

Robert E. Shannon
City Attorney of Long Beach
333 West Ocean Boulevard
Long Beach, California 90802-4664
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AGREEMENT

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THIS AGREEMENT is made and entered, in duplicate, as of June 1, 2006 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting held on May 23, 2006, by and between CELPLAN TECHNOLOGIES, INC., a Virginia corporation, with a place of business at 1835 Alexander Bell Drive, Suite 200, Reston, Virginia 20191 ("Consultant"), and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, the City requires specialized services requiring unique skills to be performed in connection with the design, installation and maintenance of a video surveillance system ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has ascertained that Consultant, its employees and partners are qualified, licensed, if so required, and experienced in performing such specialized services; and

WHEREAS, City desires to have Consultant perform said specialized services, and Consultant is willing and able to do so on the terms herein;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly set forth in Exhibit "A", attached hereto and incorporated herein by this reference ("Scope of Work"), in accordance with the standards of the profession, and City shall pay for said services in the manner described below, not to exceed \$380,000, at the rates or charges described in Exhibit "A".

B. Consultant may select the time and place of performance hereunder provided, however, that access to City documents, records, and the like, if needed by Consultant, shall be available only during City's normal business hours and provided that

1 milestones for performance, if any, are met.

2 C. City shall pay to Consultant fifty percent (50%) of the total contract price
3 within thirty (30) days of the date of execution of this Agreement by both parties.
4 Thereafter City shall pay Consultant twenty-five percent (25%) of the total contract price
5 following delivery to City of a completed Project and receipt from Consultant and approval
6 by City of an invoice showing the services or task performed. Consultant shall certify on
7 the invoice that Consultant has performed the services in full conformance with this
8 Agreement and is entitled to receive payment. City shall pay Consultant the final twenty-
9 five percent (25%) of the contract price at such time as the Project has been completed,
10 including any punchlist items, and the delivery of the surveillance system has been
11 accepted and approved by City.

12 D. Consultant represents that Consultant has obtained all necessary
13 information on conditions and circumstances that may affect performance hereunder and
14 has conducted site visits, if necessary.

15 E. Consultant shall not begin work until this Agreement has been signed by
16 both parties and until Consultant's evidence of insurance has been delivered to and
17 approved by the City.

18 2. TERM. The term of this Agreement shall commence at midnight on June
19 1, 2006, and shall terminate at 11:59 p.m. on the date which is the one-year anniversary
20 of the date of acceptance of the installation of the Project by City, unless sooner terminated
21 as provided in this Agreement, or unless the services to be performed hereunder or the
22 Project is completed sooner.

23 3. COORDINATION AND ORGANIZATION.

24 A. Consultant shall coordinate performance hereunder with City's
25 representative, if any, named in Exhibit "B", attached hereto and incorporated herein by
26 this reference. Consultant shall advise and inform City's representative of the work in
27 progress on the Project in sufficient detail so as to assist City's representative in making
28 presentations and in holding meetings for the exchange of information. City shall furnish

1 to Consultant information or materials, if any, described in Exhibit "C" attached hereto and
2 incorporated herein by this reference, and shall perform any other tasks described therein.

3 B. The parties acknowledge that a substantial inducement to City for entering
4 this Agreement was and is the reputation and skill of Consultant's key employees Leonhard
5 Korowajczuk and Paulo Leite. City shall have the right to approve any person proposed
6 by Consultant to replace either key employee.

7 4. INDEPENDENT CONTRACTOR. In performing services hereunder,
8 Consultant is and shall act as an independent contractor and not an employee,
9 representative, or agent of City. Consultant shall have control of Consultant's work and the
10 manner in which it is performed. Consultant shall be free to contract for similar services
11 to be performed for others during this Agreement provided, however, that Consultant acts
12 in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges
13 and agrees that a) City will not withhold taxes of any kind from Consultant's compensation,
14 b) City will not secure workers' compensation or pay unemployment insurance to, for or on
15 Consultant's behalf, and c) City will not provide and Consultant is not entitled to any of the
16 usual and customary rights, benefits or privileges of City employees. Consultant expressly
17 warrants that neither Consultant nor any of Consultant's employees or agents shall
18 represent themselves to be employees or agents of City.

19 5. INSURANCE. As a condition precedent to the effectiveness of this
20 Agreement, Consultant shall procure and maintain at Consultant's expense for the duration
21 of this Agreement from insurance companies that are admitted to write insurance in
22 California or from authorized non-admitted insurance companies that have ratings of or
23 equivalent to A:VIII by A.M. Best Company the following insurance:

24 (a) Commercial general liability insurance (equivalent in scope to ISO
25 form CG 00 01 11 85 or CG 00 01 11 88) in an amount not less than One
26 Million Dollars (\$1,000,000) per each occurrence and Two Million
27 Dollars (\$2,000,000) general aggregate. Such coverage shall include but not
28 be limited to broad form contractual liability, cross liability, independent

1 contractors liability, and products and completed operations liability. The
2 City, its officials, employees and agents shall be named as additional
3 insureds by endorsement (on City's endorsement form or on an endorsement
4 equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85), and
5 this insurance shall contain no special limitations on the scope of protection
6 given to the City, its officials, employees and agents.

7 (b) Workers' Compensation insurance as required by the Labor Code
8 of the State of California and employer's liability insurance in an amount not
9 less than One Million Dollars (\$1,000,000).

10 (c) Professional liability or errors and omissions insurance in an
11 amount not less than One Million Dollars (\$1,000,000) per claim.

12 (d) Commercial automobile liability insurance (equivalent in scope to
13 ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an amount
14 not less than Five Hundred Thousand Dollars (\$500,000) combined single
15 limit per accident.

16 Any self-insurance program, self-insured retention, or deductible must be
17 separately approved in writing by City's Risk Manager or designee and shall protect City,
18 its officials, employees and agents in the same manner and to the same extent as they
19 would have been protected had the policy or policies not contained retention or deductible
20 provisions. Each insurance policy shall be endorsed to state that coverage shall not be
21 reduced, non-renewed, or canceled except after thirty (30) days prior written notice to City,
22 and shall be primary and not contributing to any other insurance or self-insurance
23 maintained by City. Consultant shall notify the City in writing within five (5) days after any
24 insurance required herein has been voided by the insurer or cancelled by the insured. If
25 this coverage is written on a "claims made" basis, it must provide for an extended reporting
26 period of not less than one year, commencing on the date this Agreement expires or is
27 terminated, unless Consultant guarantees that Consultant will provide to the City evidence
28 of uninterrupted, continuing coverage for a period of not less than three (3) years,

1 commencing on the date this Agreement expires or is terminated.

2 Consultant shall require that all contractors and subcontractors which
3 Consultant uses in the performance of services hereunder maintain insurance in
4 compliance with this Section unless otherwise agreed in writing by City's Risk Manager or
5 designee.

6 Prior to the start of performance, Consultant shall deliver to City certificates
7 of insurance and required endorsements for approval as to sufficiency and form. In
8 addition, Consultant, shall, within thirty (30) days prior to expiration of the insurance
9 required herein, furnish to City certificates of insurance and endorsements evidencing
10 renewal of such insurance. City reserves the right to require complete certified copies of
11 all policies of Consultant and Consultant's contractors and subcontractors, at any time.

12 Consultant shall make available to City's Risk Manager or designee all books, records and
13 other information relating to the insurance coverage required herein, during normal
14 business hours.

15 Any modification or waiver of the insurance requirements herein shall only
16 be made with the approval of City's Risk Manager or designee. Not more frequently than
17 once a year, the City's Risk Manager or designee may require that Consultant,
18 Consultant's contractors and subcontractors change the amount, scope or types of
19 coverages required herein if, in his or her sole opinion, the amount, scope, or types of
20 coverages herein are not adequate.

21 The procuring or existence of insurance shall not be construed or deemed
22 as a limitation on liability relating to Consultant's performance or as full performance of or
23 compliance with the indemnification provisions of this Agreement.

24 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement contemplates
25 the personal services of Consultant and Consultant's employees, and the parties
26 acknowledge that a substantial inducement to City for entering this Agreement was and is
27 the professional reputation and competence of Consultant and Consultant's employees.
28 Consultant shall not assign its rights or delegate its duties hereunder, or any interest

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1 herein, or any portion hereof, without the prior approval of City, except that Consultant may
2 with the prior approval of the City Manager of City, assign any moneys due or to become
3 due the Consultant hereunder. Any attempted assignment or delegation shall be void, and
4 any assignee or delegate shall acquire no right or interest by reason of such attempted
5 assignment or delegation. Furthermore, Consultant shall not subcontract any portion of
6 the performance required hereunder without the prior approval of the City Manager or
7 designee, nor substitute an approved subcontractor without said prior approval to the
8 substitution. Nothing stated in this Section 6 shall prevent Consultant from employing as
9 many employees as Consultant deems necessary for performance of this Agreement. The
10 use of Insight Video Net, LLC, and Wachter Network Services as subcontractors, as
11 described in Exhibit "A", is approved by City.

12 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
13 certifies and shall obtain similar certifications from Consultant's employees and approved
14 subcontractors that, at the time Consultant executes this Agreement and for its duration,
15 Consultant does not and will not perform services for any other client which would create
16 a conflict, whether monetary or otherwise, as between the interests of City hereunder and
17 the interests of such other client.

18 8. MATERIALS. Consultant shall furnish all labor and supervision, supplies,
19 materials, tools, machinery, equipment, appliances, transportation, and services necessary
20 to or used in the performance of Consultant's obligations hereunder, except as stated in
21 Exhibit "C".

22 9. OWNERSHIP OF DATA. All materials, information and data prepared,
23 developed, or assembled by Consultant or furnished to Consultant in connection with this
24 Agreement, including but not limited to documents, estimates, calculations, studies, maps,
25 graphs, charts, computer disks, computer source documentation, samples, models,
26 reports, summaries, drawings, designs, notes, plans, information, material, and
27 memorandum ("Data") shall be the exclusive property of City. Data shall be given to City,
28 and City shall have the unrestricted right to use and disclose the Data in any manner and

1 for any purpose without payment of further compensation to Consultant. Copies of Data
2 may be retained by Consultant but Consultant warrants that Data shall not be made
3 available to any person or entity for use without the prior approval of City. Said warranty
4 shall survive termination of this Agreement for five (5) years.

5 10. TERMINATION. City shall have the right to terminate this Agreement
6 for any reason or no reason at any time by giving fifteen (15) calendar days prior notice to
7 Consultant, provided that City shall pay Consultant for services satisfactorily performed and
8 costs incurred up to the effective date of termination for which Consultant has not been
9 previously paid. The procedures for payment in Section 1.C. with regard to invoices shall
10 apply. On the effective date of termination, Consultant shall deliver to City all Data
11 developed or accumulated in the performance of this Agreement, whether in draft or final
12 form, or in process. And, Consultant acknowledges and agrees that City's obligation to
13 make final payment is conditioned on Consultant's delivery of the Data and all other
14 deliverables described in the Scope of Work to the City.

15 11. CONFIDENTIALITY. Consultant shall keep the Data confidential and
16 shall not disclose the Data or use the Data directly or indirectly other than in the course of
17 services provided hereunder during the term of this Agreement and for five (5) years
18 following expiration or termination of this Agreement. In addition, Consultant shall keep
19 confidential all information, whether written, oral, or visual, obtained by any means
20 whatsoever in the course of Consultant's performance hereunder for the same period of
21 time. Consultant shall not disclose any or all of the Data to any third party, nor use it for
22 Consultant's own benefit or the benefit of others except for the purpose of this Agreement.

23 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for a
24 breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant
25 knew prior to the time City disclosed it; or (b) Is or becomes publicly available without
26 breach of this Agreement by Consultant; or (c) A third party who has a right to disclose
27 does so to Consultant without restrictions on further disclosure; or (d) Must be disclosed
28 pursuant to subpoena or court order.

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1 13. ADDITIONAL COSTS AND REDESIGN. A. Any costs incurred by the
2 City due to Consultant's failure to meet the standards required by the Scope of Work or
3 Consultant's failure to perform fully the tasks described in the Scope of Work which, in
4 either case, causes the City to request that Consultant perform again all or a part of the
5 Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional
6 compensation to Consultant for such re-performance.

7 B. If the Project involves construction and the scope of work or services
8 requires Consultant to prepare plans and specifications with an estimate of the cost of
9 construction, then Consultant may be required to modify the plans and specifications, any
10 construction documents relating thereto, and Consultant's estimate, at no cost to City,
11 when the lowest bid for construction received by City exceeds by more than ten percent
12 (10%) Consultant's estimate. Said modification shall be submitted in a timely fashion to
13 allow City to receive new bids within four (4) months of the date on which the original plans
14 and specifications were submitted by Consultant.

15 14. AMENDMENT. This Agreement, including all Exhibits, shall not be
16 amended, nor any provision or breach hereof waived, except in writing signed by the
17 parties which expressly refers to this Agreement.

18 15. LAW. This Agreement shall be governed by and construed pursuant to
19 the laws of the State of California (except those provisions of California law pertaining to
20 conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations
21 of and obtain such permits, licenses, and certificates required by all federal, state and local
22 governmental authorities.

23 16. ENTIRE AGREEMENT. This Agreement, including all Exhibits,
24 constitutes the entire understanding between the parties and supersedes all other
25 agreements, oral or written, with respect to the subject matter herein.

26 17. INDEMNITY. Consultant shall, with respect to services performed in
27 connection with this Agreement, indemnify and hold harmless the City, its Boards,
28 Commissions, and their officials, employees and agents (collectively in this Section, "City")

1 from and against any and all liability, claims, demands, damage, loss, causes of action,
2 proceedings, penalties, costs and expenses (including attorney's fees, court costs, and
3 expert and witness fees) (collectively "Claims" or individually "Claim"). Claims include
4 allegations and include by way of example but are not limited to: Claims for property
5 damage, personal injury or death arising in whole or in part from any negligent act or
6 omission of Consultant, its officers, employees, agents, sub-consultants, or anyone under
7 Consultant's control (collectively "Indemnitor"); Consultant's breach of this Agreement;
8 misrepresentation; willful misconduct; and Claims by any employee of Indemnitor relating
9 in any way to worker's compensation. Independent of the duty to indemnify and as a
10 free-standing duty on the part of Consultant, Consultant shall defend City and shall
11 continue such defense until the Claim is resolved, whether by settlement, judgment or
12 otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of
13 Indemnitor shall be required for the duty to defend to arise. Consultant shall notify the City
14 of any claim within ten (10) days. Likewise, City shall notify Consultant of any claim, shall
15 tender the defense of such claim to Consultant, and shall assist Consultant, as may be
16 reasonably requested, in such defense.

17 18. AMBIGUITY. In the event of any conflict or ambiguity between this
18 Agreement and any Exhibit, the provisions of this Agreement shall govern.

19 19. COSTS. If there is any legal proceeding between the parties to enforce
20 or interpret this Agreement or to protect or establish any rights or remedies hereunder, the
21 prevailing party shall be entitled to its costs and expenses, including reasonable attorneys'
22 fees and court costs (including appeals).

23 20. NONDISCRIMINATION. In connection with performance of this
24 Agreement and subject to applicable rules and regulations, Consultant shall not
25 discriminate against any employee or applicant for employment because of race, religion,
26 national origin, color, age, sex, sexual orientation, AIDS, HIV status, handicap, or disability.
27 Consultant shall ensure that applicants are employed, and that employees are treated
28 during their employment, without regard to these bases. Such actions shall include, but

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1 not be limited to, the following: Employment, upgrading, demotion or transfer, recruitment
2 or recruitment advertising, layoff or termination, rates of pay or other forms of
3 compensation, and selection for training, including apprenticeship.

4 It is the policy of City to encourage the participation of Disadvantaged,
5 Minority and Women-owned Business Enterprises in City's procurement process, and
6 Consultant agrees to use its best efforts to carry out this policy in the award of all approved
7 subcontracts to the fullest extent consistent with the efficient performance of this
8 Agreement. Consultant may rely on written representations by subcontractors regarding
9 their status. City's policy is attached as Exhibit "D" hereto. Consultant shall report to City
10 in May and in December or, in the case of short-term agreements, prior to invoicing for final
11 payment, the names of all sub-consultants engaged by Consultant for this Project and
12 information on whether or not they are a Disadvantaged, Minority or Women-Owned
13 Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C.
14 Sec. 637).

15 21. NOTICES. Any notice or approval required hereunder by either party
16 shall be in writing and personally delivered or deposited in the U.S. Postal Service, first
17 class, postage prepaid, addressed to Consultant at the address first stated herein, and to
18 the City at 333 West Ocean Boulevard, Long Beach, California 90802, Attention: City
19 Manager with a copy to the City Engineer at the same address. Notice of change of
20 address shall be given in the same manner as stated herein for other notices. Notice shall
21 be deemed given on the date deposited in the mail or on the date personal delivery is
22 made, whichever first occurs.

23 22. COPYRIGHTS AND PATENT RIGHTS. A. Consultant shall place the
24 following copyright protection on all Data: © City of Long Beach, California _____, inserting
25 the appropriate year.

26 B. City reserves the exclusive right to seek and obtain a patent or copyright
27 registration on any Data or other result arising from Consultant's performance of this
28 Agreement. By executing this Agreement, Consultant assigns any ownership interest

1 Consultant may have in the Data to the City.

2 C. Consultant warrants that the Data does not violate or infringe any patent,
3 copyright, trade secret or other proprietary right of any other party. Consultant agrees to
4 and shall protect, defend, indemnify and hold City, its officials and employees harmless
5 from any and all claims, demands, damages, loss, liability, causes of action, costs or
6 expenses (including reasonable attorneys' fees) whether or not reduced to judgment,
7 arising from any breach or alleged breach of this warranty.

8 23. COVENANT AGAINST CONTINGENT FEES. Consultant warrants that
9 Consultant has not employed or retained any entity or person to solicit or obtain this
10 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
11 commission, or other monies based on or from the award of this Agreement. If Consultant
12 breaches this warranty, City shall have the right to terminate this Agreement immediately
13 notwithstanding the provisions of Section 10 hereof or, in its discretion, to deduct from
14 payments due under this Agreement or otherwise recover the full amount of such fee,
15 commission, or other monies.

16 24. WAIVER. The acceptance of any services or the payment of any money
17 by City shall not operate as a waiver of any provision of this Agreement, or of any right to
18 damages or indemnity stated in this Agreement. The waiver of any breach of this
19 Agreement shall not constitute a waiver of any other or subsequent breach of this
20 Agreement.

21 25. CONTINUATION. Termination or expiration of this Agreement shall not
22 affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17,
23 19, 22, and 28 prior to termination or expiration of this Agreement.

24 26. TAX REPORTING. As required by federal and state law, City is
25 obligated to and will report the payment of compensation to Consultant on
26 Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and
27 state taxes resulting from payments under this Agreement. Consultant's Employer
28 Identification Number is [REDACTED] If Consultant has a Social Security Number rather

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1 than an Employer Identification Number, then Consultant shall submit that Social Security
2 Number in writing to City's Accounts Payable, Department of Financial Management.
3 Consultant acknowledges and agrees that City has no obligation to pay Consultant
4 hereunder until Consultant provides one of the aforesaid Numbers.

5 27. ADVERTISING. Consultant shall not use the name of City, its officials
6 or employees in any advertising or solicitation for business, nor as a reference, without the
7 prior approval of the City Manager or designee.

8 28. AUDIT. City shall have the right at all reasonable times during the term
9 of this Agreement and for a period of five (5) years after termination or expiration of this
10 Agreement to examine, audit, inspect, review, extract information from, and copy all books,
11 records, accounts, and other documents of Consultant relating to this Agreement.

12 29. THIRD PARTY BENEFICIARY. This Agreement is not intended or
13 designed to or entered for the purpose of creating any benefit or right for any person or
14 entity of any kind that is not a party to this Agreement.

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IN WITNESS WHEREOF, the parties hereto have caused this document to be duly executed with all formalities required by law as of the date first stated herein.

"Consultant"

CELPLAN TECHNOLOGIES, INC.,
a Virginia corporation

June 13, 2006

By Leonhard Korowajczuk
President
Leonhard Korowajczuk
(Type or Print Name)

June 13, 2006

By [Signature]
Secretary
Eliani Fritsch Korowajczuk
(Type or Print Name)

"City"

CITY OF LONG BEACH,
a municipal corporation

7.10., 2006

By [Signature]
City Manager

This Agreement is approved as to form on June 14, 2006.

ROBERT E. SHANNON, City Attorney

By [Signature]
Deputy

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EXHIBIT "A"
SCOPE OF SERVICES

Long Beach, CA- Pine Boulevard Video Surveillance Project

Alternate Proposal C	Part Number	Model	Description	Quantity
1 Street Surveillance Equipment				
Camera	SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	17
Intersection Units	CPE-001	Custom Enclosure & UPS	15 minutes back up	9
	CPE-002	CustomEquipment Enclosure	NEMA Enclosure	9
	SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	9
	SC240-P24-1024M	Industrial Computer or equivalent	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	9
	I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	9
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	9
	PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	17
Electrical connection fees				9
Client Radio	FR100	FlexiRadio 100	Flexiradio 100 with Cardbus	9
Client Radio FW	FR100 Client FW	FR100 Client Firmware	Client Firmware for FlexiRadio license	9
Client Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	9
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector or equivalent	Surge Protector	9
	CPT-003	50 ohm port terminator	Port Terminator	9
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	9
	CPK-004	N and SMA connector set	Coaxial connector kit	9
Installation Material		Miscellaneous	Electrical & Cable material	9
Installation Service		Rental	Labor, per diem and travel	9
			Lift (Cherry Picker)	1
			Site survey	1
Signage	CPS-006	Custom signage 5"x 4", platic with adhesive	Custom signage 5"x 4"	9
2 Backhaul Equipment				
Backhaul Radio	FR500-D-1PS/2X	Flexiradio 500- 17 dBm AP and 17 dBm Backhaul Radio	Flexiradio 500- 17 dBm AP and 17 dBm Backhaul Radio	1
	FR500-D-1PS/2PS	FlexiRadio 500- 17 dBm Backhaul Radio		1
AP/Backhaul Radio FW	FR 500 AP Firmware	AP Firmware for FlexiRadio PS	FlexiRadio 500- 17 dBm Backhaul Radio	1
	FR 500 AP Firmware	Bachaul Firmware for FlexiRadio PS	AP Firmware for FlexiRadio PS	1
		4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	Bachaul Firmware for FlexiRadio PS	2
AP/Backhaul Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	2
	HG4911P	4.9 GHz 11 dBi Panel Anetnna or equivalent	11 dBi panel antenna	2
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector or equivalent	Surge protector	4
	CPT-003	50 ohm port terminator	Port Terminator	2
Enclosure	CPE-001-1	Enclosure & UPS	NEMA Enclosure and UPS	2
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	3
	CPK-004	N and SMA connector set	Coaxial connector kit	6
	CPK-005	FR500-Pole Mounting kit	Pole mounting FR500	1
Ethernet connection	S14H-12VDC	4 Port Swtich or equivalent	Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1
	CPC-008	Cat6 cable up to 25 meter	Cat6 cable up to 25 meter	1
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	9
Installation Service		Backhaul installation	Backhaul Instalation	1
3 Monitoring Center				
Monitoring Screens for two Monitoring Stations	S400p	40" LCD S400p or equivalent	SamSung, SYNCMASTER 400P LCD DISPLAY 40 inch, w/Wall Mount	4
Monitoring and Video Server	RS-200-X32	Xeon Server RS-200-X32 or equivalent	Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1
Workstation	RW-100-X34	Workstation RW-100-X34 or equivalent	Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2

		Monitoring Desk	Monitoring Desk with Rack Mount Slider	1
Monitoring Software	Insight-B-3.5 Insight-B-70C-3.5	Insight Video Net Building-B-3.5 Insight-B-70C-3.5	Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses: Includes IVS 31 to 70 connection licenses	1 13
Client and AP Software	Insight-B-2-RED-3.5	Insight-B-2-RED-3.5 Software Version Upgrades Software Updates AP and client SW 0 to 20 connection licenses Software Version Upgrades Software Updates	Local Redundant Archiving for 2 cameras (1 License per PC Brick) (90) days from date of issue of license (1) year from date of issue of license AP and client SW 0 to 20 connection licenses (90) days from date of issue of license (1) year from date of issue of license	7 1 1 1 7 1 1
Printer Monitoring Center Installation		Stylus C-86 color Inkjet printer or equivalent Monitoring Center Installation	Stylus C-86 color Inkjet printer or equivalent Monitoring Center Installation	1 1
4 Professional Services				
Video professional services	DES001	Architecture and Design Services	Infrastructure, database and security design (1 days onsite)	1
RF professional services	ICT001	Site Services Network Design Site Services	IVN hardware / software installation, customization and testing (2 days onsite) Cell and Backhaul RFdesign Radio and antenna installation, customization and testing (5 days)	2 4 5
5 Staging				
Staging Camera and VPN SW	SBS001	Video Staging and Burn-in Services	Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonga, CA	7
Staging Radio Network		RF AP and Client Staging and Burn-in Services	Assemble and test (1) AP and (1) client. Services are performed in CelPlan staging facility in Reston, VA	7
		RF BACKhaul Staging and Burn-in Services	Assemble and test (1) client. Services are performed in CelPlan staging facility in Reston, VA	1
6 Training				
Training Video System	OEU00F	Onsite training	Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 students) Insight Video Net DVMS (Fixed) - System Admin and Operator Training (2 days - Up to 10 students)	1 2
	OSAOT00F	Onsite training	Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
Training Radio System	TL001 TL002	Travel & lodging (Day 1) Travel & lodging (Day 2+)	Transportation, lodging etc. FlexiRadio Configuration and Performance Verification	0 2
		On Site Training	Transportation (Order receipt at least 14 calendar days prior to installation)	1
		Travel	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3
		Lodigng		
7 Maintenance/Service		Maintenance and Service		
8 System Acceptance				
		On Site Acceptance	FlexiRadio Configuration and Performance Verification	5
		Travel	Transportation (Order receipt at least 14 calendar days prior to installation) Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	1 6
		Lodigng		
		On site acceptance, travel, lodging		
		On site acceptance, travel, lodging		
9 Project Management				

Global project management		Project Management Services	Project coordination, documentation and oversight (2 days onsite)	20
Video project management	PM001	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	2
RF project management		Project Management Services	Project coordination, documentation and oversight (2 days onsite)	5
		Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	4
		Lodigng	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
		Project Management Services, travel, lodging	Project coordination, documentation and oversight ,Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	1
10 Shipping and Handling		Shipping and Handling	UPS Ground or equivalent	
		Shipping and Handling	UPS Ground or equivalent	
11 Spares				
	SD53CBW-PG-E0	Spectra III SE Series Dome System	23X Day/Night- environmental pendant, smoked glass, light gray	2
	SW-1241A5	Power converter	12v DC 4 amp Power supply for VPU Encoder	1
	SC240-P24-1024M	Industrial Computer	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	1
	I1502	Video Encoder	(2) Port Ethernet video server (encoder) without Audio	1
	S14H-12VDC	4 Port Switch	Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	4
	PTC-BNM-BNF	BNC-Lightning Surge Protector	Camera & VPU Lightning protection	2
	FR500-D-1PS/2X	FlexiRadio 500	Flexiradio 500 with Single Radio for Public Safety	2
	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	1
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector or equivalent	Surge Protector	4
	CPT-003	50 ohm port terminator	Port Terminator	1
	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	2
	CPK-004	N and SMA connector set	Coaxial connector kit	4
	HG4911P	4.9 GHz 11 dBi Panel Anetnna or equivalent	11 dBi panel antenna	1
12 Complimentary				
Client Radio	FR100	FlexiRadio 100	Flexiradio 100 with Cardbus	20
Client Radio FW	FR100 Client FW	FR100 Client Firmware	Client Firmware for FlexiRadio license	20
Access Point	FR 500 AP Firmware	AP Firmware for FlexiRadio PS	AP Firmware for FlexiRadio PS	3
Access Point FW	FR 500 AP Firmware	Bachaul Firmware for FlexiRadio PS	Bachaul Firmware for FlexiRadio PS	3
EQUIPMENT PRICE	\$	205,758.96		
SALES/ USE TAX	\$	16,975.11		
SERVICES	\$	157,265.93		
TOTAL	\$	380,000.00		

Description	Quantity
23X Day/Night- environmental pendant, smoked glass, light gray	17
NEMA Enclosure and UPS (4 hour back up)	9
NEMA Enclosure	9
12v DC 4 amp Power supply for VPU Encoder	9
P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	9
(2) Port Ethernet video server (encoder) without Audio	9
RS422/485 Camera & VPU Lightning Protec.	9
Camera & VPU Lightning protection	17
Flexiradio 100 with Cardbus	9
Client Firmware for FlexiRadio license	9
7 dBi antenna	9
Surge Protector	9
Port Terminator	9
Coaxial cable (RG184 up to 3 meter)	9
Coaxial connector kit	9
Electrical & Cable material	9
Labor, per diem and travel	9
Lift (Cherry Picker)	1
Site survey	1
Custom signage 5"x 4"	9
Flexiradio 500- 17 dBm AP and 17 dBm Backhaul Radio	1
FlexiRadio 500- 17 dBm Backhaul Radio	1
AP Firmware for FlexiRadio PS	1
Bachaul Firmware for FlexiRadio PS	2
7 dBi antenna	2
11 dBi panel antenna	2

Surge protector	4
Port Terminator	2
NEMA Enclosure and UPS	2
Coaxial cable (RG184 up to 3 meter)	3
Coaxial connector kit	6
Pole mounting FR500	1
Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1
Cat6 cable up to 25 meter	1
RS422/485 Camera & VPU Lightning Protec.	9
Backhaul Instalaltion	1
SamSung, SYNCMASTER 400P LCD DISPLAY 40 inch, w/Wall Mount	3
Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1
Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2
Monitoring Desk with Rack Mount Slider Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses:	1
Includes IVS	1
31 to 70 connection licenses	13
Local Redundant Archiving for 2 cameras (1 License per PC Brick)	7
(90) days from date of issue of license	1
(1) year from date of issue of license	1
AP and client SW	1
0 to 20 connection licenses	7
(90) days from date of issue of license	1
(1) year from date of issue of license	1
Stylus C-86 color Inkjet printer or equivalent	1
Monitoring Center Installation	1
Infrastructure, database and security design (1 days onsite)	1
IVN hardware / software installation, customization and testing (2 days onsite)	2
Cell and Backhaul RFdesign	4
Radio and antenna installation, customization and testing (5 days)	5

Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonga, CA	7
Assemble and test (1) AP and (1) client. Services are performed in CelPlan staging facility in Reston, VA	7
Assemble and test (1) client. Services are performed in CelPlan staging facility in Reston, VA	1
Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 students)	1
Insight Video Net DVMS (Fixed) - System Admin and Operator Training (2 days - Up to 10 students)	2
Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
Transportation, lodging etc.	0
FlexiRadio Configuration and Performance Verification	2
Transportation (Order receipt at least 14 calendar days prior to installation)	1
Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3
FlexiRadio Configuration and Performance Verification	5
Transportation (Order receipt at least 14 calendar days prior to installation)	1
Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	6
Project coordination, documentation and oversight (2 days onsite)	20
Project coordination, documentation and oversight (2 days onsite)	2
Project coordination, documentation and oversight (2 days onsite)	5

Transportation (Order receipt at least 14 calendar days prior to installation)	4
Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
Project coordination, documentation and oversight ,Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	1
23X Day/Night- environmental pendant, smoked glass, light gray	2
12v DC 4 amp Power supply for VPU Encoder	1
P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	1
(2) Port Ethernet video server (encoder) without Audio	1
Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1
RS422/485 Camera & VPU Lightning Protec.	4
Camera & VPU Lightning protection	2
Flexiradio 500 with Single Radio for Public Safety	2
7 dBi antenna	1
Surge Protector	4
Port Terminator	1
Coaxial cable (RG184 up to 3 meter)	2
Coaxial connector kit	4
11 dBi panel antenna	1
Flexiradio 100 with Cardbus	20
Client Firmware for FlexiRadio license	20
AP Firmware for FlexiRadio PS	3
Bachaul Firmware for FlexiRadio PS	3

CELPLAN RESPONSE TO THE REQUEST FOR PROPOSALS for PINE AVENUE VIDEO CAMERA MONITORING SYSTEM CITY OF LONG BEACH

1. INTRODUCTION

The City of Long Beach is seeking a vendor to procure, install and maintain a closed caption video monitoring system along Pine Avenue in the downtown area. The system will deploy a series of cameras along Pine Avenue, starting at Shoreline Drive and continuing north until at least 4th Street and possibly 6th Street. The cameras will feed a signal back to a centralized monitoring center.

Understood. CelPlan Technologies, Inc is pleased to participate and has assembled an experienced team to fulfill this RFP. The Team members are:

- CelPlan Technologies, Inc.*
- Insight Video Net, LLC.*
- Wachter Network Services, LLC.*

Celplan is presenting its replies to each item of this RFP and to make the correlation easier we itemized them. All our replies are in Italic text.

A. Background

The City of Long Beach (City) is the fifth largest city in the state of California. With a population of approximately 491,000, it employs more than 6,000 full and part-time personnel in 22 departments and offices. In addition to the usual municipal services of police, fire, public works, library services, and parks and recreation, the City operates a leading deep-water port, offshore and onshore oil production facilities, gas and water utilities, refuse collection, a commercial airport, a health department, a convention and entertainment center, two historic ranchos, marinas, and golf courses.

There is a developing entertainment district within the downtown area, centered along Pine Avenue. This area contains numerous restaurants and retail establishments, as well as other entertainment related activities. The area generates a vigorous amount of foot and vehicle traffic, both during daytime and evening hours. There has been a great deal of community and business interest in the deployment of a video monitoring system in this area to serve as a compliment to the current police vehicle and foot patrols. The City currently maintains a video surveillance system within the Port of Long Beach and anticipates completion of another system at the Long Beach Airport in the near future.

Additional information about the City of Long Beach may be found on the City's website at www.longbeach.gov.

Understood.

B. Purpose of this Request for Proposals

The City of Long Beach believes that the deployment of a video monitoring system within the specified geographical area will enhance to security and quality of life of residents and visitors to Pine Avenue. Additionally, the Police Department plans to use this system as a proactive law enforcement tool to monitor activity within the geographical area and coordinate the response of public safety resources.

Although this RFP specifies that any system submitted must be capable of expansion in the future, nothing in this RFP or any award of contract shall be construed as a guarantee of future work or expansion.

Understood and Agreed.

C. Explanation of Area Under Consideration

The desired video monitoring system should be capable of providing high quality surveillance video along Pine Avenue beginning at Shoreline Drive and continuing north to at least 4th Street and possibly to 6th Street.

Understood, Agreed and Complied. Celplan is providing a basic proposal that provides surveillance coverage from Shoreline Drive to 4th Street and alternate proposals that provide coverage up to 6th street and have local data storage. See Attached Technical and commercial proposals.

2. REQUIRED VENDOR INFORMATION

Proposers must have the capability to provide the full range of required services as detailed in the Scope of Work. All proposals shall include the following information:

2.1. Provide the legal name of your firm, street address, telephone number, and fax number.
Understood, Agreed and Complied.

A- CelPlan Technologies, Inc.

1- Headquarter
Reston, Virginia USA
CelPlan® Technologies East Coast (Corporate Headquarters)
1835 Alexander Bell Drive, Suite 200 Reston, VA 20191 USA
Telephone: (703) 259-4020
Fax: (703) 476-8964
E-mail: CelPlan@CelPlan.com

2- Naperville, Illinois USA
450 River Bluff Circle
Naperville, IL 60540 USA
Telephone: (571) 338-8380
Fax: (773) 442-1509
E-mail: CelPlan@CelPlan.com

3- Campinas, S.P. Brazil
CelPlan® Brazil
Av. Moraes Sales, 711 - 6º Andar
Campinas, SP 13010-001 – Brazil
Tel: +55(19)3734-9700
Fax: +55(19)3734-9797
Email: celtec@CelPlan.com

4- CelPlan Argentina
Calle Suipacha, 862 - 2. andar
C1008AAR
Buenos Aires - Capital Federal
Fax: +54(11)5214-4195
Email: celtec@CelPlan.com

5- CelPlan Peru

6- CelPlan Beijing Office

10/31/2005



7- Celplan Kenya Office

B- Insight Video Net. LLC.
10400 Trademark St.
Rancho Cucamonga, CA 91730
(909) 373-1800 Ext. 4000
(909) 730-9515 Cell
www.insightvideonet.com

C- Wachter Network Services, LLC.

1- Headquarter
16001 W.99th Street
Lenexa, KS 66219
913.541.2500 Office
913.541.2529 Fax
Contact: Mark Morley
Email: mark.morley@wachter.com

2-Arkansas
1419 West Monroe Avenue
Lowell, AR 72745
479.751.3600 Office
479.751.6599 Fax
Contact: Steve Sloan
Email: steve.sloan@wachter.com

3- Florida
12277 SW 55th Street
Suite 907
Cooper City, FL 33330
954.434.1160 Office
954.434.1137 Fax
Contact: Phil Kennedy
Email: phil.kennedy@wachter.com

4-Texas
11052 Shady Trail
Suite 205
Dallas, TX 75229
214.352.5263 Office
214.352.8403 Fax
Contact: Leo Ellis
Email: leo.ellis@wachter.com

5- California
9251 Irvine Blvd
Irvine, CA 92616
949.829.9700 Office
949.829.9702 Fax
Contact: Brian Hoffman
Email: brian.hoffman@wachter.com

10/31/2005



6- South Carolina
2655 Eden Terrace
Rock Hill, SC 29730
803.981.9510 Office
803.981.9526 Fax
Contact: **Chris Rachal**
Email: chris.rachal@wachter.com

7- Missouri
500 West 2nd Street
Sedalia, MO 65301
660.827.0044 Office
Contact: **Chris Tallman**
Email: chris.tallman@wachter.com

8-Missouri
2407 Garfield Avenue
St. Joseph, MO 64503
816.279.3532 Office
Contact: **Lloyd Hope**
Email: lloyd.hope@wachter.com

9- England
5 Beeston Royds
Unit 1 Industrial Estates
Leeds, Yorkshire, UK LS12 6EY
01144.113.203.8411 Office
01144.113.203.2292 Fax
Contact: **Jim Davie**
Email: jim.davie@wachter.com

2.2. Provide a description of the organizational structure of the firm (e.g., individual, partnership, corporation, joint venture, and the state in which the firm is organized, etc.).
Understood, Agreed and Complied.

CelPlan Technologies Inc. is a Corporation organized in the state of Virginia. CelPlan Technologies Inc. is a fully owned subsidiary of CelPlan International organized in the state of Delaware.

Insight Video Net, LLC. Is an LLC formed under the State of California.

Wachter Network Services, LLC is an LLC formed under the State of California.

2.3. Provide a list of your contracts and purchase orders, if any, with the City of Long Beach during the past five years.
Understood, Agreed and Complied.

CelPlan did not sign yet any contract with the City of Long Beach.

Insight has provided its system to the Fire Department

2.4. Provide the name, street and e-mail addresses, and telephone number of your project manager/principal contact with the City.

10/31/2005



Understood, Agreed and Complied.

Leonhard Korowajczuk

*1835 Alexander Bell Drive, Suite 200 Reston, VA 20191 USA
Telephone: (703) 259-4022
Fax: (703) 476-8964
E-mail: leonhard@celplan.com*

Alternate contact

*Mike Doble
240 Victory Cir. San Ramon, CA 94582.
Telephone 925-735-9848
mdoble@comcast.net*

- 2.5. Provide the names and titles of the individuals who will be assigned to this project along with their resumes. The City reserves the right to approve all key personnel and to request and/or approve replacements. It should include a table of the key personnel (those who report directly to the Project Manager), including their availability throughout the engagement.

Understood, Agreed and Complied.

CelPlan proposed project manager would be Mr. Paulo Leite. Mr. Leite will assemble the required team to fulfill the project successfully. The following is a sample list of engineers that could be assigned to the project.

<p><i>Paulo Leite Director of Engineering CelPlan Technologies Direct Dial: (703) 259-4025 Email: Paulo@celplan.com</i></p>	<p><i>As one of the original members of the CelPlan management team, Paulo brings over ten years of senior engineering experience to his role at CelPlan. Today Paulo leads a team of software engineers in the development of various software modules within the CelPlanner Suite of software. Along with his extensive product knowledge, Paulo also oversees all customer software licenses and new version releases of the CelPlan software portfolio. Prior to his role with CelPlan, Paulo served in a senior engineering position with Alcatel in Brazil. Paulo is working towards an MS in Information Systems Technology and holds a BS in Electric Engineering with a focus on telecommunications. Paulo has second-level customer support responsibility for the company.</i></p>
<p><i>Cristine Korowajczuk Quality & Customer Support Manager CelPlan Technologies Direct Dial: (630) 305 0197 Email: cristine@celplan.com</i></p>	<p><i>Cristine has been affiliated with CelPlan since its inception in 1993. With a thorough knowledge of the CelPlan software portfolio, Cristine has provided quality assurance control for CelPlan software documentation and software version releases throughout her tenure. Beyond product support, Cristine has been a key contributor in the development and delivery of CelPlan software training. Christine</i></p>

	<p>has also been instrumental in defining and developing company processes and procedures for improved customer service delivery. Cristine's educational background is in computer engineering. In her Quality and Customer Support role, Cristine reports to Paulo Leite in a matrix-management relationship.</p>
<p>Leila Ribeiro Director, Systems Engineering CelPlan Technologies</p> <p>Direct Dial: (703) 259-4035 Email: Leila@celplan.com</p>	<p>Leila leads the systems engineering processes in the development of CelPlan's wireless solutions with a range of features for the CelPlanner suite and CelOptima software programs that include customized link budgets, modulation schemes, propagation models, traffic dimensioning, coverage and service analysis. Building upon her deep knowledge of the CelPlan product portfolio, Leila also provides technical support leadership for the CelPlan customer base. Prior to joining CelPlan, Leila served as a senior research engineer in the Research and Development Center of the Brazilian Government Telecommunications Company (TELEBRAS). Leila holds an MSEE in Digital Communications, a BSEE in Electronics and Communications and is working towards a Ph.D in Electrical Engineering with a focus on dimensioning broadband wireless networks. Leila holds responsibility for the second level of technical support for the company.</p>

Insight Video Net, LLC
 Robert A. Carreon CEO
 10400 Trademark Street
 Rancho Cucamonga, CA 91730
rcarreon@insightvideonet.com
 (909) 373-1800
 FAX (909) 373-1805

Janez Lomshek
 Wachter Network Services
 949-829-9700
 785-550-5654

- 2.6. If a team submits a proposal, designate one person as the lead or Project Manager. All subcontractors involved in the project must be identified. If other partners are used or needed, they shall be mentioned in the proposal.

Understood, Agreed and Complied.

CelPlan will designate a project manager for the project.

The proposed project manager is Mr. Paulo Leite (see above).]

CelPlan is teaming with Insight Video Net Services and Wachter Network Services.]

- 2.7. Provide a representative listing of clients who have received similar services as described in this RFP.

Understood, Agreed and Complied.

A- Clients for Celplan Technologies, Inc.

California Transportation Department (CalTrans)
Ramez Gerges
8 Baker Ln.
Goleta, CA 93117

B- InSight Video Net Customer References:

1. **Detroit Police Department:** Detroit PD has 400 Police Vehicles capturing video along with 13 Precincts and Heart Plaza on the Insight Video Net's video system. All video is stored at HQ on 65TB of active hard drive storage.
Rodney Sizemore Sgt. Science & Technology Bureau
Detroit PD
1300 Beaubien Suite 318-1
Detroit, MI 48226
(313)596-1823
sizemorer285@dpdhq.ci.detroit.mi.us
2. **St. John's University:** St John's has a campus wide system along with 4 remote apartments connected to the Insight Video Net system.
Walter Kerner kernerw@stjohns.edu
Director, Enterprise Network Services
 - Insight Software
 - Insight Video encoders in each building
 - Three servers (2 active, 1 failover)
 - A new PC-based command center
 - A dedicated data network for camera traffic
 - 10 new PTZ cameras
 - Digital recording of phone and radio traffic
3. **Hollywood Florida Police Department – IBM project with 200 Police vehicles and two schools.** The first 16 vehicles have been installed and the schools will be installed within the 30 days. 3250 Hollywood Blvd. Hollywood, FL 33021 954-967-4636
4. **New York City Schools – 54 schools have been installed project total is 800 schools.** IBM project customer contacts upon request.
5. **Alsups Convenience Stores:** Alsups has 300 stores which have 4 cameras each transmitting video back to the corporate headquarters through satellite connection. Insight was the first firm to successfully transmit 4 cameras over the satellite connection without bringing down the connection. Alsups has 1,200 cameras streaming back to HQ. Jerry Harlow, 2112 Thornton St. Clovis, NM 88101 505-769-2311

C- Wachter Network Service Customer References:

Since our inception in 1930 as an electrical contracting firm, Wachter has been working closely and building relationships with building owners, General Contractors and other trades people on a national level. We are very sensitive to the critical nature of committing to and meeting project time lines on new construction projects. Though Wachter's strengths have been brought to fruition by way of the installation of network infrastructures, we have continually utilized technology within our internal infrastructure to increase efficiency, maintain quality, and decrease costs to our clients. LMU will have access to

these infrastructure resources and be able to track project progress via our intranet/extranet. In growing with technology, Wachter also possesses two RCDD's on staff who assists in project design and also keep us current with our ever-changing industry.

Janez Lomshek, Project Manager.

Janez Lomshek is the Project Manager for Wachter with 5 years in the company. He is the main point of contact for Costco and a key Business Development Manager within Wachter Network Services. He has build a strong and fruit full relationship with various customers and has built a key developmental program to build the Companies Employee pool. Janez has a Business Degree from the University of Kansas.

Joseph Perez, Assistant Project Manager

Joseph Perez is the Assistant Project Manager for Costco and will be assisting the Project Manager on this project. He has served 4 years within the company and is the Project Manager of various Customers to include Syntegra, ING, Lockton Insurance as well as Intravision. He fills a role as a Company Trainer as well as New Customer Liaison. Joseph has an Honorable Discharge from the United States Marine Corp where he worked on the United States Communications and Surveillance equipment.

Wachter has maintained lasting relationships with many large nationwide accounts by cabling their new stores and providing ongoing Service throughout the years. The following are a few examples.

1) Wal-Mart: Wachter provides new store and distribution center cabling services, as well as nationwide rollout services and service/MAC support for a wide variety of Wal-Mart's technology infrastructure, including voice, data and video cabling, POS registers, PC's, wireless access points, scales, alarms, monitors, etc. Wachter performs new-store, remodel and rollout cabling projects at several thousand locations each year. Wachter also performs 10,000 – 12,000 service and MAC tickets annually for Wal-Mart.

2) IBM: As an IBM core supplier, Wachter participates in a number of multi-site cabling projects each year under subcontract to IBM. In 2001 through 2005, Wachter performed data and voice cabling for American Airlines (~100 sites), Starbucks (~350 sites), Wendy's Restaurants (~1,000 sites), and Bank of America (~250 sites). Wachter has

3) Beverly Enterprises: Wachter installed approximately 8,000 Cat 5 cable drops in 600 Beverly nursing home locations as part of a nationwide rollout in 1998. We continue to provide cabling Moves/Add/Changes and service at all of Beverly's US locations.

4) Costco Wholesale : Wachter provides new store and Remodel cabling services, as well as nationwide rollout services and service/MAC support for a wide variety of Costco's technology infrastructure, including voice, data and video cabling, POS registers, PC's, wireless access points, scales, alarms, monitors, etc. Wachter acts as a consultant for new Technology needs.

2.8. Provide at least three references that the City may contact concerning your performance on similar contracts. Public sector references should be given priority. Understood, Agreed and Complied.

1- California Transportation Department (CalTrans)
 Ramez Gerges
 8 Baker Ln.
 Goleta, CA 93117
 805-252-8234
 ramez_gerges@dot.ca.gov

2- William De Camp
Department of General Services
Telecommunications Division
601 Sequoia Pacific Boulevard MS:WH7
Sacramento, California 95814
(916) 657-9205
william.decamp@dgs.ca.gov

3- Rodney Sizemore Sgt. Science & Technology Bureau
Detroit PD
1300 Beaubien Suite 318-1
Detroit, MI 48226
(313)596-1823
sizemorer285@dphq.ci.detroit.mi.us

2.9. Are you a Disadvantaged-, Minority-, or Woman-Owned Business Enterprise?

Answering this question is optional; failure to answer will not disqualify your proposal.
Understood, Agreed and Complied.
CelPlan Technologies is a minority owned company.

3. SCOPE OF WORK

The selected firm will procure, install and maintain a closed caption video monitoring system along Pine Avenue in the downtown area. The system will deploy a series of cameras along Pine Avenue, starting at Shoreline Drive and continue north until at least 4th Street and preferably 6th Street. The cameras will feed a signal back to a centralized monitoring center. The system/vendor requirements are as follows:

3.1. VENDOR REQUIREMENTS

3.1.1. Vendor shall be capable of beginning installation within 30 days after notification of selection.

Understood, Agreed and Complied. CelPlan can begin installation within 30 days of notification selection. This implies that the notification selection by Long Beach is a contractual commitment to proceed within the conditions of our proposal. See the schedule in our Technical proposal.

3.1.2. Vendor shall use readily available, commercial off the shelf (COTS), industry standard hardware and software for the system.

Understood, Agreed and Complied.

3.1.3. Vendor shall document all components in their proposal. This includes manufacturer, model number and specifications. Supporting documentation shall be included.

Understood, Agreed and Complied. See Part List in our Commercial proposal.

3.1.4. The selected vendor shall provide complete documentation of every aspect of the completed system. This includes software, manuals, wiring diagrams, camera and WLAN programming, camera field of views, programming information, wireless relay diagrams and related materials.

Understood and Agreed. Documentation will be provided when system is delivered.

3.1.5. Vendor shall ensure that all installation personnel are appropriately licensed and all equipment is installed according to appropriate code requirements.

Understood, Agreed and Complied.

- 3.1.6. Vendor is responsible for payment and acquisition of any City required permits, if any are required.

Understood and Agreed.

- 3.1.7. Vendor is required to provide information regarding potential scalability of proposed system.

Understood, Agreed and Complied.

3.2. GENERAL REQUIREMENTS

- 3.2.1. Using the geographical guidelines, establish appropriate locations and sightlines to ensure maximum coverage in the specified geographical area.

Understood, Agreed and Complied. See Technical proposal.

- 3.2.2. Camera locations should also provide monitoring capabilities for a minimum of 200 feet along Shoreline Drive and 1st through 4th Streets (and potentially through 6th Street,) that intersects Pine Avenue.

Understood, Agreed, Complied and Exceeded. See technical proposal.

- 3.2.3. The entire system shall be capable of adding components to allow for future growth without a major upgrade of components.

Understood, Agreed and Complied. See technical proposal.

- 3.2.4. Vendor will work with appropriate staff to design, manufacture and install appropriate signage for the monitored area.

Understood, Agreed and Complied. See commercial proposal.

- 3.2.5. The wireless component of this system shall operate within the 4.9 GHz Public Safety frequency range.

Understood, Agreed and Complied. See technical proposal.

- 3.2.6. All critical systems shall be UPS battery back up capable of sustaining operations for four hours. UPS is not necessary in the video-monitoring center as it is incorporated in the building.

Understood, Agreed and Complied. See technical and commercial proposals.

3.3. CAMERA HARDWARE & LOCATION REQUIREMENTS

- 3.3.1. All cameras shall be full-featured, vandal resistant, fixed cameras designed for outdoor applications. Cameras shall be sealed for outdoor use and provide protection against water and dust.

Understood, Agreed and Complied. See technical proposal and camera specifications attached.

- 3.3.2. All cameras shall be high resolution, high sensitivity integral color, capable of identifying personnel, vehicle license plates and street locations; are pan-tilt-zoom capable, either pole or surface mounted and images shall be visible in both day and night conditions.

Understood, Agreed and Complied. See technical proposal and camera specifications attached.

- 3.3.3. Software shall be capable of transferring facial pictures for identification, shall provide a menu of camera locations and shall be capable of recording all video displayed on screen.

Understood, Agreed and Complied. See technical proposal and video software specifications attached.

- 3.3.4. To the extent possible, cameras should be mounted using city streetlights and/or traffic signal poles.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.3.5. Considering the above requirement, cameras shall be located to maximize line of sight.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.3.6. All cameras shall be programmable to provide "unmanned" monitoring and touring at all times.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.3.7. All cameras shall have wireless connectivity for control of cameras and to provide video feeds.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.3.8. System shall have local and remote network accessibility allowing camera selection and viewing for authorized staff. Remote viewing may be provided using Internet technology.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.3.9. Vendor is responsible to work with City Technology Services personnel to determine if wireless connectivity can be accomplished using existing infrastructure. If not, vendor is responsible for additional connectivity necessary for completion of the project.
Understood, Agreed and Complied. See technical proposal specifications attached. Connectivity is provided up to City Hall. If another location is chosen, we will review our proposal.
- 3.3.10. Vendor is responsible to work with City of Long Beach Public Works in the mounting and connection of cameras to city streetlights and/or traffic signal poles.
Understood, Agreed and Complied. See technical proposal specifications attached.

3.4. MONITORING CENTER REQUIREMENTS

- 3.4.1. Shall be able to view a minimum of eight cameras at a time on a single 40" flat screen monitor.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.4.2. Provide three wall-mounted 40" flat screen monitors to provide views of multiple cameras simultaneously within the designated monitoring center.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.4.3. Provide selectable, remote control of all cameras.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.4.4. Provide adequate digital video recorder storage to record all camera signals for at least thirty days.
Understood, Agreed and Complied. See technical proposal specifications attached.
- 3.4.5. The system shall allow the stored video to be played back in the forward or reverse direction, frame by frame, and from beginning to end. Reviewed clips or still images may be zoomed in or out. The images may be printed to a printer connected to a parallel port of the local recorder or via network printer. Still images must be exportable as a JPEG and TIFF or acceptable equivalent file type
Understood, Agreed and Complied. See technical proposal specifications attached.

3.4.6. Provide necessary equipment to transfer video from DVR storage to CD-RW or DVD in a secure format keeping the integrity of video stream to meet chain of evidence requirements.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.4.7. Provide all necessary hardware and software to remotely monitor and control cameras.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.4.8. Provide all necessary equipment for one complete workstation, including furniture, capable of viewing and controlling video images and camera operations. Vendor shall provide a pricing quotation for a complete back-up workstation.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.4.9. The proposed system shall be capable of accepting and displaying network feed video from existing and future security video systems.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.5. TRAINING REQUIREMENTS

3.5.1. The vendor shall prepare, administer and conduct an onsite training program designed for designated personnel to fully and efficiently operate and maintain the installed video monitoring system. Training shall be of sufficient scope and depth to ensure all designated personnel who complete the program shall be fully qualified, certified and capable of operating the system and subsystems as installed including any programming. All training shall be completed at least seven days prior to scheduled start of the system.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.5.2. The vendor shall provide a copy of all training aids to the City.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.5.3. The vendor shall prepare and provide a complete training and operational manual for all installed systems to the City.

Understood, Agreed and Complied. See technical proposal specifications attached.

3.6. MAINTENANCE/SERVICE REQUIREMENTS

3.6.1. An ongoing maintenance and service support program is considered integral to this project. The selected vendor shall provide on call service support 24 hours per day, 365 days per year. For purposes of this RFP, a minor failure is considered the failure of one camera to operate or transmit images. A major failure is defined as any hardware or software failure resulting in the loss of:

- Two or more cameras.
- The wireless network.
- Any microwave data relay device.

Understood, Agreed and Complied.

3.6.2. The ability of the monitoring center to control cameras, monitor images or record feeds.

Understood, Agreed and Complied.

3.6.3. Vendor shall be capable of providing on sight maintenance and repair within 4 hours for major failures and 24 hours for minor failures upon receipt of notification of a failure within the system.

Understood, Agreed and Complied.

Additionally the vendor shall:

3.6.4. Provide a warranty for all software and equipment for a period of at least one year from acceptance. Vendor will notify the City if any equipment or software warranties exceed one year. Vendor will provide copies of all manufacturer warranties.

Understood, Agreed and Complied. See technical and commercial proposal attached.

3.6.5. Vendor shall maintain near the place of work an adequate stock of parts for replacement or emergency purposes and have adequate personnel to ensure fulfillment of the terms of the contract.

Understood, Agreed and Complied. See commercial proposal attached.

3.6.6. Perform maintenance work using competent and qualified personnel under the supervision and direct employ of the Vendor.

Understood, Agreed and Complied.

3.6.7. Maintenance service shall not be transferred or assigned to any subcontractor without prior approval from the City.

Understood, Agreed and Complied. Maintenance will be provided by team members.

3.6.8. At six and twelve months following system acceptance, examine the video monitoring system equipment and related components. Clean and adjust equipment as required. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original equipment.

Understood, Agreed and Complied.

3.6.9. As part of the maintenance agreement, provide, as needed, technical experts to testify in legal proceedings as to the capabilities, data integrity and security of the system.

Understood, Agreed and Complied. This will be charged per incident.

3.7.3.7 SYSTEM ACCEPTANCE

3.7.1. Each camera location will be tested for connectivity and video resolution at the monitoring center. The entire system will be fully functional for a period of ten days with no failures before acceptance of system.

Understood, Agreed and Complied.

3.7.2. This project will be a joint effort between the Community Development, Technology Services and Police Departments. A Project Committee has been assembled to direct the scope of the study, and approve the RFP. If needed, the Committee will provide guidance selecting the firm and monitoring project progress. The Deputy Chief of the Police Department's Support Bureau will serve as the project manager. He will have a lead staff support person who will be available as the firm's primary point of contact.

Understood, Agreed and Complied.

3.7.3. The selected team would be expected to meet with the Project Committee periodically.

Understood, Agreed and Complied.

3.7.4. The City will make available upon request reports, documents, and other data deemed useful for project completion. The City reserves the right to modify the composition of the scope of services of this project.

Understood, Agreed and Complied.

4. COSTS

4.1. We would like refined cost estimates for the products and services outlined above; include any components or services that we may have left out. Please list each item and service, and the corresponding price, in a summary table.

Understood, Agreed and Complied. See commercial proposal attached.

4.2. Organize costs as those that are specific to installation/deployment and those that are ongoing. All costs are expected to be for a turnkey solution.

Understood, Agreed and Complied. See commercial proposal attached.

4.3. The maximum budget for this project is \$400,000.00 minus any costs incurred by the City in support of the project.

Understood, Agreed and Complied. See commercial proposal attached. The basic proposal and some alternate proposals are below this budget.

4.4. A Project Plan with milestones and timelines should be included in the proposal.

Understood, Agreed and Complied. See technical proposal.

4.5. Payment will be made according to an agreed upon schedule of deliverables.

Understood, Agreed and Complied. See conditions in commercial proposal. Changes in these conditions may imply in price change.

5. PREPARATION AND FORMAT OF PROPOSAL

5.1. Cover letter:

The cover letter should include a summary of the proposal, including a brief description of the project manager and key staff.

Understood, Agreed and Complied.

5.2. Project Approach:

a. This section should demonstrate an understanding of the scope of the project. It should describe your general approach, organization, staffing, and cost for each component of the Pine Avenue Video Camera Monitoring Project.

Understood, Agreed and Complied. See Technical and commercial proposals.

b. All subcontractors and their roles should be identified. A matrix/summary identifying the project manager and key personnel assigned to all phases of the contract, a budget, and timelines should be included.

Understood, Agreed and Complied. See technical proposal.

c. Include an overview of your implementation strategy and project plan. A map outlining proposed camera locations, line of site and coverage shall be included.

Understood, Agreed and Complied. See technical proposal.

d. Diagrams explaining the design of the Monitoring Center shall also be included.

Understood, Agreed and Complied. See technical proposal.

6. EVALUATION PROCESS AND CRITERIA

6.1. Members of the selection committee will individually review the proposals. The names of the selection committee members and their evaluations are confidential.

Understood and Agreed.

6.2. Selection will be based on the information submitted. Negotiations may involve one or more proposers, and the selection will be based upon the best interests of the City of Long Beach.

Understood and Agreed.

6.3. In all cases, the City will be the sole judge as to whether a proposal has or has not satisfactorily met the requirements of the Request for Proposals. The name of the awarded vendor and the amount of the purchase will be disclosed to each vendor who has submitted a proposal. This is the only information that will be divulged if the contract is \$100,000 or less. If the award exceeds 100,000, a contract will be executed subject to approval by the Long Beach City Council, and that executed contract will be subject to disclosure under the California Public Records Request Act.

Understood and Agreed.

6.4. You may make arrangements to view and/or purchase the contract by calling the City Clerk's Office at 562 570-8101. Please allow 60 days after the award for the contract to be filed.

Understood and Agreed.

6.5. Each member of the panel will evaluate and rank each proposal using the following criteria:

- a. Completeness and appropriateness of written proposal.
- b. Qualifications and experience of the firm and Project Manager in providing the required services as described in the Scope of Work.
- c. Team organization, qualifications and experience of key personnel to provide the required services.
- d. Project management methodology and schedule controls.
- e. References and performance record on similar projects.
- f. Knowledge and understanding of project needs, issues, and approach.
- g. Proposed fees.
- h. Ability to meet technical requirements.
- i. The lowest priced proposal will not necessarily be selected. Technical content will be weighed more heavily than costs to insure the City is procuring the best value versus the lowest price.
- j. Previous professional work and quality of performance on previous contracts, ability to meet project schedules and budgets, and the ability to communicate with all levels of City personnel will be some of the attributes and factors considered.

Understood and Agreed.

PINE AVENUE VIDEO CAMERA MONITORING SYSTEM FOR THE CITY OF LONG BEACH TECHNICAL DESCRIPTION

1. Pine Avenue Area Surveillance

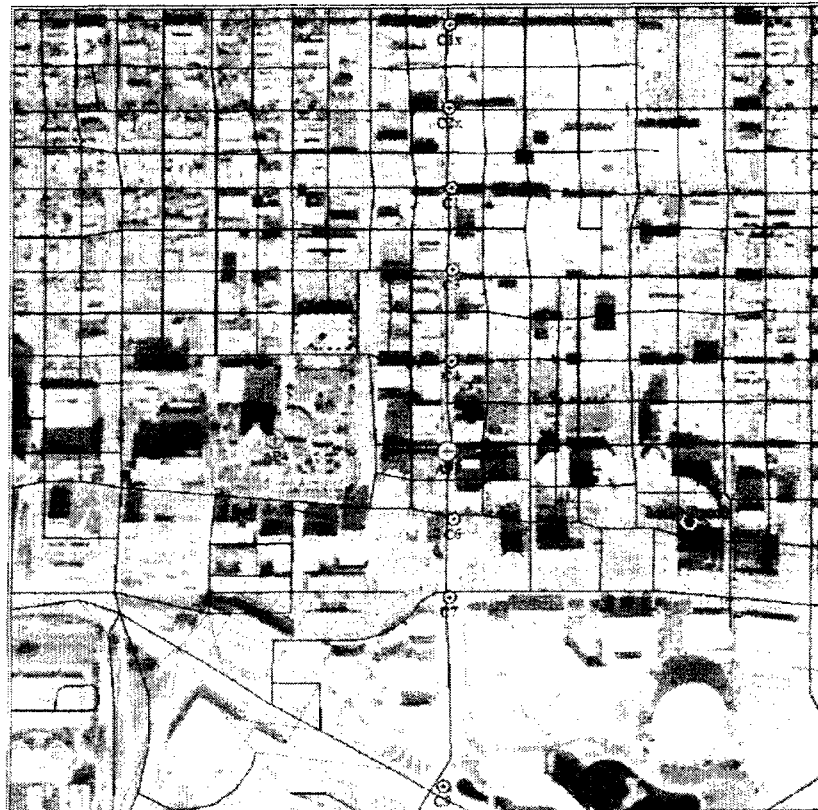
The area was visited by our team and the security requirement was assessed from information provided by the local commerce and public safety personnel interviewed locally. The most critical areas are located between the 1st and 4th streets.

With this in mind the surveillance system was designed to cover the main intersections between Shoreline and 4th street. A total of 7 surveillance spots were located. Two cameras were allocated at each surveillance spot, so different directions can be monitored simultaneously.

Traffic lights were chosen to host the surveillance spots, due to the access they provide to the intersections of Pine Avenue.

The following surveillance spots were initially chosen during the field visit and its adequacy was confirmed during this report preparation.

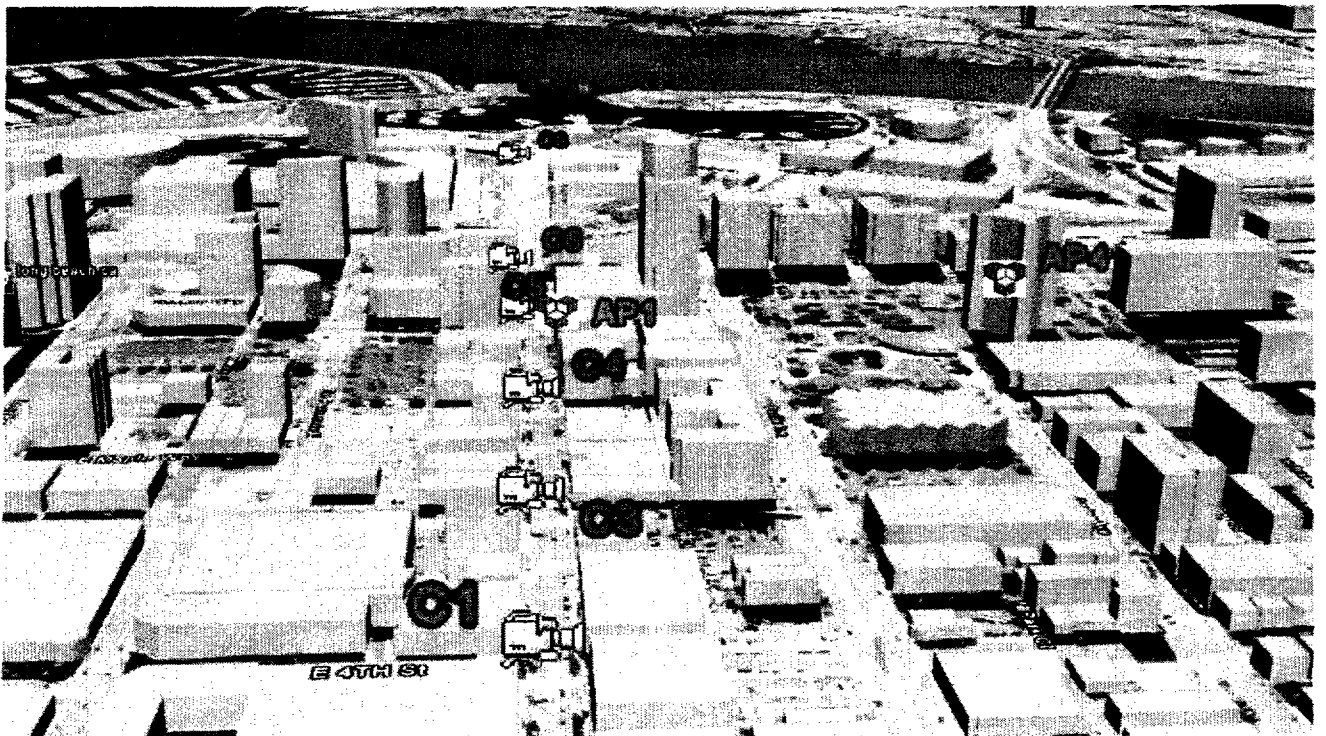
	Intersection	Comer	Type of mounting
1	4th Street	SE	Traffic Light
2	3rd Street	NE	Traffic Light
3	Broadway	NE	Traffic Light
4	1st Street	SE	Traffic Light
5	Ocean Boulevard	SE	Traffic Light
6	See Side Way	SE	Traffic Light
7	Shoreline Drive	NE	Traffic Light



Surveillance Points Distribution



Surveillance Points along Pine Avenue (view towards North)



Surveillance Points along Pine Avenue (view towards South)

2. Video Surveillance

We choose a 360 degrees monitoring with two cameras at each surveillance point. This allows the simultaneous monitoring of two zones. The camera automatic scanning capabilities allow for a surveillance of the whole area minimizing the investment. The 4th Street point will be equipped with only one camera as the other one will be part of the expansion to 6th street. This results on a total of 13 cameras.

2.1- Cameras

We choose state of the art cameras to perform the video surveillance. The cameras provided will be PELCO Spectra III SE Dome System Series, model SD53CBW-PG-E0 or equivalent.

The camera main characteristics are:

- 23X Day/ Night
- Color, PAL or NTSC
- Environmental Dome System with heater, fan and sun shield
- Window blanking
- 80 X Wide Dynamic Range
- Automatic Focus with manual override
- Automatic white balance with manual override
- 360° continuous Pan movement (360° per second)
- Vertical tilt: +2° to -92° (200° per second)
- Shutter speed ½ to 1/30,000
- 23 X optical zoom and 10 X digital
- Horizontal angle of view 54° at 3.6 mm zoom and 2.5° at 82.8 mm zoom
- 0.08 lux at 1/2 sec in color and 0.013 lux 1/1.5 sec B&W
- Eight zones (programmable in size), can be labeled
- Auto/Random/Frame Scan Modes



The camera brochure is attached.

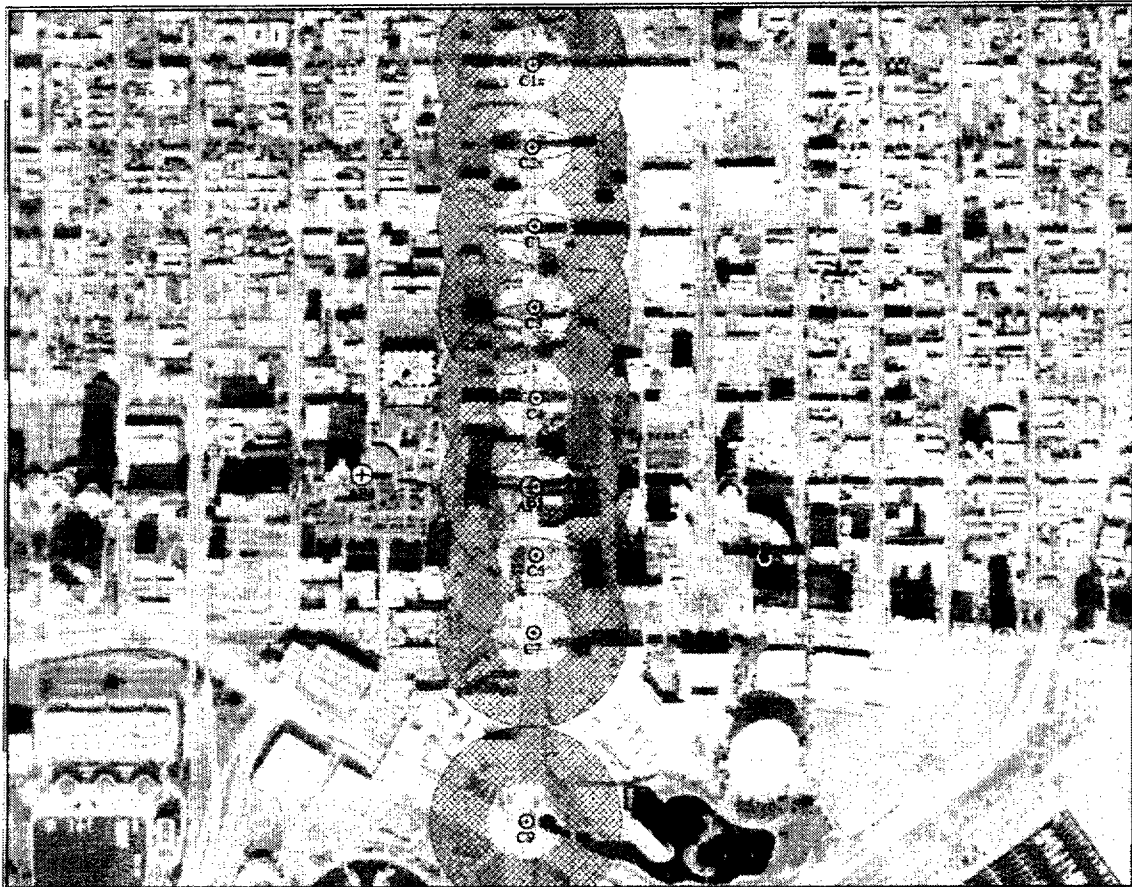
This camera provides the following field of view:

zoom	focal distance (mm)	Field of View (degrees)	Distance from camera (m)			
			50	100	150	200
			Field of view (m)			
wide	3.6	54	45.4	90.8	136.2	181.6
tele	82.8	2.5	2.2	4.4	6.5	8.7
digital	828	0.25	0.2	0.4	0.7	0.9

The objective of the design is to be able to characterize faces and plates. This requirement depends on the lighting conditions, movement and algorithms used. For an object of 40 cm the number of pixels available for each distance from the camera is presented in the table below using a 4 CIF (Common Intermediate Format) resolution (704x576 pixels).

Distance from camera (m)			
50	100	150	200
Horizontal pixels for a 40 cm object			
6.2	3.1	2.1	1.6
129.1	64.5	43.0	32.3

This provides good recognition capabilities at 50 meter, fair at 100 meter and poor at 150 meter. So the maximum spacing between cameras should be 300 meters.



Optical range of view for 60 m and 150 m

2.2- Video Monitoring

The video capture can be done at different resolutions and frames per second. The two tables below summarize the Bit Rate (kbit/s) for a high motion and a low motion image.

Bit Rate Estimate (High Motion)

Bit Rate = Kb/s

Resolution	(FPS)							
	1	2	4	5-7	6-8	10	15	30
QCIF	25	50	64	128	200	256	512	1024
CIF	25	50	64	128	200	256	512	1024
2CIF	50	100	128	256	400	512	1024	2048
4CIF	100	200	256	512	800	1024	2048	4096

Bit Rate Estimate (Low Motion)

Bit Rate = Kb/s

Resolution	(FPS)							
	1	2	4	5-7	6-8	10	15	30
QCIF	25	50	64	100	150	200	300	512
CIF	25	50	64	100	150	220	350	768
2CIF	50	100	100	200	256	384	768	1024
4CIF	100	200	256	384	512	768	1024	2048

The resolution is specified in CIF (Common Intermediate Format) and the number of pixels for each resolution is shown below.

Resolution	pixels
QCIF	176 x 144
CIF	352 x 288
2CIF	704 x 288
4CIF	704 x 576

2.3- Video Storage

The transmission of the data from 13 cameras at the highest resolution will require an extremely large backhaul capacity that although achievable for this project is not scalable for larger deployments. The storage requirements are also important and it is preferable to keep a good resolution (4CIF) but reduce the number of FPS, so the best quality is available for recognition. The table below shows the storage requirement for different FPS (Frame per Second) for a 30 days period.

Storage requirement					
FPS at 4 CIF	4	5 to 8	10 to 15	15 to 30	30
kb/s	256	512	1024	2048	4096
kB/s	32	64	128	256	512
GB/30 days	83	166	332	664	1,327
13 cameras (TB)	1.08	2.16	4.31	8.63	17.25

We chose an FPS of 4 to 8 which results on a storage requirement of 1.6 TB.

Optionally we are proposing a solution with redundant local storage of the highest quality image. The table below shows the local storage requirements for 15 to 30 FPS storage for a 15 days period.

Storage requirement					
FPS at 4 CIF	4	5 to 8	10 to 15	15 to 30	30
kb/s	256	512	1024	2048	4096
kB/s	32	64	128	256	512
GB/15 days	41	83	166	332	664

We are providing a 400 GHz local storage. The locally stored data can be selectively retrieved at any moment from the monitoring station.

2.4- Video Transmission

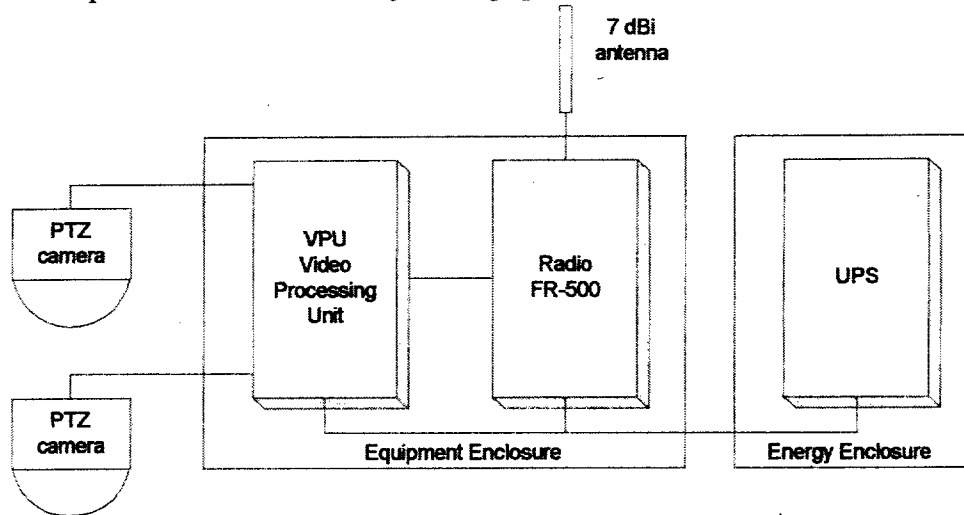
The video data of each camera is generated at speeds of 256 to 512 kbit/s. The aggregation of 13 cameras will result on a total of 6.6 Mbit/s. A single access point can handle this traffic as long as there is enough RF link throughput. We will analyze the RF throughput in the RF Network section.

2.5- Video Surveillance Spot Diagram

The video surveillance Spot can be configured with or without local storage.

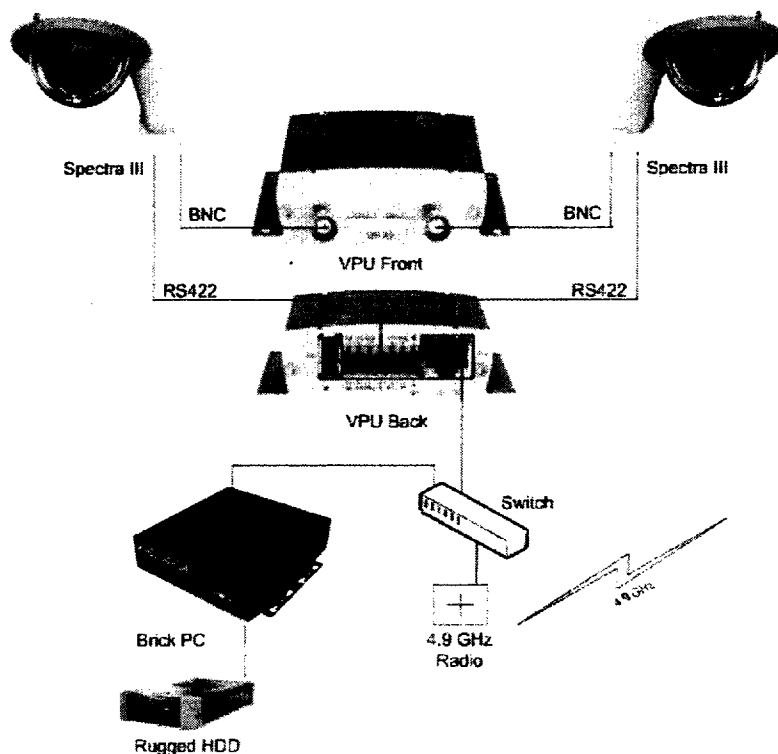
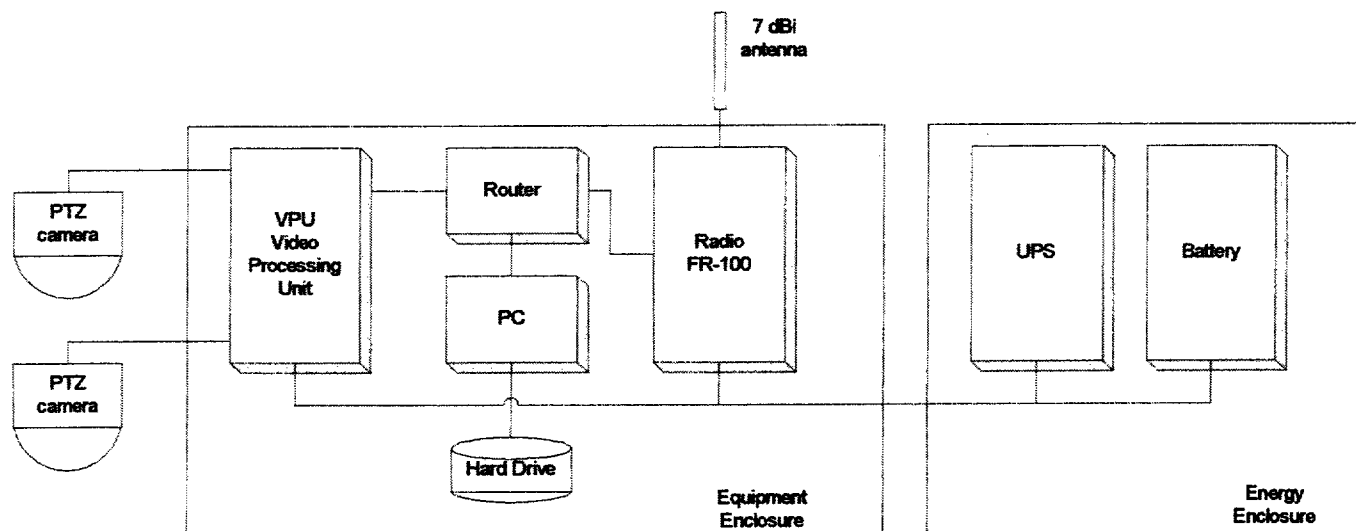
a) Without local storage

Up to two PTZ cameras are connected to a VPU (Video processing Unit) and the output of the VPU is connected to the 4.9 GHz radio (FR-500). An energy enclosure holds UPS equipment which provides the required 4 hours autonomy. An equipment enclosure holds the VPU and Radio equipment.



b) With local storage

Up to two PTZ cameras are connected to a VPU (Video processing Unit) and the output of the VPU is connected to a PC. The PC has the local storage and connects to the 4.9 GHz radio (FR-100). An energy enclosure holds UPS equipment which provides the required 4 hours autonomy. An equipment enclosure holds the PC, Hard Drive, VPU and Radio equipment.



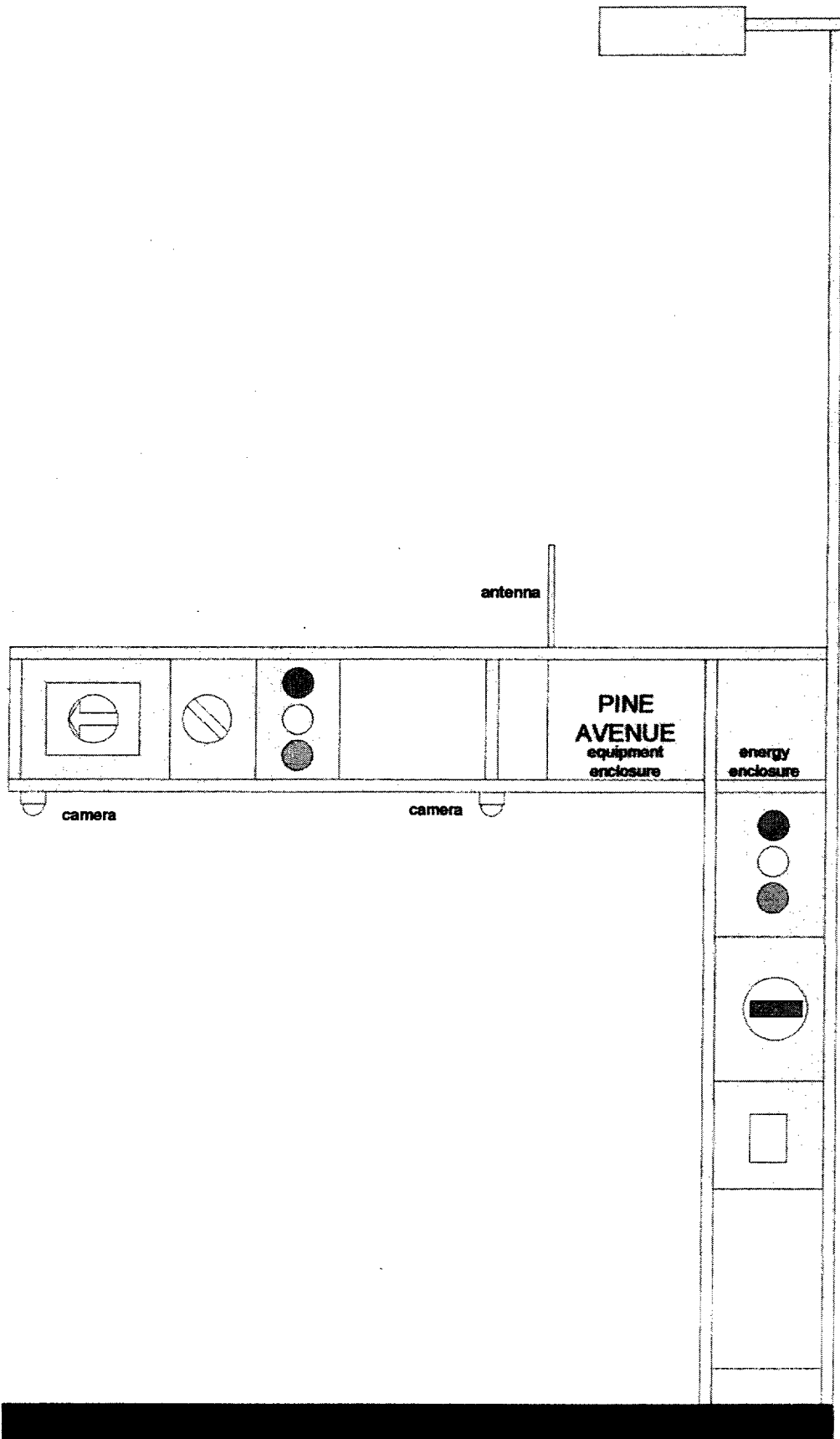
2.6- Video Surveillance Spot Architecture

We propose that the video surveillance equipment be assembled inside the modern traffic lights, when available.



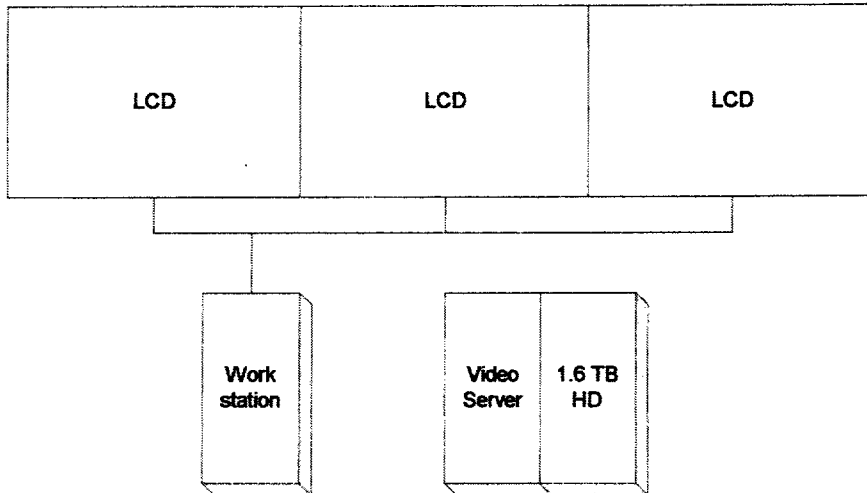
View of a Traffic Light with the surveillance and radio equipment installed

The diagram below shows the proposed location of the energy and equipment enclosures as well as the camera and the antenna. The cameras may be assembled on arms to provide better angle of view. The antenna is assembled on top of the structure. If this solution is not feasible CelPlan is willing to work with the City to find the best possible solution.

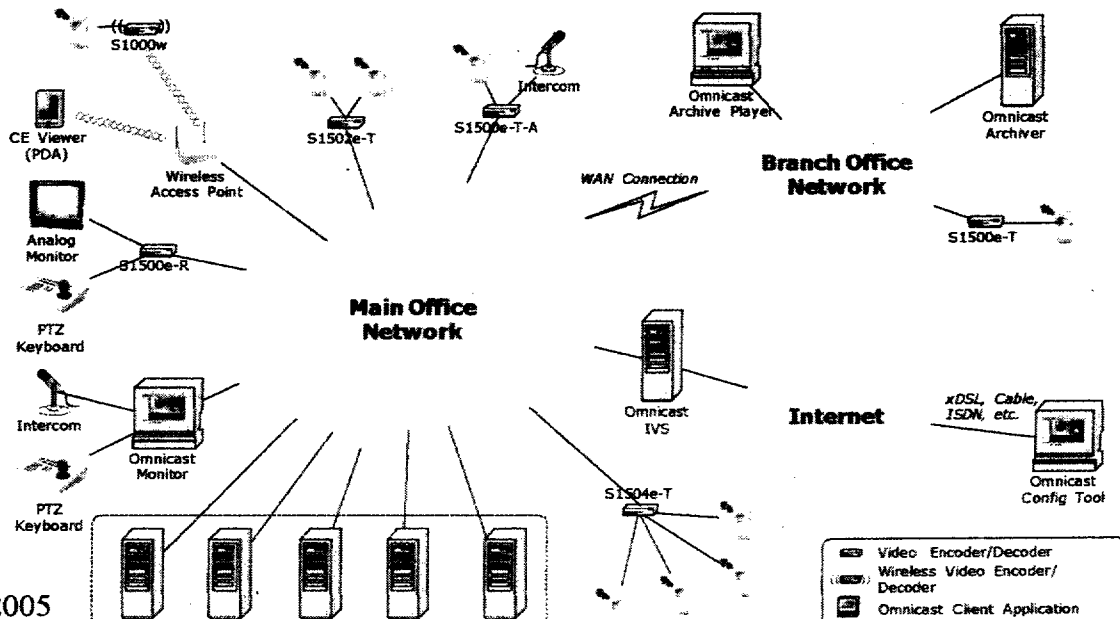


2.7- Monitoring Center

The Monitoring Center will be equipped with three 40" LCD flat panels and will have a workstation and a monitoring and video server. This server will have a Hard Drive with a capacity of 1.6 TB.



The Insight System Architecture is presented below.



The Insight Software supports PTZ, Instant replay and digital zoom.



Directory View Camera Alarm Layouts Tools Help

admin Support135

08/02/2005 4:17:15 PM Monitor: 24 Title: 3 Camera: 7

Support25

- ▼ Cafeteria - Enc (3)
- ▼ ConferenceRoom - Enc (5)
- ▼ Developers - Enc (2)
- ▼ Dome AXIS - Enc (7)
- ▼ MainEntrance - Enc (6)
- ▼ MainEntrance_2005 - Enc (4)
- ▼ MainEntrance_2005 - Enc (1)
- ▼ Monsters Inc (4 fps + Audio) - Enc (8)

Support35

- ▼ Conference Room Monitor - Enc (35)

Default-34 34

▼ Cafeteria - Enc	08/02/2005 4:16:53 PM	Motion off
▼ ConferenceRoom - Enc	08/02/2005 4:16:59 PM	Motion on
▼ ConferenceRoom - Enc	08/02/2005 4:16:58 PM	Recording start...
▼ Monsters Inc (4 fps + Audio) - Enc	08/02/2005 4:16:55 PM	Motion off
▼ Cafeteria - Enc	08/02/2005 4:17:06 PM	Recording stop...
▼ Monsters Inc (4 fps + Audio) - Enc	08/02/2005 4:17:09 PM	Motion on
▼ Monsters Inc (4 fps + Audio) - Enc	08/02/2005 4:17:10 PM	Motion off

3. 4.9 GHz RF Network

The 4.9 GHz RF Network was designed not only with this project in mind but also as part of a larger network, so it is easily expandable.

Each surveillance point is considered as an RF Client. Due to the proximity an Access Point concentrates the traffic from all the surveillance points.

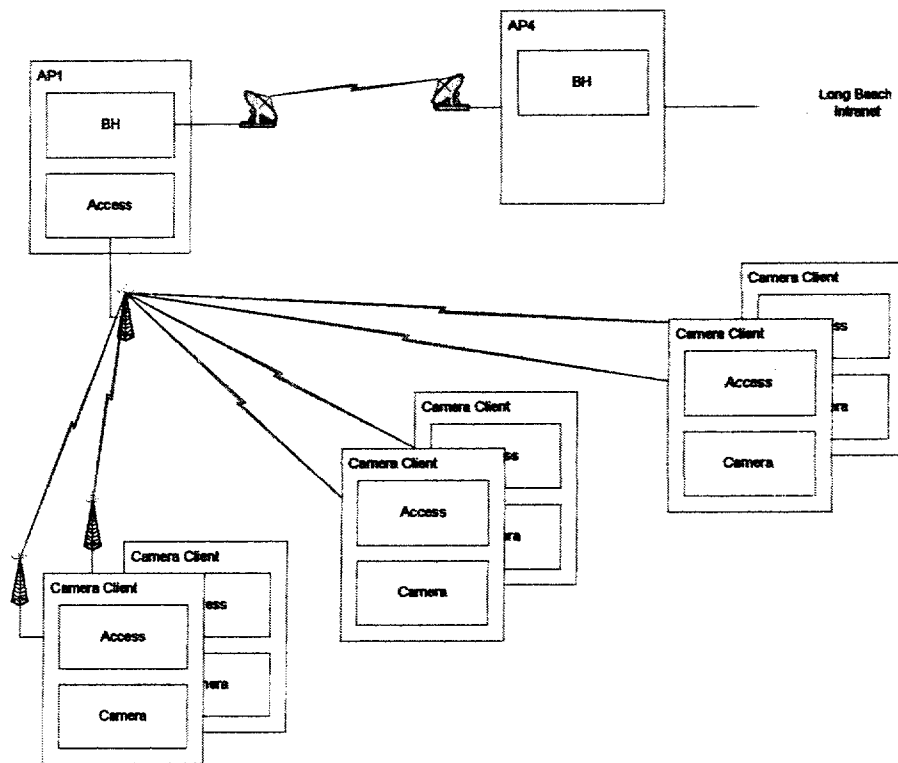
All gathered information is routed to the Long Beach Civic Center where the City has communication infrastructure that interconnects with the City main communication pipeline.

The Access Point was located at the SW corner of 1st Street, from where there is line-of-sight (LOS) to the City hall.

The table below gives the distance from each surveillance point to the Access Point.

Surveillance Client	Description	Distance to 1st Street AP (m)
C9	Shoreline Dr	538
C7	Sea Side Way	234
C6	Ocean Blvd	109
C5	1st Street	10
C4	2nd Street	143
C3	3rd Street	290
C1	4th Street	421.5
C2x	5th Street	547.5
C1x	6th Street	679.5

Our design was done considering the sites at 5th and 6th street, although they are optional.



3.1- Channel Plan

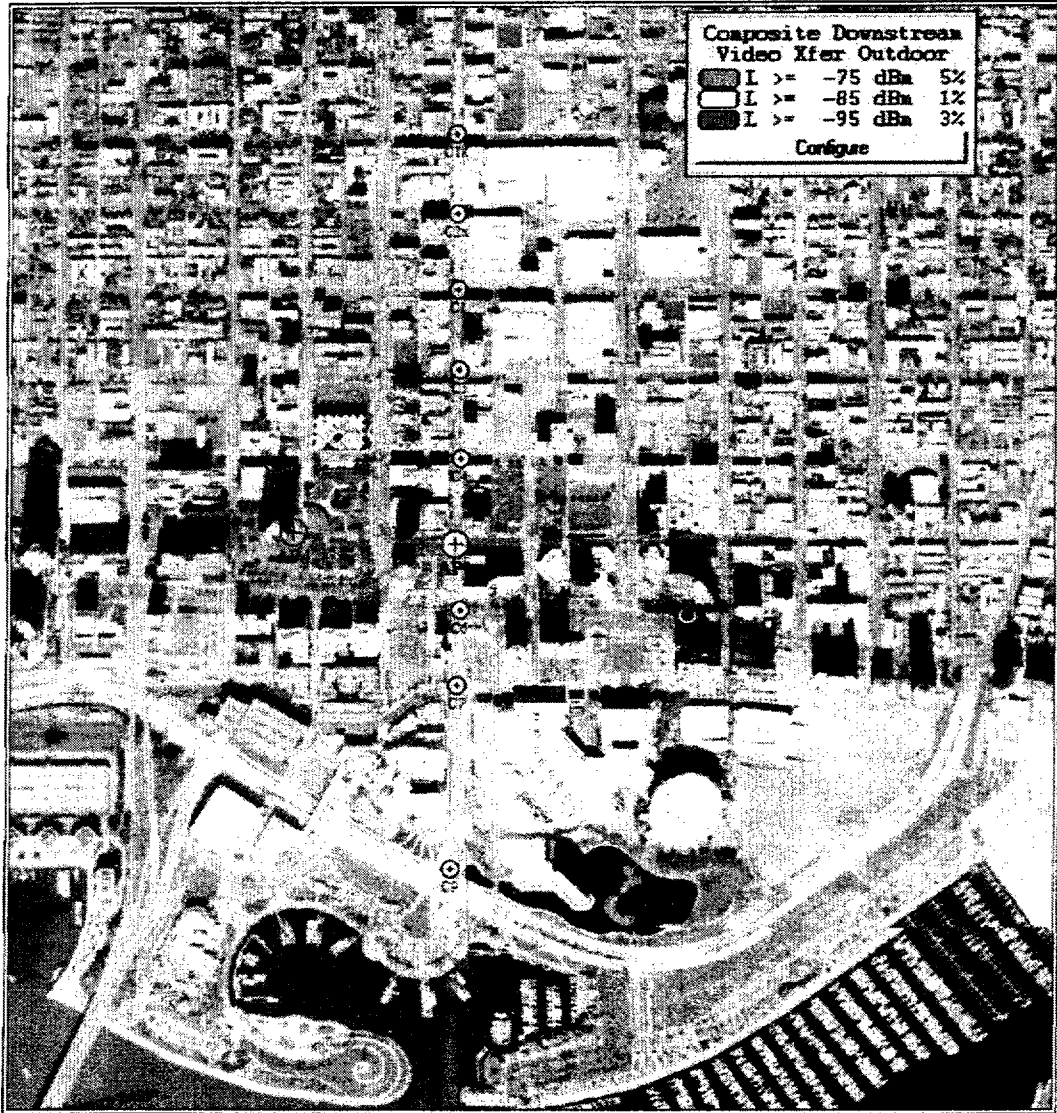
A 10 MHz channel plan was adopted, so future expansions will be possible. The channel can be easily reconfigured to 20 MHz if more capacity is needed before additional Access Points are deployed.

3.2- Client

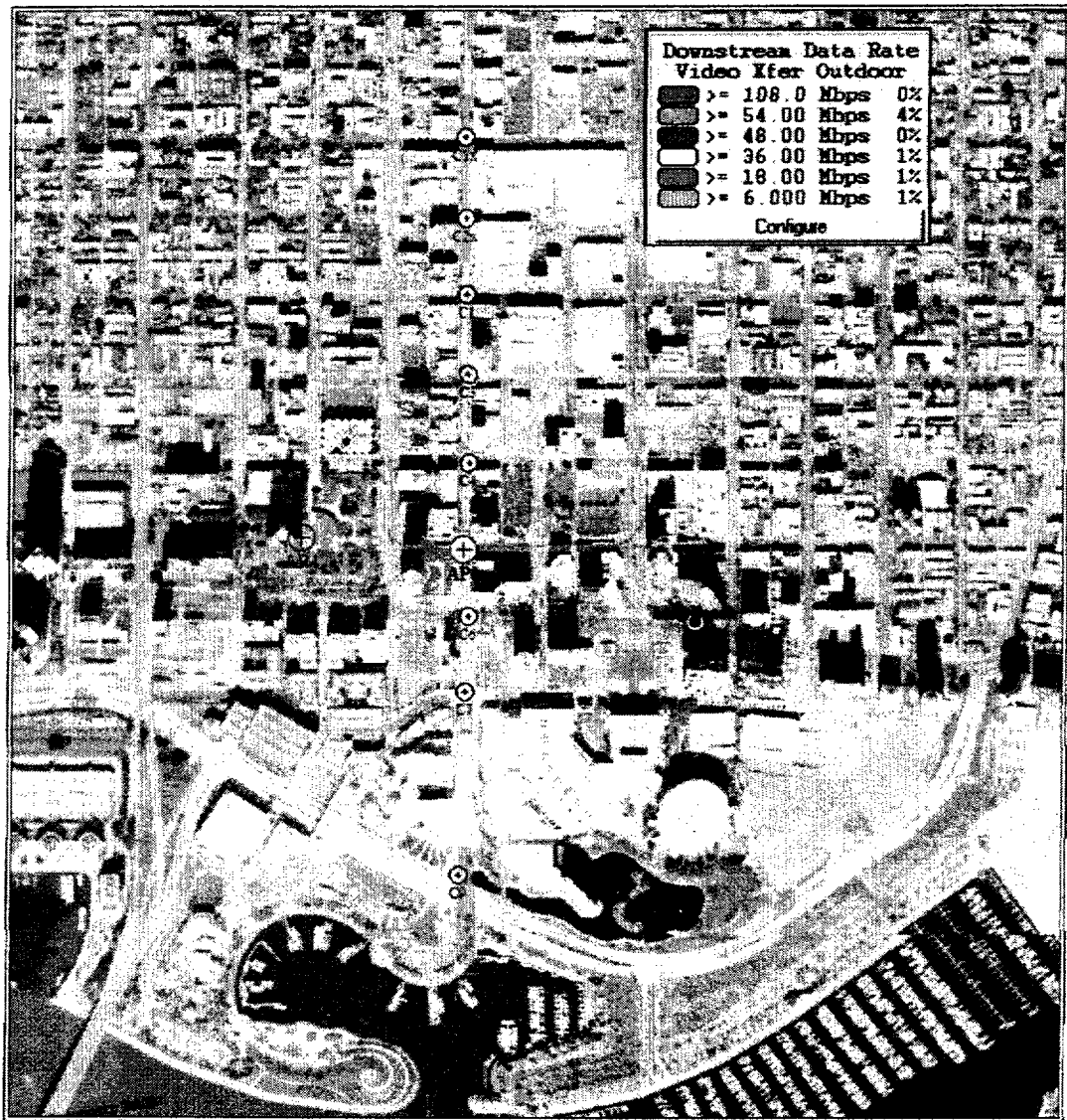
The client radio is an FR-500 or FR-100 radio that receives the IP information from a VPU or a PC. The client has an output power of 17 dBm and uses a 7 dBi antenna.

3.3- Access Point

The Access Point is an FR- 500 or FR-3000 dual radio. One radio is used as the Access Point while the other is used for the Backhaul. The Access Point output power is 30 dBm, with a receive noise figure of 3 dB and full transmit and receive diversity. A 7 dBi omni antenna will be used to provide coverage. The AP signal level coverage is shown in the picture below and the next picture shows the air data rate throughput. It can be seen that there is enough bandwidth to transport the video information. The signal coverage and air data rate throughput are shown in the figures below. The data rate was calculated for a 20 MHz channel.



Coverage in dBm from Access Point

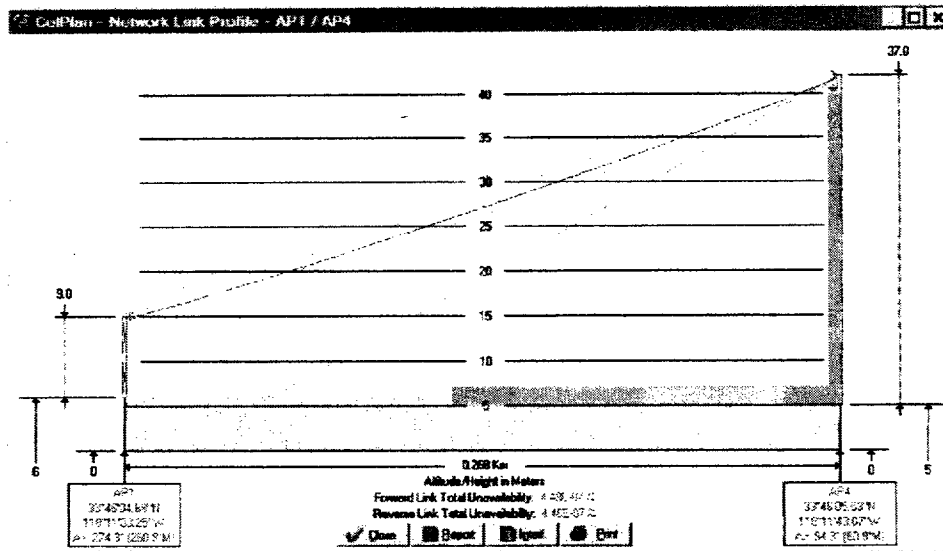


Available Air Data Rate in Kbit/s

CelPlan is offering free of charge two additional Access Points in case Long Beach chooses Alternative proposal 3. Those Access Points can be deployed at Shoreline and 6th Street greatly

3.4- Backhaul

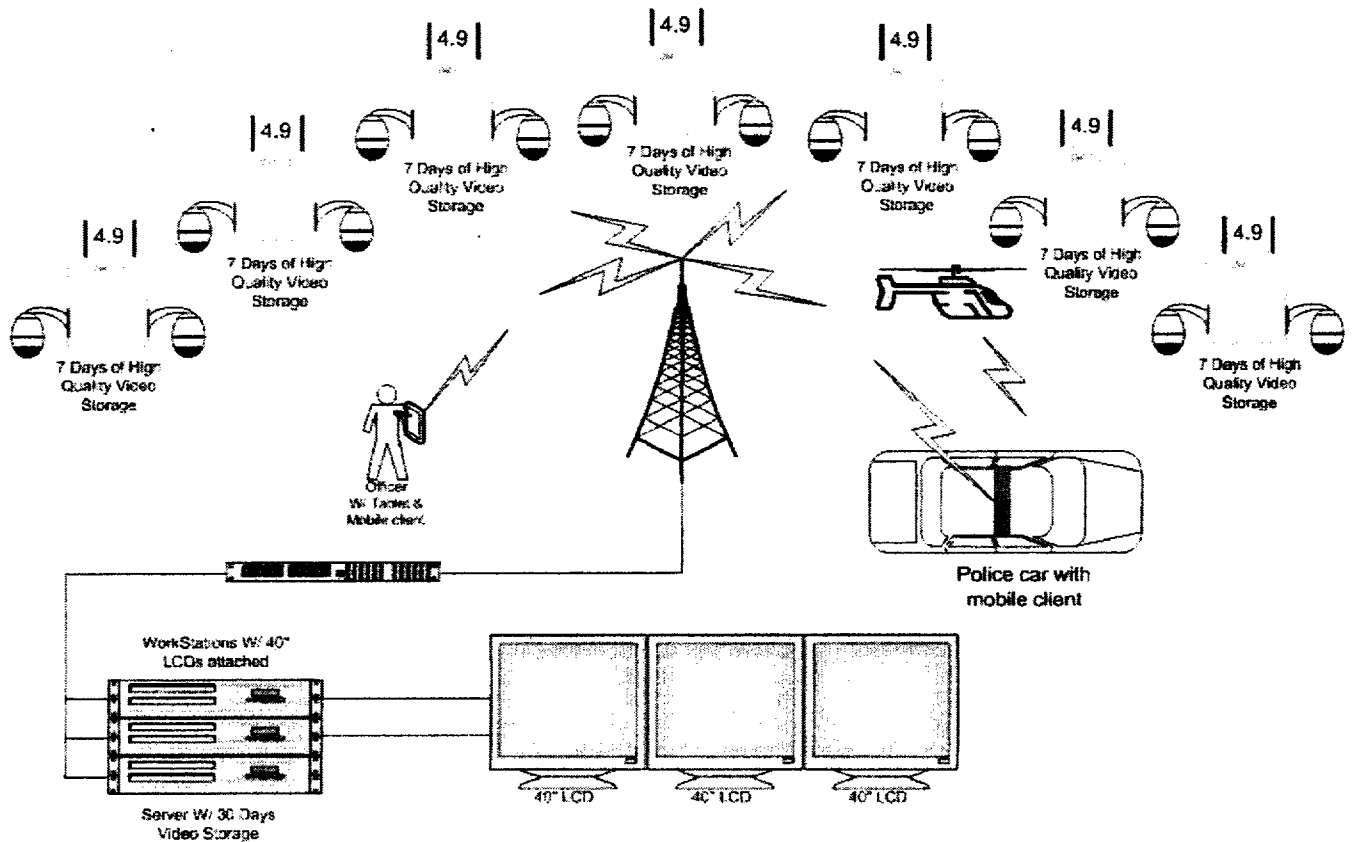
The Backhaul will be connected between the Access Point at 1st Street and Long Beach City Hall at 101 Pacific Avenue.



3.5- Final Configurations

The table below presents the final configurations for the different proposals.

	Intersection	Corner	Type of mounting	Quantity				Proposal
				Enclosure	Camera	Client Radio	Client Antenna	
1	6th Street	SE	Traffic Light	1	1	1	1	Alt B and Alt C
2	5th Street	SE	Traffic Light	1	2	1	1	Alt B and Alt C
3	4th Street	SE	Traffic Light	0	1	0	0	Alt B and Alt C
3	4th Street	SE	Traffic Light	1	1	1	1	Basic and Alta A
4	3rd Street	NE	Traffic Light	1	2	1	1	Basic and Alta A
5	Broadway	NE	Traffic Light	1	2	1	1	Basic and Alta A
6	1st Street	SE	Traffic Light	1	2	1	1	Basic and Alta A
7	Ocean Boulevard	SE	Traffic Light	1	2	1	1	Basic and Alta A
8	See Side Way	SE	Traffic Light	1	2	1	1	Basic and Alta A
9	Shoreline Drive	NE	Traffic Light	1	2	1	1	Basic and Alta A
	Intersection	Corner	Type of mounting	Enclosure	Camera	AP Radio	AP Antenna	Proposal
10	1st Street	SW	Traffic Light	1	0	1	1	All
11	City Hall	E	Building top	1	0	1	1	All



Confidential

4. Network Expansion

The Network can be very easily expanded, by just adding more elements to it.

a) Additional cameras

Additional cameras can be added to existing Surveillance Points. A quote is provided in the Pricing spreadsheet.

b) Additional Surveillance points

Additional Surveillance Points can be added to get an even better view resolution. Possible suggestions are Bay Street/Pine and Roble Way/Pine. A quote is provided in the Pricing Spreadsheet.

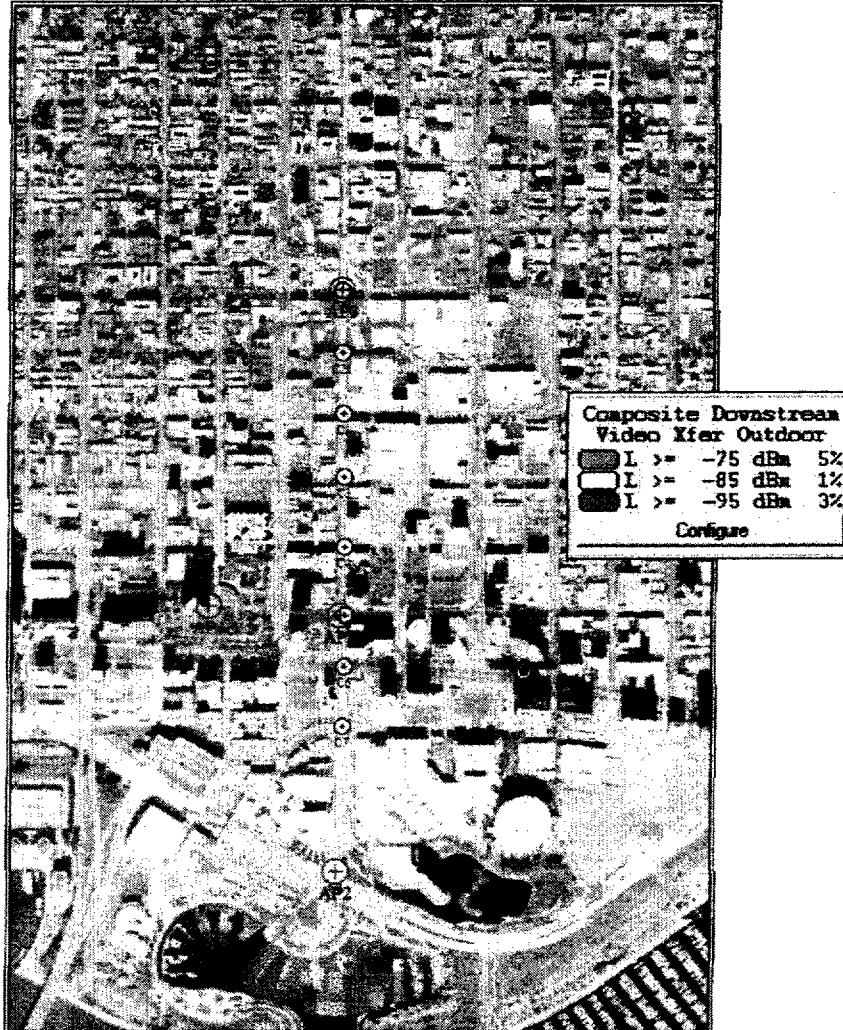
c) Police Vehicle Support

CelPlan is offering 20 x 4.9 GHz mini-PCI radios to be installed in vehicle laptops, providing the vehicles access to the existing network. Insight is offering the required license to monitor the video from the vehicles and distribute video to them. Installation of the mini-PCI is not included. A quote is provided in the Pricing Spreadsheet. In case of an award of this contract to Celplan there will be no charge to Long Beach.

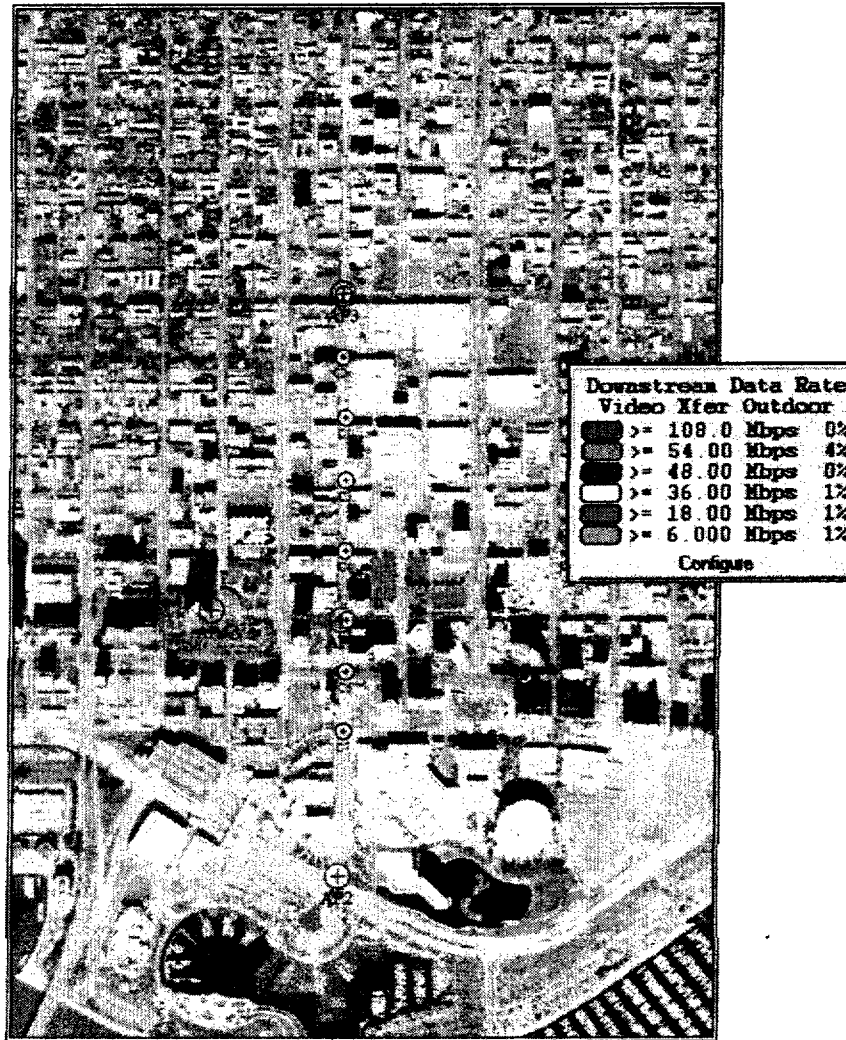
d) Additional Access Points

Celplan is offering two additional Access Points to be installed on Shoreline and 6th Street, so the coverage to police cars is significantly increased. Installation is not included. A quote is provided in the Pricing Spreadsheet. In case of an award of this contract to Celplan with the Alternative Proposal C, there will be no charge to Long Beach.

The coverage and the data rate availability with the three access points are shown in the figures below. The Data Rate was calculated for a 20 MHz channel.



Signal Coverage with 3 Access Points



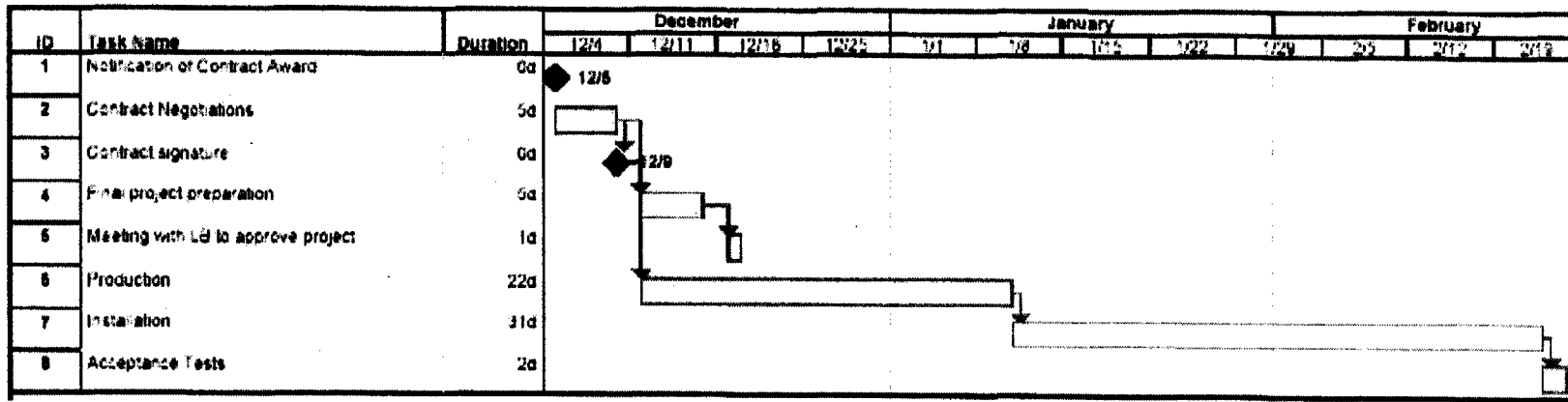
Available Data Rate (Mbit/s) with 3 Access Points

e) Helicopter Support

Celplan is offering an FR-500 to be installed in a police helicopter so it can be a client to this extended system and be able to relay video to the monitoring station. Installation is not included. A quote is provided in the Pricing Spreadsheet. In case of an award of this contract to Celplan with the Alternative Proposal C, there will be no charge to Long Beach.

5. Schedule

CelPlan is proposing the schedule below, but we are willing to discuss the City requirements.



6. Commercial Terms

6.1- Proposal Validity

This proposal is valid for 60 days.

6.2- Warranty

Warranties are valid for normal operation failures. Warranty does not cover natural disasters, accidents, vandalism, theft and other not normal operation related events are not covered and will be charged according to prevailing rates.

6.3- Payment Terms

The following payment terms were considered:

50% down payment at contract signature

25% payment at delivery of the system for acceptance

25% payment at acceptance

**PINE AVENUE VIDEO CAMERA MONITORING SYSTEM FOR THE
CITY OF LONG BEACH
COMERCIAL PROPOSAL**

CelPlan is pleased to present the attached commercial proposal to Long Beach for its Pine Avenue Camera Monitoring System.

This pricing proposal is composed of:

- Pricing Summary
- Basic Proposal- This proposal fulfils all the items requested in the RFP
- Alternate A Proposal- This proposal adds local storage to the Basic Proposal
- Alternate B Proposal- This proposal adds 5th and 6th Streets surveillance to the Basic Proposal
- Alternate C Proposal- This proposal adds 5th and 6th Streets surveillance and local storage to the Basic Proposal
- Expansion Proposal- This proposal is for additional expansions

Pine Avenue Video Camera Monitoring System

A Pricing Summary

	Surveillance Sites	Cameras	Range	Local Storage	Price to Long Beach
1 Basic proposal- Shoreline to 4th street, 13 cameras no local video storage	7	13	Shoreline to 4th street	no	\$ 349,000.00
2 Alternative proposal A- Shoreline to 4th street, 13 cameras with local video storage	7	13	Shoreline to 4th street	yes	\$ 372,600.00
3 Alternative proposal B- Shoreline to 6th street, 17 cameras no local video storage	9	17	Shoreline to 6th street	no	\$ 386,000.00
4 Alternative proposal C- Shoreline to 6th street, 17 cameras with local video storage	9	17	Shoreline to 6th street	yes	\$ 420,000.00
5 Additional Site with two camera with Sw license and installation		2			\$ 40,700.00
6 Additional 1 Camera with SW license and installation		1			\$ 6,737.50
7 Additional 2 Cameras with SW license and installation		2			\$ 11,825.00

B Terms and Conditions

This proposal is valid for 60 days

C Payment Terms

50% down payment at order

25% at delivery

25% at acceptance

Long Beach, CA- Pine Boulevard Video Surveillance Project

Basic Proposal	Part Number	Model	Description	Quantity	Warranty
1 Street Surveillance Equipment					
Camera	SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	13	1 Year
Intersection Units	CPE-001	Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	7	1 Year
	CPE-002	Custom Equipment Enclosure	NEMA Enclosure	7	1 Year
	SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	7	1 Year
	I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	7	1 Year
	S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	7	1 Year
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	7	1 Year
	PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	13	1 Year
Client Radio	FR500	FlexiRadio 500 with one radio	Flexiradio 500 with one radio	7	1 Year
Client Radio Firmware	FR500 Client FW	FlexiRadio 500 Client Firmware	Client Firmware license for FlexiRadio	7	1 Year
Client Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	7	1 Year
	AL8-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector	Surge Protector	7	1 Year
	CPT-003	50 ohm port terminator	Port Terminator	7	1 Year
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	7	
	CPK-004	N and SMA connector set	Coaxial connector kit	7	
	CPK-005	FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	
Installation Material		Miscellaneous	Electrical & Cable material	7	
Installation Service			Labor, per diem and travel	7	
		Rental	Lift (Cherry Picker)	1	
			Site survey	1	
Signage	CPS-006	Custom signage 5'x 4', plastic with adhesive	Custom signage 5'x 4"	7	
2 Backhaul Equipment					
Backhaul Radio	FR3000-D-1FEPS/2PS/3X/4X	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
	FR500-D-1PS/2X	FlexiRadio 500- 17 dBm Backhaul Radio	FlexiRadio 500- 17 dBm Backhaul Radio	1	1 Year
AP/Backhaul Radio FW	FR3000 AP Firmware	AP Firmware for FlexiRadio PS	AP Firmware for FlexiRadio PS	1	1 Year
	FR3000 AP Firmware	Backhaul Firmware for FlexiRadio PS	Backhaul Firmware for FlexiRadio PS	2	1 Year

AP/Backhaul Antenna

HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	2	1 Year
HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	2	1 Year
AL6-NMFFB	N-male to N-female Bulkhead 6 GHz Surge Protector	Surge protector	4	1 Year
CPT-003	50 ohm port terminator	Port Terminator	2	1 Year

Enclosure

CPE-001-1	Custom Enclosure & UPS	NEMA Enclosure and UPS	2	1 Year
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Installation Material

RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	3	
CPK-004	N and SMA connector set	Coaxial connector kit	6	
CPK-007	Pole mounting FR3000	Pole mounting FR3000	1	
CPK-005	FR500-Pole Mounting kit	Pole mounting FR500	1	

Ethernet connection

S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Conventient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	7	1 Year
CPC-008	Cat6 cable up to 25 meter	Cat6 cable up to 25 meter		1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	7	1 Year

Installation Service

	Backhaul Installation	Backhaul Installation		Included
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3 Monitoring Center

Monitoring Screens

S400p	40" LCD S400p or equivalent	SamSung, SYNCMASTER 400P LCD DISPLAY 40 inch, w/Wall Mount	3	1 Year
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Monitoring and Video Server

RS-200-X32	Xeon Server RS-200-X32 or equivalent	Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1	1 Year
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Workstation

RW-100-X34	Workstation RW-100-X34 or equivalent	Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2	1 Year
	Monitoring Desk	Monitoring Desk with Rack Mount Slider	1	

Monitoring Software

Insight-B-3.5	Insight Video Net Building-B-3.5	Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses. Includes IVS	1	1 Year
Insight-B-70C-3.5	Insight-B-70C-3.5	31 to 70 connection licenses	7	1 Year
Insight-B-2-RED-3.5	Insight-B-2-RED-3.5	Local Redundant Archiving for 2 cameras (1 License per PC Brick)	0	1 Year
	Software Version Upgrades	(90) days from date of issue of license		Warranty
	Software Updates	(1) year from date of issue of license		Warranty

Client and AP Software

	AP and client SW	AP and client SW	1	1 Year
	0 to 20 connection licenses	1 to 20 connection licenses	7	1 Year
	Software Version Upgrades	(90) days from date of issue of license		Warranty
	Software Updates	(1) year from date of issue of license		Warranty

Printer

	Stylus C-86 color Inkjet printer or equivalent	Stylus C-86 color Inkjet printer or equivalent	1	1 Year
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Monitoring Center Installation

	Monitoring Center Installation	Monitoring Center Installation	Included	1 Year
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4 Professional Services

Video professional services

DES001	Architecture and Design Services	Infrastructure, database and security design (1 days onsite)	1
ICT001	Site Services	IVN hardware / software installation, customization and testing (2 days onsite)	2

RF professional services

	Network Design	Cell and Backhaul RFdesign	4
	Site Services	Radio and antenna installation, customization and testing (5 days)	5

5 Staging

Camera and VPN SW

SBS001	Video Staging and Burn-in Services	Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonga, CA	7
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Radio Network

	RF AP and Client Staging and Burn-in Services	Assemble and test (1) AP and (1) client. Services are performed in CellPlan staging facility in Reston, VA	7
	RF Backhaul Staging and Burn-in Services	Assemble and test (1) client. Services are performed in CellPlan staging facility in Reston, VA	1

6 Training

Video System

OEU00F	Onsite training	Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 stud	1
OSAOT00F	Onsite training	Insight Video Net DVMS (Fixed) - System Admin and Operator Trainin	2
TL001	Travel & lodging (Day 1)	Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
TL002	Travel & lodging (Day 2+)	Transportation, lodging etc.	0

Radio System

	On Site Training	FlexiRadio Configuration and Performance Verification	2
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3

7 Maintenance/Service

	Maintenance Services for 1 year	Maintenance Services for 1 year	Included
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8 System Acceptance

	On Site Acceptance	FlexiRadio Configuration and Performance Verification	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	8

	On Site Acceptance	Video system acceptance	included
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	On Site Acceptance	Overall installation acceptance	included
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9 Project Management
Global project management
Video project management
RF project management

	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	20
PM001	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	2
	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	4
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
			1

10 Shipping and Handling

Shipping and Handling	UPS Ground or equivalent		1
Shipping and Handling	UPS Ground or equivalent		1

11 Spares

SD53CBW-PG-E0	Spectra III SE Series Dome System	23X Day/Night- environmental pendant, smoked glass, light gray	2	
SW-1241A5	Power converter	12v DC 4 amp Power supply for VPU Encoder	1	1 Year
SC240-P24-1024M	Industrial Computer	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewall Port - , 12V DC Input / Win-XP-Pro installed and tested	1	1 Year
I1502	Video Encoder	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
MDV30X	Mobile DataVault 3DX	500GB HDD - USB 2.0 (Includes Power Unit)	1	1 Year
S14H-12VDC	4 Port Switch	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	4	1 Year
PTC-BNM-BNF	BNC-Lightning Surge Protector	Camera & VPU Lightning protection	2	1 Year
FR500-D-1PS/2X	FlexiRadio 500	Flexiradio 500 with Single Radio for Public Safety	2	1 Year
HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	1	
AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector	Surge Protector	4	
CPT-003	50 ohm port terminator	Port Terminator	1	
RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	2	
CPK-004	N and SMA connector set	Coaxial connector kit	4	
FR3000-D-1FEPS/2PS/3X/4X		Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	1	

12 Total Basic Proposal Price
Taxes are not included

\$ 349,000.00

Long Beach, CA- Pine Boulevard Video Surveillance Project

Alternate A proposal	Part Number	Model	Description	Quantity	Warranty
1 Street Surveillance Equipment					
Camera	SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	13	
Intersection Units	CPE-001	Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	7	1 Year
	CPE-002	Custom Equipment Enclosure	NEMA Enclosure	7	1 Year
	SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	7	1 Year
	SC240-P24-1024M	Industrial Computer or equivalent	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	7	1 Year
	I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	7	1 Year
	MDV3CX	Mobile DataVault 3DX or equivalent	500GB HDD - USB 2.0 (Includes Power Unit)	7	1 Year
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Proteo.	7	1 Year
	PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	13	1 Year
Client Radio	FR100	FlexiRadio 100	Flexiradio 100 with Cardbus	7	1 Year
Client Radio FW	FR100 Client FW	FR100 Client Firmware	Client Firmware for FlexRadio license	7	1 Year
Client Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	7	
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protect	Surge Protector	7	
	CPT-003	50 ohm port terminator	Port Terminator	7	
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	7	
	CPK-004	N and SMA connector set	Coaxial connector kit	7	
	CPK-005	FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	
Installation Material		Miscellaneous	Electrical & Cable material	7	
Installation Service			Labor, per diem and travel	7	
		Rental	Lift (Cherry Picker)	1	
			Site survey	1	
Signage	CPS-006	Custom signage 5"x 4", plastic with adhesive	Custom signage 5"x 4"	7	
2 Backhaul Equipment					
Backhaul Radio	FR3000-D-1FEPS/2PS/3X/4X	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
	FR500-D-1PS/2X	FlexiRadio 500- 17 dBm Backhaul Radio	FlexiRadio 500- 17 dBm Backhaul Radio	1	1 Year
AP/Backhaul Radio FW	FR3000 AP Firmware	AP Firmware for FlexRadio PS	AP Firmware for FlexRadio PS	1	1 Year

	FR3000 AP Firmware	Bachaul Firmware for FlexiRadio PS	Bachaul Firmware for FlexiRadio PS	2	1 Year
AP/Backhaul Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	2	
	HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	2	
	AL6-NMFFB	N-male to N-female Bulkhead 6 GHz Surge Protector	Surge protector	4	
	CPT-003	50 ohm port terminator	Port Terminator	2	
Enclosure	CPE-001-1	Enclosure & UPS	NEMA Enclosure and UPS	2	1 Year
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	3	
	CPK-004	N and SMA connector set	Coaxial connector kit	6	
	CPK-007	Pole mounting FR3000	Pole mounting FR3000	1	
	CPK-005	FR500-Pole Mounting kit	Pole mounting FR500	1	
Ethernet connection	S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC		
	CPC-008	Cat6 cable up to 25 meter	Cat6 cable up to 25 meter		
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	7	1 Year
Installation Service		Backhaul installation	Backhaul installation		Included
3 Monitoring Center					
Monitoring Screens	S400p	40" LCD S400p or equivalent	Samsung, SYNCMASTER 400P LCD DISPLAY 40 inch, w/Wall Mount	3	1 Year
Monitoring and Video Server	RS-200-X32	Xeon Server RS-200-X32 or equivalent	Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1	1 Year
Workstation	RW-100-X34	Workstation RW-100-X34 or equivalent	Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2	1 Year
		Monitoring Desk	Monitoring Desk with Rack Mount Slider	1	
Monitoring Software	Insight-B-3.5	Insight Video Net Building-B-3.5	Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses: includes IVS	1	1 Year
	Insight-B-70C-3.5	Insight-B-70C-3.5	31 to 70 connection licenses	13	1 Year
	Insight-B-2-RED-3.5	Insight-B-2-RED-3.5	Local Redundant Archiving for 2 cameras (1 License per PC Brick)	7	1 Year
		Software Version Upgrades	(90) days from date of issue of license		Warranty
		Software Updates	(1) year from date of issue of license		Warranty
Client and AP Software		AP and client SW	AP and client SW	1	1 Year
		0 to 20 connection licenses	0 to 20 connection licenses	7	1 Year
		Software Version Upgrades	(90) days from date of issue of license		Warranty
		Software Updates	(1) year from date of issue of license		Warranty
Printer		Stylus C-86 color Inkjet printer or equivalent	Stylus C-86 color Inkjet printer or equivalent	1	1 Year

Monitoring Center Installation

	Monitoring Center Installation	Monitoring Center Installation	included	1 Year
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4 Professional Services

Video professional services

DES001	Architecture and Design Services	Infrastructure, database and security design (1 days onsite)	1
ICT001	Site Services	IVN hardware / software installation, customization and testing (2 days onsite)	2

RF professional services

	Network Design	Cell and Backhaul RF design	4
	Site Services	Radio and antenna installation, customization and testing (5 days)	5

5 Staging

Camera and VPN SW

SBS001	Video Staging and Burn-in Services	Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonga, CA	7
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Radio Network

	RF AP and Client Staging and Burn-in Services	Assemble and test (1) AP and (1) client. Services are performed in CelPlan staging facility in Reston, VA	7
	RF Backhaul Staging and Burn-in Services	Assemble and test (1) client. Services are performed in CelPlan staging facility in Reston, VA	1

6 Training

Video System

OEU00F	Onsite training	Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 stud	1
OSAOT00F	Onsite training	Insight Video Net DVMS (Fixed) - System Admin and Operator Trainin	2
TL001	Travel & lodging (Day 1)	Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
TL002	Travel & lodging (Day 2+)	Transportation, lodging etc.	0

Radio System

	On Site Training	FlexiRadio Configuration and Performance Verification	2
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3

7 Maintenance/Service

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8 System Acceptance

	On Site Acceptance	FlexiRadio Configuration and Performance Verification	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1

	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	6
			included
			included

9 Project Management

Global project management
Video project management
RF project management

	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	20
PM001	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	2
	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	6
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	4
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
			1

10 Shipping and Handling

Shipping and Handling	UPS Ground or equivalent		1
Shipping and Handling	UPS Ground or equivalent		1

11 Spares

SD53CBW-PG-E0	Spectra III SE Series Dome System	23X Day/Night- environmental pendant, smoked glass, light gray	2	
SW-1241A5	Power converter	12v DC 4 amp Power supply for VPU Encoder	1	1 Year
SC240-P24-1024M	Industrial Computer	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC input / Win-XP-Pro installed and tested	1	1 Year
I1502	Video Encoder	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
MDV3OX	Mobile DataVault 3DX	500GB HDD - USB 2.0 (Includes Power Unit)	1	1 Year
S14H-12VDC	4 Port Switch	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	4	1 Year
PTC-BNM-BNF	BNC-Lightning Surge Protector	Camera & VPU Lightning protection	2	1 Year
FR500-D-1PS/2X	FlexiRadio 500	Flexiradio 500 with Single Radio for Public Safety	2	1 Year
		8 dBi antenna	1	1 Year
		Surge Protector	4	
		Port Terminator	1	
		Coaxial cable (LMR -80 up to 5 meter)	2	
		Coaxial connector	4	
FR3000-D-1FEPS/2PS/3X/4X		Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
		14 dBi panel antenna	1	

12 Total Alternate A Proposal Price
Taxes are not included

\$

372,800.00

Long Beach, CA- Pine Boulevard Video Surveillance Project

Alternate B Proposal	Part Number	Model	Description	Quantity	Warranty
1 Street Surveillance Equipment					
Camera	SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	17	1 Year
Intersection Units	CPE-001	Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	9	1 Year
	CPE-002	CustomEquipment Enclosure	NEMA Enclosure	9	1 Year
	SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	9	1 Year
	I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	9	1 Year
	S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	9	1 Year
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	9	1 Year
	PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	17	1 Year
Client Radio	FR500	FlexiRadio 500 with one radio	Flexiradio 500 with one radio	9	1 Year
Client Radio Firmware	FR500 Client FW	FlexiRadio 500 Client Firmware	Client Firmware license for FlexiRadio	9	1 Year
Client Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	9	1 Year
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector or	Surge Protector	9	1 Year
	CPT-003	50 ohm port terminator	Port Terminator	9	1 Year
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	9	
	CPK-004	N and SMA connector set	Coaxial connector kit	9	
	CPK-005	FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	
Installation Material		Miscellaneous	Electrical & Cable material	9	
Installation Service			Labor, per diem and travel	9	
		Rental	Lift (Cherry Picker)	1	
			Site survey	1	
Signage	CPS-006	Custom signage 5"x 4", plastic with adhesive	Custom signage 5"x 4"	9	
2 Backhaul Equipment					
Backhaul Radio	FR3000-D-1FEPS/2PS/3X/4X	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Rad	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
	FR500-D-1PS/2X	FlexiRadio 500- 17 dBm Backhaul Radio	FlexiRadio 500- 17 dBm Backhaul Radio	1	1 Year
AP/Backhaul Radio FW	FR3000 AP Firmware	AP Firmware for FlexiRadio PS	AP Firmware for FlexiRadio PS	1	1 Year
	FR3000 AP Firmware	Bachaul Firmware for FlexiRadio PS	Bachaul Firmware for FlexiRadio PS	2	1 Year

AP/Backhaul Antenna

HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	2	1 Year
HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	2	1 Year
AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector	Surge protector	4	1 Year
CPT-003	50 ohm port terminator	Port Terminator	2	1 Year

Enclosure

CPE-001-1	Custom Enclosure & UPS	NEMA Enclosure and UPS	2	1 Year
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Installation Material

RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	3	
CPK-004	N and SMA connector set	Coaxial connector kit	6	
CPK-007	Pole mounting FR3000	Pole mounting FR3000	1	
CPK-005	FR500-Pole Mounting kit	Pole mounting FR500	1	

Ethernet connection

S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
CPC-008	Cat6 cable up to 25 meter	Cat6 cable up to 25 meter	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	2	1 Year

Installation Service

	Backhaul Installation	Backhaul Installation		Included
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3 Monitoring Center

Monitoring Screens

S400p	40" LCD S400p or equivalent	SamSung, SYNCMASTER 400P LCD DISPLAY 40 Inch, w/Wall Mount	3	1 Year
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Monitoring and Video Server

RS-200-X32	Xeon Server RS-200-X32 or equivalent	Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1	1 Year
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Workstation

RW-100-X34	Workstation RW-100-X34 or equivalent	Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2	1 Year
	Monitoring Desk	Monitoring Desk with Rack Mount Slider	1	

Monitoring Software

Insight-B-3.5	Insight Video Net Building-B-3.5	Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses: Includes IVS	1	1 Year
Insight-B-70C-3.5	Insight-B-70C-3.5	31 to 70 connection licenses	9	1 Year
Insight-B-2-RED-3.5	Insight-B-2-RED-3.5	Local Redundant Archiving for 2 cameras (1 License per PC Brick)	0	1 Year
	Software Version Upgrades	(90) days from date of issue of license		Warranty
	Software Updates	(1) year from date of issue of license		Warranty

Client and AP Software

	AP and client SW	AP and client SW	1	1 Year
	0 to 20 connection licenses	1 to 20 connection licenses	17	1 Year
	Software Version Upgrades	(90) days from date of issue of license		Warranty
	Software Updates	(1) year from date of issue of license		Warranty

Printer

	Stylus C-86 color inkjet printer or equivalent	Stylus C-86 color Inkjet printer or equivalent	1	1 Year
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Monitoring Center Installation

	Monitoring Center Installation	Monitoring Center Installation	Included	1 Year
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4 Professional Services

Video professional services

DES001	Architecture and Design Services	Infrastructure, database and security design (1 days onsite)	1
ICT001	Site Services	IVN hardware / software installation, customization and testing (2 days onsite)	2

RF professional services

	Network Design	Cell and Backhaul RFdesign	4
	Site Services	Radio and antenna installation, customization and testing (5 days)	5

5 Staging

Camera and VPN SW

SBS001	Video Staging and Burn-in Services	Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonge, CA	9
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Radio Network

	RF AP and Client Staging and Burn-in Services	Assemble and test (1) AP and (1) client. Services are performed in CelPlan staging facility in Reston, VA	9
	RF BACKhaul Staging and Burn-in Services	Assemble and test (1) client. Services are performed in CelPlan staging facility in Reston, VA	1

6 Training

Video System

OEU00F	Onsite training	Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 students)	1
OSA000F	Onsite training	Insight Video Net DVMS (Fixed) - System Admin and Operator Training	2
TL001	Travel & lodging (Day 1)	Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
TL002	Travel & lodging (Day 2+)	Transportation, lodging etc.	0

Radio System

	On Site Training	FlexiRadio Configuration and Performance Verification	2
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3

7 Maintenance/Service

	Maintenance Services for 1 year	Maintenance Services for 1 year	Included
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8 System Acceptance

	On Site Acceptance	FlexiRadio Configuration and Performance Verification	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	6

	On Site Acceptance	Video system acceptance	Included
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	On Site Acceptance	Overall installation acceptance	Included
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9 Project Management
Global project management
Video project management
RF project management

	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	20
PM001	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	2
	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	4
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
			1

10 Shipping and Handling

Shipping and Handling	UPS Ground or equivalent		1
Shipping and Handling	UPS Ground or equivalent		1

11 Spares

SD53CBW-PG-E0	Spectra III SE Series Dome System	23X Day/Night- environmental pendant, smoked glass, light gray	2	
SW-1241A5	Power converter	12v DC 4 amp Power supply for VPU Encoder	1	1 Year
SC240-P24-1024M	Industrial Computer	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	1	1 Year
I1502	Video Encoder	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
MDV30X	Mobile DataVault 3DX	500GB HDD - USB 2.0 (Includes Power Unit)	1	1 Year
S14H-12VDC	4 Port Switch	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	4	1 Year
PTC-BNM-BNF	BNC-Lightning Surge Protector	Camera & VPU Lightning protection	2	1 Year
FR500-D-1PS/2X	FlexiRadio 500	Flexiradio 500 with Single Radio for Public Safety	2	1 Year
HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	1	
AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector or	Surge Protector	4	
CPT-003	50 ohm port terminator	Port Terminator	1	
RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	2	
CPK-004	N and SMA connector set	Coaxial connector kit	4	
FR3000-D-1FEPS/2PS/3X/4X		Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	1	

12 Total Alternate B Project
Taxes are not included

\$ 386,000.00

Long Beach, CA- Pine Boulevard Video Surveillance Project

Alternate C Proposal	Part Number	Model	Description	Quantity	Warranty
1 Street Surveillance Equipment					
Camera					
	SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	17	
Intersection Units					
	CPE-001	Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	9	1 Year
	CPE-002	Custom Equipment Enclosure	NEMA Enclosure	9	1 Year
	SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	9	1 Year
	SC240-P24-1024M	Industrial Computer or equivalent	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	9	1 Year
	I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	9	1 Year
	MDV3OX	Mobile DataVault 3DX or equivalent	500GB HDD - USB 2.0 (Includes Power Unit)	9	1 Year
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	9	1 Year
	PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	17	1 Year
Client Radio					
	FR100	FlexiRadio 100	Flexiradio 100 with Cardbus	9	1 Year
Client Radio FW					
	FR100 Client FW	FR100 Client Firmware	Client Firmware for FlexiRadio license	9	1 Year
Client Antenna					
	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	9	
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector	Surge Protector	9	
	CPT-003	50 ohm port terminator	Port Terminator	9	
Installation Material					
	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	9	
	CPK-004	N and SMA connector set	Coaxial connector kit	9	
	CPK-005	FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	
Installation Material					
		Miscellaneous	Electrical & Cable material	9	
Installation Service					
			Labor, per diem and travel	9	
		Rental	Lift (Cherry Picker)	1	
			Site survey	1	
Signage					
	CPS-006	Custom signage 5'x 4", plastic with adhesive	Custom signage 5'x 4"	9	
2 Backhaul Equipment					
Backhaul Radio					
	FR3000-D-1FEPS/2PS/3X/4X	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul	Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
	FR500-D-1PS/2X	FlexiRadio 500- 17 dBm Backhaul Radio	FlexiRadio 500- 17 dBm Backhaul Radio	1	1 Year
AP/Backhaul Radio FW					
	FR3000 AP Firmware	AP Firmware for FlexiRadio PS	AP Firmware for FlexiRadio PS	1	1 Year

	FR3000 AP Firmware	Bachaul Firmware for FlexiRadio PS	Bachaul Firmware for FlexiRadio PS	2	1 Year
AP/Backhaul Antenna	HGV-4907U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	2	
	HG4911P	4.9 GHz 11 dBi Panel Antenna or equivalent	11 dBi panel antenna	2	
	AL6-NMFFB	N- male to N-female Bulkhead 6 GHz Surge Protector	Surge protector	4	
	CPT-003	50 ohm port terminator	Port Terminator	2	
Enclosure	CPE-001-1	Enclosure & UPS	NEMA Enclosure and UPS	2	3 Year
Installation Material	RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	3	
	CPK-004	N and SMA connector set	Coaxial connector kit	6	
	CPK-007	Pole mounting FR3000	Pole mounting FR3000	1	
	CPK-005	FR500-Pole Mounting kit	Pole mounting FR500	1	
Ethernet connection	S14H-12VDC	4 Port Switch or equivalent	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC		
	CPC-008	Cat6 cable up to 25 meter	Cat6 cable up to 25 meter		
	HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	9	1 Year
Installation Service		Backhaul installation	Backhaul Installation		included
3 Monitoring Center					
Monitoring Screens	S400p	40" LCD S400p or equivalent	SamSung, SYNCMASTER 400P LCD DISPLAY 40 inch, w/Wall Mount	3	1 Year
Monitoring and Video Server	RS-200-X32	Xeon Server RS-200-X32 or equivalent	Rackmount Workstation, 4U - Xeon 3.0GHz, 2GB RAM 1.6TB HDD, Windows 2003 Standard 5CAL	1	1 Year
Workstation	RW-100-X34	Workstation RW-100-X34 or equivalent	Rackmount Workstation, 4U - P4 3.0GHz, 1GB RAM 36GB Raptor HDD, Windows XP Pro	2	1 Year
		Monitoring Desk	Monitoring Desk with Rack Mount Slider	1	
Monitoring Software	Insight-B-3.5	Insight Video Net Building-B-3.5	Video Management/Storage Software with 8 connection licenses and 2 concurrent user viewing licenses: Includes IVS	1	1 Year
	Insight-B-70C-3.5	Insight-B-70C-3.5	31 to 70 connection licenses	13	1 Year
	Insight-B-2-RED-3.5	Insight-B-2-RED-3.5	Local Redundant Archiving for 2 cameras (1 License per PC Brick)	7	1 Year
		Software Version Upgrades	(90) days from date of issue of license		Warranty
		Software Updates	(1) year from date of issue of license		Warranty
Client and AP Software		AP and client SW	AP and client SW	1	1 Year
		0 to 20 connection licenses	0 to 20 connection licenses	7	1 Year
		Software Version Upgrades	(90) days from date of issue of license		Warranty
		Software Updates	(1) year from date of issue of license		Warranty
Printer		Stylus C-86 color Inkjet printer or equivalent	Stylus C-86 color Inkjet printer or equivalent	1	1 Year

Monitoring Center Installation

	Monitoring Center Installation	Monitoring Center Installation	Included	1 Year
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4 Professional Services

Video professional services

DES001	Architecture and Design Services	Infrastructure, database and security design (1 days onsite)	1
ICT001	Site Services	IVN hardware / software installation, customization and testing (2 days onsite)	2

RF professional services

	Network Design	Cell and Backhaul RFdesign	4
	Site Services	Radio and antenna installation, customization and testing (5 days)	5

5 Staging

Camera and VPN SW

SBS001	Video Staging and Burn-in Services	Assemble and test (1) Intersection Unit and (1) UPS Unit. Services are performed at the IVN staging facility in Rancho Cucamonga, CA	7
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Radio Network

	RF AP and Client Staging and Burn-in Services	Assemble and test (1) AP and (1) client. Services are performed in CelPlan staging facility in Reston, VA	7
	RF Backhaul Staging and Burn-in Services	Assemble and test (1) client. Services are performed in CelPlan staging facility in Reston, VA	1

6 Training

Video System

OEU00F	Onsite training	Insight Video Net DVMS (Fixed) - End User T2 Training (Up to 10 stud	1
OSAO00F	Onsite training	Insight Video Net DVMS (Fixed) - System Admin and Operator Trainin	2
TL001	Travel & lodging (Day 1)	Transportation, lodging etc. (Order receipt at least 14 calendar days prior to installation)	0
TL002	Travel & lodging (Day 2+)	Transportation, lodging etc.	0

Radio System

	On Site Training	FlexRadio Configuration and Performance Verification	2
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	3

7 Maintenance/Service

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8 System Acceptance

	On Site Acceptance	FlexRadio Configuration and Performance Verification	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	1

	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	6
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			Included
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			Included
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9 Project Management
Global project management
Video project management
RF project management

	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	20
PM001	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	2
	Project Management Services	Project coordination, documentation and oversight (2 days onsite)	5
	Travel	Transportation (Order receipt at least 14 calendar days prior to installation)	4
	Lodging	Lodging local transport and meals (Order receipt at least 14 calendar days prior to installation)	4
			1

10 Shipping and Handling

Shipping and Handling	UPS Ground or equivalent		1
Shipping and Handling	UPS Ground or equivalent		1

11 Spares

SD53CBW-PG-E0	Spectra III SE Series Dome System	23X Day/Night- environmental pendant, smoked glass, light gray	2	
SW-1241A5	Power converter	12v DC 4 amp Power supply for VPU Encoder	1	1 Year
SC240-P24-1024M	Industrial Computer	P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	1	1 Year
I1502	Video Encoder	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
MDV30X	Mobile DataVault 3DX	500GB HDD - USB 2.0 (Includes Power Unit)	1	1 Year
S14H-12VDC	4 Port Switch	Magnum Hardened Convenient Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485)	RS422/485 Camera & VPU Lightning Protec.	4	1 Year
PTC-BNM-BNF	BNC-Lightning Surge Protector	Camera & VPU Lightning protection	2	1 Year
FR500-D-1PS/2X	FlexiRadio 500	Flexiradio 500 with Single Radio for Public Safety	2	1 Year
		6 dBi antenna	1	1 Year
		Surge Protector	4	
		Port Terminator	1	
		Coaxial cable (LMR -80 up to 5 meter)	2	
		Coaxial connector	4	
FR3000-D-1FEPS/2PS/3X/4X		Flexiradio 3000- 30 dBm AP and 17 dBm Backhaul Radio	1	1 Year
		14 dBi panel antenna	1	

12 Total Alternate C Proposal Price \$ 420,000.00
Taxes are not included

Long Beach, CA- Pine Boulevard Video Surveillance Project

1 Site with 2 cameras no local storage

Street Surveillance Equipment

Camera

Model	Description	Quantity	Warranty
Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	2	1 Year

Intersection Units

Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	1	1 Year
Custom Equipment Enclosure	NEMA Enclosure	1	1 Year
Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder	1	1 Year
Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
4 Port Switch or equivalent	Magnum Hardened Converter Switch, four 10/100 RJ45 ports in a compact package - 12VDC	1	1 Year
Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	1	1 Year
BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	2	1 Year

Client Radio

FlexRadio 500 with one radio	Flexradio 500 with one radio	1	1 Year
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Client Radio Firmware

FlexRadio 500 Client Firmware	Client Firmware licenses for FlexRadio	1	1 Year
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Client Antenna

4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	1	1 Year
N- male to N-female Bulkhead 6 GHz Surge Protector or equivalent	Surge Protector	1	1 Year
50 ohm port terminator	Port Terminator	1	1 Year

Installation Material

RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	1	
N and SMA connector set	Coaxial connector kit	1	
FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	

Installation Material

Miscellaneous	Electrical & Cable material	1	
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Installation Service

	Labor, per diam and travel	1	
Rental	L/R (Cherry Picker)	1	
	Site survey	1	

Signage

Custom signage 6"x 4", plastic with adhesive	Custom signage 6"x 4"	17	
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Client and AP Software

0 to 20 connection licenses	1 to 20 connection licenses	17	1 Year
Software Version Upgrades	(90) days from date of issue of license	Warranty	
Software Updates	(1) year from date of issue of license	Warranty	

Total Site with 2 cameras no local storage price
Taxes are not included

\$ 40,700.00

2 Site with 2 cameras local storage

Street Surveillance Equipment

Camera

Part Number	Model	Description	Quantity	Warranty
SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	2	

Intersection Units

CPE-001	Custom Enclosure & UPS	NEMA Enclosure and UPS (4 hour back up)	1	1 Year
CPE-002	Custom Equipment Enclosure	NEMA Enclosure	1	1 Year
SW-1241A5	Power converter or equivalent	12v DC 4 amp Power supply for VPU Encoder P4-2.4GHz, 1G DDR Memory, 10/100 LAN, 4 USB 2.0 ports, Firewire Port - , 12V DC Input / Win-XP-Pro installed and tested	1	1 Year
SC240-P24-1024M	Industrial Computer or equivalent		1	1 Year

I1502	Video Encoder or equivalent	(2) Port Ethernet video server (encoder) without Audio	1	1 Year
MOV30X	Mobile DataVault 3DX or equivalent	500GB HDD - USB 2.0 (includes Power Unit)	1	1 Year
HGLN-D2-05	Data Line Lightning Surge Protector (RS422/485) or equivalent	RS422/485 Camera & VPU Lightning Protec.	1	1 Year
PTC-BNM-BNF	BNC-Lightning Surge Protector or equivalent	Camera & VPU Lightning protection	2	1 Year

Client Radio

FR100	FiedRadio 100	Fiedradio 100 with Carbus	1	1 Year
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Client Radio FW

FR100 Client FW	FR100 Client Firmware	Client Firmware for FiedRadio license	1	1 Year
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Client Antenna

HGV-4007U	4.9 GHz 7 dBi Omnidirectional Antenna or equivalent	7 dBi antenna	1	
AL8-NMFFB	N-male to N-female Bulkhead 6 GHz Surge Protector or equivalent	Surge Protector	1	
CPT-003	50 ohm port terminator	Port Terminator	1	

Installation Material

RG184	RG184 up to 3 meter or equivalent	Coaxial cable (RG184 up to 3 meter)	1	
CPK-004	N and SMA connector set	Coaxial connector kit	1	
CPK-005	FR500-Pole Mounting kit	FR500-Pole Mounting kit	0	

Installation Material

	Miscellaneous	Electrical & Cable material	1	
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Installation Service

		Labor, per diem and travel	1	
	Rental	L/R (Cherry Picker)	1	
		Site survey	1	

Signage

CPS-005	Custom signage 5"x 4", plastic with adhesive	Custom signage 6"x 4"	1	
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Client and AP Software

	0 to 20 connection licenses	0 to 20 connection licenses	2	1 Year
	Software Version Upgrades	(90) days from date of issue of license	Warranty	
	Software Updates	(1) year from date of issue of license	Warranty	

Total Site with 2 cameras no local storage price
Taxes are not included

\$ 45,700.00

3 One camera with SW and installation

Street Surveillance Equipment
Camera

Part Number	Model	Description	Quantity	Warranty
SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	1	

Client and AP Software

	0 to 20 connection licenses	0 to 20 connection licenses	1	1 Year
	Software Version Upgrades	(90) days from date of issue of license	Warranty	
	Software Updates	(1) year from date of issue of license	Warranty	

Total one camera with SW and installation price

\$ 6,737.50

4 Two camera with SW and installation

Street Surveillance Equipment
Camera

Part Number	Model	Description	Quantity	Warranty
SD53CBW-PG-E0	Spectra III SE Series Dome System or equivalent	23X Day/Night- environmental pendant, smoked glass, light gray	2	

Client and AP Software

	0 to 20 connection licenses	0 to 20 connection licenses	2	1 Year
	Software Version Upgrades	(90) days from date of issue of license	Warranty	
	Software Updates	(1) year from date of issue of license	Warranty	

Total two camera with SW and installation price

\$ 11,825.00

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EXHIBIT "B"
CITY REPRESENTATIVE

Lt. Steve Ditmars
Long Beach Police Department
400 W. Broadway
Long Beach, CA 90802
(562) 570-7323

Robert E. Shannon
City Attorney of Long Beach
333 West Ocean Boulevard
Long Beach, California 90802-4664
Telephone (562) 570-2200

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EXHIBIT "C"
CITY MATERIALS

None.

EXHIBIT "D"

CITY'S POLICY FOR DISADVANTAGED, MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISES

The City of Long Beach is an equal opportunity employer and requires all Consultants to comply with policies and regulations concerning equal employment opportunity.

The City of Long Beach subscribes to the following goals concerning awards for equipment, material, supplies, and services.

Fifteen percent (15%) DBE/MBE Participation

Fifteen percent (15%) WBE Participation.

Whenever possible, the CONSULTANT should seek to accomplish these goals.