

## MEMO

Date: June 19, 2024

To: Whom it may concern, Aurora Water

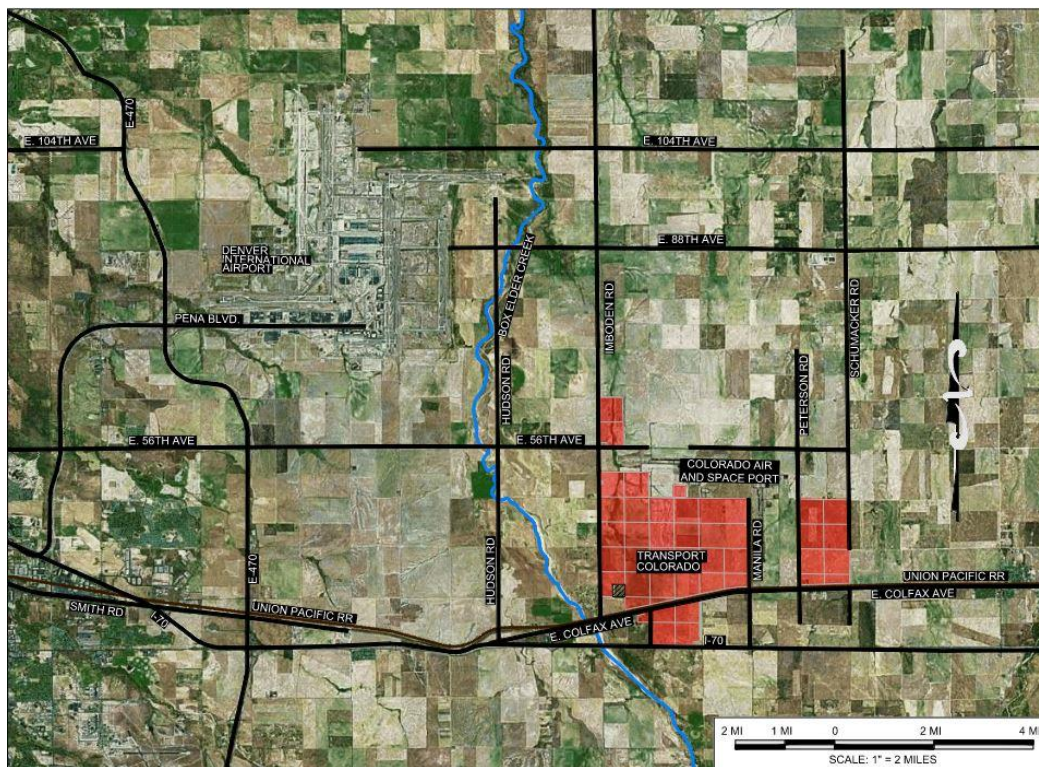
From: Daniel Osmulski, P.E.

RE: Transport Colorado Sub-Area 2 – Utility Conformance Letter

Port Colorado is a proposed logistics and commerce park consisting of six Sub-Areas of industrial and commercial development adjacent to the Colorado Air and Space Port (CASP), formerly known as Front Range Airport in Aurora, Colorado. The project offers significant growth opportunity for the area due to its proximity to I-70, Highway 36, Denver International Airport (DIA), and the Union Pacific Rail line that borders the southern portion of the site.

The Port Colorado project is located at the eastern edge of Aurora in Adams County, Colorado, approximately 20 miles east of downtown Denver, and approximately 6 miles southeast of DIA. The site is immediately adjacent to CASP, I-70, and the Union Pacific Rail line. It consists of property in Sections 8, 16, 17, 20, 21, 22, 24, 25, 27, 28, 29, 32, and 33, Township 3 South, Range 64 West of the Sixth Principal Meridian. Refer to Figure 1 below for a location map of the project and surrounding areas.

Per the overall **Port Colorado – Master Utility Plan Amendment #2 (MUP)**, currently in the City of Aurora review process for approval, Sub-Area 2 (SA-2) of the proposed site is 1,880 acres consists entirely of industrial uses. The proposed 1,880 acres assumes that all of the ultimate right-of-way dedications within SA-2 have been acquired. Currently, the site contains 1,940 acres per the latest legal description for the site, utilizing the existing right-of-way dedications. Since approval of the MUP, it has become known that 75% of SA-2 will be data centers and 25% will be warehouses although 100% of the developable land is still categorized as Industrial. With this information, the water and sanitary demand for Sub-Area 2 was evaluated for conformance with the MUP to ensure SA-2 will be within assumed demands when developed.



**Figure 1 – Vicinity Map**

**The Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure** requires the water and sanitary networks be designed within the criteria put forth. As the MUP has been designed and implemented with Aurora Water criteria held, it is intended to show that the Sub-Area 2 improvements will be within the appropriate criteria range. The average day water

demand of 1,200 average gallons per day per acre for industrial use was utilized within the MUP and is continued to be maintained through the proposed Sub-Area 2 improvements. As this demand has not fluctuated the below table will show that the average and max day water demand has not increased. Due to the adaption of the 2023 Water, Sanitary Sewer & Storm Drainage Infrastructure Standards and Specifications, the required fire flows for industrial use has been revised from 3,500 gpm for 3 hours to 4,000 gpm for 3 hours, this has increased the Max Day + Fire flows. The water demand calculations for Sub-Area 2 can be seen within Table 1: Water Demands. The sanitary loading of 1,200 gallons per day per acre for an average day is utilized within the MUP as well as the proposed improvements thus showing on increase in the sanitary loading. This can be seen below within Table 2-Sanitary Loading.

**Table 1-Water Demands**

SUB-AREA	TOTAL AREA (AC)	GROSS AREA* (AC)	AVG. DAY (GPM)	MAX DAY (GPM)	MAX HR. (GPM)	MAX DAY+ FIRE (GPM)
SA-2 (MUP)	1,880	1,787	1,489	4,169	6,700	49,669
SA-2 Proposed	1,880	1,787	1,489	4,169	6,700	54,169

\*Note: The gross acreage does not include area within the existing or proposed floodplain.

**Table 2-Sanitary Loading**

SUB-AREA	USE	TOTAL AREA (AC)	GROSS AREA* (AC)	AVERAGE DAY LOADING (GPD)
SA-2 (MUP)	INDUSTRIAL	1,880	1,787	2,144,400
SA-2 Proposed	INDUSTRIAL	1,880	1,787	2,144,400

\*Note: The gross acreage does not include area within the open space.

Included as an appendix to this letter is the ultimate build out for the proposed Sub-Area 2 improvements for reference purposes. This design substantiates the assumptions made in the approved MUP.

Comparing the water and sanitary demands from the MUP to the current proposed Sub-Area 2 improvements, there is no increase or decrease in the anticipated demands or loading for sanitary sewer. Due to the adaption of the 2023 Water, Sanitary Sewer & Storm Drainage and Infrastructure Standards and Specifications and the changes to the Aurora Water IWMP2 pipe sizes the MUP will likely need to be updated in regards to the water demands.. In my professional engineering opinion, no amendment to the MUP is needed for the sanitary loading and no additional materials are needed to confirm the conformance of the Sub-Area 2 utility design.

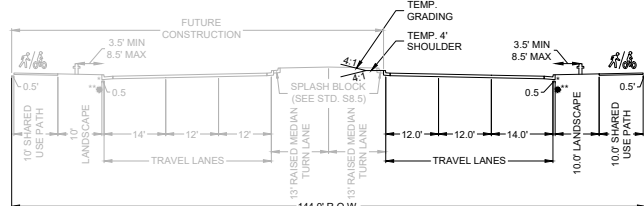
## References

1. **Port Colorado: Master Utility Plan Amendment #2**, Westwood Professional Services, LLC, July 2022.
2. **Standards and Specifications Regarding Water, Sanitary Sewer and Storm Drainage Infrastructure**, Aurora Water, 2023.



N:\PROJECTS\TRANSPORT COLORADO\ENGINEERING\SUB-AREA 2\PP\SUB-AREA 2 PP ULTIMATE.DWG, D:\SMLSKI, 02/20/2024 4:07 PM

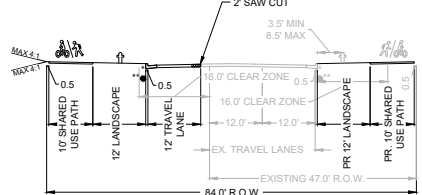
## ROADWAY SECTIONS:



SIX LANE MAJOR ARTERIAL - HALF STREET IMPROVEMENT (S1.4)

\* VERT. CURB & GUTTER (STD. S7.1)  
\*\* EDGE DRAIN (STD. S1.19)

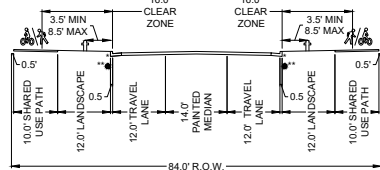
(IMBODEN ROAD)



ULTIMATE CONDITION  
THREE LANE COLLECTOR (S1.3)

\* VERT. CURB & GUTTER (STD. S7.1)  
\*\* EDGE DRAIN (STD. S1.19)

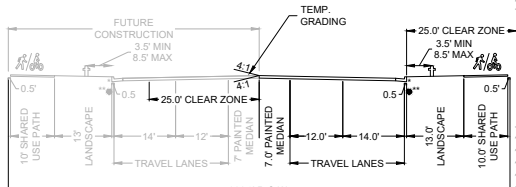
(QUAIL RUN DR. BETWEEN SA2 SOUTHERN  
BOUNDARY AND E. 48TH AVE)



THREE LANE COLLECTOR (S1.3)

\* VERT. CURB & GUTTER (STD. S7.1)  
\*\* EDGE DRAIN (STD. S1.19)

(CAVANAUGH ROAD, E 42ND AVENUE)

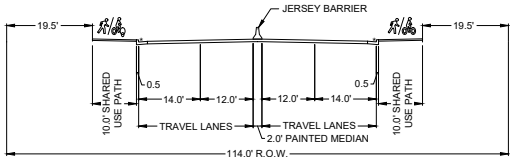


FOUR LANE MINOR ARTERIAL WITH SEPARATED SHARED  
USE PATH - HALF STREET IMPROVEMENT (S1.5)

\* VERT. CURB & GUTTER (STD. S7.1)  
\*\* EDGE DRAIN (STD. S1.19)

(E 48TH AVENUE)

NOTE: CONSTRUCTION OF THE FULL MEDIAN MAY BE REQUIRED FOR  
AUXILIARY LANES AT INTERSECTIONS

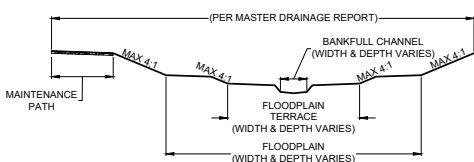


FOUR LANE MINOR ARTERIAL WITH  
SEPARATED SHARED USE PATH (S1.5)  
BEAR GULCH BRIDGE CROSSING

\* VERT. CURB & GUTTER (STD. S7.1)

(E 48TH AVENUE)

## DRAINAGE CHANNEL SECTIONS:



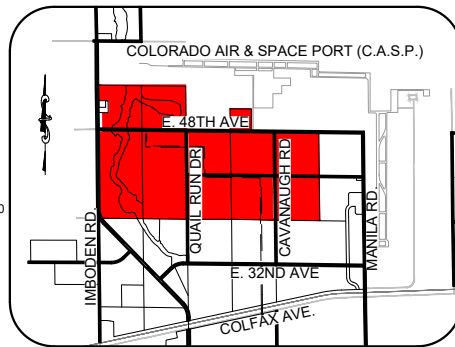
TYPICAL CHANNEL SECTION  
FOR MILEHIGH FLOOD DISTRICT (MHFD) MAINTENANCE ELIGIBLE CHANNELS  
WIDTH AND DEPTH VARIES BASED ON GEOMORPHIC DESIGN

## NOTES:

1. TRANSPORT COLORADO RESERVES THE RIGHT TO SUBMIT SUB-PUBLIC IMPROVEMENT PLAN ADDENDUMS AS THE SITE DEVELOPS TO ADJUST TO MARKET CONDITIONS AND ENSURE ECONOMIC VIABILITY OF THE PROJECT.
2. POTENTIAL FUTURE SIGNALS ARE NOT REQUIRED WITH DEVELOPMENT OF THE SUB-AREAS PER THE TIA, BUT MAY REQUIRE CONTRIBUTION BY ADJACENT PLANNING AREAS TO THE TRAFFIC SIGNALS ESCROW PER CITY ORDINANCE.
3. SANITARY SEWER MAINS SHOWN HEREIN MAY BE REROUTED, WITH AURORA WATER APPROVAL, BASED ON THE BOUNDARY CONFIGURATIONS OF PURCHASED PARCELS AND ASSOCIATED GRADING.
4. THE SUB-AREAS SHOWN WILL BE SERVICED BY INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS) UNTIL A CONNECTION TO A CITY SYSTEM OR REGIONAL WASTEWATER TREATMENT PLANT IS MADE.
5. SANITARY SEWER MAINS WILL BE INSTALLED AT THE TIME OF ROAD CONSTRUCTION AND WILL BE CONNECTED TO A CITY SYSTEM OR REGIONAL TREATMENT PLANT WHEN IT COMES ONLINE.
6. THE CITY OF AURORA IS WORKING WITH THE METROPOLITAN WASTEWATER DISTRICT ON A FEASIBILITY STUDY FOR A REGIONAL WASTEWATER TREATMENT SOLUTION. IF A SYSTEM IS NOT ON-LINE WHEN INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (ISDS) LOADING HAS MET THE MAXIMUM THRESHOLD, A REGIONAL WASTEWATER TREATMENT PLANT WILL BE CONSTRUCTED TO SERVE THE AREA.
7. PRV LOCATIONS ARE PRELIMINARY AS SHOWN AND MAY BE ADJUSTED AS REQUIRED BY THE CITY AS THE SITE DEVELOPS.
8. CITY WATER CONNECTION LOCATIONS ARE BASED ON THE 2018 CAPITOL IMPROVEMENT PLAN.
9. ACCESS TO SUB-AREA 2 WILL BE PROVIDED VIA 48TH AVE. THE PRIMARY POINT OF ACCESS WILL BE VIA IMBODEN ROAD AND THE SECOND POINT OF ACCESS WILL BE VIA QUAIL RUN DRIVE.
10. NOT ALL REGIONAL CHANNELS NEEDED FOR DEVELOPMENT ARE SHOWN ON THE PLANS. CONSTRUCTED REGIONAL CHANNEL ALIGNMENTS WILL GENERALLY FOLLOW THE ALIGNMENTS OF THE EXISTING DRAINAGEWAYS. THE DEVELOPMENT WILL PURSUE MAINTENANCE ELIGIBLE, REGIONAL CHANNELS FOR ALL TRIBUTARY AREAS GREATER THAN 130 ACRES. ANY DEVIATION FROM THIS PROPOSED WILL BE EVALUATED ON A CASE-BY-CASE BASIS BY THE CITY OF AURORA AND MHFD AT THE PRELIMINARY DESIGN STAGE. WHERE MAINTENANCE ELIGIBILITY IS REQUIRED, CHANNELS WILL BE DESIGNED PER MHFD CRITERIA.
11. STREAM CORRIDORS WILL BE EVALUATED IN GREATER DETAIL FOR STABILITY AS THEY ARE INCORPORATED INTO THE LAND USE CHANGES. IMPROVEMENTS WILL BE INFORMED BY GEOMORPHIC PRINCIPALS. STRUCTURAL STABILITY WILL BE PROVIDED THROUGH NATURAL MATERIALS LIKE VEGETATION AND IMPORTED ROCK THAT WORKS CONJUNCTIVELY WITH OTHER REGIONAL INFRASTRUCTURE. ANY DEVIATIONS FROM THIS WILL BE EVALUATED ON A CASE-BY-CASE BASIS AT A LATER TIME BASED ON MORE DETAILED ANALYSIS OF THE CHANNEL AND OTHER SITE SPECIFIC FACTORS. SEE MASTER DRAINAGE REPORT FOR ADDITIONAL DRAINAGE DETAILS.
12. AN APPROVED FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED FOR ANY WORK WITHIN A MAPPED 100-YEAR FLOODPLAIN. AN APPROVED NO-RISE CERTIFICATION AND/OR CLOMR IS REQUIRED FOR ANY WORK WITHIN A MAPPED FLOODWAY. ADDITIONAL REQUIREMENTS MAY BE REQUIRED BY THE FLOODPLAIN ADMINISTRATOR.
13. PRIOR TO CONSTRUCTION WITHIN UNANNEXED LAND, AN INTERGOVERNMENTAL AGREEMENT (IGA) WILL BE REQUIRED.

1000 1000 0 500 2000

SCALE: 1" = 1000'

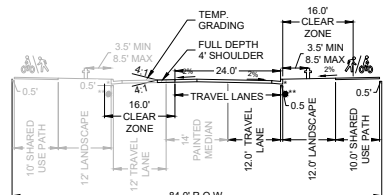


## KEYMAP

N.T.S.

## LEGEND

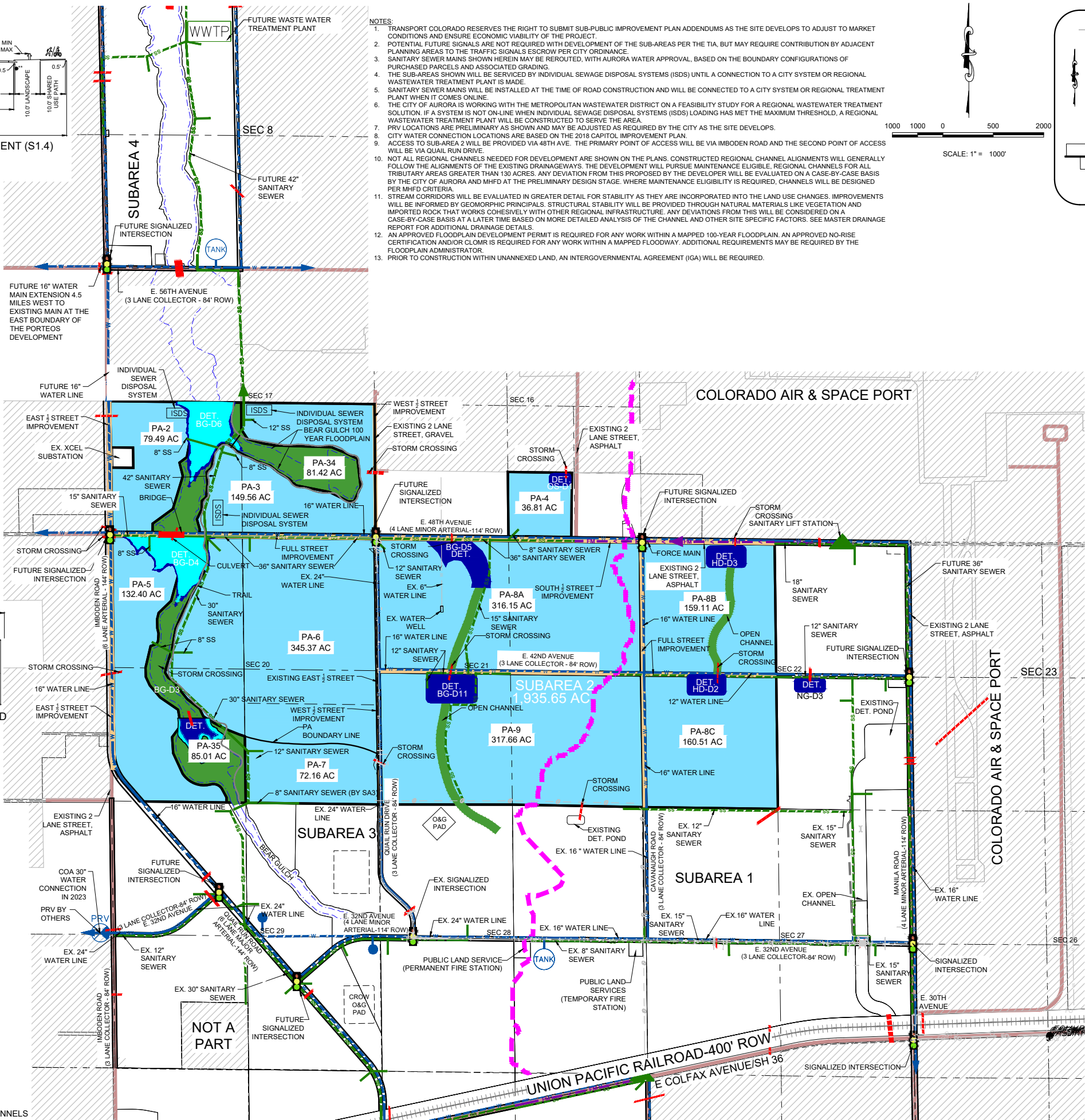
- OPEN CHANNEL/STREAM MANAGEMENT CORRIDOR
- DETENTION POND (DET.)
- FUTURE POND EXPANSION
- UNANNEXED ADAMS COUNTY
- PLANNING AREA
- EXISTING DRAINAGE AREA
- EXISTING ROADWAY (ASPHALT, UNLESS OTHERWISE NOTED)
- ROADWAY IMPROVEMENTS
- PLANNING AREA BOUNDARY
- SECTION/HALF SECTION LINE
- WATER MAINS
- SANITARY SEWER MAINS
- SANITARY SEWER FORCE MAINS
- EXISTING RAILROAD
- CULVERT CROSSINGS
- RIDGE LINE
- SANITARY SEWER LIFT STATION
- WASTE WATER TREATMENT PLANT
- INDIVIDUAL SEWAGE DISPOSAL SYSTEMS
- SIGNALIZED INTERSECTION
- PROPOSED TRAIL



THREE LANE COLLECTOR (S1.3)  
HALF STREET IMPROVEMENT

\* VERT. CURB & GUTTER (STD. S7.1)  
\*\* EDGE DRAIN (STD. S1.19)

(QUAIL RUN DR. NORTH OF 48TH AVE.)



SHEET NUMBER	DRAWN BY:	SCALE:	AS SHOWN	CHECKED BY:	FILE NO:	DATE:	Revisions	No.	Date	Appr.	Date
1	RSW	AS SHOWN	AS SHOWN	MEL	R0032061	07/21/23					

**Westwood**  
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TEL: 720.482.9526  
Westwoodps.com  
Westwood Professional Services, Inc.

**TRANSPORT COLORADO, LLC**  
1331 17TH STREET, SUITE 1000  
DENVER, COLORADO 80202

**TRANSPORT COLORADO**  
**SUB-AREA 2**  
**PUBLIC IMPROVEMENT PLAN**  
**ULTIMATE**

Land Use	AVG DAY (GPD/AC)	MAX DAY (GPD/AC)	MAX HOUR (GPD/AC)
Commercial*	1,500	4,200	6,750
Industrial*	1,200	3,360	5,400
Parks and Greenbelt*	1,800	5,040	-

\*Per Aurora Water: Water, Sanitary Sewer & Storm Drainage Infrastructure Standards & Specifications 2020

Development Area	Total Area (AC)	Gross Area (AC)	Land Use	Avg. Day (GPD)	Avg. Day (GPM)	Max Day (GPM)	Max Hr. (GPM)
Sub Area-2 (MUR)	1880	1,787	Industrial	2,144,400	1,489	4,170	6,701
Sub Area-2 Proposed	1880	1,787	Industrial	2,144,400	1,489	4,170	6,701

Max Day Factor = 2.8 times Average Daily Flow

Max Hour Factor = 4.5 times Average Daily Flow

Land Use	AVG DAY (GPD/AC)	EQUIVALENT POPULATION PER ACRES
Commercial*	1,500	22
Industrial*	1,200	18

\*Per Aurora Water: Water, Sanitary Sewer & Storm Drainage Infrstructure Standards & Specif

Development Area	Total Area (AC)	Population (Thousands)	Land Use	Avg. Day (GPD)
Sub Area-2 (MUR)	1,787	32.17	Industrial	2,144,400
Sub Area-2 Proposed	1,787	32.17	Industrial	2,144,400