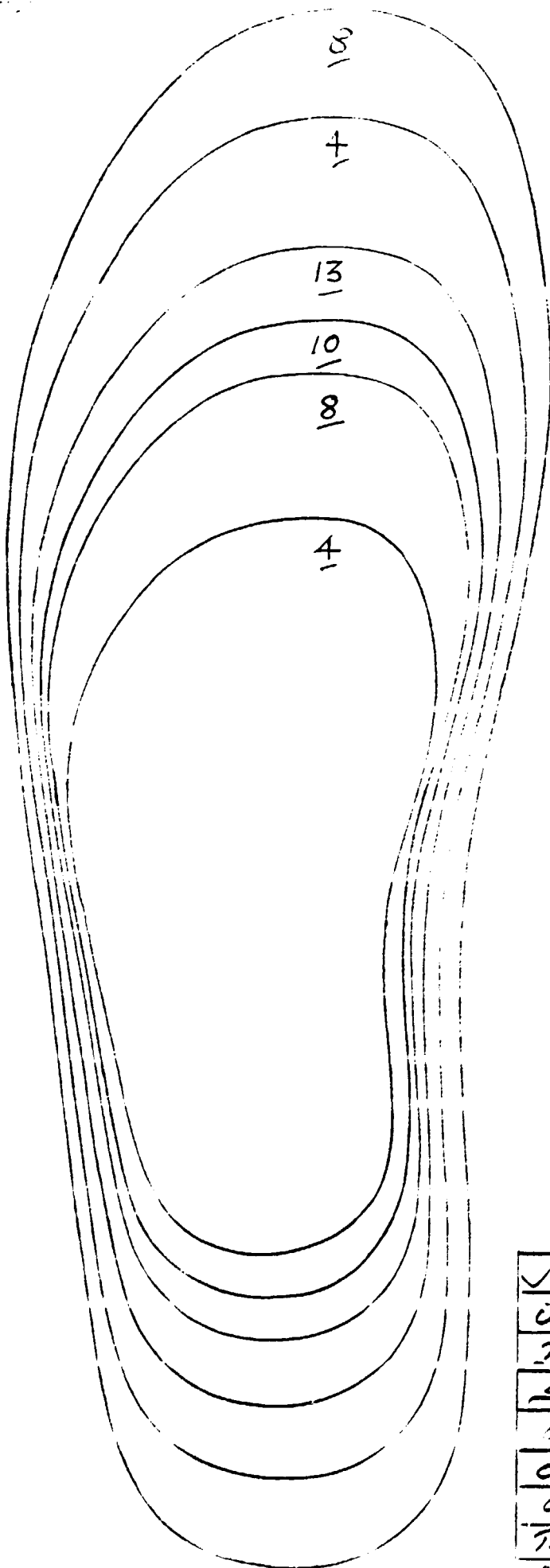
SIZE 8

APP 4 C.



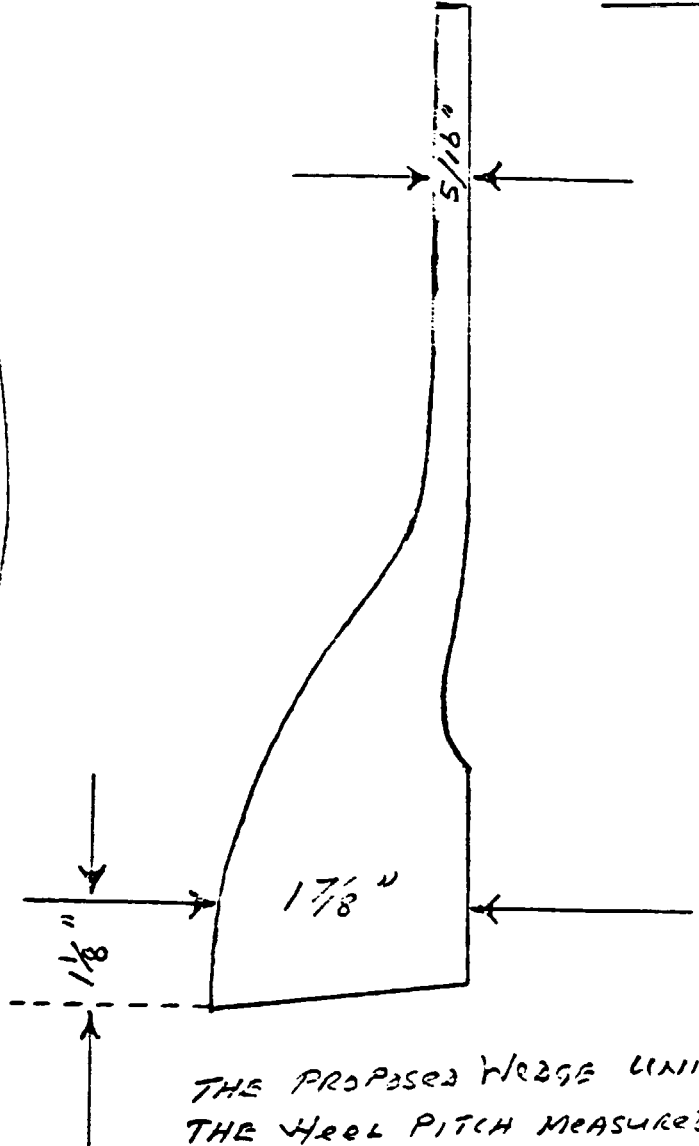
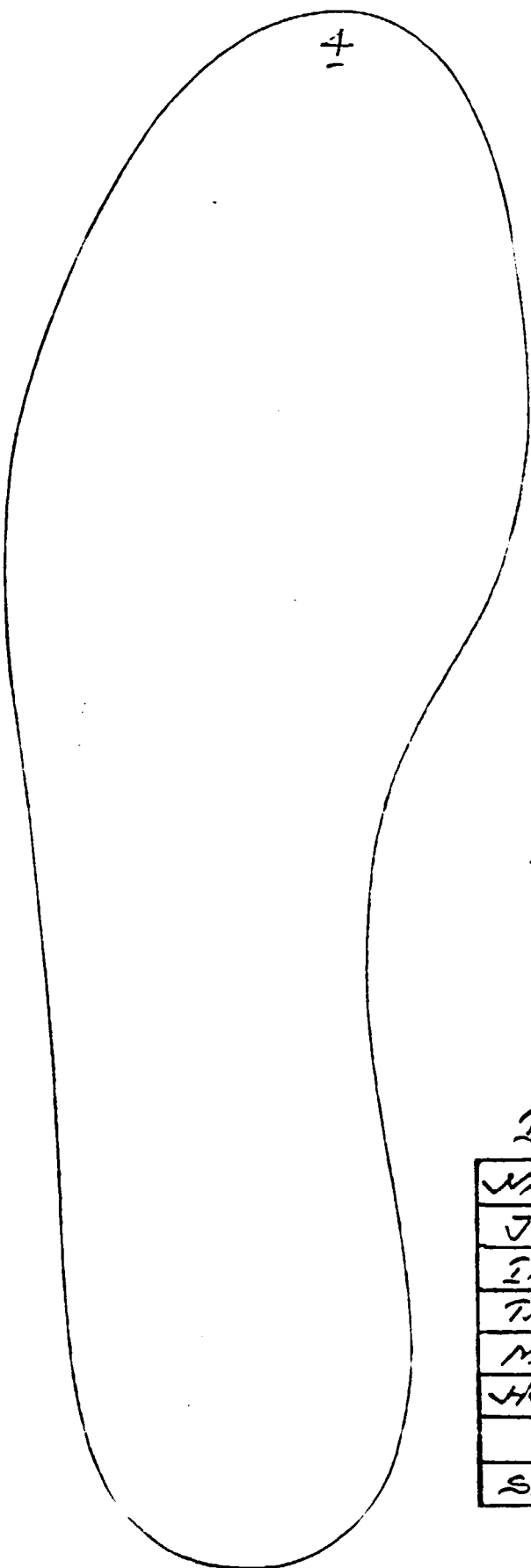
INSOLE SHAPE OF LAST  
FOR NEW LAST GENTS

MEASUREMENT OF SIZE 8 GENTS
JOINT GIRTH - 9 3/4" INCHES
INSTEP GIRTH - 10" INCHES
SIZES FOR RANGE 08 = 6 TO 11*
04 = 2 TO 5.* (GENTS UP TO ELEVEN)
THE HEEL PITCH . 1" INCL' -
MEASURED 1 1/2" FROM THE BACK A -
THE HEEL.



INSOLE SHAPE FOR SANDAL LAST.

MEASUREMENT OF SIZE 8 GENTS'
JOINT GIRTH - 9 3/4 INCHES
INSTEP GIRTH - 10 INCHES
SIZES FOR RANGE 08 = 6 TO 10
04 = 7 TO 5 ; 03 = 12 TO 11 ;
02 = 9 TO 11 ; 01 = 6 TO 8
00 = 3 TO 5
THE HEEL SIZE = 3/4 INCHES
MEASURED 1/2" FROM THE BACK OF THE HEEL.

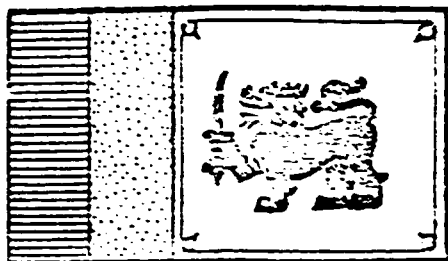


THE PROPOSED WEDGE UNIT  
 THE HEEL PITCH MEASURED  
 1 7/8" FROM THE BACK OF THE  
 HEEL.

INSOLE SHAPE - LADIES' SANDALS

MEASUREMENT OF SIZE 4 LADIES'
JOINT GIRTH - 8 1/2" INCHES
INSTEP GIRTH - 8 3/4" INCHES
THE HEEL PITCH 1 9/16" INCHES -
MEASURED FROM THE BACK OF THE
HEEL 1 1/2" INCHES
SIZES - 2 TO 8 LADIES RANGE 05





RESTRICTED

UNITED NATIONS DEVELOPMENT PROGRAMME,  
COLOMBO,  
SRI LANKA.

PROJECT DP / SRL / 81 / 007 / 11-02 / 31.7D

## **Digest – Footwear Exports.**

FOR THE GUIDANCE OF DESIGNERS AND THOSE  
INVOLVED IN PRODUCT DEVELOPMENT.

THIS DOCUMENT HAS PARTICULAR RELATIONSHIP TO  
**Ceylon Leather Products Corp.**

IT IS NOT INTENDED TO BE FULLY COMPREHENSIVE  
OR ADEQUATE FOR SPECIALISTS IN OTHER SECTORS  
OF EXPORT MARKETING.

COMPILED BY

DON RUSSELL *FRM. ACPL. SPS*

UNITED NATIONS DEVELOPMENT PROGRAMME  
FOOTWEAR & LEATHER INDUSTRIES

UNIDO PROJECT BR/SRL/31/007/11-02/51.73

SUBJECT. Export markets for CLPC Footwear.

GUIDANCE FOR THE PRODUCT DEVELOPMENT OF NEW SHOE RANGES FOR EXPORT

Part i.

GENERAL APPROACH. At the outset it is essential to point out that much special effort has to be expended in making a breakthrough into exporting business. Unless one has a unique product or commodity then it is almost certain that in this day and age the competition for profitable business will be fierce.

Secondly it should be realised that to embark upon a successful export programme will usually require special development finance which will not usually show a quick return.

Thirdly special functions will have to be originated to facilitate and control the build up of the necessary services and personnel.

MARKET CONDITIONS. The above functions will fall under several headings one of which will be development of the products with overseas sales potential, made to accurate specifications and strict delivery schedules.

MARKET RESEARCH. There is the greatest need from the inauguration of the programme to research the territorial areas or countries where the effort will be concentrated and this is usually carried out by the Marketing Dept. This has particular reference to footwear market due to the fact that shoe size ranges differ from area to area. Following on from this certain countries require the proportions of the last to be specially arranged, eg. American ladies lasts are usually long and narrow particularly in the back part, whereas in many Central European and Scandinavian countries the width of the last needs to have extra measure. Many other territories have individual peculiarities of foot fitting and this must be well researched before selecting lasts and components.

It should be evident that the footwear industry has its peculiarities which do not apply to other similar products eg. leather goods, where a particular item of luggage or handbag could be saleable in many countries without the above size and fitting limitations.

MARKET TASTE. Obviously the public taste or personal preference will vary from one territory to another and must be considered if success is to be achieved. "Style" in a product covers the visual concept in the eye of the customer and this can take at least two extreme forms. One example is where the client wishes to see items which conform to the general theme of acceptance within their country, with relatively minor deviations which please. The opposite concept is where the highly desirable feature of style is a complete "imported look" and to adjust the original appearance will not satisfy the market. An example of this has been the Western or Cowboy Boot vogue of the late 70s. The heels had to be high, the toes very narrow and the last shape somewhat "deformed" to present the "authentic look" which was incidentally highly uncomfortable to many purchasers. There have been other examples of what may be termed distorted appearance over the span of several centuries and their success or decline have relied upon local public taste.

WHERE TO "HIT" THE TARGET MARKET. Due to the fickle nature of the "fashionable" sector of the market many export ventures concentrate on the more stable areas in order to establish a reasonably early foothold. Needless to say this is very often the most densely competitive area and often with the least profit potential.

TEST MARKETING. Provided all the relative facts have been considered and correct steps taken to research the market then the company should attempt to get the reactions of shoe buyers, or the public in the target countries. This can be done in several ways eg. exploratory visits, booking exhibition space at home or overseas, submission to visiting buyer missions etc.

EXPORT TIME SCHEDULE. In order to cut through the preparatory work with the utmost speed it is essential that a programme be imposed by management. This should be done realistically as far as the Design and Development office is concerned whilst taking into account a launching date for fixed events such as exhibitions, etc. It is also important to note the varied buying patterns already established for the seasonal trading of spring, summer, autumn and winter. In one country this could begin several weeks before a neighbouring country and so to arrive too early or too late could frustrate the endeavour. To overcome these shortcomings many shoe manufacturers rely upon agents who are conversant with the importing country who can give guidance on specific local requirements.

Other sources of information are the local Chamber of Trade or Commercial Offices of your embassy within the recipient country every possible avenue of approach should be searched out and made use of. Banks, Insurance Companies, Shipping and Air Freight offices often have access to a good deal of information or they can institute enquiries on the Corporations behalf.

ELIMINATING UNPROMISING AREAS OF RESEARCH.

In order to rationalise the effort it is considered prudent to either :-

- a. Select specific target areas
- b. Categorise other areas or countries noting reasons for temporary elimination from the initial marketing concept.

The conclusions derived from this exercise will be very much dependant upon the choice of products available at a particular time. It could be found that certain of the CLEO products will be more suitable for export to certain areas whilst others may not be considered suitable or cannot be produced in viable quantities .

In the experts opinion the following area should be considered for elimination as Target Countries for one good reason or another.

These reasons can be :-

- a. Lack of financial credibility or slow payment problems.
- b. Overproduction of footwear within the country.
- c. Import quotas on footwear.
- d. Small domestic consumption of footwear.
- e. Tariff regulations which outprice a product.
- f. Political instability.
- g. Foot fitting problems  
Etc., etc.,

Central & South America incl. Caribbean area ( overproduced, cheap & plentiful supply of raw materials etc. )

Mediterranean Countries (strong exporters, overproduced etc)

S.E. Asia. Singapore, Malaysia, Indonesia, Phillipines etc.,  
(similar problems to Sri Lanka.)

Eastern Europe & USSR Usually only buy on contract on an annual basis which is normally negotiated at Government level.

North Pacific Korea, Japan, Hong Kong, Taiwan, China, etc.,

generally self sufficient except in specialist sectors.

India most countries have some form of exchange or quota system in operation.

POSSIBLE MARKETING AREAS.

USA & Canada have large importation programmes (Quotas sometimes apply).

Australia & New Zealand (Usually some quota system is in operation.

Indian sub continent these should be researched carefully as there may be some reciprocal trading arrangements with neighbouring countries.

Scandinavia and N. Europe are heavy importers of footwear with declining shoe industries mainly due to high labour costs.

This list is not exhaustive and certain small territories within larger areas may prove quite fruitful so the elimination process can become very detailed.

IMPORT QUOTAS & TRADE AGREEMENTS

One note of caution should be sounded in that these can become operable or changed at relative short notice due to changing economical or political situation.

REGISTRATION & SPECIFICATIONS etc.

This area should be studied very carefully in order to ensure that all requirements can be met. Some countries have very strict conditions related to customer's right, this may include the marking of components or materials, country of origin etc. and if these are not followed then the goods can be refused right of entry.

Packing and delivery dates are other areas needing special attention. Certain seasonal goods will only be accepted within specified dates and may be returned for non compliance.

These notes are in need of qualification in greater detail once target areas have been provisionally selected so that the compatibility of all items between fitting, material suitability, manufacturing specification, etc. can be advised upon.

