Presentation to Board of Supervisors

Laguna Seca Community Sound Study

Sonics ESD / 40 Ragsdale Dr. Suite 130 Monterey, CA 93940 / (831) 646-9711

Track Activity

- Measurements periods of 100+ Track Days, including 8 Major Events to date
  - Sea Otter Classic (April 10-12)
  - Laguna Seca SpeedTours - Trans Am (May 2-4)
  - IMSA WeaterTech SportsCar Championship of Monterey (May 9-11)
  - MotoAmerica Superbike SpeedFest at Monterey (July 11-13)
  - INDYCAR Grand Prix of Monterey (July 25-27)
  - Pre-Reunion and Corkscrew Hillclimb (Aug 9-10)
  - Rolex Monterey Motorsports Reunion (Aug 13-16)
  - Ferrari Challenge (Sept 12-14)

“Sound Study Goals and Objectives”

- Previous sound level recording method
- Select a qualified company to collect, analyze, and explore mitigating control measures
- Sound study implemented as a part of Friends of Laguna Seca original business plan to be a good neighbor
- Accurate and comprehensive recording measurement program
- Acquired best sophisticated community sound study software & training to determine a mitigating course of action
- Sophisticated multipoint measurement collection

Original Sound Measurement Program

“Sound Study Goals and Objectives”

- Previous sound level recording method
- Select a qualified company to collect, analyze, and explore mitigating control measures
- Sound study implemented as a part of Friends of Laguna Seca original business plan to be a good neighbor
- Accurate and comprehensive recording measurement program.
- Acquired best sophisticated community sound study software & training to determine a mitigating course of action
- Sophisticated multipoint measurement collection

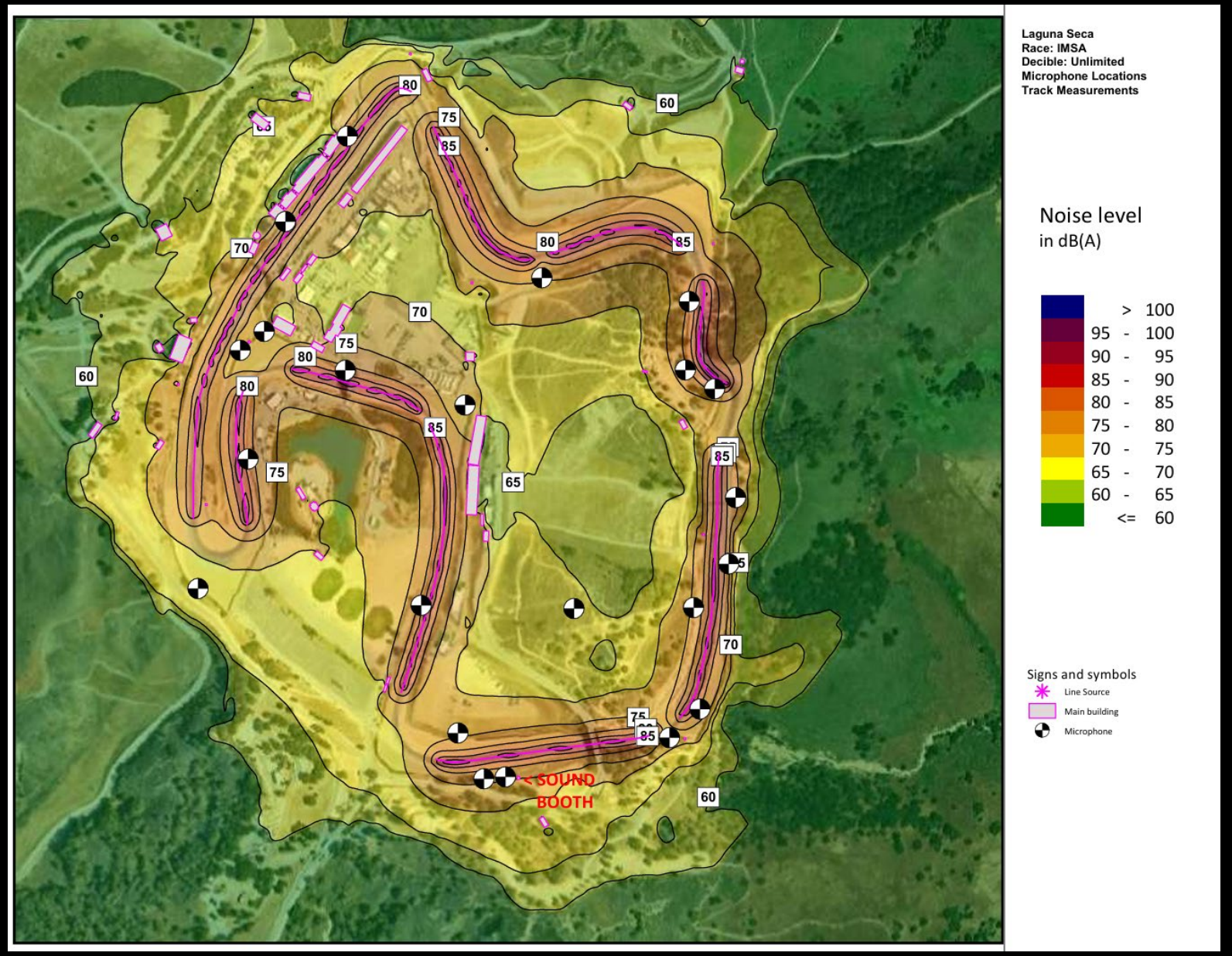
SONICS ESD

- 41 year old company - SONICS ESD
- 1200+ completed projects domestically & internationally
- 23 Years local business serving Monterey County
- Principle Jim Barath Ph.D., INCE, ASA
  - Ph.D. in Architectural and Physical Acoustics
  - B.S. Electrical Engineering & M.S. in Laser Physics
  - Former U.S. Air Force Pilot & Associate Professor NPS Monterey
- Staff of degreed engineers, IT, CAD, architectural professionals
- Participating members
  - Sam Patton P.E., Max Martinez B.S.M.E., James Parry Ph.D., Nick Overdevest
- Active member of Institute of Noise Control Engineers (INCE)
- Active member of Acoustical Society of America (ASA)

“Sound Study Goals and Objectives”

- Previous sound level recording method
- Select a qualified company to collect, analyze, and explore mitigating control measures
- Sound study implemented as a part of Friends of Laguna Seca original business plan to be a good neighbor
- Accurate and comprehensive recording measurement program
- Acquired best sophisticated community sound study software & training to determine a mitigating course of action
- Sophisticated multipoint measurement collection

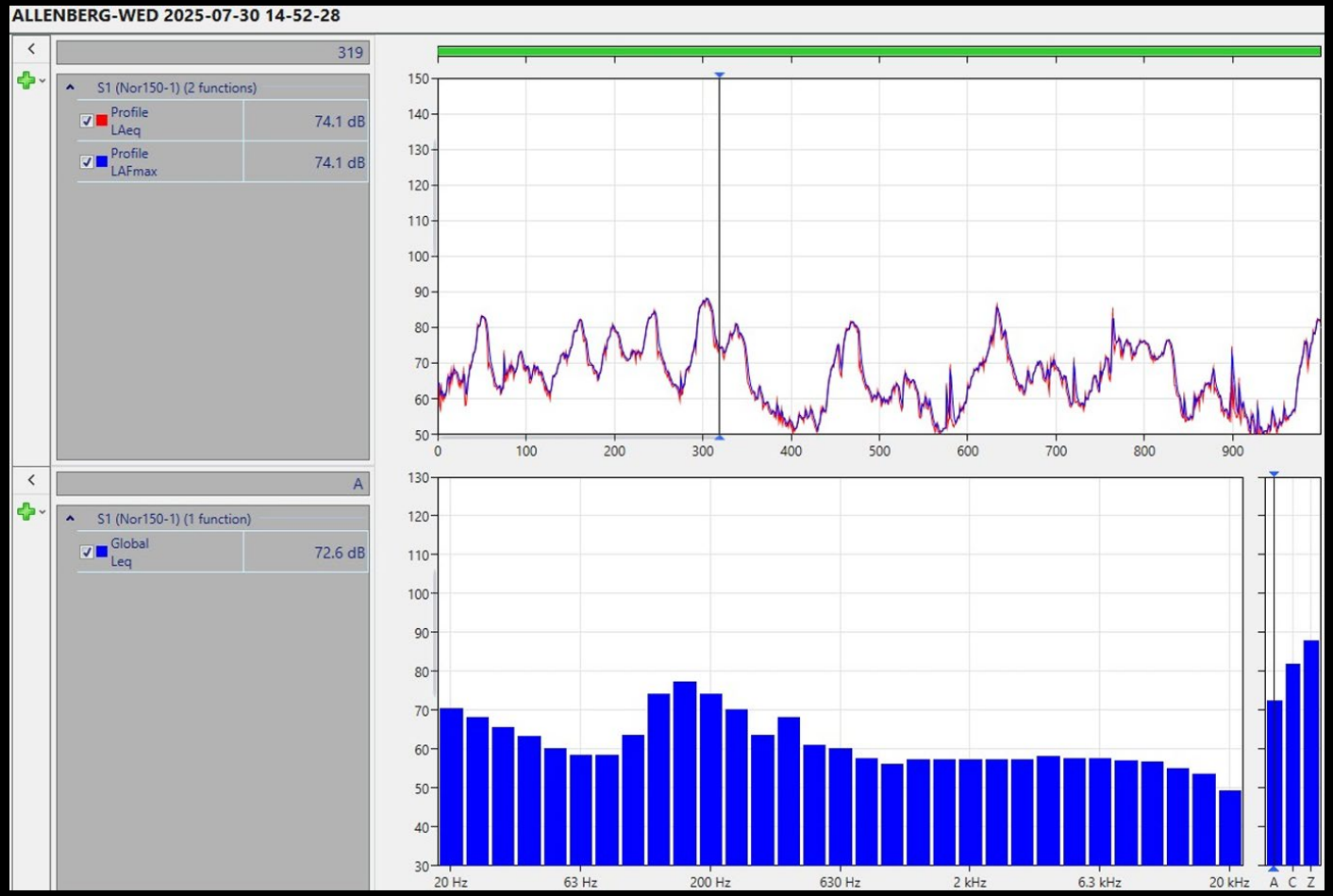
Microphone Locations – Track Measurements



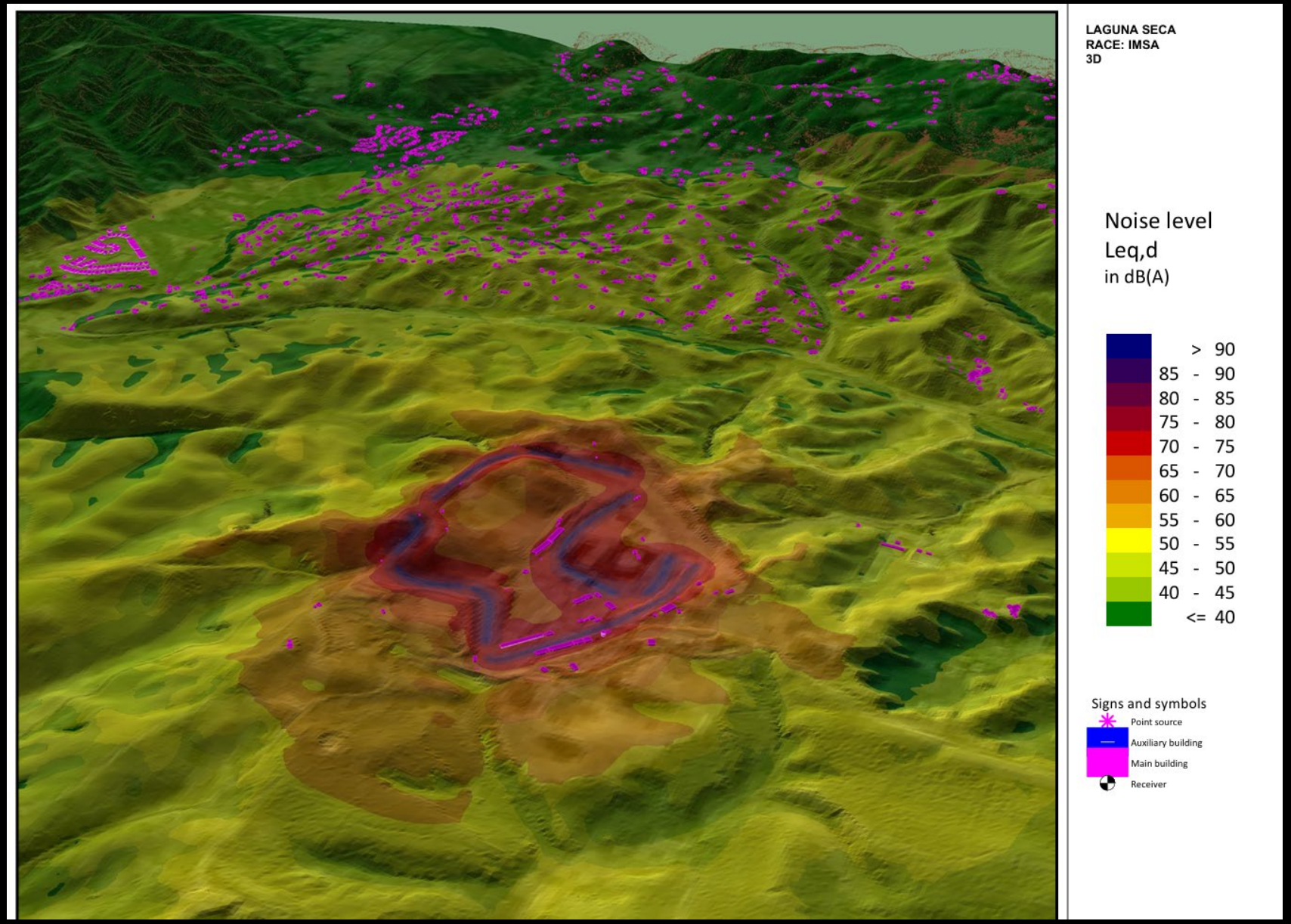
Data Collection

- 22 Measurement locations around entire track
- Measurements include all runs for the entire race day
- Data includes wind direction, speed, temperature and humidity
- Software: SoundPLAN 9.1 developed in Europe for sound management and control
- Certified Calibrated Class 1 laboratory measurement equipment
- All measurements conducted in compliance ASTM and ISO Standards
- Level and 1/3 octave energy frequency spectrum recording
- USGS LIDAR data employed for topographical mapping

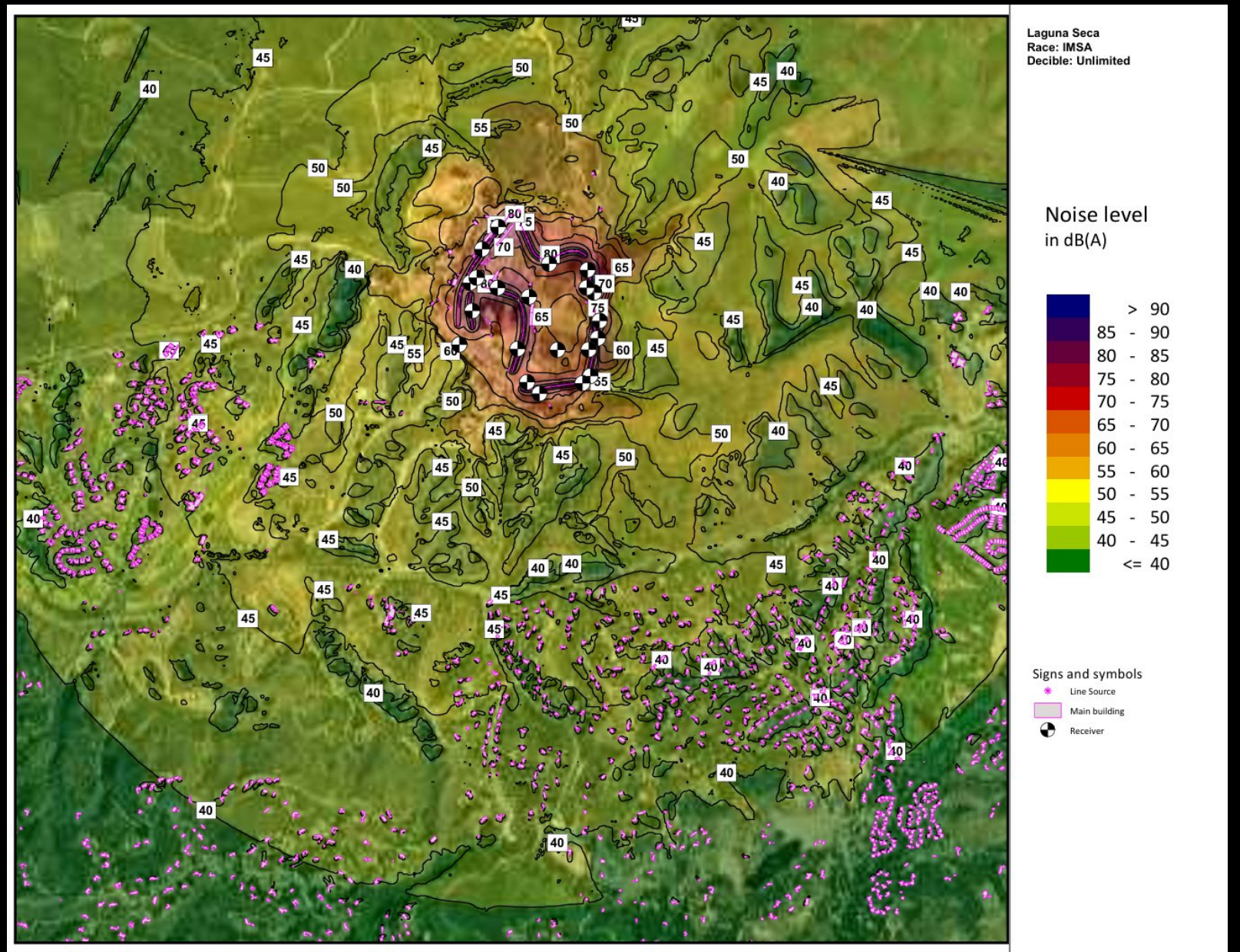
Typical Data Collection
90dB Day



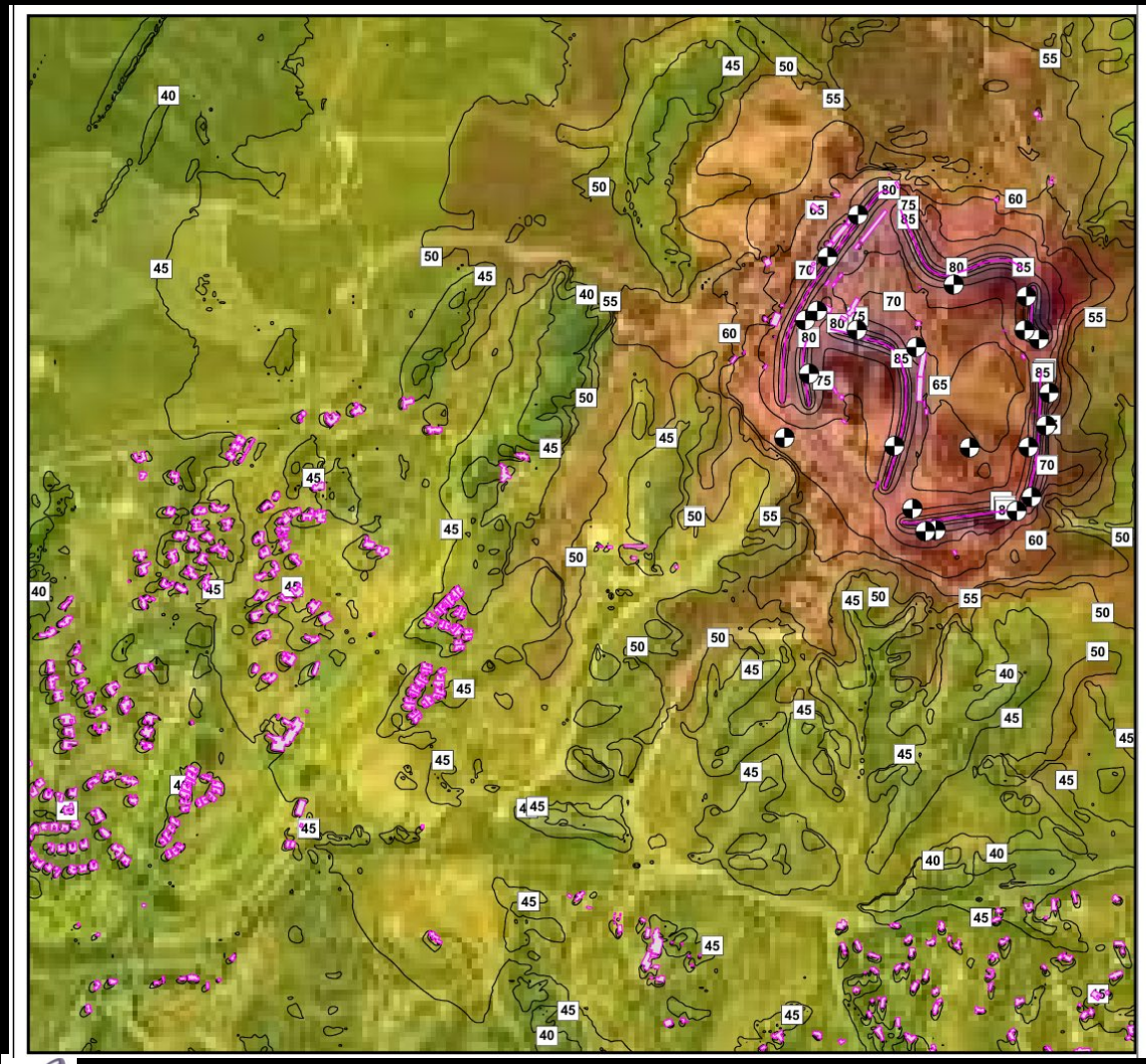
SoundPLAN 3D Mapping Using LIDAR Data



Sound Profile Map - Surrounding Area
IMSA - Unlimited Decibel Day



Sound Profile - Pasadera & Coral De Tierra
IMSA - Unlimited Decibel Day

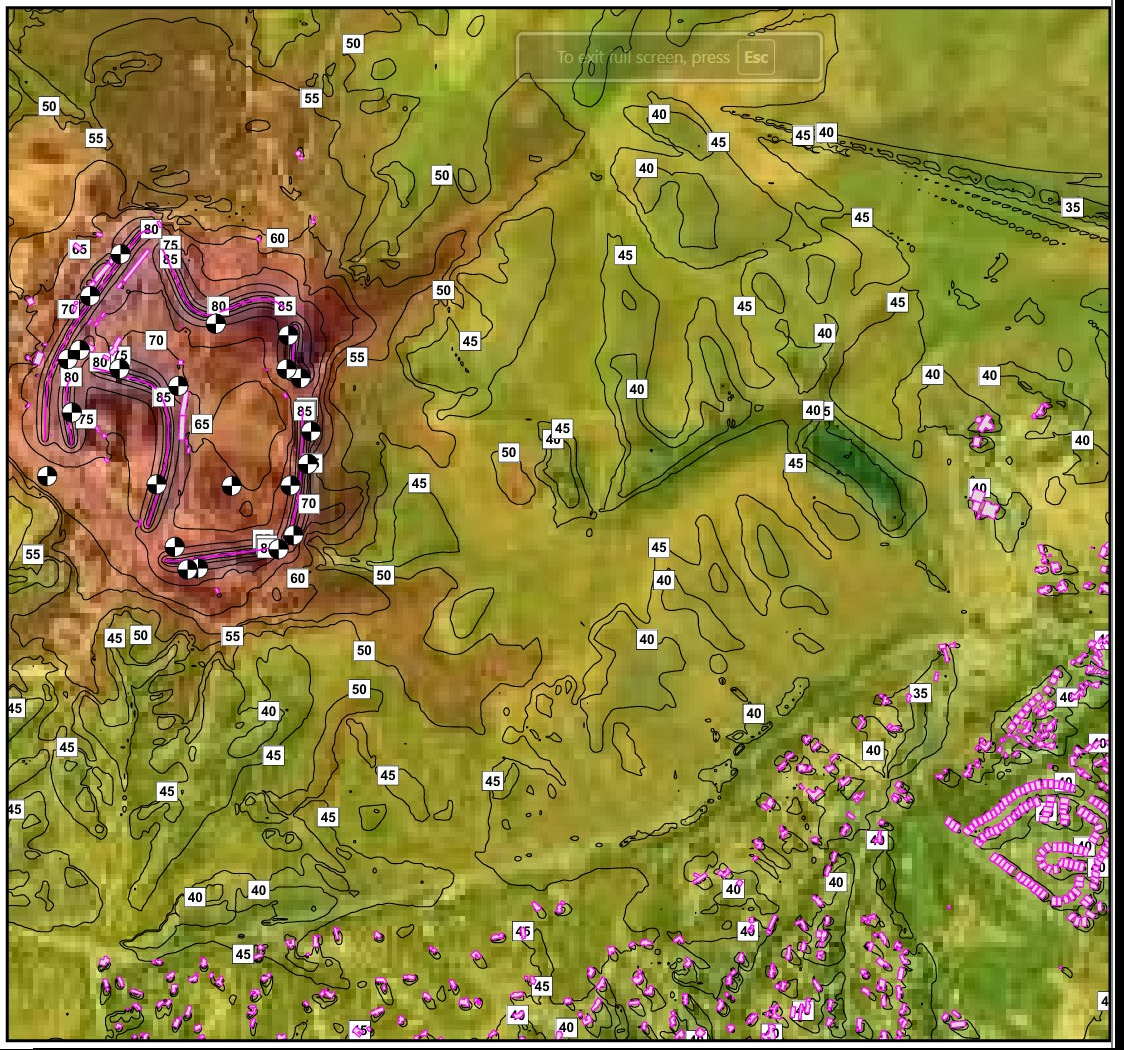


Laguna Seca
Race: IMSA
Decible: Unlimited
Microphone Locations
Track Measurements

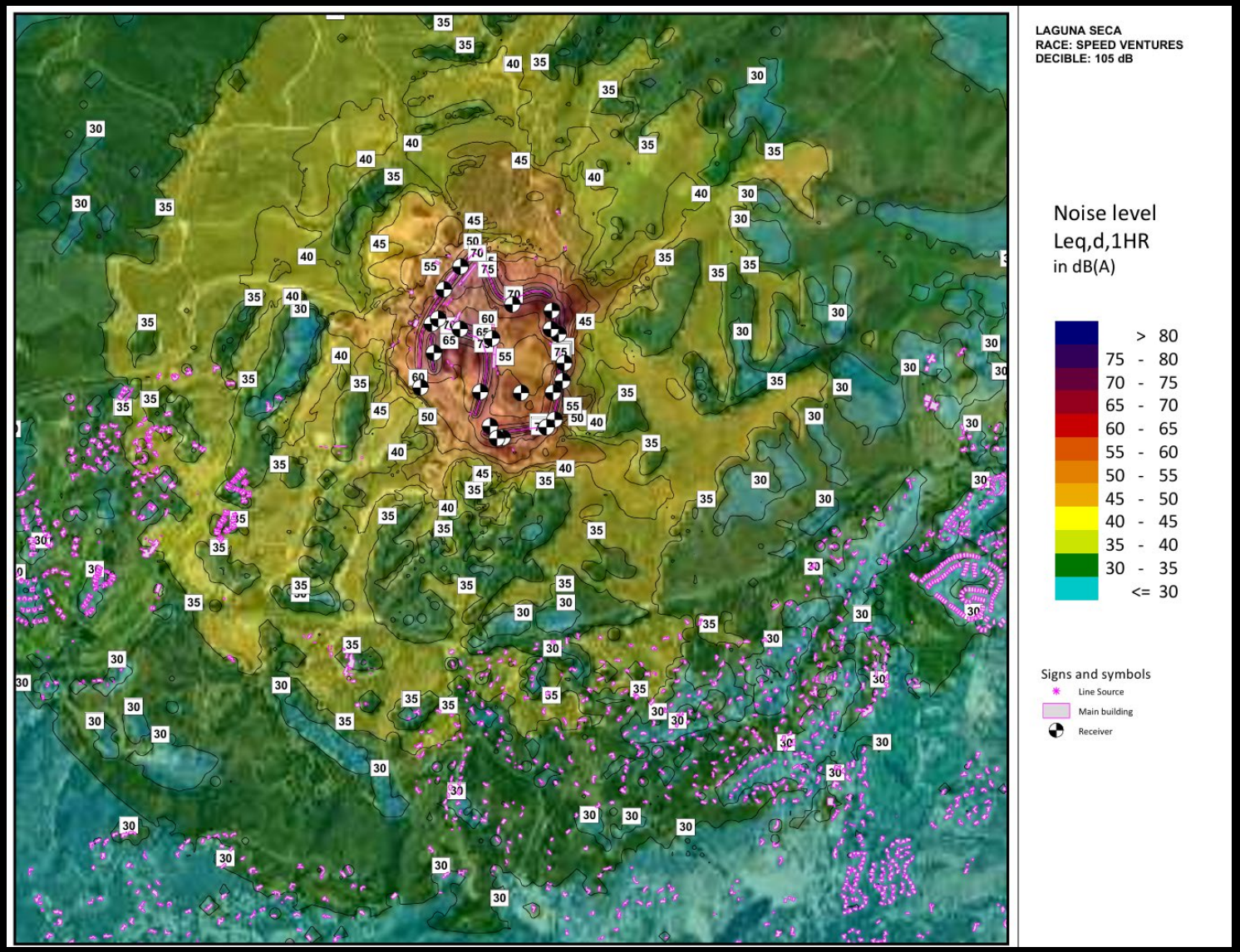
Noise level
in dB(A)

>	90
85 -	90
80 -	85
75 -	80
70 -	75
65 -	70
60 -	65
55 -	60
50 -	55
45 -	50
40 -	45
35 -	40
30 -	35
<=	30

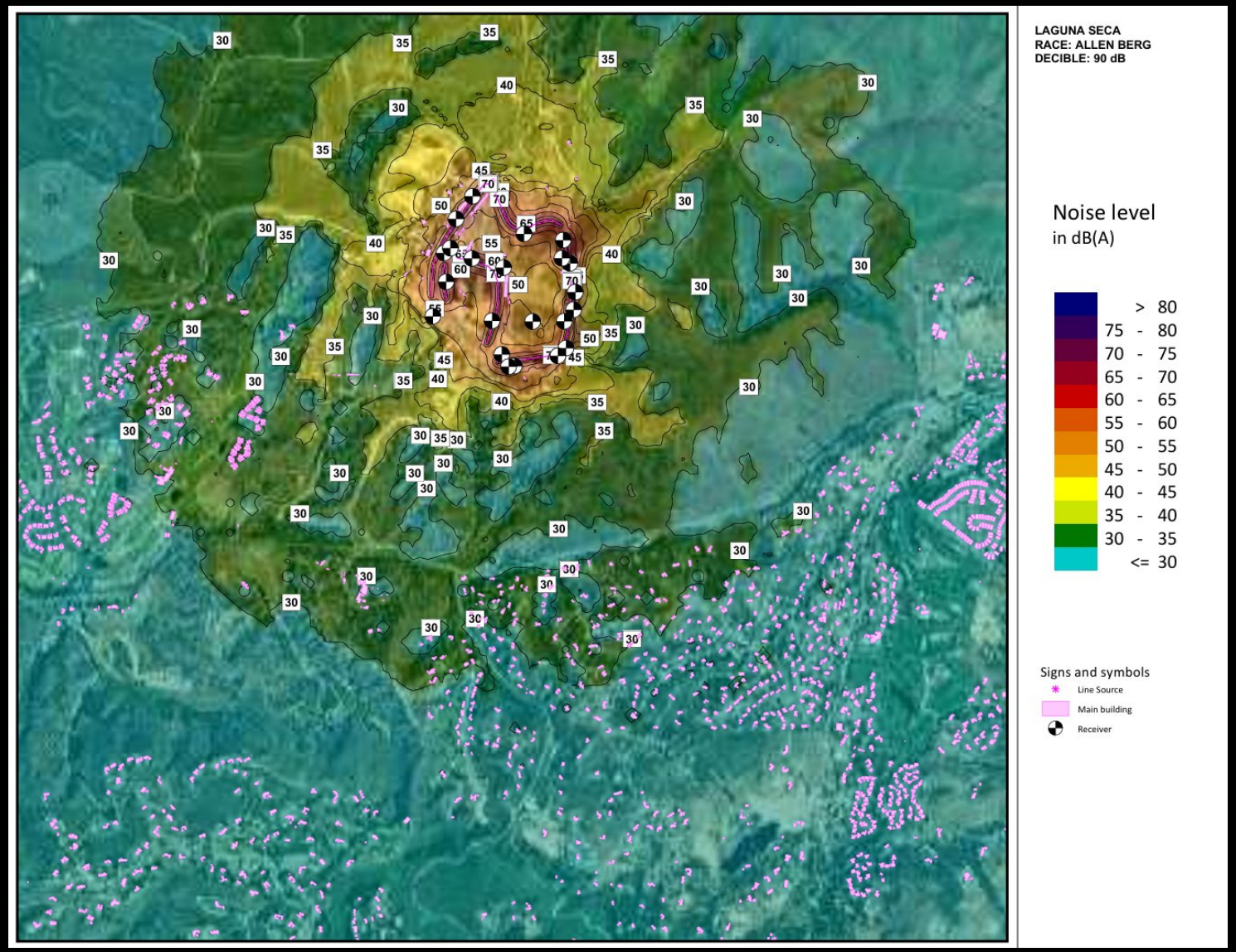
Signs and symbols
Line Source
Main building
Microphone



Sound Profile Map - Surrounding Area
Speed Ventures – 105 Decibel Day



Sound Profile Map- Surrounding Area
Allen Berg – 90 Decibel Day



Sound Study Look Ahead Program

- Expand data collection to include the Highway 68 and Monterey Airport air traffic corridor
- Develop comprehensive sound control measures for future Laguna Seca improvements
- Utilize industry technology advances to enhance sound mitigation techniques
- Construct realistic timeline to accomplish goals and objectives

Conclusions

- Analyze all Sound Study data (2025 Season)
- Consider and design available mitigating control measures
- Consider sound reduction means and methods to surrounding community
- Reduce Laguna Seca site operational sound levels
- Reinforce Good Neighbor policies