



# Road Running Technical Committee TAC/USA

recognized by



## Measurement Certificate

Name of the course RUN TO THE STARS 3K Distance 3 Kilometers

Location (state) California, Saratoga (city) Christa McAuliffe School

Course configuration (loop, point/point, etc.) Figure eight

Type of surface: paved 100 % dirt \_\_\_\_\_ % gravel \_\_\_\_\_ % grass \_\_\_\_\_ %

Type of course: road race  cross country  calibration  track  Drop -0- meters/km

Straight line distance between the start and finish 261 meters Separation 8.7 percent

Altitude (meters/feet above sea level) Start 460 Finish 460 Highest 460 Lowest 460

Measured by (name, address, & phone) Hank Lawson (408) 446-9063

12375 Farr Ranch Road, Saratoga, CA 95070

Race contact (name, address, & phone) Same

Measuring Methods: bicycle  steel tape  electronic distance meter

Number of measurements of the entire course: Two Date(s) when course measured: 03/26/91

Race date (if applicable) 5/5/91 Date when course paperwork, sent for evaluation, was postmarked: 03/28/91

Difference between two best measurements of the course: 6'-10" Certification code: CA91012CW

### Be It Officially Noted That

Based on examination of data provided by the above named measurer, the course described above and in the map attached is hereby certified as reasonably accurate in measurement according to the standards adopted by the Road Running Technical Committee. If any changes are made to the course, this certification becomes void, and the course must then be recertified.

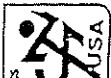
**Validation of Course** — In the event a National Open Record is set on this course, or at the discretion of TAC/USA, a validation remeasurement may be required to be performed by a member of the Road Running Technical Committee. Such a remeasurement must show the course to be *at least* the advertised race distance in order for the record to be accepted and certification to remain in effect.

AS NATIONALLY CERTIFIED BY:

Date: April 8, 1991

Carl E. Wisser  
TAC/Road Running Technical Committee  
4899 Shafter Avenue  
Oakland CA 94609

As Authorized by Ted Corbitt  
Certification Chairman



SUMMARY APPLICATION FOR  
CERTIFICATION OF COURSE LENGTH

Date of  
Application: 03/28/91

Name of course: Run To The Stars 3K  
Location: Christa McAuliffe School, Titus Av, Saratoga, CA  
Measuring method:  Steel Tape  EDM  Other:  
Measuring instrument: Jones [X] Other:

Measured by: Rider #1 Hank Lawson Rider #2 Same Rider #3 Same  
Name: Hank Lawson  
Street: 12375 Farr Ranch Rd  
City, St: Saratoga, CA 95070  
Phone: (408) 446-9063

A. DESCRIPTION OF THE COURSE

1. Course: Flat [X] Rolling [ ] Hilly [ ] Uphill [ ] Downhill [ ]  
2. Altitude: Start [460'] High [460'] Low [460'] Finish [460']  
3. Surface: Paved [100%] Dirt [ ] Sand/Gravel [ ] Grass [ ]  
4. Type: Road Race [X] X-Country [ ] Calibration [ ] Track [ ]  
5. Distance (straight line) between start & finish: .162 miles  
6. Draw a complete detailed map of the course with the names of all streets, paths & trails. Show all dirt and grass sections. Show the exact race path measured along the route indicating which portion of each street is available to the runners and how each turn is taken. Please give a dimensioned detail of the start and finish relative to permanent landmarks (mailboxes, light poles, curb cuts, etc) and as well, any other aspect of the course necessary to clarify the course (such as turn around, etc). If miles and/or kilometers are indicated, dimension to permanent objects. See attached maps and course description.

B. CALIBRATION OF MEASURING INSTRUMENT

Calibration course:  
Name: PROSPECT ROAD 880 YARD Length: 880 yard  
Location: Prospect Rd, Saratoga, CA Cert #: FA-8220  
Note: Calibration course must be certified & the start & finish verified. Call local office for info.  
Calibration of the instrument (list date, time, temp & data)  
03/25/91, 2:30 pm - 4:30 pm, 50 degrees (dry)  
a. Calibrate before measuring course (4 times)  
Ride #1: Ride #2: Ride #3: Ride #4:  
00000 07600 15200 22700  
07532 15133 22732 27733  
7532 (15064) 7533 (15066) 7532 (15064) 7533 (15066)  
b. Recalibrate after measuring course (2 times)

Average digits per mile/km for each day for each operator:  
Date: 03/26/91 Name: Hank Lawson Digits/mile: 15065 Km:  
Date: Name: Digits/mile: Km:

C. COURSE MEASUREMENT

Note: Certification requires two measurements of the course and the calibration operation and riding the course must be done on the same day by the same rider.

- Was measured route identical to the shortest legal route? YES
- Were turns measured within 12" of curbs & 8" where uncurbed? YES
- If part of course is dirt/grass how were areas measured? N/A
- Was the instrument calibrated immediately before measuring? YES  
Immediately after measuring? YES  
If the answer to either question is "NO", please explain: N/A
- .1% short course prevention factor (SCPF) must be added to each course. (Note: best added to calibration digits). 28 clicks
- List the date, time and raw data for each measurement.  
Note: 10km = 6.2137119 miles, marathon = 26.21875

03/26/91, 2:30 pm - 4:30 pm, 50 degrees (dry), see attached.

I rode the course forwards both times (the first ride being the longer of the two). I knew where my start and finish were going to be since I had rode the course over twice before but had failed to save any of my raw data (won't make that mistake again).

- Describe any adjustments (computations/measurements) to set the course to the desired length:

The second ride was 20 clicks short of the first ride, however I plan on marking where the first ride finished as the actual course.

- List total length of final course. 3K (1.8641136 mile)
- List adjusted difference between the two rides. 20 clicks

SIGNATURE OF APPLICANT: Hank Lawson Date: 03/28/91

Be sure to include \$25.00 per application (payable to PA/TAC).

Central & Northern California: Carl Wisser, 4899 Shafter Av, Oakland, CA 94069 (415) 652-7996  
LA area: Ron Scardera, 6907 Camrose Dr, Los Angeles, CA 90068  
San Diego & Imperial Counties, California: Bob Letson, 4369 Hamilton St #4, San Diego, CA 92104 (619) 298-0924

Ride # 1: 00000 start  
07532

-----  
7532 x 2 = 15064 per mile  
-----  
Ride # 2: 07600 start  
15133  
-----  
7533 x 2 = 15066 per mile  
-----

Ride # 3: 15200 start  
22732

-----  
7532 x 2 = 15064 per mile  
-----  
Ride # 4: 22700 start  
37733  
-----  
7533 x 2 = 15066 per mile  
-----

Average RIDING CONSTANT = 15065 per mile

Begin to race course and begin first of two rides:

Ride # 1: 30000 start  
45065 1 mi  
58111 3K finish (includes .001 SCPP)  
-----  
28111 total clicks  $\frac{1}{2}$

Return back to start. Distance from Finish to start is .162 miles.

Ride # 2: 60700 start  
75675 1 mi  
88831 3K finish (includes .001 SCPP)  
-----  
28131 total clicks (to get to same finish line as my first ride.

Difference between both rides is 20 clicks (about 7 feet) which is under the allowable difference for a 3K. Note: I plan on using the larger FINISH line anyway.

-----  
7532 x 2 = 15064 per mile  
-----  
Ride # 2: 88000 start  
95533  
-----  
7533 x 2 = 15066 per mile  
-----

Re-calibration constant is 15065

Days Constant is 15065

Note: In case you are wondering where my "raw notes" are, these are them. I have a hand held computer that I take out with me and enter the data as I ride the course (this way I don't have to retype anything). The first time I measured the course I used pencil and paper since I didn't know you wanted all of my scribbling. This time when I rode the course over, I used my hand held. For all future courses I measure< I will be doing it this way.

Course Description

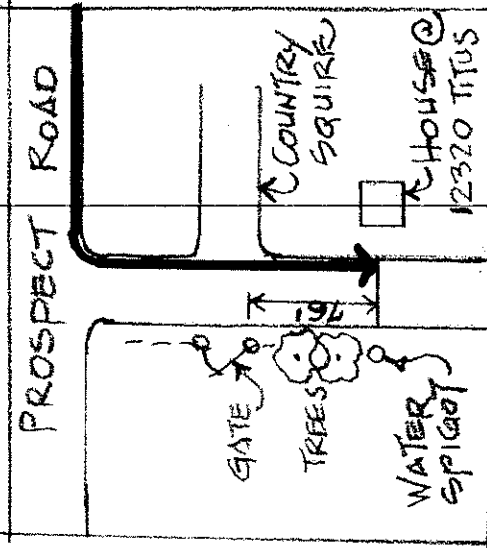
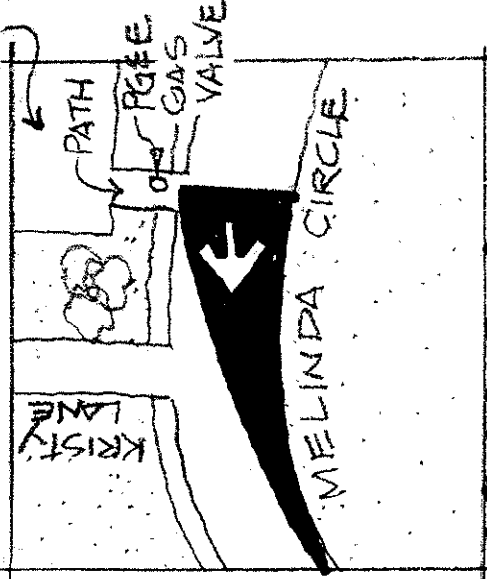
The start is on Melinda Cr by the walkway entrance to Christa McAuliffe School. There is a "PG&E Gas valve" cover that is 9 1/2' from the sidewalk curb on the path that is on the school side which is where the official start is (see START diagram).

The 1 mile mark is at the front door of 12320 Titus Av (on the left).

The 3K finish is at the 2nd sidewalk line that is past the 2nd big tree (on the right) on Titus Av just past the car gate that opens into the playground/parking area (or 76' from the car gate fence post). A wooden stake has been hammered into the ground by the fence to help permanently mark the location. The bedroom window at 12088 Titus Av (L side of street) is another marker (the L bedroom window). And for a final marker, it is also in line with a water spicket that is on the other side of the school fence.

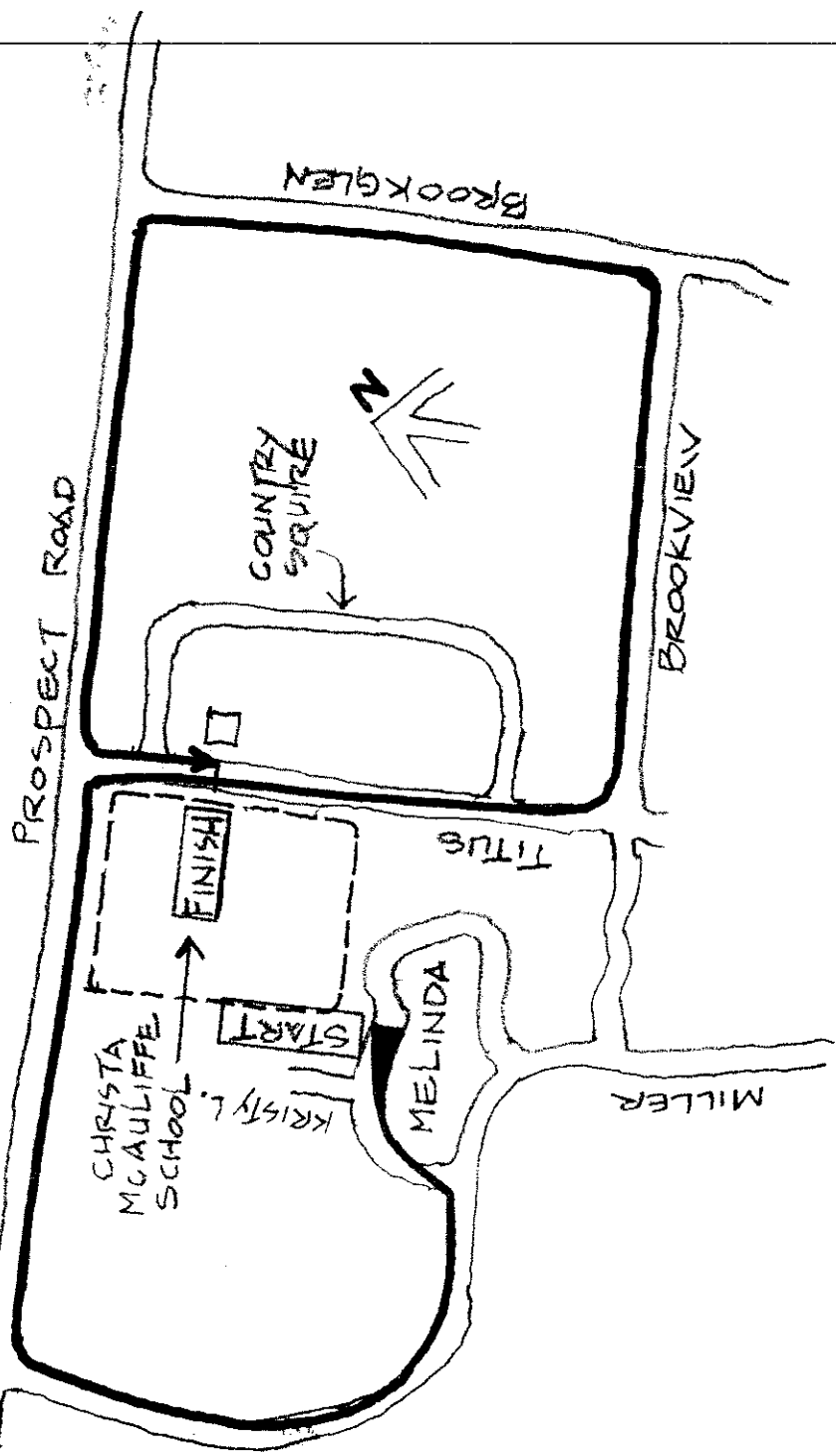
See enclosed map for a diagram of the race course as well as the START and FINISH areas.

SCHOOL PARKING LOT



START DETAIL

FINISH DETAIL



RUN TO THE STARS 3K

Run To The Stars 8K

Course Measurement

Date: 03/26/91 Time: 2:30 pm - 4:30 pm Temp: 50 degrees (dry)

Bike calibration

Ride # 1:           00000    start  
                  07532  
                  -----  
                  7532 x 2 = 15064 per mile

Ride # 2:           07600    start  
                  15133  
                  -----  
                  7533 x 2 = 15066 per mile

Ride # 3:           15200    start  
                  22732  
                  -----  
                  7532 x 2 = 15064 per mile

Ride # 4:           22700    start  
                  37733  
                  -----  
                  7533 x 2 = 15066 per mile

Average RIDING CONSTANT = 15065 per mile

8K = 4.970965 mile \* 15065 = 74888 + 75 (SCPF) = 74963 total

After first measuring the 3K course, I then went and measured the 8K course:

Ride # 1:           90000    start  
                  64963    8K finish (includes .001 SCPF)  
                  -----  
                  74963    total clicks

Reset counter and ride course forwards. Finish to Start is .162 miles.

Ride # 2:           65000    start  
                  80065    1 mi  
                  95130    2 mi  
                  10195    3 mi  
                  25260    4 mi  
                  39963    8K finish (includes .001 SCPF)  
                  -----  
                  74963

Difference between both rides is 4 feet which is under the allowable difference for an 8K. Note: I plan on using the longer FINISH line anyway.

Ride back to re-calibrate bike.

Bike Re-calibration

Ride # 1: 80000 start

87532

-----

7532 x 2 = 15064 per mile

Ride # 2: 88000 start

95533

-----

7533 x 2 = 15066 per mile

Re-calibration constant is 15065

Days Constant is 15065

8K Course Description

The start is on Melinda Cr by the walkway entrance to Christa McAuliffe School. There is a "PG&E Gas valve" cover that is 9 1/2' from the sidewalk curb on the path that is on the school side. The start is 16' in FRONT of the imaginary line that you would draw from that PG&E valve cover across the street.

The 1 mile mark is 16' in front of the front door of 12320 Titus Av (on the left).

The 2 mile is 15' past the fire hydrant on the right that is at 12234 Brookglen.

The 3 mile is at 12496 Titus Av (on the left) at the front yard light post.

The 4 mile is at '12299' (the numbers that are on the house) on the left on Miller Av.

The 8K finish is at the 2nd sidewalk line that is past the second big tree (on the right) on Titus Av just past the car gate that opens into the playground/parking area (or 76' from the car gate fence post). A wooden stake has been hammered into the ground by the fence to help permanently mark the location. The bedroom window at 12088 Titus Av (L side of street) is another marker (the L bedroom window). And for a final marker, it is also in line with a water spigot that is on the other side of the school fence.

See enclosed map for a diagram of the race course as well as the START and FINISH areas.

SUMMARY APPLICATION FOR  
CERTIFICATION OF COURSE LENGTH

Date of  
Application: 04/17/91

Name of course: Run To The Stars 8K Race Date: 05/05/91  
Location: Christa McAuliffe School, Titus Av, Saratoga, CA  
Measuring method: Bike [X] Steel Tape [ ] EDM [ ] Other:  
Measuring instrument: Jones [X] Other:  
Measured by: Rider #1 Rider #2 Rider #3  
Name: Hank Lawson Same  
Street: 12375 Farr Ranch Rd  
City, St: Saratoga, CA 95070  
Phone: (408) 446-9063

A. DESCRIPTION OF THE COURSE

1. Course: Flat [X] Rolling [ ] Hilly [ ] Uphill [ ] Downhill [ ]
2. Altitude: Start [460'] High [460'] Low [460'] Finish [460']
3. Surface: Paved [100%] Dirt [ %] Sand/Gravel [ %] Grass [ %]
4. Type: Road Race [X] X-Country [ ] Calibration [ ] Track [ ]
5. Distance (straight line) between start & finish: .162 miles (261 meters)
6. Draw a complete detailed map of the course with the names of all streets, paths & trails. Show all dirt and grass sections. Show the exact race path measured along the route indicating which portion of each street is available to the runners and how each turn is taken. Please give a dimensioned detail of the start and finish relative to permanent landmarks (mailboxes, light poles, curb cuts, etc) and as well, any other aspect of the course necessary to clarify the course (such as turn around, etc). If miles and/or kilometers are indicated, dimension to permanent objects. See attached maps and course description.

B. CALIBRATION OF MEASURING INSTRUMENT

1. Calibration course:

Name: PROSPECT ROAD 880 YARD Length: 880 yard

Location: Prospect Rd, Saratoga, CA Cert #: PA-8220

Note: Calibration course must be certified & the start & finish verified. Call local office for info.

2. Calibration of the instrument (list date, time, temp & data)  
03/26/91, 2:30 pm - 4:30 pm, 50 degrees (dry)

a. Calibrate before measuring course (4 times)

Ride #1:	Ride #2:	Ride #3:	Ride #4:
00000	07600	15200	22700
<u>07532</u>	<u>15133</u>	<u>22732</u>	<u>37733</u>
7532 (15064)	7533 (15066)	7532 (15064)	7533 (15066)

b. Recalibrate after measuring course (2 times)

Ride #1:	Ride #2:
80000	88000
<u>87532</u>	<u>95533</u>
7532 (15064)	7533 (15066)

Average digits per mile/km for each day for each operator:  
Date: 03/26/91 Name: Hank Lawson Digits/mile: 15065 Km:  
Date: Name: Digits/mile: Km:

C. COURSE MEASUREMENT

Note: Certification requires two measurements of the course and the calibration operation and riding the course must be done on the same day by the same rider.

1. Was measured route identical to the shortest legal route? YES
2. Were turns measured within 12" of curbs & 8" where uncurbed? YES
3. If part of course is dirt/grass how were areas measured? N/A
4. Was the instrument calibrated immediately before measuring? YES  
Immediately after measuring? YES  
If the answer to either question is "NO", please explain: N/A
5. .1% short course prevention factor (SCPF) must be added to each course. (Note: best added to calibration digits). 28 clicks
6. List the date, time and raw data for each measurement.  
Note: 10km = 6.2137119 miles, marathon = 26.21875

03/26/91, 2:30 pm - 4:30 pm, 50 degrees (dry), see attached.

I rode the course backwards (starting at the COMMON FINISH) to establish where my start would be and then rode the course forwards to where my COMMON FINISH was. The second ride finished 4 feet in front of my COMMON FINISH (according to my counter), hence making my first ride the longer of the 2 rides and will be the course that I plan on using.

7. Describe any adjustments (computations/measurements) to set the course to the desired length:

See above.

8. List total length of final course. 8K (4.970965 mile)
9. List adjusted difference between the two rides. 4 feet

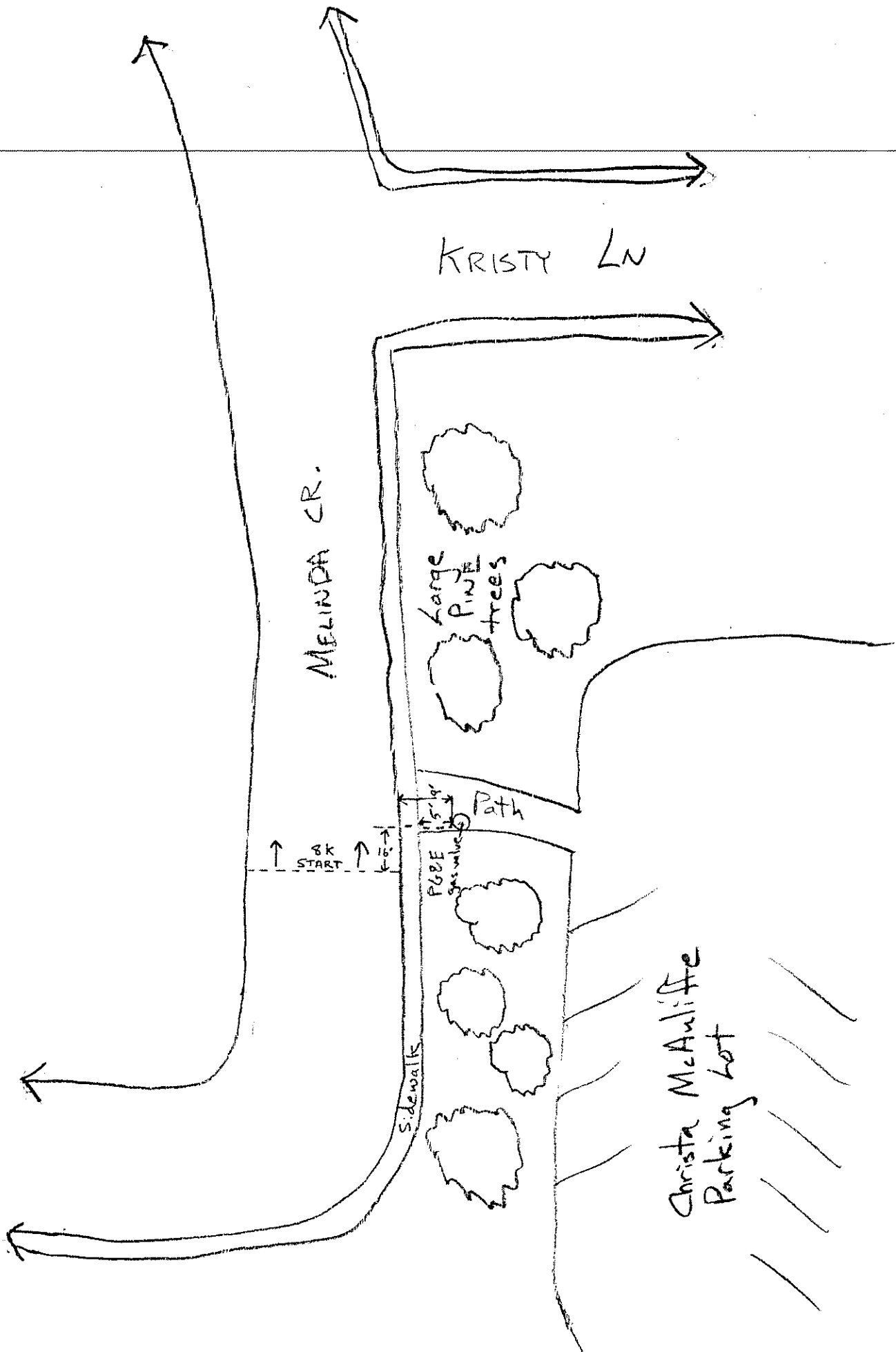
SIGNATURE OF APPLICANT: Hank Lawson Date: 04/17/91

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San Diego & Imperial Counties, California: Bob Letson, 4369 Hamilton St #4, San Diego, CA 92104 (619) 298-0924





ASPHALT  
Playing Area

GRASS  
Playing Field

PROSPECT

water Spigot

gate

76'

3K & 8K  
FINISH

TITUS AVE

COUNTRY  
SQUARE

