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April 24, 2023

Patrick Chelin
Matrix Design Group Inc
1601 Blake Street Ste 508
Denver, CO 80202

Re: Third Submission Review – The Aurora Highlands North – Area A - Site Plan
Application Number: **DA-2062-31**
Case Numbers: **2022-4027-00**

Dear Mr. Chelin:

Thank you for your third submittal. We have reviewed your Site Plan and attached our comments along with this cover letter. The first section of our review highlights our major comments. The following sections contain more specific comments, including those received from other city departments and agencies.

Since several important issues still remain, you will need to make another submission. Please revise your previous work and send us a new submission on or before May 15, 2023. There are a number of comments that may benefit from a discussion. Please let me know if you would like to schedule any meetings with staff.

Note that all our comments are numbered. When you resubmit, include a cover letter specifically responding to each item. The Planning Department reserves the right to reject any resubmissions that fail to address these items. If you have made any other changes to your documents other than those requested, be sure to also specifically list them in your letter.

As always, if you have any comments or concerns, please give me a call. I may be reached at 303-739-7261.

Sincerely,

Debbie Bickmire, Senior Planner
City of Aurora Planning and Development Services

Attachments: DEN Planning Comments

cc: Jeff Killion, Matrix Design Group
Jacob Cox, ODA
Robert Taylor, Consultant
Filed: K:\SDA\2062-31rev3.rtf



Third Submittal Review

SUMMARY OF KEY COMMENTS FROM ALL DEPARTMENTS

- Clarify if PA-7 is included in the Site Plan and acreage (Planning)
- Green Courts must have a minimum width equal to the tallest structure (Planning)
- Provide front yard landscape typical for all lot types (Landscape)
- Revise Two-Lane Collector Section (Public Works Engineering)
- Revise storage lengths, tapers, ramps, and raised medians (Traffic)
- Revise hydrant locations and provide a Bronto turn template (Life/Safety)
- Provide maintenance access with turn-around and access to all manholes (Water)
- Show block numbers, revise the Basis of Bearing (Real Property)

PLANNING DEPARTMENT COMMENTS

1. Completeness and Clarity of Application

Letter of Introduction

- 1A. Revise the Letter of Introduction to clarify the status of Planning Area 7. There are trails and landscapes included in this Site Plan. Confirm whether the acreage for PA-7 is included in the legal description and site plan area.
- 1B. All referenced Planning Areas and features referenced in the letter need to be identified on the context map.

Site Plan

- 1C. Include a typical to show how utilities will be provided to alley-loaded and green court lots.
- 1D. The 8' utility easement located along the back property line of alley-loaded lots interferes with the 3' or 18' setback requirement. Ensure the proposed builder will be able to meet an 18' rear setback if the utility easement prevents the 3' rear setback.
- 1E. Fultondale is designated as a three-lane collector in a 78' right-of-way in the Master Plan. Why is it proposed as a two-lane collector with on-street parking?
- 1F. Revise the street sections per the redline comments. Remove references to right-of-way from private streets and alleys.
- 1G. A standard Green Court open space must have a minimum width of 30 feet or the height of the tallest residential building facing the Green Court open space, whichever is greater. If no more than six dwelling units face the Green Court open space, and none of the dwelling units are more than three stories in height, the Director may approve a maximum of one Green Court open space within each platted block with a minimum width of 20 feet for any portion fronted by one- or two-story dwelling units and a minimum width of 30 feet for any portion that is fronted by three-story dwelling units. Please review the widths of the green courts in PA-4 for compliance. Will any of the proposed homes be 3 stories?
- 1H. The Green Court open space area should be designed to accommodate foot traffic and play areas. Sidewalks should be located to accommodate pedestrian access while maximizing the use of the Green Court open space. Please review the sidewalk locations and try to reposition them to create usable play areas.
- 1I. Relocate the Context Map (Sheet 14) to be in front of the Site Plan Tracking Charts (Sheet 5).
- 1J. Planning Area 7 is shown as an open space included with this Site Plan on Sheet 6. Revise references to clarify if PA-7 is included in this Site Plan and whether further improvements will be needed per a future Site Plan.
- 1K. Detention ponds should have a tract designation.
- 1L. Make sure all streets are labeled on the Phasing Plans.
- 1M. Enlarge the Legend and symbol boxes on Sheet 5.
- 1N. Revise the Context Map per the redlines. Many *unrequested* changes were made following the last review.
- 1O. Please add Sheet numbers to the Key Map, as well as a scale.
- 1P. Repeat comment: Provide the dimensions of parking spaces. They must be a 9' x 19' minimum.



- 1Q. Review leader line locations and labels. They appear to be off.
- 1R. Fix overwrites and cut-off labels on all sheets. Comments are made throughout the plans, however, many are not noted.
- 1S. The proposed Village Monument signs along 48th Avenue differ from the locations provided in the Master Plan.
- 1T. Provide a detail for entry medians. Include any/all signage details.
- 1U. Add the dimensions for the diagonal parking shown on Sheet 19.
- 1V. Resolve conflicts of streetlights, stop signs, and hydrants.
- 1W. The sidewalks on Duquesne Street do not match the street section.
- 1X. Provide parking islands for rows of parking that exceed 15 spaces. Each island shall be a minimum of 9' wide x 20' long and include 1 tree and 6 shrubs. Provide terminal landscape islands at the end of all rows of parking.
- 1Y. Add scale ratios on all sheets.
- 1Z. Not all comments are included in this letter. Please address all comments and notations in the redlines.

2. Landscaping Issues (Debbie Bickmire / 303-739-7261 / dbickmir@auroragov.org / Comments in teal)

- 2A. Please provide an overall key map of the site and identify the Planning Areas and tracts with the area (SF).
- 2B. The typicals for the front yard landscape requirements do not consistently meet the plant quantity requirements. The shrub requirement must be adjusted if grass is used.
- 2C. Each lot landscape typical should look different to represent the diversity requirement. Add more plant symbols and change typical layouts.
- 2D. The duplex typical landscape only shows one driveway attached to one unit. Revise to accurately reflect driveways for each unit and list the plant requirements for each separate lot.
- 2E. Show where/how the 180 square feet of open space will be provided on small lots. Landscape placement cannot prevent the space from being usable.
- 2F. For Green Court Dwellings on lots smaller than 4,000 square feet or less than 50 feet in width, as described in Section [146-4.2.3.B](#), the Planning Director may approve crediting Green Court open space landscaping towards required front yard landscaping, based on the degree of tract landscaping provided.
- 2G. Alley-loaded small lots fronting public or private streets are required to provide a front landscape on the individual lot, not in a tract in front of the lot.
- 2H. Accurately show side yard landscape requirements of 1 tree and 10 shrubs per 40 linear feet.
- 2I. The comment response that trees cannot be provided per the requirements requires further discussion. There are discrepancies between your measurements and mine, as well as similar frontages that have inconsistent tree counts (example on Sheet 69). Please schedule a time to discuss how you're measuring and what constraints you're running into.
- 2J. Vary the street tree species more. Develop a pattern. Some locations have a continuous run of a dozen trees; others change every other tree. Remove duplicate notes on Sheet 63 and rearrange notes so the plant list is not partially obscured.
- 2K. Label existing and proposed easements. Easements should be shown as a dashed line. Check leader lines to make sure they are accurate.
- 2L. Include street names, right-of-way width, and classification on all landscape sheets. See redlines.
- 2M. Show the high-water elevation for all detention ponds and label the elevation.
- 2N. Show, label, and dimension all proposed buffers.
- 2O. Landscape symbols are too small and light to be easily read. Revise the Plant Schedule(s) to increase the size of the symbols and symbol boxes.
- 2P. Label all tracts and include the area (sf) of each on all landscape sheets.
- 2Q. Revise the sheet references for the NAC enlargements and add a Key Map to show the NAC location with the enlargement.
- 2R. Provide the open space landscape of 1 tree and 10 shrubs per 4,000 sf in PA-6 Tract C.
- 2S. Label the adjacent regional trail and add references to the design sheets on Sheet 83.
- 2T. Details are provided for two different shade structures. Recently a different shade structure was provided, so please make sure you include the appropriate detail(s).

**Fencing**

- 2U. Revise the fence symbols. They are obscured by the limits of work linework or just blend into other linework. The limits of the work boundary should be screened. Make sure the linework is scaled to be consistent with the linework on the plans. Color is also acceptable.
- 2V. Fences along the side of a residential lot should not be any closer to the sidewalk than the front of the adjacent house (typically 18' or 20'). Add a note to clarify setbacks and revise the graphics to match.
- 2W. Columns are required on fences adjacent to collectors and arterials. Show general locations (they are very hard to see) and add a note regarding the minimum spacing.
- 2X. Masonry fences may not be used in intervening open spaces where there are trail connections.
- 2Y. Include all fence notes instead of referencing the Master Plan.
- 2Z. Include detail(s) of any proposed retaining walls and add notes on the plans.

REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES**3. Civil Engineering** (Chris Eravelly / 303-739-7457 / ceravell@auroragov.org / Comments in green)

- 3A. Revise the Two-Lane Collector: Center Turn Lane section for the following:
 - Modify FL to FL to 40'
 - Collector rights-of-way are 80'
 - A sidewalk easement is required for the path outside of the right-of-way.
- 3B. Delete the Two-Lane Collector: Raised Median section. Roadways on approach to intersections do not require typical sections.
- 3C. A 0.8% minimum slope is encouraged to minimize maintenance and icing per Section 4.05.1 of the COA Roadway Design & Construction Specifications. Review highlighted areas on the redlines.
- 3D. Check the directional flow arrow noted on Sheet 43.
- 3E. Add the missing existing and proposed contours on Sheet 44.
- 3F. Per Section 4.03.3 of the Roadway Manual, at a street intersection where two streets slope down to the intersection an inlet shall be placed on the through street's uphill point of curb return and on the intersecting street's uphill point of curb return.
- 3G. Please remove the Public Street Light foundation detail from Site Plan and only reference the detail number.

4. Traffic Engineering (Carl Harline / 303-739-7548 / charline@auroragov.org / Comments in amber)**Traffic Impact Study**

- 4A. The Traffic Impact Study (TIS) has been approved.

Site Plan

- 4B. Per previous comment, and in response to that comment: Signal easements need to be in place at the site planning level due to their impact on site design elements. Given these signals will not be designed for some time in the future when warrants are met, an appropriate corner clip of 75' from point of intersection of flowlines is required. Review all intersections in this Site Plan that are identified as signalized in the TIS (Figure 14) and show signal easements for all corners as applicable. This comment will only appear on Sheet 17, but it is anticipated that all intersections will be addressed accordingly in the next submittal.
- 4C. Previous comment from 2nd Referral: 4-lane minor arterial approaches to roundabouts will need to be designed with entry angles that accommodate the higher Main St. traffic volumes and speeds, likely with a larger inside circle diameter. Check against FHWA's Roundabout Guide for design criteria. Design criteria will also need to meet Roadway Manual 4.04.6. Addressing the issues at this roundabout will likely impact right-of-way as shown here. Interim efforts to review the design may be necessary and will be supported prior to the next submittal.
- 5D. The storage lengths do not match the TIS recommendations. At Main Street and 48th Avenue, the TIS recommends only 270'. Where was 404' was recommended? Where was this length determined? See additional comments throughout the Site Plan.
- 5E. Main Street is a 4-lane minor arterial, and per Table 4.04.4.1 has a design speed of 50 mph. Per CDOT SHAC, which COA adopts for the purpose of higher volume/speed arterials and taper rate for decel lanes is 15:1 for 50



mph design speeds (Table 4-6, CDOT SHAC).

- 5F. Sidewalk easements for corners with monuments. This may impact decisions on design.
- 5G. Revise the bend in the turn lane/alignment on Denali at 47th Place.
- 5H. Adjust tapers per comments on the redlines.
- 5I. T-intersections should have only one set of curb ramps, the "right" side of T. Remove set(s) on the "left" side unless otherwise noted. See comments throughout the redlines.
- 5J. Review the angle of parking in PA-5.1 to conform to the direction of travel.
- 5K. Label the storage length on Fultondale. Be consistent with the TIS.
- 5L. Locate mail kiosks no further than 50' from a curb ramp.
- 5M. Add/revise signage per redline comments.
- 5N. The raised median in the section of 46th Avenue isn't part of the operational design of the roundabout and wouldn't be supported as a continuous element beyond the splitter island needs of the roundabout. See Roadway Manual 4.04.6.
- 5O. Duquesne Street changed from a public to a private roadway between iterations. Due to the connectivity of this road within the neighborhood, this needs to be a public road.
- 5P. Head-in parking is not allowed on public roads. It is possible to explore the use of an angled parking section (S1.13) for this use, otherwise, parallel parking on the standard local street section will be required on Duquesne Street.
- 5Q. There is an exception to the "right side" rule for curb ramps. See Sheet 25, place one on the "left" side at Flat Rock Ct. to align with the trail connection to the park.
- 5R. Ensure lots will have driveway access at "T" intersections.
- 5S. Nearly all stop signs will have street name signs at one corner for each intersection. Please identify where the street name signs will be.
- 5T. Ramps are needed to cross Fultondale at 44th Avenue. This project will have to add a receiving ramp to the west side.
- 5U. The median at 45th Place is more like a linear park than a median. Who is maintaining? City streets cannot maintain this area.
- 5V. Background layers have barricades and striping at Main Street and 42nd Avenue that will not be in place once this project is complete. Revise background layers to show the completed project.

6. Fire / Life Safety (William Polk/ 303-739-7371 / wpolk@auroragov.org / Comments in blue)

- 6A. Provide a Bronto turn template that travels through the proposed alleyways.
- 6B. Thank you for providing the hose pull exhibit. However, it's not intuitive to pull a fire hose across a residential property and then across a street to reach a structure. See the comment on Sheet 66 and provide and detail/elevation that shows the access path.
- 6C. Revise fire hydrant locations per comments on the redlines.
- 6D. Add the note provided on Sheet 2.
- 6E. No parking signs may be required to allow fire apparatus to maneuver into and through the alleyways. IFC 503

7. Aurora Water (Steve Dekoskie / 303-739-7490 / sdekoski@auroragov.org / Comments in red)

- 7A. The water meter configurations in PA-4 and the long service lines through the green courts will not be permitted. This does not meet Aurora Water standards. All single-family attached products must have frontage to water and sewer mains for service. All water meters must have individual connections to the main. Water mains are not permitted on green courts. Find a way to serve from the alley. A 26' utility easement is required for a water and sanitary sewer main. Water meters must be in a pocket utility easement in a landscaped area.
- 7B. Water meters and service lines are to be a minimum of 5' from property lines per Aurora Water's spec book. A 10' utility easement is required for the water meters.
- 7C. Pond maintenance access must be 10' with 1' shoulders.
- 7D. The abandoned sanitary sewer is to be removed.
- 7E. An all-weather surface access road is required for all manholes. Vehicle turnarounds will be needed where there is no drive-through option.



- 7F. Label the 100-year wsel on all ponds.
- 7G. Vehicle maintenance access is required to the top of the outlet structures, above the 100-year wsel.
- 7H. Provide a detail of the storm connections to the manhole for the location noted on Sheet 47.
- 7I. Provide a water main in the alley to serve the lots noted on Sheet 48. All lots require frontage to public water mains for service. The proposed service runs are too lengthy and will be costly to repair and may have pressure losses. A 26' utility easement is required for two public mains.
- 7J. All lots should have frontage to water and sewer mains. Individual service tap connections are required for all water meters. Proposed service lines cannot be located under driveways and sidewalks. Service lines must be in a utility easement or tract to allow for maintenance repair.
- 7K. Water meters shall be in a landscaped area.
- 7L. Note the storm line to be removed on Sheet 48.
- 7M. A drainage easement (16') is required for the storm line noted on Sheet 49. Tract maintenance is to be the responsibility of the Metro District.
- 7N. Maintenance access must be above the 100-year wsel.
- 7O. Provide a vehicle turn-around at the bottom of the ponds.
- 7P. Provide a manhole at the end of the run noted on Sheet 61.
- 7Q. Trees are not permitted in utility easements.

8. PROS (Michelle Teller / 303-739-7437 / mteller@auroragov.org / Comments in purple)

- 8A. Comments will be provided with a separate cover. In the next week.

9. Real Property (Roger Nelson / 720-587-2657 / ronelson@auroragov.org / Comments in magenta)

- 9A. Clarify the Basis of Bearings per the comments.
- 9B. Label the bearings and distances per the redline comments.
- 9C. See the example of logical block numbering on Sheet 15. Label all blocks.
- 9D. Review leader lines. Some do not appear to be pointing to an easement.
- 9E. If the relocation of the sign results in its being within any easement a license agreement may be required.
- 9F. Clarify the Main Street right-of-way dimensions per the comments on Sheet 17.
- 9G. Ensure existing and proposed easements are labeled and dimensioned.
- 9E. Add the Note provided on Sheet 3.
- 9F. Add the reception number for the existing Denali Blvd. right-of-way.
- 9G. Remove right-of-way references from private streets and drives.
- 9H. Use a different symbol to number parking spaces.
- 9I. Review the overlap of gas and utility easements on Sheet 18. Gas easements must be exclusive.
- 9J. If 47th Place and Duquesne Street are private, they should be labeled as tracts.
- 9K. Label detention pond tract(s).
- 9L. Add labels or make sure all linework is included in the Legend.
- 9M. Label and dimension walk/trails.
- 9N. Confirm that no manhole conflicts with Road Center Line Control Monument Locations.
- 9O. Address all comments, edits and notations on the redlines.
- 9P. Contact Andy Niquette at releaseeasements@auroragov.org for the easement dedication/vacations.
- 9Q. A license agreement will be required for any portion of the monument within the proposed easement. Contact Grace Gray at ggray@auroragov.org to start the License Agreement. It can take 6-8 weeks to finalize and can hold up the recordation of the Site Plan.

11. Mile High Flood District (MHFD) (Haley Koesters / 303-455-6277 / submittals@udfcd.org)

- 11A. We appreciate the opportunity to review this submittal and we have no comment, as no proposed features are eligible for District maintenance. We will continue to review the engineering/public works submittal to ensure the accuracy of the regional hydrology. Please reach out to me with any questions or concerns.



Denver International Airport-Planning (denplanningreferrals@flydenver.com)

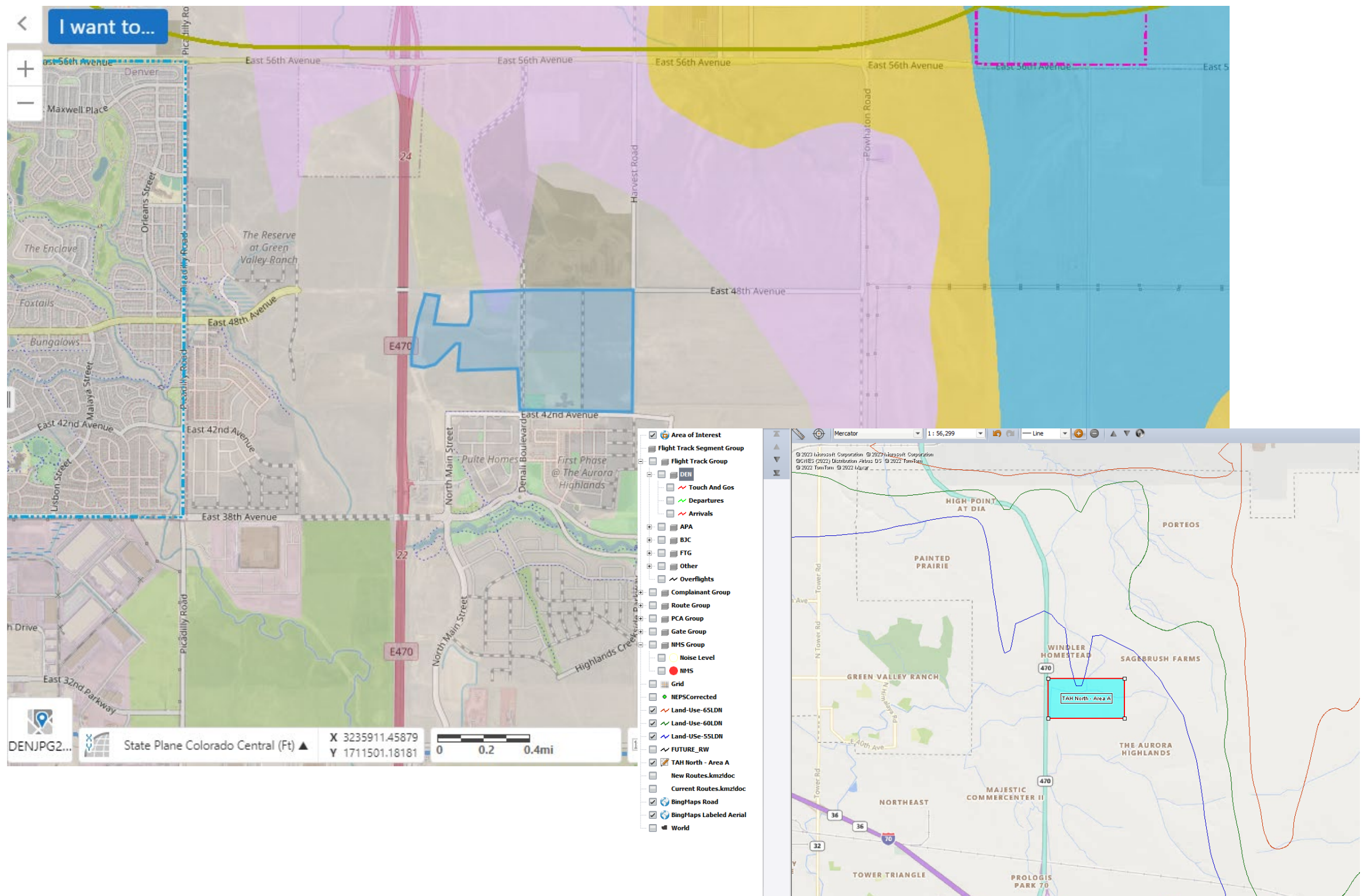
• The proposed development is within the “10,000’ Critical Area for Wildlife-Attractant Separation Area” for the final build-out of future DEN Runways, as defined by the Federal Aviation Administration (FAA). The USDA Wildlife Biologist assigned to DEN (Benjamin.J.Massey@usda.gov) assists in implementing DEN's Wildlife Hazard Management Plan and has requested coordination as this project progresses. USDA and DEN will aid with the requirements outlined in the current version of FAA Advisory Circular 150/5200-33C (see link below). DEN also requests that the landscape plan include the maintenance of trees and grasses to reduce attractants for wildlife such as raptor species, blackbirds/starlings, and geese. Fruit-producing trees and shrubs should be avoided. Water quality ponds/detention structures must be designed to meet a 40-hour drain time following a 100-year event.

https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5200-33

• The site is found within/under the navigable airspace associated with DEN, as promulgated and regulated by the Federal Aviation Administration (FAA) under 14 CFR Part 77, Objects Affecting the Navigable Airspace. Based on Part 77 and the development site location, the proponent is required to file a notice with the FAA, via the FAA Form 7460-1 process (Notice of Proposed Construction or Alteration), of any structure or temporary construction equipment (e.g., cranes) that penetrate Part 77 surfaces. The FAA website from which the need for the 7460 processes can be determined (“Notice Criteria Tool”) and/or the filing can be initiated is

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>. This area is inside the DEN 55 DNL, and will be impacted by overflights, please reference the attached regarding potential impacts on the residence. This property will require an Avigation Easement.

TAH North – Area A

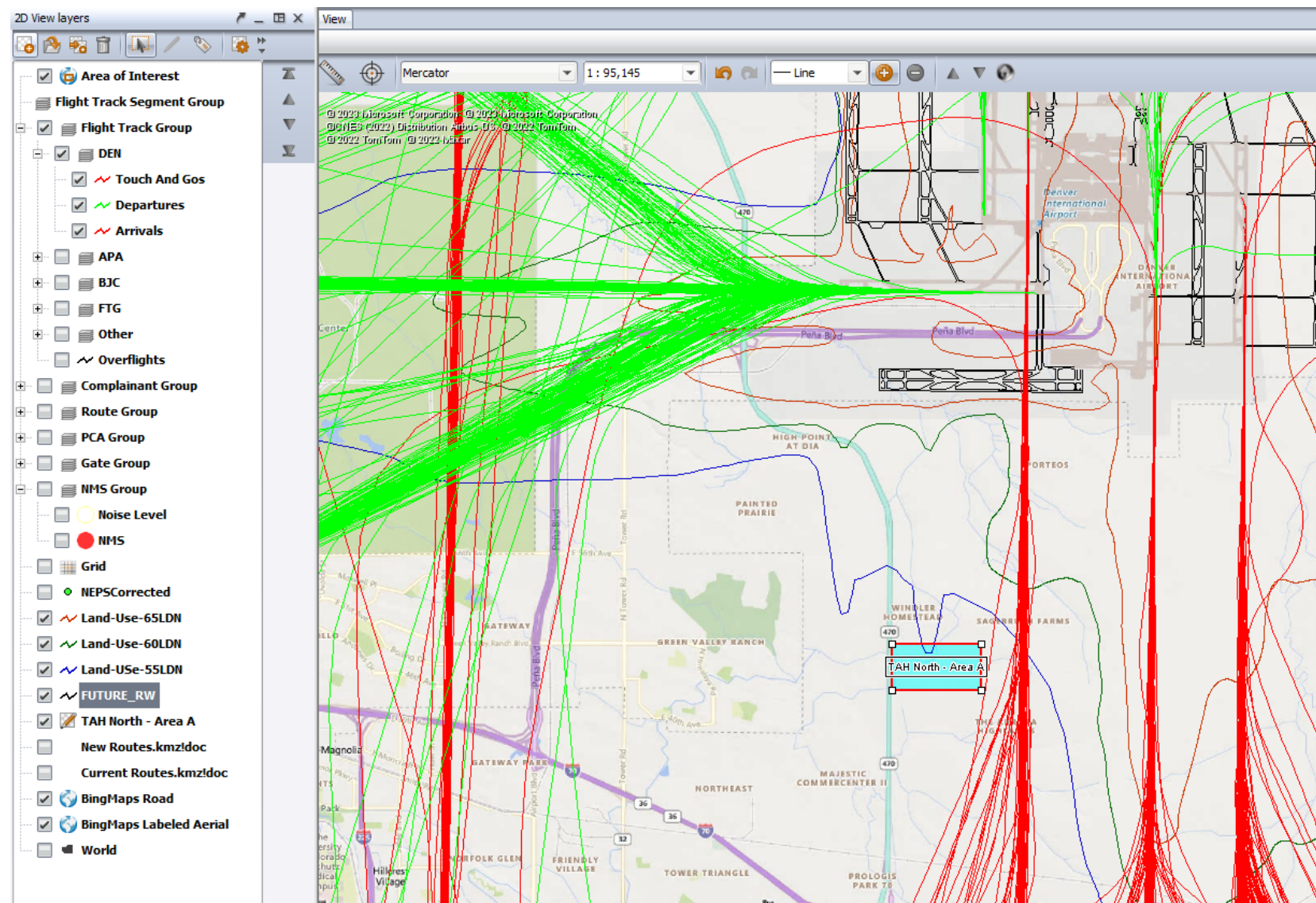


DEN Aviation Noise Analysis – TAH North – Area A

DEN Aviation Noise:

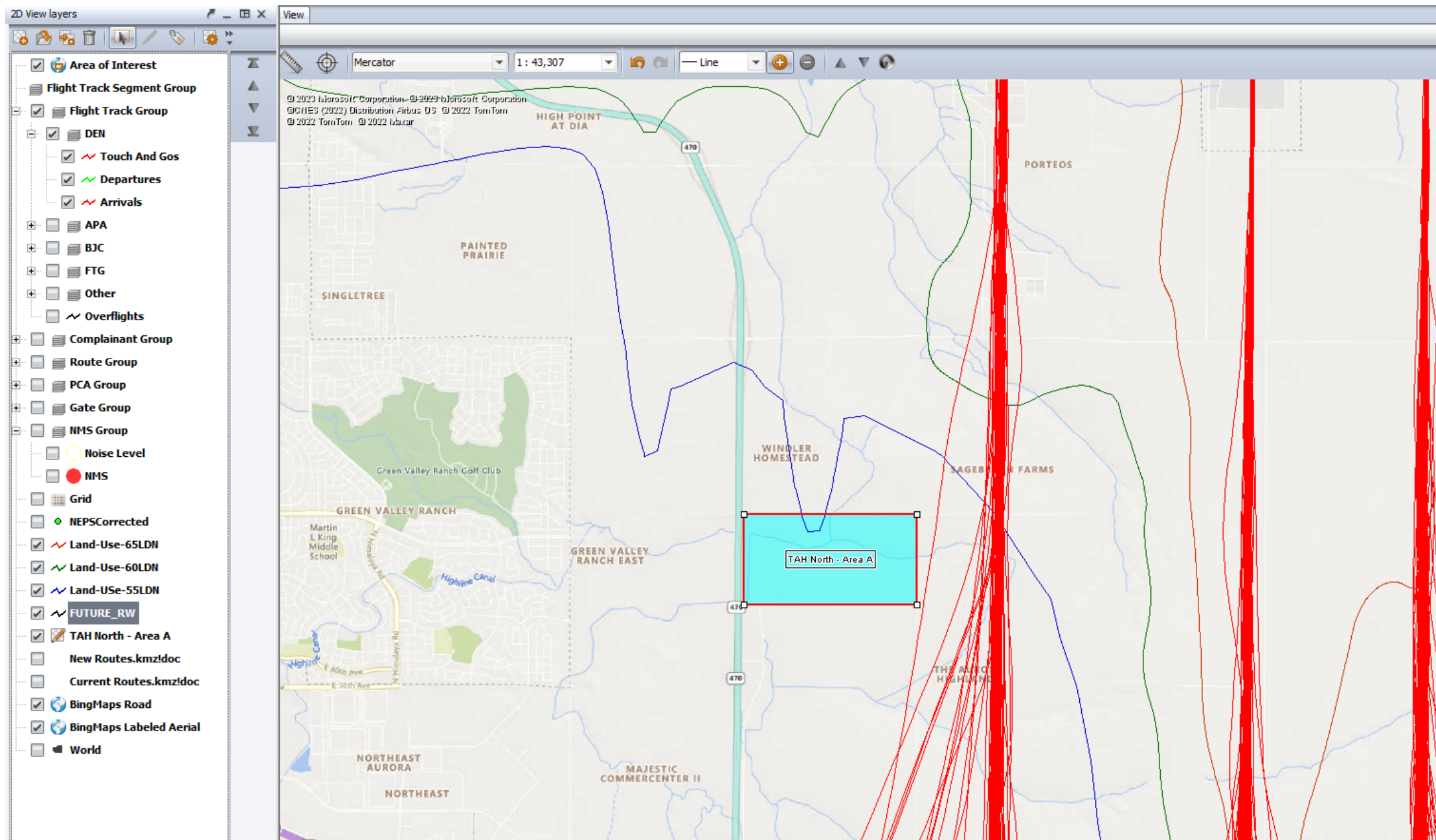
This property will be subject to overflights to and from Denver International Airport (DEN). Included are flight track maps showing the different flight track pattern scenarios and their altitudes related to the arrival and departure at DEN. All related aviation noise statements should be included in homeowner information, documentation and contracts.

Other areas in this development have been reviewed previously, and the noise analysis still holds true. This portion of the development will have arrival overflights from the south at altitudes of between 1,500 feet above ground level (AGL) and 4,100 feet AGL depending on the aircraft type and what arrival runway the Federal Aviation Administration (FAA) air traffic controllers have directed the aircraft to land on. If the winds are out of the north aircraft will land coming in from the south on final approach to DEN. Aircraft currently arrive to DEN on runways 34L and 34R and with the potential of 4 North/South runways on the West side of the airfield there could be even more daily arrival overflights of this development. The future runways are depicted in black on this map of flight data from 2/23/23. This days of flights depicts a typical flight pattern for a 24 period.



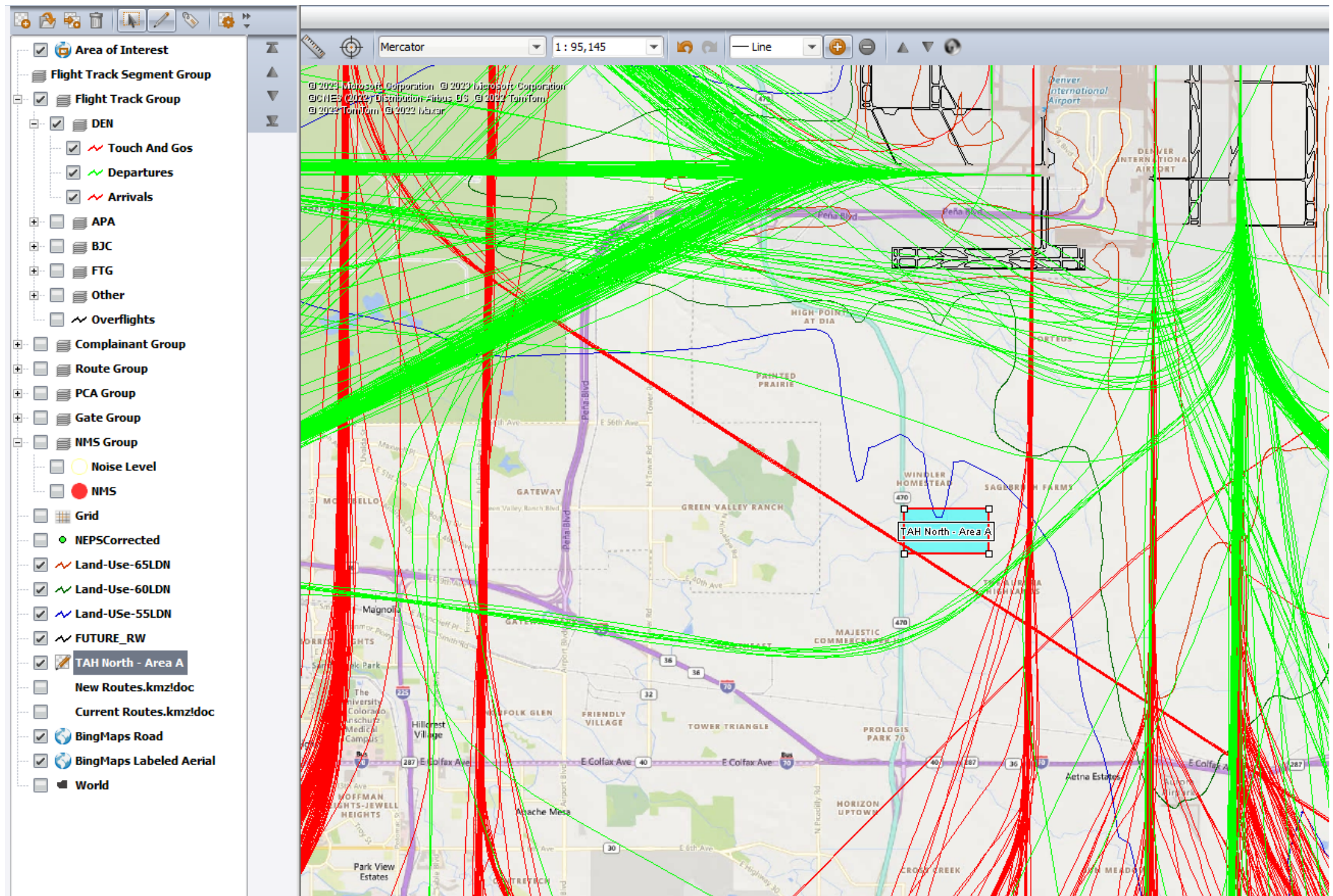
DEN Aviation Noise:

Same flight data from 2/23/23, zoomed in to see the 55, 60 and 65 DNL contour and the property area in light blue. The 55 DNL intersects the property on the north end. This portion of the 55 DNL pertains to the additional 2 potential north/south runways on the west side of the airfield. Once the runway straight north of this property is built, 16C/34C (might be the runway names) there will definitely be overflights at the beforementioned altitudes. There could be upwards of 200+ arrivals per day to that runway.



DEN Aviation Noise:

Flight data from 2/26/23. Few arrivals vectoring to get in line for final approach to 34L or 34R and there are also some departures that could fly near the subject property. On this day there were a few departures from runway 17L. They are approximately .30 - .45 miles to the southeast of that property. Their altitudes can vary based on aircraft type. On this day they were between 3,300 feet AGL and 4,100 feet AGL. These aircraft will be louder than arrivals as they are under full power departing DEN. During periods of high winds or inclement weather the FAA will depart aircraft to the south and then turn them west to get back onto the final pattern. This could happen from any one of the north south runways.



DEN Aviation Noise:

The future 2 north/south runways that will eventually be built on the west side of the airfield, will cause more arrival overflights to this property once those runways are built. Those future runways are depicted in black outlines on the map. Just inside the airport boundary on the west side of the airfield. This would enable the FAA to potentially perform quadruple arrivals using 2 north south runways on both west and east sides of the airfield.

