

“How To Conduct CCTV Surveys ONCE And Spend The Time Saved On Your Business”

*Giving you the best opportunity to promote
your business and get the results you want.*

Introduction

How do you undertake CCTV surveys **once** so you are not double-handling the report or video?

How should you grow and promote your business using the simplest, quickest methods?

The purpose of this report is to give you the answers to these vitally important questions.

The decision to take on a new way or method of reporting isn't easy. Choosing the right specialist and software can literally mean the success of your business or the failure of it. **It's that critical.** That's why this report has been written – it's to make sure you have the necessary understanding to make this decision. In fact, there are five main reasons why you should read this report:

- 1. To give you the ability to select the right software for your business.**
2. To reduce the risk associated with the decision you have to make.
- 3. To give you confidence to change to a new method.**
4. How you can best spend your time growing your business.
- 5. Some of the easiest methods to promote your business**

After reading this report I promise you one thing – you'll be able to make a more informed decision on the new ways to record CCTV surveys. It won't guarantee the

success of your business. It will give you the best possible chance of achieving your goals and objectives for your business ...

How To Understand What Is Required From The Marketplace

I believe the best starting point is to familiarise yourself with the 'bibles' of the CCTV surveying business:-



- Model Contract Document for Sewer Condition Inspection – 2nd Edition published in March 2005 (Order Code: DUS026X, ISBN # - 1 898920 56 7)
- Manual of Sewer Condition Classification – 4th Edition published in January 2004 (Order Code: DUS021X, ISBN # - 1 898920 50 8)
- The Drain Repair Book – 2nd Edition published in December 2005 (Order Code: DUS028x, ISBN # - 1 898920 89 1)

These publications are available from:-

WRC Publications - <http://www.webookshop.com> (Alternatively, you can call **01793 865069** or **01793 865012**)

For any contractor covering both domestic (private drainage) and strategic (public) CCTV surveys I advise you to obtain all three publications. I would recommend any new business be familiar with all three 'bibles'.

So, what's in these bibles?

Basically in the Manual Of Sewer Condition Classification 4 (MSCC4) you have all of the condition codes used in the UK. The codes used in the UK (4th Edition) have been adapted to the UK national equivalent codes and appear in BS EN 13508-2 (CEN 2003).

N.B. – Manual of Sewer Condition Classification 5th Edition is due in 2011

The MSCC4 also covers the basics of CCTV inspection as well as guidance on the use of the coding system for condition inspection of manholes.

The Model Contract Document For Sewer Condition Inspection 2nd Edition (MCDSCI2) includes updated camera specifications, the use of CD and DVD for video recordings and specifications for Pan & Tilt surveys and Light Ring surveys.

The Drain Repair Book 2nd Edition is made up of four sections; guidance on the inspection and condition assessment of drains, a specification for the repair of drains, a materials specification for cured-in-place pipe repair systems and guidance on septic tanks. The code set (Appendix A) used in the Drain Repair Book 2nd Edition is a simplified code set from the MSCC4.

Section 1 – Recording CCTV Surveys

How To Identify A Reporting System & Company You Can Trust?

It's important at this stage to highlight what makes a successful partnership between you the client and the software/consulting company. There are three criteria that you should look for:-

1. The software company must provide a solution or a new (or improved) method for you.
2. You must achieve some measurable improvements in both operational and marketing results by taking on the company's solutions.
3. You must be able to sustain these improvements over time.

Most consultants are willing to adhere to the first outcome, but not the second and third. Few companies, if any, agree to be accountable for outcomes two and three – but this is what you should seek!

Your Current Methods To Report On CCTV Surveys

The industry is at a crossroads with competing technologies. On one side you have DVD recorders and the other PC's, laptops and PDA's. You have to be careful in selecting which method is most appropriate for you and your customers. This section concentrates on the use of PC based systems as I believe there are many benefits of combining the survey information with the video [digital].

Our experience with domestic DVD recorders has been indifferent. The two major problems are compatibility with playing CD/DVD's on PC based systems. Additionally these recorders are laser devices and are as prone to moisture as the VHS

recorder!!! **We know of many users that have lost their surveys on a DVD recorder.**

VHS Recorder

Yes I know the technology is 30 years old!!! It has had an amazing reign and it is still used today. However, all good things must come to an end. You will notice in the High Street it is very difficult to find a VHS machine.

Please note that if you are working to MCDSCI 2 standards it is no longer permissible to record to VHS. You can however use Super VHS (S-VHS)

The majority of small contracting companies that we deal with usually record their surveys on to VHS tape. Some make notes whilst on site of the manhole numbers, depth etc. Very few report on the drain or sewer (condition or features) at the time of survey. They prefer to review the tape when they return home or to the office and produce the report. There are a number of reasons **why you shouldn't do this:-**

1. Quality of video.

Most modern CCTV cameras are capable of producing 300 – 500 TV lines of resolution. The higher the number the more detail the camera can see. Using VHS tape you can only record 240 lines of resolution. So if you are using a 450-500 TV line camera you are only recording 50% of the resolution of the live picture!

The best time to record your observations and video is at the time of survey. The live picture is the best source to report from.

2. Quality and content of survey you send your customers.

The recommended method of surveying is to stop the camera at every defect/structure/condition and report on it. This way you ensure your customer doesn't suffer the "tube-train" effect. In other words the camera isn't taken through the drain or sewer at speeds you can't see things clearly!

Do you know there are recommended speed limits for drain and sewer surveys?

Diameters less than 200mm – 0.1m/s
Greater than 200mm but not exceeding 310mm – 0.15m/s
Greater than 310mm – 0.2m/s

Check your surveys next time!

3. Double handling the survey information.

This is where most small business owners are struggling and where most of their time is being spent. They undertake the survey and then return to the office and re-survey it again!

You cannot be successful, or more importantly profitable, if you keep doing surveys this way. There has to be a better way ...

Practical Alternatives For Reporting

At some stage you are going to have to consider a PC of some description – it really will help you and your business.

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Option 1 – PDA (Personal Digital Assistant) with Office based PC

What is a PDA, I hear you ask. They look like this:-



They are small, hand held devices that operate on the pocket PC system. The CCTV header information and survey observations can be made at the time of survey.

With the use of a PVR (Personal Video Recorder) a digital recording of the survey can be made. A typical PVR looks like this:-



A hand held device with in-built LCD screen. These devices can be connected to the video output of your CCTV system using the composite video signal.

To give you some idea of the capacity of these devices, a 20 minute survey can be recorded on to a CD or about 2 hours on a DVD (4.7 GB)

So, now you have recorded a digital recording on the PVR and noted the survey information on the PDA. You now have to transfer this information to your office PC.

Using WinCan Lite on your PC it is easy to transfer the survey data from the PDA to the PC via the small cradle/docking station:-



The cradle/docking station is connected to the USB connector on your PC.

The PVR works in very much the same way.



The cradle/docking station is connected to the USB connector on your PC. The video files can be transferred to the correct pipe lengths within WinCan

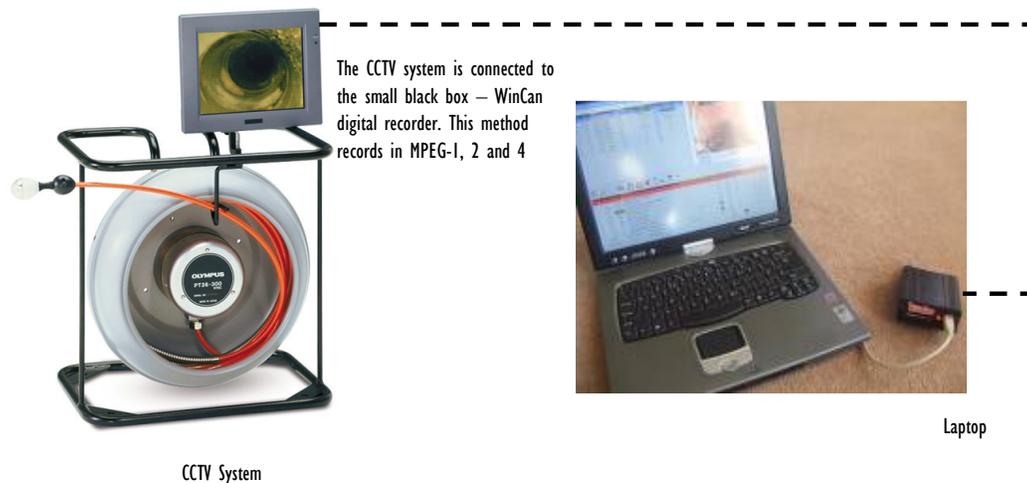
Within the Office PC (with WinCan) you now have all of the survey information together with the video file. You can either print the reports or 'burn' to a CD or DVD to give to your customer.

Some people find the PDA a bit fiddly and difficult to use. The next option to consider is a laptop.

Option 2 – Laptop Computer

As with Option 1 above you can use a PVR to record digital video or using WinCan digital recording (DivX®) the laptop can record the video to the hard drive. **The main advantage of this method is that each observation is ‘marked’ on the video file. This means that when a customer wants to view a particular defect they select the observation and the video plays that defect immediately – a great time saver.**

To do this you have to convert the signal from your CCTV system (analogue) to digital so the laptop can use it. In practice it looks like this:-



Using WinCan Lite on a laptop PC will allow you to report on drains and sewers using the latest codes (Manual of Sewer Condition Classification 4th Edition or Drainage Repair Book 2nd Edition). You can produce the following reports:-

- Project Information
- Summary/Recommendations
- Scaled Colour Pipe Graphics With (out) Photos
- Long hand Reports (WRC format)
- Photos – 2 or 4 per page
- Manhole schedules
- Drawings/schematics (with optional Draw package)

Alternatively, you can ‘burn’ all of the survey information and video file to a **single CD or DVD**. This allows your customers to view the surveys on a PC. They can also print reports. A **huge time saving** for you as you don’t have to print and collate reports.

A typical screen shot of WinCan:-

The screenshot shows the WinCan software interface. At the top, there's a menu bar and a toolbar. Below that is a table with columns for 'No.', 'Total length', 'Road', 'Usercan ID', 'Plan', 'Diameter ID', and 'Alt height'. The table lists 10 sections of 'LINKSVIEW CRESCENT' with various IDs and lengths. To the right of the table is a video player window showing a CCTV camera view of a road. Below the table is a toolbar with icons for 'Inspection' and other functions. At the bottom is a detailed table of defects with columns for 'No.', 'In v', 'CC', 'Observation', 'Depth', 'Plan', 'Photo', 'Def', 'Sim', 'Start', and 'End'. The defects include observations like 'M41 Manhole', 'Water level, 15% height/diameter', 'DEB Debris grease, from 10 to 02 o'clock, 10% cross-sectional area', 'JN Junction, at 3 o'clock, 100mm diameter', 'FLJ Longitudinal Fracture at joint at 12 o'clock', 'DEG Debris grease, from 10 to 02 o'clock, 10% cross-sectional area', 'FLJ Longitudinal Fracture at joint at 12 o'clock, Spok', 'FLJ Longitudinal Fracture at joint at 04 o'clock', 'FLJ Longitudinal Fracture at joint at 08 o'clock', 'CCJ Circumferential Crack at joint, from 02 to 05 o'clock', 'FLJ Longitudinal Crack at joint, at 08 o'clock', 'JN Junction at 03 o'clock, dia 190 mm', 'JN Junction at 03 o'clock, dia 190 mm', and 'CCJ Circumferential Crack, from 10 to 03 o'clock'.

Section detail (number of surveys). 10 surveys are shown in this example.

Digital video or photos played here.

Digital video file for this section.

Details of each defect or observation

Digital photo of this observation.

This set-up is for dedicated CCTV units. Here is a typical layout:-



The same digital recording technique, as above - DivX[®], can be used. However most Water Companies prefer and stipulate a different type of digital file. It is called MPEG – Motion Picture Experts Group – a file format for compressing and storing video files. There are currently three versions of MPEG – MPEG-1, MPEG-2 & MPEG-4.

Most Water Companies are using MPEG-1. This has small file sizes and the resolution of VHS tape (approx. 250 lines). MPEG-2 is DVD quality that you get at

home, which gives good picture quality (up to 500 lines) with large file sizes. MPEG-4 is a combination of MPEG-1 and MPEG-2 – good picture quality with smaller file sizes.

WinCan uses a high performance encoder board that is fitted inside a PC. The user can easily select between MPEG-1, 2 or 4. The digital video is recorded directly to the hard drive of the PC. **The main advantage of this method is that each observation is ‘marked’ on the video file. This means that when a customer wants to view a particular defect they select the observation and the video plays that defect immediately – a great time saver.**

Most users of this set-up choose to use WinCan Mobile. This connects the PC to the CCTV system which reduces the inputting time of the Rig Manager. When the information has been input to the PC, all of this data can be overlaid on the video. In other words, data is input **ONCE**, without the use of the screen writer on the CCTV system.

When the survey is complete all of the observations are uniquely marked on the digital video file. Apart from quality control the survey is **COMPLETE**. It can be ‘burnt’ to CD or DVD and given to a customer, on site! Some companies even print the invoice and accept credit card payments. **No duplication of effort here!**

Option 4 – Ruggedised Laptop for Outdoor Use

This is probably the ultimate in robustness and portability. It also the most expensive in terms of capital cost but the cheapest in retaining or protecting your data!



This system comprises a Panasonic Toughbook CF-30 and purpose made case. The Panasonic laptop can be removed from the docking-station. The system is portable (12.5Kg) and runs from its own battery supply so there is no need for generators etc. The metal case houses the WinCan digital MPEG recorder.

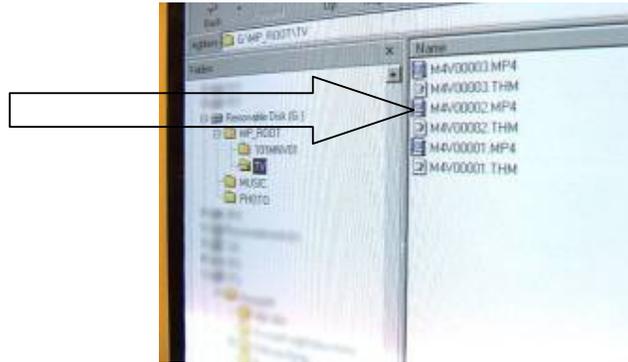
Option 5 – Solid State Flash Card

This is the most robust solution as the recording device does not have any high speed spinning disks. Check with your supplier the format of the recording and its compatibility.



Good quality recording gives approximately one Hour per Gigabyte. So a 2GB card will give 2 hours recording.

To transfer the surveys back to your PC a card reader (internal or external) is used. Then using 'burning' software a CD or DVD can be produced



The majority of digital videos recorded to flash cards can also be embedded inside a WinCan report. Please check with your supplier.

Now that you have saved time producing your CCTV reports you can spend more time on growing your business ...

Section II – Growing & Promoting Your Business

What's Marketing?

You've done your research (haven't you?) and found a gap in the market – something that is unique to you and of sufficient interest and benefit to your potential customers. If not, go back and re-think your business plan. If you don't, you will fail. That is one of the main reasons why 50% of new-start businesses fail within three years!

Your route to optimum business success is to offer the best value-for-money service you can afford, market it powerfully and ensure your customers are totally satisfied. Remember – **what determines how successful you will be is not so much to do with your service, but how well you market it.**

Understand this: Nobody (apart from immediate friends and family) cares about you or your business. Shocking isn't it? But it's true. When people buy a product or service they are buying a result or a benefit. You need to make all your marketing (your communications like adverts, Yellow Page or Thomson adverts, sales letters, press releases and so on) orientated towards customer benefits. The most important part of your business is your customers.

You need to understand the fundamentals of marketing. I hear you say, "I haven't time for all that theoretical stuff." Well, you had better find time to understand the basics of marketing as it is one of the major keys to your success. As we are using basics I will give you my simplified definitions of marketing and sales. 'Marketing' is essentially AWARENESS and 'sales' is PERSUASION. In other words, once the prospect is aware of your services, the sales process persuades him or her that your service is the best value-for-money option.

To do this you cannot use traditional marketing methods. You have to understand the difference between institutional marketing and direct response. Every penny you spend must be accountable and hopefully show a return. You would not employ or keep a salesperson unless he covered his costs and made you money. **Direct Response Marketing is 'Salesmanship In Print'**. If you keep this in mind you should not waste too much money.

Using Institutional Marketing Instead Of Direct Response

Institutional advertising is what most businesses produce. Generally, they will have their business name prominently displayed at the top, with some photographs, a list of what they sell and an 'established since...' statement, with their address and contact details at the bottom.

What they are saying is, "Here we are, this is what we sell, this is the price and you can buy it from us." Not very persuasive, is it? This type of marketing will rarely, if ever, recover its cost, let alone generate a profit. Think about when you purchase a product. Do you just rush out and buy it after you've seen it? Probably not – you want to find out as much as possible. Won't you want to know what it will do for you, how

it will benefit, help, make your life or work easier, better, faster? Why is it better than a competing product, and will it deliver the result you want? Institutional marketing does not answer these questions.

What is direct response marketing? It gives your potential and existing customers information that will compel them to inquire or buy whatever you are selling. It provides sufficient, persuasive detail that answers the questions, “What’s in it for me?” and, “What benefits can I expect?” Direct response marketing is scientific and gives you the power to increase profits by hundreds of per cent, or more.

How Do You Get Started?

The first task is to define a niche market. In other words DEFINE exactly where your market is, because you cannot be ‘all things to all men’. A niche market is specific group of businesses or people that want your service and can afford to pay for it.

It would help if you went to the local library and looked at several Yellow Pages in your area of activity, to discover what your competitors are offering; what they’re not offering; what gains your attention; what puts you off and so on. You should contact a few prospective customers and talk to them about what they look for in your type of service. This will give you a good idea of what they want, what they like and dislike, and perhaps what their existing provider is missing.

Armed with this information, you should be able to formulate ideas on how to be different from your competitors, and hence to formulate your ‘Unique Perceived Benefit’ (UPB). Your UPB is the one real benefit that distinguished you from other companies in the same marketplace, in the mind of your customer. It’s all about what result or benefit your customer gets from you. If you recall Dominoes Pizza’s UPB, “Red hot pizza delivered to your door in 30 minutes, or it’s free!”

During your research you may find that you come up with a few different groups or niches. It is vitally important to communicate separately with each group. DO NOT combine them and talk to them collectively – you will be wasting your time and money. Each group will have a different set of problems or fears. How will your service solve, reduce or eliminate these problems and fears? What would your customers ideally like to receive from you? What would make it perfect for them?

Other Methods

Risk Reversal – You should incorporate this principle into every business transaction you make, as it will have a profound effect on your results. Whenever two parties get together and do business, one side is asked to take the risk. In most selling situations it is the customer that assumes the risk. This is a huge mistake and an injustice to the customer.

Why? Because your customer doesn't know about you, and therefore cannot trust your service like you do. You know how good your service is and the benefits it brings, but the customer does not. The question they are silently asking is, "Will this really work for me and give me the results I want?"

The more you remove the doubts from your customer's mind the more sales you will make. In other words, you remove or reverse the risk. You should assume the risk, and take the responsibility away from your customer, by offering a risk reversal policy in your sales messages along these lines: "I understand that you're not sure whether our service is ideal for you without trying it first. If you are not totally satisfied with it, or it doesn't deliver the benefits we claim, we don't want you to pay us a penny."

Isn't that a powerful sales message? Who could refuse you?

The question of customers taking advantage of this type of offer always comes up. If you are providing a genuinely good service you have nothing to fear. Your sales can increase by as much as 200% while your losses are never more than a few percent. On the whole, customers are honest and only seek value for money. They do not set out to rip you off!

So now you have a strategy that has improved your bottom line profits. You have increased the perceived and real value of your business in your customers' eyes by removing the risk they are usually asked to take.

Educating Customers – The more knowledge customers have about what they are interested in buying, the more they value it. The more they value it, the more they will want to buy it. Anybody interested in buying your service wants as much information as possible.

Allow customers to see behind the scenes of your business. Let them know exactly how you operate, why you use certain products, your attention to detail and so on.

Explain Your Position – Who are you? What is your niche? What is your position? You must take a clear position in order for your market to be attracted to, understand, and appreciate the service you offer.

Lead Customers By The Hand – Customers want and need to be told what action they should take next. It is human nature for people to suffer from inertia. Lead people on a journey through your business, through your risk-reversal policy and risk-free proposition to the point of purchase.

Always Add Value – Give so much added value that your competitors won't be able to keep up with you. Keep re-inventing and innovating the service and products you provide.

Give Outstanding Service – Respond quicker to enquiries. Make the experience more enjoyable. Follow-up after the sale.

Outwit Your Competitors – Look around you and see what most of your competitors are offering. In effect, they are probably saying, “Please buy my service as I could do with the money.” Sad isn’t it? However, that’s what most sales messages are saying. It shouldn’t be hard for you to do better than that. You know it’s all about the customer and nothing to do with you. All you need do to succeed is focus on your customer’s needs, rather than your needs.

Use the Power of the Press – Get free publicity. It’s easy and rewarding. Don’t think that your service isn’t of interest to local papers and magazines. These publications love to print local stories. Just make it interesting for the readers.

Form Joint Ventures – This is probably the most powerful and under-used technique that you could adopt as a new business. The concept is simple: you contact non-competing local businesses that sell to the people you want to sell to. As an example, you could contact an office cleaning company. You explain that you offer high-quality drainage services. You print a quantity of vouchers (offers can be 20% discount of normal charges or a free CCTV survey with jetting etc) and give these to the office cleaning company. Your joint-venture partner benefits by having a valuable free bonus to offer their customers. You benefit by acquiring a flow of new drainage customers at virtually no up-front cost!

Referrals – Introduce a systematic process of getting referrals. This is one of the easiest and cheapest methods of increasing sales. Simply write to existing customers with a worthwhile offer when they introduce a friend or colleague to you. Offer the friend or colleague a preferential first-time offer.

Useful Advertising

In any advertising (classified, display, Thomson & Yellow Pages) and in any brochure, sales letter, radio or TV advert, the most important factor is to capture your prospect’s attention instantly, otherwise you lose the chance to tell your sales message. In just a few seconds you have to captivate and interest your prospect.

The only way for you to achieve this is with powerful headlines – remember it must be in customer’s terms NOT yours. So, don’t do what 95% of British businesses do and start your advert/brochure/letter and so on with your name, ‘established in 1856’ or ‘been in business for 25 years’. So what? Nobody cares!

XYZ Ltd
Established since 1986

**Your Drain
Fixed in 45
Minutes Or We
DON’T Charge**

Which Of These Two Adverts Would You Choose?

You have to come up with a compelling headline that will stop your prospect dead in his or her tracks. The purpose of the headline is to get them to read the first line and then the rest of your sales message. You have approximately five seconds to achieve this! (Unbelievable but true.) I can tell you don't believe me, so try this as an exercise. Pick up a newspaper or magazine and scan through it until you get to an article that catches your interest.

Try and think how you arrived at this particular article. Let's assume it was on page 5. You skimmed through the first four pages which took you anything up to 10 seconds per page. In those forty seconds how many articles did you skip? Say five articles per page, that's twenty articles that didn't catch your eye which works out to be two seconds per article.

Why did you stop at that particular article? **Because it captured your attention.** The headline got your interest. There is no difference between what makes people read, listen or watch these features than what makes them read, listen or watch your sales messages. If you fail to capture their attention instantly, you've lost them. A powerful headline is the major key to your success.

A good headline can out-perform a poor headline by many hundred percent. Think about this when you are buying expensive Yellow Pages or Thomson adverts. DON'T let these agencies write your adverts for you. They don't understand your business. They don't understand direct response marketing. Don't waste your money.

How Do You Write Powerful Headlines

Think of all the benefits your service offers. Look at what you sell from your customer's point of view, NOT yours. Try to answer these questions, and then write as many headlines as you can:-

- How is your service going to help them?
- How will your service solve their problem?
- How is it going to make their life easier?
- Is it going to save them money?
- Is it going to make them money?
- Is it going to save them time?

Don't try to make your headline clever, funny or sarcastic. It tends not to work. Why? Because what you see as clever, funny or sarcastic other people see from a totally opposite view!

Money spending is a serious matter for your customers, so give them factual, interesting and specific information so they can make an informed decision. Making it factual and believable will increase your response.

Make your headlines specific instead of general, as this is more believable. For instance, "This drain stopper is quick to use," isn't as powerful as, "This drain stopper

is 47% quicker to use.” Always try and be specific in everything you write, especially your headlines as they have the greatest impact.

One word of warning: if you find a successful headline and advert and your service doesn't match up to the claims, your money and effort is wasted. There is no need to exaggerate your claims when you can write honestly and with integrity. Work within the boundaries of your service, but certainly find the most persuasive methods of telling your sales messages.

One of the longest surviving bedrocks of the advertising industry is the formula A.I.D.A. This stands for Attention, Interest, Desire and Action. In other words, you gain Attention with your headline, generate Interest in your service to the point where they Desire it and then you tell them how to take Action to obtain it.

If you follow these principles, your marketing and sales effectiveness will improve dramatically.

Good Luck

Appendix 1

Sample CCTV Reports

		ReSearched Solutions Ashover Derbyshire Tel: 01246 591595, Fax: 0870 300 4300	
Project-information			
Project name: PILORY CORNER	Contract number: J011022	Contact:	Date: 17.10.2001
Client	Drainage Consultants		
Contact:	Fred Smith		
Position:	Contracts Manager		
Road	234 high street		
Town	Addlestone		
County	Surrey, kT13 7YY		
Telephone:	01932 456789		
Fax:	01932 456789		
Mobile:	07899 012345		
E-Mail:	drainage@drainage.com		
Site	The LionWorks		
Contact:	Joe Bloggs		
Position:	Site Manager		
Road	Walton Road		
Town	Woking		
County	Surrey, GU21 7GG		
Telephone:	01483 456789		
Fax:	01483 456789		
Mobile:	07999 1213456		
E-Mail:	lion@works.com		
Contractor	ReSearched Solutions		
Contact:			
Position:			
Road	Overton Hall		
Town	Ashover		
County	Derbyshire		
Telephone:	01246 591595		
Fax:	0870 300 4300		
Mobile:			
E-Mail:	russ@drainworld.co.uk		

		ReSearched Solutions Ashover Derbyshire Tel: 01246 591595, Fax: 0370 300 4300			
Inspection report					
Date: 17.10.2001	Job nr.: J011022	Weather: Dry	Operator: TY	section number: 1	PLR: S1 X
Present:	Vehicle:	Camera:	Preset:	Cleaned: Yes	Grade: 1

Road: PILORY CORNER	Division: 1	start MH: S1
Place: FLIMWELL	District: A	end MH: S2
Location: Footpath or verge	Tape No.: 00001	Total length: 42.4 m
Purpose: Structural & Service condition check	Size/Shape: Circular 160	
Use: Surface water	Material: Concrete	Pipe length: 1.6m
Catchment: 834	Lining:	
	Category: A	

Comment:
Location details: S2 OUTSIDE FLIMELL HOUSE FARM

1:325	position	code	observation
Depth: 0.76 / Cover level: 0 / Invert level: 0 /			
	0.00	ST	Start of survey
	0.00	WL	Water level, 5 % height/diameter
	1.10	RFJ	Fine Roots at joint
	1.10	CC	Circumferential Crack, from 06 to 05 o'clock
	1.10	S1 JDS	Joint displaced. Small., Start
	3.10	S2 RFJ	Fine Roots at joint., Start
	6.80	F2 RFJ	Fine Roots at joint., Finish
	11.20	JDM	Joint displaced. Medium
	18.20	S3 RFJ	Fine Roots at joint., Start
	22.50	LD	Line of Sewer deviates down
	27.80	JN	Junction at 09 o'clock, dia 150 mm
	31.90	CC	Circumferential Crack, from 07 to 05 o'clock
	33.10	F3 RFJ	Fine Roots at joint, FINISH
	35.50	JDM	Joint displaced. Medium
	35.50	S4 RFJ	Fine Roots at joint., Start
	37.70	S5 DE	Debris, 10 % cross-sectional area loss., Start
	40.00	F5 DE	Debris, 10 % cross-sectional area loss., Finish
	40.00	F4 RFJ	Fine Roots at joint., Finish
	42.40	FH	Finish survey
Depth: 0.60 / Cover level: 0 / Invert level: 0 /			



Structural Defects	Constructional Features
Service Defects	Miscellaneous Features

		ReSearched Solutions Ashover Derbyshire Tel: 01246 591595, Fax: 0870 300 4300		
Inspection photos				
Place: FLIMWELL	Road: PILORY CORNER	Date: 17.10.2001	section number: 1	FLR: S1 X

WinCan SAMPLE



Photo: 13a, Tape No.: 00001, 00:03:47
18.2m, Fine Roots at joint., Start



Photo: 14a, Tape No.: 00001, 00:06:13
27.8m, Junction at 09 o'clock, dia 150 mm

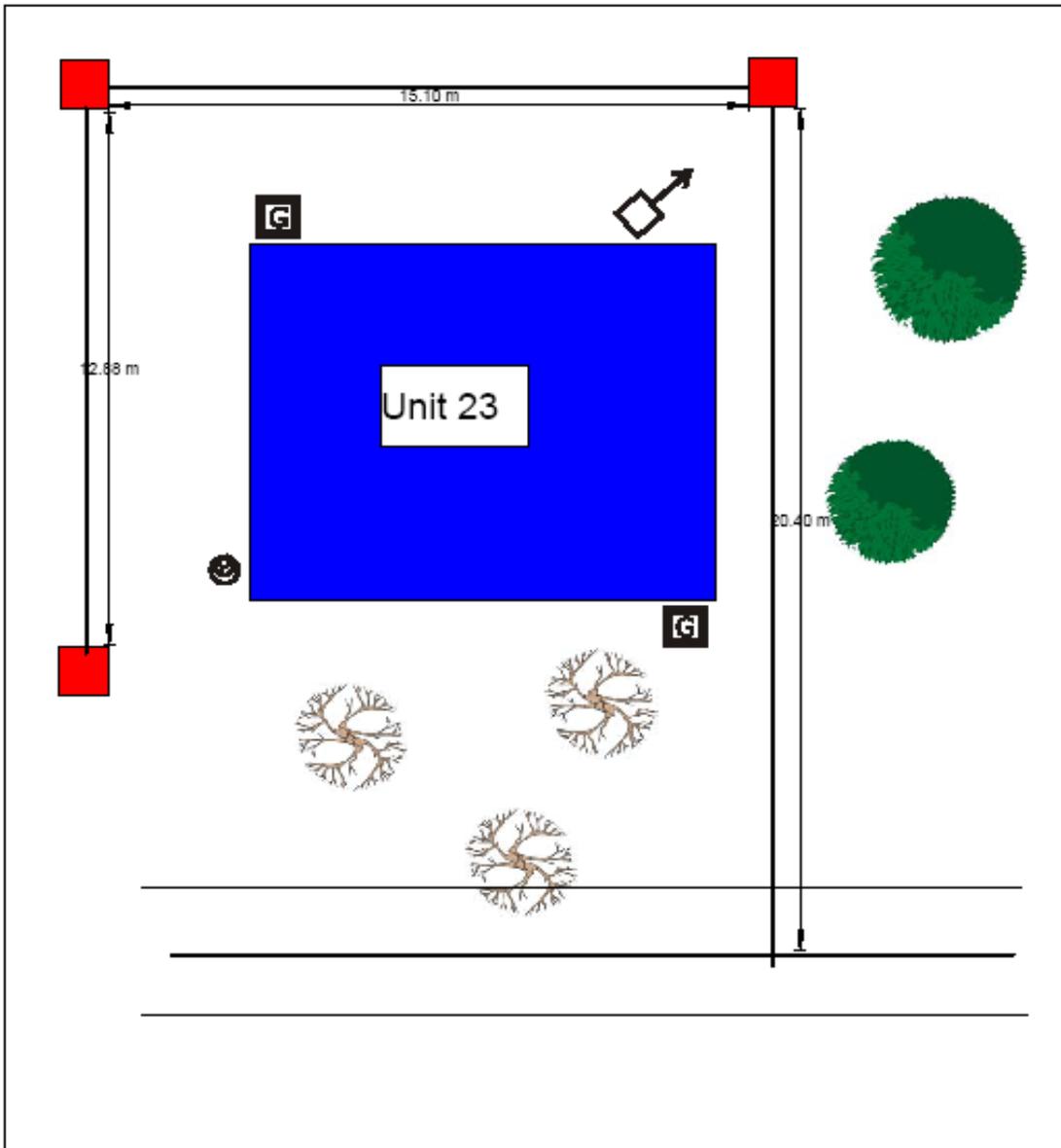


Photo: 17a, Tape No.: 00001, 00:08:19
35.5m, Joint displaced. Medium



Photo: 19a, Tape No.: 00001, 00:09:02
37.7m, Debris, 10 % cross-sectional area loss., Start

			ReSearched Solutions Ashover Derbyshire Tel: 01246 591595, Fax: 0870 300 4300 Web: ReSearched Solutions		
No.: 2	PLR:	Date:	Operator:	Job nr.: J011022	Tapo No.: 00001
Cleaned: A	Present:	Catchment: 834	Vehicle:	Map No.1: 1	Map No.2: A
Road:	PILORY CORNER	start MH:	S1	Material:	Concrete
Town:	FLIMWELL	end MH:	S2	Size/Shape:	Circular, 160
Location:	Footpath or verge	section length:	42.4 m	Joint length:	1.5m
Reason for inspection:	Structural & Service condition	Use:	Surface water	Year laid:	1997
Remark:					



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Legend:

	CESS PIT		SOAKAWAY: FOUL WATER
	GNDFLWC		SURFACE WATER
	SYPHON INTERCEPTOR		PETROL INTERCEPTOR
	PIPE RUN		RAINWATER PIPE
	ROAD GULLY		RODDING EYE
	SEPTIC TANK		SOIL & VENT PIPE
	COMBINED		SOAKAWAY: SURFACE WATER
	GULLY		W.C.
	PUMP CH		FOUL WATER
	Tree_Winter		Tree_Summer