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Comments from the University Area Community Council

on the Muni's March 2020

Bus Barn Relocation Air Quality Analysis

General Comments:

The Draft Study, *Bus Barn Relocation Air Quality Analysis*, is dated March 2020 is wholly unacceptable. Furthermore, the UACC only received this draft on December 4, 2020, despite numerous earlier requests. We understand that further work on the Tudor Town Center has been indefinitely suspended. Nevertheless, not only do we request that these comments be maintained in a prominent place in the Muni's record of the project, we reiterate our request that the Muni conduct an air quality study of bus emissions during start-up, warm-up and departure from the existing bus barn during cold early mornings during an atmospheric inversion. Such an air quality study is a very high priority of the UACC and should also be a high priority for the Muni.

The draft study doesn't address the issues the UACC has long asked to be studied - the effect on air quality from the bus barn operations during an atmospheric inversion. Our concern is for the health impacts on residential neighbors and Providence Medical Center. Furthermore, we feel that the proposed new location of the Bus Barn on the east side of Elmore Rd. would produce the same emission effects that have harmed the health of UACC area residents and others who frequent the area for Work. Play. Live. including any people using the future 70,000 sq. ft Tudor Town Center and those who work in the buildings housing Anchorage Police Department and the Animal Care and Control.

The report says, "The objective of this air quality analysis was to demonstrate a worst-case scenario for carbon monoxide (CO) at the proposed Bus Barn site" . . . "during its peak hour of operation and from the nearby roads (Tudor, Dr. Martin Luther King Jr., and Elmore) during the peak hour traffic levels." The missing component is the level of CO and other emission components during any of the many atmospheric inversions that occur in that area on cold winter early mornings when the buses are warming up. Furthermore, UACC residents have long pointed out that the peak of CO2 emissions comes not at its "peak hour of operation" but during the start-up and warm-up period very early on especially cold winter mornings. The UACC indicated several times that we are willing to alert the Muni at the earliest time possible when that situation is occurring so data could be recorded. And/or the Muni could have hung CO2 sensors so that high CO2 pollution events would automatically recorded. But our offers were never accepted or even acknowledged.

Was any site-specific data collected for emissions during times of inversion as requested? We searched the entire document and found neither the word "inversion" nor "atmospheric" (except in the title National Oceanographic and "Atmospheric" Administration). The Objective

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on p.1 doesn't specify that an in-situ study should be conducted during an atmospheric inversion which is what UACC has requested numerous times. Was that a component of the contract or work order from the Muni? We never saw either.

As for the new Tudor Town Center facilities planned for construction at the current bus barn site, the study looked at the surrounding area vehicle traffic emissions and but not the effects of emissions from the buses during an early morning atmospheric inversion. Also missing are the days, times and location the data gathering. So, from our prospective the study falls far short of the objective and is inadequate. The UACC requests that the study be redone and that the UACC be provided with the opportunity to review the new statement of work before any additional data is gathered and re-analysis conducted.

Specific comments:

Why was CO the only contaminate modeled and not the other common contaminants associated with diesel emissions? (Particulate matter, NOx, HC, etc.). Wouldn't the same model provide outputs for these as well?

Were any other point sources of air pollutants considered in the analysis, other than the Bus Barn?

It appears the objective of this study was to address maintenance requirements for CO emissions. We understand that may be of use to the Muni, but as mentioned above, the analysis does not address the most significant emissions on cold winter mornings which is what was requested by UACC.

Page 2, paragraph 5: "The Bus Barn was located within CO nonattainment zone, along its boundary. Anchorage has not violated the NAAQS for CO since 1996, indicating the BUS Barn Operations have not degraded the air quality of the area." Is this necessarily the case? Just because the Muni has not been cited as in violation of something does not mean the action hasn't or isn't occurring. Our argument is that the air quality exceeds attainment levels on inversion days when the bus barn is operating. (You would only need to be physically present one time to know.) If an air quality measurement has been not taken during an atmospheric inversion on a cold winter morning, when the buses are warming up and air quality is at its worse, there is no way anyone can actually assess whether Anchorage has violated the NAAQS for CO either before or after 1996.

Does 5.2.6.1 Accurately describe the number of busses, length of time idling, and time of day?

Same for 5.2.7.1- (what does 720 minutes represent? Is this enough?)

7.0 If under the worst-case weather conditions emissions are modeled to move towards the south, why do UACC members living in the immediate area report they have in the past and currently move west and north? Is there something different about this site? The bus barn is just

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moving across Elmore to the east and the emissions flow can be expected to continue to the north and west during an inversion.

Figure 5- Air dispersion model: The legend shows color changes in ppm however the numbers do not change. Are these simply a rounding issue?

Neither the text, nor the air dispersion models in the analysis address the decades-plus winter months diesel fumes health problem during cold inversion mornings that area residents experienced when temps were +20F and down.

Historically, Anchorage School District buses started their engines beginning at about 4:15 am. In the early 1990s, residential neighbors first noticed that diesel fumes started entering their residences at about 4:30 am and began to diminish after 9:00 am, when buses started out on their routes. Fumes did not fully dissipate until the winter morning sunrise after 11:00 am. The fumes traveled W, NW and N during those bus start mornings. Cold ambient air from the Chugach Mountains air flows along Campbell Creek. On windless inversion mornings the cold air pushes fumes from the bus barn W, NW, N beginning where buses park immediately W of Elmore. The residents complained about the effects on their health:

West: Residents on Grumman St slope above former Tozier Track (sled dogs) became nauseous.

NW: Residents (including one resident's location on 42nd Ave. between Wright and Folker) reported nausea beginning 4:30A. On below zero mornings, fumes were especially intense.

North: Providence Medical Center also were impacted by diesel fumes. Thinking it was due to early hour delivery vehicles, the center ordered all delivery vehicles to shut engines off, yet the fumes persisted.

The below dispersion model figures in the analysis apparently do not consider peak fumes on inversion mornings, which was the subject of our request. The lower model doesn't even cross Tudor Road where fumes have been severe on inversion mornings. The fumes include CO. Some years ago, the Muni Air Quality office put a CO at monitor in a spruce tree high on N side one of our members home on 42nd Ave. between Folker St. and Wright St. Early the next morning, the alarm sounded indicating a high level of CO.

Furthermore, the UACC feels that locating the New Health Department, where Tozier Track was located, is a very poor choice even with the Bus Barn located at its new site (further to the east) because of the same air quality problem on cold Winter atmospheric inversion days – CO will engulf the Health Department building(s). Consequently, if the project proceeds, we suggest a warning sign be posted in very large font outside the Health Building:

“ON COLD WINTER DAYS, PLEASE HOLD YOUR BREATH WHILE WALKING FROM YOUR PARKED CAR TO THE HEALTH DEPARTMENT FRONT LOBBY TO AVOID POSSIBLE CO POISONING”

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See study Graphics below



Travis/Peterson Environmental Consulting, Inc.
 3305 Arctic Boulevard, Suite 102
 Anchorage, AK 99503
 907-522-4337

Anchorage School District
 Bus Barn Air Dispersion Model
 Anchorage, Alaska

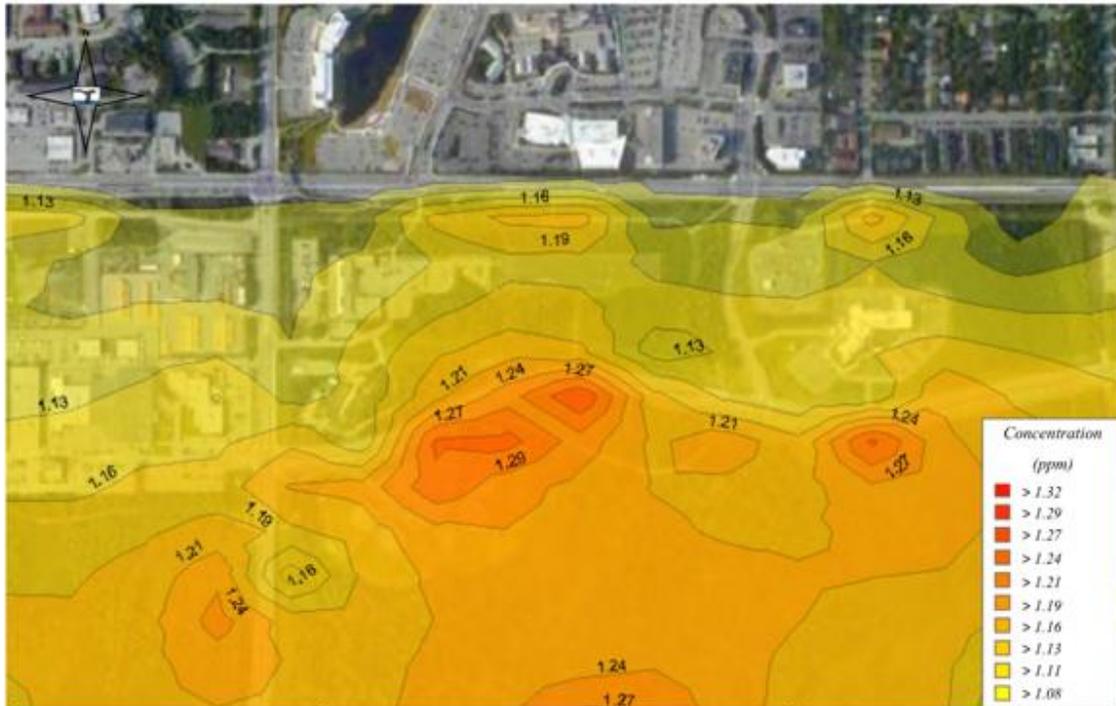
Figure 5 Air Dispersion Model (proposed Bus Barn)

Project No: 1642-04

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Scale: None



<p>Travis/Peterson Environmental Consulting, Inc. 3305 Arctic Boulevard, Suite 102 Anchorage, AK 99503 907-522-4337</p>	<p>Anchorage School District Bus Barn Air Dispersion Model Anchorage, Alaska</p>	<p>Figure 6 Air Dispersion Model (traffic)</p>	
<p>Project No: 1642-04</p>	<p>File: Company\Projects\1642BoutetCompany\04-ASD Air Quality</p>	<p>3/1/20</p>	<p>Scale: None</p>