



Literacy and numeracy profile:

General Worker/Operator in the Infrastructure Industry

This literacy profile identifies the reading, writing, speaking, listening and numeracy used by General Workers/ Operators in the Infrastructure Industry. General Workers may work in a range of industry sectors including Pavement and Surfacing; Civil Construction Works; Utilities; Roadmarking; and Rural.

Most of the tasks listed will involve the use of technical language and abbreviations relevant to the infrastructure industry.

Reading tasks

Read implies that a person reads and understands

Read signs and short texts

- Hazard signs and symbols
- Road signs
- Colour coding
 - Site and services markings
 - Oil types
- Product codes
- Product labels
- Oil and fuel types
- Text messages
- Machinery and vehicle gauges, dipsticks, names, ID numbers

Read forms

- Timesheets
- Leave sheets
- Accident register
- Vehicle check sheets

Read charts, tables and graphs

- List of Job names and numbers
- Dashboard (Timesheet/Time Off/ Damage/PPE offences)
- Equipment lists
- Start Up procedures check list

Read Plans

- Street maps
- Construction plans
- Service plans
- Traffic management plans: to identify type and number of road signs required
- As-built plans

Continued →



Reading tasks *continued...*

Read memos, notices and brochures

- Notices on notice board or whiteboard
- New hazard notices and signage on site hazard board

Read instructions and detailed information

- General Information
 - Health and safety procedures
 - Emergency procedures

- Site Specific information including:
 - Description of job
 - Health and safety information
 - Hazards (Bitumen, Traffic)
 - Environmental compliance information
- Daily Job Sheet Instructions including:
 - Client name and number
 - Supervisor or foreman
 - Employees' names
 - Job location
 - Start time
 - Job instructions
 - Plant and materials required

Read employment related documents

- Employment contracts
- Company policies
- Training Agreements

Read training materials

- Induction folder
- Unit Standard learning notes
- Trainee guides and assessments

Read industry publications

- Company newsletter

Writing tasks

Sign off documents to confirm read (or attended) and understood

- Examples include:
 - Attendance form at weekly Toolbox meeting
 - Dangerous Goods Declaration and Packing Declaration

Write brief notes

- Check in and check out equipment on Equipment Allocation List (name, date, location)
- Suggestions for opportunities for improvement

Complete forms and questionnaires

Administrative

- Time sheets (job number, job name, job location, start time, finish time, total hours)
- Leave forms
- Daily Job Sheets – used for invoicing client. Write in details including:
 - Client name and number
 - Names of employees
 - Start and finish times
 - Job location
 - Type and quantity of materials used
 - Plant type, running hours and fleet number
 - Comments

On Job

- Faults tag or repair request form
- Start Up procedures checklist
- General use logbook form (VTNZ)
- Tally Sheets, for example:
 - Asphalt Mix Usage sheet
 - Load sheet (for dump truck operators only)

Complete forms with the assistance of others

- Opportunity for Improvement form (OFI)
- Health and safety forms for example:
 - Hazard notification
 - Incident and accident forms

Write a complete workplace document

- Write up minutes of a meeting for example:
 - Record information on a Toolbox Meeting Report form

Write for training purposes

- Write detailed answers to questions for Unit Standard assessments
- Complete short answer assessments (e.g. check box activities to obtain Site Safe card)



Speaking and listening tasks

Listening Tasks

Listen to verbal instructions (Clarify if necessary)

- Given by supervisor about:
 - Equipment needed on site
 - Plans for the day
 - Goals for the day
 - Traffic management plans
 - "Rolling off" instructions (Operators only)
 - Park up instructions (Operators only)
- Toolbox meeting

Listen to verbal explanations (Clarify if necessary)

- New hazards on site
- Training instructions and feedback from supervisor

Listen to presentations

- "State of play of the industry" presentations at company or industry meetings
- New equipment demonstrations and/or demo videos

Speaking Tasks

Ask for information

- Confirm daily work assignments face-to-face or by telephone

Clarify instructions

- By asking questions
- By summarizing the supervisor's instructions

Communicate information and give instructions

- Communicate information to contractors
- Communicate safety information to others for example:
 - Identify and explain hazards to on-site visitors
 - Notify staff about emergency procedures in place on site e.g. Lock Out Tags on machinery

Order equipment and materials

- From the company office

Describe a sequence of events

- Report an accident or incident to supervisor
- Describe an accident or incident to supervisor

Orally communicate with the public

- Gain permission to access someone's property
- Explain the purpose for accessing someone's property
- Discuss a public work project with interested parties (public)

Contribute at meetings

- Contribute to discussions on health and safety, debriefings of accidents or incidents

Make suggestions orally

- Suggest solutions or improvements in work processes
- Suggest opportunities for improvement at company meetings
- Verbally explain suggestions detailed on an Opportunity for Improvement Form (OFI form)

Speak for Training Purposes

- Answer assessment questions orally

Communicate in Noisy Environments

- Use mobile phone
- Use CB radio

Use Non-Verbal Communication

- Noise codes
 - Vehicle's horn
- Hand signals (20 – 30 standard signals)



Numeracy tasks

Numbers

- Locate a job number in a list of sequenced numbers
- Extract and use information from levels, dials and gauges
- Identify speed limit signs

Estimate

- Depths to excavate using marked-up measures (shovel, 'T' sticks)
- Distance to signs, road or geographical features
- Volume in truck, stock pile
- Time to complete current tasks, day's work, whole job

Measure

- Depths
 - Excavations
 - Fill layers
 - Roading materials (base course, hot mix)
- Capacity
 - Vehicle refueling
 - Two-stroke mixtures
- Time using the 12 and 24 hr clock (as required)



Calculate Hours

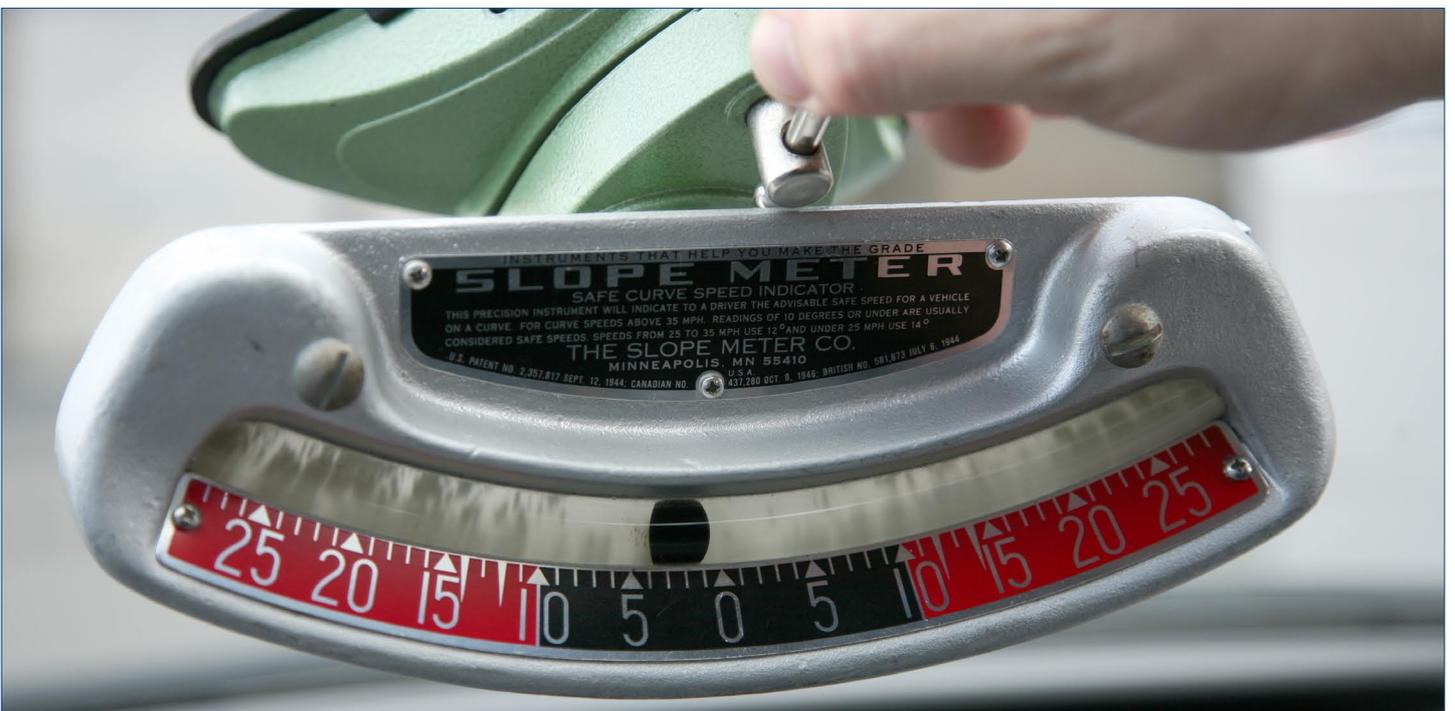
- Total hours of work including: ordinary hours, T1.5 and allowances

Calculate ratios and proportions

- Mix concrete ingredients to the correct ratio
- Mix two-stroke fuel
- Scale lengths on plans and maps

Use grid reference systems

- Maps eg A4 NW to identify locations
- Plans



InfraTrain New Zealand Level 12, 40 Mercer Street, Wellington, PO Box 2759, Wellington Phone: 04 499 9144
Free Phone: 0800 486 626 Fax: 04 499 9145 www.infratrains.co.nz

Workbase: the New Zealand Centre for Workforce Literacy Development 2 Vermont St, Ponsonby, Auckland,
PO Box 56571, Dominion Road, Auckland, New Zealand. Phone: 09 361 3800 Fax: 09 376 3700 www.workbase.org.nz