



MATERIALS TESTING • SOILS  
CONCRETE • ASPHALT • CORING  
GEOTECHNICAL ENGINEERING

#1 – 1965 MOSS COURT  
KELOWNA, B.C. V1Y 9L3  
250-860-6540  
INFO@INTERIORTESTING.COM

Doug & Eileen Sprout  
3812 Eton Street  
Burnaby, B.C. V5C 1J4

December 21, 2021  
Job 21.376

Dear Sir and Madam:

Re: **Geotechnical Considerations**  
**Proposed House**  
**7 Nerie Road**  
**Vernon, B.C.**

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As requested, Interior Testing Services Ltd. (ITSL) has reviewed the above noted lot with respect to the proposed residential development. We attach a page of site plans and cross sections as provided by Russell Shortt Land Surveyors. Our work is subject to our "Terms of Engagement", which has been previously signed and accepted. Our general comments are as follows.

A site visit was carried out on October 8, 2021. The overall property is bisected by Nerie Road, with gentle slopes below and towards Okanagan Lake and slightly steeper slopes above Nerie Road to the west. No evidence of previous geotechnical hazards was observed. Based on the topographic information provided, the upper portion of the slope exists at roughly 20 degrees and the lower portion flattens to less than 10 degrees.

We understand that the existing house was burned during a forest fire in the summer of 2021. We understand that reconstruction of the house is desired in roughly the same location as the previous house, with the potential for a slightly greater setback from Okanagan Lake and into the small slope adjacent to the east side of Nerie Road. Based on our review there appears to be no significant geotechnical hazards impeding construction on this portion of the lot.

With respect to the west portion of the site, the existing topography consists of a larger natural slope rising towards the west, as noted, at roughly 20 degrees. Given the narrow width of the lot, the sloping conditions, and the requirement of the septic field to be located within this portion of the lot, construction on the upper portion would be challenging, with significant retaining walls and a considerable volume of excavation required. Furthermore,

development of the slope with cutting and retaining walls could result in additional challenges with respect to slope instability, which would further complicate residential construction.

In comparison, the lower flatter, eastern portion of the site (the location of the previous building area), presents virtually no geotechnical challenges with respect to construction as opposed to the upper portion which cannot be practically developed. Based on our review and experience in the area, there do not appear to be any significant geotechnical hazards related to the proposed residential construction in the desired location. We anticipate that the natural soils are to consist of competent granular soils.

As a minimum, all finished slopes surrounding the residence should be no steeper than 2H:1V and vegetated with hydro-seeding, landscaping or similar to reduce the potential for surface erosion. In addition, the upper western slope should be vegetated to reduce the potential for surface erosion. Given the recent forest fires, consideration should be given to retaining a biologist to assist with erosion control, vegetation and other mitigative concepts as we anticipate that the potential for short term surface erosion will be greater than previous years as vegetation has been burned off the slope.

Based on the plans provided and our site visit to view the existing conditions, construction of the proposed residence appears feasible for this site. To that end, it appears reasonable, in our opinion to conclude that the property may be safely used for the residential use intended. Disposal of site generated storm water can be contemplated downhill and away from the proposed residence, and further guidance to this respect can be provided at the time of construction.

It is anticipated that additional site visits will be required during construction of this project. Please call as required when ready.

We trust this will assist you. Please call if you have any questions.

Yours truly,  
Interior Testing Services Ltd.  
PPN 1001971

  
  
Peter Hanenburg, P.Eng.

Site plan of Lot 1, DL 3329, ODYD,  
Plan 20209.

Client: Hometown Builders  
Civic address: #7 Nerie Road, Westside

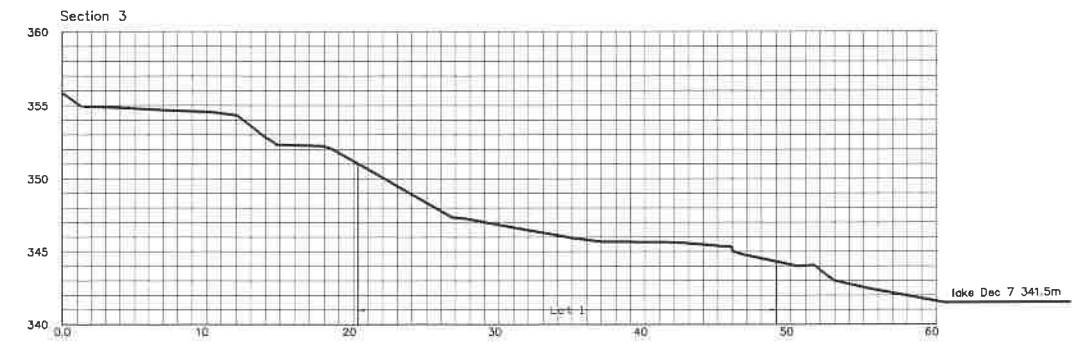
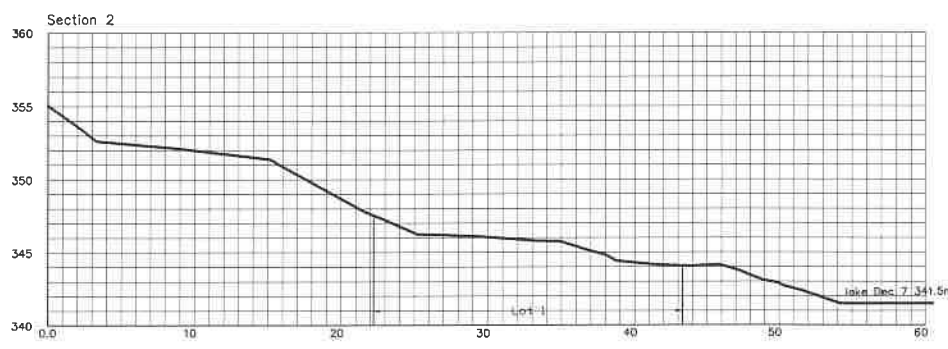
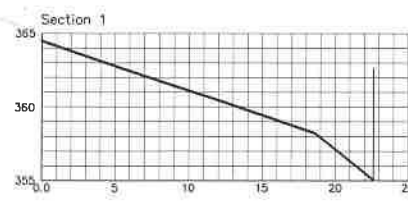
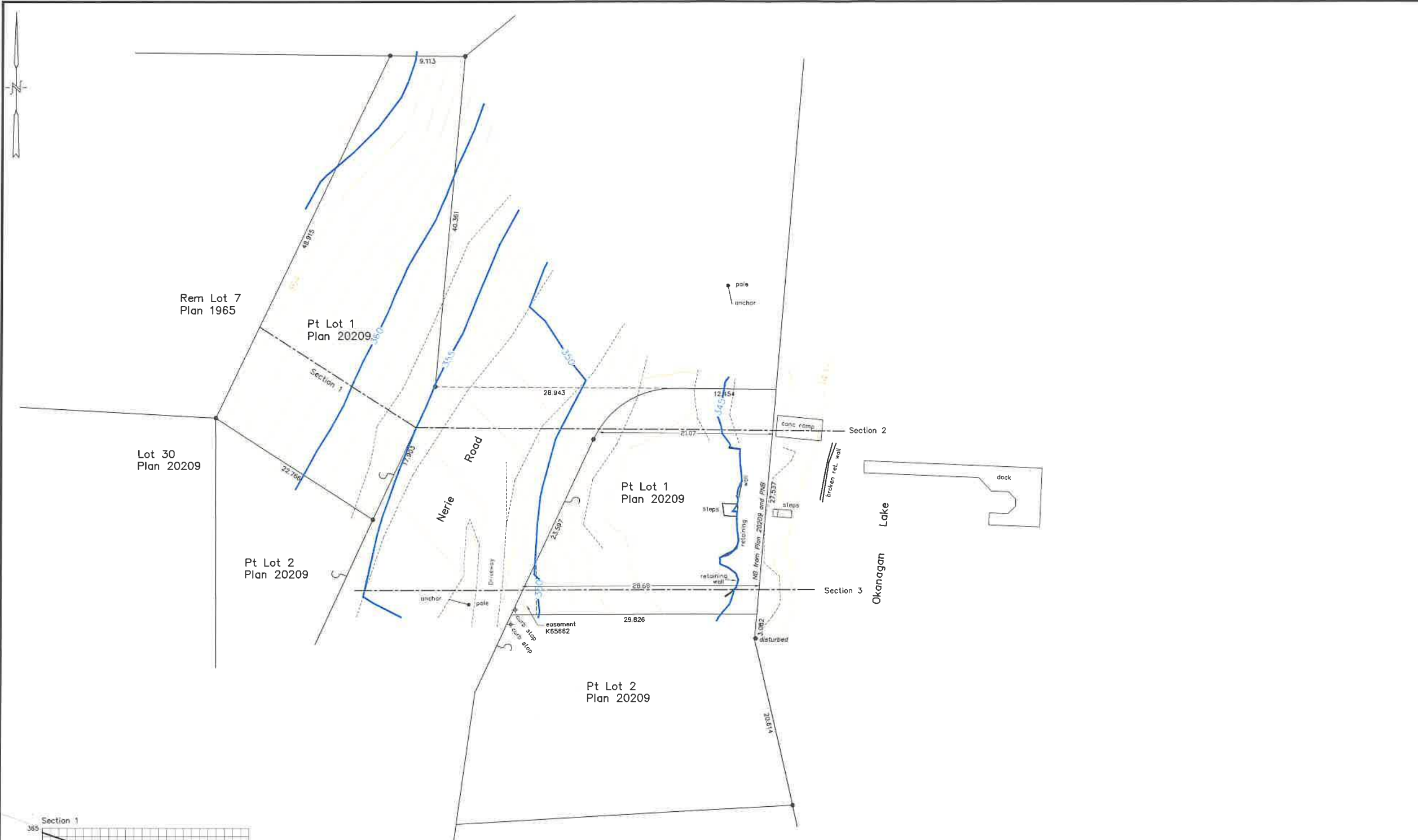
SCALE 1:250

The intended plot size of this plan is 864mm in width by 559mm in height (ANSI D) when plotted at a scale of 1:250

Contour interval = 1m

Elevations are shown in metres, and are based on lake level observations, derived from wateroffice.ec.gc.ca

TITLE IS SUBJECT TO THE FOLLOWING CHARGES:  
Easement - K65662  
Statutory Building Scheme - E25058



This plan was prepared for design purposes and is for the exclusive use of Hometown Builders.

Distances are shown in metres and decimals thereof.  
Parcel dimensions are derived from Plan 20209 and field survey.  
This plan shows horizontal ground level distances except where otherwise noted.

Bearings and distances are derived from field survey observations and are referred to the central meridian of UTM zone 11N, NAD83 CSRS

This plan has been prepared based on Land Title and Survey Authority records and a field survey completed on Dec. 7, 2021. Unregistered interests have not been included or considered.

The Certificate of Title PID 007-889-950 was searched on Sep 29, 2021.

Jason R. Shortt accepts no responsibility for and hereby disclaims all obligations and liabilities for damages including, but not limited to, direct, indirect, special, and consequential damages arising out of or in connection with and direct or indirect use or reliance upon the Plan beyond its intended use.

## TERMS OF ENGAGEMENT

### GENERAL

Interior Testing Services Ltd. (ITSL) shall render the Services performed for the Client on this Project in accordance with the following Terms of Engagement. ITSL may, at its discretion and at any stage, engage subconsultants to perform all or any part of the Services. Unless specifically agreed in writing, these Terms of Engagement shall constitute the entire Contract between ITSL and the Client.

### COMPENSATION

Charges for the Services rendered will be made in accordance with ITSL's Schedule of Fees and Disbursements in effect from time to time as the Services are rendered. All Charges will be payable in Canadian Dollars. Invoices will be due and payable by the Client within thirty (30) days of the date of the invoice without hold back. Interest on overdue accounts is 18% per annum, compounded monthly (19.6%)

### REPRESENTATIVES

Each party shall designate a representative who is authorized to act on behalf of that party and receive notices under this Agreement.

### TERMINATION

Either party may terminate this engagement without cause upon thirty (30) days' notice in writing. On termination by either party under this paragraph, the Client shall forthwith pay ITSL its Charges for the Services performed, including all expenses and other charges incurred by ITSL for this Project.

If either party breaches this engagement, the non-defaulting party may terminate this engagement after giving seven (7) days' notice to remedy the breach. On termination by ITSL under this paragraph, the Client shall forthwith pay to ITSL its Charges for the Services performed to the date of termination, including all fees and charges for this Project.

### ENVIRONMENTAL

ITSL's field investigation, laboratory testing and engineering recommendations will not address or evaluate pollution of soil or pollution of groundwater. ITSL will co-operate with the Client's environmental consultant during the field work phase of the investigation.

### PROFESSIONAL RESPONSIBILITY

In performing the Services, ITSL will provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices and procedures normally provided in the performance of the Services contemplated in this engagement at the time when and the location in which the Services were performed. ITSL makes no warranty, representation or guarantee, either express or implied as to the professional services rendered under this agreement.

### LIMITATION OF LIABILITY

ITSL shall not be responsible for:

- (a) the failure of a contractor, retained by the Client, to perform the work required in the Project in accordance with the applicable contract documents;
- (b) the design of or defects in equipment supplied or provided by the Client for incorporation into the Project;
- (c) any cross-contamination resulting from subsurface investigations;
- (d) any damage to subsurface structures and utilities;
- (e) any Project decisions made by the Client if the decisions were made without the advice of ITSL or contrary to or inconsistent with ITSL's advice;
- (f) any consequential loss, injury or damages suffered by the Client, including but not limited to loss of use, earnings and business interruption;
- (g) the unauthorized distribution of any confidential document or report prepared by or on behalf of ITSL for the exclusive use of the Client.

The total amount of all claims the Client may have against ITSL under this engagement, including but not limited to claims for negligence, negligent misrepresentation and breach of contract, shall be strictly limited to the lesser of our fees or \$50,000.00.

No claim may be brought against ITSL in contract or tort more than two (2) years after the Services were completed or terminated under this engagement.

**PERSONAL LIABILITY**

For the purposes of the limitation of liability provisions contained in the Agreement of the parties herein, the Client expressly agrees that it has entered into this Agreement with ITSL, both on its own behalf and as agent on behalf of its employees and principals.

The Client expressly agrees that ITSL's employees and principals shall have no personal liability to the Client in respect of a claim, whether in contract, tort and/or any other cause of action in law. Accordingly, the Client expressly agrees that it will bring no proceedings and take no action in any court of law against any of ITSL's employees or principals in their personal capacity.

**THIRD PARTY LIABILITY**

This report was prepared by ITSL for the account of the Client. The material in it reflects the judgement and opinion of ITSL in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. ITSL accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This report may not be used or relied upon by any other person unless that person is specifically named by us as a beneficiary of the Report. The Client agrees to maintain the confidentiality of the Report and reasonably protect the report from distribution to any other person.

**INDEMNITY**

The client shall indemnify and hold harmless ITSL from and against any costs, damages, expenses, legal fees and disbursements, expert and investigation costs, claims, liabilities, actions, causes of action and any taxes thereon arising from or related to any claim or threatened claim by any party arising from or related to the performance of the Services.

**DOCUMENTS**

All of the documents prepared by ITSL or on behalf of ITSL in connection with the Project are instruments of service for the execution of the Project. ITSL retains the property and copyright in these documents, whether the Project is executed or not. These documents may not be used on any other project without the prior written agreement of ITSL.

**FIELD SERVICES**

Where applicable, field services recommended for the Project are the minimum necessary, in the sole discretion of ITSL, to observe whether the work of a contractor retained by the Client is being carried out in general conformity with the intent of the Services.

**DISPUTE RESOLUTION**

If requested in writing by either the Client or ITSL, the Client and ITSL shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, the dispute shall be referred to and finally resolved by an arbitrator appointed by agreement of the parties.

**CONFIRMATION OF PROFESSIONAL LIABILITY INSURANCE**

As required by by-laws of Engineers & Geoscientists British Columbia (EGBC), it is required that our firm advises whether or not Professional Liability Insurance is held. It is also required that a space for you to acknowledge this information be provided.

Our professional liability insurance is not project specific for the project and should not be regarded as such. If you require insurance for your project you should purchase a project specific insurance policy directly.

Accordingly, this notice serves to advise you that ITSL carries professional liability insurance. Please sign and return a copy of this form as an indication of acceptance and agreement to the contractual force of these Terms of Engagement.

PRINT NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

ACKNOWLEDGEMENT: \_\_\_\_\_