

COMMUNITY DEVELOPMENT MEMORANDUM

Date: May 2, 2019

To: Patrick St. Clair, Planning Development Manager

From: Jeff Bauman, City Traffic Engineer

Subject: McMillan Mesa Transportation Impacts

Background:

A Traffic Impact Analysis (TIA) was completed for the McMillan Mesa Village Specific Plan (Master Project TIA) in May 1992 based on the current and future road networks as anticipated at that time. Base roadway conditions in the TIA were based on 1992 and the future project build out conditions were based on anticipated 2012 conditions. While the community in general has changed and grown considerably since 1992, the future road network assumptions in and around the vicinity of the project from 1992 are the same as the road network that exists today.

The McMillan Mesa subdivision roadway improvements were constructed in 2008 based upon the 2012 anticipated conditions for layout, intersection control and number of lanes. The roadway cross sections constructed were slightly modified from the then current 2008 City of Flagstaff Engineering Standards. The modifications included a raised 15' wide median on Gemini instead of a standard center turn lane and Pine Cliff was constructed without a typical center turn lane. All other lane widths, bike lane widths, parkways and sidewalks were constructed per the current Engineering Standards.

Transportation Impact Analysis for McMillan Mesa developments:

The Flagstaff Engineering Standards require that every development that produces more than 100 peak hour trips is required to prepare and submit for approval a Transportation Impact Analysis. For projects less than 100 peak hour trips the City may require a Transportation Impact Analysis for unique or special traffic reasons. For projects occurring within the McMillan Mesa Village Specific Plan boundaries staff has been routinely requiring a trip generation verification

statement. This small TIA or sometimes referred to as a Traffic Statement is used to verify the total trips generated by the development are consistent or lower than originally contemplated in the McMillan Mesa Village Specific Plan TIA, or 'Master Project TIA'. If the total trips are confirmed to be consistent or lower then the project moves forward without additional study. This is confirmation that the project trips have been accounted for and mitigated through the Master Project TIA. If the total trips for the site are anticipated to be higher or would create some previously unanticipated condition, then further study is warranted.

The Highgate development proposal falls in to the trips are consistent or lower than originally anticipate category. An example of a project that required additional study would be how the BASIS project was processed. Each phase of the BASIS project was required to submit a site-specific TIA which focused on the onsite circulation patterns based on the proposed student count.

Anticipated school site compared to actual school site:

The 1992 Master Project TIA anticipated a school site within the subdivision with 600 students. In 1992 the Institute of Transportation Engineers (ITE) Trip Generation Manual had a single trip generation rate for schools, no differentiation for Elementary / High School / Charter. In the Master Project TIA the total daily trips from the school was anticipated to be 600 students X 1.36 vehicle trips per student = 816 daily trips. The ITE Trip Generation Manual today has a differentiation between various school types and following national trends in mode choice for school trips (decreased reliance on bussing) the vehicle trips per student has increased for all school types. So, based on current trip generation rates a K-12 Private School of 600 students would be anticipated to produce 600 students X 2.48 vehicle trips per student = 1,488 daily trips.

The BASIS school has approximately 810 students and does not utilize a bus fleet, though Mountain Line service is provided at an adjacent bus stop at the start and end of the school day. This service has not been as successful as hoped and Mountain Line is planning to reduce the number of stops per day for next school year. A unique characteristic of this school site is the staggered start and end times for each school day, staggered start times are a form of Travel Demand Management. For the BASIS analysis trip rates were collected at BASIS schools across Arizona including the Flagstaff site. The total trips for BASIS Flagstaff was determined to be 810 students X 2.09 vehicle trips per student = 1,696 daily trips. The most recent BASIS expansion included an updated traffic study with the updated student count and a modified drop-off and pick-up layout.

Staff has spent considerable time observing and communicating with the school administration on drop-off and pick-up patterns, staff duties, and parent education. Throughout this school year staff has observed that the morning drop-off queues on to Pine Cliff have been reduced and often eliminated, and the

afternoon on-street queuing has also decreased from previous school years but does still occur for several minutes just prior to 4:00 PM.

Comparison of forecasted project traffic to actual build out:

The Master Project TIA for McMillan Mesa Village was completed in 1992 based on current and anticipated conditions at a 20 year build out. The subdivision improvements were constructed in 2008 with primarily two-lane collector type roadways connecting the adjacent roadway network at Pine Cliff and Ponderosa Parkway to the South and twice to Forest Avenue on the North. In 2015 much of the vacant land within this development was 'down' zoned resulting in a project that produces approximately 9,800 vehicles per day compared to the TIA anticipated 21,300 vehicles per day. With the addition of the Veterans facility the anticipated total trips increases from 9,800 vehicles per day to 10,700 vehicles per day.

Attached to this report is a parcel by parcel listing of total trips generated for each scenario – Master Project TIA, 2015 rezoning and 2019 to date.

Neighborhood Concerns on Pine Cliff:

Staff has continued to work with the adjacent McMillan Mesa residents with their specific concerns of traffic congestion at BASIS, construction impacts, and overall traffic speed and volumes passing by the front of their homes on Pine Cliff Drive. The options and ability of the City to reduce traffic volumes on Pine Cliff were mostly eliminated with the removal of the north-south connector road as a part of Proposition 413 and the subsequent Major Regional Plan amendment in 2018 (see attached 2018 CCR – McMillan Mesa Regional Plan Amendment). Traffic volumes on Pine Cliff Drive under current zoning and land use assumptions are projected to increase 150% from 2018 levels at buildout of the McMillan Mesa Village project.

Staff held a neighborhood meeting on Pine Cliff Drive with concerned citizens in September of 2018 and committed to further evaluation and collaboration of their traffic concerns. Due to the traffic pattern changes as a result of the roundabout construction at Switzer Canyon Drive and Turquoise Drive traffic counts in the area will resume in Fall 2019.

The public meeting notes are attached for a more detailed look at the proceedings.

Recommendation / Conclusion:

The results of the overall look at traffic generation of McMillan Mesa Village comparing the anticipated Master Project TIA buildout conditions to currently projected buildout results in a reduction from 21,300 vehicles per day to 10,700 vehicles per day inclusive of the previously unanticipated Veterans facility.

Traffic volume counts on each individual road and intersection have not been conducted recently to determine current Level of Service conditions. Due to the ongoing road construction and detours associated with the Switzer Canyon Drive and Turquoise Drive roundabout, counting for the Pine Cliff Drive neighborhood concerns will begin in Fall 2019.

This Report is for information only.

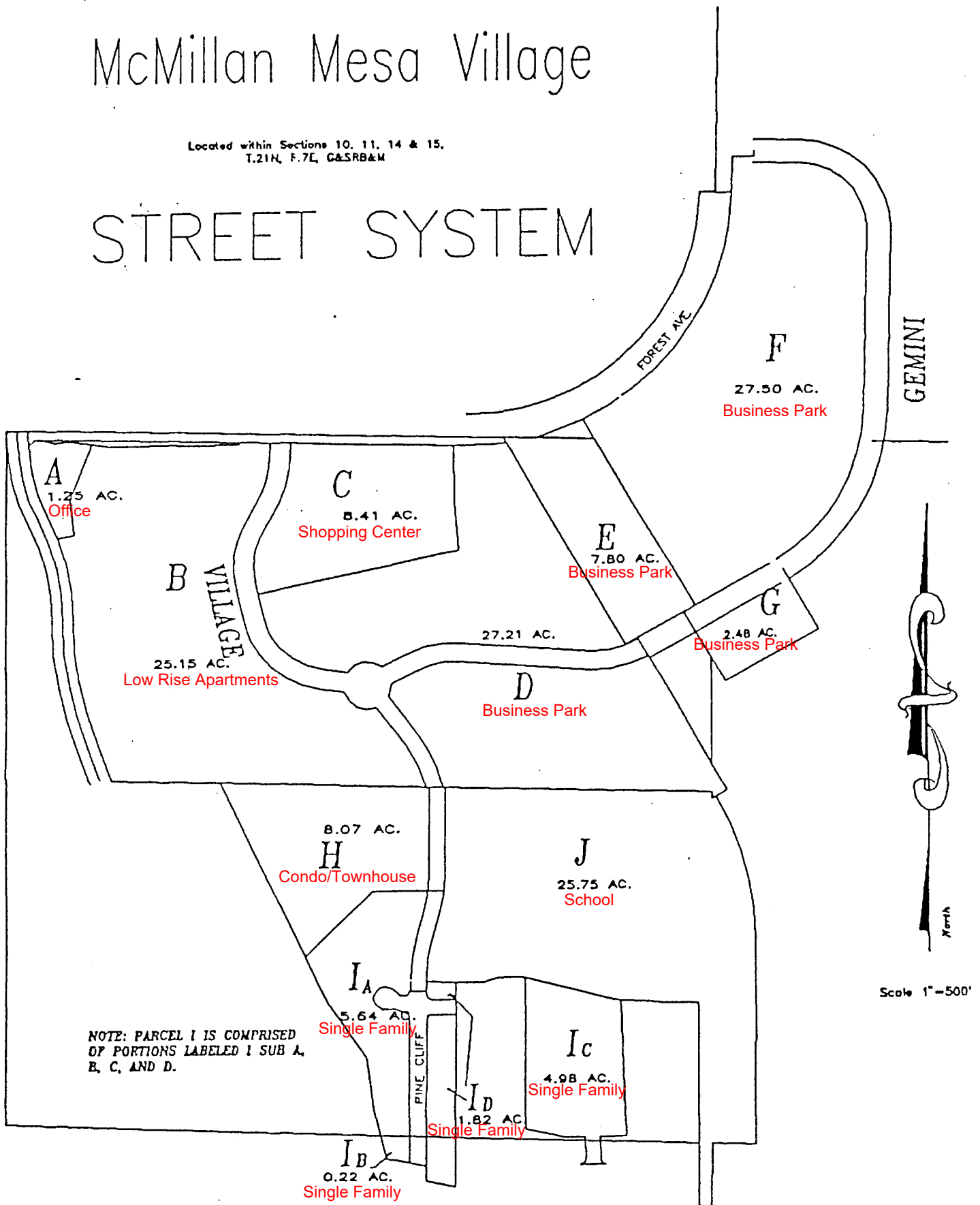
Attachments:

1992 TIA Parcel Map
2019 Parcel Map
McMillan Mesa Trip Comparison
Pine Cliff Meeting notes 09112018
CCR June 2018 – McMillan Mesa Major Plan Amendment

McMillan Mesa Village

Located within Sections 10, 11, 14 & 15,
T.21N, R.7E, G&SRB&M

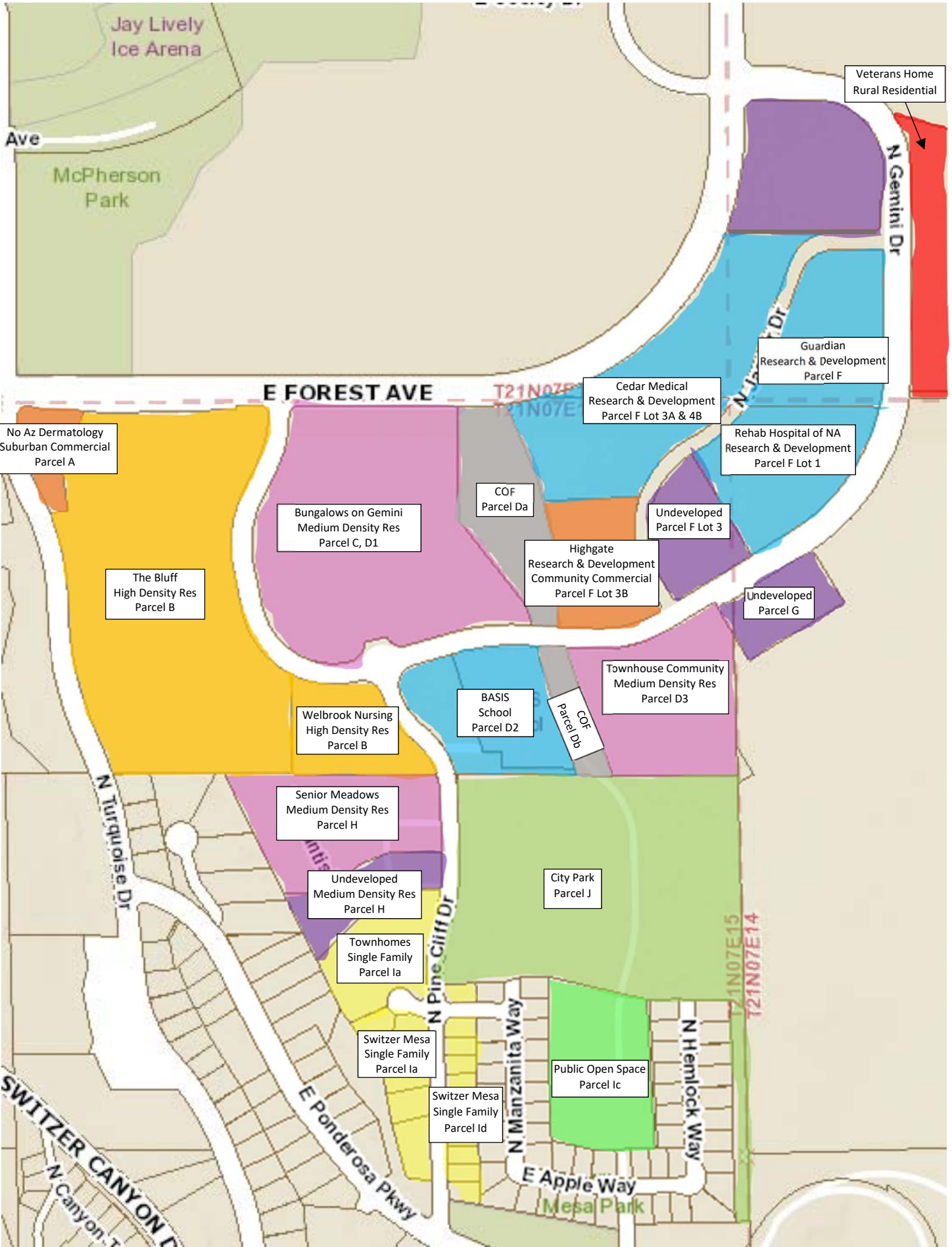
STREET SYSTEM



NOTE: PARCEL I IS COMPRISED
OF PORTIONS LABELED I SUB A,
B, C, AND D.



Scale 1"=500'



Jay Lively Ice Arena

Ave

McPherson Park

Veterans Home Rural Residential

N Gemini Dr

Guardian Research & Development Parcel F

E FOREST AVE

T21N07E15
T21N07E14

No Az Dermatology Suburban Commercial Parcel A

Cedar Medical Research & Development Parcel F Lot 3A & 4B

Rehab Hospital of NA Research & Development Parcel F Lot 1

Bungalows on Gemini Medium Density Res Parcel C, D1

COF Parcel Da

Undeveloped Parcel F Lot 3

The Bluff High Density Res Parcel B

Highgate Research & Development Community Commercial Parcel F Lot 3B

Undeveloped Parcel G

Welbrook Nursing High Density Res Parcel B

BASIS School Parcel D2

COF Parcel Db

Townhouse Community Medium Density Res Parcel D3

Senior Meadows Medium Density Res Parcel H

Undeveloped Medium Density Res Parcel H

City Park Parcel J

Townhomes Single Family Parcel Ia

Switzer Mesa Single Family Parcel Ia

Switzer Mesa Single Family Parcel Id

Public Open Space Parcel Ic

N Turquoise Dr

N Pine Cliff Dr

N Manzanita Way

N Hemlock Way

SWITZER CANYON Dr
N Canyon Dr

E Ponderosa Pkwy

E Apple Way

Mesa Park

T21N07E15
T21N07E14

Average Weekday Trip Ends (1992 TIA)

<i>Land Use</i>	<i>Intensity</i>	<i>Units</i>	<i>ITE Code</i>	<i>Rate</i>	<i>Trips</i>
Office (One Tenant Office Parcel A)	10	1000 S.F.	715	3.55	36
High Density Residential (Low Rise Apartment Parcel B)	471	Unit	221	6.59	3,104
Shopping Center (Parcel C)	65	1000 S.F.	820	91.65	5,957
Business Park (Parcels D, E, F, & G)	65	Acres	770	159.75	10,384
Multifamily Residential (Condo/Townhouse Parcel H)	72	Dwellings	230	5.86	422
Low Density Residential (Single Family Parcel I)	63	Dwellings	210	9.55	602
School (Parcel J)	600	Students	530	1.38	828
TOTAL					21,332

Average Weekday Trip Ends (2015 Rezone)

<i>Land Use</i>	<i>Intensity</i>	<i>Units</i>	<i>ITE Code</i>	<i>Rate</i>	<i>Trips</i>
High Density Res (Parcel B) - The Bluff & Welbrook Nursing	292	Units	222	4.20	1226
Medium Density Res (Parcel C) - Bungalows	75.69	Dwellings	221	6.59	499
Medium Density Res (Parcel D1) - Bungalows	66.15	Dwellings	221	6.59	436
School (Parcel D2) - Basis School	500	Students	534	0.90	450
Medium Density Res (Parcel D3) - Townhouse Community	56.7	Dwellings	230	5.80	329
Business Park (Parcel E)	7.8	Acres	770	149.74	1168
Business Park (Parcel F1)	7.14	1000 S.F.	715	11.62	83
Business Park (Parcel F2)	18.2	Acres	770	149.78	2726
Medium Density Res (Parcel H) - Flagstaff Senior Meadows	60	Dwellings	252	3.48	209
Single Family Res (Parcels Ia - Id) - Switzer Mesa	63	Dwellings	210	9.56	602
City Park (Parcel J)	25.75	Acres	411	1.59	41
TOTAL					7,769

Average Weekday Trip Ends (2019 Today)

<i>Land Use</i>	<i>Intensity</i>	<i>Units</i>	<i>ITE Code</i>	<i>Rate</i>	<i>Trips</i>	
Medical-Dental Office Building (Parcel A) - North. Az. Dermatology	7	1000 S.F.	720	10.18	71	*equation
High Density Res (Parcel B) - The Bluff	236	Dwellings	222	4.20	991	
High Density Res (Parcel B) - Welbrook Nursing	45	Employees	620	4.66	210	*equation
Medium Density Res (Parcel C & D1) - Bungalows	135	Dwellings	221	7.99	1079	*equation
Research & Development (Parcel D2) - Basis School	810	Students	-	-	1696	*from traffic statement 9.21.17
Medium Density Res (Parcel D3) - Townhouse Community	59	Dwellings	230	6.89	406	*equation
Research & Development (Parcel F) - FMC Guardian	65.8	1000 S.F.	710	14.52	955	*equation
Research & Development (Parcel F Lot 1) - Rehabilitation Hospital of NA	140	Employees	620	3.07	430	*equation
Research & Development (Parcel F Lot 3) - Undeveloped	2.62	Acres	770	149.79	392	*used business park (worst case)
Research & Development (Parcel F Lot 4A) - Undeveloped	5.32	Acres	770	149.79	797	*used business park (worst case)
Research & Development (Parcel F Lots 3A & 4B) - Cedar Medical	10.02	Acres	770	149.79	1501	*used business park (worst case)
Community Commercial (Parcel F Lot 3B) - Highgate	80	Occupied Beds	254	3.26	261	*equation
Research & Development (Parcel G) - Undeveloped	2.02	Acres	770	149.79	303	*used business park (worst case)
Medium Density Res (Parcel H) - Flagstaff Senior Meadows	60	Dwellings	252	3.48	209	
Medium Density Res (Parcel H) - Undeveloped	22	Dwellings	252	3.48	77	*used avg dwellings/acre from Senior Meadows
Single Family Res (Parcels Ia) - Townhomes	23	Dwellings	230	7.79	179	*equation
Single Family Res (Parcels Ia, Ib) - Switzer Mesa	6	Dwellings	210	13.15	79	*equation
Public Open Space (Parcels Ic) - Public Open Space	-	-	-	-	-	
Single Family Res (Parcels Id) - Switzer Mesa	11	Dwellings	210	12.53	138	*equation
City Park (Parcel J) - Undeveloped	19.15	Acres	411	1.59	30	
TOTAL					9,804	

Rural Residential - Veterans Home	100	Dwellings	221	9.00	900	*equation
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TOTAL Including Proposed Veterans Home					10,704
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Meeting Notes

Neighborhood sponsored community meeting on Pine Cliff Drive

Tuesday, September 11, 2018

Hosted by Melissa Griffin and James Connell at 990 N. Pine Cliff Drive

Attendees: Sara Dechter (Planning), Jeff Bauman(Traffic Engineering, Sgt. Jeff James (Police – Traffic Unit), Melissa Griffin and James Connell, Angela Shepper, Steve, Jen, Joe Hart, and another neighbor.

Three main issues identified by neighbors are parking, speed and volume of traffic on the road.

Parking

- High school students at Basis are causing problems for homes along the road. Their lack of experience and poor communication from the school are the source of many parking issues.
- Construction workers have been problematic from time to time because there is no parking on Gemini. Less consistent.
- Mailboxes and trash/recycling cans get blocked and not picked up repeatedly because cars block them or park too close.
- Staff discussed the possibility of eliminating mailboxes for each house and creating a consolidated locking residential mail boxes. This is something that the USPS prefers for operational reasons and the city could provide a parking restriction to keep it open for mail delivery and pick up. (USPS calls this centralized mail delivery.)
- Traffic may be able to mark spaces on the road to keep trash cans from being blocked as well. Jeff Bauman will follow up with his staff in the spring as part of the Residential Neighborhood Traffic Program.
- Residents expressed they would be willing to reduce on-street parking to mitigate impacts to public services or to get traffic calming in place (see speeding)

Speeding

- The inexperienced drivers, straight road alignment and steep hill lead to speeding and accidents when conditions are icy.
- Traffic has measured speeds on the road before and the average speed and 85th percentile were not above the speed limit.
- Residents identified that a location further south is where they see highest speeds. Jeff Bauman and staff can adjust that in their spring observations. They are waiting until the roundabout at Turquoise and Switzer is complete, because the conditions while that is under construction are not typical for the road.
- Sgt. James shared information on how the traffic patrol prioritizes complaint zones and how effective their enforcement efforts are based on conditions like, how much of the traffic is driving through, road geometry, etc.
- The provision of a mini-round, median or other traffic calming as part of the evaluation by the Residential Neighborhood Traffic Program was discussed for the corner of the entrance to the Bungalows on Pine Cliff and Pine Cliff Drive

- Traffic can loan out a radar gun to residents so they can test speeds themselves between now and the spring.

Volume

- Staff shared the results of the McMillan Mesa Major Plan Amendment traffic analysis and discussed the conclusion that traffic on Pine Cliff Dr. will increase by 150% over today's volume of 1,700 daily trips by 2040, because of the lack of more direct connection between Route 66 and Gemini. Sara Dechter and Jeff Bauman went over the analysis and its assumptions and answered residents questions about the source of the increased traffic and its distribution.
- Residents stated that even though they were involved in Proposition 413, they had not understood that impact may be a result.
- There was some interest in initiating a new petition to allow for the road to be reconsidered by the voters now that the traffic analysis has been made public. Sara Dechter directed the residents to speak to Stacy Salzburg, City Clerk. (Sara sent Stacy's contact information to Melissa Griffin the next day.

CITY COUNCIL REPORT
DRAFT

DATE: June 26, 2018

TO: Mayor and Councilmembers

FROM: Sara Dechter, AICP, Comprehensive Planning Manager

CC: Barbara Goodrich, Shane Dille, and Leadership Team

SUBJECT: MCMILLAN MESA MAJOR PLAN AMENDMENT

Background on McMillan Mesa Major Plan Amendment and Proposition 413

On November 8, 2016, voters passed Proposition 413 - Initiative for Greater Buffalo Park (Proposition 413), which restricted the use of approximately 300 acres of City-owned parcels on McMillan Mesa to public open space and passive recreation, except for an area reserved for a future veteran's home. Proposition 413 was proclaimed law on November 28, 2016 (Ordinance I2016-02 is attached hereto as Attachment A).

The ballot initiative left the properties' current Zoning Code and Flagstaff Regional Plan 2030 (Regional Plan) designations in place. Community Development staff has been asked to prepare a major plan amendment and begin the process of aligning the Regional Plan and Zoning Code with the outcome of Proposition 413. This report will provide general details of the changes being proposed, the process and schedule requirements, and the feedback received during the first neighborhood meeting.

Details of the Proposed Major Plan Amendment

The site being proposed for this Regional Plan amendment is made up of the McMillan Mesa Natural Area, adjacent City open space, and the future site of a Veterans' Home. This amendment will also correct two types of mapping errors on a City-wide basis.

On the Regional Plan's Future Growth Illustration, the proposed major plan amendment would reduce the "Area in white"¹ by 232 acres, decrease the Suburban area type by 59 acres, and increase the city-wide areas of Parks/Open Space by 318 acres. The reduction in Employment/Special District area types

¹ An "Area in white" is an are on the Future Growth Illustration that was designated to retain its existing entitlements and therefore not assigned an aspirational area-place type, such as "Suburban Neighborhood."

which are designated for research, office, business park, industrial and employment generating uses, is approximately 23 acres.

On the Regional Plan's Road Network Illustration, this amendment will remove a "Future Access" route that would have connected Gemini and Route 66 via a new alignment of Ponderosa Parkway.

The amendment will also correct a mapping area of identical overlapping future and existing area types on the Future Growth Illustration. A significant area of error overlaps the southwest corner of the McMillan Mesa. This error has led to confusion when viewing the City's interactive webmap found at www.flagstaffmatters.org.

Major Plan Amendment Process and Schedule

The application for the McMillan Mesa Major Plan Amendments was submitted on April 31, 2018 and deemed completed on June 8, 2018. The amendment is still under substantive review by the Inter-Division Staff, which includes Fire, Water Services, Stormwater, Traffic, and Capital Engineering.

Flagstaff City Code 11-10.20.020 Major Plan Amendments and New Elements requires that an application for a major plan amendment must include "An infrastructure and community services impact analysis to provide the information necessary to assess the proposal's impact on utilities, roads, parks, schools and other community facilities and services." This section further states that it must at a minimum include:

- Traffic analysis
- Water/wastewater analysis
- Police and fire protection analysis
- School impact analysis
- Economic development analysis
- Conformance with the General Plan's goals and policies for public services and facilities.

The 60-day public review will be open until August 10, 2018. The Neighborhood Meeting was held on June 18, 2018 (Record of Proceeding attached). During the 60-day review, the Open Space Commission and will also review the application on June 15th and July 23rd, and the Transportation Commission on August 1st. Planning and Zoning Commission and City Council hearings will be scheduled for October or November 2018.

June 18th Neighborhood Meeting Feedback

The open house was set up to discuss both the Open Space program's work on the McMillan Mesa Natural Area Management Plan, and the major plan amendment proposed to the Regional Plan. The discussion of the major plan amendment was presented through a series of posters that described the changes being proposed and their potential impacts to Regional Plan goals and policies, and City infrastructure and resources

Flagstaff City Code Title 11 requires that Major Plan Amendment applications must include an analysis of impacts to Public Services and Facilities, Traffic, Water and Wastewater, Schools, Police and Fire, Cultural Resources, and Economic Development per Flagstaff City Code Title 11-10.20. In the case of this analysis, there are two aspects of evaluating impacts: the positive benefits of designating new open space, and the opportunity costs of foregoing other investments in public infrastructure. Posters were provided at the open house have been posted online at www.flagstaff.az.gov/planamendments. The full details of the application and the analyses have been posted on this website since June 3, 2018.

A Record of Proceeding for the Meeting has been published online and sent to all meeting participants (Attachment B). The main topics discussed during the meeting were:

- the meaning of Proposition 413 Section 3 text about Limited Uses;
- the anticipated increase in traffic on Pine Cliff and Turquoise as a result of removing the Ponderosa Parkway Connection from the Road Network Illustration. The participants submitted comments showed that an awareness of increased traffic did not alter support for natural area.
- Bicycle safety concerns in and around the natural area;
- Questions about water services well siting process and how it could impact City and private properties within and outside of the natural area; and
- The possibility of pursuing alternatives to USGS gravity sewer plans.

Some of the verbal comments received from the public were based in misunderstanding between the ballot initiative process, the plan amendment process and the process of developing a management plan for the natural area. For instance, several people were surprised that the initiative did not automatically change the Regional Plan and Zoning Code. There were also individuals who thought that because the City was disclosing negative impacts, staff was taking a position, rather than meeting a statutory requirement.