



December 06, 2024

Planning & Development Services
Planning Division
15151 E. Alameda Parkway, Ste. 2300
Aurora, Colorado 80012

Re: Second Submission Review: Windler Zoning Map Amendments and Master Plan Amendment No. 3
Application Number: DA-1707-36
Case Numbers: 2005-2017-03; 2005-2017-04; 2005-2017-05; 2021-4006-01

Aja,

Thank you for your second review comments. As requested, we revised the Master Plan to address the comments received from the city. We have provided responses to those comments below and also in the plan-set redlines included with this resubmittal.

PLANNING DEPARTMENT COMMENTS

1. Completeness and Clarity of the Application

1A. It would be preferred that changes to Form D not be made unless necessary. A master plan is not expected to be an exact match of site plans that are in the review process. The densities are meant to be rough calculations to allow for adequate planning for service needs such as utilities, drainage, traffic and parks. Remove unnecessary changes to the unit proposals for planning areas outside of the midtown and village north neighborhoods. If additional changes are needed, please outline the reason for these requests with your case planner so that we can best address it within the scope of this amendment. "Updating the numbers to better match current site plans" only skews the numbers and makes comparisons with the previous approval distorted. If you want to note master plan vs. site plan actual units, you may outline those points in the letter of introduction as supplemental information.

- *Revised as requested.*

1B. See minor corrections to clarify the footnotes on Tab 8.

- *Footnotes have been revised.*

2. Streets and Pedestrian Comments

2A. Changes to the street classifications/network tab should be rev clouded just as the other tabs are so that changes can be easily identified and reviewed.

- *Revclouds have been added.*

2B. The removal of 54th between Biloxi and Buchanan will limit vehicle circulation movements for all of the Village North neighborhood moving north and west (likely to be the most desired movement considering uses to the west vs. the east). Additionally, it even further restricts access and circulation for future development of PA-1, which is already significantly limited and isolated

with the abutting E-470 highway. Planning would prefer to see this street connection remain in place, but understands that this was missed with a previous ISP amendment. Please keep this street alignment in the master plan as previously shown. The removal of this street can be further discussed and determined with the design of the park parcel for North Park.

- *54th Place has been added back into the exhibit.*

2C. A note on the I.2. street section in tab 14 has been modified since the previous approved document. Please call out the revisions.

- *Note has been revised to match previously approved document.*

REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES

3. **Traffic Engineering** (Jason Igo / 303-739-1792 / jigo@aurorago.org / Comments in orange)

- 3A. MTIS needs a comparison table for what is changing. The table should include the new map code, old map code, land use description, size, and unit. This way we can understand what is all changing. Looking at PA 3 it looks like the Strip retail might have increased but that was not listed as something that has changed. This overall understanding could help in review of this document.
- 3B. PM trips seemed to reduce across the board. This makes sense based that the overall PM trips are reduced but some are more significant than others. The comparison is hard to evaluate without a comparison table.
- 3C. Denali seems to have increased significantly south of this development.
- 3D. Intersection 14 looks to have moved to the east side of Biloxi St.

- *Please refer to traffic response (provided after this letter) for specific adjustments.*

4. **Aurora Water** (Samantha Bayliff / 303-739-7292 / sbayliff@auroragov.org / Comments in red)

- 4A. Visually update this pipe to show as 12". See redlined Master Utility Study.

- *Please refer to redlined plan set for responses.*



5. **PROS** (Scott Hammons / 303-739-7147 / shammons@auroragov.org / Comments in mauve) 8A.

- 5A. Tab 8: The neighborhood park figured for PK-1 does not match the site plan. (planning note – this is ok and does not have to be revised. It is more important that the master plan documents be consistent with each other – rather than updating the master plan to match previous approvals).

- *Acknowledged.*

- 5B. Tab 9: Remove references to COA ownership for PK-2 and PK-4 as amended in the previous (second) amendment.

- *These have been revised.*

Windler TIS - Comments Aurora, CO Wednesday, December 4, 2024					
Page	Section - Paragraph	Sentence	Agency Comment	Comments & Concerns to be addressed	Consultant's Responses
1			Aurora	Better explanation on what is changing from the previous MTIS. There looks to be some changes to other PA areas that are not listed in this document that are changing.	A comparison table was created comparing the trip generation from the MTIS and the Amendment. See Appendix A. The site plan figure from the MTIS was also added to the amendment for clarification.
Figure 2			Aurora	Previous one had 13.9 ADT. If this changed from 13.9 to 27.8 that shows a change in trip distribution.	13.9 was an error from the MTIS. The Aurora Highlands study conducted by FHU showed 25k ADT for the south leg of 48th Ave & Denali Blvd. 27.8 aligns with the previous study.
Figure 2			Aurora	This document doesn't provide trip distribution and why it would have changed.	Trip distribution did not change from the MTIS.
Figure 2			Aurora	There is a connection on the east side of Biloxi from Street Classification. Addison doesn't connect with 48th based on street classification.	Intersection 14 was removed from the Master Plan Amendment. Intersection 25 was added to account for the connection between Biloxi St and Denali Blvd. Trips were adjusted accordingly.
Figure 2			Aurora	<p>These numbers don't seem to be correct.</p> <p>The ADT in this figure shows an increase yet the PM seems to be lower.</p> <p>PA-1 traffic is that is north or using 56th is going to use this intersection. The PM peak is showing 661 external trips entering PA-1. The previous distribution had 48% of all trips coming and going to the north. That means these numbers should be above 320 vehicles in the PM because this road also serves PA-16 and PA-15.</p> <p>I only checked this intersection but question overall numbers at this intersection.</p>	<p>The overall ADT for 56th Ave has increase slightly because the AM peak has increased more than the PM peak has decrease.</p> <p>Trip generation was developed for each planning area (Ex. PA-1) however, trips were applied for each planning group (Ex. GA-1) rather than for each individual planning areas. Trips from GA-1 were distributed to Biloxi St as well as Drive 2, 55th Ave, 54th Ave, 53rd St Ave and 52nd Ave. This is consistent with how trips were generated for the MTIS.</p>
Figure 2			Aurora	I am trying to figure out why AM is higher overall but there is reduction in trips in the PM going into the development. The comparison table will help with that but further comments might come up with with traffic numbers.	Trip generation was adjusted through the study area. PA-16.2 was using the wrong ITE Code and was corrected to the proper 820 code number. With the adjustment in ITE Code, PM volumes increase from the MTIS at intersection 13.
Site Trip Generation			Aurora	MTIS done in 2023 has several differences in proposed uses versus this site generation table.	A comparison table was created comparing the trip generation from the MTIS and the Amendment. See Appendix A.
Site Trip Generation			Aurora	Need a comparison table. The table shall include new map code, old map code, Land Used Description, Size, and Unit.	A comparison table was created comparing the trip generation from the MTIS and the Amendment. See Appendix A.
Site Trip Generation			Aurora	PA 3 doesn't have the same amount of development as previous PA-3 and PA-17.	Planning area numbers were adjusted with the amendment. The 400 dwelling units and 25,000 SF match Form D: Land Use Map Matrix. The comparison table added to Appendix A should be used to draw the needed parallels between common pieces of ground between the two plans.

October 24, 2024

City of Aurora, Public Works
15151 E. Alameda Parkway
Aurora, CO 80012

Re: Windler Master Utility Conformance Letter

To whom it may concern,

This letter serves as a Master Utility update for the Windler Planning Area changes in PA 1, 3, 14, 15, and 16. Revised demand table and supporting calculations are included within this letter.

Based on the calculated water demand projects, water line identified as PW65 has increased from 8" to 12" to meet revised code change from Aurora Water to increase fire demand in MU-A zoning from 3,500 gpm to 4,000 gpm. The original layout had an average day demand of 470 GPM and a maximum day demand of 1,316 GPM. The proposed layout has an average day demand of 502 GPM and a maximum day demand of 1,408 GPM. This increase also does not pose any issues with low pressures anywhere on site. Pressure tables have been included to support the minor demand increases. The updated sewer demands fall into the same category. The original layout had an average daily flow of 492,947 GPD and the proposed layout has a daily flow of 532,125 GPD. This demand does not require any increase in pipe sizes or changes to major routing of sanitary sewer. These calculations have been included in this report

The portion of the site west of E-470 is not included in these calculations as these areas are largely unchanged from previous versions of the Land use map. Also the portion of this site west of E-470 does not impact the areas of concern east of E-470. Additional letters or amendments will be prepared for those areas if demands change from the approved study.

Calculations have been included showing that although demand has increased slightly, no changes to existing or proposed utilities needs to be made.

Please contact me if you have any questions.

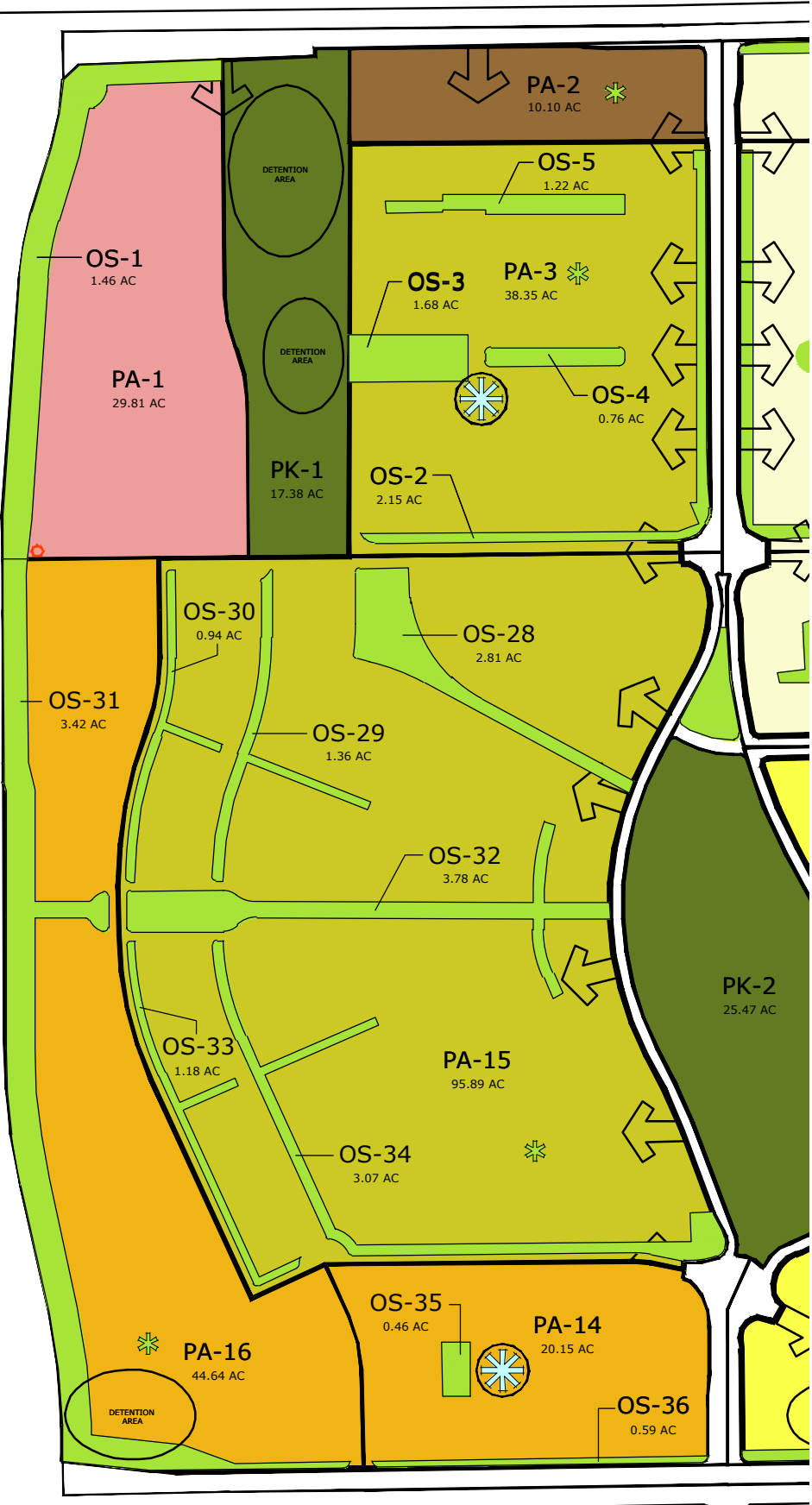
Sincerely,

WESTWOOD PROFESSIONAL SERVICES

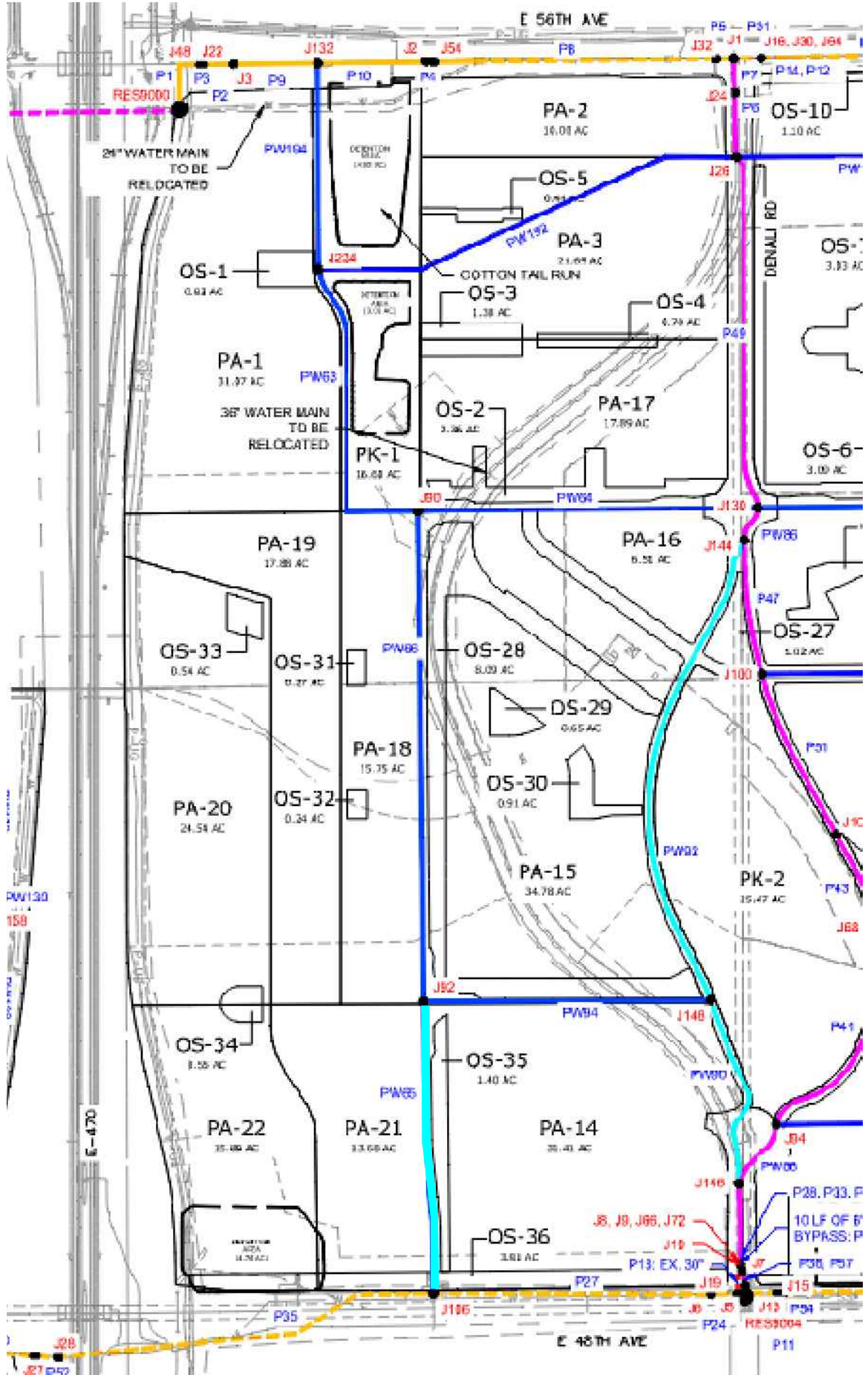
Tom Odle, PE
Senior Project Manager



REVISED PLANNING AREAS



ORIGINAL PLANNING AREAS



DATE: 10-24-2024

Westwood

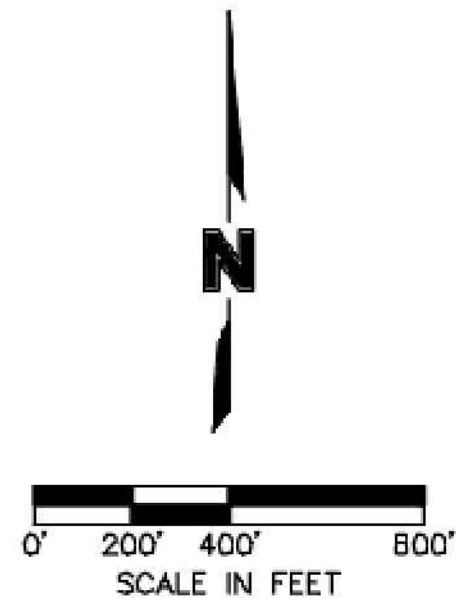
10333 E DRY CREEK RD.
SUITE 240
ENGLEWOOD, CO 80112
TEL: 720.482.9526

Westwoodps.com
Westwood Professional Services, Inc.

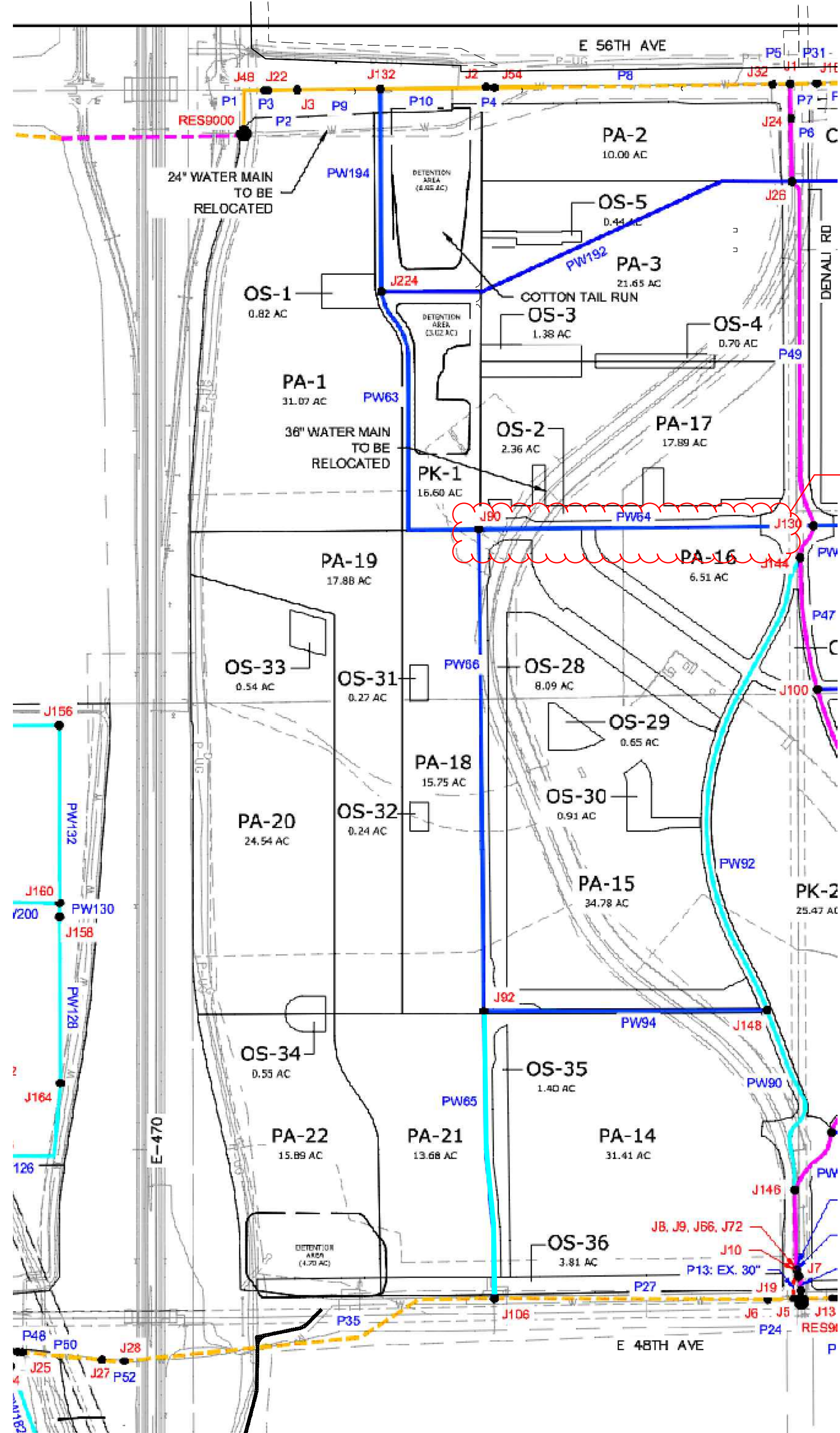
N:\PROJECTS\WINDLER\CAD\ENGINEERING\EXHIBITS\WINDLER MASTER UTILITY EXHIBIT.DWG, MSDAVIS, 1/24/24

AND USE:

LEGEND			
—	6" WATER MAIN	---	EX. 36" WATER MAIN
—	8" WATER MAIN	—	36" WATER MAIN
—	12" WATER MAIN	—	EXISTING WATER MAIN
—	16" WATER MAIN	•	DESIGN NODE
---	EX. 24" WATER MAIN	●	RESERVOIR NODE
—	24" WATER MAIN		
—	30" WATER MAIN		



THT



Visually update this pipe to show as 12"

PW65 is the pipe that increased from 8" to 12" and is shown visually as 12" per previous comment.

SHEET NUMBER	1	DRAWN BY: JCN	CHECKED BY: STF	DATE: 05-21-24	SCALE: AS SHOWN FILE NO:	WINDLER CONSTRUCTION DOCUMENTS OVERALL EXHIBIT	WINDLER PUBLIC IMPROVEMENT AUTHORITY (WPIA) 9155 E. NICHOLS AVENUE, SUITE 360 CENTENNIAL, CO 80112 CONTACT: CHRIS FELLOWS	Westwood 10333 E DRY CREEK RD. SUITE 400 ENGLEWOOD, CO 80112 Westwoodps.com Westwood Professional Services, Inc. TEL: 720.482.9526				Revisions			
								No.	Date	Init.	Appr.	Date			

Water Distribution Demand Criteria								Fire Flow		
Land Use	Avg Day (gdp/acres)	Max Day (gpd/acres)	Peak Hour (gpd/acres)	Residential Criteria	Peaking Factors			Classification	Demand (gpm)	Time (hrs)
				People/Unit	2.77	Max day	2.8	Residential	1500	2
	Commercial	1500	4200	6750	Avg day / Capita (gpd)	101	Max hour	4.5	Commercial/Multifamily	2500
	Industrial (school	1200	3360	5400				Industrial	4000	3
	Parks & Greenbel	1800	5040	N/A				MU-A Zoning	4000	3

Hotel	98	gpd/Room								
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Windler - Water Demand Projections (UPDATED LAYOUT)

Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-1	MIXED COMM		26.81	N/A	40,215	27.93	112,602	78	180,968	126	4,000	4,078
PA-1	HOTEL		3	150	14,700	10.21	41,160	29	66,150	46	4,000	4,029
PA-2	MF		10.1	303	84,770	58.87	237,357	165	381,466	265	4,000	4,165
PA-3	SFD/SFA FLEX		36.35	380	106,313	73.83	297,675	207	478,407	332	4,000	4,207
PA-3	COMMERCIAL		2	N/A	3,000	2.08	8,400	6	13,500	9	4,000	4,006
PA-14	SFD/SFA		2.15	86	24,060	16.71	67,369	47	108,271	75	4,000	4,047
PA-14	MF		8	320	89,526	62.17	250,674	174	402,869	280	4,000	4,174
PA-14	COMMERCIAL		10	N/A	15,000	10.42	42,000	29	67,500	47	4,000	4,029
PA-15	SFD/SFA FLEX		92.89	697	195,000	135.42	545,999	379	877,499	609	4,000	4,379
PA-15	MF		3	90	25,179	17.49	70,502	49	113,307	79	4,000	4,049
PA-16	MIXED COMM		19.75	N/A	29,625	20.57	82,950	58	133,313	93	4,000	4,058
PA-16	MF		10	345	96,521	67.03	270,258	188	434,343	302	4,000	4,188
PA-16	HOTEL		9	350	34,300	23.82	96,040	67	154,350	107	4,000	4,067
Total				2,721	723,909	502.71	2,026,946	1,408	3,257,591	2,262		49,408

Windler-Water Demand Projections (ORIGINAL LAYOUT)												
Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-1	MIXED COMM		31.07	N/A	46,605	32	130,494	91	209,723	146	2,500	2,591
PA-2	MF		23.7	711	198,916	138	556,966	387	895,124	622	1,500	1,887
PA-3	SFA		6.95	76	21,388	15	59,888	42	96,248	67	1,500	1,542
PA-3	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2,500	2,503
PA-14	SFD/SFA		17.48	160	44,870	31	125,635	87	201,913	140	1,500	1,587
PA-14	MF		3.59	108	30,131	21	84,367	59	135,591	94	1,500	1,559
PA-14	COMMERCIAL		10.00	N/A	15,000	10	42,000	29	67,500	47	2,500	2,529
PA-15	SFD/SFA FLEX		34.78	313	87,574	61	245,206	170	394,081	274	1,500	1,670
PA-16	SFD/SFA FLEX		6.51	59	16,392	11	45,897	32	73,763	51	1,500	1,532
PA-17	SFD/SFA FLEX		16.89	152	42,528	30	119,078	83	191,376	133	1,500	1,583
PA-17	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2,500	2,503
PA-18	SFD/SFA/ FLEX		15.75	142	39,657	28	111,041	77	178,458	124	1,500	1,577
PA-20	MIXED COMM		24.54	N/A	36,810	26	103,068	72	165,645	115	2,500	2,572
PA-21	MIXED COMM		4.10	N/A	6,156	4	17,237	12	27,702	19	2,500	2,512
PA-21	MF		9.58	287	80,372	56	225,043	156	361,675	251	1,500	1,656
PA-22	MIXED COMM		4.77	N/A	5,151	5	20,021	14	32,177	22	2,500	2,514
Total				2,008	674,550	470	1,894,341	1,316	3,044,476	2,114		32,316

WINDLER DEVELOPMENT

Active Scenario: STATIC

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	0.00	5,710.00
RES9004	0.00	5,710.00
RES9008	0.00	5,710.00

WINDLER DEVELOPMENT

Active Scenario: **STATIC**

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
P-1	260	24.0	150.0	0.00	0.00
P-3	273	24.0	150.0	0.00	0.00
P-4	144	24.0	150.0	0.00	0.00
P-5	126	24.0	150.0	0.00	0.00
P-6	289	36.0	150.0	0.01	0.00
P-7	197	36.0	150.0	0.00	0.00
P-8	738	24.0	150.0	0.00	0.00
P-9	435	24.0	150.0	0.00	0.00
P-11	135	24.0	150.0	0.00	0.00
P-15	181	24.0	150.0	0.00	0.00
P-16	1,179	24.0	150.0	0.00	0.00
P-17	1,291	24.0	150.0	0.00	0.00
P-23	1,276	24.0	150.0	0.00	0.00
P-24	203	24.0	150.0	0.00	0.00
P-27	1,123	24.0	150.0	0.00	0.00
P-30	275	24.0	150.0	0.00	0.00
P-31	99	24.0	150.0	0.00	0.00
P-34	843	24.0	150.0	0.00	0.00
P-37	1,143	24.0	150.0	0.00	0.00
P-41	932	36.0	150.0	0.00	0.00
P-43	325	36.0	150.0	0.01	0.00
P-47	488	36.0	150.0	0.00	0.00
P-47	1,349	8.0	150.0	0.00	0.00
P-49	1,491	36.0	150.0	0.00	0.00
P-50	1,959	12.0	150.0	0.00	0.00
P-51	929	36.0	150.0	0.00	0.00
P-51	359	24.0	150.0	0.00	0.00
P-53	479	36.0	150.0	0.00	0.00
P-58	2,080	24.0	150.0	0.00	0.00
P-59	2,107	24.0	150.0	0.00	0.00
PW54	1,295	8.0	150.0	0.00	0.00
PW55	1,255	8.0	150.0	0.00	0.00
PW57	1,282	8.0	150.0	0.00	0.00
PW58	1,218	8.0	150.0	0.00	0.00
PW59	538	8.0	150.0	0.00	0.00
PW61	710	8.0	150.0	0.00	0.00
PW63	1,359	8.0	150.0	0.00	0.00
PW64	1,380	8.0	150.0	0.00	0.00
PW65	1,290	12.0	150.0	0.00	0.00
PW66	2,085	8.0	150.0	0.00	0.00
PW78	1,392	8.0	150.0	0.00	0.00
PW82	1,393	8.0	150.0	0.00	0.00
PW86	225	36.0	150.0	0.00	0.00
PW88	316	36.0	150.0	0.01	0.00
PW90	860	12.0	150.0	0.00	0.00

WINDLER DEVELOPMENT

Active Scenario: STATIC

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
PW94	1,214	8.0	150.0	0.00	0.00
PW190	1,369	8.0	150.0	0.00	0.00
PW194	949	8.0	150.0	0.00	0.00
PW196	757	8.0	150.0	0.00	0.00
PW198	724	8.0	150.0	0.00	0.00

WINDLER DEVELOPMENT

Active Scenario: STATIC

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-4	0.00	5,430.00	5,710.00	121.14
J-110	0.00	5,439.92	5,710.00	116.85
J-2	0.00	5,445.00	5,710.00	114.65
J-54	0.00	5,445.00	5,710.00	114.65
J-132	0.00	5,447.85	5,710.00	113.42
J-48	0.00	5,450.00	5,710.00	112.49
J-22	0.00	5,450.00	5,710.00	112.49
J-32	0.00	5,450.00	5,710.00	112.49
J-1	0.00	5,450.00	5,710.00	112.49
J-16	0.00	5,450.00	5,710.00	112.49
J-224	0.00	5,455.00	5,710.00	110.33
J-26	0.00	5,460.00	5,710.00	108.16
J-24	0.00	5,460.00	5,710.00	108.16
J-220	0.00	5,468.69	5,710.00	104.40
J-142	0.00	5,470.00	5,710.00	103.84
J-128	0.00	5,480.00	5,710.00	99.51
J-130	0.00	5,485.00	5,710.00	97.35
J-90	0.00	5,490.00	5,710.00	95.18
J-144	0.00	5,492.49	5,710.00	94.11
J-106	0.00	5,495.45	5,710.00	92.83
J-100	0.00	5,505.00	5,710.00	88.69
J-15	0.00	5,505.50	5,710.00	88.48
J-19	0.00	5,510.00	5,710.00	86.53
J-92	0.00	5,510.00	5,710.00	86.53
J-146	0.00	5,515.28	5,710.00	84.25
J-17	0.00	5,518.50	5,710.00	82.85
J-11	0.00	5,518.50	5,710.00	82.85
J-148	0.00	5,520.00	5,710.00	82.20
J-102	0.00	5,525.00	5,710.00	80.04
J-68	0.00	5,525.00	5,710.00	80.04
J-94	0.00	5,525.00	5,710.00	80.04
J-98	0.00	5,530.00	5,710.00	77.88
J-226	0.00	5,540.00	5,710.00	73.55
J-18	0.00	5,545.00	5,710.00	71.39
J-12	0.00	5,545.00	5,710.00	71.39
J-96	0.00	5,545.00	5,710.00	71.39
J-138	0.00	5,550.00	5,710.00	69.22

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	170.90	5,710.00
RES9004	795.08	5,710.00
RES9008	254.21	5,710.00

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
P-1	260	24.0	150.0	170.90	0.12
P-3	273	24.0	150.0	170.90	0.12
P-4	144	24.0	150.0	120.59	0.09
P-5	126	24.0	150.0	120.59	0.09
P-6	289	36.0	150.0	18.19	0.01
P-7	197	36.0	150.0	18.19	0.01
P-8	738	24.0	150.0	120.59	0.09
P-9	435	24.0	150.0	170.90	0.12
P-11	135	24.0	150.0	77.17	0.05
P-15	181	24.0	150.0	34.00	0.02
P-16	1,179	24.0	150.0	82.02	0.06
P-17	1,291	24.0	150.0	77.17	0.05
P-23	1,276	24.0	150.0	27.70	0.02
P-24	203	24.0	150.0	261.38	0.19
P-27	1,123	24.0	150.0	216.73	0.15
P-30	275	24.0	150.0	27.70	0.02
P-31	99	24.0	150.0	82.02	0.06
P-34	843	24.0	150.0	34.00	0.02
P-37	1,143	24.0	150.0	179.18	0.13
P-41	932	36.0	150.0	362.28	0.11
P-43	325	36.0	150.0	361.09	0.11
P-47	488	36.0	150.0	273.11	0.09
P-47	1,349	8.0	150.0	19.20	0.12
P-49	1,491	36.0	150.0	70.72	0.02
P-50	1,959	12.0	150.0	30.84	0.09
P-51	929	36.0	150.0	319.75	0.10
P-51	359	24.0	150.0	183.71	0.13
P-53	479	36.0	150.0	456.53	0.14
P-58	2,080	24.0	150.0	15.12	0.01
P-59	2,107	24.0	150.0	70.50	0.05
PW54	1,295	8.0	150.0	44.19	0.28
PW55	1,255	8.0	150.0	35.79	0.23
PW57	1,282	8.0	150.0	30.98	0.20
PW58	1,218	8.0	150.0	45.36	0.29
PW59	538	8.0	150.0	37.15	0.24
PW61	710	8.0	150.0	8.03	0.05
PW63	1,359	8.0	150.0	16.43	0.10
PW64	1,380	8.0	150.0	20.65	0.13
PW65	1,290	12.0	150.0	60.66	0.17
PW66	2,085	8.0	150.0	0.88	0.01
PW78	1,392	8.0	150.0	38.24	0.24
PW82	1,393	8.0	150.0	44.04	0.28
PW86	225	36.0	150.0	242.27	0.08
PW88	316	36.0	150.0	394.25	0.12
PW90	860	12.0	150.0	62.29	0.18

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
PW94	1,214	8.0	150.0	16.67	0.11
PW190	1,369	8.0	150.0	24.04	0.15
PW194	949	8.0	150.0	17.83	0.11
PW196	757	8.0	150.0	41.72	0.27
PW198	724	8.0	150.0	34.69	0.22

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-4	4.53	5,430.00	5,710.00	121.14
J-110	62.48	5,439.92	5,710.00	116.85
J-2	1.73	5,445.00	5,710.00	114.65
J-54	0.00	5,445.00	5,710.00	114.65
J-132	19.07	5,447.85	5,710.00	113.42
J-48	0.00	5,450.00	5,710.00	112.49
J-22	0.00	5,450.00	5,710.00	112.49
J-32	0.00	5,450.00	5,710.00	112.49
J-1	184.42	5,450.00	5,710.00	112.49
J-16	0.00	5,450.00	5,710.00	112.49
J-224	19.07	5,455.00	5,709.99	110.32
J-26	58.87	5,460.00	5,710.00	108.16
J-24	0.00	5,460.00	5,710.00	108.16
J-220	22.93	5,468.69	5,709.98	104.39
J-142	11.33	5,470.00	5,710.00	103.84
J-128	132.05	5,480.00	5,709.94	99.48
J-130	106.71	5,485.00	5,710.00	97.34
J-90	37.96	5,490.00	5,709.98	95.18
J-144	0.00	5,492.49	5,710.00	94.10
J-106	156.07	5,495.45	5,709.99	92.82
J-100	1.28	5,505.00	5,710.00	88.69
J-15	0.00	5,505.50	5,710.00	88.48
J-19	44.65	5,510.00	5,710.00	86.53
J-92	76.45	5,510.00	5,709.98	86.52
J-146	0.00	5,515.28	5,710.00	84.25
J-17	0.00	5,518.50	5,710.00	82.85
J-11	1.45	5,518.50	5,710.00	82.85
J-148	76.45	5,520.00	5,709.99	82.20
J-94	0.99	5,525.00	5,710.00	80.04
J-68	1.19	5,525.00	5,710.00	80.04
J-102	41.34	5,525.00	5,710.00	80.04
J-98	56.54	5,530.00	5,709.94	77.85
J-226	35.55	5,540.00	5,709.97	73.54
J-18	0.00	5,545.00	5,710.00	71.39
J-12	6.30	5,545.00	5,710.00	71.39
J-96	56.19	5,545.00	5,709.95	71.37
J-138	4.58	5,550.00	5,710.00	69.22

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	487.94	5,710.00
RES9004	2,204.00	5,710.00
RES9008	724.57	5,710.00

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
P-1	260	24.0	150.0	487.94	0.35
P-3	273	24.0	150.0	487.94	0.35
P-4	144	24.0	150.0	359.54	0.25
P-5	126	24.0	150.0	359.54	0.25
P-6	289	36.0	150.0	85.34	0.03
P-7	197	36.0	150.0	85.34	0.03
P-8	738	24.0	150.0	359.54	0.25
P-9	435	24.0	150.0	487.94	0.35
P-11	135	24.0	150.0	216.30	0.15
P-15	181	24.0	150.0	95.28	0.07
P-16	1,179	24.0	150.0	242.18	0.17
P-17	1,291	24.0	150.0	216.30	0.15
P-23	1,276	24.0	150.0	77.64	0.06
P-24	203	24.0	150.0	658.37	0.47
P-27	1,123	24.0	150.0	533.35	0.38
P-30	275	24.0	150.0	77.64	0.06
P-31	99	24.0	150.0	242.18	0.17
P-34	843	24.0	150.0	95.28	0.07
P-37	1,143	24.0	150.0	514.30	0.36
P-41	932	36.0	150.0	1,043.14	0.33
P-43	325	36.0	150.0	1,039.81	0.33
P-47	488	36.0	150.0	793.59	0.25
P-47	1,349	8.0	150.0	53.95	0.34
P-49	1,491	36.0	150.0	188.93	0.06
P-50	1,959	12.0	150.0	102.30	0.29
P-51	929	36.0	150.0	924.06	0.29
P-51	359	24.0	150.0	526.98	0.37
P-53	479	36.0	150.0	1,329.33	0.42
P-58	2,080	24.0	150.0	42.37	0.03
P-59	2,107	24.0	150.0	197.59	0.14
PW54	1,295	8.0	150.0	123.57	0.79
PW55	1,255	8.0	150.0	100.15	0.64
PW57	1,282	8.0	150.0	86.68	0.55
PW58	1,218	8.0	150.0	126.89	0.81
PW59	538	8.0	150.0	104.09	0.66
PW61	710	8.0	150.0	22.52	0.14
PW63	1,359	8.0	150.0	59.02	0.38
PW64	1,380	8.0	150.0	80.00	0.51
PW65	1,290	12.0	150.0	96.36	0.62
PW66	2,085	8.0	150.0	32.73	0.21
PW78	1,392	8.0	150.0	107.18	0.68
PW82	1,393	8.0	150.0	123.50	0.79
PW86	225	36.0	150.0	691.28	0.22
PW88	316	36.0	150.0	1,132.59	0.36
PW90	860	12.0	150.0	196.73	0.56

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
PW94	1,214	8.0	150.0	84.98	0.54
PW190	1,369	8.0	150.0	67.18	0.43
PW194	949	8.0	150.0	70.16	0.45
PW196	757	8.0	150.0	116.95	0.75
PW198	724	8.0	150.0	97.17	0.62

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-4	12.68	5,430.00	5,709.99	121.14
J-110	174.94	5,439.92	5,709.97	116.84
J-2	4.84	5,445.00	5,709.97	114.64
J-54	0.00	5,445.00	5,709.97	114.64
J-132	53.40	5,447.85	5,709.98	113.41
J-48	0.00	5,450.00	5,710.00	112.49
J-22	0.00	5,450.00	5,709.99	112.49
J-32	0.00	5,450.00	5,709.97	112.47
J-16	0.00	5,450.00	5,709.96	112.47
J-1	516.38	5,450.00	5,709.96	112.47
J-224	53.40	5,455.00	5,709.89	110.28
J-26	164.84	5,460.00	5,709.96	108.15
J-24	0.00	5,460.00	5,709.96	108.15
J-220	64.20	5,468.69	5,709.84	104.33
J-142	31.72	5,470.00	5,709.99	103.83
J-128	369.74	5,480.00	5,709.59	99.33
J-130	298.79	5,485.00	5,709.96	97.33
J-90	106.29	5,490.00	5,709.79	95.09
J-144	0.00	5,492.49	5,709.97	94.09
J-106	437.00	5,495.45	5,709.97	92.81
J-100	3.58	5,505.00	5,709.97	88.68
J-15	0.00	5,505.50	5,710.00	88.48
J-19	125.02	5,510.00	5,709.99	86.53
J-92	214.06	5,510.00	5,709.73	86.42
J-146	0.00	5,515.28	5,709.99	84.24
J-11	4.06	5,518.50	5,709.99	82.85
J-17	0.00	5,518.50	5,709.99	82.85
J-148	214.06	5,520.00	5,709.91	82.17
J-94	2.77	5,525.00	5,709.99	80.04
J-68	3.33	5,525.00	5,709.98	80.03
J-102	115.75	5,525.00	5,709.98	80.03
J-98	158.31	5,530.00	5,709.60	77.70
J-226	99.54	5,540.00	5,709.79	73.46
J-12	17.64	5,545.00	5,709.99	71.38
J-18	0.00	5,545.00	5,709.99	71.38
J-96	157.33	5,545.00	5,709.68	71.25
J-138	12.82	5,550.00	5,709.99	69.22

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	769.03	5,710.00
RES9004	3,577.86	5,710.00
RES9008	1,143.93	5,710.00

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
P-1	260	24.0	150.0	769.03	0.55
P-3	273	24.0	150.0	769.03	0.55
P-4	144	24.0	150.0	542.67	0.38
P-5	126	24.0	150.0	542.67	0.38
P-6	289	36.0	150.0	81.85	0.03
P-7	197	36.0	150.0	81.85	0.03
P-8	738	24.0	150.0	542.67	0.38
P-9	435	24.0	150.0	769.03	0.55
P-11	135	24.0	150.0	347.27	0.25
P-15	181	24.0	150.0	153.00	0.11
P-16	1,179	24.0	150.0	369.07	0.26
P-17	1,291	24.0	150.0	347.27	0.25
P-23	1,276	24.0	150.0	124.65	0.09
P-24	203	24.0	150.0	1,176.19	0.83
P-27	1,123	24.0	150.0	975.26	0.69
P-30	275	24.0	150.0	124.65	0.09
P-31	99	24.0	150.0	369.07	0.26
P-34	843	24.0	150.0	153.00	0.11
P-37	1,143	24.0	150.0	806.31	0.57
P-41	932	36.0	150.0	1,630.25	0.51
P-43	325	36.0	150.0	1,624.89	0.51
P-47	488	36.0	150.0	1,228.98	0.39
P-47	1,349	8.0	150.0	86.42	0.55
P-49	1,491	36.0	150.0	318.25	0.10
P-50	1,959	12.0	150.0	138.77	0.39
P-51	929	36.0	150.0	1,438.86	0.45
P-51	359	24.0	150.0	826.70	0.59
P-53	479	36.0	150.0	2,054.40	0.65
P-58	2,080	24.0	150.0	68.05	0.05
P-59	2,107	24.0	150.0	317.23	0.22
PW54	1,295	8.0	150.0	198.85	1.27
PW55	1,255	8.0	150.0	161.08	1.03
PW57	1,282	8.0	150.0	139.41	0.89
PW58	1,218	8.0	150.0	204.12	1.30
PW59	538	8.0	150.0	167.18	1.07
PW61	710	8.0	150.0	36.11	0.23
PW63	1,359	8.0	150.0	73.94	0.47
PW64	1,380	8.0	150.0	92.93	0.59
PW65	1,290	12.0	150.0	272.95	0.77
PW66	2,085	8.0	150.0	3.95	0.03
PW78	1,392	8.0	150.0	172.09	1.10
PW82	1,393	8.0	150.0	198.19	1.27
PW86	225	36.0	150.0	1,090.21	0.34
PW88	316	36.0	150.0	1,774.11	0.56
PW90	860	12.0	150.0	280.28	0.80

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)
PW94	1,214	8.0	150.0	75.03	0.48
PW190	1,369	8.0	150.0	108.18	0.69
PW194	949	8.0	150.0	80.21	0.51
PW196	757	8.0	150.0	187.75	1.20
PW198	724	8.0	150.0	156.08	1.00

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-4	20.39	5,430.00	5,709.98	121.14
J-110	281.16	5,439.92	5,709.93	116.82
J-2	7.78	5,445.00	5,709.94	114.63
J-54	0.00	5,445.00	5,709.94	114.63
J-132	85.82	5,447.85	5,709.96	113.40
J-48	0.00	5,450.00	5,709.99	112.49
J-22	0.00	5,450.00	5,709.98	112.48
J-32	0.00	5,450.00	5,709.92	112.46
J-16	0.00	5,450.00	5,709.92	112.46
J-1	829.89	5,450.00	5,709.92	112.45
J-224	85.82	5,455.00	5,709.84	110.26
J-26	264.92	5,460.00	5,709.92	108.13
J-24	0.00	5,460.00	5,709.92	108.13
J-220	103.18	5,468.69	5,709.61	104.23
J-142	50.99	5,470.00	5,709.98	103.83
J-128	594.23	5,480.00	5,709.01	99.08
J-130	480.20	5,485.00	5,709.92	97.31
J-90	170.82	5,490.00	5,709.68	95.05
J-144	0.00	5,492.49	5,709.92	94.07
J-106	702.31	5,495.45	5,709.91	92.79
J-100	5.76	5,505.00	5,709.93	88.66
J-15	0.00	5,505.50	5,710.00	88.48
J-19	200.93	5,510.00	5,709.98	86.52
J-92	344.02	5,510.00	5,709.68	86.39
J-146	0.00	5,515.28	5,709.98	84.24
J-11	6.53	5,518.50	5,709.99	82.85
J-17	0.00	5,518.50	5,709.99	82.85
J-148	344.02	5,520.00	5,709.82	82.13
J-94	4.45	5,525.00	5,709.97	80.03
J-68	5.36	5,525.00	5,709.95	80.02
J-102	186.03	5,525.00	5,709.95	80.02
J-98	254.43	5,530.00	5,709.03	77.46
J-226	159.98	5,540.00	5,709.51	73.34
J-18	0.00	5,545.00	5,709.98	71.38
J-12	28.35	5,545.00	5,709.98	71.38
J-96	252.86	5,545.00	5,709.23	71.06
J-138	20.61	5,550.00	5,709.98	69.22

WINDLER DEVELOPMENT

Active Scenario: MAX DAY + FIRE FLOW

Fire Flow Node FlexTable: Fire Flow Results Table

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Fire Flow (Upper Limit) (gpm)	Fire Flow (Total Upper Limit) (gpm)	Pressure (Calculated Zone Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?	Velocity of Maximum Pipe (ft/s)	Pipe w/ Maximum Velocity
J-1	2	True	2,016.37	47,405.76	2,016.37	47,405.76	47,405.76	47,405.76	69.20	105.12	J-138	True	8.33	P-9
J-2	2	True	4,000.83	24,686.51	4,000.83	24,686.51	24,686.51	24,686.51	69.22	110.05	J-138	True	9.20	P-5
J-4	2	True	1,512.67	16,075.01	1,512.67	16,075.01	16,075.01	16,075.01	69.22	120.11	J-138	True	8.55	P-51
J-11	3	True	1,504.06	21,119.03	1,504.06	21,119.03	21,295.04	21,295.04	65.94	77.34	J-138	True	10.00	P-11
J-12	3	True	1,517.64	23,343.68	1,517.64	23,343.68	24,483.30	24,483.30	62.79	62.30	J-18	True	10.00	P-15
J-15	3	True	1,500.00	15,787.07	1,500.00	15,787.07	16,246.90	16,246.90	68.96	87.95	J-138	True	10.00	P-11
J-16	3	True	1,500.00	19,450.80	1,500.00	19,450.80	20,642.12	20,642.12	69.22	110.74	J-138	True	10.00	P-31
J-17	3	True	1,500.00	20,654.94	1,500.00	20,654.94	20,698.06	20,698.06	65.73	77.11	J-138	True	10.00	P-15
J-18	2	True	1,500.00	14,100.44	1,500.00	14,100.44	14,100.44	14,100.44	66.46	67.64	J-138	True	5.82	P-15
J-19	3	True	1,500.00	14,294.02	1,500.00	14,294.02	34,575.80	34,575.80	69.22	85.74	J-138	True	10.00	P-24
J-22	3	True	4,000.00	20,319.98	4,000.00	20,319.98	36,828.77	36,828.77	69.22	110.43	J-138	True	10.00	P-3
J-24	2	True	4,000.00	55,619.27	4,000.00	55,619.27	55,619.27	55,619.27	69.19	98.28	J-138	True	9.61	P-9
J-26	2	True	4,000.00	56,467.03	4,000.00	56,467.03	56,467.03	56,467.03	69.19	98.17	J-138	True	9.47	P-9
J-32	3	True	1,500.00	19,628.86	1,500.00	19,628.86	20,913.97	20,913.97	69.22	110.64	J-138	True	10.00	P-5
J-41	2	True	4,000.00	5,000.00	4,000.00	5,000.00	5,000.00	5,000.00	69.22	113.67	J-138	True	1.88	P-9
J-42	2	True	4,000.00	5,000.00	4,000.00	5,000.00	5,000.00	5,000.00	69.22	93.68	J-138	True	7.28	PW194
J-48	2	True	4,000.00	15,921.10	4,000.00	15,921.10	15,921.10	15,921.10	69.22	111.69	J-138	True	8.83	P-1
J-54	2	True	1,500.00	24,351.10	1,500.00	24,351.10	24,351.10	24,351.10	69.22	110.26	J-138	True	9.53	P-5
J-68	4	True	1,503.32	45,291.55	1,503.32	45,291.55	50,420.69	50,420.69	69.20	75.97	J-138	True	10.00	P-53
J-90	3	True	4,090.37	4,230.71	4,090.37	4,230.71	5,000.00	5,000.00	69.22	75.93	J-138	True	10.00	PW64
J-92	2	True	4,355.30	5,000.00	4,355.30	5,000.00	5,000.00	5,000.00	69.22	77.21	J-138	True	8.88	PW65
J-94	4	True	1,502.76	40,340.30	1,502.76	40,340.30	45,530.16	45,530.16	69.21	78.13	J-138	True	10.00	P-53
J-96	3	True	1,657.33	3,802.26	1,657.33	3,802.26	5,000.00	5,000.00	69.13	59.96	J-138	True	10.00	PW59
J-98	3	True	1,658.30	4,054.96	1,658.30	4,054.96	5,000.00	5,000.00	68.89	64.98	J-96	True	10.00	PW61
J-100	4	True	1,503.57	51,420.91	1,503.57	51,420.91	60,143.74	60,143.74	69.19	81.89	J-138	True	10.00	P-53
J-102	4	True	1,615.74	46,920.75	1,615.74	46,920.75	54,553.12	54,553.12	69.20	75.25	J-138	True	10.00	P-53
J-106	3	True	4,208.76	15,135.76	4,208.76	15,135.76	23,019.86	23,019.86	69.22	87.73	J-138	True	10.00	P-24

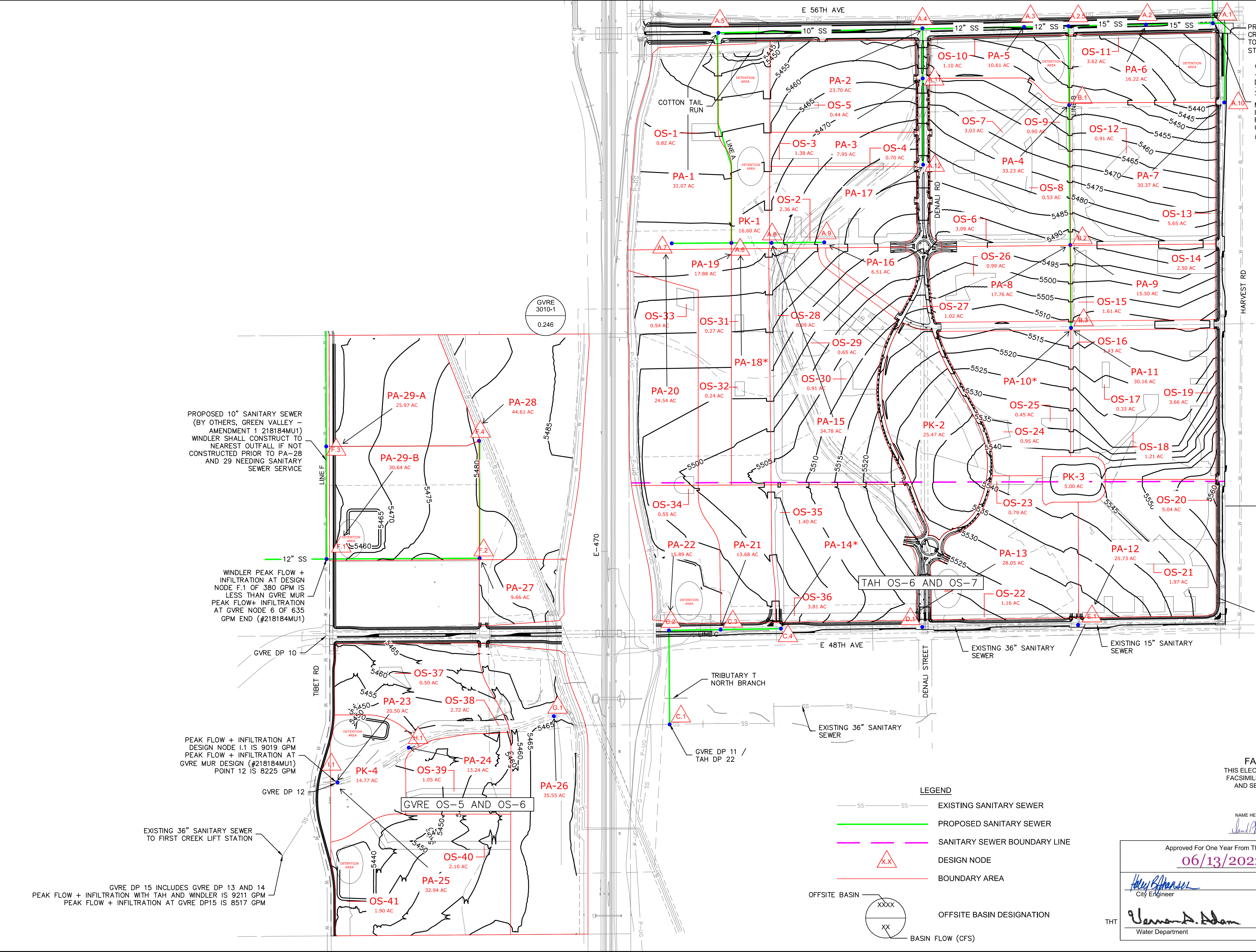
WINDLER DEVELOPMENT

Active Scenario: MAX DAY + FIRE FLOW

Fire Flow Node FlexTable: Fire Flow Results Table

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Fire Flow (Upper Limit) (gpm)	Fire Flow (Total Upper Limit) (gpm)	Pressure (Calculated Zone Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?	Velocity of Maximum Pipe (ft/s)	Pipe w/ Maximum Velocity
J-110	2	True	1,674.95	26,537.55	1,674.95	26,537.55	26,537.55	26,537.55	69.22	111.68	J-138	True	9.39	P-51
J-128	3	True	3,869.75	5,751.30	3,869.75	5,751.30	7,005.34	7,005.34	69.16	83.71	J-138	True	10.00	PW61
J-130	4	True	4,268.10	53,409.82	4,268.10	53,409.82	60,776.05	60,776.05	69.19	89.42	J-138	True	10.00	PW86
J-132	2	True	2,651.59	20,297.34	2,651.59	20,297.34	20,297.34	20,297.34	69.22	110.62	J-138	True	8.55	P-9
J-138	2	True	1,512.81	29,101.06	1,512.81	29,101.06	29,101.06	29,101.06	61.10	54.04	J-18	True	9.97	P-15
J-142	3	True	1,531.71	23,281.49	1,531.71	23,281.49	24,007.93	24,007.93	64.11	95.70	J-138	True	10.00	P-59
J-144	4	True	4,000.00	53,840.21	4,000.00	53,840.21	62,891.51	62,891.50	69.19	86.26	J-138	True	10.00	P-53
J-146	4	True	4,000.00	38,241.83	4,000.00	38,241.83	40,851.93	40,851.93	69.21	83.09	J-138	True	10.00	P-53
J-148	2	True	4,090.43	6,267.89	4,090.43	6,267.89	6,267.89	6,267.89	69.22	75.63	J-138	True	9.31	PW90
J-220	3	True	1,564.19	3,750.21	1,564.19	3,750.21	4,690.14	4,690.14	69.22	94.26	J-138	True	10.00	PW198
J-224	3	True	4,000.00	4,418.92	4,000.00	4,418.92	5,000.00	5,000.00	69.22	97.04	J-138	True	10.00	PW194
J-226	3	True	1,599.55	4,103.18	1,599.55	4,103.18	4,403.60	4,403.60	66.46	62.92	J-96	True	10.00	PW196

DWG: F:\2021\02001-02500\021-02235\40-Design\AutoCAD\021-02235_Final Plans\01-06_MP_Sheets\WTRW_P_PLANO1_SAN_02102235.dwg USER: gmaidl T_RW4_PBASE_02102235 T_RW3_PBASE_02102235 T_RW2_PBASE_02102235 T_RW5_PBASE_02102235
DATE: May 11, 2022 9:01am XREFS: P_MP_PUTIL01_02102235 P_XUTIL01_02102235 C_MP_PBASE_02102235 P_PTBK_EDIT_02102235



PROPOSED 30" SECOND CREEK SANITARY SEWER TO SECOND CREEK LIFT STATION (BY OTHERS)

WINDLER PEAK FLOW + INFILTRATION AT DESIGN NODE A.1 OF 3.89 CFS IS LESS THAN FULENWIDER MUS PEAK FLOW + INFILTRATION AT FULENWIDER NODE T OF 4.377 EDN #220131MU1

NOTE
THIS DOCUMENT HAS BEEN RELEASED BY OLSSON ONLY FOR REVIEW BY REGULATORY AGENCIES AND OTHER PROFESSIONALS, AND IS SUBJECT TO CHANGE. THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION.

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REV. NO.		DATE	REVISIONS DESCRIPTION

SANTARY SEWER MASTER PLAN		WINDLER MIXED USE DEVELOPMENT MASTER UTILITY PLAN	

drawn by: _____
checked by: _____
approved by: _____
QA/QC by: _____
project no.: _____
drawing no.: _____
date: _____

1525 Raleigh Street
Suite 400
Denver, CO 80204

TEL 303.237.2072
www.olsson.com

FACSIMILE
THIS ELECTRONIC PLAN IS A FACSIMILE OF THE SIGNED AND SEALED PDF SET

NAME HERE DATE
David P. Hultman 05/11/2022

Approved For One Year From This Date
06/13/2022

Heidi B. Hansen 06/10/2022
City Engineer Date

Vernon A. Adam 06/08/2022
Water Department Date

THT

Sanitary Distribution Demand Criteria

Land Use	Equivalent		Residential Criteria	PEAKING FACTOR		INFILTRATION	
	Avg Day (gdp/acres)	Pop/AC					
Commercial	1500	22	People/Unit	2.77	MIN	1.7	Peaking Factor = 5/P^0.167 p = population in thousands
Industrial (school	1200	18	Avg day / Capita (gpc	68	MAX	4	
Parks & Greenbelts							

HOTEL 98 gpd/Room

Windler - Sanitary Demand Projections (UPDATED LAYOUT)

Map Area Code	Land Use	Total Acres	Proposed Dus	Population	Avg Daily Flow (GPD)	Peaking Factor	Peak Flow (GPD)	Infiltration (GPD)	Avg Day + Infiltration (GPD)	Avg Day + Infiltration (CFS)	Avg Day + Infiltration (GPM)	Peak Flow + Infiltration (GPD)	Peak Flow + Infiltration (CFS)
PA-1	MIXED COMM	25.9	N/A	570	38,850	4.00	155,400	3,885	42,735	95	30	159,285	0.2465
PA-1	HOTEL	3	150	0	14,700	4.00	58,800	1,470	16,170	36	11	60,270	0.0933
PA-2	MF	10.1	303	839	57,073	4.00	228,292	5,707	62,780	140	44	234,000	0.3621
PA-3	SFD/SFA FLEX	36.35	400	1108	75,344	4.00	301,376	7,534	82,878	185	58	308,910	0.4780
PA-3	COMMERCIAL	2	N/A	44	3,000	4.00	12,000	300	3,300	7	2	12,300	0.0190
PA-14	SFD/SFA	2.15	86	238	16,199	4.00	64,796	1,620	17,819	40	12	66,416	0.1028
PA-14	MF	8	320	886	60,275	4.00	241,101	6,028	66,303	148	46	247,128	0.3824
PA-14	COMMERCIAL	10	N/A	220	15,000	4.00	60,000	1,500	16,500	37	11	61,500	0.0952
PA-15	SFD/SFA FLEX	92.89	697	1931	131,287	4.00	525,148	13,129	144,416	322	100	538,276	0.8329
PA-15	MF	3	90	249	16,952	4.00	67,810	1,695	18,648	42	13	69,505	0.1075
PA-16	MIXED COMM	25.64	N/A	564	38,460	4.00	153,840	3,846	42,306	94	29	157,686	0.2440
PA-16	MF	10	345	956	64,984	4.00	259,937	6,498	71,483	159	50	266,435	0.4123
PA-16	HOTEL	9	350	0	34,300	4.00	137,200	3,430	37,730	84	26	140,630	0.2176
Total			2,741		532,125			53,212	585,337	1,304	406		3.5934

Windler-Sanitary Demand Projections (ORIGINAL LAYOUT)

Map Area Code	Land Use	Total Acres	Proposed Dus	Population	Avg Daily Flow (GPD)	Peaking Factor	Peak Flow (GPD)	Infiltration (GPD)	Avg Day + Infiltration (GPD)	Avg Day + Infiltration (CFS)	Avg Day + Infiltration	Peak Flow + Infiltration (GPD)	Peak Flow + Infiltration (CFS)
PA-1	MIXED COMM	31.07	N/A	684	46,605	4	186,420	4661	51,266	114	36	191,081	0.2957
PA-2	MF	23.7	711	1969	133,924	4	535,696	13392	147,316	328	102	549,088	0.8496
PA-3	SFA	6.95	76	211	14,315	4	57,261	1432	15,747	35	11	58,693	0.0908
PA-3	COMMERCIAL	1.00	N/A	22	1,500	4	6,000	150	1,650	4	1	6,150	0.0095
PA-14	SFD/SFA	17.48	160	443	30,138	4	120,550	3014	33,151	74	23	123,564	0.1912
PA-14	MF	3.59	108	299	20,343	4	81,372	2034	22,377	50	16	83,406	0.1291
PA-14	COMMERCIAL	10.00	N/A	220	15,000	4	60,000	1500	16,500	37	11	61,500	0.0952
PA-15	SFD/SFA FLEX	34.78	313	867	58,957	4	235,827	5896	64,852	145	45	241,722	0.3740
PA-16	SFD/SFA FLEX	6.51	59	163	11,113	4	44,453	1111	12,225	27	8	45,564	0.0705
PA-17	SFD/SFA FLEX	16.89	152	421	28,631	4	114,523	2863	31,494	70	22	117,386	0.1816
PA-17	COMMERCIAL	1.00	N/A	22	1,500	4	6,000	150	1,650	4	1	6,150	0.0095
PA-18	SFD/SFA/ FLEX	15.75	142	393	26,747	4	106,988	2675	29,422	66	20	109,663	0.1697
PA-20	MIXED COMM	24.54	N/A	540	36,810	4	147,240	3681	40,491	90	28	150,921	0.2335
PA-21	MIXED COMM	4.10	N/A	90	6,150	4	24,600	615	6,765	15	5	25,215	0.0390
PA-21	MF	9.58	287	795	54,059	4	216,237	5406	59,465	132	41	221,643	0.3430
PA-22	MIXED COMM	4.77	N/A	105	7,155	4	28,620	716	7,871	18	5	29,336	0.0454
PA-22	MF	11	334	925	62,912	4	251,649	6291	69,203	154	48	257,940	0.3991
Total					492,947								

	Node	Map Area Code	Population	Sum Population	Avg Day (GPD)	Sum Avg Day (GPD)	Peaking Factor	Sum Avg Day (GPM)	Infiltration (GPM)	Avg Day + Infiltration (GPM)	Peak Flow + Infiltration (GPM)	Peak Flow + Infiltration (CFS)	Avg Day + Infiltration (CFS)	Pipe Diameter (in.)	Min. Slope (%)	Min Slope Velocity (ft/s)	Max Slope (%)
Tributary to Second Creek																	
	Line A																
	A.9	PA-15 (-26 ACRES OF SF)	1903	1,903	129,403	129,403	4.00	90	9	99	368	0.821	0.220	8	0.40	2.93	10.44
	A.8		0	1,903	129,403	129,403	4.00	90	9	99	368	0.821	0.220	8	0.40	2.93	10.44
	A.7	PA-16 (MIXED COMM + 1 hotel)	564	564	53,160	53,160	4.00	37	4	41	151	0.337	0.090	8	0.40	2.40	21.85
	A.6		0	2,467	-	182,563	4.00	127	13	139	520	1.158	0.311	8	0.80	4.14	7.98
	A.5	PA-1	570	3,037	53,550	236,113	4.00	164	16	180	672	1.498	0.402	10	0.41	3.44	6.89
	A.12	PA-3	1097	1,097	74,577	74,577	4.00	52	5	57	212	0.473	0.127	8	0.40	2.62	16.52
	A.11	PA-2	839	1,936	57,073	131,650	4.00	91	9	101	375	0.835	0.224	8	0.42	3.00	10.34
	A.4		0	4,973	-	367,763	3.83	255	26	281	1002	2.234	0.626	12	0.40	3.80	5.24
	A.3	PA-5	632	5,604	42,946	410,709	3.75	285	29	314	1098	2.446	0.699	12	0.41	3.89	4.88
	A.2.5	LINE B	0	8,006	-	589,017	3.53	409	41	450	1486	3.311	1.003	15	0.40	4.24	4.06
	A.2	PA-6	892	8,898	60,652	649,669	3.47	451	45	496	1611	3.590	1.106	15	0.40	4.31	3.82
	A.10	PA-7	756	756	51,419	51,419	4.00	36	4	39	146	0.326	0.088	8	0.40	2.38	22.47
	A.1		0	9,654	-	701,088	3.42	487	49	536	1716	3.823	1.193	15	0.40	4.36	3.63
	Line B																
	B.3	PA-10, PA-11	1083	1,083	73,649	73,649	4.00	51	5	56	210	0.467	0.125	8	0.40	2.61	16.62
	B.2	PA-8, PA-9	443	1,526	45,138	118,786	4.00	82	8	91	338	0.754	0.202	8	0.40	2.90	11.21
	B1	PA-4	875	2,402	59,522	178,308	4.00	124	12	136	508	1.131	0.303	8	0.76	4.04	8.18
Tributary to First Creek	Total Contribution to Second Creek Lift Station			9,654	-	701,088	3.42	487	49	536	1716	3.823	1.193				
	Line C																
	C.4	PA-14	1125	1,125	91,474	91,474	4.00	64	6	70	260	0.580	0.156	8	0.40	2.75	13.87
	C.3	PA-15 (10 ACRES OF SF)	277	1,402	18,836	110,310	4.00	77	8	84	314	0.700	0.188	8	0.40	2.86	11.90
	C.2	PA-16 (2 HOTELS AND MF)	956	2,357	84,584	194,894	4.00	135	14	149	555	1.236	0.332	8	0.91	4.42	7.61
	C.1		0	2,357	-	194,894	4.00	135	14	149	555	1.236	0.332	8	0.91	4.42	7.61

Worksheet for A.9 TO A.8

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.82 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.1 in
Percent Full	74.8 %
Critical Slope	0.006 ft/ft
Velocity	2.93 ft/s
Velocity Head	0.13 ft
Specific Energy	0.63 ft
Froude Number	0.743
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	28.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	5.1 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.8 TO A.6

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.82 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.1 in
Percent Full	74.8 %
Critical Slope	0.006 ft/ft
Velocity	2.93 ft/s
Velocity Head	0.13 ft
Specific Energy	0.63 ft
Froude Number	0.743
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	12.8 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	5.1 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.7 TO A.6

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.34 cfs
Results	
Normal Depth	3.4 in
Flow Area	0.1 ft ²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.8 in
Top Width	0.66 ft
Critical Depth	3.2 in
Percent Full	42.3 %
Critical Slope	0.005 ft/ft
Velocity	2.40 ft/s
Velocity Head	0.09 ft
Specific Energy	0.37 ft
Froude Number	0.916
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.001 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	15.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.4 in
Critical Depth	3.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.6 TO A.5

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.008 ft/ft
Diameter	8.0 in
Discharge	1.16 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.1 in
Percent Full	74.6 %
Critical Slope	0.008 ft/ft
Velocity	4.14 ft/s
Velocity Head	0.27 ft
Specific Energy	0.76 ft
Froude Number	1.052
Maximum Discharge	1.37 cfs
Discharge Full	1.28 cfs
Slope Full	0.007 ft/ft
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.6 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.1 in
Channel Slope	0.008 ft/ft
Critical Slope	0.008 ft/ft

Worksheet for A.5 TO A.4

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	10.0 in
Discharge	1.50 cfs
Results	
Normal Depth	7.4 in
Flow Area	0.4 ft ²
Wetted Perimeter	1.7 ft
Hydraulic Radius	3.0 in
Top Width	0.73 ft
Critical Depth	6.6 in
Percent Full	74.4 %
Critical Slope	0.006 ft/ft
Velocity	3.44 ft/s
Velocity Head	0.18 ft
Specific Energy	0.80 ft
Froude Number	0.784
Maximum Discharge	1.78 cfs
Discharge Full	1.66 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	31.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	7.4 in
Critical Depth	6.6 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.12 TO A.11

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.47 cfs
Results	
Normal Depth	4.1 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.1 ft
Hydraulic Radius	2.0 in
Top Width	0.67 ft
Critical Depth	3.9 in
Percent Full	51.4 %
Critical Slope	0.005 ft/ft
Velocity	2.62 ft/s
Velocity Head	0.11 ft
Specific Energy	0.45 ft
Froude Number	0.886
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.001 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	19.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.1 in
Critical Depth	3.9 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.11 TO A.4

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.84 cfs
Results	
Normal Depth	5.9 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.2 in
Percent Full	74.4 %
Critical Slope	0.006 ft/ft
Velocity	3.00 ft/s
Velocity Head	0.14 ft
Specific Energy	0.64 ft
Froude Number	0.765
Maximum Discharge	1.00 cfs
Discharge Full	0.93 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	28.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.9 in
Critical Depth	5.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.4 TO A.3

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	12.0 in
Discharge	2.23 cfs
Results	
Normal Depth	8.4 in
Flow Area	0.6 ft ²
Wetted Perimeter	2.0 ft
Hydraulic Radius	3.6 in
Top Width	0.92 ft
Critical Depth	7.7 in
Percent Full	70.1 %
Critical Slope	0.005 ft/ft
Velocity	3.80 ft/s
Velocity Head	0.22 ft
Specific Energy	0.93 ft
Froude Number	0.835
Maximum Discharge	2.86 cfs
Discharge Full	2.66 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	32.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.4 in
Critical Depth	7.7 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.3 TO A.2.5

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	12.0 in
Discharge	2.45 cfs
Results	
Normal Depth	9.0 in
Flow Area	0.6 ft ²
Wetted Perimeter	2.1 ft
Hydraulic Radius	3.6 in
Top Width	0.87 ft
Critical Depth	8.0 in
Percent Full	74.7 %
Critical Slope	0.005 ft/ft
Velocity	3.89 ft/s
Velocity Head	0.23 ft
Specific Energy	0.98 ft
Froude Number	0.806
Maximum Discharge	2.90 cfs
Discharge Full	2.70 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	35.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.0 in
Critical Depth	8.0 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for B.3 TO B.2

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.47 cfs
Results	
Normal Depth	4.1 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.1 ft
Hydraulic Radius	2.0 in
Top Width	0.67 ft
Critical Depth	3.8 in
Percent Full	51.0 %
Critical Slope	0.005 ft/ft
Velocity	2.61 ft/s
Velocity Head	0.11 ft
Specific Energy	0.45 ft
Froude Number	0.888
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.001 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	39.1 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.1 in
Critical Depth	3.8 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for B.2 TO B.1

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.75 cfs
Results	
Normal Depth	5.6 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.3 ft
Hydraulic Radius	2.4 in
Top Width	0.61 ft
Critical Depth	4.9 in
Percent Full	69.9 %
Critical Slope	0.006 ft/ft
Velocity	2.90 ft/s
Velocity Head	0.13 ft
Specific Energy	0.60 ft
Froude Number	0.782
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	26.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.6 in
Critical Depth	4.9 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for B.1 TO A.2.5

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.008 ft/ft
Diameter	8.0 in
Discharge	1.13 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.1 in
Percent Full	74.7 %
Critical Slope	0.007 ft/ft
Velocity	4.04 ft/s
Velocity Head	0.25 ft
Specific Energy	0.75 ft
Froude Number	1.025
Maximum Discharge	1.34 cfs
Discharge Full	1.24 cfs
Slope Full	0.006 ft/ft
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.1 in
Channel Slope	0.008 ft/ft
Critical Slope	0.007 ft/ft

Worksheet for A.2.5 TO A.2

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.31 cfs
Results	
Normal Depth	9.1 in
Flow Area	0.8 ft ²
Wetted Perimeter	2.2 ft
Hydraulic Radius	4.2 in
Top Width	1.22 ft
Critical Depth	8.8 in
Percent Full	60.8 %
Critical Slope	0.004 ft/ft
Velocity	4.24 ft/s
Velocity Head	0.28 ft
Specific Energy	1.04 ft
Froude Number	0.934
Maximum Discharge	5.19 cfs
Discharge Full	4.83 cfs
Slope Full	0.002 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	31.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.1 in
Critical Depth	8.8 in
Channel Slope	0.004 ft/ft
Critical Slope	0.004 ft/ft

Worksheet for A.2 TO A.1

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.59 cfs
Results	
Normal Depth	9.6 in
Flow Area	0.8 ft ²
Wetted Perimeter	2.3 ft
Hydraulic Radius	4.3 in
Top Width	1.20 ft
Critical Depth	9.2 in
Percent Full	64.2 %
Critical Slope	0.005 ft/ft
Velocity	4.31 ft/s
Velocity Head	0.29 ft
Specific Energy	1.09 ft
Froude Number	0.911
Maximum Discharge	5.19 cfs
Discharge Full	4.83 cfs
Slope Full	0.002 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	33.4 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.6 in
Critical Depth	9.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.10 TO A.1

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.33 cfs
Results	
Normal Depth	3.3 in
Flow Area	0.1 ft ²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.8 in
Top Width	0.66 ft
Critical Depth	3.2 in
Percent Full	41.5 %
Critical Slope	0.005 ft/ft
Velocity	2.38 ft/s
Velocity Head	0.09 ft
Specific Energy	0.36 ft
Froude Number	0.918
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.001 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	14.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.3 in
Critical Depth	3.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.1 TO OFFSITE

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.82 cfs
Results	
Normal Depth	10.1 in
Flow Area	0.9 ft ²
Wetted Perimeter	2.4 ft
Hydraulic Radius	4.4 in
Top Width	1.17 ft
Critical Depth	9.5 in
Percent Full	67.1 %
Critical Slope	0.005 ft/ft
Velocity	4.36 ft/s
Velocity Head	0.30 ft
Specific Energy	1.14 ft
Froude Number	0.891
Maximum Discharge	5.19 cfs
Discharge Full	4.83 cfs
Slope Full	0.003 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	35.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	10.1 in
Critical Depth	9.5 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for C.4 TO C.3

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.58 cfs
Results	
Normal Depth	4.7 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.2 ft
Hydraulic Radius	2.2 in
Top Width	0.66 ft
Critical Depth	4.3 in
Percent Full	58.3 %
Critical Slope	0.005 ft/ft
Velocity	2.75 ft/s
Velocity Head	0.12 ft
Specific Energy	0.51 ft
Froude Number	0.854
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.002 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	22.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.7 in
Critical Depth	4.3 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for C.3 TO C.2

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.70 cfs
Results	
Normal Depth	5.3 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.3 ft
Hydraulic Radius	2.3 in
Top Width	0.63 ft
Critical Depth	4.7 in
Percent Full	66.1 %
Critical Slope	0.006 ft/ft
Velocity	2.86 ft/s
Velocity Head	0.13 ft
Specific Energy	0.57 ft
Froude Number	0.808
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.002 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	25.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.3 in
Critical Depth	4.7 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for C.2 TO C.1

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.009 ft/ft
Diameter	8.0 in
Discharge	1.24 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.3 in
Percent Full	74.7 %
Critical Slope	0.008 ft/ft
Velocity	4.42 ft/s
Velocity Head	0.30 ft
Specific Energy	0.80 ft
Froude Number	1.122
Maximum Discharge	1.47 cfs
Discharge Full	1.36 cfs
Slope Full	0.007 ft/ft
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.3 in
Channel Slope	0.009 ft/ft
Critical Slope	0.008 ft/ft



September 12, 2024

Chong Woo
Aurora Water – Utilities Division
26711 E Quincy Ave
Aurora, CO 80016

RE: Windler PA 26-PA29 Utility Conformance Letter

Dear Chong Woo,

This letter serves as a utility conformance letter for the Windler's PA 26, 27, 28, and 29, designated as industrial/commercial area that is proposed west of E470, north and south of E 48th Ave, in the City of Aurora.

Reviewing the Master Utility Study done by Olsson on May 2022 Approval #222155, these parcels were anticipated to be industrial use.

The proposed user for PA 26 – PA 29 will be a commercial use that requires up to 3,300,000 sq. ft. of building area. Despite the large building coverage, the intended use will require much lower volume of employees than the original assumed industrial use and therefore will not adversely impact the proposed design of the water and sanitary system previously approved MUS #222155. Comparison tables are shown within this letter to show that the expected demand rates are less than the original approved demand rates.

The sanitary demand was based on as industrial population of 18 people per acre (146 acres = **2636 people**). The proposed user of these parcels would need 124 employees, for below the original consideration.

The approved report had a combined Max Day + Fire Flow (gpm) of 4,048 gpm for PA-26-29.

Windler - Water Demand Projections

Water Distribution Design Criteria				Residential Criteria	Peaking Factors	Fire Flow	Demand	
Land Use	Avg Day (gdp/acre)	Max Day (gdp/acre)	Peak Hour (gdp/acre)	People / unit	2.77 Max Day	2.8	Classification	Time (hrs)
Commercial	1,500	4,200	6,750	Avg day / capita (gpd)	101	Max Hour	4.5	Residential
Industrial (schools)	1,200	3,360	5,400				Commercial/Multifamily	2500
Parks & Greenbelts	1,800	5,040	N/A				Industrial	3500

Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-13	MF		6.50	195	54,555	38	152,754	106	245,498	170	1500	1606
PA-13	COMMERCIAL		0.50	N/A	750	1	2,100	1	3,375	2	2500	2501
PA-14	SFD/SFA		17.82	160	44,870	31	125,635	87	201,913	140	1500	1587
PA-14	MF		3.59	108	30,131	21	84,367	59	135,591	94	1500	1559
PA-14	COMMERCIAL		10.00	N/A	15,000	10	42,000	29	67,500	47	2500	2529
PA-15			34.78	313	87,574	61	245,206	170	394,081	274	1500	1670
PA-16	SFD/SFA FLEX		6.51	59	16,392	11	45,897	32	73,763	51	1500	1532
PA-17			16.89	152	42,528	30	119,078	83	191,375	133	1500	1583
PA-17	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2500	2503
PA-18	SFD/SFA FLEX		15.75	142	39,657	28	111,041	77	178,458	124	1500	1577
PA-19	SFA		17.88	161	45,021	31	126,058	88	202,593	141	1500	1588
PA-2	MF		23.70	711	198,916	138	556,966	387	895,124	622	1500	1887
PA-20			24.54	N/A	36,810	26	103,068	72	165,645	115	2500	2572
PA-21	MIXED COMM		4.10	N/A	6,156	4	17,237	12	27,702	19	2500	2512
PA-21			9.58	287	80,372	56	225,043	156	361,675	251	1500	1656
PA-22	MF		11.12	334	93,356	65	261,398	182	420,104	292	1500	1682
PA-22	MIXED COMM		4.77	N/A	7,151	5	20,021	14	32,177	22	2500	2514
PA-23			20.50	209	58,472	41	163,721	114	263,124	183	1500	1614
PA-24	SFD/SFA FLEX		13.24	118	33,043	23	92,446	64	148,558	103	1500	1563
PA-25			32.94	276	77,217	54	216,206	150	347,474	241	1500	1650
PA-26			35.55	N/A	42,660	30	119,448	83	191,970	133	3500	3583
PA-27			9.66	N/A	11,592	8	32,458	23	52,164	36	3500	3523
PA-28	IND-3.3.5.Y, IND-3.3.5.Z		44.61	N/A	53,532	37	149,890	104	240,894	167	3500	3604
PA-29			56.61	N/A	67,932	47	190,210	132	305,694	212	3500	3632
PA-3	SFA		6.95	76	21,388	15	59,888	42	96,248	67	1500	1542
PA-3	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2500	2503

The proposed Max Day + Fire Flow (gpm) with new user would generate approximately 2,563 gpm compared to 4,048gpm previously approved.

Water Demands

Map Area Code	Land Use	Total Acres	Proposed People	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA 26-PA29	Commercial	146.43	N/A	219,645	153	615,006	427	988,403	686	2500	2,927
PA 26-PA29	Commercial	146.43	200	20,200	14	90,900	63	988,403	686	2500	2,563

200 people is rounded up from the expected employment of 124 employees

Westwood



Please contact me if you have any questions.

Sincerely,

Tom Odle, PE
Senior Project Manager

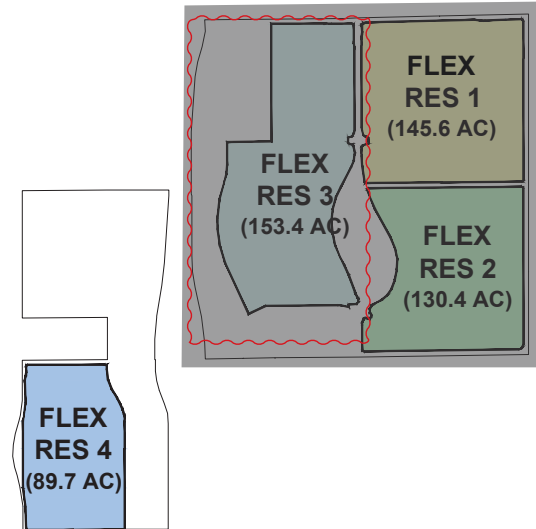


tab 8
LAND USE MAP AND MATRIX

WINDLER
MASTER PLAN

LAND USE MAP

KEYMAP



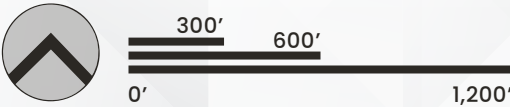
NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

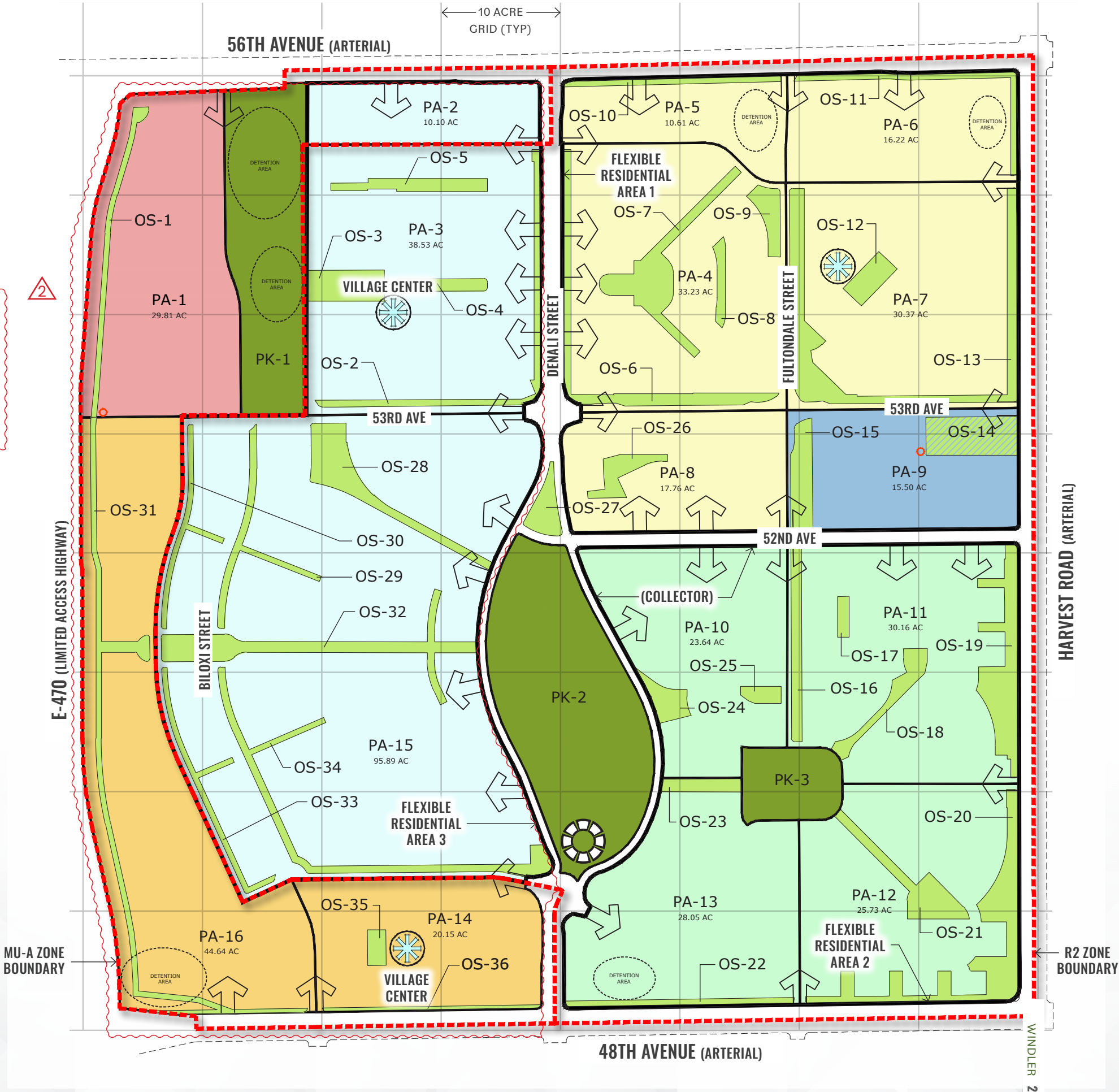
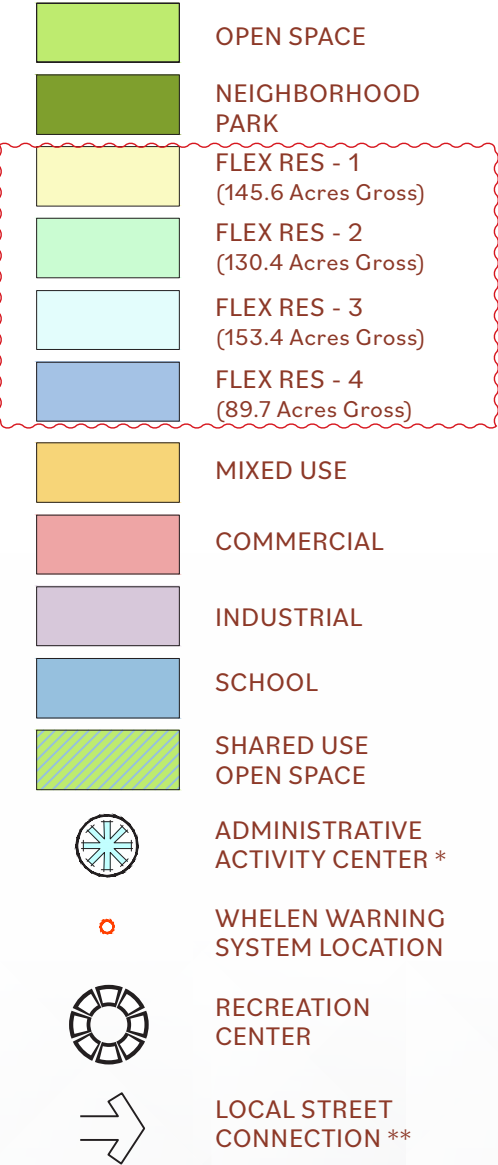
* The exact location of Administrative Activity Centers shall be determined at site plan submittal. Locations will comply with Section 146-5.4.3 unless an adjustment is approved by the Planning Commission

** Local street placement will be determined at time of site plan. Additional street connectivity may be required to meet the UDO standards

2 UPDATES TO PLANNING AREAS, OPEN SPACES & NEIGHBORHOOD BOUNDARIES

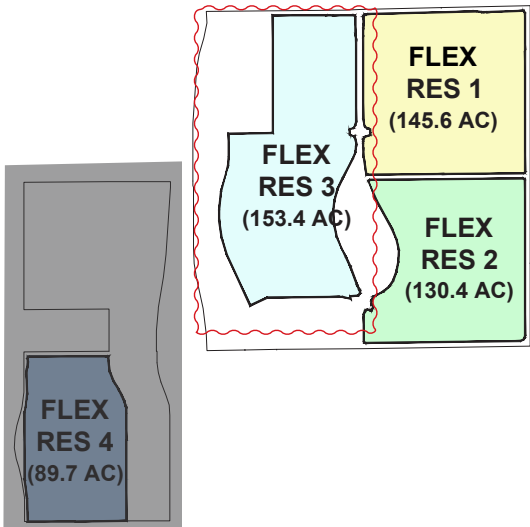


LEGEND

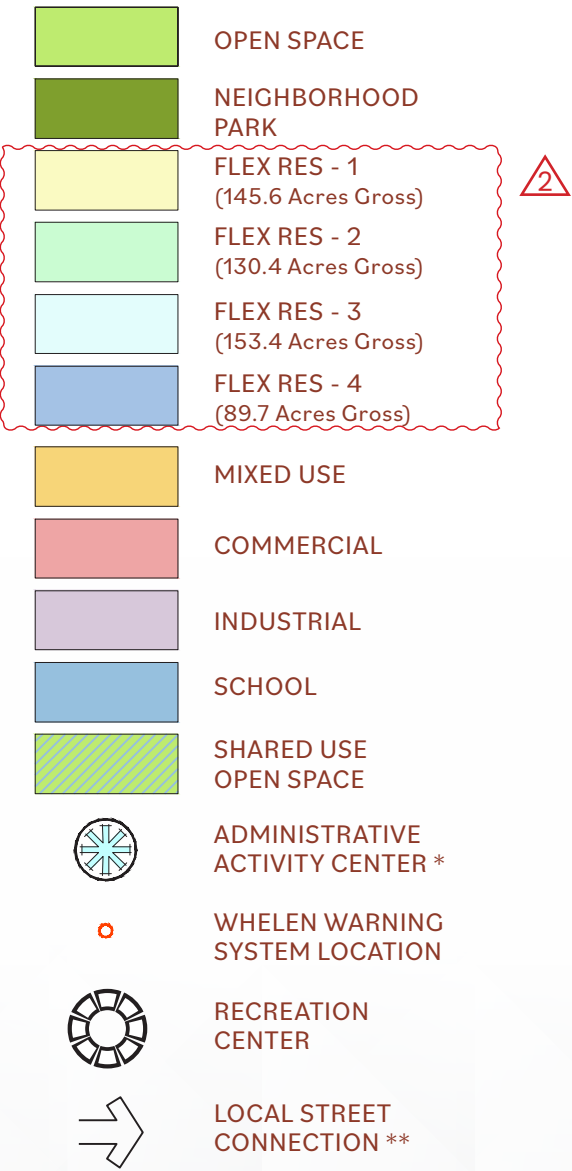


LAND USE MAP

KEYMAP



LEGEND



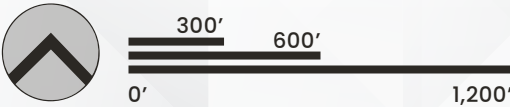
NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* The exact location of Administrative Activity Centers shall be determined at site plan submittal. Locations will comply with Section 146-5.4.3 unless an adjustment is approved by the Planning Commission

** Local street placement will be determined at time of site plan. Additional street connectivity may be required to meet the UDO standards

2 UPDATES TO PLANNING AREA I.D. NUMBERS



LAND USE MATRIX

FORM D: LAND USE MAP MATRIX							
A. Land Use Item	B. Planning Area Map Number	C. Map Area Code	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
1. Flood Plain Areas							
2. Required Land Dedication Areas for Parks, Fire Stations, Police Stations, Libraries	PA-9	SCHOOL	15.50		N/A	N/A	Combined with the co-located OS-14, Total School Site Area is 18.0 Acres; Includes Whelen Warning System Dedication
	OS-1	OPEN SPACE	1.46	7.8 ac/1,000 residents	N/A	N/A	
	OS-2	OPEN SPACE	2.15	7.8 ac/1,000 residents	N/A	N/A	
	OS-3	OPEN SPACE	1.68	7.8 ac/1,000 residents	N/A	N/A	
	OS-4	OPEN SPACE	0.76	7.8 ac/1,000 residents	N/A	N/A	
	OS-5	OPEN SPACE	1.22	7.8 ac/1,000 residents	N/A	N/A	
	OS-6	OPEN SPACE	3.09	7.8 ac/1,000 residents	N/A	N/A	
	OS-7	OPEN SPACE	3.03	7.8 ac/1,000 residents	N/A	N/A	
	OS-8	OPEN SPACE	0.53	7.8 ac/1,000 residents	N/A	N/A	
	OS-9	OPEN SPACE	0.90	7.8 ac/1,000 residents	N/A	N/A	
	OS-10	OPEN SPACE	1.10	7.8 ac/1,000 residents	N/A	N/A	
	OS-11	OPEN SPACE	1.62	7.8 ac/1,000 residents	N/A	N/A	
	OS-12	OPEN SPACE	0.91	7.8 ac/1,000 residents	N/A	N/A	
	OS-13	OPEN SPACE	5.65	7.8 ac/1,000 residents	N/A	N/A	
	OS-14	OPEN SPACE	2.50	7.8 ac/1,000 residents	N/A	N/A	Shared Use Open Space/ co-located with School Site (PA-9)
	OS-15	OPEN SPACE	1.61	7.8 ac/1,000 residents	N/A	N/A	
	OS-16	OPEN SPACE	1.43	7.8 ac/1,000 residents	N/A	N/A	
	OS-17	OPEN SPACE	0.33	7.8 ac/1,000 residents	N/A	N/A	
	OS-18	OPEN SPACE	1.21	7.8 ac/1,000 residents	N/A	N/A	
	OS-19	OPEN SPACE	3.66	7.8 ac/1,000 residents	N/A	N/A	
	OS-20	OPEN SPACE	5.04	7.8 ac/1,000 residents	N/A	N/A	
	OS-21	OPEN SPACE	1.97	7.8 ac/1,000 residents	N/A	N/A	
	OS-22	OPEN SPACE	1.16	7.8 ac/1,000 residents	N/A	N/A	
	OS-23	OPEN SPACE	0.79	7.8 ac/1,000 residents	N/A	N/A	
	OS-24	OPEN SPACE	0.95	7.8 ac/1,000 residents	N/A	N/A	
	OS-25	OPEN SPACE	0.45	7.8 ac/1,000 residents	N/A	N/A	
	OS-26	OPEN SPACE	0.99	7.8 ac/1,000 residents	N/A	N/A	
	OS-27	OPEN SPACE	1.02	7.8 ac/1,000 residents	N/A	N/A	
	OS-28	OPEN SPACE	2.81	7.8 ac/1,000 residents	N/A	N/A	
	OS-29	OPEN SPACE	1.36	7.8 ac/1,000 residents	N/A	N/A	
	OS-30	OPEN SPACE	0.94	7.8 ac/1,000 residents	N/A	N/A	
	OS-31	OPEN SPACE	3.42	7.8 ac/1,000 residents	N/A	N/A	
	OS-32	OPEN SPACE	3.78	7.8 ac/1,000 residents	N/A	N/A	
	OS-33	OPEN SPACE	1.18	7.8 ac/1,000 residents	N/A	N/A	
	OS-34	OPEN SPACE	3.07	7.8 ac/1,000 residents	N/A	N/A	
	OS-35	OPEN SPACE	0.46	7.8 ac/1,000 residents	N/A	N/A	
	OS-36	OPEN SPACE	0.59	7.8 ac/1,000 residents	N/A	N/A	
	OS-37	OPEN SPACE	0.50	7.8 ac/1,000 residents	N/A	N/A	
	OS-38	OPEN SPACE	2.72	7.8 ac/1,000 residents	N/A	N/A	
	OS-39	OPEN SPACE	1.05	7.8 ac/1,000 residents	N/A	N/A	
	OS-40	OPEN SPACE	2.10	7.8 ac/1,000 residents	N/A	N/A	
	OS-41	OPEN SPACE	1.90	7.8 ac/1,000 residents	N/A	N/A	
OPEN SPACE SUBTOTAL			73.09				Does not include School site (PA-9)
K-1 NEIGHBORHOOD PARK			17.38	3.0 ac/1,000 residents	N/A	N/A	8.5 Acres of Detention, 2.6 Acres Stormwater Quality
NEIGHBORHOOD			25.47	3.0 ac/1,000 residents	N/A	N/A	5,000 SF Community Center Facility
NEIGHBORHOOD			5.00	3.0 ac/1,000 residents	N/A	N/A	
NEIGHBORHOOD			14.77	3.0 ac/1,000 residents	N/A	N/A	17,700 SF public/private buildings
PARKS SUBTOTAL			62.62				

This figure does not match the credit outlined on the site plan.

PLANNING RESPONSE TO THIS COMMENT HAS BEEN ACKNOWLEDGED.

PARK TYPE SUMMARY TABLE

Park Type	Min. Size	Qualifies for	Unique/Standards
Neighborhood Park	5 acres to be eligible for dedication	Park Credit	PROS Standards
Pocket Park	Min. 1/2 acre, Max 5 acres	Park or Open Space Credit	PROS Standards
Mini Park	Min. 1/2 acre	Open Space Credit & 800' FRLO requirement	PROS Standards
Local Park	Min. 10,000 sq.ft.	Open Space Credit & 800' FRLO Requirement	WINDLER Standards
Linear Park	Min. 15,000 sq.ft.	Open Space Credit & 800' FRLO Requirement	WINDLER Standards
Parklet	Less than 10,000 sq.ft.	800' FRLO Requirement	WINDLER Standards

tab 8

LAND USE MATRIX

FORM D: LAND USE MAP MATRIX

A. Land Use Item	B. Planning Area Map Number	C. Map Area Code	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
3. Development Areas	PA-1	MIXED COMM	29.81	N/A	N/A	324,000 SF	MU-A Zone District; Includes Whelen Warning System Dedication
	PA-14	SFD/SFA	2.15	40 DU/AC	86 DU	86 DU	MU-A Zone District;
		MF	8	40 DU/AC	320 DU	320 DU	10.0 Acre Activity Center Designation (MU-C)
		COMMERCIAL	10.00	N/A	N/A	130,000 SF	
	PA-16	MIXED COMM	34.64	N/A	N/A	378,000 SF	MU-A Zone District
		MF	10.00	40 DU/AC	400 DU	345 DU	MU-A Zone District
	FLEXIBLE RESIDENTIAL AREA 1 *	FLEXIBLE RESIDENTIAL	108.19	12.0 du/ac	1,298	1,294	Flexible Residential Lot Option Designation
	PA-4	SFD/SFA-FLEX	33.23	N/A	N/A	316 DU	
	PA-5	MF	10.61	N/A	N/A	228 DU	Detention area excluded
	PA-6	MF	16.22	N/A	N/A	322 DU	Detention area excluded
	PA-7	SFD/SFA-FLEX	29.87	N/A	N/A	269 DU	0.5 Acre Activity Center Designation (MU-N)
		COMMERCIAL	0.50	50,000 GFA	50,000 GFA	5,000 SF	
	PA-8	SFD/SFA-FLEX	17.76	N/A	N/A	160 DU	
	FLEXIBLE RESIDENTIAL AREA 2 *	FLEXIBLE RESIDENTIAL	107.58	12.0 du/ac	1,291	1,094	Flexible Residential Lot Option Designation
	PA-10	SFD/SFA FLEX	23.64	N/A	N/A	185 DU	
	PA-11	SFD/SFA FLEX	30.16	N/A	N/A	206 DU	
	PA-12	SFD/SFA FLEX	25.73	N/A	N/A	205 DU	
	PA-13	SFD/SFA FLEX	21.55	N/A	N/A	160 DU	
		MF	6.5	N/A	N/A	338 DU	
	FLEXIBLE RESIDENTIAL AREA 3 *	FLEXIBLE RESIDENTIAL	144.34	12.0 du/ac	1,732	1,187	Flexible Residential Lot Option Designation
	PA-2	MF	10.10	N/A	N/A	303 DU	MU-A Zone District
	PA-3	SFD/SFA FLEX	36.35	N/A	N/A	400 DU	2 Acre Activity Center Designation (MU-N)
		COMMERCIAL	2.00	50,000 GFA	50,000 GFA	25,000 SF	
	PA-15	SFD/SFA FLEX	92.89	N/A	N/A	697 DU	
		MF	3	N/A	N/A	90 DU	
	FLEXIBLE RESIDENTIAL AREA 4 *	FLEXIBLE RESIDENTIAL	66.68	12.0 du/ac	800	567	Flexible Residential Lot Option Designation
	PA-23	SFD/SFA FLEX	20.50	N/A	N/A	209 DU	
	PA-24	SFD/SFA FLEX	13.24	N/A	N/A	118 DU	
	PA-25	SFD/SFA FLEX	32.94	N/A	N/A	240 DU	
	PA-17	IND	35.55	N/A	N/A	2200000 ¹ / 3300000 ²	Includes Whelen Warning System Dedication, AD Zone District
	PA-18	IND	9.66	N/A	N/A		AD Zone District
	PA-19	IND	44.61	N/A	N/A		AD Zone District
	PA-20	IND	THESE NOTES HAVE BEEN UPDATED		N/A		AD Zone District
4. Total Map Acreage							
5. Less 1/2 Perimeter Streets Not Owned by Applicant							
6. Applicant's Acreage Listed in Application			852.08				
7. Total Flood Plain Acreage			0				
8. Total Adjusted Gross MP Acreage			852.08				

Don't forget these footnotes.

2UPDATES TO PLANNING AREA UNIT COUNTS, NON-RESIDENTIAL ANALYSIS

REVIS

2This was listed as 276 in the previously approved plan. Do not include unnecessary changes, as it skews the numbers and makes comparison of the changes distorted. If you want to note actual vs. proposed you may do so in the letter of introduction/analysis of approval.

NOTE:

1. PLANNING AREAS 21-22 WERE ELIMINATED FROM THE WINDLER MASTER PLAN AS THEY WERE NO LONGER NEEDED.

2. PLANNING AREAS 23-25 ARE ASSOCIATED WITH APPROVED DOCUMENTS WITH THE CITY OF AURORA AND SO REMAIN A PART OF THE WINDLER MASTER PLAN.

2

MU-A ZONE DISTRICT RESIDENTIAL ANALYSIS	
MU-A Zoned Acreage	135.296 Acres
Maximum Residential Acreage by Code	67.648 Acres
Maximum SFD Residential Acreage by Code	33.824 Acres

Note: The intent with the MU-A Residential Analysis is to define the maximum acreage of Single Family Detached allowed within the MU-A zone district per City of Aurora Code

WHELEN WARNING SYSTEM REQUIREMENTS:

THE FEMA REQUIREMENT FOR OUTDOOR EMERGENCY WARNING SYSTEMS IS A 60-70 FOOT MONOPOLE TOWER USING AN ALERT SIREN. THE CITY OF AURORA USES THE WHELEN SIREN SYSTEM. THE LAND REQUIREMENT FOR THE TOWER IS A 10' X 10' EASEMENT. EACH SIREN COVERS APPROXIMATELY 3,000 RADIAL FEET AT 70 DB AND IS TYPICALLY SPACED ONE SIREN PER SQUARE MILE. IN NEWLY ANNEXED/DEVELOPING AREAS OF THE CITY, SIRENS SHOULD BE SITED ON EVERY ½ SECTION OF GROUND (320 ACRES) OR 6000 FEET APART TO PROVIDE EDGE TO EDGE COVERAGE. THE EXACT PLACEMENT OF SIRENS WILL BE DETERMINED BY THE CITY OF AURORA'S OFFICE OF EMERGENCY MANAGEMENT TO ENSURE THAT COORDINATED COVERAGE IS PROVIDED ON A SYSTEM-WIDE BASIS. FOR SPECIFIC QUESTIONS, THE OFFICE OF EMERGENCY MANAGEMENT CAN BE REACHED AT 303-739-7636 (PHONE), 303-326-8986 (FAX), OR (EMAIL) AFD_OEM@AURORAGOV.ORG.

NUMBERS REFLECT ONLY CHANGES TO MIDTOWN/VILLAGE NORTH

Ensure that these numbers only reflect changes needed to address the zoning map amendments and village north/midtown neighborhoods.

tab 8
LAND USE MATRIX

FORM D: LAND USE MAP MATRIX					
A. Land Use Item	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
9. Total SFD planning areas	N/A	2.65 persons per unit	N/A	1,300	Estimated Residents = 3,445
10. Total SFA planning areas	N/A	2.65 persons per unit	N/A	1,950	Estimated Residents = 5,168
11. Total MF planning areas	N/A	2.50 persons per unit	N/A	1,946	Estimated Residents = 4,865
12. Total Residential	444.44	N/A	N/A	5,196	Estimated Residents = 13,477
13. Check for average residential density in each subzone	852.08	6 DU/AC	N/A	5,196	
14. Small Lot Total			N/A		
15. Check for maximum allowable number of multifamily units in each subzone			N/A		
16. Total Retail	0	N/A	TBD	-	
17. Total Office	0	N/A	TBD	-	
18. Total Industrial	146.43	N/A	TBD	2,200,000 ¹ / 3,300,000 ²	
19. Total Mixed Commercial	64.45	N/A	N/A	702,000	
20. Total Commercial	12.50	N/A	N/A	160,000	
21. Total Neighborhood Park Land	62.62 **	3.0 acres / 1000 residents	N/A		Required Land Dedication = 40.43
22. Total Community Park Land	0.00	1.1 acres / 1000 residents	N/A		Required Land Dedication = 14.82
23. Total Open Space Land	73.09 ***	7.8 acres / 1000 residents	N/A		Required Land Dedication = 105.12
24. Total Park & Open Space Land	135.71		N/A		Required Land Dedication = 160.38

* Contiguous Area related to Flexible Residential Lot Option Areas shall also include the Open Space and Park acreage found within their boundaries, as displayed in the Land Use Map.

** Dedication acreage provided in excess of required Neighborhood Park Land shall be applied to Open Space Land Dedication requirements.

*** Additional Open Space Land Dedication to be provided internal to Planning Areas at time of Site Plan - as outlined in Tab 9: Form J.

1. If IND - then 2,200,000 SF.
2. If Data Center - then 3,300,000 SF.
NOTE: In the case of Planning Areas 17, 18, 19, and 20 potentially being developed for a Data Center all dimensional standards will be accommodated including required setbacks, parking, loading, landscaping, screening, buffering, fire access, refuse/ recycling as outlined in the City of Aurora’s Unified Development Ordinance.”

STANDARD MP NOTES

1. Traffic Signal Costs. Owner and/or developers are responsible for the cost of traffic signals for interior intersections. The cost of signals at perimeter intersections will be prorated. Signal locations and cost sharing will be determined by the City.
2. Street Lights. Streetlights must be constructed along all streets within the project area.
3. Archeological finds. The owner, developer and/or contractors will notify the City of any archeological finds during construction.
4. Parks. Neighborhood park sites shall not exceed 3 percent maximum finished area of the total site area.
5. Residential Density Reductions. The developer has the right to build at a lower density than the MP standard if the City has determined that the use is permitted and compatible with surrounding land uses. A finding of compatibility will be determined at the time of preliminary plat or site plan review. This reduction shall be considered an administrative MP amendment.
6. Master Drainage Plan. No subdivision shall be approved prior to the City’s approval of the Master Drainage Plan. In the event of any plan conflicts with the MP, including, but not limited to, the size, location and regional detention ponds and/or drainage way locations, cross sections and widths, the Master Drainage Plan, as approved by the City, shall govern. Drainage ponds drop structures and other facilities are subject to preliminary plat or site plan review.
7. 404 Permit. The developer is responsible to comply with any requirements of the Army Corps of Engineers (if any) with regards to 404 permitting and wetlands mitigation.
8. The developer is responsible for construction of all on-site and off-site infrastructure needed to establish two points of emergency access to the overall site and each internal phase of construction. This requirement includes, but is not limited to, the construction of any emergency crossings improvements, looped water supply and fire hydrants as required by the adopted fire code and city ordinances.
9. The Master Utility Study, Master Drainage Study and Master Transportation Study are incorporated as a part of the MP. Final approval of these documents is required before acceptance of an application for the first within the project.
10. Landscaping Standards. Unless otherwise noted herein in an adjustment, the landscaping standards outlined in the UDO apply to this MP. Where the standards outlined in the UDO conflict with standards within this MP, the more restrictive shall apply.
11. Future Amendments. Any future amendments to architecture, landscape architecture and other urban design standards and related drawings must demonstrate an equal or better quality than the approved MP standards.
12. MP Adjustments. Except for any adjustments listed below, this MP will be interpreted to mean that all standards contained in the MP will meet or exceed all city code requirements.
13. Design Standards. An MP amendment as per the requirements of Sections 3.9, 3.12, 3.13 and 3.14 of the MP Manual will be required to be submitted either with the application for the MP or as an amendment to the MP to be submitted with the application for the first Site Plan in the development.
14. Major arterial medians to be publicly maintained shall be designed and constructed in accordance with PROS Public Median Standards. (These policies are pending completion.)
15. Major arterial medians to be privately maintained shall be designed and constructed in accordance with P&OSD Private Median Standards. (These policies are pending completion.)

tab 9
**OPEN SPACE, CIRCULATION,
AND NEIGHBORHOOD PLAN**

WINDLER

MASTER PLAN



tab 9

PARKS AND OPEN SPACE REQUIREMENTS

PROJECTED POPULATION

Single Family Detached Dwelling Units	1,300 units
Single Family Attached Dwelling Units	1,950 units
Multi Family Dwelling Units	1,946 units
Total Dwelling Units	5,196 units
Single Family Detached Residents (2.65 residents / dwelling)	3,445 residents
Single Family Attached Residents (2.65 residents / dwelling)	5,168 residents
Multi-Family Residents (2.50 residents / dwelling)	4,865 residents
Total Residents	13,477 residents

REQUIRED PARKS & OPEN SPACE DEDICATIONS

Neighborhood Parks (3.0 acres / 1,000 residents)	40.43 acres
Community Parks (1.1 acres / 1,000 residents)	14.82 acres
Open Space (7.8 acres / 1,000 residents)	105.12 acres
Total Required Parks and Open Space Dedication	160.38 acres

PROVIDED PARKS & OPEN SPACE

Neighborhood Parks	62.62 acres*
Community Parks	0.00 acres
Open Space	73.09 acres**
Parks and Open Space Provided from Tab 8	135.71 acres
Additional Open Space in Form J	29.30 acres
Total Master Plan Parks & Open Space	165.01 acres

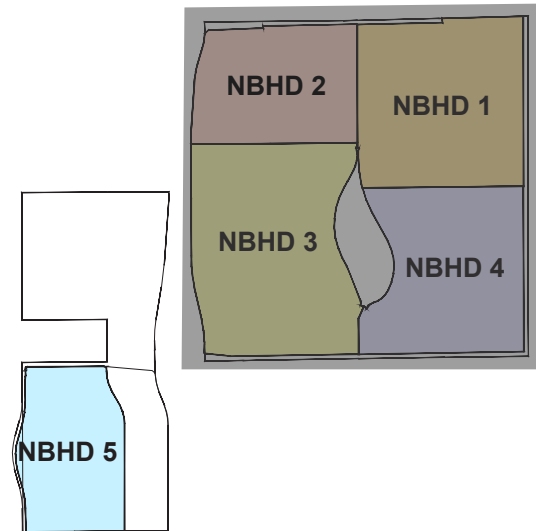
NOTES

- * Dedication acreage provided in excess of required Neighborhood Park Land shall be applied to Open Space Land Dedication requirements.
- ** Should Net Acreage not sufficiently meet required open space dedication, additional Open Space dedication shall be provided internal to Planning Areas at time of Site Plan - see additional information in Form J.
- *** Required Community Park acreage to be met cash-in-lieu. Any cash-in-lieu of land dedication may be paid plat by plat and is not subject to be paid in full at the time of the first final plat.

**** All PROS dedications shall be determined at time of Final Plat.

OPEN SPACE AND CIRCULATION PLAN

KEYMAP



NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

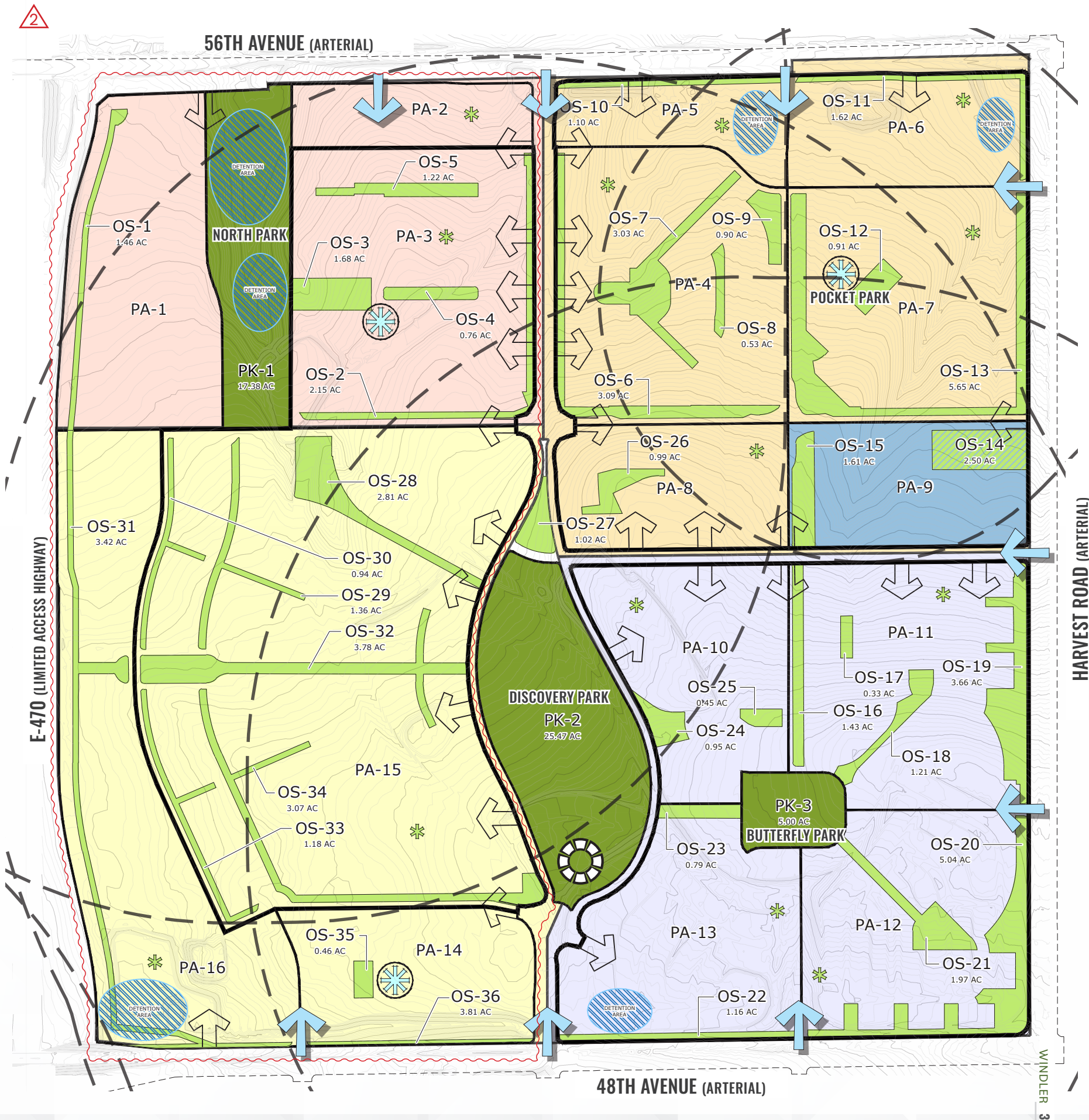
* Per PROS, a 1/4 mile service area shall apply to a pocket park provided to fill in a gap that is unserved by a neighborhood park.

** Future Open Space to be determined at Site Plan. Open Space locations may shift within Planning Area; Refer to Form J

*** Local street placement will be determined at time of site plan.

LEGEND

- OPEN SPACE
- CO-LOCATED OPEN SPACE
- NEIGHBORHOOD PARK
- DETENTION
- SCHOOL
- WINDLER EAST (Neighborhood 1)
- VILLAGE NORTH (Neighborhood 2)
- VILLAGE SOUTH (Neighborhood 3)
- BUTTERFLY PARK (Neighborhood 4)
- 1881 (Neighborhood 5)
- RIGHT-OF-WAY
- NEIGHBORHOOD PARK SERVICE AREA *
- ADMINISTRATIVE ACTIVITY CENTER
- FUTURE OPEN SPACE **
- PRIMARY ENTRY
- RECREATION CENTER
- LOCAL STREET CONNECTION ***

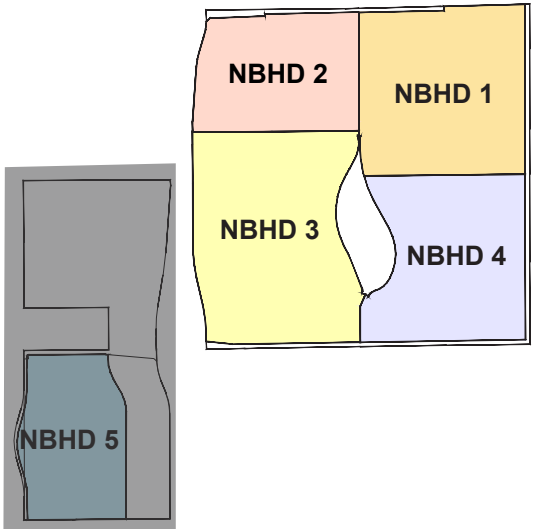


2 UPDATES TO PLANNING AREAS, PARKS AND OPEN SPACES



OPEN SPACE AND CIRCULATION PLAN

KEYMAP



NOTES

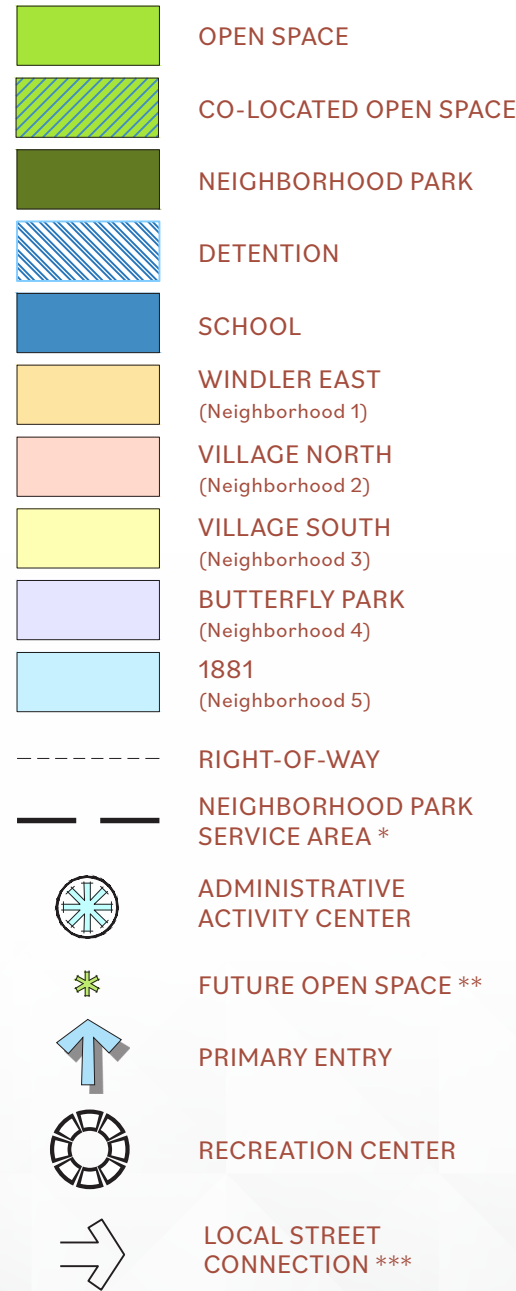
Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* Per PROS, a 1/4 mile service area shall apply to a pocket park provided to fill in a gap that is unserved by a neighborhood park.

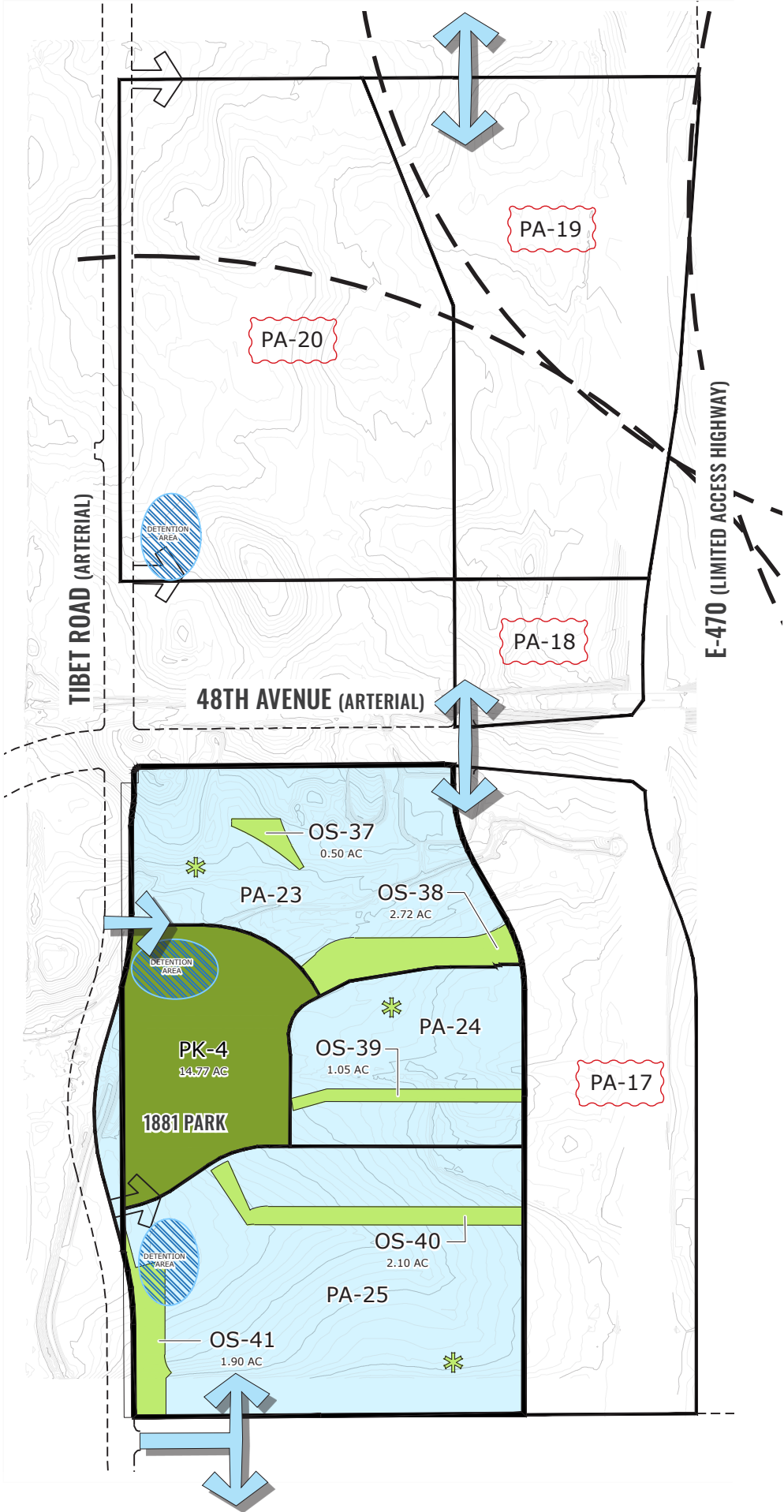
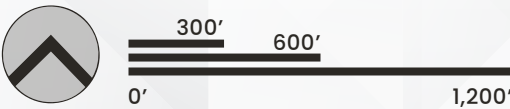
** Future Open Space to be determined at Site Plan. Open Space locations may shift within Planning Area; Refer to Form J

*** Local street placement will be determined at time of site plan.

LEGEND



UPDATES TO PLANNING AREA I.D. NUMBERS

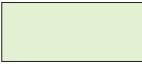






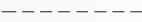


Pedestrian Circulation Diagram

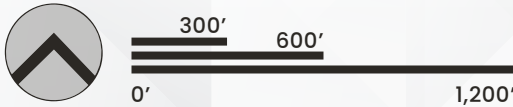
Windler is fundamentally founded on the notion that a well-connected community that leverages all forms of movement will result in a stronger and healthier community. We embrace the fact that people need the ability to employ multiple modes of transportation to lead complete lives, but it is important to note that the more you isolate each mode the more you encourage high speeds and the sense of entitlement for the use of any particular facility. At Windler we seek to create an integrated network of streets, passages and connections that support all modes of movement while maximizing safety and promote a culture of shared and respectful use. All of our streets, sidewalks, alleys, and paseos are designed to amplify the notion that the whole of Windler is a park. Whether you live in or visit Windler, your experience will be rich and diverse, safe and intuitive. The Windler streetscape character has been intentionally designed to respect and enhance the intra-community movements, but it seeks to dissolve the traditional notion of what a street is and how it should look and more importantly how it feels and functions.

The objective is to transition from thinking of streets as separate from the rest of the destination-oriented places in Windler and think of them simply as an integral part of it. For example, the traditional streetscape recipe of transitioning from auto street to tree lawn to sidewalk to house as separate parts into the notion that the entire environment is a hierarchy of movement through a system of linear garden promenades. Every front yard landscape is designed to compliment the curbside landscape to form one singular garden experience that is integral with all of the parks, urban places and open spaces. With that, each neighborhood has characteristics that have been amplified to create distinction and variety.

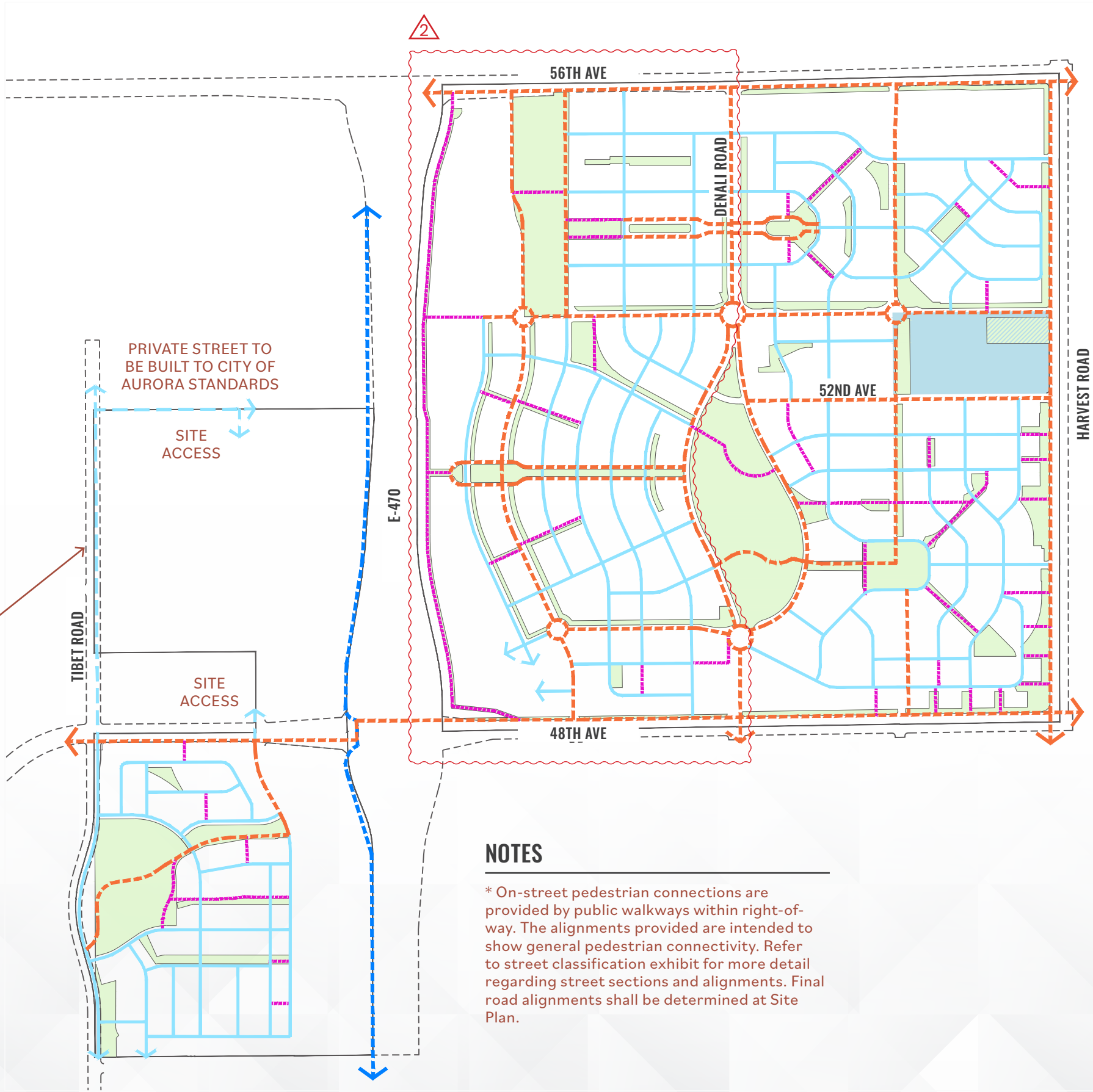
LEGEND

-  PARKS & OPEN SPACE
-  SCHOOL
-  CO-LOCATED OPEN SPACE
-  HIGH PLAINS TRAIL
-  PRIMARY CONNECTION
(10' width or as included in the Urban Street Frontage)
-  OFF-STREET PEDESTRIAN TRAIL
(6' - 8' width)
-  ON-STREET PEDESTRIAN CONNECTION*
-  RIGHT-OF-WAY

 UPDATES TO PEDESTRIAN AND PARKS NETWORK



CONNECTIONS TO
MINOR ARTERIAL WILL BE
DESIGNED AND BUILT BY
OTHERS

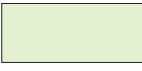








NOTES

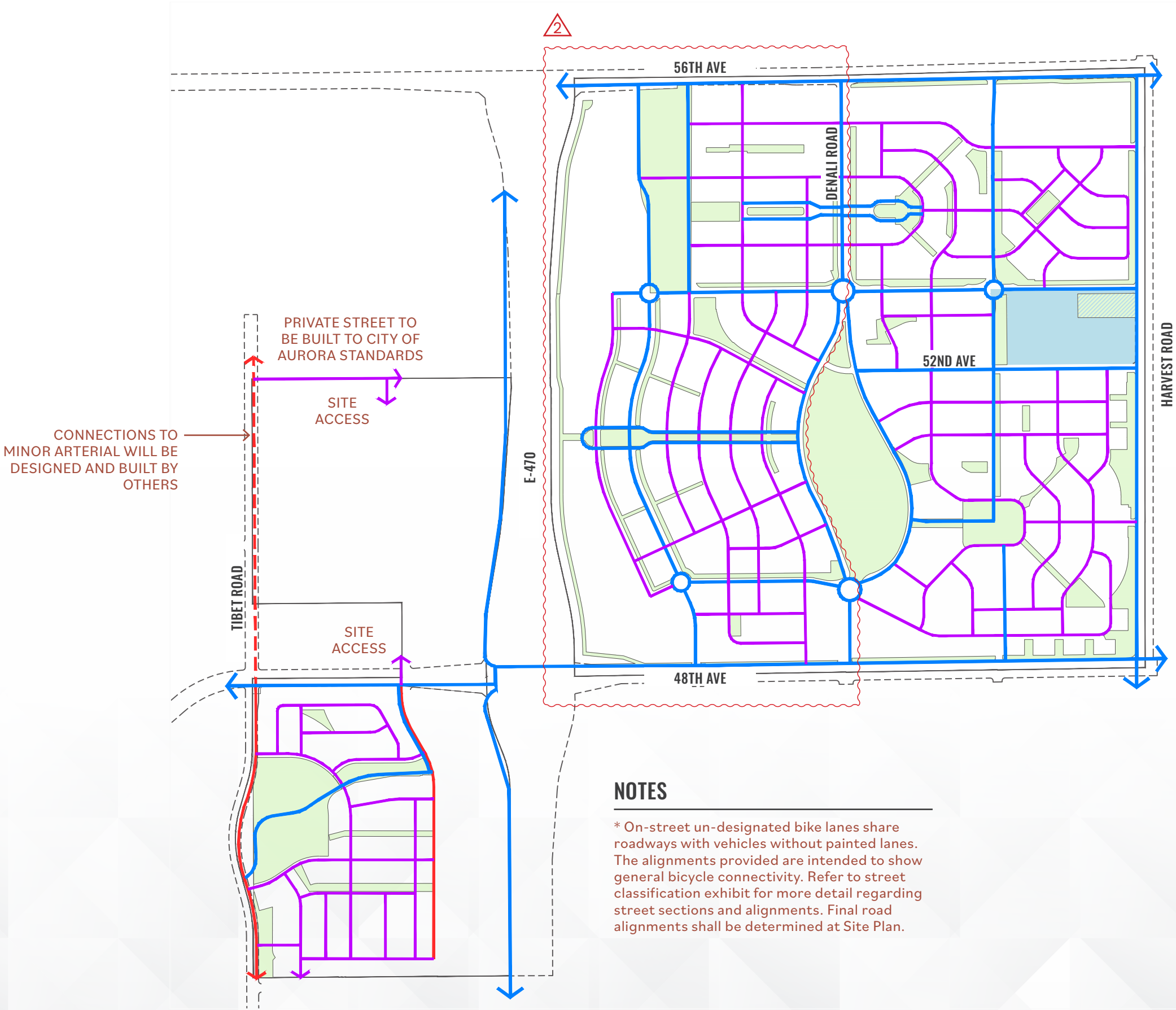
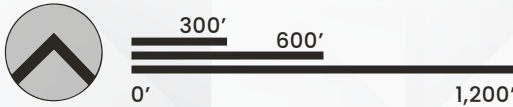
* On-street pedestrian connections are provided by public walkways within right-of-way. The alignments provided are intended to show general pedestrian connectivity. Refer to street classification exhibit for more detail regarding street sections and alignments. Final road alignments shall be determined at Site Plan.

Bicycle Connectivity Diagram

LEGEND

-  PARKS & OPEN SPACE
-  SCHOOL
-  CO-LOCATED OPEN SPACE
-  OFF STREET MULTI-USE PATH
-  ON-STREET DESIGNATED BIKE LANE
-  ON-STREET UN-DESIGNATED BIKE PATH *
-  RIGHT-OF-WAY

 UPDATES TO BICYCLE AND PARKS NETWORK



NOTES

* On-street un-designated bike lanes share roadways with vehicles without painted lanes. The alignments provided are intended to show general bicycle connectivity. Refer to street classification exhibit for more detail regarding street sections and alignments. Final road alignments shall be determined at Site Plan.

PUBLIC REALM FRAMEWORK

LEGEND

- PERIMETER LOOP
- WINDLER LOOP
- BUTTERFLY PARK
- LONGS PEAK CORRIDOR
- DISCOVERY PARK
- 1881 PARK
- PEDESTRIAN CONNECTIONS

The Places that project the Windler character and ethos

These values and objectives are what the public realm of Windler is intending to project. To this end, the plan features a bold and recognizable framework where the programming, design expression and materiality will reveal these principles and establish a recognizable ‘Windler character’ and ethos. The following places are what define the Windler character and ultimately what Windler will be known for;

1. The first step is to establish a bold perimeter landscape that sets the tone of Winder through the articulation of a striking native landscape, project monumentation and amenities such as trails, overlooks and points of respite that allow residents to navigate and activate the 4-mile project perimeter.
2. The next layer in framework is the Denali Street/Discovery Park urban core. This signature park and boulevard marks the physical and social heart of Windler and will embody all the values and aspirations of the Windler community.
3. The Windler Loop, is a 1-mile square (loop) linear park that interconnects and links four of Windler’s neighborhoods. This linear park is intended to not only connect the various neighborhoods, but also to celebrate movement, social connection, health and fitness as a core value of the Windler community.
4. Marking the highest point of the Windler development is the Butterfly Park. This significant Park will serve as a local neighborhood park and a Windler wide destination simultaneously as it will offer special programming, art and design character that is intended to one of those special Windler scale destinations for social engagement.
5. The Longs Peak Seam is a linear seam that runs through the Butterfly Park Neighborhood, the Discovery Park, and the borders both the village North and Village South neighborhoods. This interesting Windler feature brings into focus the connection of mountain and plain what it means to live along the front range of Colorado.
6. The 1881 Park- is a special place where Windler residents and visitors will enjoy and learn about our Agrarian past and how that will evolve into our agrarian future. This will also be a place of gathering and community celebration.



2 UPDATES TO PEDESTRIAN AND PARKS NETWORK

NEIGHBORHOOD PLAN

Fundamental to understanding the character of Windler’s distinct neighborhoods, we first must understand the structure of the public realm. The formal characteristics of the Windler development are founded on a few simple but bold design gestures that create a framework for the public realm system as a whole and simultaneously contrast with each distinct and interesting neighborhood. Fundamentally, the character and ethos of Windler can be experienced through its perimeter (arterial edges), the Denali couplet/Discovery Park and the 1-mile long Windler Loop. Conversely, the various interconnected Neighborhood parks, small urban parks and paseos will be designed to celebrate the distinctions between the 5 neighborhoods while maintaining an underlying Windler sense of quality and place.

WINDLER EAST (Neighborhood 1)

East of Denali Street, south of East 56th Avenue and west of Harvest Street is the Windler East Neighborhood. Similar to the Village North Neighborhood, Windler East is organized around the central Green Line Park that features adjacencies to perimeter linear park connectors, a 17-acre school site and the Windler Loop linear park. The western half of the neighborhood’s street network is designed to create a radial synergy with the central and formal neighborhood park that will offer residents and visitors a socially engaging ‘living room’ space that features shade pavilions, edge gardens, BBQ and open lawn for games and neighborhood scale events. From the park, extending to the north-east and the south-east are linear park links that draw residents from outer blocks into the heart of the Windler East neighborhood. In contrast, the eastern half of Windler East is defined by a street network that generally runs 45 degrees to the north-south collectors offering an interesting neighborhood block character where the streets align to distant mountain views. Anchoring the eastern half of Windler East, is a one-acre family-oriented pocket park that is adjacent to a small neighborhood scale retail site that is intended to offer a daycare center or a coffee shop opportunity that will further enhance the social fabric of Windler East. Like the Village North Neighborhood, Windler East will offer a wide array of housing products from high density 3 to 4-story multifamily apartments along 56th Ave. to more traditional single-family detached blocks moving south.

Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached front loaded, single family detached and attached in green court.

VILLAGE NORTH (Neighborhood 2)

The Village North neighborhood is bound by the ‘North Park’ detention and recreation area to the west, Denali Street to the east, East 56th Avenue to north and 53rd Avenue to the South, is formed by a traditional north-south / east-west street grid featuring a wide array of housing types and densities that offer residents a walkable urban structure and a highly social, community centric lifestyle. The neighborhood is anchored by a

central ¾ mile long east/west open space spine that extends from North Park on the west through the Windler East Neighborhood and terminates one block beyond Fultondale Street at a neighborhood park and small Administrative Activity Center within Windler East. The spine links together a series of distinct small urban neighborhood parks, public gardens and plazas environments that are designed to amplify social engagement and encourage movement and fitness within an atmosphere that is unique to the Village North Neighborhood. The Green Line Park will showcase a full breadth of seasonal interest expressed thru a series of adaptable park environments, attractions and programable event space. Our intent is to deliver rich and diverse experiences that attract residents of Village North, other neighborhoods within Windler, as well visitors to Windler. Juxtaposed to The Green Line, will be a charming main street environment that organically integrates small scale mixed-use buildings into the residential block fabric. Similar streets for reference are Gaylord or South Pearl Streets in Denver. The Village North Neighborhood will offer a wide array of alley loaded residential typologies that transition from higher densities in the north including multi family apartment along 56th Ave. and attached single family products (2 and 3-story townhomes and paired homes) transitioning to lower density single family detached in the southeastern portion of the neighborhood.

Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached front loaded, single family detached and attached in green court

VILLAGE SOUTH (Neighborhood 3)

Perhaps the most urban in character and dense, the Village South Neighborhood that is bound by Discovery Park to the east, East 48th Avenue to the south and 53rd Avenue to the north, offers a tapestry of distinct sub-districts that are unified by a clear and recognizable system of linear connector parks, including the Windler Loop, paseos, green courts, a north-west oriented drainage way park that links the Butterfly Park Neighborhood, Discovery Park to the North Park open space and detention ponds. In contrast, the generally gridded street network links traditional neighborhood blocks to both the Discovery Park and a dynamic retail-oriented village (north of East 48th Avenue). Residents and visitors can enjoy an array of boutique shops, restaurants, a small grocer, retail pad sites, hotels and dense residential products that together form a walkable and distinctive urban village. The Village South neighborhood will offer a wide array of residential types including alley loaded and front-loaded single family residential products, alley loaded paired products as well as various types of rear loaded single family attached products, surface and potentially podium parked stacked flats.

Potential product type summary: Multi Family 3 to 4-story Apartments, Live/work, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached and attached in green court.

NEIGHBORHOOD PLAN

BUTTERFLY PARK (Neighborhood 4)

The Butterfly Park Neighborhood boasts the Highest point within the Windler Development which features spectacular views of the entire Rocky Mountain Front Range. To capitalize on this defining feature, the Butterfly Neighborhood Park has been strategically positioned at this high point to not only capture the dramatic views, but to also attract residents and visitors to its amenities, gardens, and art. The park is supported by a radial street and open space network that emits from the Butterfly Park at distinct angles to align with incredible views of the Rocky Mountain Front Range and specifically the view to Longs Peak. This street network continues through the neighborhood providing access to community highlights such as Discovery Park, the Community Center, the school site and the retail district of the Village South neighborhood. The Butterfly Park Neighborhood is bound by E.48th avenue to the South, Denali/Discovery Park to the west, Harvest Street to the east and roughly 53rd Avenue/the school site to the north. The promontory grades of this neighborhood, and specifically the Butterfly Park, afford this neighborhood’s street network a more radial structure, resulting in diverse streetscape experiences, and intimate and expanded viewsheds. Adjacent and east of the Community Center within Discovery Park is a dense urban residential center that serves to link the destinations of the Village South Town Center with the residential blocks of the Butterfly Park Neighborhood in an interesting, diverse pedestrian friendly route. The neighborhood offers a wide array of residential products that include both alley loaded single family attached and detached products stacked flats, paired homes and other boutique uses such as a hotel and support retail adjacent to the Butterfly Park. Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached and attached in green courts.

1881 (Neighborhood 5)

Centered on the hallmark 1881 Park, the 1881 Neighborhood character can be defined by the rich traditions of our agrarian past, present and future. The defining open spaces include the 1881 Park which includes many activities centered on agriculture, community gathering, food production, education, and two distinct linear greenways that will harness the story of storm water management/water quality, permaculture, and the benefits of community-oriented agriculture. The street network is efficient with small blocks which respond to the character of the park and the drainage infrastructure that pushes thru the site. Potential product type summary: This neighborhood features many distinct housing types including alley loaded single family detached, alley loaded single family attached units, street loaded single family units, paired homes and motor court single family detached units that are all intended to express a village character and embrace the agrarian themes expressed throughout the 1881 park network.

FORM F-2			
NEIGHBORHOOD	DISTINGUISHING CHARACTERISTICS		
	URBAN DESIGN	LANDSCAPE	ARCHITECTURE
NEIGHBORHOOD 1	Organized by a unique pedestrian circulatory system, focused on a prominent east-west park connection.	Primarily composed of the Residential Landscape Typology	A diversity of product types and architectural styles
NEIGHBORHOOD 2	Integrates a mix of uses within a walkable urban grid structure. Oriented around a walkable Main Street this neighborhood is also focused on a prominent east-west park connection which terminates on the ‘North Park’ detention and recreation area.	Composed of a mix of the Urban and Residential Landscape Typologies	A diversity of product types and architectural styles. To feature a higher proportion of commercial/ mixed use storefronts.
NEIGHBORHOOD 3	A mixed-use urban core surrounded by distinct sub-districts characterized by more traditional land uses.	Composed of a mix of the Urban and Residential Landscape Typologies	A diversity of product types and architectural styles. To feature a higher proportion of commercial/ mixed use storefronts.
NEIGHBORHOOD 4	Organized around a promontory park, a radial circulatory network highlights views to the Front Range and creates unique connections to Discovery Park and the Village South Town Center.	Primarily composed of the Residential Landscape Typology	A diversity of product types and architectural styles
NEIGHBORHOOD 5	Defined by proximity to 1881 Park, the neighborhood is organized by pedestrian corridors connecting through the community to the park.	Composed of the Residential Landscape Typology	A diversity of product types and architectural styles

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-1 OPEN SPACE	Trail Corridor / Parklet **	1.46	1.29	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-1).
OS-2 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	2.15	1.69	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-3 OPEN SPACE	Pocket Park - Refer to PROS Standards	1.68	1.61	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-4 OPEN SPACE	Pocket Park - Refer to PROS Standards	0.76	0.76	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-5 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.22	1.13	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-6 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	3.09	2.70	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-7 OPEN SPACE	Pocket Park - Refer to PROS Standards	3.03	2.54	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).

2 UPDATES TO OPEN SPACE ACREAGE, PARK TYPE & TRIGGER FOR CONSTRUCTION

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-8 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.53	0.47	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-9 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.90	0.90	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-10 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.10	1.10	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-5).
OS-11 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.62	1.56	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-6).
OS-12 OPEN SPACE	Pocket Park - Refer to PROS Standards	0.91	0.91	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
OS-13 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	5.65	5.11	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
OS-14 OPEN SPACE	School Co-located Park Space - to be designed by Aurora Public Schools	2.50	2.50	Aurora Public School District	Open Space to be completed with completion of adjacent Planning Area (PA-9).
OS-15 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.61	1.61	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-9).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-16 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	1.43	1.26	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-17 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.33	0.33	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-18 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.21	0.97	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-19 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	3.66	3.66	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-20 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	5.04	5.04	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
OS-21 OPEN SPACE	Pocket Park - Refer to PROS Standards	1.97	1.78	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
OS-22 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).
OS-23 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	0.79	0.79	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).

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OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-24 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.95	0.95	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).
OS-25 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.45	0.45	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).
OS-26 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.99	0.82	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-8).
OS-27 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	1.02	1.02	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PK-2).
OS-28 OPEN SPACE	Pocket Park - Refer to PROS Standards	2.81	2.75	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-29 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.36	1.33	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-30 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	0.94	0.77	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-31 OPEN SPACE	Trail Corridor / Parklet **	3.42	3.42	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-16).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-32 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	3.95	3.05	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-33 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.18	1.11	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-34 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	3.07	2.70	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-35 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	0.46	0.46	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-14).
OS-36 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.59	0.59	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Areas (PA-14).
OS-37 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.50	0.50	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17).
OS-38 OPEN SPACE	Pocket Park - Refer to PROS Standards	2.72	2.51	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17 or PA-18, whichever comes first).
OS-39 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.05	0.86	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-18).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-40 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	2.10	1.69	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).
OS-41 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.90	1.90	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PK-1 NEIGHBORHOOD PARK (NORTH PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include public plazas, urban drainage interface, shade structures, play areas and an amphitheater	17.38	6.3	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 1. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 1. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-2 NEIGHBORHOOD PARK (DISCOVERY PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include play features for all ages and abilities, play fields, hard surface courts, nature-themed and traditional play equipment, passive trails, community gathering spaces, and overlooks	25.47	25.36	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 2. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 2. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-3 NEIGHBORHOOD PARK (BUTTERFLY PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include interactive art and play areas, pollinator and edible gardens, passive turf play areas	5.00	4.01	Constructed by WINDLER Metro District or HOA; WINDLER Metro District or HOA Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 3. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 3. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-4 NEIGHBORHOOD PARK (1881 PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include preservation of historic structures, a seed and tool library, park amenities, a community market building, commemorative gardens, play and trail areas, farm to table restaurant & event center, orchard plantings	14.77	14.36	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 6. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 6. Refer to Tab 13: Public Improvement Plan for Planning Groups

REVISED

Please remove city of Aurora ownership

2

1

1

COA will not take ownership or responsibility for these parks. Please update table to show this

REVISED

1 1881 & DISCOVERY PARK OWNERSHIP REVISED

2 UPDATES TO PARK ACREAGE

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-2 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.02	1.02	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-2).
PA-3 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.34	1.34	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
PA-4 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.30	2.30	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
PA-5 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.66	1.66	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-5).
PA-6 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.34	2.34	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-6).
PA-7 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.96	1.96	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
PA-8 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-8).
PA-10 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.35	1.35	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-11 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.50	1.50	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
PA-12 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.49	1.49	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
PA-13 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	3.63	3.63	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).
PA-14 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.36	1.36	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-14).
PA-15 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.64	2.64	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
PA-16 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-16).
PA-23 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.52	1.52	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17).
PA-24 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	0.86	0.86	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-18).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-25 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.01	2.01	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).

PLANNING AREAS 17-20 WERE CONVERTED TO AN INDUSTRIAL USE AND HAVE BEEN REMOVED FROM FORM J.
PLANNING AREAS 21-22 WERE ELIMINATED FROM THE WINDLER MASTER PLAN.
PLANNING AREAS 23-25 ARE ASSOCIATED WITH APPROVED DOCUMENTS AND REMAIN A PART OF THE WINDLER MASTER PLAN.

tab 9

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
TAB 8 MASTER PLAN TOTAL		135.71	117.76		
PLANNING AREA TOTAL * (To be defined at Site Plan)		29.30	29.30		
ARTERIAL MEDIANS TOTAL		1.37	1.37		
TOTAL MASTER PLAN PARKS & OPEN SPACE (Excludes arterial median area)		165.01	147.06		

Parks, Recreation & Open Space

Date: Signature:



1881 & DISCOVERY PARK OWNERSHIP REVISED



UPDATES TO DEDICATED PARKS & OPEN SPACE. ADDITIONAL NOTE INCLUDED.

PARKS, RECREATION, AND OPEN SPACE INVENTORY AND PHASING NOTES

- * Potential Future Open Space has been allocated per Planning Area based on number of units proposed in that Planning Area. These acreages may be allocated to other Planning Areas at time of Site Plan.
- Parks Dept. Credited Open Space excludes land prohibited from dedication per PROS Dedication and Development Criteria Manual. Lands prohibited from dedication may include: stormwater detention and retention, water quality facilities, acreage within 350’ from an oil and gas well pad, lands in excess of 4:1 slope, encumbered land, monumentation, street right-of-way, medians, golf courses, private clubhouses, swimming pools, etc... Refer to PROS for all land ineligible for dedication.
 - All Active Outdoor Recreation areas including parks and trails are required to be setback 350’ from oil and gas pad sites. This does not apply, because no Active Outdoor Recreation areas are located within 350’ of oil and gas pad sites.
 - All PROS dedications shall be determined at time of Final Plat.

Please put the 54th connection back in so that this connection can be addressed at the time of the north park site plan.

Addressed

Missing this connection of 54th Pls

Roadway instead of just bike path.

the line shown is for the roadway - Local Street Type 1 (64' ROW)

PRIVATE STREET TO BE BUILT TO CITY OF AURORA STANDARDS

SITE ACCESS

CONNECTIONS TO MINOR ARTERIAL WILL BE DESIGNED AND BUILT BY OTHERS

SITE ACCESS

WINDLER STREET CLASSIFICATIONS



CITY OF AURORA - STANDARD STREETS

- A. LOCAL STREET TYPE 1 (64' R.O.W.)
- B. LOCAL STREET TYPE 2 (60' R.O.W.)
- C. LOCAL STREET TYPE 3 (68' R.O.W.)
- D. LOCAL URBAN 2-LANE (66' R.O.W.)
- E. THREE-LANE COLLECTOR (80' R.O.W.)
- G. SIX-LANE ARTERIAL (144' R.O.W.)
- G.1. SIX-LANE ARTERIAL (144' R.O.W.)
- G.2. FOUR-LANE ARTERIAL (144' R.O.W.)
- H. SIX-LANE ARTERIAL (143' R.O.W.)



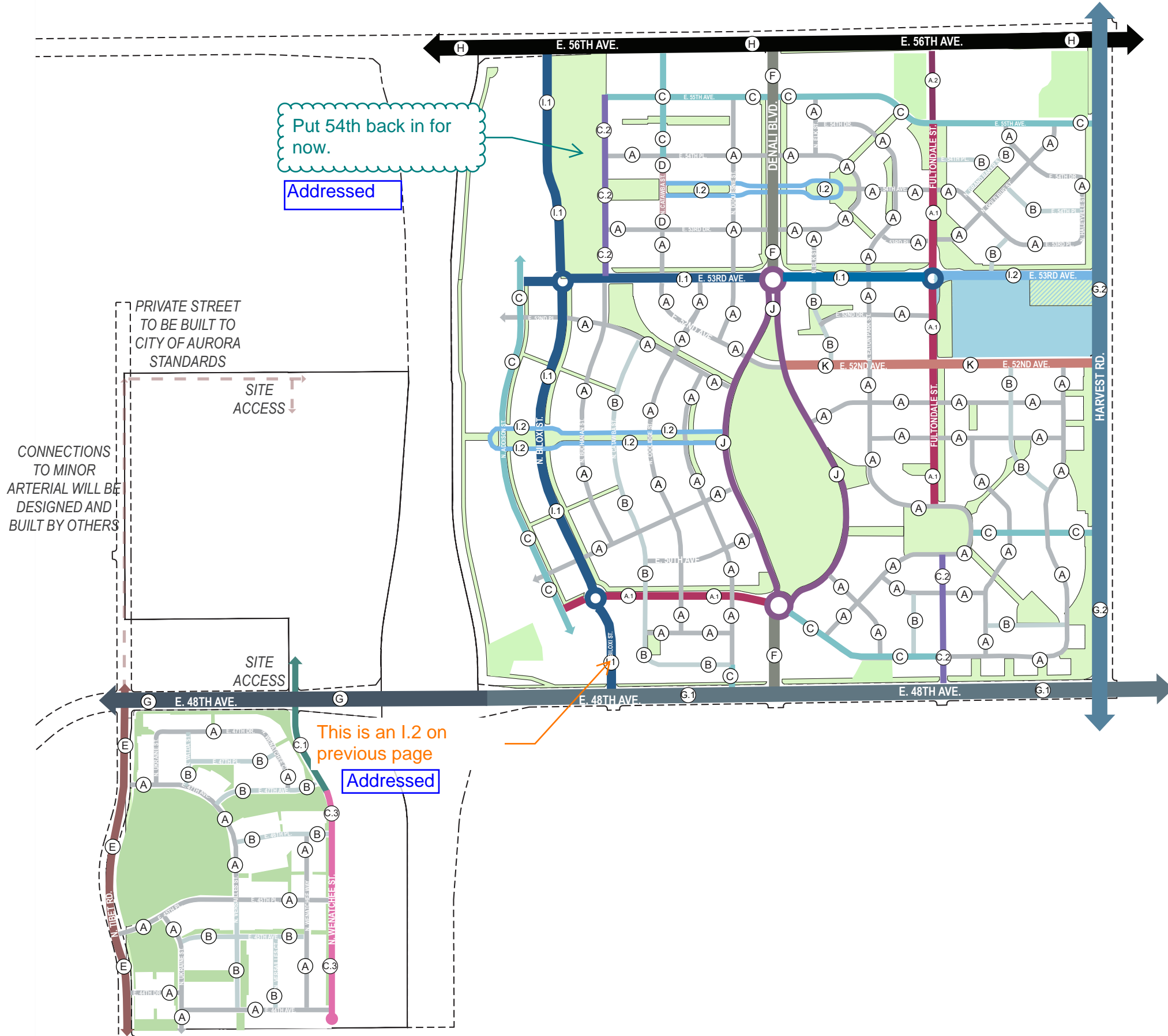
NEW URBANISM STREETS

- I.1. CONNECTOR BOULEVARD (90.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- I.2. CONNECTOR BOULEVARD (VARIED R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE



CITY OF AURORA - ENHANCED STREETS CUSTOM TO WINDLER

- A.1 LOCAL STREET TYPE 1 - ENHANCED (67.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- A.2 LOCAL STREET TYPE 1 - ENHANCED (66' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- C.1 LOCAL STREET TYPE 3 - ENHANCED (71' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE (ON-STREET BIKE LANES)
- C.2 LOCAL STREET TYPE 3 - ENHANCED (72.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- C.3 LOCAL STREET TYPE 3 - ENHANCED (67' R.O.W.)
 - REPLACE ON-STREET PARKING WITH BIKE LANES
- F. MAIN STREET - MEDIAN 4-LANE ENHANCED COLLECTOR (121' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- J. DENALI BOULEVARD - ENHANCED COUPLET / COLLECTOR (65' R.O.W.)
 - 15' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- K. TWO-LANE COLLECTOR - ENHANCED (75' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE



WINDLER STREET CLASSIFICATIONS

CITY OF AURORA - STANDARD STREETS

- A. LOCAL STREET TYPE 1 (64' R.O.W.)
- B. LOCAL STREET TYPE 2 (60' R.O.W.)
- C. LOCAL STREET TYPE 3 (68' R.O.W.)
- D. LOCAL URBAN 2-LANE (66' R.O.W.)
- E. THREE-LANE COLLECTOR (80' R.O.W.)
- G. SIX-LANE ARTERIAL (144' R.O.W.)
- G.1. SIX-LANE ARTERIAL (144' R.O.W.)
- G.2. FOUR-LANE ARTERIAL (144' R.O.W.)
- H. SIX-LANE ARTERIAL (143' R.O.W.)

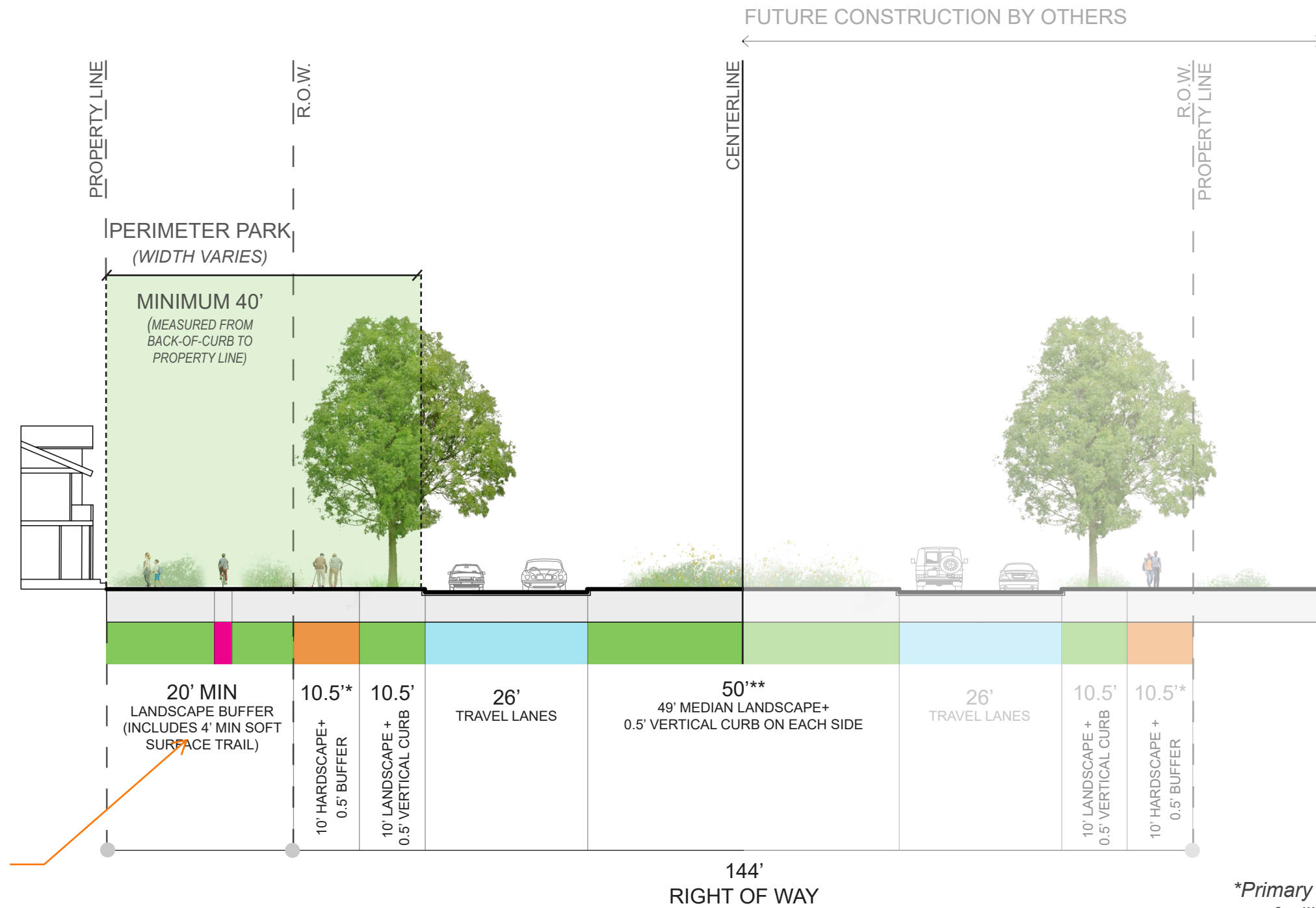
NEW URBANISM STREETS

- I.1. CONNECTOR BOULEVARD (90.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- I.2. CONNECTOR BOULEVARD (VARIED R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE

CITY OF AURORA - ENHANCED STREETS

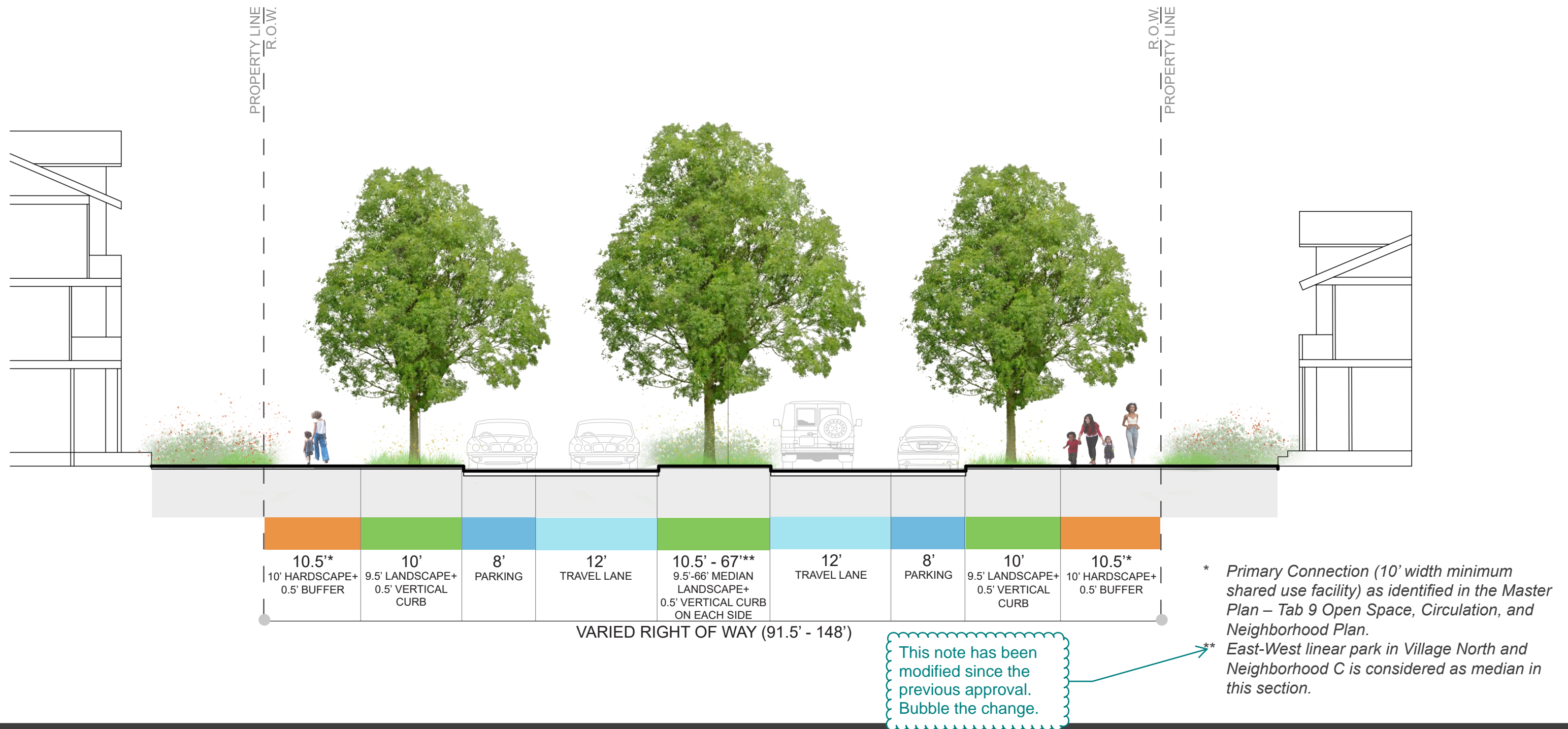
CUSTOM TO WINDLER

- A.1 LOCAL STREET TYPE 1 - ENHANCED (67.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- A.2 LOCAL STREET TYPE 1 - ENHANCED (66' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- C.1 LOCAL STREET TYPE 3 - ENHANCED (71' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE (ON-STREET BIKE LANES)
- C.2 LOCAL STREET TYPE 3 - ENHANCED (72.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- C.3 LOCAL STREET TYPE 3 - ENHANCED (67' R.O.W.)
 - REPLACE ON-STREET PARKING WITH BIKE LANES
- F. MAIN STREET - MEDIAN 4-LANE ENHANCED COLLECTOR (121' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- J. DENALI BOULEVARD - ENHANCED COUPLET / COLLECTOR (65' R.O.W.)
 - 15' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- K. TWO-LANE COLLECTOR - ENHANCED (75' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE



This was 30' Min landscape buffer
Addressed

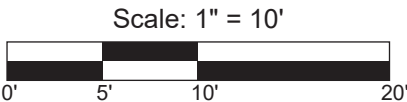
*Primary Connection (10' width minimum shared use facility) as identified in the Master Plan – Tab 9 Open Space, Circulation, and Neighborhood Plan.
** The 50' median will be reduced to 26' to accommodate two additional lanes at future construction.



WINDLER AURORA, CO

NEW URBANISM STREETS
CONNECTOR BOULEVARD (VARIED R.O.W.)
10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE

Addressed



CIVITAS