



ARONA GROUP LTD
Specialist Service Provider

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Event Services: Temporary Traffic Signs, Traffic Control & Management

2022

ARONA GROUP LTD
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Document Control

| | |
|-----------------------|---|
| Contract Title | Arona Group Ltd – Highways Services |
| Report Title | Event Temporary Traffic Signs Traffic Control & Management Services |
| Revision | V1.0 |
| Status | Draft |
| Control Date | 14 July 2022 |

Record of Issue

| Issue | Status | Author | Date | Check | Date | Authorised | Date |
|-------|--------|--------|----------|-------|------|------------|------|
| V1.0 | Draft | LB | 14/07/22 | | | | |
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Distribution

| Organisation | Contact | Copies |
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This document has been produced in response to requests from Event organisers for greater clarity and information regarding the processing of Event Traffic Support. It is not intended to be a wholly comprehensive document, simply a way of explaining the arrangements that Arona Group Limited use.



Introduction

Arona Group Ltd is an infrastructure group. We finance, develop, build and maintain innovative and efficient infrastructure that underpins daily life, supports communities and enables economic growth.

Arona Group Ltd – Highways Services operate a number of strategic highways contracts on behalf of various clients, including Major & Minor event organizers, Major Utility Providers, Infrastructure support Agencies & other local authorities for the management and maintenance of the strategic and local road networks.

Our goal is to maintain these nationally important highway assets in a safe, serviceable condition, whilst ensuring goods and people can move freely to support economic growth and prosperity. We aim to achieve this in the most cost efficient way possible, whilst ensuring that our own workforce and the travelling public are not placed at risk.

We pride ourselves on delivering a quality Service in a timely fashion. We believe that public safety is paramount, and act accordingly in our response & delivery of our Traffic Control & Management Service.

Whether working on the high-speed motorway and trunk road Network or Local low speed roads both requires highly qualified staff and specialist resources to maintain traffic flow and safety. Every effort is made to ensure that this is done in the most efficient way.

We work closely with our clients to provide bespoke support to assist them & the travelling public by ensuring the safe operation of the highway, and smooth flow of traffic with clear, easy to understand temporary road traffic directional Signage and where Necessary traffic Control Systems. Generally, our contracts cover a broad range & Size of events, maintenance and improvement works, both in respect of planned, longer-term activities, and shorter-term reactive repairs and response, as well as network management functions.

Temporary traffic signs to special events can be provided to assist road safety and reduce congestion by giving clear directions to road users seeking the best route to an event.

Regulation 53 of the Traffic Signs Regulations and General Directions 20021 (**TSRGD**) provides for temporary signs to be erected to guide traffic to sporting events, exhibitions or other public gatherings which are expected to attract a considerable volume of traffic.

Regulation 53 of the Traffic Signs Regulations and General Directions 2002 Fixed signs must be one of the following:

black on white; black on yellow; white on blue or blue on white. Under direction 38 of TSRGD1

they may only be displayed for the duration of the event, and not longer than 6 months without the approval of the Secretary of State.

They are usually erected by road user organizations (Traffic Management Contractors) with the consent of the traffic authority. For safety reasons, it is seldom appropriate for private individuals to erect signs on public roads.

Whilst this leaflet contains advice on the design and use of fixed signs, regulation 53 of TSRGD1 also permits the use of light-emitting variable message signs (VMS) for this purpose.

The restrictions and requirements relating to sign content and erection that apply to fixed signs must be applied to VMS. In particular, the guidance in respect of letter sizes is of great importance; the height of upper-case letters is 1.4 times the recommended x-height.

Owing to the volume of requests that we receive, we have a team of dedicated staff operating from our Head office in North Wales. They are available to contact to discuss any queries that you may have with relation to any topics detailed within this document, and can be contacted at enquiries@aronagroup.co.uk or on 03316 300495.

This document is designed to provide a better understanding of the Arona Group Ltd approach to handling the complexities of highway management and, in particular, how we handle Event traffic Support on some of the busiest strategic road in the country. Should you wish to understand our operations in more detail, please let us know via the contact details above, and we would be happy to offer you the opportunity to meet and even view our works.



Our Strategic Highways Contracts

Our contracts cover more than around 3,000 miles of road and a population of around 750,000 people, who are key stakeholders in the services that we deliver, both in terms of safety and reliable journeys.



Management Process

Arona Group Ltd – Event Traffic Support offer a full turnkey Service assisting From Initial Idea to final debrief. Consultancy & Project Management. We work directly with all Local Authorities, Police & Other Governing bodies on your behalf, Below Are some services we offer:

- Large & Small-Scale Event Traffic Support
- In house Bespoke Road Traffic Sign Design & Manufacture
- Car Parking Stewards
- Advance Warning & Information Sign Design
- Permeant & Bespoke temporary Road Traffic sign manufacture & hire
- Temporary Sign Design
- Detailed Temporary Sign Schedules
- Detailed event Traffic Plans
- Pedestrian Management
- Site Support Staff
- On site operation center
- Lane Closures
- Road Traffic Sign Installations
- Temporary Traffic Management Support
- Road Closures & Diversions
- Footpath Closures & Pedestrian Diversions
- Temporary Battery Powered Traffic Signals
- Multiphase Temporary Battery Powered Traffic Signals
- Pedestrian Temporary Battery Powered Traffic Signals
- Priority Systems
- TM CAD Plan Service (24hour Return)
- Convoy Systems
- Stop & Go Teams
- 24 Hour Emergency Response
- Parking Restrictions & Suspensions
- Letter & Leaflet Drops
- Community Liaison & Engagement
- Scheme boards
- Bus Stop Closure & Temporary Bus Stop
- Traffic Safety Control Officers
- Bilingual Road Signs
- Barrier Delivery & Collection
- EToN Noticing



Process:



1. Initial Contact

Our operators will require a certain level of information such as the event organisers Details, Nature of the event, proposed Event venue, start date, Start Time, Duration of the event, estimated visitors, Any allocated & Dedicated car parking facilities.

This information will promptly be passed to one of the lead design team whom will make direct contact with yourself once they have reviewed all the information provided.

2. Discuss Details with Design Team

You will be allocated a single point of contact which is usually the Lead traffic Designer, the Designer will fully explain the process from a traffic support point of view and note any finer details you may require to be included, if possible, into the traffic management plan & Signs design Process.

From this point you can contact the lead Designer at any point should you require any information or guidance.

3. Begin to produce initial Plans

Our Lead designer will use all the information provided & data collected to produce an initial base plan, the plan will be shared with yourself for any amendments (this is not the final plan but used to gain initial thoughts from the local authorities)

Depending on the scale and/or nature of the event this plan may then be shared with one of our strategic commanders who will review in further detail from a strategic view to ensure maximum compliance above & beyond required regulation to ensure traffic flow efficiently & public safety working in collaboration with local police.

4. Gain Local Authorities approval

Once the initial plan has been reviewed in detail by all parties involved, the Lead Designer will produce a detailed final Traffic Plan & Signing Schedule taking into account all the relevant feedback from stage 3.

At this stage relevant supporting documents from local authorities are required to be completed & submitted to guarantee road space for any traffic control systems & Authority to install Special event Road Traffic Signage, any road Closures / diversions will require a Road Closure Notice & relevant Local Authority cost paying prior to

approval being issued. Advance Notification Signage should be installed 7 – 10 days prior to the event

5. Consultation with the Safety Advisory Group (S.A.G)

SAGs provide a forum for discussing and advising on public safety at an event. They aim to help organisers with the planning, and management of an event and to encourage cooperation and coordination between all relevant agencies. They are non-statutory bodies and so do not have legal powers or responsibilities, and are not empowered to approve or prohibit events from taking place. Event organisers and others involved in the running of an event, retain the principal legal duties for ensuring public safety

6. Final Approval & Installation

Once all the steps above are complete our lead designer will compile all the relevant information & data to update the final plan to all involved standards & requirements, a works Quotation will be produced inline with all the information, once you have reviewed & given approval production & installation will commence.

Any changes from this point may be subject to additional costs.

Advance warning signs will be installed 7 – 10 days prior advising of any pending road closure or to expect potential delays

Directional Or bespoke signage will usually be pre-installed the night before while traffic is low to reduce risk to our installing operatives, the signs will not be displayed until required.

On the day of the event if Traffic Management personal are required, they will usually arrive on site at least 45mins prior to requirement to complete a site recce and risk assessment

7. Collection, debrief & Invoice

After the event has finished, depending on the amount of traffic control resource, our on site personal will collect & clear as much as possible the rest will be collected again by our night time shift team during reduced traffic.

A debrief is usually requested by the Local Authorities in which a overview highlighting any causes for concerns, recommendations and a general review is conducted.

Arona Accounts team will issue an invoice once all is completed & accounted for.



Traffic management Plans & Bespoke Signage

At Arona Group Ltd all our Highways & event support Services are in house, from design, consultation to manufacture & supply of equipment.

We utilise the latest technology, most Efficient equipment, fully trained operatives & fully conformative chapter 8 specification vehicles.

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ARONA GROUP LTD
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Official Use Only
TM DRAWING FORM Event Support
EMAIL: enquiries@aronagroup.co.uk
CALL: 01482 338753

| | |
|---|--|
| <p>TRAFFIC MANAGEMENT SYSTEM TYPE: CONWY CIVIC PARADE 2022</p> <p>Warning Signs CONWY CIVIC PARADE 10:30am - 11:00am CONWY CIVIC PARADE DELAYS LIKELY</p> <p>CONWY CIVIC PARADE 10:30am - 11:00am CONWY CIVIC PARADE DELAYS LIKELY</p> <p>1800mm x 750mm 1200mm x 1200mm</p> <p>Key Parade Route Traffic Management Op Position Traffic Management Lead Vehicle</p> <p>Drawing Produced by: LB Approved By: LB</p> | <p>Client: Conwy Town Council Contact: Paul Gibbanks Client Reference: Civic Sunday Streetworks Ref:</p> <p>Site location: Lancaster Square, Conwy, Wales, LL32 8HT,</p> <p>Postcode: LL32 8HT Local Authority: CONWY GRID REF X: 278041 GRID REF Y: 375527 Road USRN: Road Speed: 30mph AWS Install Date: 01/09/2022 Start Date: 11/09/2022 Start Time: 10:30 Finish Date: 11/09/2022 Finish Time: 12:00pm Scale: NTC Drawing Date: 05/05/2022 Comments:</p> <p>NOTES 1. All Signs & Cones to be in accordance with Chapter 8 2019. The current TSDIG & Current S&Ns. 2. Worked Areas & Signs must be installed to be agreed on site. 3. Safety Areas & Running Lanes Widths MUST be installed as requested.</p> <p>ATM Reference: ATM-SPT22-003</p> |
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Example of a Traffic Management plan



Roland RF-640 Versaexpress 64" Vinyl Printer



Safety Advisory Group Process (S.A.G)

SAGs are usually co-ordinated by a Local Authority (LA) and made up of representatives from the LA, emergency services, other relevant bodies and the event organiser. They may be event or location specific but otherwise tend to be based on LA boundaries

Event organisers should determine whether there is a SAG, or similar arrangements, in the relevant area and if appropriate, submit their event proposal for discussion and advice. Attendance of the event organiser at SAG meetings may be voluntary. There are however benefits to be gained from engagement in the SAG process from the outset. LAs may of course require events organiser's attendance e.g., as a condition of using their land.

Discussions may extend beyond an organiser's duty to comply with workplace health and safety law and even the boundaries of an event site, to include considering the impact on the local transport network and civil contingencies in the event of an emergency. The advice provided by the SAG and any decisions taken should be proportionate to the risk profile of the event.

The SAG should advise the event organiser about public safety matters that they think need further consideration, explaining their reasons. It is the event organiser's responsibility to take any appropriate action. On the rare occasion where there is disagreement between a SAG and the event organiser, and there remains a genuine risk to the public, individual organisations on the SAG such as the police, may decide to act to resolve the issue. Decisions on the use of these powers are matters for the relevant authorities to consider, not the SAG and should be discharged separately.

When SAGs consider events where LAs have responsibilities, e.g., as an organiser / co-organiser or landowner, the SAG should make the relevant LA department aware of any concerns so that they can act accordingly. An LA cannot rely on the SAG process to discharge its own legal duties. This is the responsibility of the LA. This will include decisions regarding the granting of public entertainment licenses and road closures.

HSE does not routinely sit on or attend SAG meetings. It is not normally appropriate for HSE to take part in the decision-making process at the planning stage, particularly where the event is organised by an LA. HSE inspectors may, however, be asked by a SAG and/or event organiser to provide advice and guidance on occupational health and safety matters, particularly where HSE is the enforcing authority for the activity concerned e.g., fairgrounds, broadcasting and construction activities. In these circumstances HSE is normally able to provide such advice to regulators, duty holders and others without having to attend the SAG although a local decision may be made that attendance would be appropriate.

HSE inspectors are not in a position to authorise or approve an event organiser's safety plan, so their contribution shouldn't be inferred by the SAG or the event organiser as sanctioning their methods of controlling risk.



Sign Design

Temporary signs should be provided only for events expected to attract a considerable volume of traffic from outside the local area and where there is adequate parking. They should not be used on routes where there are already permanent local direction or tourist signs to the site, although for some major events it might be desirable to indicate other routes to assist traffic management. Where the route to a special event differs from the signed route to a location, temporary signs of the type shown below might be helpful. Signs should not normally be erected more than 48 hours before an event and should not be retained after it has ended.



Organisations erecting temporary traffic signs on the highway must take all necessary measures to avoid obstructing traffic and also to ensure they do not cause additional danger to the public or others working on the highway, as specified in Chapter 8 of the Traffic Signs Manual⁴ and the Code of Practice “Safety at Street Works and Road Works”⁵. They are responsible for the cost of making good any damage to street furniture and statutory undertakers’ equipment resulting from the erection of the signs and must have adequate public liability insurance cover. They will be required to indemnify the traffic authority against any claim arising out of an accident alleged to have been caused by the inadequacy of a

temporary sign whether in siting, visibility, insecure mounting or other cause.

The colours and design of temporary signs are prescribed in TSRGD1 (currently regulation 53 of the 2002 Regulations). The signs must be either rectangular or rectangular with a pointed end. Table 1 sets out the combinations of colours and alphabets that are currently permitted for signs to special events. Black on yellow should be used on motorways.

| Letter Colour | Background Colour | Alphabet |
|---------------|-------------------|------------------|
| Black | Yellow | Transport Heavy |
| Black | White | Transport Heavy |
| Blue | White | Transport Heavy |
| White | Blue | Transport Medium |

Table 1: Permitted design of signs.

The size of a sign will be dictated by the size of lettering required to enable the legend to be read from vehicles travelling at the prevailing traffic speed. Letter size is usually expressed in terms of “x-height”, defined as the height of the lower case letter “x” in millimetres. The layout and/or lettering must not be compressed or otherwise distorted as this will adversely affect legibility. All text on a sign must have the same x-height.

Where signs are mounted above or project over footways or areas readily accessible to pedestrians, the lower edge of the sign must not be less than 2100mm from the ground. This should be increased to 2300mm over cycle tracks or shared-use facilities. Where a sign is mounted above a verge, the mounting height should be between 900mm and 1500mm above the highest point of the adjacent carriageway.



Table 2: TEMPORARY TRAFFIC SIGNS FOR SPECIAL EVENTS - LETTER SIZES AND SITING DISTANCES

| | | Advance Direction Signs | | | Direction Signs (see note 1) | |
|---------------------------------------|--|------------------------------------|---|---|------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 85%ile approach speed of private cars | Examples of typical roads | x-height (see note 2) mm | Distance of sign from junction (see note 3) m | Min. clear visibility distance of sign m | x-height (see note 2) mm | Min. clear visibility distance of sign m |
| Up to 20mph | Very narrow | Not normally needed | | | 60 (50) | 30 |
| 21 to 30mph | Urban and rural roads of local character | 100 (75) | 45-60 | 60 | 75 (60) | 45 |
| 31 to 40mph | Urban dual carriageway and rural single two-lane roads | 125 (100) | 50-90 | 75 | 100 (75) | 60 |
| 41 to 50mph | High standard rural single carriageway roads | 150 (125) | 70-150 | 105 | 125 (100) | 75 |
| 51 to 60mph | Dual carriageway and wide single carriageway roads | 200 (150) | 100-225 | 135 | 150 (125) | 105 |
| 61 to 70mph | High speed all-purpose dual carriageway roads | 250 (200) | 225-325 | 180 | 200 (150) | 135 |
| 70mph | Motorways (see note 4) | 300 (250) | | | | |

NOTES

- Where there is no advance direction sign, letter size and siting for direction signs should be in accordance with columns 3 and 5.
- Temporary signs are frequently co-located with existing signs. Where this occurs, the temporary sign should have the same x-height as the main sign, or that shown in columns 3 and 6 of the Table, whichever is larger. Where free-standing temporary signs are provided, either in the absence of permanent signs or separated from them by at least the lower distance shown in column 4, the alternative x-height shown in brackets may be used. Signs containing more than 4 words should always use the unbracketed x-height.
- Temporary advance direction signs should generally be placed at the distance from the junction shown in column 4. Where there are permanent signs at a junction, it might be appropriate to mount the temporary signs at the same location. Otherwise, temporary signs to special events should be separated from other signs by at least the lower distance in column 4. Special siting considerations apply at motorways and high-speed all-purpose dual carriageway roads. The traffic authority will determine the appropriate sign locations.
- Consent is very rarely given to the provision of temporary signing on motorways. Where it is permitted as an exceptional traffic management measure for a major event, erection of signs should be as specified by the traffic authority. Temporary signs with an x-height greater than 250mm require authorisation.

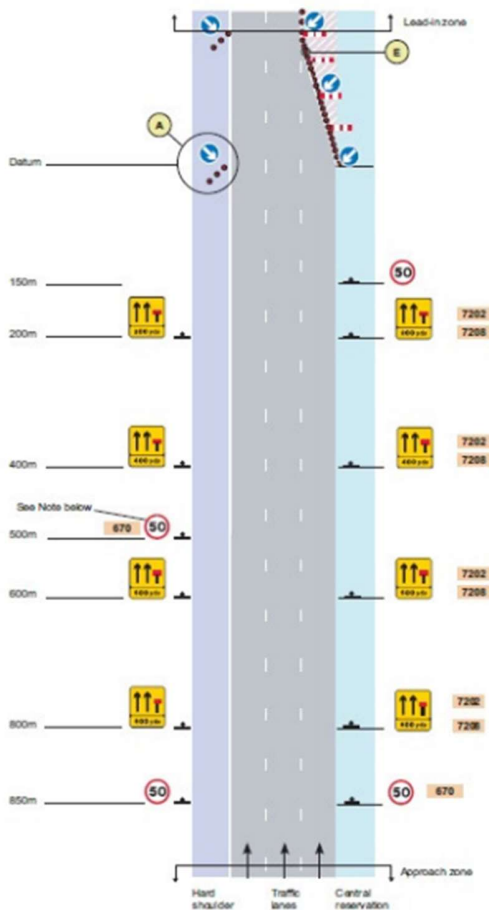
Traffic Management

All works undertaken on public highways involve some form of temporary traffic management to provide and maintain a safe working environment for the operatives, and to segregate and safely divert live traffic from the area. On dual carriageway trunk roads and motorways, this can often represent a considerable proportion of any costs incurred to react to the immediate incident and also to undertake any follow up permanent repairs at a later date. Given this, the following section sets out some further details on this important safety related area of work, so as to provide a better understanding of the scale of planning and operational resources involved.

Temporary traffic management is governed by standards set out in Chapter 8 of the Traffic Signs Manual, to ensure consistency and compliance with the adopted Traffic Sign Regulations & General Directions. Installation, maintenance and removal is further governed by Scheme 12 of the National Highway Sector Scheme, to ensure that it is undertaken correctly and safely. All of our traffic management operatives and sub-contractors are fully conversant with these standards and compliant with the appropriate accreditation, which involves regular update training and re-accreditation.

Temporary traffic management is designed to provide appropriate safe working areas for operations to be undertaken and, as such, incorporates lateral and longitudinal safety zones, as well as lead-in tapers when lanes are being closed. These requirements often mean that temporary traffic management affects a significant length of network, even though a repair may actually only be a few meters long. These safety zones and tapers are defined within Chapter 8, dependent upon the prevailing speed of the network and, given the national speed limit on Motorways and dual-carriageway trunk roads of 70mph, means a minimum length of 400m of coned off area for a simple single-lane closure. In addition, the high speed nature of the network requires extensive advanced signing and illumination to ensure clarity for approaching drivers

Installation of the temporary traffic management itself is also a hazardous activity and, as such, precautions are taken, and controls imposed, to ensure this is undertaken correctly. This normally involves the use of rolling road blocks, crash cushions and other initiatives, all of which require additional specialist resources and associated costs. Arona Group – Highways Services are expecting to remove the crossing of live carriageways, as part of an enhanced drive to improve road worker safety. This approach requires the installation of temporary traffic management for all works on the network, but greatly enhances the safety of road workers, by removing the risk of impact with fast moving traffic.

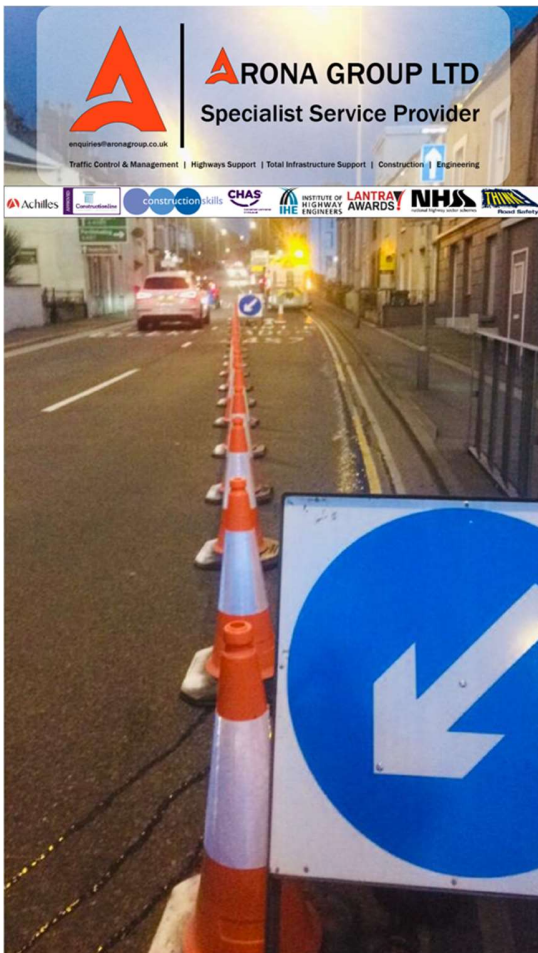


Chapter 8 layout showing the approach signing for a standard Lane 3 closure on a motorway

Temporary traffic management on single carriageway roads is generally less extensive, and can include more active traffic control, such as traffic signals or Stop/Go boards. However, it can also be quite complex, as side roads, pedestrians and other vulnerable road users are often present, and require managing safely through the works.



Installation of Temporary Traffic Management underway utilising two Impact Protection Vehicles (crash cushions) to protect the workforce during sign and cone deployment



Invoicing

Generally the invoice will be reflective of the works quotation originally issued upon initial agreement & appointment of our services, we will gain you approval prior should any additional costs arise for any unforeseen reasons.

We will always advise you based on the most cost-effective solution whilst always maintaining the safety of all involved.

Our operations are available 24 hours a day, 7 days a week, 365 days a year and involve different bands of charges. By way of example, the table opposite sets out the bands that we use for our Operatives on the Highways contracts, together with an explanation of the multiplying factors that would be applicable. Similar arrangements are applied on other contracts, and details will be provided of these, as appropriate. Clearly, the timing of an event will incur these charges, as appropriate.

| Day of the Week | Time of Day | Multiplier |
|--------------------|-------------|------------|
| Monday to Friday | 0800 – 1700 | 1.0 |
| Monday to Thursday | 1700 – 0800 | 1.5 |
| Saturday & Sunday | 0800 – 1700 | 2.0 |
| Friday to Monday | 1700 – 0800 | 2.5 |
| Bank Holidays | 0000 – 2359 | 2.5 |

Typical Resources Used:

- Financial Recovery Team (Pricing)
- Administrative resources, as appropriate

The invoice that we provide is split into three sections, generally following the event management process. We aim to provide backup details for the invoice, but are also happy to respond to any queries via e-mail or our dedicated accounts lines:

(accounts@aronagroup.co.uk and 01492 685888).

X: 460 mm
Y: 416.37 mm



TAX INVOICE

Client One

Invoice Date
24 Jun 2022
Invoice Number
INV-0029
Reference
ATM-JUL22-001.01

Arona Group Ltd
Kemp House,
160 City Road
London
EC1V 2NX
UNITED KINGDOM
accounts@aronagroup.co.uk

| Description | Quantity | Unit Price | Discount | Amount GBP |
|--|----------|------------|----------|------------|
| Client One Incident response Location 1 Location Example | | | | |
| Bespoke advance notification signage Event Consultation package (Inc. Sandbags & Cones) | 1.00 | 340.00 | | |
| Lantra Trained Chapter 8 Traffic Management Operative labour PW Inc. Radio Control | 15.00 | 25.00 | | |
| 10 X 1050mm / 750mm Bespoke Road Signage (Inc. Sandbags & Cones) (EVENT SPONSORSHIP) | 10.00 | 0.00 | 0.00% | |
| Subtotal (includes a discount of 0.00) | | | | |
| TOTAL NO VAT | | | | 0.00 |
| TOTAL GBP | | | | |
| Less Amount Paid | | | | |
| AMOUNT DUE GBP | | | | |

Due Date: 24 Jul 2022
Payment Terms strictly 30days
Account: Arona Group Ltd
Account Number: 63446497
Sort Code: 60-83-71
EMAIL: accounts@aronagroup.co.uk

Typical Resources Used:

- Financial Recovery Team (Pricing)
- Financial Recovery Team (Credit Control)
- Administrative resources, as appropriate



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