

Lotus Lines

Evergreen
Lotus Car Club

Feb / Mar 2002

Vehicle Research Institute Technical Session

By Dave Billings, Photos by David Caley

On Sat., Feb. 23rd, the ELCC was once again welcomed to the WWU's Vehicle Research Institute by Dr. Michael Seal. I say "once again" because this event was originally scheduled for last year, and was cancelled at the last minute. Unfortunately, not all members got that message, and a handful apparently showed up at VRI. Luckily, Dr. Seal happened to be there, and was gracious enough to show them around. This time, he was equally gracious, giving us nearly 3 hours of his time (and probably more if we'd not had such a long drive home) as we toured each part of the facility, many of them twice.



VRI is almost an indescribable experience. Imagine an inventive, highly knowledgeable guardian and instructor of a training facility for youthful automotive exuberance. Think Yoda training Jedi Knights. Young men (mostly, I assume) come to the VRI with a passion for engineering and automobiles. They are gear heads, but the new breed where computer modeling and development are the keys to producing designs, machining parts, and tracking their success and failure as they are put through test to validate them.

The ELCC had a good showing of 15 or so members and their guests. Special thanks go to Charles Taul of Bellingham who has the connection with Dr. Seal and arranged our visit. Our tour of the facility was unique in that, rather than going from room to room, we went from project to project. Beginning with his V-12 engine that many of us have heard about, Dr. Seal described his idea for a 100 bhp engine when running on a single bank of 6 cylinders that became a 300 bhp engine when the second bank kicked in. Hard to imagine how he plans to ease in that extra 200bhp, but I'm sure he already has that worked out in his head.

We toured both the primary machine shop, where students use several CNC machines donated by Boeing and other corporate sponsors, and the shop where machining is taught as part of the course work. We also saw the dyno room, the several service bays where numerous vehicles, each with a different propulsion system, were being developed. Other than similar bodywork, none of them were alike, it seemed. Upstairs was the

1/10th scale wind tunnel where numerous projects have been carried out, including recent aerodynamic work for a land speed record car.

In the classroom, we got a lesson in camshaft profile development at the expense of a student developing one on a laptop. Before he knew it, he was being forced to teach us all a little about the process as we crowded around his computer.

As the tour wore on, we were blessed with stories ranging from the best alternative fuel solutions that will never happen (because of bad politics), why Dr. Seal now passionately dislikes Mazda, what are the challenges with making a safe vehicle that is also cost-efficient, and what are the greatest challenges his successor is likely to face. It was striking to all of us the extraordinary breadth of knowledge Dr. Seal possessed. He might have been standing in a jacket covered in grease stains, but he was obviously an academic and engineer in pursuit of higher learning, for both his students and himself.

Finally, we forced ourselves

(Continued on page 2)

Inside this issue:

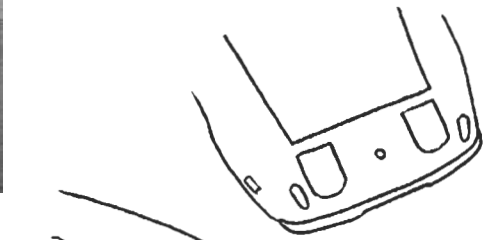
<i>VRI Tech Session</i>	1
<i>VRI Tech Session (cont.)</i>	2
<i>Elise Buyer's Guide</i>	3
<i>Video Night</i>	4
<i>Member Notes</i>	4
<i>ELCC Sprints</i>	5
<i>Classified Ads</i>	7

(Continued from page 1)

to leave, if only to seem polite, and headed south. Nearly everyone was ready to ditch their present careers and sign up for courses, and we all wondered where this program was when we were in college.

To wrap up an already wonderful day, my vanload of members (Andre Samson, Mark Clear, Dan Morrison, Jim Taylor and myself) stopped off at Kart Traks in Mt. Vernon for a couple sessions of indoor racing. The facility was every bit as good as SyKart in Tukwila,

(Continued on page 6)



Classic



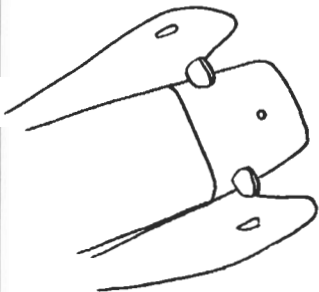
Lotus



restoration



service



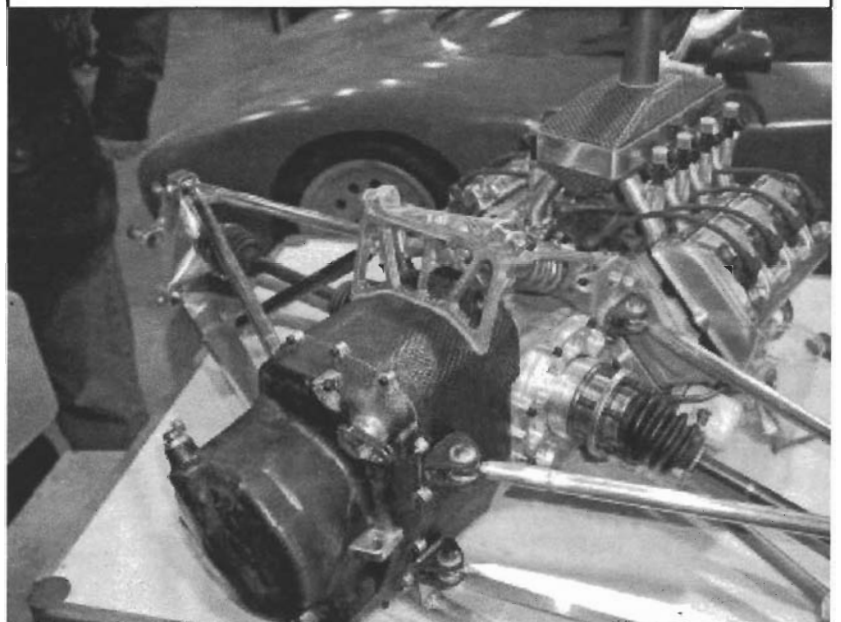
& repair

Randall Fehr Restorations

30 South Horton Street
Seattle, Washington 98134
206-622-7469



Dr. Seal tells about the V-12 engine he designed and is building.



550 cc V-8 and transaxle fabricated and built by the VRI students for the Formula SAE car competition. The only thing they didn't make were the heads.



(Editor's note: While I know the Elise is not available in the states yet, this might be interesting if you're planning to import one as a "kit" car).

ELISE: BUYERS GUIDE Reprinted from PistonHeads.com

Our man Laurie Vaughn has just bought an Elise. He shares this thoughts about the buying process.

Look out of the window now. It's probably raining, grey and miserable. Well that's perfect weather to be buying a convertible sports car and ideally an Elise. Buy now before the sun comes out, the roofs come off and the prices firm up.

You're still dreaming about it. You've read all the reviews, the tests, the group comparisons, the complaints, the praises and yet you'd still like to have one. So did I - and here's my take on the buying experience after going through it myself!

For a new car, you're looking at a minimum of £23k, or more likely £26k, but now the second hand market has dropped and three-year-old cars can be had for around £15k which to all intents and purposes is a bargain.

Which Model?

Sounds good, but which model makes the best buy? The table lists the Elise models sold by Lotus - and for the uninitiated, it's a bit bewildering. Things

become a bit easier if you then consider the kind of money you want to spend. At the lower end of the market come the earliest, no frills cars, which can be a bit of a snip. For those new to the sports car thing, a standard Elise will be more than enough to put a large smile on your face.

For those trading up (or down) and wanting something a bit more potent for the weekend with perhaps the occasional trackday, then something like the 135 or 111s models would probably suit you better, but are relatively new and command a higher price. Both have more power than the standard car and with the close-ratio gearbox are purpose built for increased fun on the track. Then we come to the Sport 160 (and its rarer bigger brother the Sport 190). For those looking for bangs-for-buck this is hard to beat - though erratic idling plus other tuning issues makes the more cautious buyers nervous leaving them as veritable bargains for the more dedicated buyer.

If you're really into your Lotuses you might want to consider the Elise's bigger brothers - the 340R and the Exige. Both make incredibly potent track day weapons, with the Exige perhaps getting the nod for practicality - it



has a roof! However both make exciting road cars too and can be tuned (with factory approved mods) to around 190bhp.

Revisions

Another aspect of these cars to consider (as with almost any other vehicle for sale) is the revisions and 'upgrades' made to the cars both in terms of design and construction throughout their five year history.

The most obvious thing that changed was the replacement of the original MMC brake discs with plain old cast iron, caused by the supplier being unable to meet demand and going bust! This added some unsprung weight to the car and contributed to the steady increase in weight from around 700kgs to a more portly 750kgs (the equivalent of a medium-sized passenger!). It's a fine balance between the creativity of the original design and the added robustness of the revised designs and if this is something that concerns you then have a look at some of the web sites listed at the bottom who go into the revisions in more detail.

Minimalist

Depending on how minimalist you are, the thought of no stereo and plain cloth seats may not be a problem to you but most people opt for a radio kit, leather seats and driving lights. That of course was almost as many extras as you can specify for an S1 Elise! If you want to fit driving lights or a stereo to

a car that doesn't have them then it can be a costly process; its much easier to buy a car that has them fitted already and pay a little extra in the first place.

If you intend to use an Elise all year, especially if commuting, then a hard top is a very welcome extra. If you wanted to buy one, then you'll not get much change from £1k, and that's unpainted, so again pay a little extra and get an Elise that has one already. Note that if you want to fit a hardtop to an early Elise then you'll also need to change some of the fittings on the car; its best to consult a dealer to confirm this is the case or not before getting it done.

The last thing to look for is an alarm. Be aware that the Thatcham CAT1 alarm was an extra over the standard immobiliser, so not every car will necessarily have one.

Versions

Standard Elise (118bhp, launched June '96)

Elise Sprint / Sport 190 (Track car, July '97)

135 Sport (135bhp, Nov '98)

Elise 111S (VVC, Mar '99)

50th Anniversary Elise (118bhp, Jan '99)

'Heritage' (JPS) Elise (118bhp/VVC, July '99)

'49' Elise (118bhp/VVC, Oct '99)

'Millennium' Elise (118bhp/VVC, Oct '99)

Sport 160 (160bhp, Feb '00)

Elise Mk2 (Oct, 2000)
135 Sport Mk2.

ELCC Spring Sprints

Put on your Saturday work clothes, grab your helmet and join us at SyKart Go Kart Track, Saturday, March 16, 2002 at 11 AM. We'll return to the exhaust emitting karts at 17450 West Valley Highway, Tukwilla, WA. 425-251-5060. SyKart is between I-5 and State 167, one mile south of 405 on the east side of the West Valley

Highway. If we get more than 10 drivers we get a \$2 discount per \$15 / 10 minute session (about 16 laps). If you don't have a helmet they have loaners but you need to purchase a \$2 helmet liner from them (or bring your helmet liner from last year). Sykart is offering two levels of power this year. Including the 5 h.p. karts of year's past, they now have a field of 9 h.p. karts. As Trixie in "Speed Racer" was wont to say, "Go, Speed, Go".

Video Night

January 26, club members gathered at Randall Fehr's for Video Night (Thanks for hosting Randall). There were only two cancellations from RSVPs. Snow turned back David Caley, and business commitments forced Dave Billings to cancel last minute. Members included Bob Wells, Chuck Conti, John Schneeman, Jim Taylor, Bob Cross, Andre Samson, and Dan Morrison. 12 year member but first event participant Victor Smith had come

down from Friday Harbor. John Blackwell from the neighborhood was a non-member guest. A number of car related videos were viewed including Rendezvous by Claude Lelouch, and some of Randall's private reserve videos, including a review of a friend's college thesis on designing and building his own car. Pizza from Pagliacci, beer and wine, with after dinner whiskey (supplied by Chuck) were also enjoyed. A tour of the host's garage filled a half hour. The snow while threatening never accumulated and wet streets offered little adventure while driving home.

Member Notes

Alan Perry said he will be driving in a number of Regional Rallies throughout the Northwest. In searching the web for events ELCC members could drive their cars in, I recently asked Alan about the Rainier Auto Sports Club, who offers a few on-street rallies for street cars.

Alan wrote back:

I know about the RASC, but I have never been to any of their events. From all that I have heard, they are a friendly crowd. I haven't run in their events because of schedule conflicts. I am competing in the BC Rally championship, which is a series of 4 TSDs in BC, one north of Whistler and the rest around Hope and Merritt, BC. This is put on by the WCRA. I spoke with some folks who call the WCRA events Road Rallies, instead of TSDs, because the WCRA instructions are straightforward and have tulips/alpines to let you know exactly where to turn. Details are on the www.rallybc.com site. I'll drive the GTX in that series and have had a different navigator for every event. I will also be competing in the SCCA ClubRally as a co-driver/navigator. Right now I am teamed up with a guy who drives a GTX. This is stage rally like WRC, but in the US there is no preview of the stage. So the driver goes through the stage cold. Our first event will be the Doo Wop rallies near Aberdeen on 2-3 Mar. Details are on the www.nwr-scca.org and oregonrally.com sites. Other notes about members.

Steve Shipley is acquiring parts for his Shipley Seven project and gearing up to start fabrication.

Bob Bentler is doing well and keeping busy with family and hoping to make the time to race his Lotus 23 this

season.

Dan Morrison continues to offer for sale his archival, Lotus produced, Elan body and frame, to make room for his next Europa projects.

Maury and Johnanne Montag have temporarily set aside their cars and are staying busy with their seven month old son.

Jim Anderberg repaired the radiator in his Esprit Turbo last summer, and is looking for a mechanic to do "a handful of small jobs" on his "Baby". If you own an Esprit and have found a good mechanic please let us know. We would like to include the info in the Roster Vendor's Section.

Myles Winbigler is returning his 1960 Series II Seven racecar to 1967 SCCA specs, 1 liter, narrow rear fenders, and SU carbs. He is planning to run SOVREN events in the Northwest, and CSRG races in California.

Dave Billings has a freshened twin cam head waiting for his Elan.

Victor Smith admired Randall Fehr's Elan during Video Night and inspected detail and restoration points as he begins the assembly of his Elan.

I've bought a few more Seven books for fabrication notes and am preparing to head to the Metal Supermarket with a portion of my tax refund in hand to buy fresh 18ga tubing. Hope to see you all at an event soon.

-André Gene Samson



(Continued from page 3)

This could cost up to £400 to have fitted, and in most cases is a requirement for insurance, so once again, this is an item to look out for on prospective purchases.

Mods

Some owners also feel compelled to modify their cars, whether it be simple bolt-on power upgrades such as exhausts and air filters, or the full monty major engine surgery from the likes of Turbo Technics (how does 270bhp grab you!?).

Minor mods are usually of little concern but heavily modified cars can often damage the resale value of a car. Generally buyers are nervous of major changes or non-standard cars so if you're gemmed up you can acquire more car for your money. Bear in mind that you'll have the same troubles selling the car on yourself, but then again who ever mentioned selling it on...!

Look at... er... what?

So you have a budget, a car to look at and no clue as to what to look for! It always seems obvious what to look for before you lay hands on the car and then it's easy to be distracted in the excitement. Make a list and check the obvious -

- Interior: scuffed/worn/scratched?
- Bodywork: scratched/stone-chipped/misaligned panels?
- Roof: general condition/tears/fit and finish?
- Tyres: condition? Same brand all round?
- Alloys: scuffed/original wheels?

If these things look right and the price is right then before you spend your money, it is well advised to have a professional inspection, not least for peace of mind. These can be arranged by the AA, RAC etc, although you'd be best advised to have a word with your local dealer or Lotus specialist. They'll be cheaper and probably more knowledgeable of the car (it's an unusual car remember). The outcome may give you something to haggle about or you may want to walk away. Either way, an inspection will give you peace of mind before you buy. Don't forget an HPI check too.

Test Drive



If you can manage to get a test drive then don't forget to actually 'test' the car - do all the gears work, is the steering sloppy, how bad are the rattles (it will rattle!), etc. Since it's a very different experience than the normal shopping trolley, try to drive a few to get an idea of how an Elise should drive. You'll soon get used to all the attention too - even after five years people still seem agog when an Elise drives by. Try to imagine what happens when they see a 340R....

Obvious it may be, but when haggling, it's always best to have an idea of what the typical asking price of the Elise you're looking at is. With the Elise, mileage has a large influence on price since most cars are hardly driven, with an average of around 10,000 miles in three years. A lot of Elises are of the same specification with regards to extras too so don't forget to take this into account if the one you're looking at is lacking some. Haggle hard. Most sellers will drop the price some, and dealers have been known to knock £3,000 off the sticker price just to make a sale, especially in the winter months. A full Lotus service history is a bonus, but don't be put off by a specialist service history from a place such as Lakeside. Talk to other owners on the 'net to get an idea of who the respected dealers and specialists are.

Get to work now and you could have one of the most uniquely styled and stunning sports cars ever made on your driveway by the spring. Turn that dream into reality - now!

Elite Brunch with Mike Ostrov

(From Mike Ostrov when I emailed him about whether he had gone to the Elite Brunch. His reply. -Andre)

Andre, good morning. Yep, went down again for the 13th annual time.

Stopped in Cambria on Thursday to visit Dennis and examine the final proofs of the new Elite book due out in April. I proofed only the copy last year. This is a must for any Lotus enthusiast. Full size coffee table format with colour. It will be available at the May 4/5 Lotus Festival at the Donington Circuit (Derby, only 105 minutes up the M1 from Heathrow) while driving on the "left" side of the motorway.

I will pop over, as this is a most fun weekend, the largest Lotus only autojumble in the free world and includes our Club Elite UK AGM (annual general meeting). Been enjoying this event since mid '80s.

Sandie gets to choose a country to explore the following week. Did the southern provinces of France last year and I get visit the local Lotus owner each time.

Left Cambria along the Coast Highway to Solvang for a day and then onto the dreaded 405 San Diego Freeway Saturday morning. All Stop at Thousand Oaks. Off the freeway to the PCH (Pacific Coast Highway) as I was due in Long Beach for my annual Elite seminar at Bob

Sander's home.

All this, not in any of my Elites, as the boot in Sandie's Honda was chock full of climax engines, the new 5 speed gearbox, a Climax super starter and other Elite stuff for show and tell.

Sunday was the brunch with 7 Elites on display, a couple of Plus 2's and a Corvette.....(ok, had a glass fibre body and was driven by Gunther).

Fun time for all the 25 folks and we encourage any Lotus owner to join us next year.

Might see if enough interest to have a Lotus meet in Cambria, just a bit closer for the Nor Cal lads.

Stopped in at Goleta to see Jeff and Jay at JAE on the way back up the coast highway.

Returned to rain and cold. Do miss the 70F sunshine.

Still restoring Elite #1750, I halted the epoxy body work and priming as a minimum of 55F is required for the curing process to begin. Many other items to prepare over the next few months and should have it completed by August for the Monterey weekend.

All cars have full petrol tanks for any of the EELC members to drive and enjoy on our Bay Area Lotus Type Back Roads.

Time to meet old breakfast friends, Tony the Tiger and Count Chocula

as I have a dozen mixed donuts (mostly chocolate) to contribute to the morning feast.

(Continued from page 2)

with a nice long track (times in the 23-24 second range) and good karts. OK, there was one dog mixed into the bunch. Andre was consistently fastest, undoubtedly aided by his weight advantage when compared to the rest of us. But all of us came away with aching thumbs and forearms, matched only by our giant grins. It truly topped a great experience and memorable club event.

I hope that we once again are invited for another tour of VRI in a couple years. Having seen it now, it will be interesting to note the progress made on projects we've just seen, as well as to witness the birth of new creations bursting from the automotive minds of tomorrow.



ELCC 2001 Event Calendar

March 16, ELCC Sprints at Sykart

December, Christmas Party @ Conti's



dave bean engineering



**Official Lotus Vintage Parts
Distributor for the United States &
Canada**



636 east saint charles street • star route 3 • san andreas ca 95249 • usa
Phone (209) 754-5802 Fax (209) 754-5177
US & Canadian TOLL-FREE FAX ORDERS (800) 469-7789



**BROOKLANDS
BRITISH CAR**

PARTS-SERVICE-RESTORATION
LOTUS ELAN/EUROPA/ECLAT/ESPRIT
**OPEN M-F 10AM-6PM OR BY
APPOINTMENT**

8235 SO. TACOMA WAY, TACOMA, WA 98499
SHOP/TECH ASSISTANCE: 1-206-584-2033
PARTS/MAILORDER: 1-800-244-4648
MASTERCARD_&_VISA_GLADLY_ACCEPTED



Lotus Parts Specialists

Raymond D. Psulkowski
290 Raub Road, Quakertown, PA 18951
Phone (215) 538-9323 Fax (215) 538-0158
e-mail rdent@rdent.com
<http://www.rdent.com>



Independent Lotus
& English Ford
Parts and Service

Jay, Jeff and Tom

805.967.5767

805.967.6183



Classified Advertisements

Lotus Lines is the official newsletter of the Evergreen Lotus Car Club. Opinions expressed in *Lotus Lines* are those of the author and do not necessarily represent those of the ELCC or its officers. Use all technical information at your own risk. Please submit all articles, art work, advertising, and photographs to the Editor. All other official business should be directed to the Chairman. Other Lotus clubs are welcome to use the material printed in the *Lotus Lines*, provided that the ELCC, *Lotus Lines* and author are duly credited. The ELCC is not affiliated with and does not represent Lotus Cars Ltd., Group Lotus, Team Lotus, or any other Lotus related organizations.

Classified Advertising for Members is free. Submit member ads to Dan Morrison either by email (danmo@yahoo.com) or by phone (425-337-0216). Personal ads will run for two months or until canceled. If you would like to continue running the ad, just let me know.

Advertising Rates for Businesses are:

Business Card	\$5/issue	\$30/year
Quarter Page	\$10/issue	\$60/year
Half Page	\$15/issue	\$90/year
Full Page	\$25/issue	\$150/year

Questions? Please contact the Editor.

Parts Wanted

For 1968 Seven Series III. Seeking LHD front frame from foot boxes forward to graft to skinned rear tub. Series II ok. Skinned or not. Pedal bracket for hydraulic clutch and pedals. Engine brackets for X-flow. Front anti-roll bar and lower a-frames. Rear axle a-frame and locating rods. Petrol tank. Headlight buckets. Windshield frame. Handbrake lever. Caterham reprint of Seven Manual. Andre 206-528-8141 or andre_gs@compuserve.com (WA)

For Sale: NOS Elan S1/S2 body and Galv. Chassis

New Old Stock, Lotus original Elan S1/S2 body and galvanized chassis. Includes all body parts; F&R bumpers, doors, headlight pods, hood (bonnet) and trunk (boot), and chassis bolt kit. May sell separately if I have a buyer for both. \$7000 obo for all. Buyer arranges and pays for shipping (will help as much as I can from my end). Already crated from when it was shipped from England, so no crating costs. Located in the Seattle area, Dan Morrison (danmo@yahoo.com), 425-379-6330 (h), 425-444-1628 (cell)

For Europa: Wooden body dolly suitable for body-off restoration. Dimensional lumber with heavy-duty castors. Can be disassembled. All hardware included. \$75 OBO. Gary 253-851-1790

For Sale: '85 Caterham Seven

Original owner, 1700cc super sprint engine, cycle fenders, 30K, alloy/black, \$17000 John Schneeman 206-854-6706



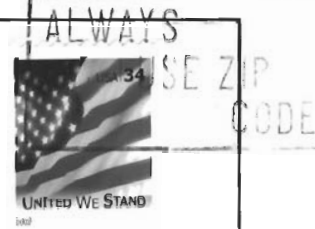
Evergreen Lotus Car Club

P.O. Box 40481
Bellevue, WA 98015-4481

- Chairman: André Samson (206) 528-8141
andre_gs@compuserve.com
- Membership: Jim Taylor (206) 232-2237
jimtaylor@seanet.com
- Treasurer: Dave Billings... (425) 788-1900
dave@bilcoh.com
- Webmaster: Mark Clear..... (425) 936-9948
webmaster@fastcorner.com
- Editor: Dan Morrison (425) 379-6330
danmo@yahoo.com

Membership in the ELCC is \$20/year and is prorated in three month increments. This includes a club roster and twelve issues of Lotus Lines per year.

Club Website <http://www.elcc.org>



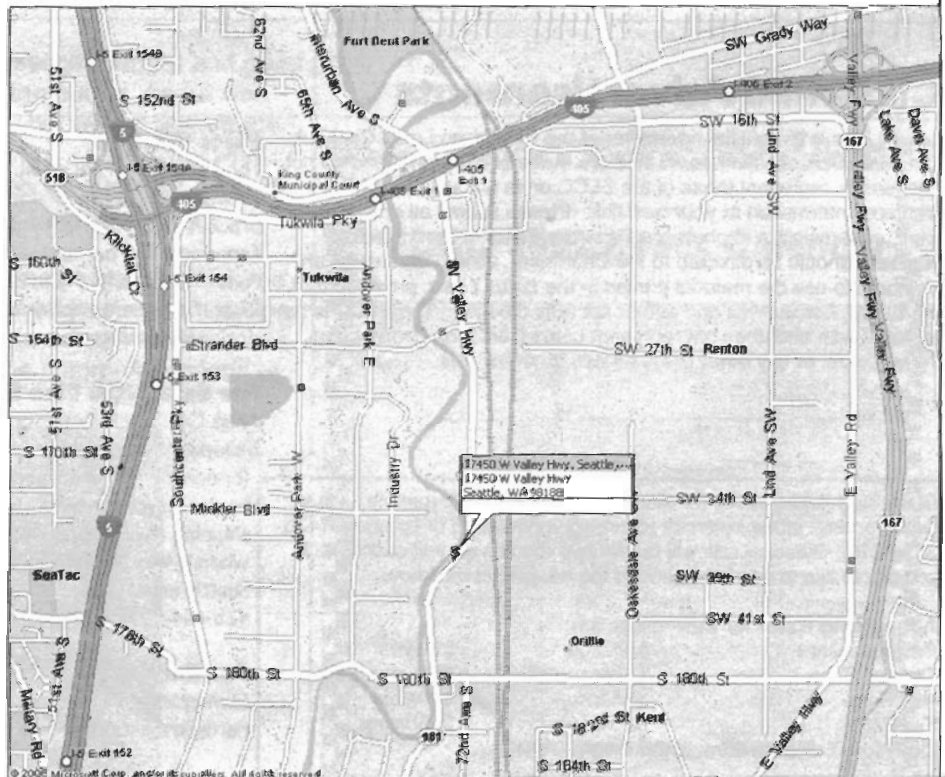
425-251-5060 78



ELCC Spring Sprints

Put on your Saturday work clothes, grab your helmet and join us at SyKart Go Kart Track, Saturday, March 16, 2002 at 11 AM. We'll return to the exhaust emitting karts at 17450 West Valley Highway, Tukwila, WA.

425-251-5060. SyKart is between I-5 and State 167, one mile south of 405 on the east side of the West Valley Highway. If we get more than 10 drivers we get a \$2 discount per \$15 / 10 minute session (about 16 laps). If you don't have a helmet they have loaners but you need to purchase a \$2 helmet liner from them (or bring your helmet liner from last year). Sykart is offering two levels of power this year. Including the 5 h.p. karts of year's past, they now have a field of 9 h.p. karts. As Trixie in "Speed Racer" was wont to say, "Go, Speed, Go".



© 2002 Microsoft Corp. and/or suppliers. All rights reserved.