County of Santa Clara

Office of the District Attorney

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George W. Kennedy
District Attorney

April 23, 2003

Ms. Heather Tannehill
Sunnyvale Department of Public Safety
700 All American Way
Sunnyvale, CA 94086

RE: Crime Lab costs

Dear Ms. Tannehill:

This letter is in response to your request to enter into a formal contract with the District Attorney's Crime Lab for examination of physical evidence submitted by the Department of Public Safety as part of their criminal investigations.

As early as 1982, Santa Clara County law enforcement agencies were billed on a "per case" basis for examination of major case evidence by the District Attorney's County Crime Lab. Because no agency could, or can, accurately predict the number of major cases or the amount of testing each case might require, there was a lack of certainty in being able to anticipate the city police agency's annual bill for evidence examination. Additionally, this billing practice could create a disincentive to submitting cases for examination to avoid costly charges. Especially here in the Silicon Valley where technology drives industry, jurors expect thorough scientific testing to complete a criminal investigation.

In 1995, to remedy the billing uncertainty, police chiefs and the crime lab decided to adopt a billing practice that bases current year charges on a five-year average of the number of cases submitted by a department as compared to all cases local agencies submitted for examination. This practice allows a department to experience a single year spike in submissions without experiencing a drastic increase in their costs in the following year. This informal arrangement was adopted by all cities through their City Managers' Association.

Under this long-standing arrangement, each January our crime laboratory submits an annual bill after averaging the submissions in the preceding calendar year with those of the previous four years, to each user agency, which bill is payable in July of that year when the new fiscal cycle begins. These bills have been treated as claims and promptly

paid by all cities. We believe this practice is in the public interest and authorized by Government Code section 53910.

The Crime Lab is not a contract provider of forensic services to local law enforcement agencies; rather it is a partner of the police departments in the efficient and effective investigation of crimes committed in our communities. The lab frequently sends personnel to major crime scenes to assist in identifying, collecting and preserving evidence with the local police personnel. Therefore, we do not believe it is appropriate to enter into a unique contract with the City of Sunnyvale for these collaborative efforts. We are hopeful you will understand the situation and continue to pay the bills submitted by the Crime Lab even without a contract.

Very truly yours,

Michael Gaffey
Supervising Deputy
District Attorney Administration

C: George Kennedy
Benny Del Re

County of Santa Clara

Crime Laboratory

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CRIME LABORATORY SERVICES

1) The Role of the Crime Laboratory in Criminal Investigations.

   a) Prove or disprove pre-existing investigative theories.

   b) Provide legal proof in the courts.

   c) Occasionally assist in development of suspects.

   d) Assist in the collection of physical evidence at crime scenes.

2) Lab Organization and Services

   a) Criminalistics

      i) Nature of Physical Evidence

         (1) Evidence that can potentially be identified as originating from a single source (individual characteristics).

            (a) fingerprints

            (b) firearms

            (c) toolmarks

            (d) shoeprints/tiremarks

            (e) physical matches

            (f) questioned documents

            (g) biological evidence (DNA)

         (2) Evidence that can be associated with a group rather than a single source (class characteristics).

            (a) trace (glass, paint, hair, and fibers)

            (b) arson evidence

            (c) biological evidence (blood, semen, saliva, etc.)

ii) Comparative Examinations

(1) Evidence and reference samples are subjected to the same tests and examinations to determine if they have a common origin.

(2) Essential materials for comparative examinations.

(a) Reference sample is a sample from a known source.

(i) blood samples from a victim or suspect

(ii) glass from point of entry of burglary scene

(iii) paint from a suspected hit and run vehicle

(iv) shoes from a suspect

(v) writing exemplars from a victim or suspect

(b) Control samples are taken from uncontaminated areas located near evidence item. The purpose is to determine if the substrate will contribute or interfere with the examination.

(i) bloodstains

(ii) accelerants

(3) Services Provided

(a) Fingerprint development (no comparisons performed).

(i) black powder

(ii) ninhydrin

(iii) super glue fuming

(iv) crystal violet (adhesive surfaces)

(v) amido black (bloody prints)

(vi) small particle reagent (wet, non-porous surfaces)

(vii) alternate light source

1. DFO

2. fluorescent stains/powders

(b) Firearms examinations

(i) Firearms must be rendered safe for submission.

(ii) Reference samples-If possible, collect all relevant ammunition from suspect.

(iii) Types of examinations

1. comparison of fired projectiles and cartridge cases

2. functional examinations
3. distance determinations
4. no gun identification
5. serial number restorations
6. silencer examinations
7. gunshot residue analysis
8. trajectory reconstruction's

(c) Integrated Ballistics Identification System (IBIS)

(i) cartridge cases and bullets

(d) Toolmarks

(i) Compare toolmarks to suspected tools.

1. crowbars
2. screwdrivers
3. pliers
4. bolt cutters
5. staple guns

(ii) Shoeprints/Tiremarks

1. Submit photographs
   a. Camera directly above print
      i. level camera (no angles)
      ii. fill frame
      iii. photo with and without ruler
      iv. use a flat ruler at the same level as the print
      v. oblique lighting
2. If possible, cast impression with dental stone
3. Submit reference samples
   a. suspect's shoes
   b. Inked tiremarks should be prepared with tires still on the vehicle. Tiremarks should be placed on poster board.

(e) Physical matches

(i) Physical matches of randomly torn paper or broken edges can establish with absolute certainty that two or more objects once formed a single item.

1. vehicle damage
2. matches/matchbooks
3. tape

(f) Questioned documents

(i) Examination of handwriting, typewriting, mechanical printing, papers, and inks.

(ii) Indented writing

(iii) Exemplars-multiple handwriting samples from suspect, which duplicate following characteristics of the questioned document.

1. Form
2. writing utensil
3. style of writing, (i.e., print vs. cursive)
4. contents of written material

(iv) Submit original documents whenever possible

(g) Trace evidence

(i) Presence and location can be significant

1. Glass found in shoe soles is less significant than glass found on a suspect's clothing or in head hair.

(ii) Glass

1. Reference samples-should be collected from at least two different locations from the broken area, (e.g., a window), not from the ground.

(iii) Paint

1. Reference samples - should be flakes, which include all paint layers from several locations near the damaged area. **Do not collect scrapings.**

(iv) Hair

1. Reference samples - plucked **not** cut

a. Head hair - front, top, back, and sides. Approximately 10 hairs per region.

b. Pubic hairs - approximately 12 hairs from various areas.

c. Animal hairs

d. Synthetic hairs (wig)

e. A

(v) Fibers

1. reference samples

2. clothing

3. carpet

4. upholstery

(h) Arson Analysis

(i) Identification of petroleum distillates and other accelerants by class

1. gasoline

2. medium petroleum distillate, (e.g., some charcoal) lighter fluids

3. heavy petroleum distillate, (e.g., diesel fuel)

4. non-petroleum accelerants, (e.g., ethanol, turpentine)

(ii) Package samples in clean, unused metal cans or "Fire Debris Kapak." Make sure containers are sealed.

(iii) Control samples should be collected away from the point of origin

(i) Narcotics

(i) Identification of solid dosage drug samples

(ii) Quantitative analysis for sentence enhancement

(iii) Identification of precursor(s)

(j) Biological Evidence

(i) Identification of body fluids, (e.g., blood, semen, saliva)

(ii) Characterization (DNA typing)

1. Reference samples must be collected from victim(s) and suspect(s)

a. Blood should be collected in yellow stopper tubes and refrigerated. **Do not freeze**!

2. DNA is the genetic or inherited information that determines the make up of each individual. The differences we see in each other are outward manifestations of a person's unique DNA pattern. Such features as eye, hair and skin color, facial features, height, shape and "blood types" are all determined by individuals DNA.

3. RFLP

    a. requires a large amount of DNA

    b. must be in good condition (not degraded)

    c. high discrimination power

    d. analysis takes weeks to months

4. PCR

    a. requires a small amount of DNA

    b. sample can be degraded

    c. lower discrimination power

    d. short analysis time

5. Samples that can be typed by DNA

    a. blood

    b. semen

    c. penile swabs

    d. condoms (outside and inside)

    e. saliva (envelope flaps, postage stamps, cigarette butts, bite marks)

    f. urine

    g. hair roots

    h. tissue (skin, organ, etc.)

    i. bone

    j. teeth

    k. fingernail scrapings

6. STR

    a. 13 alleles

    b. identification

(iii) Computer Examinations

(iv) Crime Scene Processing

1. Personnel available for crime scene response

(k) Toxicology

(i) Blood (gray stopper tubes)

1. urine
2. intoxilyzer maintenance
3. interpretations

(ii) Blood/Urine Drugs

1. cocaine, amphetamines, PCP, opiates
2. interpretations
3. confirmation for H & S cases on request only
4. coroner's samples

(l) Photography

(i) color and black and white film processing

(ii) color and black and white print processing (proofs to 20X24)

(iii) digital imaging

(m) Computers

(i) Recovery of files and/or deleted information

1. text/work sheets
2. photographs
3. e-mail
4. sound files

(ii) Search for key words

(iii) Unlock password protected programs