



**MANOR CITY COUNCIL
REGULAR MEETING
AGENDA
105 E. EGGLESTON STREET
MANOR, TEXAS 78653
APRIL 20, 2016 · 7:00 P.M.**

CALL TO ORDER AND ANNOUNCE QUORUM PRESENT

PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS

Comments will be taken from the audience on non-agenda related topics for a length of time, not to exceed three minutes per person. Comments on specific agenda items must be made when the item comes before the Council. To address the City Council, please register on the speaker sign-in sheet at least five-minutes prior to the scheduled meeting time. NO ACTION MAY BE TAKEN BY THE CITY COUNCIL DURING PUBLIC COMMENTS.

CONSENT AGENDA

The following Items will be enacted by one motion. There will be no separate discussion of these items unless requested by the Mayor or a Council Member in which event, the item will be removed from the consent agenda and considered separately.

1. Consideration, discussion, and possible action to approve the minutes for the April 6, 2016, City Council Regular Meeting.
2. Consideration, discussion, and possible action on acceptance of the March, 2016 Departmental Reports:
 - Development Services
 - Police
 - Municipal Court
 - Public Works
3. Consideration, discussion, and possible action on a second reading of an ordinance annexing 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973.
4. Consideration, discussion, and possible action on a second reading of an ordinance to rezone 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973 from Interim Agricultural "A" to Light Industrial "IN-1".

REGULAR AGENDA

5. Consideration, discussion, and possible action on acceptance of the unaudited March, 2016 Monthly Financial Report.
6. Discussion, consideration, and possible action on the 2016 Capital Improvements Plan.
7. Presentation on capital project financing.
8. Consideration, discussion, and possible action the water and wastewater cost of service and rate study.
9. Discussion, consideration and possible action on a change order for the Manor Police Station & Wastewater Treatment Plant Site Improvements Project.

10. Discussion, consideration, and possible action to approve a waiver from Ordinance 185, Section 20(j) Height and Placement requirements for Manor ISD New Tech Middle School, 10335 E. US Hwy. 290, to allow for 52 feet in height.
11. Discussion, consideration, and possible action to approve a waiver from Ordinance 185, Section 61(e)(iv) Landscaping Requirements for Manor ISD New Tech Middle School, 10335 E. US Hwy. 290, to allow for 59 trees and 679 shrubs.
12. Discussion, consideration, and possible action on a first reading of a rezoning request for the Lagos preliminary PUD site plan, 146 acres at the SE corner FM 973 and Brenham Street; portions of the Calvin Baker Sur. No. 38, James Manor Sur. No. 39 and 40, James H. Manning Sur. No. 37; from single family residential (R-1) district zoning to Planned Unit Development (PUD) district zoning.
13. Discussion, consideration, and possible action on a concept plan for Lagos master planned community; 146 acres at the SE corner FM 973 and Brenham Street; portions of the Calvin Baker Sur. No. 38, James Manor Sur. No. 39 and 40, James H. Manning Sur. No. 37.
14. City Manager March, 2016 Report

ADJOURNMENT

In addition to any executive session already listed above, the City Council for the City of Manor reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code for the following purposes:

§551.071 Consultation with Attorney
§551.072 Deliberations regarding Real Property
§551.073 Deliberations regarding Gifts and Donations
§551.074 Personnel Matters
§551.076 Deliberations regarding Security Devices
§551.087 Deliberations regarding Economic Development Negotiations

POSTING CERTIFICATION

I, hereby, certify that this notice of the Manor City Council Meeting was posted on this 15th day of April, 2016 at 5:00 P.M., as required by law in accordance with Section 551.043 of the Texas Government Code.

Frances M. Aguilar, City Secretary

NOTICE OF ASSISTANCE AT PUBLIC MEETINGS:

The City of Manor is committed to compliance with the Americans with Disabilities Act. Manor City Hall and the council chambers are wheelchair accessible and special marked parking is available. Persons with disabilities who plan to attend this meeting and who may need assistance are requested to contact Frances Aguilar, City Secretary at 512-272-5555. Provide a forty-eight hour notice when feasible.

This public notice was removed from the bulletin board at the Manor City Hall on:

_____, 2016 at _____ am/pm

by _____.

City Secretary's Office
City of Manor, Texas



**MANOR CITY COUNCIL
REGULAR MEETING
MINUTES
105 E. EGGLESTON STREET
MANOR, TEXAS 78653
APRIL 6, 2016 · 7:00 P.M.**

COUNCIL MEMBERS

PRESENT:

Mayor, Rita Jonse
Place 1, Gene Kruppa
Place 2, Gil Burrell
Place 3, Todd Shaner
Place 4, Sharon Snowden
Place 5, Rebecca Davies
Place 6, Jeff Turner

ABSENT:

CITY STAFF PRESENT:

Thomas Bolt, City Manager
Frances Aguilar, City Secretary
Scott Dunlop, City Planner
Lluvia Tijerina, Administrative Assistant

CALL TO ORDER AND ANNOUNCE A QUORUM IS PRESENT

The Manor City Council met in regular session on Wednesday, April 6, 2016 in the City Council Chambers at 105 E. Eggleston Street. Mayor Jonse announced that a quorum was present and the meeting was called to order at 7:00 P.M.

PLEDGE OF ALLEGIANCE

Mr. Scott Dunlop led the Pledge of Allegiance.

PUBLIC COMMENTS

Vicki McFarland addressed Council and complimented the beauty of Jenny Lane Park on Easter weekend. She also gave an overview of the Chamber of Commerce upcoming events.

CONSENT AGENDA

1. Consideration, discussion, and possible action to approve the minutes for the March 1, 2016 City Council Regular Meeting.
2. Consideration, discussion, and possible action to approve the minutes for the March 16, 2016 City Council Regular Meeting.

Motion to approve the consent agenda was made by Council Member Burrell. Seconded by Council Member Kruppa.

Vote: 7 For – 0 Against.

REGULAR AGENDA

3. Consideration, discussion, and possible action on a water and wastewater cost of service and rate study.

Motion to postpone by Council Member Davies Seconded by Council Member Snowden.

Vote: 7 For – 0 Against.

4. Consideration, discussion, and possible action on a first reading of an ordinance annexing 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973.

City Manager Tom Bolt presented the agenda item. He described the property as north of the Butler tract on FM 973, on the west side. It is not part of ShadowGlen. Staff is recommending approval. Motion to approve the first reading of an ordinance annexing 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973 by Council Member Turner Seconded by Council Member Shaner.

Vote: 7 For – 0 Against.

5. Consideration, discussion, and possible action on a first reading of an ordinance to rezone 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973 from Interim Agricultural "A" to Light Industrial "IN-1".

City Manager Tom Bolt presented the agenda item. He stated that this is relation to the property from Item 4. Staff is recommending approval. Motion to approve the first reading of an ordinance to rezone 1.069 acres recorded in document number 2013171610, deed records, Travis County, locally known as 13500 N. FM 973 from Interim Agricultural "A" to Light Industrial "IN-1" by Council Member Turner. Seconded by Council Member Shaner.

Vote: 7 For – 0 Against.

6. Consideration, discussion, and possible action to approve a disbursement of Hotel Occupancy Tax Funds to the Manor Chamber of Commerce for the purpose of the Manor Heritage Festival.

Mayor Jonse recused herself and left the dais. Mayor Pro-tem Burrell presented the agenda item. Motion to approve a disbursement of Hotel Occupancy Tax Funds to the Manor Chamber of Commerce for the purpose of the Manor Heritage Festival in the amount of \$5,000 Council Member Kruppa. Seconded by Council Member Shaner.

Vote: 6 For – 0 Against. The Mayor returned to the dais after the vote.

7. Consideration discussion and possible action to authorize the consideration of an amended to Impact fees for water and wastewater, authorize a public hearing, and to appoint an advisory committee.

City Manager Tom Bolt presented the agenda item. He stated that ordinance 90 names the Planning & Zoning as the advisory committee. The development community member would be Barth Timmerman. Motion to authorize the consideration of an amended to Impact fees for water and wastewater, authorize a public hearing, and to appoint the Planning & Zoning Commission to the advisory committee by Council Member Davies. Seconded by Council Member Snowden.

Vote: 7 For – 0 Against.

EXECUTIVE SESSION

The City Council convened into Executive Session pursuant to the provisions of Chapter 551 Texas Government Code, in accordance with the authority contained in at 7:15 P.M.:

Section 551.074 Personnel Matters – Interview candidates for appointment to fill one vacancy on the City of Manor Planning and Zoning Commission.

OPEN SESSION

The City Council reconvened into Open Session pursuant to the provisions of Chapter 551 Texas Government Code and to take action on item(s) discussed during Closed Executive Session at 7:40 P.M.

8. The appointment of a Commissioner to serve on the City of Manor Planning and Zoning Commission.

Motion to appoint Charles Russell to the City of Manor Planning and Zoning Commission was made by Council Member Davies. Seconded by Council Member Shaner.

Vote: 7 For – 0 Against.

ADJOURNMENT

Motion to Adjourn made by Council Member Shaner. Seconded by Council Member Snowden.

Vote 7 For– 0 Against.

Meeting was adjourned at 7:41 P.M.

APPROVED:

ATTEST:

Rita G. Jonse, Mayor

Frances M. Aguilar, City Secretary

DEVELOPMENT SERVICES DEPARTMENT REPORT
PROJECT VALUATION AND FEE REPORT
FOR
CITY OF MANOR, TX
March 1-31, 2016

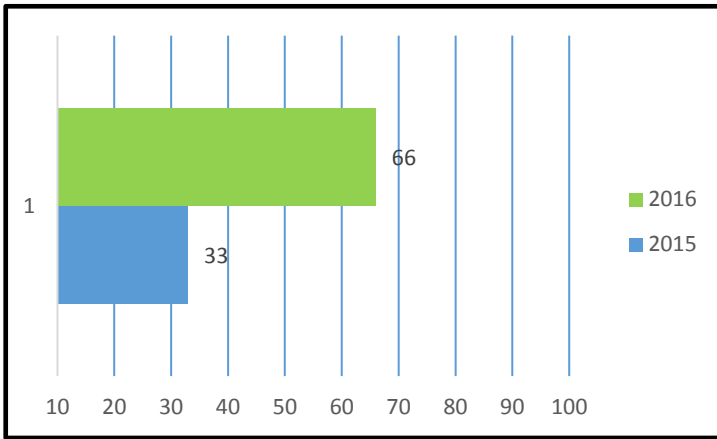
Code	Description	Projects	Segments	Valuation	Fees
102	New Single Family Bldgs-Att Garage	40	200	\$6,380,984.00	\$202,252.80
109	Subdivision	5	5	\$0.00	\$17,150.00
111	Site Plan	1	1	\$0.00	\$465.00
251	Restaurants Drive-Thru	1	5	\$490,000.00	\$16,477.10
330E	Existing Communication Towers	2	2	\$15,000.00	\$340.00
435	Remodel - Residential Bldgs	1	1	\$1,425.00	\$190.00
ACC	Accessory Bldg Permit	3	3	\$2,970.00	\$315.00
DEC	Deck & Patio Permits	2	2	\$15,900.00	\$245.00
DRI	Driveway & Sidewalk Permits	1	1	\$5,000.00	\$95.00
ELE	Electrical Permit	2	2	\$35,500.00	\$340.00
FEN	Fence Permit	1	1	\$1,800.00	\$70.00
FOU	Foundation Permit	2	2	\$6,200.00	\$200.00
IRR	Irrigation Permit	6	6	\$18,741.00	\$775.00
PLB	Plumbing Permit	2	2	\$4,800.00	\$210.00
POOL	Pool Permit	1	2	\$20,000.00	\$245.00
SIGN	Sign Permit	1	2	\$2,000.00	\$320.00
WSF	Water Softner Permit	1	1	\$400.00	\$180.00
				\$0.00	\$0.00
				\$0.00	\$0.00
	Totals	72	238	\$7,000,720.00	\$239,869.90

Total Certificate of Occupancies Issued: 16

Total Inspections(Comm & Res): 490

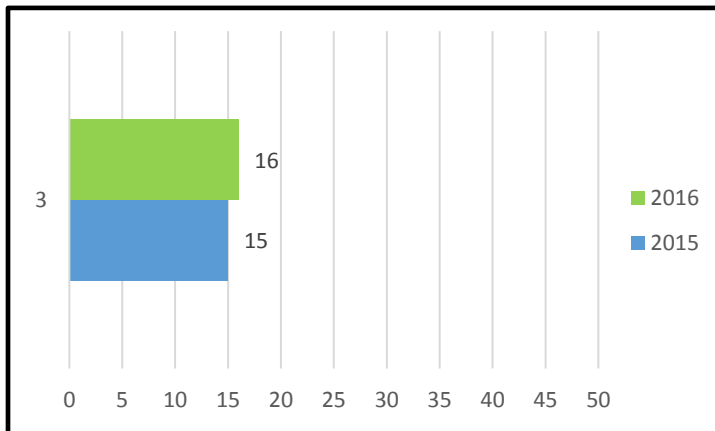
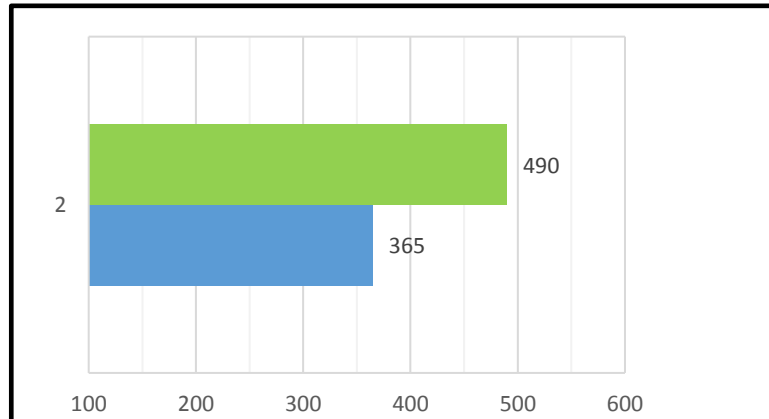
Tom Bolt, City Manager





PERMITS ISSUED
MAR 2016

INSPECTIONS
MAR 2016



COs ISSUED
MAR 2016

DEPARTMENT OF DEVELOPMENT SERVICES
THOMAS BOLT, DIRECTOR





Manor Police Department

Monthly Council Report

Ryan S. Phipps - Chief of Police

Date of Meeting:

March 2016

Activity	Reported Month	Same month Prior year	Percentage difference	
Calls for Service	1119	907	18.9↑	Patrol Car Rental
Average CFS per day	36	29	19.4↑	Last Month \$5,468
Open Cases	20	18	10.0↑	YTD \$21,285
Charges Filed	78	56	28.2↑	
Alarm Responses	29	27	6.89↑	
Drug Cases	24	9	62.5↑	
Family Violence	6	1	83.3↑	
Arrests F/M	9F/69M	6F/32M	33.3↑/53.6↑	
Animal Control	11	8	27.2 ↑	
Traffic Accidents	32	25	21.8↑	
DWI Arrests	5	4	20.0↑	
Traffic Violations	408	269	34.0↑	
Ordinance Violations	9	1	88.8↑	
Seizures	3.67oz Marijuana	DNA	DNA	Also seized was Meth & Opium
Laboratory Submissions	11	8	27.7↑	

Notes: Manor Police hired 4 new officers ; Anne Lopez, Lawrence Rideau, Joe Brown and Chris Chaney. Also hired was Animal Control Officer Ashley Killgore along with Police Clerk Sandra Bocksnick.

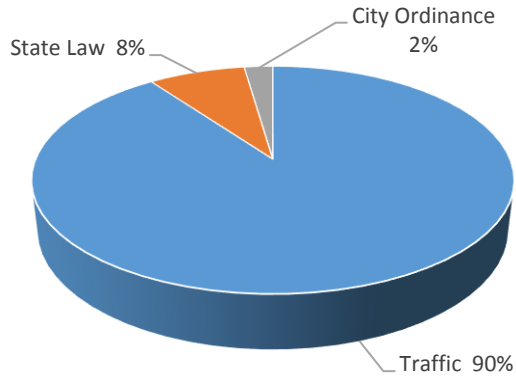
*DNA- DATA NOT AVAILABLE

City of Manor Municipal Court

MARCH 2016

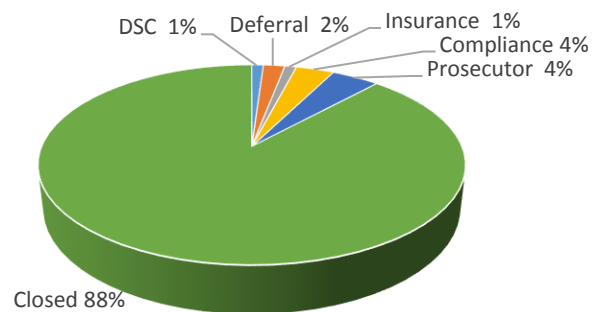
Violations Filed	Mar-16	Mar-15
Traffic	511	288
State Law	44	27
City Ord.	13	15
Total	568	330

PERCENTAGE OF VIOLATIONS



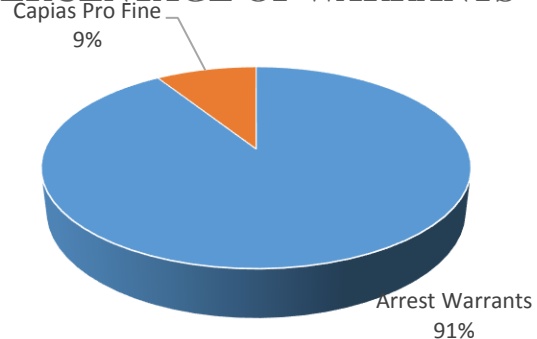
Dismissals	Mar-16	Mar-15
DSC	7	4
Deferral	13	15
Insurance	7	2
Compliance	23	14
Prosecutor	29	40
Closed	591	410
Total	670	485

PERCENTAGE OF DISMISSALS



Warrants	Mar-16	Mar-15
Arrest Warrants	463	130
Capias Pro Fine	46	1
Total	509	131

PERCENTAGE OF WARRANTS



Money Collected in March 2016

Kept By City	\$42,437.31
Kept By State	\$19,132.72
Total	\$61,570.03

Money Collected in March 2015

Kept By City	\$51,963.61
Kept By State	\$23,886.89
Total	\$75,850.50



**March, 2016 REPORT
PUBLIC WORKS DEPARTMENT**

Street and Public, Parks, and Maintenance Department

In March, the Street Department repaired and patched potholes. They also repaired streets and easement roads.

In March, the Public Parks and Maintenance Department mowed all city facilities, alleys, and right of ways. They cleaned and maintained city's facilities and parks.

Water and Wastewater Department

In March, the Water Department performed daily maintenance on the water system an average of two to three hours per day. There were 5 water inspections last month.

In March, the Wastewater Department performed daily maintenance on the wastewater plant an average of six to eight hours per day. They cleaned and unstopped wastewater mains. There were 10 wastewater inspections last month.

Water Production & Purchase

In March, 22 % percent of the water, we supplied, to our residents was from our well fields, and we purchased 78 % from Bluewater and Manville WSC. In January, the estimated population of residents in the City of Manor is 8,508. Estimated Population for Shadowglen is 2,488 residents.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MANOR, TEXAS ANNEXING 1.069 ACRES OF LAND, MORE OR LESS, THAT IS ADJACENT AND CONTIGUOUS TERRITORY TO THE CITY; APPROVING A SERVICE PLAN FOR THE ANNEXED AREA; MAKING FINDINGS OF FACT; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS; the City of Manor, Texas (“the City”) is home rule municipality authorized by State law to annex territory lying adjacent and contiguous to the City;

WHEREAS; the owner of the property, as hereinafter described, made written request for the City to annex such property in compliance with the *Tex. Loc. Gov’t Code*;

WHEREAS; the property is adjacent to the present city limits and contiguous with the city limits;

WHEREAS; the City Council has heard and has decided to grant the request;

WHEREAS; two separate public hearings were conducted prior to consideration of this Ordinance in accordance with § 43.063 of the *Tex. Loc. Gov’t. Code*;

WHEREAS; notice of the public hearing was published in a newspaper of general circulation in the City and the territory proposed to be annexed not more than twenty (20) nor less than (10) days prior to the public hearings;

WHEREAS; the City intends to provide services to the property to be annexed according to the Service Plan attached hereto as Exhibit “B”

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANOR, TEXAS, THAT:

Section 1. All of the above premises and findings of fact are found to be true and correct and are incorporated into the body of this Ordinance as if copied herein in their entirety.

Section 2. That the following described property (hereinafter referred to as the “Annexed Property”) is hereby annexed into the corporate limits of the City of Manor:

All portions of that certain tract or parcel of land not previously annexed into the city limits, being 1.069 acres, more or less, located in Travis County, Texas filed in the Travis County Official Public Records as Document No. 2013171610, being more particularly described in Exhibit “A” attached hereto and incorporated herein for all purposes.

Section 3. That the Service Plan submitted herewith is hereby approved as part of this Ordinance, made a part hereof and attached hereto as Exhibit “B”.

Section 4. That the future owners and inhabitants of the Annexed Property shall be entitled to all of the rights and privileges of the City as set forth in the Service Plan attached

hereto as Exhibit "B", and are further bound by all acts, ordinances, and all other legal action now in full force and effect and all those which may be hereafter adopted.

Section 5. That the official map and boundaries of the City, heretofore adopted and amended be and hereby are amended so as to include the Annexed Property as part of the City of Manor.

Section 6. That the Annex Property shall be temporarily zoned District "A" as provided in the City Zoning Ordinance, until permanent zoning is established therefore.

Section 7. That if any provision of this Ordinance or the application of any provision to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared severable.

Section 8. That this Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the *Tex. Loc. Gov't. Code*.

Section 9. That it is hereby officially found and determined that the meeting at which this Ordinance is passes was open to the public as required and that public notice of the time, place, and purpose of said meeting was given required by the Opens Meeting Act, *Chapt. 551, Tex. Gov't Code*.

PASSED AND APPROVED on First Reading this the ____ day of _____, 2016

FINALLY PASSED AND APPROVED on this the ____ day of _____, 2016

ATTEST:

THE CITY OF MANOR, TEXAS

Frances Aguilar, City Secretary

Rita Jonse, Mayor

EXHIBIT "A"

Property description: +/- 1.069 acres

4. The land referred to in this policy is described as follows:

1.069 ACRES OF LAND, MORE OR LESS, BEING ALL OF THAT CERTAIN 1.062 ACRES OF LAND OUT OF THE GREENBURY GATES SURVEY NO. 63, TRAVIS COUNTY, TEXAS AS CONVEYED TO MICHAEL AND JAMES PACLIK JR. BY WARRANTY DEED RECORDED IN DOCUMENT NUMBER 2013171610, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS; FOR WHICH A MORE PARTICULAR DESCRIPTION BY METES AND BOUNDS IS AS FOLLOWS AND FOR WHICH A SKETCH IS ATTACHED HERETO AND MADE A PART HEREOF:

BEGINNING at an iron rod with cap in the west right-of-way of F.M. 973 at the S.E. corner of that certain 1.062 acres of land recorded in Document Number 2013171610, Official Public Records, Travis County, Texas; for the S.E. corner hereof, from which point a spindle found on the east right-of-way of F.M. 973 bears S58°26'39"E at a distance of 40.44 feet;

THENCE N62°05'04"W for a distance of 189.74 feet to a 1/2" iron rod found for the S.W. corner hereof;

THENCE N28°08'03"E for a distance of 247.31 feet to a 1/2" iron rod found for the N.W. corner hereof;

THENCE S61°39'20"E for a distance of 188.00 feet to an iron rod with cap found on the west right-of-way of F.M. 973 for the N.E. corner hereof;

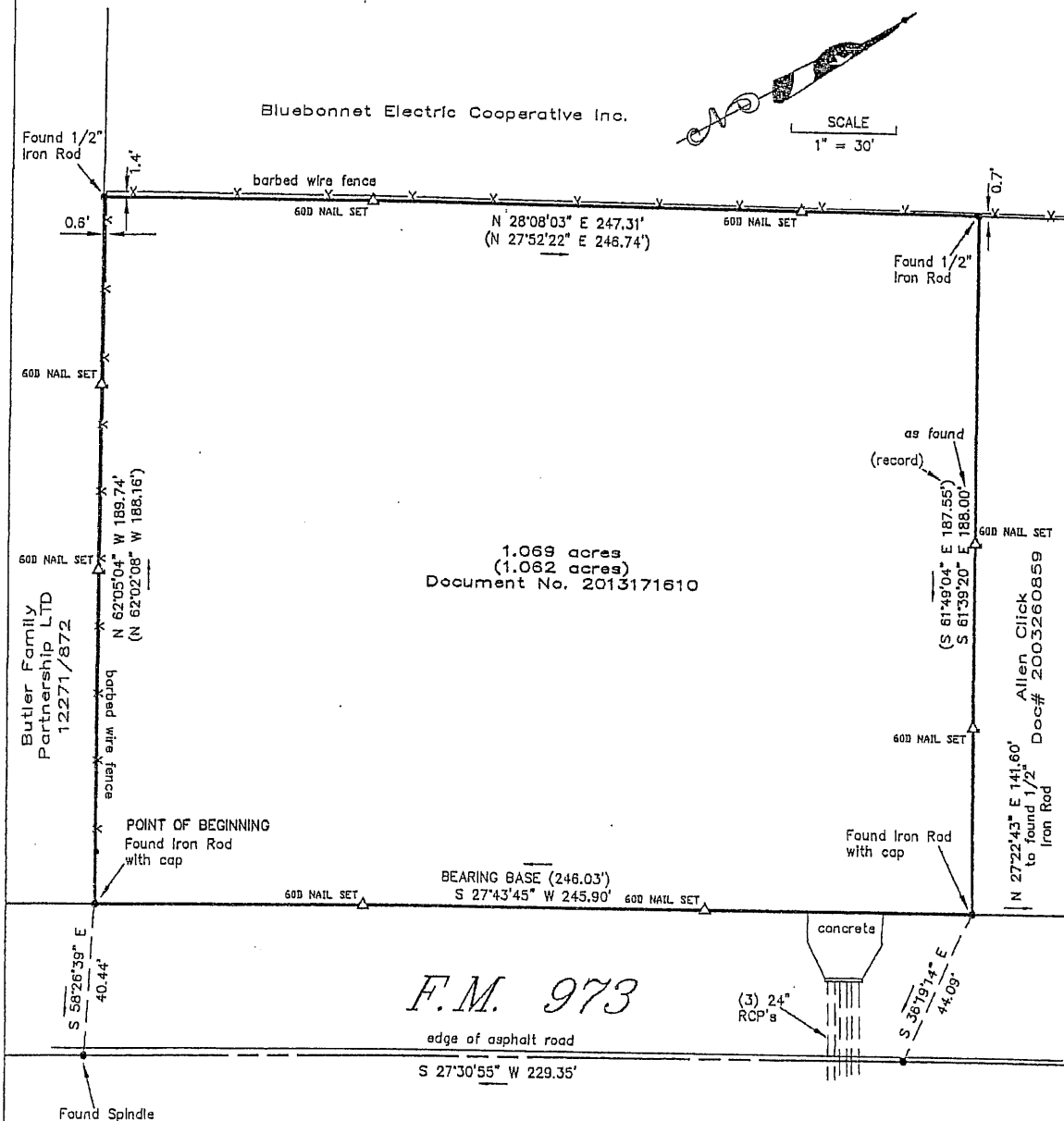
THENCE S27°43'45"W along the west right-of-way of F.M. 973 for a distance of 245.90 feet to the POINT OF BEGINNING, containing 1.069 acres of land, more or less.

NOTE: The Company is prohibited from insuring the area or quantity of the land described herein. Any statement in the legal description contained in Schedule "A" as to area or quantity of land is not a representation that such area or quantity is correct, but is made only for informal identification purposes and does not override Item 2 of Schedule "B" hereof.

Waterloo Surveyors Inc.
SURVEY PLAT

J14031POL

STAKING PLAN, POINTS ON-LINE (SET 08/07/15)



LEGAL DESCRIPTION:
1.069 ACRES OF LAND, MORE OR LESS, BEING ALL OF THAT CERTAIN
1.062 ACRES OF LAND CONVEYED TO MICHAEL JAMES PACLIK, JR. BY
WARRANTY DEED RECORDED IN DOCUMENT NUMBER 2013171610, DEED
RECORDS, TRAVIS COUNTY, TEXAS

EXHIBIT “B”

Approved municipal Service Plan

**MUNICIPAL SERVICES PLAN
FOR PROPERTY TO BE
ANNEXED INTO THE CITY OF MANOR**

WHEREAS, the City of Manor, Texas (the "City") intends to institute annexation proceedings for tracts of land described more fully hereinafter (referred to herein as the "subject property");

WHEREAS, *Section 43.056, Loc. Gov't. Code*, requires a service plan be adopted with the annexation ordinance;

WHEREAS, the subject property is not included in the municipal annexation plan and is exempt from the requirements thereof;

WHEREAS, infrastructure provided for herein and that existing are sufficient to service the subject property on the same terms and conditions as other similarly situated properties currently within the City limits and no capital improvements are required to offer municipal services on the same terms and conditions as other similarly situated properties within the City;

WHEREAS, the owner(s) of the subject property agree they will benefit from the City's development restrictions and zoning requirements, as well as other municipal services provided by the City, which are good and valuable consideration for this service plan; and

WHEREAS, it is found that all statutory requirements have been satisfied and the City is authorized by *Chapt. 43, Loc. Gov't. Code*, to annex the subject property into the City;

NOW, THEREFORE, the following services will be provided for the subject property on the effective date of annexation:

(1) **General Municipal Services.** Pursuant to the requests of the owner and this Plan, the following services shall be provided immediately from the effective date of the annexation:

A. Police protection as follows:

Routine patrols of areas, radio response to calls for police service and all other police services now being offered to the citizens of the City.

B. Fire protection and Emergency Medical Services as follows:

Fire protection by agreement between the City and the ESD's present personnel and equipment of the ESD fire fighting force and the volunteer fire fighting force with the limitations of water available. Radio response for Emergency Medical Services with the present contract personnel and equipment of the ESD.

C. Solid waste collection services as follows:

Solid waste collection and services as now being offered to the citizens of the City.

D. Animal control as follows:

Service by present personnel, equipment and facilities or by contract with a third party, as provided within the City.

E. Maintenance of parks and playgrounds within the City.

F. Inspection services in conjunction with building permits and routine City code enforcement services by present personnel, equipment and facilities.

G. Maintenance of other City facilities, buildings and service.

H. Land use regulation as follows:

On the effective date of annexation, the regulatory and zoning jurisdiction of the City shall be extended to include the annexed area, and the use of all property therein shall be grandfathered; and shall be temporarily zoned "R-1" with the intent to rezone the subject property upon request of the landowner or staff. The Planning & Zoning Commission and the City Council will consider rezoning the subject property at future times in response to requests submitted by the landowner(s) or authorized city staff.

(2) **Scheduled Municipal Services.** Due to the size and vacancy of the subject property, the plans and schedule for the development of the subject property, the following municipal services will be provided on a schedule and at increasing levels of service as provided in this Plan:

A. Water service and maintenance of water facilities as follows:

(i) Inspection of water distribution lines as provided by statutes of the State of Texas.

(ii) In accordance with the applicable rules and regulations for the provision of water service, water service will be provided to the subject property, or applicable portions thereof, by the utility holding a water certificate of convenience and necessity ("CCN") for the subject property or portions thereof (the "CCN holder") and, as applicable, the utility providing wholesale or retail water service to said CCN holder. Absent a water CCN, by the utility in whose jurisdiction the subject property, or portions thereof as applicable, is located, in accordance with all the ordinances, regulations, and policies of the City in effect from time to time for the extension of water service. If connected to the City's water utility system, the subject property owner shall construct the internal water lines and pay the costs of line extension and construction of such facilities necessary to provide water service to the subject property as required in City ordinances. Upon acceptance of the water lines within the subject property and any off-site improvements, water service will be provided by the City utility department on the same terms, conditions and requirements as are applied to all similarly situated areas and customers of the City; subject to all the ordinances, regulations and policies of the City in effect from time to time. The system will be accepted and maintained by the

City in accordance with its usual acceptance and maintenance policies. New water line extensions will be installed and extended upon request under the same costs and terms as with other similarly situated customers of the City. The ordinances of the City in effect at the time a request for service is submitted shall govern the costs and request for service. The continued use of a water well that is in use on the effective date of the annexation and is in compliance with applicable rules and regulations shall be permitted and such use may continue until the subject property owner requests and is able to connect to the City's water utility system.

B. Wastewater service and maintenance of wastewater service as follows:

(i) Inspection of sewer lines as provided by statutes of the State of Texas.

(ii) (a) In accordance with the applicable rules and regulations for the provision of wastewater service, wastewater service will be provided to the subject property, or applicable portions thereof, by the utility holding a wastewater CCN for the subject property, or portions thereof as applicable, or absent a wastewater CCN, by the utility in whose jurisdiction the subject property, or portions thereof as applicable, is located, in accordance with all the ordinances, regulations, and policies of the City in effect from time to time for the extension of wastewater service. If connected to the City's wastewater utility system, the subject property owner shall construct the internal wastewater lines and pay the costs of line extension and construction of facilities necessary to provide wastewater service to the subject property as required by City ordinances. Upon acceptance of the wastewater lines within the subject property and any off-site improvements, wastewater service will be provided by the City utility department on the same terms, conditions and requirements as are applied to all similarly situated areas and customers of the City, subject to all the ordinances, regulations and policies of the City in effect from time to time. The wastewater system will be accepted and maintained by the City in accordance with its usual policies. Requests for new wastewater line extensions will be installed and extended upon request under the same costs and terms as with other similarly situated customers of the City. The ordinances in effect at the time a request for service is submitted shall govern the costs and request for service. The continued use of a septic system that is in use on the effective date of the annexation and is in compliance with all applicable rules and regulations shall be permitted and such use may continue until the subject property owner requests and is able to connect to the City's wastewater utility system.

C. Maintenance of streets and rights-of-way as appropriate as follows:

(i) Provide maintenance services on existing public streets within the subject property and other streets that are hereafter constructed and finally accepted by the City. The maintenance of the streets and roads will be limited as follows:

(A) Emergency maintenance of streets, repair of hazardous potholes, measures necessary for traffic flow, etc.; and

(B) Routine maintenance as presently performed by the City.

(ii) The City will maintain existing public streets within the subject property, and following installation and acceptance of new roadways by the City as provided by city ordinance, including any required traffic signals, traffic signs, street markings, other traffic control devices and street lighting, the City will maintain such newly constructed public streets, roadways and rights-of-way within the boundaries of the subject property, as follows:

(A) As provided in C(i)(A)&(B) above;

(B) Reconstruction and resurfacing of streets, installation of drainage facilities, construction of curbs, gutters and other such major improvements as the need therefore is determined by the governing body under City policies;

(C) Installation and maintenance of traffic signals, traffic signs, street markings and other traffic control devices as the need therefore is established by appropriate study and traffic standards; and

(D) Installation and maintenance of street lighting in accordance with established policies of the City;

(iii) The outer boundaries of the subject property abut existing roadways. The property owner agrees that no improvements are required on such roadways to service the property.

(3) **Capital Improvements.** Construction of the following capital improvements shall be initiated after the effective date of the annexation: None. Upon development of the subject property or redevelopment, the landowner will be responsible for the development costs the same as a developer in a similarly situated area under the ordinances in effect at the time of development or redevelopment. No additional capital improvements are necessary at this time to service the subject property the same as similarly situated properties.

(4) **Term.** If not previously expired, this service plan expires at the end of ten (10) years.

(5) **Property Description.** The legal description of the subject property is as set forth in the Annexation Ordinance and exhibits attached to the Annexation Ordinance to which this Service Plan is attached.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MANOR, TEXAS, AMENDING THE ZONING ORDINANCE BY REZONING A PARCEL OF LAND FROM INTERIM AGRICULTURAL (A) TO LIGHT INDUSTRIAL (IN-1); MAKING FINDINGS OF FACT; AND PROVIDING FOR RELATED MATTERS.

Whereas, the owner of the property described hereinafter (the "Property") has requested that the Property be rezoned;

Whereas, after giving ten days written notice to the owners of land within three hundred feet of the Property, the Planning & Zoning Commission held a public hearing on the proposed rezoning and forwarded its recommendation on the rezoning to the City Council;

Whereas, after publishing notice of the public at least fifteen days prior to the date of such hearing, the City Council at a public hearing has reviewed the request and the circumstances of the Property and finds that a substantial change in circumstances of the Property, sufficient to warrant a change in the zoning of the Property, has transpired;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANOR, TEXAS, THAT:

Section 1. Findings. The foregoing recitals are hereby found to be true and correct and are hereby adopted by the City Council and made a part hereof for all purposes as findings of fact.

Section 2. Amendment of Zoning Ordinance. Ordinance No. 185, as amended, the City of Manor Zoning Ordinance (the "Zoning Ordinance" or "Code"), is hereby modified and amended by rezoning the Property as set forth in Section 3.

Section 3. Rezoned Property. The Zoning Ordinance is hereby amended by changing the zoning district for the land and parcel of property described in Exhibit "A" (the "Property"), from the current zoning district Interim Agricultural (A) to zoning district Light Industrial (IN-1). The Property is accordingly hereby rezoned to Light Industrial (IN-1).

Section 4. Open Meetings. That it is hereby officially found and determined that the meeting at which this ordinance is passed was open to the public as required and that public notice of the time, place, and purpose of said meeting was given as required by the Open Meetings Act, Chapt. 551, Loc. Gov't. Code.

PASSED AND APPROVED FIRST READING on this the ____ day of _____, 201__.

PASSED AND APPROVED SECOND AND FINAL READING on this the ____ day of _____, 201__.

ATTEST:

THE CITY OF MANOR, TEXAS

Frances Aguilar, City Secretary

Rita Jonse, Mayor

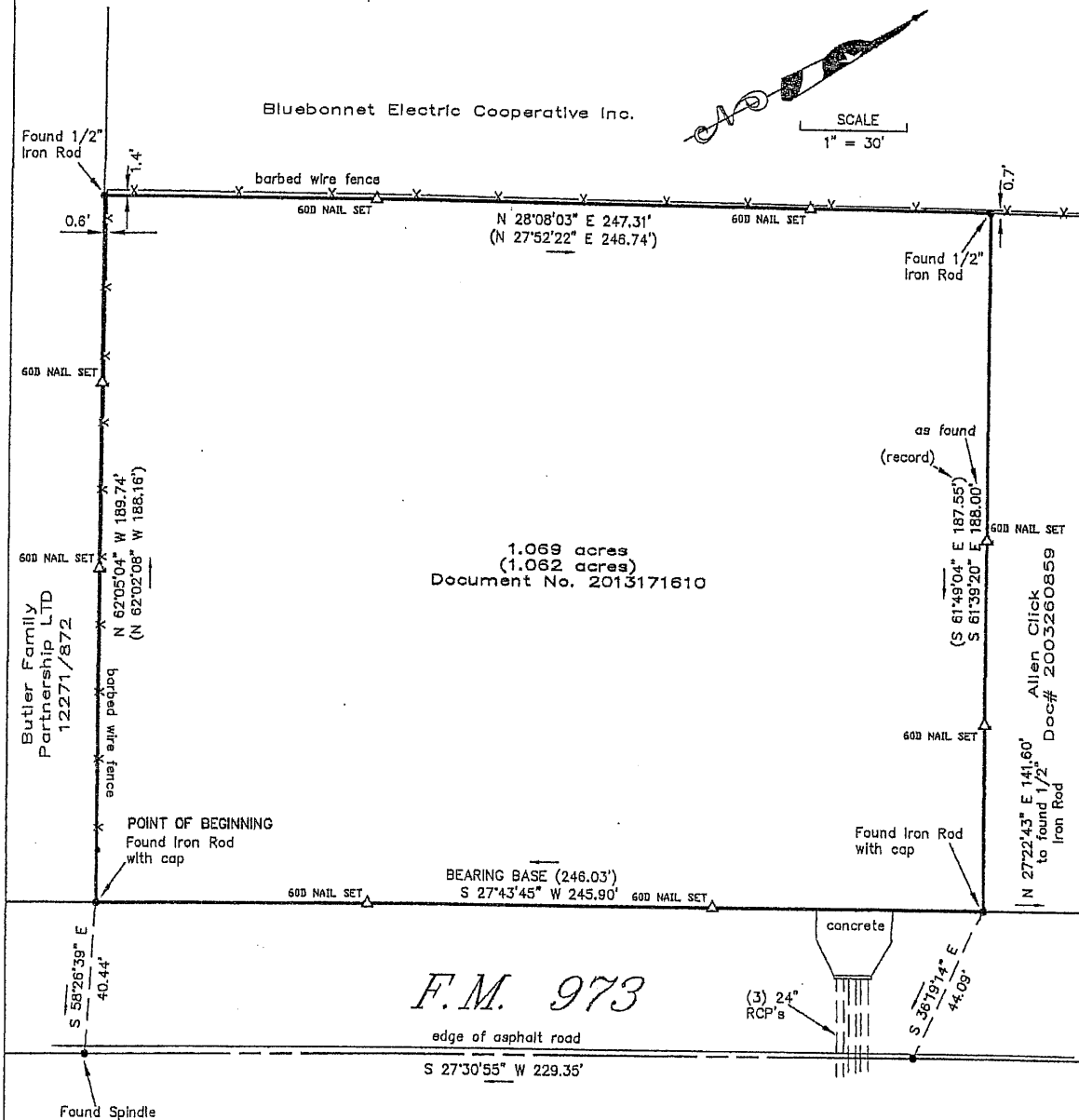
EXHIBIT "A"

Property Address: 13500 North FM 973, Manor, Travis County, Texas
Property Legal Description: Abstract 315 Survey 63 Gates G Acr 1.0690

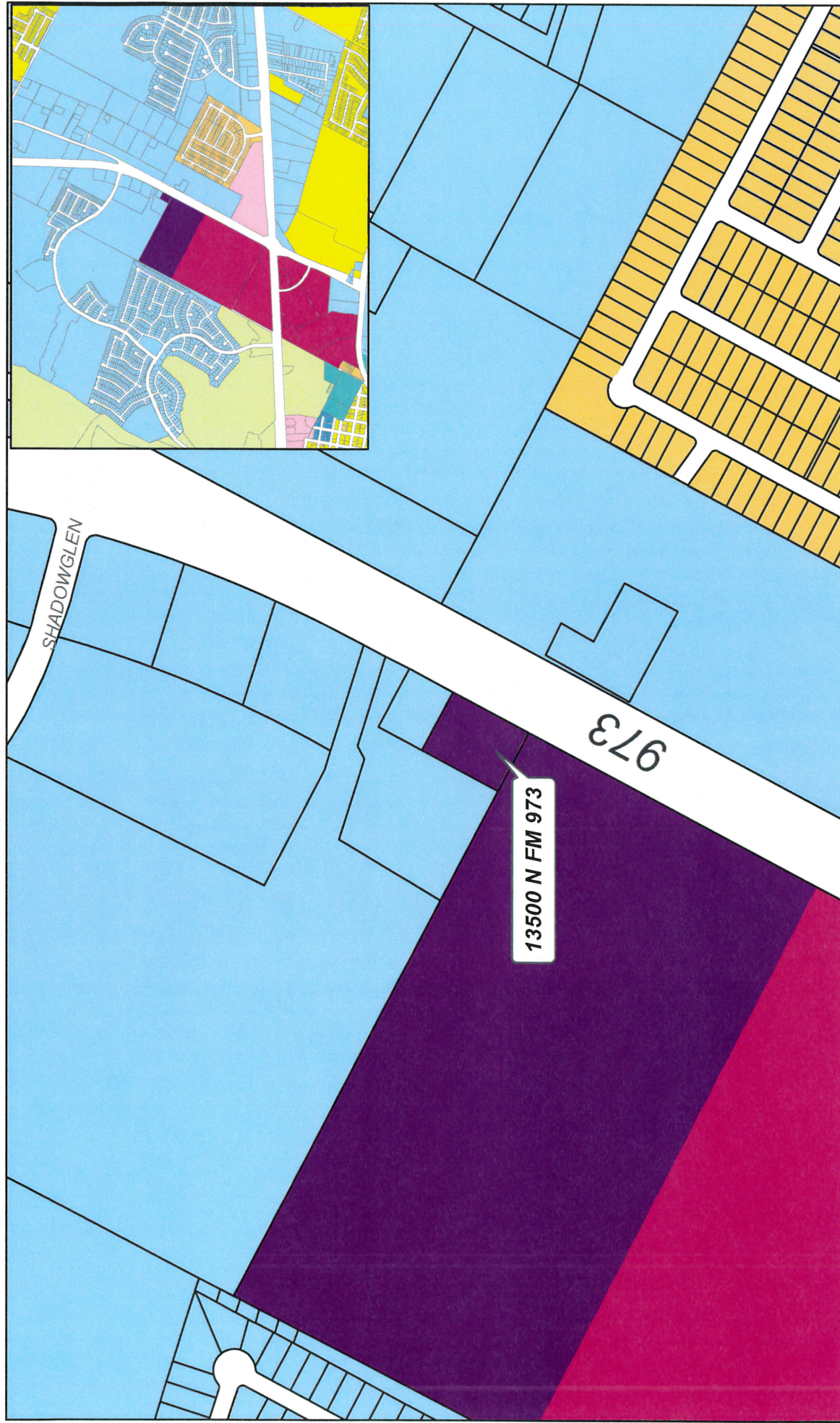
Waterloo Surveyors Inc.
SURVEY PLAT

J14031POL

STAKING PLAN, POINTS ON-LINE (SET 08/07/15)



LEGAL DESCRIPTION:
1.069 ACRES OF LAND, MORE OR LESS, BEING ALL OF THAT CERTAIN
1.062 ACRES OF LAND CONVEYED TO MICHAEL JAMES PACLIK, JR. BY
WARRANTY DEED RECORDED IN DOCUMENT NUMBER 2013171610, DEED
RECORDS, TRAVIS COUNTY, TEXAS



Zone			
■	A - Agricultural	■	M-2 - Manufactured Housing Park
■	C-1 Light Commercial	■	NB - Neighborhood Business
■	C-2 Heavy Commercial	■	PUD - Planned Unit Development
■	DBD - Downtown Business District	■	R-1 - Single Family
■	I - Institutional	■	R-2 - Single Family
■	IN-1 - Light Industrial	■	R-4 - Multi Family
■	M-1 - Manufactured Housing	■	Manor ETJ



13500 N FM 973
Proposed Zoning:
IN-1 Light Industrial



March 10, 2016

Julio Mireles

RE: 13500 N FM 973 rezoning application

Mr. Mireles,

The Manor Planning and Zoning Commission at the March 9th meeting voted to recommend approval for rezoning 1.069 acres, Abs 315 Sur 63 Gate G, 13500 N FM 973 from interim agricultural (A) to light industrial (IN-1). Refer to Ordinance 185-H for a list of permitted uses under Light Industrial as well as other limitations and building requirements.

Thank you,

Scott Dunlop
City Planner

CITY OF MANOR
DRAFT 5-YEAR CAPITAL IMPROVEMENTS PLAN

Water

Project No.	Year	Description	Construction Cost (2015 Dollars)	Size	Unit	Length (ft)	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs 15%	Contingency 10%	Total Project Costs	Detailed Description
W-6	2017	Blake Manor Road Water Line	\$ 268,800.00	12	inch	3,200	\$ 296,000.00	\$ 44,000.00	\$ 30,000.00	\$ 370,000.00	Transmission main from downtown along Blake Manor Road to future FM 973. Includes replacing 400 LF of 6" pipe in Downtown Plant
	2017	FM 973 Water Line	\$ 246,400.00	16	inch	2200	\$ 271,000.00	\$ 41,000.00	\$ 27,000.00	\$ 339,000.00	Transmission main from US 290 to serve new growth on the east and west sides of FM 973
W-15	2017	US 290 Water Line	\$ 243,600.00	12	inch	2900	\$ 268,000.00	\$ 40,000.00	\$ 27,000.00	\$ 335,000.00	Parallel 12" waterline to increase US 290 capacity
W-17	2018	US 290 Water Line	\$ 492,800.00	16	inch	4400	\$ 567,000.00	\$ 85,000.00	\$ 57,000.00	\$ 709,000.00	Extend transmission main from Presidential Glen to Old Kimbro Road
W-18	2018	Old Kimbro Road Water Line	\$ 252,000.00	12	inch	3000	\$ 290,000.00	\$ 44,000.00	\$ 29,000.00	\$ 363,000.00	Transmission main to serve new growth north of US 290
WCIP -1	2018	Gregg Lane to Tower Road Water Line	\$ 2,934,360.00	12	inch	15290	\$ 3,375,000.00	\$ 506,000.00	\$ 338,000.00	\$ 4,219,000.00	1 MG Storage, 700 gpm booster station and transmission main from Manville WSC Booster Station to East Elevated Storage Tank
WCIP -2	2018	AMR Water meters	\$ 600,000.00				\$ 690,000.00	\$ 104,000.00	\$ 69,000.00	\$ 863,000.00	2700 Meter bodies and AMR registers, 1620 replacement meter box lids, software, two vehicle transmitter units, two laptops
Total										\$ 7,198,000.00	

Wastewater

Project No.	Year	Description	Construction Cost (2015 Dollars)	Size	Unit	Length	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs 15%	Contingency 10%	Total Project Costs	Detailed Description
S-13	2017	1.5 MGD Addl. Wilbarger WWTP Capacity	\$ 10,500,000.00	1.5	MGD		\$ 11,550,000.00	\$ 1,733,000.00	\$ 1,155,000.00	\$ 14,438,000.00	New Treatment Plant Capacity to Serve Addl Growth
S-16	2020	West Cottonwood LS and FM	\$ 471,000.00	6" FM & 350 GPM LS		3,200	\$ 589,000.00	\$ 88,000.00	\$ 59,000.00	\$ 736,000.00	Extend 27" and 30" gravity ww from confluence with East Cottonwood to US 290, ultimate capacity
S-17	2020	West Cottonwood Gravity Line	\$ 265,200.00	12 inch		3,700	\$ 332,000.00	\$ 50,000.00	\$ 33,000.00	\$ 415,000.00	Extend 12" gravity ww from confluence with East Cottonwood to US 290, interim capacity
S-19	2017	FM 973 Gravity Wastewater Line	\$ 452,400.00	12 inch		5,800	\$ 498,000.00	\$ 75,000.00	\$ 50,000.00	\$ 623,000.00	Serves FM 973 Corridor up to Wilbarger Basin divide (approx. Gregg Ln)
WW CIP-1	2017	Wildhorse Creek Lift Station Expansion	\$ 125,000.00	1,075 gpm			\$ 138,000.00	\$ 21,000.00	\$ 14,000.00	\$ 173,000.00	Change in discharge point increased Phase 1 capacity from 440 to 1026 LUES, currently at about 706 LUES. Will need to expand LS when Lagos develops to ultimate 1586 LUE capacity.
WW CIP-3	2020	Presidential Glen Lift Station Expansion	\$ 175,000.00	2,275 gpm			\$ 219,000.00	\$ 33,000.00	\$ 22,000.00	\$ 274,000.00	Presently at approximately 264 LUES. Current phase 1 capacity is 1119 LUES. Ultimate Capacity at phase 2 is 3517.
WW CIP-4	2018	Travis County Center Lift Station	\$ 350,000.00	500 gpm			\$ 403,000.00	\$ 60,000.00	\$ 40,000.00	\$ 503,000.00	Presently at approximately 264 LUES. Current phase 1 capacity is 1119 LUES. Ultimate Capacity at phase 2 is 3517.
Total										\$ 17,162,000.00	

CITY OF MANOR
DRAFT 5-YEAR CAPITAL IMPROVEMENTS PLAN

Streets and Drainage

Project No.	Year	Description	Construction Cost (2015 Dollars)	Size	Unit	Length (ft)	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs 15%	Contingency 10%	Total Project Costs	Detailed Description
SD CIP-1	2017	Improve Streets w/ Ribbon Curb and Drainage	\$ 4,388,200.00	20' pavement with ribbon curb	LF	18,364	\$ 4,827,000.00	\$ 724,000.00	\$ 483,000.00	\$ 6,034,000.00	Improvement of streets and drainage, including ribbon curb from Bastrop to San Marcos and Murray to Eggleston
SD CIP-2	2016	East Brenham Repairs	\$ 88,615.00							\$ 88,615.00	Spot repairs funded by 2014 and 2015 BCT \$33,507 and \$55,108, respectively)
SD CIP-3	2016	Paseo de Presidente	\$ 206,000.00	58' wide pavement	LF	800	\$ 216,000.00	\$ 32,000.00	\$ 22,000.00	\$ 270,000.00	Recycle 21" base/asphalt and repave with 2" HMAAC
Total										\$ 6,393,000.00	

CITY OF MANOR
DRAFT 5-YEAR CAPITAL IMPROVEMENTS PLAN

Hike and Bike Trails

Project No.	Year	Description	Construction Cost (2015 Dollars)	Size	Unit	Length (ft)	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs 15%	Contingency 10%	Total Project Costs	Detailed Description
Trail #1	2016	Concrete Trail	\$ 937,728.00	10'	Mi	1.2	\$ 985,000.00	\$ 148,000.00	\$ 99,000.00	\$ 1,232,000.00	Travis County Rural Center to Blake Manor Road
Trail #2	2017	Concrete Trail	\$ 390,720.00	10'	Mi	0.5	\$ 430,000.00	\$ 65,000.00	\$ 43,000.00	\$ 538,000.00	High School to proposed Trail #3
Trail #3	2018	Nature Trail	\$ 418,968.00	8'	Mi	1.15	\$ 482,000.00	\$ 72,000.00	\$ 48,000.00	\$ 602,000.00	Looped trail within Preserve Tract
Trail #4	2019	Concrete Trail	\$ 1,172,160.00	10'	Mi	1.5	\$ 1,407,000.00	\$ 211,000.00	\$ 141,000.00	\$ 1,759,000.00	High School to Rector Loop
Trail #5	2020	Nature Trail	\$ 1,184,040.00	8'	Mi	3.25	\$ 1,480,000.00	\$ 222,000.00	\$ 148,000.00	\$ 1,850,000.00	Loop around proposed Woodland Park
Trail #6	2020	Concrete Trail	\$ 273,504.00	10'	Mi	0.35	\$ 341,880.00	\$ 51,000.00	\$ 38,000.00	\$ 430,880.00	Carrie Manor to Lexington Trail Head and Burnet Road from Parsons to Boyce
Trail #7	2020	Concrete Trail	\$ 234,432.00	10'	Mi	0.3	\$ 283,040.00	\$ 44,000.00	\$ 32,000.00	\$ 369,040.00	Riata Ford to Parsons
Total										\$ 6,780,920.00	
Grand Total										\$ 37,533,920.00	

Water Sites

- Proposed Water Tank
- Existing Water Tank
- Proposed Check Valve
- Minor Ditches
- Water Service Area
- Minor Road

Water Lines

- Existing or Proposed
- Proposed 12 inch
- Proposed 18 inch




Kimbro Estates
Offsite Water Line


EXHIBIT A-1

Cross Street
Cross Street
Cross Street

Wastewater Sites


Type


 Wastewater Treatment Plant


 Wastewater Collection Point


Proposed Wastewater Lines


Type


 Force Mains

 Gravity Mains


 Stormwater

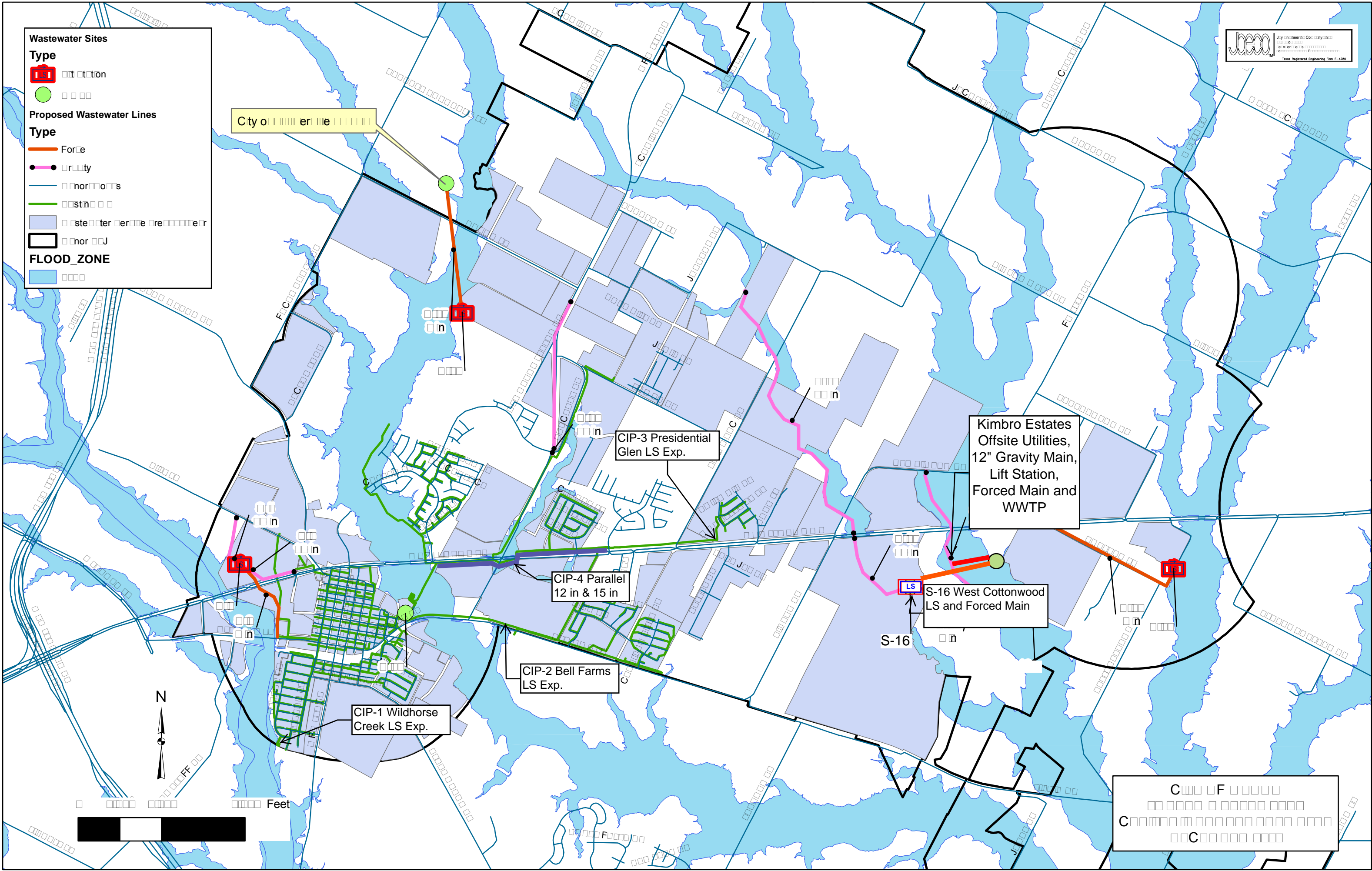
 Sanitary Sewers

 Wastewater Treatment Plant

 Flood Zone

FLOOD_ZONE

 Flood Zone



HIKE AND BIKE TRAIL MASTER PLAN

FOR

CITY OF MANOR, TEXAS



January 2016

JAY ENGINEERING COMPANY, INC.

*P.O. Box 1220
Leander, TX 78646*

*(512) 259-3882
Fax 259-8016*

Texas Registered Engineering Firm F-4780

INTRODUCTION

For many years, hike and bike trails have been one of the most popular recreation features that cities can offer to its residents. Hike and Bike Trails often serve recreational, transportation and linkage purposes. In Manor the recreational, transportation and linkage aspects of a proposed city-wide trail system will serve both a local and regional purpose. A well planned trail system can help link the City of Manor to the City of Austin while serving as an alternative mode of transportation for some residents. The City of Austin Urban Trails Master Plan includes the Austin to Manor Trail. This trail is located south of U.S. 290. It connects to the Southern Walnut Creek Trail and provides users with an 11 mile ride/walk from Central East Austin to Manor. This trail is a 10' wide concrete path with 2' wide grass shoulders. It currently starts at Daffan Lane in Austin and runs along the northern side of Walter E. Long Metropolitan Park until it reaches Lindell Lane. A future extension to this trail is planned to run from Lindell Lane to Ben E. Fisher Park in Manor. The 290 toll road features a 10 foot wide, six mile long shared use path that runs from the Highway 183 Interchange to east of SH 130, allowing for safe bicycle and pedestrian travel along the corridor. It was designed in order to connect to other regional trails in the area.

If properly located, trails can also serve as an alternative mode of transportation for residents to possibly commute to work or school. The City of Manor will have opportunities in the future as development occurs to integrate the trail system in other ways, perhaps along a creek or through a park area. However, in previously developed areas, the City will have to decide the best way in which to establish trails. Opportunities within existing neighborhoods are more limited, and if built, many could possibly have to be on-street trails, depending primarily upon the amount of right-of-way available.

Because of the favorable weather in Texas the majority of the year, trails are often the most frequently requested recreation amenity in communities. The City of Manor Hike and Bike Trails Master Plan makes recommendations for a community-wide network of multipurpose trails and pathways. The network is envisioned as a continuous set of developed trails, footpaths, bridges, and sidewalk segments that connect neighborhoods, parks, significant natural features and business districts.

GOALS OF THE PROPOSED TRAIL PLAN

Goal #1 – Trails should be easily accessible from locations throughout the City of Manor.

Goal #2 – When possible, hike and bike trails should be linked with the existing sidewalk network.

Goal #3 – Trail amenities and features should be added in places with the proposed heaviest trail usage.

Goal #4 – Trail funding should be established/researched.

Goal #5 – Trails should be environmentally sustainable and should preserve the existing habitats.

BENEFITS OF TRAILS

Trails and trail use have increased in popularity over the years to the point that a home with a nearby trail will often have a higher property value than one without. This is supported by a 2002 survey conducted by the National Association of Realtors and the National Association of Home Builders. The survey found that trails were second only to highway access in importance of community amenities (Rails to Trails, 2002).

- Trails are popular because they offer something for everyone from the very young to the very old. Anyone can be active on trails.
- Trails can provide access and opportunities to see the beautiful, natural parts of the City. They can also provide opportunities to see other neighborhoods and newer parts of the City.
- Trails promote a healthy lifestyle by providing opportunities for residents to engage in exercise whether by walking, running, biking or even rollerblading.
- Trails help preserve and enhance greenbelt areas and can beautify street corridors.
- Trails can enhance the transportation system in Manor by providing different ways to get to key destinations such as schools, libraries, parks, recreation centers, city hall.
- Developing a trail system will help to demonstrate the commitment of the City of Manor to establish a high quality of life for its residents.

PURPOSE OF THE HIKE AND BIKE TRAIL MASTER PLAN

This first version hike and bike trail master plan will help serve as the outline by which the City of Manor and private developers can work together in order to build trail corridors for the City. This plan will identify crucial trail routes and will help to create a citywide network. A plan such as this will provide guidance on the preferred location for trails and will help the City to determine what lands, if any, need to be acquired for trail use. This plan will also provide guidance for making informed decisions on how to fund the proposed trails plan.

This plan will need to remain flexible and be updated as Manor continues to grow and change. The plan will continue to serve for many years, but should be periodically updated to reflect current conditions within the City or within nearby communities such as Austin, Pflugerville and Elgin. The proposed timeframe for this plan is from 2016 through 2026. The plan should be reviewed periodically and updated in order to make any alterations to the plan due to major events/occurrences. Changes can also be made after feedback from residents has been received.

WHO WILL IMPLEMENT THE PLAN?

The implementation of the Hike and Bike Trails Master Plan will be led by the City of Manor and its Streets and Parks Department. Other key implementers should include: Travis County, Manor ISD, and TxDOT. Property owners, developers, commercial entities, and others in the business community in Manor should also be involved as well as community homeowner associations (HOAs) and other collective groups of neighborhoods. All residents in Manor should be included as well. Adjacent residents of Travis County could also be included in order to help encourage connections to other adjacent systems.

CONCEPTS OF THE HIKE AND BIKE TRAIL MASTER PLAN

The system of trails recommended in this master plan will allow the City to not only enhance recreation opportunities for its residents, but also to influence the appearance of Manor. The master plan foresees connections to all neighborhoods via readily accessible, wide, safe, and attractive pathways. The following principles will be established through the master planning process and will serve as guidance to the alignment and layout of both the trails proposed in this document, as well as additional proposed trails in the future.

- **Create a citywide network of trails** - The ultimate goal of the trails master plan is to create an interconnected network that allows travel across all of Manor. Unconnected sections of the City should be united into an overall system of continuous trails. The proposed and future trails can be used for both transportation and recreation.
- **Promote a feeling of security on all trails** - Trails should provide smooth, walkable corridors that feel safe to users.
- **Access** - Access to the trail system must be maximized as much as possible to allow as many users as possible, no matter what their ability. This may range from simple sidewalk connections to the trails, to trailheads with parking and comfort features such as shade structures and restrooms. Easy access to trails will encourage the use of the trail system.
- **Trails should enhance Manor** - Trails should be designed in order to enhance the physical appearance of the City by revealing natural areas not previously visible to the general public.
- **Provide a variety of trail opportunity types** – Trails should be provided that are suitable for a variety of activities including walking, running, cycling, and in-line skating. Nature trails should also be provided. Nature trails are popular for wildlife viewing, walking, hiking and bike riding.
- **Connectivity** - Whenever possible, trails corridors and alignments should be designed so as to enhance linkages between parks, neighborhoods, schools, retail, and key civic and community destinations. The proposed trail system should be designed in order to connect to other surrounding communities in the future and other existing and proposed regional trail systems.
- **Create partnerships with other entities** - The proposed trails system should encourage the creation of both public and private partnerships that could possibly help build the trails more quickly.

EXISTING TRAILS IN MANOR

Currently there are no existing hike and bike trails located in the City of Manor or its ETJ. There are existing sidewalks located in various locations throughout the City.

POSSIBLE TRAIL DEVELOPMENT ISSUES

Development of the City of Manor's trail system will face a number of challenges. Early identification, flexibility in the Trail Plan, and creativity will be needed if the City is to see implementation of the proposed routes.

- **Man-Made Challenges** - These challenges are a result of development patterns and outside agencies.
 - **Road Ditches** – Due to the need to have a maintainable slope and varying depths, ditches can require more space in a right-of-way than a piped storm water system.
 - **Utilities** – Utility poles, pedestals, hydrants, and manhole covers are all necessary parts of a utility system. Relocation of utilities is expensive.
- **Natural Challenges** - These challenges are a result of natural features or natural features that have experienced some impact from development.
 - **Navigable Streams/Creeks** –There are areas where these streams cross perpendicular to roadways.
 - **Environmentally Sensitive Areas (ESAs)**

TYPES OF TRAILS

Trails in Manor should encompass several key types of facilities, each with its own size and character requirements. The City of Manor Hike and Bike Trails Master Plan is based on a core system of regional and community trails, supported by existing neighborhood trails/sidewalks. This trail system will begin to provide a network of trails designed for users of all ages and skill levels. Design standards for these trails are an important component for a working trail system because they outline the recommended minimum requirements and additional support items for each type of proposed trails. Recommended trail types are discussed in greater detail below. At a minimum, trails should follow the standards established by the American Association of State Highway Transportation Officials (AASHTO). These standards offer the most comprehensive safety standards. When feasible, these standards should be exceeded. This is especially true for multi-use trails, signage, lighting, and traffic signals and detectors and intersections. In some specific cases, variations from AASHTO may be acceptable to respect the character or special conditions of an area.

This plan shall comply with current and up to date standards. Some sources for the most commonly used standards for trail design are as follows:

- AASHTO (American Association of State Highway and Transportation Officials)
- ADAAG (Americans with Disabilities Act Accessibility Guidelines)
- TTI (Texas Transportation Institute)
- TMUTCD (Texas Manual on Uniform Traffic Control Devices)
- TxDOT (Texas Department of Transportation)
- TAS (Texas Accessibility Standards)
- ITE (Institution of Transportation Engineers)

The following are types of trails proposed to be used by the City of Manor

- **Community Shared Use Hike and Bike Trails** – These trails are recommended to be 8’-12’ in width (12’ width is preferred) and are usually asphalt, crushed granite or concrete, with concrete being preferred. Access points should be located every ¼ or ½ a mile along the trail when feasible. Trails can be accessed from neighborhood streets and sidewalks, schools and other public parking areas. Possible amenities could include parking, location maps, water fountains, shade/shelters, bicycle racks and restrooms.
- **Sidewalks** – Sidewalks are typically 4’ – 6’ wide (5’ preferred) and are concrete. Sidewalks are typically located adjacent to neighborhood streets, schools and parks. They are primarily designed for pedestrian use.
- **Nature Trails** – These trails are recommended to be 6’ to 10’ wide and can be constructed out of crushed granite, but most of the time the existing natural ground is used. Amenities for these trails could include signs, mile markers, benches, location maps, shaded areas and possibly water fountains. Boardwalks or bridges may also be required in some areas due to creek crossings, drainage corridors and other natural features. Natural trails are located mainly in rural or natural resources areas where the natural environment can be emphasized. The surface is typically a compacted earth surface with normal obstructions, such as roots, rocks, and undergrowth vegetation, cleared from the walking pathway. They should be at least 6’ to 10’ in width. An additional 2’ to 4’ shoulder zone is desired on either side. Potential natural corridors exist along many of the creeks and drainage corridors in Manor. In some cases, these corridors may incorporate walking trails, but with only minimal improvements to address street crossings. Like natural corridor trails, trail surfaces should create an atmosphere that is compatible with the natural beauty of the corridor and that results in a very pleasant trail environment.

TRAIL USERS

Trails should be designed to accommodate a variety of users. Activity on a trail lends a sense of safety and comfort to a trail and encourages others who might not be as active to use the trail. Users of trails may include:

- **Walkers seeking exercise and recreation** - These users may include senior citizens, parents with children, or someone walking their dog. Walkers may occupy a significant portion of the trail due to walking side-by-side.
- **Joggers and runners** – These will use trails for exercise. The higher speed of these users may conflict with slower users of the trails. Softer trail surfaces, such as decomposed granite, are preferred by these users.
- **In-line skaters** require more space of the trail because of the swinging motion of their arms. Like joggers and runners, the speed of in-line skaters may conflict with slower users of the trails.
- **Recreational and inexperienced cyclists** use trails for exercise and activity. These users are interested in scenic appeal, connectivity of the trail system, and prefer more interesting trail alignments rather than trails that favor high speeds. This group may also include children going to school.
- **Mountain bike** users can travel on crushed rock or more natural trail surfaces and prefer trails with challenging terrain.
- **Higher speed, experienced cyclists and commuters** are typically more interested in higher speeds. These riders often favor roadways over off-street trails for the speed. For off-street trails, alignments with shallower curves are favored by these users, and because of the higher speeds, increased trail widths are recommended to reduce conflicts with other trail users.

TRAIL SURFACES

- **Surface Material** Another important consideration in trail design is the type of surface that will be provided. A hard surface, such as cement or asphalt, will generally see cyclists operating at a faster speed than a soft surface, but may not be as popular with joggers and is more expensive to install. A soft surface trail is less expensive to install. Factors such as weather conditions and soil types can affect the choice of asphalt, concrete, or crushed rock. The use of concrete surfacing for paths has proven to be the most suitable for long-term use. Using modern construction practices, concrete provides a smooth ride with low maintenance costs. Concrete paths can be placed with a slip-form paver. The surface must be cross-broomed. The crack-control joints should be saw-cut, not troweled. Concrete paths cost more to build than asphalt paths, yet do not become brittle, cracked and rough with age, or deformed by roots and weeds as with asphalt.
- Off-street paths should be designed with sufficient surfacing structural depth for the subgrade soil type to support maintenance and emergency vehicles. If the path must be constructed over a very poor subgrade (wet and/or poor material), treatment of the subgrade with lime, cement or geotextile fabric should be considered.
- To construct and maintain a smooth riding surface on shared-use paths, path pavements should be machine-laid. Soil sterilants should be used where necessary to prevent vegetation from erupting through the pavement. On Portland cement concrete pavements, transverse joints should be saw-cut to provide a smooth ride. Normally these joints should be spaced at twice the pavement width; i.e., 10 feet wide equals 20 feet of space. On the other hand, skid resistance qualities should not be sacrificed for the sake of smoothness. Broom finish or burlap drag concrete surfaces are preferred over trowel finishes, for example.
- **Surface Preparation** Where a path is planned within a corridor that was allowed to grow wild, the soil under the path and shoulder must be dug up and plant roots disturbed thoroughly (clearing and grubbing), or the soil sterilized, so that plants will not grow and pop through the asphalt. When greenery is making its way up through the new asphalt, little volcanoes are formed. The greenery on the pavement surface looks soft, but in actuality, the ride is very rough due to the little volcanoes that hardened around the vegetation.
 - All vegetation, including roots, must be removed in the preparation of the subgrade. Special care is needed to control new growth, such as the use of soil sterilant or lime treatment of the subgrade.
 - When choosing a surface for your trail, consider the following:
 - User acceptance and satisfaction
 - Accessibility
 - Cost to purchase and install materials
 - Cost of maintaining the surface
 - Life expectancy
 - Availability of material

- Before choosing a specific trail surface, the pros and cons of hard surfaces and soft surfaces should be considered. While hard-surface trails are more accommodating, require less maintenance and can withstand frequent use, they are also significantly more expensive. On the other hand, soft-surface trails cost less, but generally do not hold up well under heavy use or varying weather conditions. A surface should also be chosen that can accommodate wheelchair users. There are no Federal Laws or regulations stating that hike and bike trails must be paved. Paved hike and bike trails may not be appropriate in more rural settings. However, slip resistance should be provided on the trails. This may be difficult to provide on unpaved surfaces.
- **Hard Surfaces**
 - Asphalt is typically used for urban hike and bike trails. Asphalt provides an all-weather, smooth, hard surface that can accommodate pedestrians, bicyclists and skaters. Asphalt also has a notably lower initial cost than other hard surface materials such as concrete. It requires regular, minor maintenance such as crack patching, yet has a life expectancy between seven and fifteen years. Asphalt is a flexible surface that requires use to remain pliable and will last longer with heavy use. It is also the preferred hard surface material by runners because it is softer than concrete. Finally, asphalt trails may include a concrete ribbon on each side which can extend the life span of the trail and help to minimize erosion.
 - Hot mix asphalt can be cost effective to install, but there are several drawbacks to using asphalt. In areas of full sunlight decomposition of asphalt can be accelerated. Also, asphalt edges require some sort of containment for stability and long term sustainability. Asphalt can be easily patched, but is labor intensive. Care also needs to be taken to ensure that the repaired surface is level in order to provide for an even surface for bicyclists, wheelchair users and pedestrians. Maintenance vehicle traffic could possibly cause pavement edge damage when driven on asphalt trails. Asphalt is more likely to suffer from flooding, frost and tree root damage.
 - Concrete is usually the longest lasting of the hard surface materials, but it is also one of the most expensive. Well-maintained concrete can last 25 years or more. The surface is appropriate for urban areas with severe climate swings and a susceptibility to flooding. However, the hard surface is taxing on runners' lower limbs, and is thus unpopular with that significant user group. Adjacent soft-surface treads can accommodate runners and equestrians where concrete is necessary for the main trail.
 - Concrete requires the least maintenance of all of the trail surfaces. Like asphalt, it provides an all-weather, smooth, hard surface. Concrete is often chosen due to its durability, long life span, ability to withstand occasional flooding and its resistance to slipping. Concrete is often used for trails that will have maintenance vehicle traffic. Concrete is more expensive to repair but can be used for poor subsoil conditions.
 - Porous asphalt and concrete are not recommended for use for trails due to their high cost of maintenance and upkeep.
 - Crushed stone is popular as a trail surface because it holds up well under heavy use and can complement the aesthetic of the natural landscape. It can also accommodate nearly every trail user (with the exception of inline skaters and wheelchairs) if crushed and compacted properly.

Because crushed stone can be made of nearly any type of rock, including limestone and sandstone, it is one of the most commonly used trail surfaces.

- Decomposed Granite Gravel is a granular rock material used in non-rigid paved surfaces and generally defined as having a particle size between 2mm (fine gravel) and 20mm (medium to coarse gravel).
- Decomposed Granite Gravel is not recommended for use for urban trails, since it is a non-compacting loose material that makes it only useful for pedestrian traffic. Rollerblades, bicycles and wheel chairs tend to slide on gravel trails due to lack of traction. Decomposed Granite Gravel maintenance costs tend to cost almost three times as much as concrete maintenance. Disabled users tend to have difficulties accessing compacted gravel trails. It also presents a serious problem for storm water infrastructure as the material gets washed away with rain, clogging storm water drains and other storm water structures and requiring frequent maintenance.
- Boardwalk
Trails should avoid sensitive environmental areas, low areas, wetlands or flood plains. Boardwalks allow existing drainage patterns and a site's hydrologic conditions to be preserved. Boardwalk is most often used as a trail surface for segments through wetlands and floodplains, as it allows adequate drainage and impacts the fragile ecosystem less than other surface types. However, it can be slippery when wet and is quite expensive to install and maintain.

- **Soft Surfaces**

- Trails with a natural earth surface offer inexpensive maintenance costs limited primarily to fixing drainage problems, repairing eroded areas and removing vegetation. The trail can usually be built and maintained by volunteers. These are often used for nature trails located in parks or other preserved natural areas.
 - Wood Chips/Mulch blend well with the natural environment and can work well as a parallel tread for runners and equestrians next to an asphalt or concrete trail. However, the surface decomposes rapidly, cannot accommodate wheelchair use and requires constant maintenance to keep the width and surface steady. The entire surface needs replacement every two years, but maintenance and installation can be performed by volunteers. Mulching a trail can be an effective treatment for trails in clay soil areas. To avoid washouts and watershed deposits, mulching should be avoided in areas of steep terrain. Many types of mulch can work, but one of the most effective and least expensive, long-lasting treatments is hardwood mulch.
- Asphalt and concrete surfaces are typically recommended for use for urban trails since they accommodate a wide variety of recreational and transportation uses.
 - The cost of surfacing a trail with asphalt or concrete may be prohibitive in the beginning stages of trail building. This initial expense shouldn't deter your plans if you need to start trail development right away. You may be able to upgrade from a softer surface like dirt or crushed stone to a harder surface like asphalt or concrete once you have secured funding.

SHARED TRAIL WIDTHS AND CLEARANCES

The American Association of State Highway and Transportation Officials (AASHTO) guide provides standards for shared use paths. It is recommended that a shared use trail not be less than eight feet wide. Typically, it is suggested that for a shared use trail that will have bicyclists and pedestrians, the minimum width be twelve feet.

A trail should be built a minimum of five feet from adjacent roadways. The trail should have two foot wide shoulders on each side and should have a minimum of eight feet of vertical clearance. It is suggested that a ten foot vertical clearance be provided along trails that might have maintenance vehicles driving on them. The edge of the trail should be a minimum of two feet from any landscaping or trees.

Dual track paths (trails/paths where bicyclists and pedestrians are separated) are usually recommended for trails where there are many scenic overviews, steep hills which cause bicyclists to pick up speed, turns which reduce sight lines, or along busy roadways in which noise pollution makes communication between users difficult. The trail sides should be well marked with bicycle and pedestrian symbols and should be physically separated from each other whether by a buffer zone such as grass, a concrete barrier or landscaping. This separation could also be a painted stripe down the path.

MAXIMUM CROSS SLOPE AND GRADE

Grades for trails should be kept at a minimum. The maximum grade for a trail should be five percent (5%). Anything greater than five percent will make ascent difficult for bicyclists and can cause too fast of a descent for bicyclists. According to ADA guidelines, any path exceeding a five percent slope is considered a ramp and must be constructed with handrails, a maximum rise of thirty inches (30") in a maximum length of thirty feet (30') and is required to have a 60"x60" landing at the top as well as the base.

Poor drainage can ruin a good trail. The AASHTO guide recommends a minimum cross slope of 2 percent –the need to make trails accessible to people using wheelchairs argues against a cross slope greater than 3 percent – to provide adequate drainage. Other considerations to ensure adequate drainage include:

- slope the trail in one direction rather than having a crown in the middle of the trail
- ensure a smooth surface to prevent ponding and ice formation
- place a ditch on the upside of a trail constructed on the side of a hill
- place drainage grates, utility covers, etc. out of the travel path of bicyclists and pedestrians
- preserve natural ground cover adjacent to the trail to inhibit erosion

At highway crossings the highway slope will be the trail cross slope and the highway cross slope will be the trail slope.

ENVIRONMENTALLY SENSITIVE AREAS

For Urban Trails that will be located in environmentally sensitive areas, several measures are recommended to minimize the impact of the trail and trail users on the area:

- The riparian setback should be as wide as possible: 30' to 50' is recommended,
- Slope the trail away from the waterway
- Include appropriate green infrastructure such as rain gardens, vegetated filter strips, and directed sheet flows to manage stormwater and contribute to sustainable vegetation management
- Maintain natural drainage
- Limit vegetation removal and preserve/ plant additional trees or vegetation as close to the trail as possible,
- Support the retention of existing trees over removal and mitigation practices,
- Locate the trail outside the 100-year floodplain wherever possible,
- A boardwalk could also be installed over the sensitive area.
- Low water crossings should be minimized in order to avoid impacts on drainageways.

SAND BRIDGING

Sand Bridging is a relatively new technique that the City of Austin often utilizes which helps preserve existing trees along a trail that is being constructed. The sand bridging technique lessens impacts to root zones of trees, eliminating the need for tree removal and mitigation and thus maintaining trees as close as possible to the alignment of the trail. Instead of excavating the ground for trail construction, sand is used to build up the site and the trail is then installed on top of the sand. Hand digging is done when necessary. By utilizing this technique, no compaction takes place in areas within the critical root zone of trees.

TRAIL MAINTENANCE

Trail maintenance is an important aspect of the trail plan. It is important to the safety of the trail users. Maintenance activities will typically include pavement stabilization, landscape maintenance, sign repair or replacement, mowing and litter removal. Maintenance should occur year round on a biweekly basis. In heavy traffic areas, maintenance may be required more often. In lower traffic areas, maintenance may be required less often. Typically the streets and parks section of public works would be in charge of trail maintenance.

Frequency	Maintenance	Performed by
As Needed	Tree/brush clearing and mowing Sign Replacement and Map/signage updates Trash removal/ litter clean-up Replace/repair trail support amenities (parking lots, benches, restrooms, etc.) Repair flood damage: silt clean-up, culvert clean-out, etc. Patching/minor grading/concrete or asphalt repair or replacement	Volunteers / City
Seasonal	Planting/pruning/beautification Culvert clean-out Installation/removal of seasonal signage	Volunteers / City
Annual	Surface evaluation determine need for patching/grading Evaluate support amenities to determine need for repair/replacement	City
5-Year	Repaint or repair support amenities	Volunteers / City
10-Year	Resurface/regrade/restripe trail	Contractor / City/ Volunteers
20-Year	Replace/reconstruct trail	Contractor / City/ Volunteers

Trail maintenance guidelines can be found in Appendix C.

SAFETY AND SECURITY

The streets and parks section of public works as well as Emergency Services should work together in order to geocode all trails and create a system that will be uploaded to the City's 9-1-1 System. Ideally, this will include appropriate signage and emergency information for all users of the Trails.

Bollards can be placed at trail entrances in order to prevent motorized vehicles from accessing the trails.

Wireless, solar powered or AC powered emergency call boxes can also be installed along trails at appropriate locations.

- **Trail-Roadway Crossings** – One area of concern for public safety is where trails must cross roadways. For most crossings at-grade crossings can be designed to an acceptable degree of safety to meet existing traffic and safety standards. Evaluations of trail crossing will involve analysis of both vehicles and trail users. Traffic speeds, street width, traffic volumes at various times during the day and line of sight for vehicles and trail users should be assessed.
- **There are four main types of crossings that can be used:**
 - Type 1 crossings are marked crossings that include mid-block crossings of residential, collector and sometimes major arterial streets. Type 1 crossings are typically consist only of a crosswalk, signage and often no other controls to slow or stop traffic. Type 1 crossings are typically used on residential and collector streets below 10,000 ADT. Warning signs should be installed for motorists and STOP signs should be installed for trail users.
 - Type 2 crossings divert trail users to existing intersections. Trail crossings that are located within 250 feet of an existing signalized intersection with pedestrian crosswalks are typically diverted to the intersection for safety purposes. For this option to be effective, barriers and signage would be needed to direct trail users to the intersection.
 - Type 3 crossings are signalized/controlled crossings. These require signals or other types of control measures at the crossing. These types of crossings are recommended when crossings are located further than 250 feet from an existing signalized intersection and where travel speeds are 45 mph and below and/or ADT's exceed 15,000 vehicles. Trail signals are typically activated by push buttons.
 - Type 4 crossings are grade separated crossings. These would include bridges, overpasses or under crossings. They provide the maximum level of safety but are typically the most expensive. These types of crossings are recommended where ADT's exceed 25,000 vehicles and speeds exceed 45 mph.
- **Signing and Striping**

Crossings at all roadways should include warning signs for both vehicles and trail users. The type, location and other criteria for these signs can be found in the Texas Manual for Uniform Traffic Control Devices (TMUTCD). Consideration must be given for adequate warning distances based on traffic speed, sight distances. Signs for trail users should include a standard STOP sign and pavement marking.

LIGHTING

Lighting can be installed in areas where there is heavy use during early morning or evenings. Installing lighting along trails will allow users to have better nighttime visibility to see the trail path, surface conditions and any obstacles. Lighting along the trails should be low level landscape lighting at a lower height than typically higher and brighter streetlights. Examples of locations where lighting could be installed are lights in bollards, lights along fences or railings, and lights along the trail surface. This style of lighting should be considered at trailheads and along high use trail segments or intersections where feasible.

AASHTO provides guidelines for illumination of trails. The standard horizontal illumination level is 5 to 22 lux. The height of luminaires can range between trail level and as high as fifteen feet depending on the trail. The lighting of trails will vary on a trail by trail basis. If feasible, lighting should be installed where trails intersect with roadways or driveways and at all main trail entrances.

Lighting should be limited in natural or undeveloped areas. Timed lighting could be used in order to have the lights on during early dawn and evening trail use. Signage should be placed along lighted trails in order to give trail users information on how to report a burned out or damaged light. It would be impossible and expensive to provide lighting for all trails in the City of Manor. Certain trails may be very popular day attractions but not necessarily used at night. Some routes could possibly traverse environmentally sensitive areas like creeks and should avoid night lighting in order to not disturb wildlife. A trail curfew could be put in place in order to limit trail use in the evenings. Typically in the City of Austin trails/parks are open from 5:00 a.m. to 10:00 p.m. In other cities trails/parks are open from dawn to dusk.

TRAILHEADS AND ACCESS POINTS

The proposed trails should be easily accessible for use throughout the community. A high number of access points would allow for diverse trail use by residents. Locations of access points should also take in to account parking areas located near the access point. Access points should provide adequate signage regarding direction, distance and possible destinations on the trail. Major trailheads can be spaced a mile or further apart. The locations of major trailheads should be considered in areas with suitable parking areas that have ten to twenty parking spaces. Trailheads should include maps that are easily read and understood. Trailheads should be located adjacent to or a short distance from main trail corridors and at the end of each main trail. Trailhead and trailhead amenities should be designed to meet the needs of its diverse set of users.

Trailhead features could include:

- Trash receptacles and dog-waste pick-up stations,
- Benches or other trail furniture,
- Drinking fountains,
- Stretch post or other equipment to encourage or facilitate stretching exercises and
- Trail map including a “You are here” orientation.

Bollards should be used at all access points to the trails in order to prevent motorized vehicle traffic from accessing the trails. Collapsible or removable bollards should be used in order to allow emergency vehicles access to the trail. This will also allow for maintenance crews to access the trails as well.

TRAIL SIGNS

Directional signs are imperative to facilitate user comfort and confidence, thereby ensuring optimal use of the trail from the standpoint of participation/occupancy levels and enjoyment level of the participants. Appropriate signage will be provided at all points where the trails can be accessed. These signs can be used to show trail routes and list any trail rules or curfew times if so proposed. At trail intersections signs should be provided that indicate destinations of the various trail branches and a distance to each destination. Consideration should be given to providing a map of the trail system at each intersection of major trail branches.

Within residential neighborhoods, in addition to the signage, the pavement surface could also be marked in such a manner that trail users will be able to follow the trail routing through the neighborhood without becoming confused and possibly taking a wrong turn.

Trails linking neighborhoods to parks and schools shall have a definite indication at the end of the trail so trail users unsuspectingly traveling into the neighborhood are made aware that the trail system ends at that location. Provision of a map indicating the direction to the main branch of the trail would be beneficial at these locations.

Periodic mile marker signs will be located along proposed trails at quarter mile intervals.

PROPOSED CITY OF MANOR TRAILS**1. Trail #1**

This trail would run from the Rural Center to Blake Manor Road. There is existing sidewalk located along Carrie Manor that will need to be replaced with a wider hike and bike shared use trail. This trail should be either concrete or asphalt and should be at least ten feet wide and be located along the north side of Carrie Manor. The trail will run along Carrie Manor then it will turn south at Carrie Manor/ Bastrop St. and run down to Brenham St. At Brenham St. the trail will go west to tie in to the existing sidewalk located in Wildhorse Creek. The trail will also continue east down Blake Manor Road past Hamilton Point to tie in at the proposed future location for the Travis County Blake Manor Shared Use Path.

This trail would be approximately 1.6 miles in length. Trailheads could be located at the rural center and possibly at the Manor Park and Ride and within the proposed Lagos PUD.

2. Trail #2

This trail would start at the high school and run to proposed trail #3. This trail would be approximately 0.6 miles and be constructed out of either concrete or asphalt and should be at least ten feet wide. Trailheads could be located at the Manor High School parking lots.

3. Trail #3

This trail is the proposed looped trail located within the Preserve Tract of Shadowglen. This trail would be approximately 1.5 miles in length and would be constructed as a nature trail or granite gravel trail with a minimum width of eight feet. Trailheads could be located where Trail #2 ties in with this trail and at the proposed tie in to the existing Shadowglen trail.

4. Trail #4

This trail would run from the high school up Greg Manor Road to Rector Loop and then turn and run to the Woodlands/Park area located in Shadowglen. It would also run from Rector Loop to Fuchs Grove Road. It would be approximately 1.7 miles in length, should be constructed out of concrete or asphalt and be a minimum of ten feet wide. Trailheads could be located at Manor High School and Manor Middle School.

5. Trail #5

This trail would loop around the proposed Woodland/Park area located within Shadowglen. It would be approximately 3.25 miles in length and be constructed as a nature trail or granite gravel trail with a minimum width of eight feet. Trailheads could be located where trail #4 ties in to this trail and where the existing Shadowglen Trail would tie in to the proposed trail. Trailheads could possibly be located at other proposed access points as shown on the map in Appendix A.

6. Trail #6 – Lexington Linkage and Burnet St. Linkage

These additional sidewalks are proposed to provide connections along Lexington in areas where there is no existing sidewalk. This will link the sidewalk from Carrie Manor all the way to the existing Shadowglen Pedestrian Linkage Trail located on Lexington St. Sidewalk installation is also proposed along Burnet St. between Parsons St. and Boyce St. The additional length of sidewalks would be approximately 0.15 miles in length. The sidewalks should be concrete and should be a minimum of six feet wide.

7. Trail #7 – Riata Ford to Parsons St. Linkage

This trail is proposed to run from the existing sidewalk at Riata Ford down to Parsons St. The trail should be either concrete or asphalt and should be a minimum of ten feet wide. The trail would be approximately 0.3 miles in length.

8. Trail #8 – Future FM 973 Shared Use Path

This trail would run along the proposed new section of FM 973 from Blake Manor Road to the future extension of Ring Drive. The trail should be either asphalt or concrete and be a minimum of ten feet wide. The trail would be approximately 1.1 miles in length.

9. Trail #9 – Future Ring Road Shared Use Path

This trail would run along the proposed extension of Ring Road, tie in to the existing sidewalk at Walmart then would run along U.S. Highway 290 to Shadowglen Boulevard and tie in to the existing sidewalk in Shadowglen. This trail should be concrete in order to match the existing sidewalks it will tie in to. It should also match the existing sidewalks in width. The trail would be approximately 0.9 miles in length.

Maps showing existing sidewalks and proposed trails and sidewalks can be found in Appendix A.

TRAIL COST

Trail costs vary considerably based on the type of material used for the trail, the number of bridges/boardwalks or drainage crossings that are required, and the type of amenities that are included in each trail segment. Descriptions and cost projections for a typical one mile length of trail, using different materials are included with the master plan on following pages. Projections also include estimated costs for surveying, design, and construction administration associated with the design of each trail, but do not include property acquisition.

To accommodate the large volume and multiple users that are expected, shared use hike and bike trails are typically designed to accommodate two-way bicycle and pedestrian traffic, should have their own right-of-way, and can accommodate maintenance and emergency vehicles. These trails are typically at least 8' in width, but in some cases may be up to 12' in width where a significant volume of users is anticipated. These trails should be constructed using concrete or asphalt, but can also be a surface that provides a smooth surface, as long as it meets ADA requirements.

Access points to the trail should be located every $\frac{1}{4}$ to $\frac{1}{2}$ mile along the trail, with a minimum $\frac{1}{2}$ mile distance to the access point to the trail. Other amenities that can be offered at or along this type of trail include parking, locator maps, water fountains, shade shelters, bicycle racks, mile markers and trail route signs. While vegetation is encouraged to enhance the trail experience, complete blocking out of the trail by vegetation from neighborhood view should be discouraged.

Base Cost - 10' Wide Concrete Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$18	\$95,040
Concrete trail 4-6" thick concrete, 10 feet wide including base material	5280	LF	\$85	\$448,800
Trail Striping	5280	LF	\$5	\$26,400
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$721,640

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost	\$779,640
Design, Testing, Administration, Misc. Cost(15%)	\$116,946
Contingency (10%)	\$77,964
TOTAL	\$974,550
Estimated Overall Cost Per Linear Foot	\$184.57

Base Cost - 8' Wide Concrete Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$14	\$73,920
Concrete trail 4-6" thick concrete, 10 feet wide including base material	5280	LF	\$75	\$396,000
Trail Striping	5280	LF	\$5	\$26,400
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$647,720

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost **\$705,720**

Design, Testing, Administration, Misc. Cost (15%) **\$105,858**
Contingency (10%) **\$70,572**

TOTAL **\$882,150**

Estimated Overall Cost Per Linear Foot **\$167.07**

Base Cost - 10' Wide Asphalt Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$18	\$95,040
Trail 2" thick asphalt, 10 feet wide including base material	5280	LF	\$65	\$343,200
Trail Striping	5280	LF	\$5	\$26,400
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$616,040

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost **\$674,040**

Design, Testing, Administration, Misc. Cost (15%) **\$101,106**

Contingency (10%) **\$67,404**

TOTAL **\$842,550**

Estimated Overall Cost Per Linear Foot **\$159.57**

Base Cost - 8' Wide Asphalt Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$14	\$73,920
Trail, 2" thick asphalt, 10 feet wide including base material	5280	LF	\$55	\$290,400
Trail Striping	5280	LF	\$5	\$26,400
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$542,120

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost	\$600,120
Design, Testing, Administration, Misc. Cost (15%)	\$90,018
Contingency(10%)	\$60,012

TOTAL **\$750,150**

Estimated Overall Cost Per Linear Foot **\$142.07**

Base Cost - 8' Wide Granite Gravel Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$14	\$73,920
Trail, 3" granite gravel, 8 feet wide including base material	5280	LF	\$20	\$105,600
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$330,920

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost	\$388,920
Design, Testing, Administration, Misc. Cost (15%)	\$58,338
Contingency (10%)	\$38,892
 TOTAL	 \$486,150
 Estimated Overall Cost Per Linear Foot	 \$92.07

Base Cost - 10' Wide Granite Gravel Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$18	\$95,040
Trail 3" thick granite gravel, 10 feet wide including base material	5280	LF	\$25	\$132,000
Culverts (Typ. 12" dia.) for local trail drainage only. Could be located approx. every 300'.	18	EA	\$1,000	\$18,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	3	EA	\$20,000	\$60,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Intersection signage for trail users and vehicles (per intersection)	4	EA	\$500	\$2,000
Reseeding disturbed areas (5' on each side of trail)	52800	SF	\$1	\$52,800
Subtotal - Base Cost				\$378,440

Amenity Cost

Drinking fountain - one per mile	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$5,000	\$5,000
Major Trail Access Point Sign	2	EA	\$3,000	\$6,000
Security Lighting at access points (1 pole per access site)	4	EA	\$3,000	\$12,000
Bench node - includes bench, trash receptacle and concrete pavement under bench - typ. 2 per mile	2	EA	\$15,000	\$30,000
Subtotal - Amenity Cost				\$58,000

Subtotal Construction Cost**\$436,440****Design, Testing, Administration, Misc. Cost (15%)****\$65,466****Contingency (10%)****\$43,644****TOTAL****\$545,550****Estimated Overall Cost Per Linear Foot****\$103.32**

Base Cost - 8' Wide Nature Trail

Item	Quantity	Unit	Unit Price	Total Amount
Grading of trail, allowing for 0.5 grading depth	5280	LF	\$5	\$26,400
Concrete trail 4-6" thick, 8' wide including base material - this includes concrete landings and some fully accessible areas.	550	LF	\$65	\$35,750
Natural trail - includes clearing of 15-20' wide corridor, fine grading, construction of some steps to provide easier access	4730	LF	\$15	\$70,950
Culverts (Typ. 12" dia.) for local trail drainage only. Max. of 10 per mile.	10	EA	\$1,500	\$15,000
Major drainage culverts (36" - 48" box culverts). Could be located approx. every 2000 feet.	2	EA	\$25,000	\$50,000
Trail signs - safety, directional, mile markers - every 1/4 mile	10	EA	\$500	\$5,000
Subtotal - Base Cost				\$203,100

Amenity Cost

Landscaping	5280	LF	\$10	\$52,800
Drinking fountain - one at main access point	1	EA	\$5,000	\$5,000
Information kiosk - one per mile	1	EA	\$10,000	\$10,000
Major trail access point sign	1	EA	\$5,000	\$5,000
Bench node - includes stone benches, table flagstones set in concrete, seating wall typ. 4 per mile	4	EA	\$15,000	\$60,000
Solar powered emergency call box - one per half a mile	2	EA	\$15,000	\$30,000
Security lighting at access point - one pole per access site	1	EA	\$5,000	\$5,000
Subtotal - Amenity Cost				\$162,800

Subtotal Construction Cost **\$365,900**

Design, Testing, Administration, Misc. Cost (15%) **\$54,885**
Contingency (10%) **\$36,590**

TOTAL **\$457,375**

Estimated Overall Cost Per Linear Foot **\$86.62**

Base Cost - 6' Wide Concrete Sidewalk

Item	Quantity	Unit	Unit Price	Total Amount
Grading of sidewalk, allowing for 0.5 grading depth	5280	LF	\$10	\$52,800
Concrete sidewalk 4-6" thick concrete, 6 feet wide including base material	5280	LF	\$50	\$264,000
Intersection crosswalk striping	4	EA	\$1,000	\$4,000
Intersection and access point ramps	8	EA	\$1,200	\$9,600
Reseeding disturbed areas (2.5' on each side of trail)	26400	SF	\$1	\$26,400
Subtotal - Base Cost				\$356,800

Subtotal Construction Costs	\$356,800
Design, Testing, Administration, Misc. Cost (15%)	\$53,520
Contingency (10%)	\$35,680
TOTAL	\$446,000
Estimated Overall Cost Per Linear Foot	\$84.47

OTHER RECOMMENDATIONS**Recommendation 1: Enact a trails development ordinance.**

Trails development ordinances have been enacted in other Texas cities and have proven successful in helping to get trails constructed. The required trails often replace sidewalks, meaning they may not add significantly to the cost of a residential or commercial development. Some developers plan to add trails anyway, given their popularity among homebuyers, and a mandatory trail development ordinance may thus serve only to create a level playing field where all developers are required to do so. Credits can be given for trail construction and landscaping or other infrastructure elements.

In new developments, preservation of trail corridors could be required in conjunction with open space created under the City Ordinance. Right-of-way reservations for pedestrian paths, bikeways, and multiple use trails are examples. The City Ordinance could also provide developers with incentives to encourage implementation of the Hike and Bike Trails Master Plan (e.g., fee waivers, or flexibility in required off-street parking and internal project circulation layout, justified on the basis of lands used in support of the recreational trail network

Recommendation 2: Assess all rights-of-way in the city for their potential for future trail development.

Right-of-Way in the City may offer significant trail development options, or at least options for an undeveloped walkway and various other categories of easement also warrant investigation.

Recommendation 3: Develop appropriate design standards for trail development and maintenance protocols for preservation and enhancement of natural resources.

Trail design is an increasingly specialized field, responding to issues of security, safe trail use, ease of maintenance, and noninterference with wildlife. Accepted design standards are needed for use by City staff and developers for fully developed hike/bike trails, sidewalks and for road crossings and bridges, among other facilities. Trail maintenance can be controversial. There are often varying views on how much clearing and mowing are appropriate along trail routes. Public complaints typically lead to extensive vegetation clearing—which then results in a round of complaints from others concerned to retain wildlife-sheltering undergrowth beside the trails. Maintenance staff need clear, standard, agreed-upon maintenance guidelines and schedules to follow. Appendix B lists some Trail Design Guidelines that can be modified as needed.

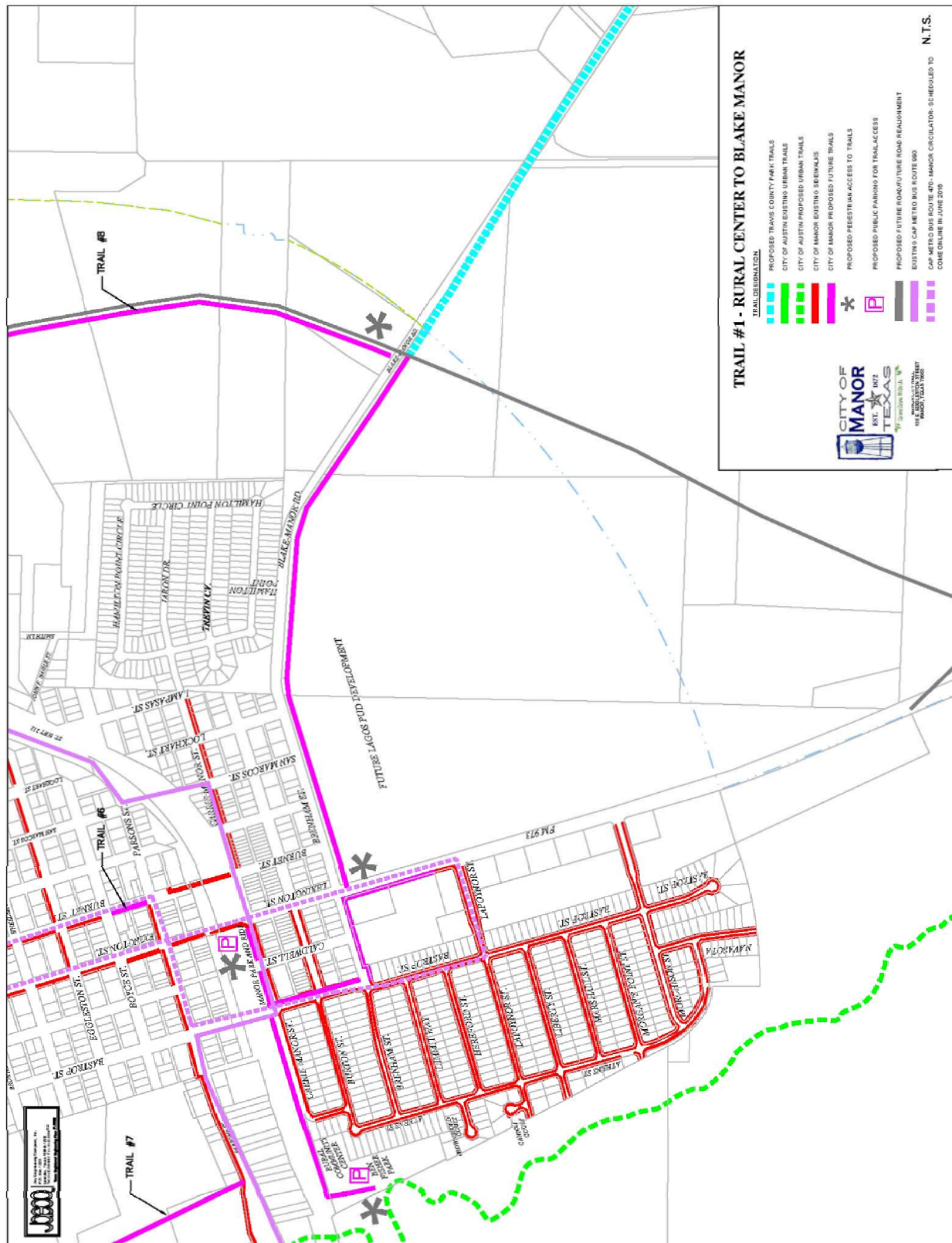
FUNDING OPTIONS

Listed below are possible funding sources that have been previously used by other cities:

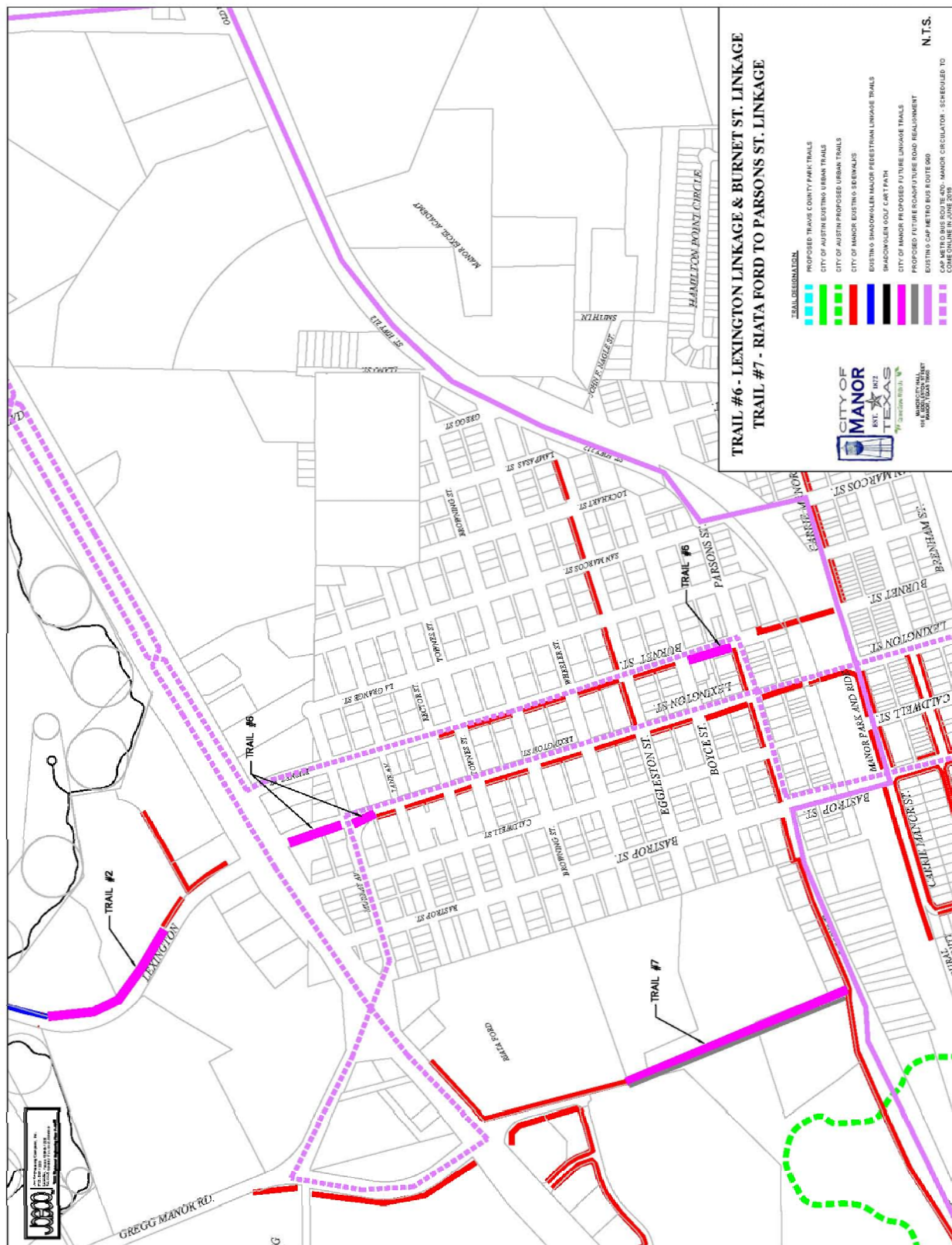
- **Transportation Improvement Work:** Trail projects need to be considered during transportation improvement projects, as they can often be incorporated into work for roadway widening, bridge replacement, or resurfacing if trail routes are identified early in the design phase.
- **Impact Fees:** The impact fees levied by local government on new development can help to finance trail facilities outside the specific development concerned.
- **Local Capital Improvements:** A capital improvements program can provide a yearly appropriation for the Parks and Recreation Department for trail development and maintenance.
- **Bond Referendums:** Across the nation communities have successfully placed propositions on local ballots to fund trail development. Seabrook ventured into similar terrain with a 2007 bond vote for park acquisition. School bonds can help develop trail facilities on and around school property, and local general obligations bonds can also be a source of funds.
- **Private-Sector Funds:** Local industries and businesses may agree to provide support for development of selected trails through cash donations and reductions in the cost of materials that support trail facility development.
- **Trail Sponsors:** Modest donations from individuals and businesses can sponsor trail amenities for meeting project design standards, such as benches, trash cans, lights, emergency call boxes and signage.
- **TPWD Grants** – The Texas Parks and Wildlife Department administers the National Recreational Trails Fund in Texas under the approval of the Federal Highway Administration (FHWA). This is a federally funded program that receives its funding from a portion of federal gas taxes paid on fuel used in non-highway recreational vehicles. The grants can be up to 80% of project cost with a maximum of \$200,000 for non-motorized trail grants. Funds can be spent on non-motorized recreational trail projects such as the construction of new recreational trails, to improve existing trails, to develop trailheads or trailside facilities, and to acquire trail corridor land.
- **Volunteer Work** – Community volunteers may help with trail construction and maintenance work. Potential sources of volunteer labor include such entities as Rotary and the Boy Scouts. A manual guides their activity, and through an “Adopt-a-Spot” program participants take charge of periodic trash pick-up, landscaping, pruning trailside vegetation, and developing wildlife enhancement projects.

APPENDIX A

MAPS







APPENDIX B
TRAIL DESIGN GUIDELINES

TRAIL DESIGN GUIDELINES

Pedestrian environments: An individual's decision to walk centers heavily on their perceived quality of the experience. Pedestrian facilities should be designed with the following factors in mind: sufficient width for two adults to walk abreast; protection from traffic; trees for shade; continuity; and quality of landscape viewing.

Soft surface materials: Crushed granite gravel is relatively inexpensive to install, compatible with the natural environment, and preferred by runners and mountain bicyclists. This is one of the best surface types for nature trails because it can be densely compacted and if properly applied, can support bicycle and handicapped-accessible trail development.

Natural surface trails: Trails or paths that make use of dirt, rock, soil, or forest litter and may vary from machine-worked surfaces to those worn only by usage. This is the most appropriate surface for ecologically sensitive areas.

Lighting: Lighted trail segments are often requested by residents in order to enjoy walking and jogging during summer evenings when the air is cooler than it is during the day. Lighting for multi-use trails should be considered on a case-by-case basis, with full consideration of the maintenance commitment lighting requires. A limited loop section of lighted trail in a high-use area is likely to be the best option.

Trash containers: Bins are necessary along all trails and need to be accessible to both trail users and maintenance personnel. At a minimum, trash containers should be located at each access point and bench seating point.

Benches: Seating along trails will allow users to rest if needed. Trail benches should comfortably accommodate the average adult. They should be located at the access points to the trail and at regular intervals along the trail, and should be set back three feet from the trail edge.

Signage: Signs should give trail users information they need to use the trail. Using too many signs should be avoided. Informational and directional signs should orient users and identify routes and mileages, also allowing police, fire, and medical personnel to respond immediately to incidents on the trail. Regulatory and interpretive signs should be at major access points, and warning signs may be needed to caution about various hazards along the trail. Mile markers should be placed at ¼ mile intervals along the trail. Ground-level directional signage presents vandals with less temptation than solitary signs posted on poles, and trail guides downloadable from the Web can reduce the need for vulnerable informational signage. Moreover, signs and structures work against the natural qualities of trails and views to some degree, providing a second reason to aim to keep them at a minimum.

Parking: Adequate parking at trailheads is necessary so that trail users do not park on the road shoulder.

Roadway intersections: Crossing should be at logical and visible locations, preferably at existing highway intersections. Warning to motorists of upcoming crossing may be in order. Maintaining visibility is the key to safety.

Restricting motor vehicle access: Unauthorized motor vehicle access can be an issue at trail-roadway intersections and at trailheads and access points. Trail bollards are the most effective method of limiting unwanted motor vehicles. Bollards should be sited 3 feet tall and 30 feet in advance of the intersection, so as not to compromise cyclist concentration at intersections. They also should be removable or collapsible to allow for emergency vehicle as well as maintenance vehicle access when needed.

APPENDIX C

TRAIL MAINTENANCE

TRAIL MAINTENANCE GUIDELINES

Success and safety depend on effective trail maintenance. This includes trail resurfacing, vegetation pruning, facility upkeep, sign replacement, mowing, and litter removal. A successful maintenance program also requires continuity and predictability.

- **Safety and Public Profile**
 - Good maintenance deters vandalism and littering.
 - A high standard of maintenance is an effective advertisement promoting the trail as a local and regional recreational resource.
 - Consistent maintenance makes enforcement of regulations on the trail more efficient.
 - A proactive maintenance policy helps improve safety along the trail.
- **Surface and Longevity**
 - Routine maintenance prolongs the life of the trail.
 - Checks for erosion along the trail should be made during the wet season and after flooding.
 - Where drainage problems exist, drainage structures need to be kept clear of debris to maintain flow.
 - Trail surfaces should be kept free of debris such as branches.
- **Vegetation**
 - In areas of wildlife emphasis, mowing should be judicious to preserve sheltering vegetation.
 - Trail segments vary in how much restraint of vegetation is needed: a wide open feeling is desirable on some but not all trails.
 - More enclosed conditions are appropriate in wooded settings.
 - Vegetation control should be accomplished by mechanical means rather than herbicides.
 - Bi-annual mowing along trails protects the trail investment; suggested times are fall and spring.
 - Undergrowth vegetation should be cut before reaching 36 inches.
 - Vertical clearance of 8 feet should be maintained.

JAY ENGINEERING COMPANY, INC.

P.O. Box 1220

Leander, TX 78646

(512) 259-3882

Fax 259-8016

Texas Registered Engineering Firm F-4780

CHANGE ORDER

ORDER NO.: 2

DATE: February 16, 2016

AGREEMENT DATE: February 18, 2015

NAME OF PROJECT: Manor Police Station & Wastewater Treatment Plant Site Improvements

OWNER: City of Manor

CONTRACTOR: Forsythe Brothers Infrastructure, LLC

The following changes are hereby made to the CONTRACT DOCUMENTS:

1. Justification:

- Item No. 1 - Bid Item No. 1, Remove 155 LF Silt Fence @ \$4.00/LF
- Item No. 2 - Bid Item No. 2, Remove 25 LF 6' Tall Security Fencing @ \$15.00/LF
- Item No. 3 - Bid Item No. 5, Remove 0.5 EA 20" Double Gates @ \$2,000.00/EA
- Item No. 4 - Bid Item No. 6, Remove 321 SY Clear and Grub @ \$1.00/SY
- Item No. 5 - Bid Item No. 16, Remove 20 LF 1" Poly Water Service Line @ \$10.00/LF
- Item No. 6 - Bid Item No. 18, Remove 20 LF 4" PVC Drain Line @ \$40.00/LF
- Item No. 7 - Bid Item No. 21, Remove 306 LF Overhead Electrical Service @ \$10.00/LF
- Item No. 8 - Bid Item No. 22, Add 920 LF 1-1/2" PVC Underground Electrical Conduit @ \$5.00/LF
- Item No. 9 - Bid Item No. 25, Add 662 LF #12 Wire @ \$1.17/LF
- Item No. 10 - Bid Item No. 26, Remove 120 LF 18 AWG 6-Pair Communication Cable @ \$1.00/LF
- Item No. 11 - Bid Item No. 29, Add 1 EA Ground Mounted Area Light @ \$900.00/EA
- Item No. 12 - Bid Item No. 34, Add 224 SF 4" Concrete Sidewalk @ 20.00/SF
- Item No. 13 - Bid Item No. 41, Remove 204 SY Restoration and Revegetation @ \$1.50/SY
- Item No. 14 - Bid Item No. 42, Remove 1 EA Bronze Building Plaque @ \$2,000.00/EA
- Item No. 15 - Bid Item No. 43, Remove 1,000 LF Coaxial Cable @ \$1.00/LF
- Item No. 16 - Bid Item No. 44, Remove 1,000 LF Coaxial Cable @ \$1.00/LF
- Item No. 17 - Bid Item No. 1-B, Add 104 LF Fiber Optic Cable Overhead @ \$5.00/LF
- Item No. 18 - Bid Item No. 2-B, Remove 3 EA Pole Anchors @ \$300.00/EA
- Item No. 19 - Change Order Item C.O.-10, Add 1 LS Knox box @ \$500.00/LS
- Item No. 20 - Change Order Item C.O.-11, Add 2 EA Electrical Outlets and Conduits @ \$125.00/EA
- Item No. 21 - Change Order Item C.O.-12, Add 1 LS Fire Line Striping/Parking Striping @ \$1,000.00/LS
- Item No. 22 - Change Order Item C.O.-13, Add 1 LS Reconnect Lights at Utility Building @ \$250.00/LS
- Item No. 23 - Change Order Item C.O.-14, Add 3,154 LF #10 Wire @ \$1.45/LF
- Item No. 24 - Change Order Item C.O.-15, Add 840 LF #8 Wire @ \$2.50/LF
- Item No. 25 - Change Order Item C.O.-16, Add 1 LS Building Sign @ \$4,500.00/LS
- Item No. 26 - Change Order Item C.O.-17, Add 1 LS Install Fiber Optic Pole @ \$850.00/LS
- Item No. 27 - Change Order Item C.O.-18, Add 1 LS Concrete Ramp Curb @ \$800.00/LS
- Item No. 28 - Change Order Item C.O.-19, Add 1 LS Two Junction Boxes at Pump Building @ \$475.00/LS

2. Change to CONTRACT PRICE:

Original CONTRACT PRICE: \$324,668.70

CONTRACT PRICE due to previous CHANGE ORDERS: \$368,476.20

The CONTRACT PRICE due to this CHANGE ORDER will be increased or (decreased) by:
\$14,920.84

New CONTRACT PRICE including this CHANGE ORDER will be: \$383,397.04

3. Change to CONTRACT TIME:

The CONTRACT TIME will be increased or (decreased) by 0 calendar days.

The date for completion of all work will be May 11, 2015.

4. Approvals Required:

To be effective, this order must be signed by all parties to the Agreement if it changes the scope or objective of the PROJECT, or as may otherwise be required by the SUPPLEMENTAL GENERAL CONDITIONS.

Recommended by: Frank T. Phelan, P.E.

Signed: _____



Ordered by: _____

Signed: _____

Accepted by: John C Forsythe

Signed: _____





Stantec Architecture Inc.
3001 Bee Caves Road, Suite 300, Austin TX 78746-5590

April 8, 2016

**City of Manor
Planning and Zoning Commission**
105 E. Eggleston Street
P.O. Box 387
Manor, Texas 78653

**Reference: Request for Variance from Zoning Ordinance 185,
Section 20 General Requirements and Limitations,
(j) Height and Placement Requirements, Chart 1.**

Manor Independent School District is requesting a variance from Zoning Ordinance 185, Section 20 General Requirements and Limitations. Chart 1 indicates the maximum height limit for a building in zone I is 35 feet.

Manor ISD is requesting the maximum height limit requirement be waived. The project site is on existing Manor ISD property. The project site is located southwest of MISD New Tech High School. All buildings adjacent to the project site are property of Manor ISD. Adjacent properties to the west and south of the project site are out of the City of Manor jurisdictions.

We respectfully request your consideration.

Regards,

STANTEC ARCHITECTURE INC.

A handwritten signature in blue ink, appearing to read "Tavo Reyes", with a horizontal line extending to the right.

Tavo Reyes
Project Manager
Phone: (512) 867-6022
Fax: (512) 867-6001
Tavo.Reyes@stantec.com

Attachment: City of Manor Zoning and Jurisdictions Map (1 Page)

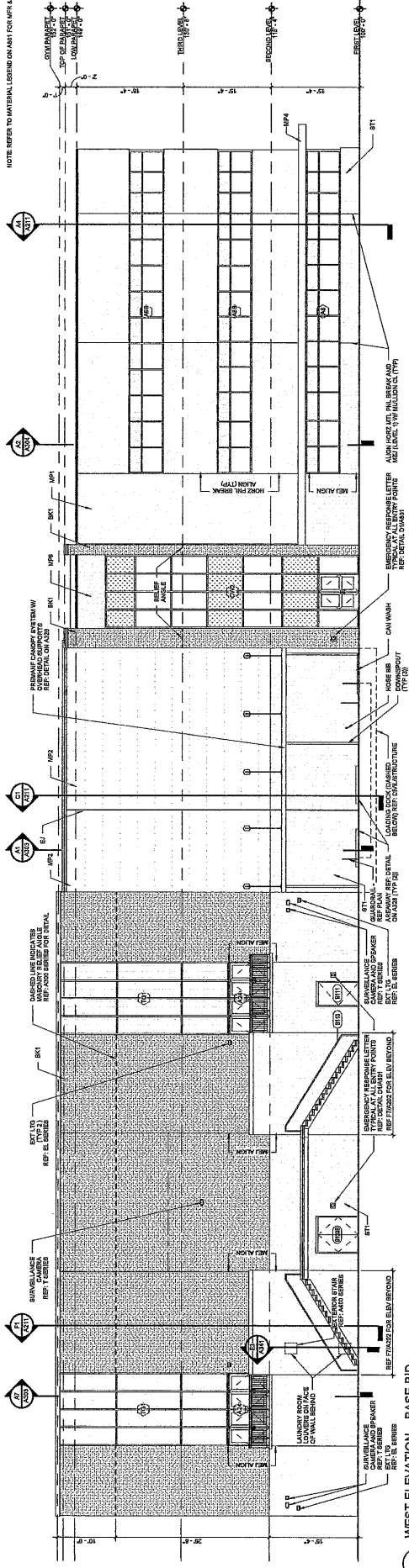
C.

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Design with community in mind

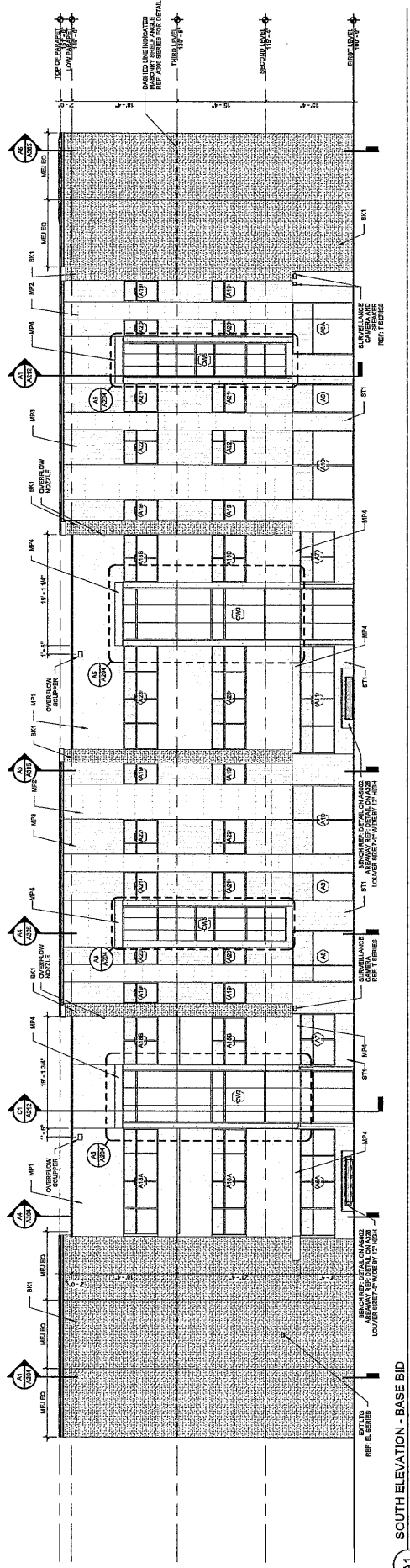
Doing business as:
Stantec Architecture and Engineering (NY)
Stantec Architecture P.C. (DC, MS, MO, NE)
For a list of our registered architects, please visit www.stantec.com/registeredarchitects

NOTE REFER TO MATERIAL LEGEND ON SHEET FOR MPK & CDR



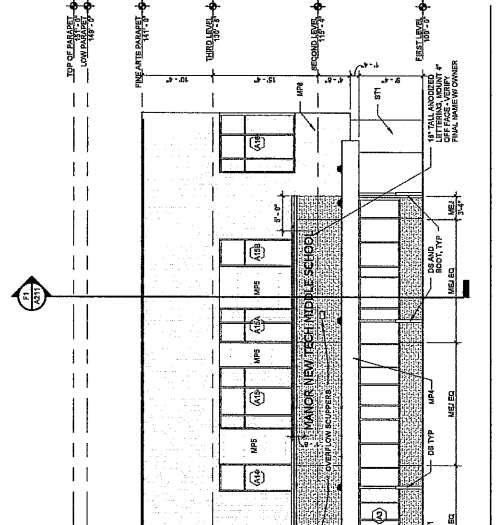
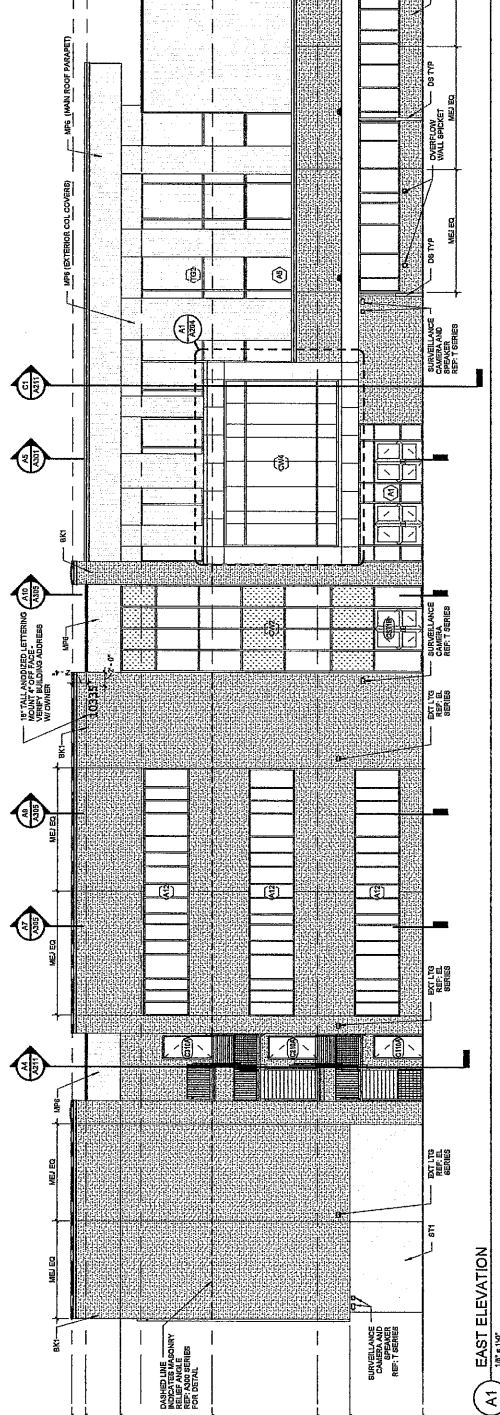
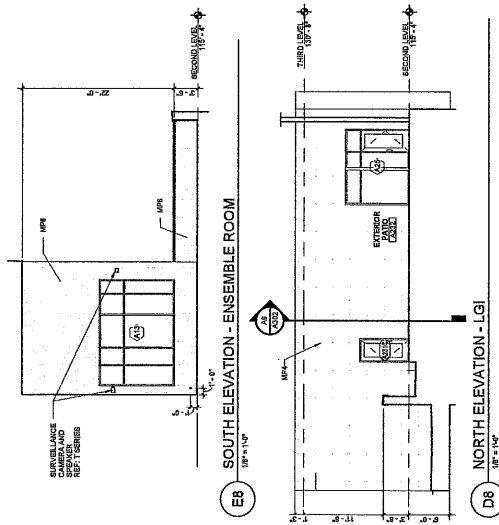
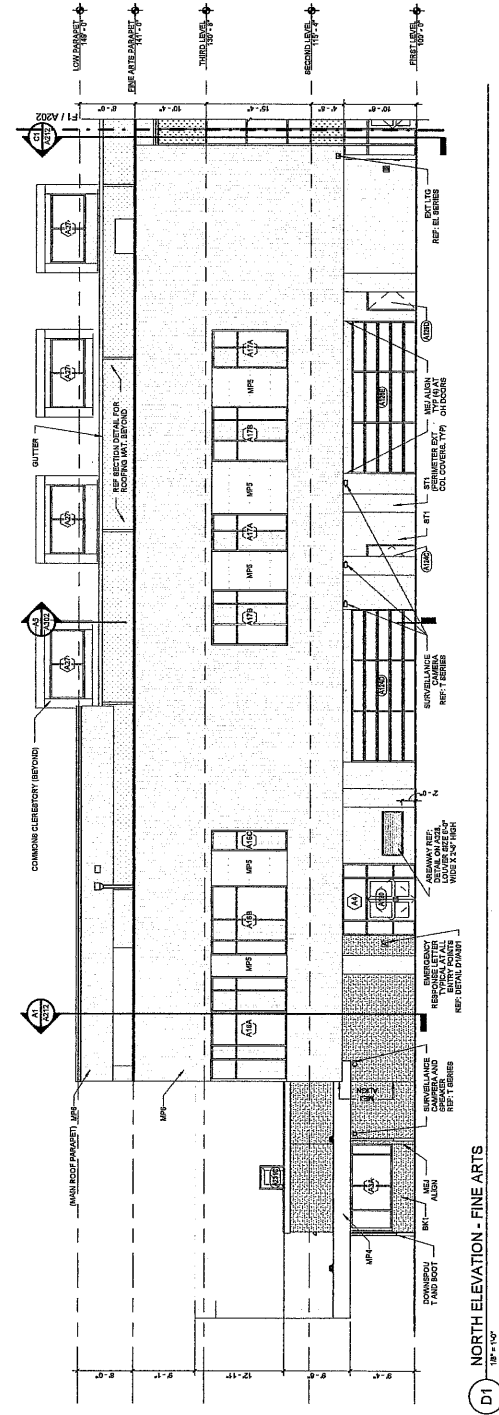
D1 WEST ELEVATION - BASE BID

1/8" = 1'-0"



A1 SOUTH ELEVATION - BASE BID

1/8" = 1'-0"



ELEVATION LEGEND

BM1 - BRICK

ST1 - STONE

MM1 - HORIZONTAL CORRUGATED PANEL

MM2 - METAL PANEL

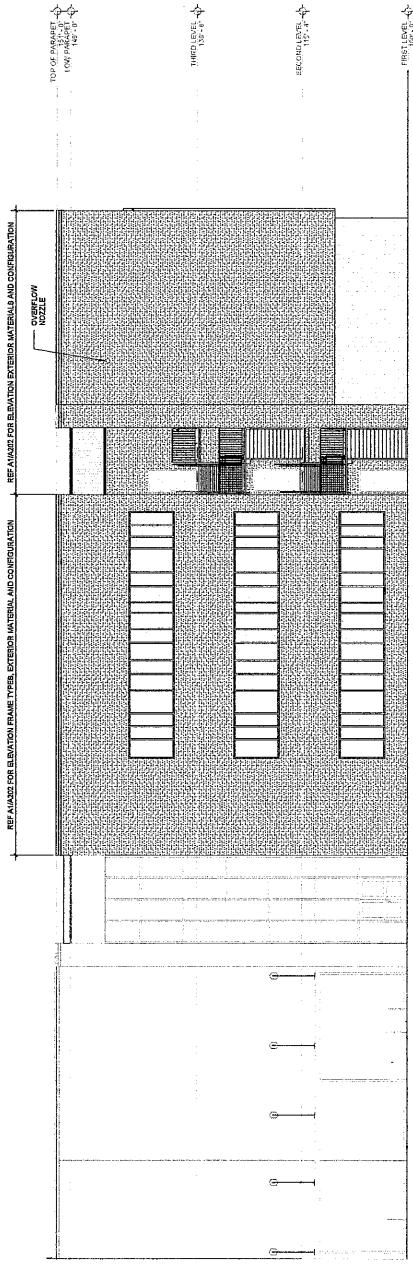
MM3 - VERTICAL CORRUGATED PANEL

MM4 - MODULAR METAL WALL PANEL

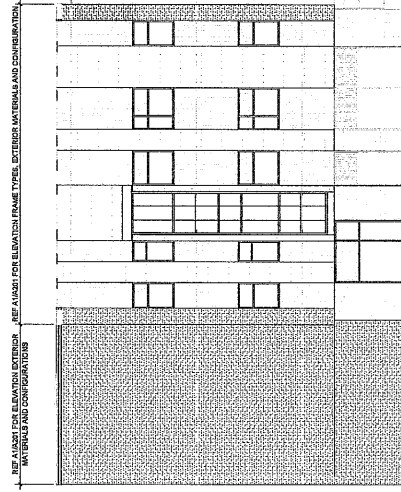
MM5 - VERTICAL CORRUGATED PANEL

MM6 - METAL PANEL

NOTE: REFER TO MATERIAL LEGEND CHART FOR MFR & COLOR



D1 PARTIAL WEST ELEVATION - ALTERNATE



A1 SOUTH ELEVATION - ALTERNATE



REZONING
CONDITIONAL USE
SPECIAL USE PERMIT
VARIANCE/WAIVER
APPEAL OF ADMINISTRATIVE DECISION
PLANNED UNIT DEVELOPMENT
DEVELOPMENT AGREEMENT
COMPREHENSIVE PLAN AMENDMENT

(CHECK APPROPRIATE BOX):

A variance/waiver/conditional use/special use request should be submitted at least four weeks prior to a meeting of the Planning and Zoning Commission or Board of Adjustment to provide for adequate time for staff review and analysis and posting and advertising as required for each application. The form must be completely filled out and all fees paid.

☐ **Zoning: FROM** _____ **District Zoning**
TO: _____ **District Zoning**

Fee: Zoning Request \$300.00 + \$30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner

☐ **Conditional Use Permit:** _____

Fee: Conditional Use Permit \$250.00
Public Hearing Notice \$150.00 News paper notice
Property Owner notification \$5.00 per property owner

☐ **Special Use Permit:** _____

Fee: Special Use Request \$250.00+ 30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner

☒ **Variance:**
Ordinance 185, Section 20 General Requirements and Limitations, (j) Height and Placement Requirements, Chart 1; chart 1 indicates the maximum height limit for a building in zone I is 35 feet, proposed bldg ht 51'-0".

Ordinance Number and Ordinance Section Number. Please complete variance or waiver justification sections.

Fee: Variance \$250.00 + \$30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner



☐ **Appeal of Administrative Decision:**

Please attach a separate document identifying the decision and any information pertinent to your appeal.

Fee: \$400.00

☐ **Planned Unit Development:**

Fee: Planned Unit Development (Land Use Only) \$600.00 + \$40.00 per acre
Amendment \$ ½ Original Fee

Development Agreement Consultation

Deposit \$6000.00

Actual Costs \$ +/- billed costs for eng. and leg. Consultation

☐ **Comprehensive Plan Amendments:**

Fee: \$350.00

☐ **Other:** _____

REQUIRED ITEMS FOR SUBMITTAL PACKAGE:

The following items are required to be submitted to the City in order for the Variance/Waiver/Conditional Use/Special Use Request to be accepted for review.

- ___ 1. Completed and signed application/checklist.
- ___ 2. a. Two sets of mailing labels to notify owners of property (as determined by the most recent tax roles from the County Appraisal District) any part of which is located within three hundred (300) feet of the perimeter of the land for which the variance is requested. These are to be the addresses of the property owners not the physical address of the property within 300 ft.

b. A tax map or maps highlighting the subject property and showing the line extending three hundred (300) feet from the perimeter of the subject property.
- ___ 3. Copy of current deed for subject property.



Property Information:

Subdivision Name	Lot(s) #	Block(s) #	Acreage
Current Zoning	INSTITUTIONAL		
18.555 ACRES OF LAND SITUATED IN THE JAMES MANOR SURVEY #40 IN TRAVIS COUNTY, TX. BEING ALL OF A 12 ACRE TRACT CONVEYED TO MANOR INDEPENDENT SCHOOL DISTRICT DESCRIBED IN A WARRANTY DEED AND RECORDED IN VOL 2895 PAGE 310 OF DEED RECORDS.			

Applicant Information: Legal Description
(may be provided separately)

Please Note: The signature of owner authorizes City of Manor staff to visit and inspect the property for which this application and checklist is being submitted. The signature also indicates that the applicant or his agent has reviewed the requirements of this checklist and all items on this checklist have been addressed and complied with. **Note: The agent is the official contact person for this project and the single point of contact. All correspondence and communication will be conducted with the agent. If no agent is listed, the owner will be considered the agent.**

(Check One):

☐ I, the owner, will represent this application with the City of Manor.

☒ I, the owner, hereby authorize the person named below to act as my agent in representing this application with the City of Manor.

MANOR INDEPENDENT SCHOOL DISTRICT, (512) 278 - 4000

Owner's Name (printed)	Phone	Fax
10335 US HWY 290 E	MANOR	TX 78653
Owner's Address	City	State Zip
<i>Roy Knight</i>	4-5-16	ROY.KNIGHT@MANOR.ISD.NET
Owner's Signature	Date	Email Address

By signing this application Owner affirms that the statements made in the complete application are true and correct to best of his/her knowledge and belief.

Agent's Name: STEPHEN KARP

Company: AGCM

Mailing Address:	Street	City	State	Zip
3112 WINDSOR RD, S-120	AUSTIN	TX	78703	
(512) 426 - 0091		skarp@agcm.com		
Phone	Fax	Email Address		



Variance/Waiver Justification

Variance/Waiver Justification:

NOTE: The reviewing entity must determine the existence of, sufficiency of and weight of evidence supporting the findings described below. Therefore, you must complete each of the applicable Findings Statements as part of your application. Failure to do so may result in your application being rejected as incomplete. Please attach any additional support documents.

REASONABLE USE:

1. The zoning regulations applicable to the property do not allow for a reasonable use because:

HARDSHIP:

2. (a) The hardship for which the zoning change or variance/waiver is requested is unique to the property in that:

- (b) The hardship is not general to the area in which the property is located because:

AREA CHARACTER:

3. The zoning change or variance/waiver will not alter the character of the area adjacent to the property, will not impair the use of adjacent conforming property, and will not impair the purpose of the regulations of the zoning district in which the property is located because:

NOTE: The reviewing entity cannot grant a zoning change or variance/waiver that would provide the applicant with a special privilege not enjoyed by others similarly situated or potentially similarly situated.



Application Number:_____ Date Submitted:_____

Fee Amount:_____ Check No.:_____ Application & Fee Received By:_____

Date Mailings Issued (15 days in advance of meeting dates):_____

Date ad placed in Austin Chronicle for public hearing on subject requests:_____

Zoning District Categories:

- A Agricultural (A) district zoning
- R-1 Single Family Residential – 1 (R-1) district zoning.
- R-2 Single Family Residential – 2 (R-2) district zoning.
- R-3 Multi-family Residential (R-3) district zoning
- R-4 Multi-family Special Needs (R-4) district zoning
- OS Open Space (OS) district zoning
- M-1 Manufactured Housing (M-1) district zoning
- M-2 Manufactured Housing Park (M-2) district zoning
- NB Neighborhood Business (NB) district zoning
- DB Downtown Business (DB) district zoning
- I Institutional (I) district zoning
- C-1 Light Commercial (C-1) district zoning
- C-2 Heavy Commercial (C-2) district zoning.
- C-3 Special Commercial (C-3) district zoning
- IN-1 Light Industrial ((I-1) district zoning
- IN-2 Heavy Industrial (I-2) district zoning
- PUD Planned Unit Development (PUD) district zoning



**ZONING/VARIANCE/BOARD OF ADJUSTMENT
REQUEST INFORMATION**

The applicant must provide the following information to file for a zoning change or variance to requirements of the Zoning Ordinance:

1. Zoning/Variance Application must be completely filled out.
2. See application request for fees. Fees must be paid with application
3. The applicant must provide the city with the names and mailing addresses and one set of mailing labels for the property owners within three hundred feet of the subject property. The City of Manor sends out notices to property owners 15 days in advance of the Planning and Zoning Commission, Board of Adjustment and City Council Meetings. Names and addresses of property owners can be found at Travis County Appraisal District offices or on their website. Note: the physical address of the property may not be the mailing address.
4. Letter of intent (letter stating why you want to rezone the property in question or why you are requesting a variance to the requirements of the Zoning Ordinance). A variance request may not be made on the grounds of a financial hardship. Variances may be granted for unique hardship or practical difficulties on meeting the requirements of the Ordinance.

(ALL OF THE ABOVE INFORMATION MUST BE SUBMITTED TO THE DIRECTOR OF DEVELOPMENT SERVICES AT LEAST 4 WEEKS BEFORE THE FIRST AVAILABLE PLANNING AND ZONING COMMISSION, BOARD OF ADJUSTMENT OR CITY COUNCIL MEETING. THE PLANNING AND ZONING COMMISSION MEET ON THE SECOND WEDNESDAY OF EACH MONTH).

IF ALL OF THE ABOVE INFORMATION IS NOT COMPLETELY AND TIMELY SUBMITTED TO THE DIRECTOR OR DEVELOPMENT SERVICES OR CITY SECRETARY THE SCHEDULING OF THE ITEM MAY BE DELAYED.

5. The City places an ad in the Manor Messenger for a Public Hearing on subject requests.
6. Signs must be placed on the property, by the person making the request, notifying the public of the dates and times of the Planning & Zoning Commission, Board of Adjustment or City Council meetings. This must be done for all meetings. Signs must be placed on the property at least 15 days prior to the meeting dates.

The Planning and Zoning Commission makes recommendations on zoning requests to the City Council. The recommendations are made available to the City Council at their next regularly scheduled meeting. The City Council will make the final ruling for a zoning change.

The Board of Adjustment will make a final ruling for a variance request. Variance rulings are may not be appealed to the City Council. They may be appealed through District Court



Stantec Architecture Inc.
3001 Bee Caves Road, Suite 300, Austin TX 78746-5590

April 8, 2016

City of Manor
Planning and Zoning Commission
105 E. Eggleston Street
P.O. Box 387
Manor, Texas 78653

**Reference: Request for Variance from Zoning Ordinance 185,
Section 61 Landscaping and Screening Requirements,
(e) Landscaping Requirements, Item (iv).**

Manor Independent School District is requesting a variance from Zoning Ordinance 185, Section 61, (e) Landscaping Requirements, Item (iv). Landscape requirement states a minimum of 15% percent of the total area shall be devoted to landscape development for General Retail and Commercial uses.

Manor ISD is requesting for a scaled version the landscape requirements that is suitable for the site. Landscaping will be provided in scaled amount that is appropriate for the site.

Regards,

STANTEC ARCHITECTURE INC.

A handwritten signature in blue ink, appearing to read "Tavo Reyes", with a stylized flourish extending to the right.

Tavo Reyes
Project Manager
Phone: (512) 867-6022
Fax: (512) 867-6001
Tavo.Reyes@stantec.com

Attachment:








C.













tr document2







Design with community in mind

Doing business as:
Stantec Architecture and Engineering (NY)
Stantec Architecture P.C. (DC, MS, MO, NE)
For a list of our registered architects, please visit www.stantec.com/registeredarchitects

LANDSCAPE MATERIAL SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
	Quercus virginiana	Live Oak	2" cal.	11
	Quercus shumardii	Shumard Oak	2" cal.	7
	Liriodendron tulipifera	Cucumber Tree	2" cal.	8
	Celtis occidentalis	Common Hackberry	2" cal.	13
	Ilex vomitoria	Yaupon Holly	20 gal.	8
	Lonicera vitae	Goldcrest Lonicera	20 gal.	2
	Euphorbia corollata	Texas Mountain Laurel	20 gal.	10

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
	Lacynophyllum latifolium	Texas Sage	5 gal.	54
	Ilex vomitoria 'Nana'	Dwarf Yaupon Holly	3 gal.	8
	Salvia greggii	Red Autumn Sage	5 gal.	64
	Rosa 'Virens'	Knox Rose	5 gal.	117
	Dracopis longistylus	Smooth Sedge	7 gal.	3
	Hesperis matronalis	Red Yucca	5 gal.	21
	Muhlenbergia capillaris	Gulf Coast Mistle	5 gal.	134
	Muhlenbergia laetifolia	Big Mistle	5 gal.	99
	Nandina domestica	Heavenly Bamboo	1 gal.	179
	Lantana montealemana	Purple Trailing Lantana	1 gal.	30' O.C., field verify quant.
	Lantana 'New Gold'	New Gold Lantana	1 gal.	30' O.C., field verify quant.
	Dicentra argentea	Silver Pincushion	Flats	30' O.C., field verify quant.

MISC.	ITEM	COMMON NAME	SIZE	QUANTITY
	Cherry Blossom Soil	Rough texture soil, smooth down top	2' x 2' x 6"	27
	Shed Epping	Black granite, 4" thick, 4' x 4' w/ grate		279 sf
	Turf-Cypress section	Bermuda Soil		44,380 sf
	Turf-Hollyhock	Bermuda Soil		53,882 sf
	Decomposed Granite	Bermuda Soil		1,000 sf
	Shrub Bed	Bermuda Soil		1,000 sf





REZONING
CONDITIONAL USE
SPECIAL USE PERMIT
VARIANCE/WAIVER
APPEAL OF ADMINISTRATIVE DECISION
PLANNED UNIT DEVELOPMENT
DEVELOPMENT AGREEMENT
COMPREHENSIVE PLAN AMENDMENT

(CHECK APPROPRIATE BOX):

A variance/waiver/conditional use/special use request should be submitted at least four weeks prior to a meeting of the Planning and Zoning Commission or Board of Adjustment to provide for adequate time for staff review and analysis and posting and advertising as required for each application. The form must be completely filled out and all fees paid.

☐ **Zoning:** FROM _____ District Zoning
TO: _____ District Zoning

Fee: Zoning Request \$300.00 + \$30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner

☐ **Conditional Use Permit:** _____

Fee: Conditional Use Permit \$250.00
Public Hearing Notice \$150.00 News paper notice
Property Owner notification \$5.00 per property owner

☐ **Special Use Permit:** _____

Fee: Special Use Request \$250.00+ 30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner

☒ **Variance:**
Request for Variance from Zoning Ordinance 185, Section 61 Landscaping and Screening Requirements, (e) Landscaping Requirements, Item (iv); request a site suitable % revision to req'd. 15% percent total landscaping
Ordinance Number and Ordinance Section Number. Please complete variance or waiver justification sections.

Fee: Variance \$250.00 + \$30.00 per acre
Public Hearing Notice (paper) \$150.00
Property Owner notification \$5.00 per property owner



☐ **Appeal of Administrative Decision:**

Please attach a separate document identifying the decision and any information pertinent to your appeal.

Fee: \$400.00

☐ **Planned Unit Development:**

Fee: Planned Unit Development (Land Use Only) \$600.00 + \$40.00 per acre
Amendment \$ ½ Original Fee

Development Agreement Consultation

Deposit \$6000.00
Actual Costs \$ +/- billed costs for eng. and leg. Consultation

☐ **Comprehensive Plan Amendments:**

Fee: \$350.00

☐ **Other:** _____

REQUIRED ITEMS FOR SUBMITTAL PACKAGE:

The following items are required to be submitted to the City in order for the Variance/Waiver/Conditional Use/Special Use Request to be accepted for review.

- ___ 1. Completed and signed application/checklist.
- ___ 2. a. Two sets of mailing labels to notify owners of property (as determined by the most recent tax roles from the County Appraisal District) any part of which is located within three hundred (300) feet of the perimeter of the land for which the variance is requested. These are to be the addresses of the property owners not the physical address of the property within 300 ft.

b. A tax map or maps highlighting the subject property and showing the line extending three hundred (300) feet from the perimeter of the subject property.
- ___ 3. Copy of current deed for subject property.



Property Information:

Subdivision Name	Lot(s) #	Block(s) #	Acreage
Current Zoning	INSTITUTIONAL		
18.555 ACRES OF LAND SITUATED IN THE JAMES MANOR SURVEY #40 IN TRAVIS COUNTY, TX. BEING ALL OF A 12 ACRE TRACT CONVEYED TO MANOR INDEPENDENT SCHOOL DISTRICT DESCRIBED IN A WARRANTY DEED AND RECORDED IN VOL 2895 PAGE 310 OF DEED RECORDS.			

Applicant Information: Legal Description
(may be provided separately)

Please Note: The signature of owner authorizes City of Manor staff to visit and inspect the property for which this application and checklist is being submitted. The signature also indicates that the applicant or his agent has reviewed the requirements of this checklist and all items on this checklist have been addressed and complied with. **Note: The agent is the official contact person for this project and the single point of contact. All correspondence and communication will be conducted with the agent. If no agent is listed, the owner will be considered the agent.**

(Check One):

☐ I, the owner, will represent this application with the City of Manor.

☒ I, the owner, hereby authorize the person named below to act as my agent in representing this application with the City of Manor.

MANOR INDEPENDENT SCHOOL DISTRICT, (512) 278 - 4000

Owner's Name (printed)	Phone	Fax
10335 US HWY 290 E	MANOR	TX 78653
Owner's Address	City	State Zip
<i>Roy Knight</i>	4-5-16	ROY.KNIGHT@MANORISD.NET
Owner's Signature	Date	Email Address

By signing this application Owner affirms that the statements made in the complete application are true and correct to best of his/her knowledge and belief.

Agent's Name: STEPHEN KARP

Company: AGCM

Mailing Address:	Street	City	State	Zip
3112 WINDSOR RD, S-120	AUSTIN	TX	78703	
(512) 426 - 0091		skarp@agcm.com		
Phone	Fax	Email Address		



Rezoning/Variance/Waiver Justification

Rezoning/Variance/Waiver Justification:

NOTE: The reviewing entity must determine the existence of, sufficiency of and weight of evidence supporting the findings described below. Therefore, you must complete each of the applicable Findings Statements as part of your application. Failure to do so may result in your application being rejected as incomplete. Please attach any additional support documents.

REASONABLE USE:

1. The zoning regulations applicable to the property do not allow for a reasonable use because:

LANDSCAPE REQUIREMENTS FOR INSTITUTIONAL ZONING DO NOT CURRENTLY

<u>EXIST. 12.35% TOTAL LOT AREA CURRENTLY PROPOSED IMPROVED</u>	<u>26 SHADE TREES</u>
<u>224 TREES REQUIRED @ 2 PER 600SF</u>	<u>33 ORNAMENTAL TREES</u>
<u>448 SHRUBS " " 4 PER 600SF</u>	<u>679 SHRUBS NOT INCLUDING</u>
	<u>GROUND COVER</u>

2. (a) The hardship for which the zoning change or variance/waiver is requested is unique to the property in that:

LARGE SITE BUT LIMITED SPACE FOR IMPROVEMENT DUE TO ADJACENT
EXISTING BUILDINGS, PROPERTY LINES, FLOOD PLAINS, & WATER CONTROL AREAS

- (b) The hardship is not general to the area in which the property is located because:

AREA CHARACTER:

3. The zoning change or variance/waiver will not alter the character of the area adjacent to the property, will not impair the use of adjacent conforming property, and will not impair the purpose of the regulations of the zoning district in which the property is located because:

THE PROPERTY IS ADJACENT TO EXISTING SCHOOL BUILDINGS SIMILARLY LANDSCAPED.
PRECEDENT EXISTS FOR SCALED VERSION OF LANDSCAPE REQUIREMENTS APPROPRIATE
FOR SITE ON PRIOR APPROVAL FOR OUR LAGOS ELEMENTARY PROJECT

NOTE: The reviewing entity cannot grant a zoning change or variance/waiver that would provide the applicant with a special privilege not enjoyed by others similarly situated or potentially similarly situated.



Application Number: _____ Date Submitted: _____

Fee Amount: _____ Check No.: _____ Application & Fee Received By: _____

Date Mailings Issued (15 days in advance of meeting dates): _____

Date ad placed in Austin Chronicle for public hearing on subject requests: _____

Zoning District Categories:

- A Agricultural (A) district zoning
- R-1 Single Family Residential – 1 (R-1) district zoning.
- R-2 Single Family Residential – 2 (R-2) district zoning.
- R-3 Multi-family Residential (R-3) district zoning
- R-4 Multi-family Special Needs (R-4) district zoning
- OS Open Space (OS) district zoning
- M-1 Manufactured Housing (M-1) district zoning
- M-2 Manufactured Housing Park (M-2) district zoning
- NB Neighborhood Business (NB) district zoning
- DB Downtown Business (DB) district zoning
- I Institutional (I) district zoning
- C-1 Light Commercial (C-1) district zoning
- C-2 Heavy Commercial (C-2) district zoning.
- C-3 Special Commercial (C-3) district zoning
- IN-1 Light Industrial ((I-1) district zoning
- IN-2 Heavy Industrial (I-2) district zoning
- PUD Planned Unit Development (PUD) district zoning



**ZONING/VARIANCE/BOARD OF ADJUSTMENT
REQUEST INFORMATION**

The applicant must provide the following information to file for a zoning change or variance to requirements of the Zoning Ordinance:

1. Zoning/Variance Application must be completely filled out.
2. See application request for fees. Fees must be paid with application
3. The applicant must provide the city with the names and mailing addresses and one set of mailing labels for the property owners within three hundred feet of the subject property. The City of Manor sends out notices to property owners 15 days in advance of the Planning and Zoning Commission, Board of Adjustment and City Council Meetings. Names and addresses of property owners can be found at Travis County Appraisal District offices or on their website. Note: the physical address of the property may not be the mailing address.
4. Letter of intent (letter stating why you want to rezone the property in question or why you are requesting a variance to the requirements of the Zoning Ordinance). A variance request may not be made on the grounds of a financial hardship. Variances may be granted for unique hardship or practical difficulties on meeting the requirements of the Ordinance.

(ALL OF THE ABOVE INFORMATION MUST BE SUBMITTED TO THE DIRECTOR OF DEVELOPMENT SERVICES AT LEAST 4 WEEKS BEFORE THE FIRST AVAILABLE PLANNING AND ZONING COMMISSION, BOARD OF ADJUSTMENT OR CITY COUNCIL MEETING. THE PLANNING AND ZONING COMMISSION MEET ON THE SECOND WEDNESDAY OF EACH MONTH).

IF ALL OF THE ABOVE INFORMATION IS NOT COMPLETELY AND TIMELY SUBMITTED TO THE DIRECTOR OR DEVELOPMENT SERVICES OR CITY SECRETARY THE SCHEDULING OF THE ITEM MAY BE DELAYED.

5. The City places an ad in the Manor Messenger for a Public Hearing on subject requests.
6. Signs must be placed on the property, by the person making the request, notifying the public of the dates and times of the Planning & Zoning Commission, Board of Adjustment or City Council meetings. This must be done for all meetings. Signs must be placed on the property at least 15 days prior to the meeting dates.

The Planning and Zoning Commission makes recommendations on zoning requests to the City Council. The recommendations are made available to the City Council at their next regularly scheduled meeting. The City Council will make the final ruling for a zoning change.

The Board of Adjustment will make a final ruling for a variance request. Variance rulings are may not be appealed to the City Council. They may be appealed through District Court

November 9, 2015

City of Manor
Attn: Scott Dunlop
505 Barton Springs Road
Austin, Texas 78704

*Re: Lagos Master Planned Community
Planned Unit Development – Letter of Intent
SE corner of FM 973 and Blake Manor Road
Manor, Texas 78653*

To Whom It May Concern:

Please accept this Summary Letter for the above referenced project. The proposed Lagos Master Planned Community is located at the southeast corner of FM 973 and Blake Manor Road in Manor, Texas and Travis County. The existing property is approximately 700 undeveloped acres. The site consists of approximately 146 acres within the City of Manor's jurisdiction, with the remainder residing in the City of Austin.

The proposed development intends to provide single family housing in the style of a lakefront community. The majority of the proposed single family residences will be located next to ponds and lakes to offer a better living experience than a typical subdivision. In addition to the single family lots, multi-family apartment units, retail lots, restaurants, public parks, and other amenities are included in the scope of the development. Manor ISD has been coordinating to construct a new elementary school in the Lagos property as well.

A typical zoning classification is not conducive to providing this variety of uses in an efficient or aesthetically pleasing manner. In order to adequately and responsibly meet the needs of the citizens of Manor, the Lagos property is undergoing the rezoning process, in order to be classified as a Planned Unit Development (PUD). PUD zoning allows for a more flexible and fluid community as well as a better dispersion of uses throughout the proposed development.

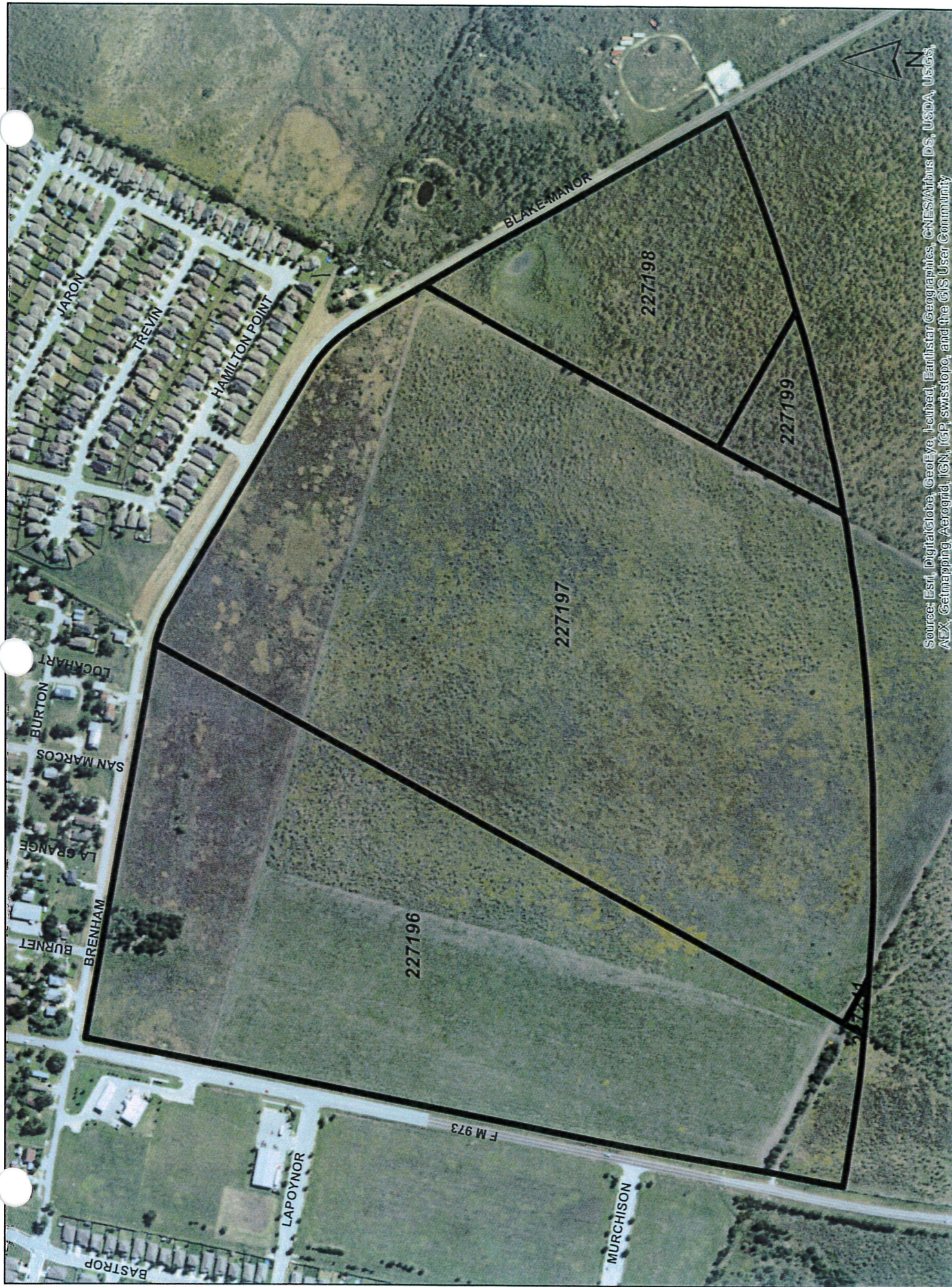
If you have any questions or comments regarding this request, please contact me at 512-418-1771.

Sincerely,

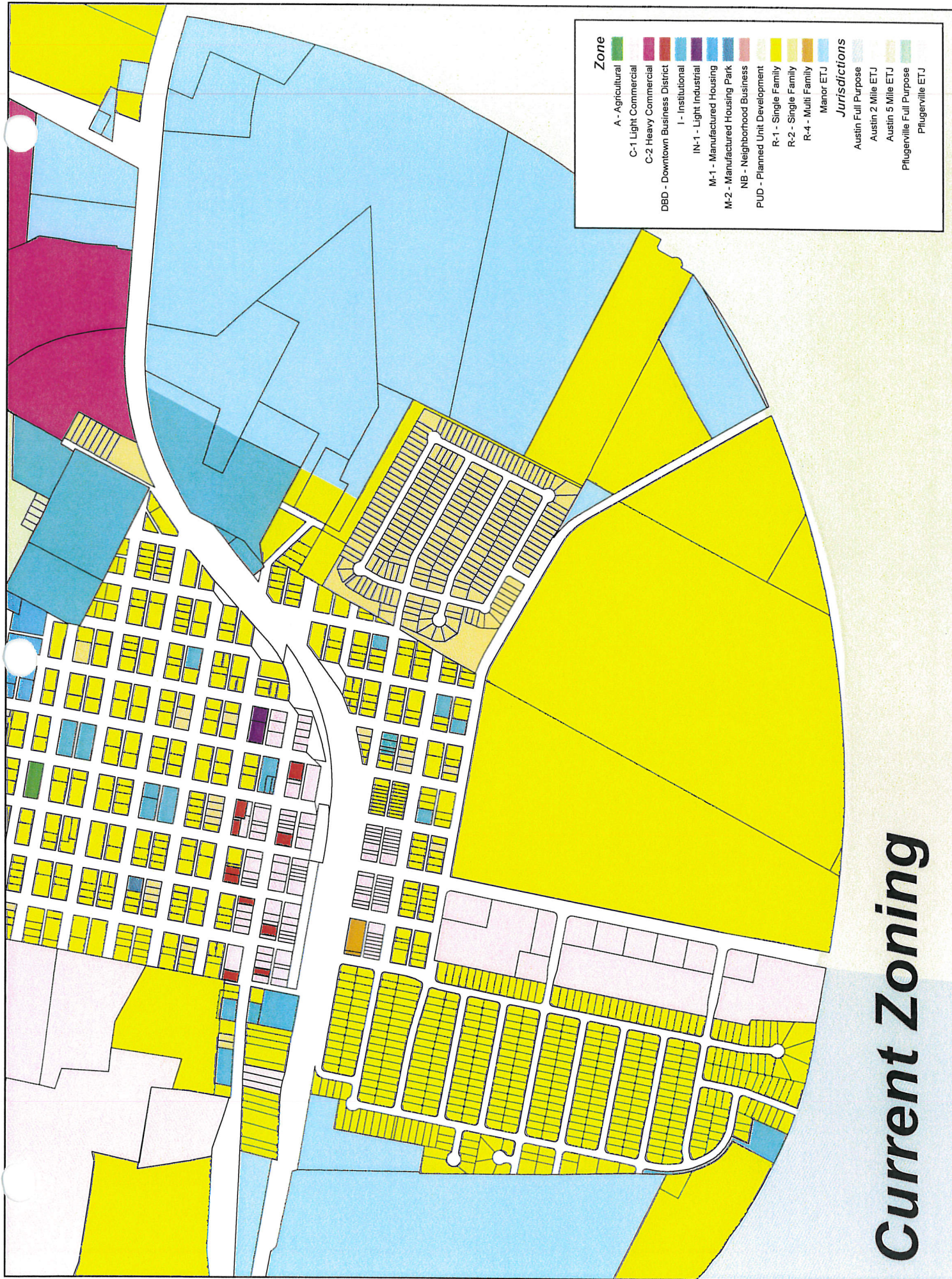
KIMLEY-HORN AND ASSOCIATES, INC.



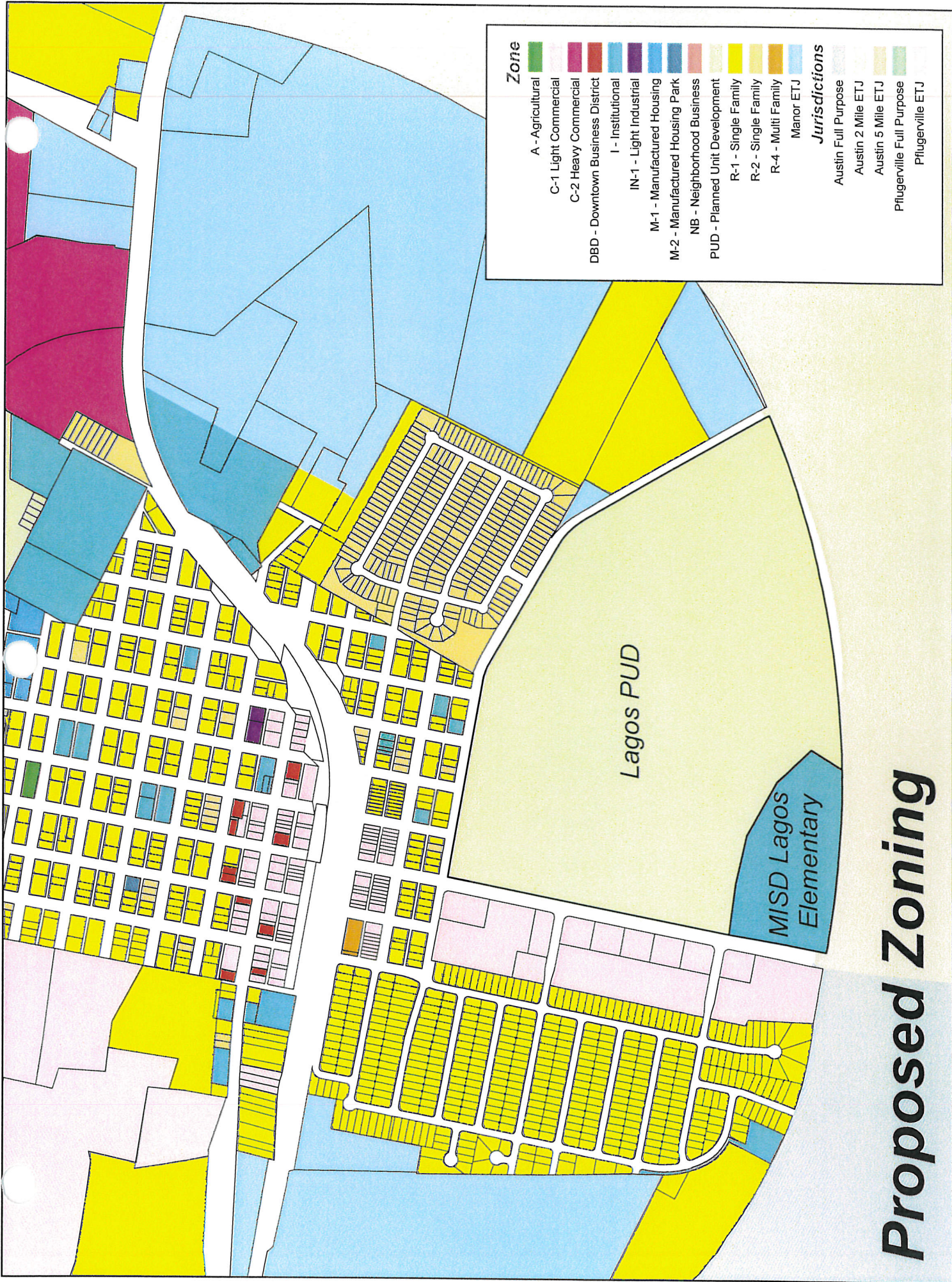
Robert J. Smith, P.E.
Senior Project Manager



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

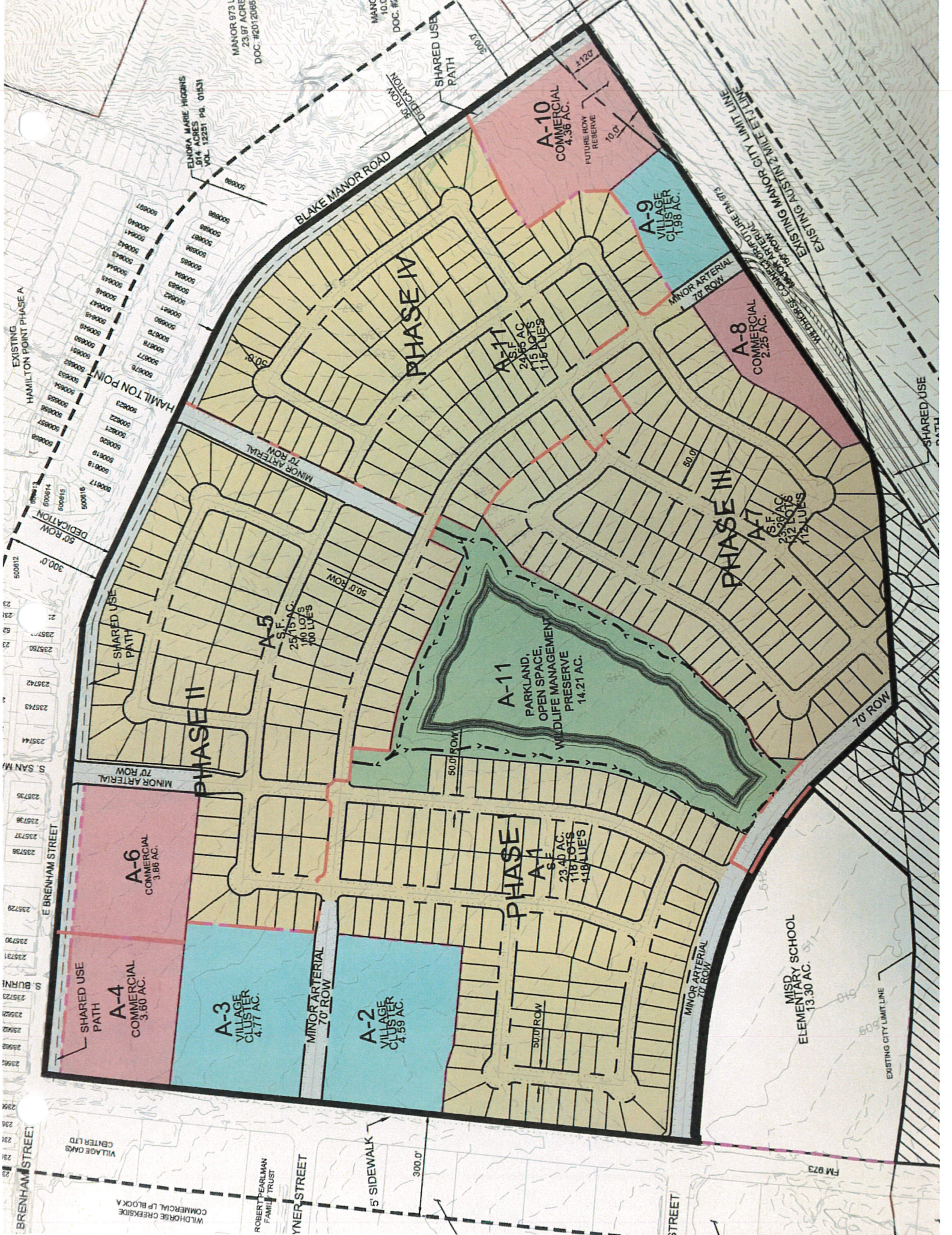


Current Zoning



- Zone**
- A - Agricultural
 - C-1 Light Commercial
 - C-2 Heavy Commercial
 - DBD - Downtown Business District
 - I - Institutional
 - IN-1 - Light Industrial
 - M-1 - Manufactured Housing
 - M-2 - Manufactured Housing Park
 - NB - Neighborhood Business
 - PUD - Planned Unit Development
 - R-1 - Single Family
 - R-2 - Single Family
 - R-4 - Multi Family
 - Manor ETJ
- Jurisdictions**
- Austin Full Purpose
 - Austin 2 Mile ETJ
 - Austin 5 Mile ETJ
 - Pflugerville Full Purpose
 - Pflugerville ETJ

Proposed Zoning



Kimley»Horn

December 16, 2015
City of Manor
Attn: Tom Bolt
105 E Eggleston St.
Manor, TX 78653

RE: Lagos Master Planned Community PUD

To Whom It May Concern:

Please accept this Summary Letter for the above referenced project. The proposed Lagos Master Planned Community is located at the southeast corner of FM 973 and Blake Manor Road in Manor, Texas and Travis County. The existing property is approximately 700 undeveloped acres. The site consists of approximately 146 acres within the City of Manor's jurisdiction, with the remainder residing in the City of Austin.

The proposed development is seeking to be classified under the Planned Unit Development (PUD) zoning district in order to allow for a better community than conventional zoning would permit. The City of Manor Zoning Ordinance claims that "the purpose and intent of the Planned Unit Development District is to provide a flexible, alternative procedure to encourage innovative and imaginative designs for the unified development of the property." The City of Manor specifies seven main goals of PUD zoning that potential developments must accomplish. These have been presented and clarified below.

(i) To allow development which is harmonious with nearby areas

The Community is strategically located at the intersection of Blake Manor Road and FM 973. In 2011, Travis County voters approved nearly \$30,000,000 of roadway construction bonds to construct, in full or in part, a major roadway connector network including Wildhorse Connector Phases 1 and 2 which will bridge Gilleland Creek thereby tying the heart of Lagos to Parmer Lane, SH 130 and the Highway 290 Manor Expressway as well as the City of Manor's major north south arterial, FM 973, and to Blake Manor Road, the gateway road to southeast Travis County.

Because of the fact that the property resides in both Manor and Austin jurisdiction, the PUD zoning district would allow the Lagos development to more easily bridge gaps between municipalities and maintain a consistent and fluid community. The flexibility that PUD zoning allows will be invaluable as the previously mentioned roadway connector network comes into fruition and the City of Manor continues to grow.

(ii) To enhance and preserve areas which are unique or have outstanding significance

The rich cultural history of the area around Manor and eastern Travis County, will be researched, and preserved as areas develop. Components of cultural historic assets acquired will be catalogued and set in educational kiosks and displays throughout the Community to help educate the public on the many cultures that have existed on the fertile land that is Lagos.

The Gilleland Creek Greenway is a keystone in the City of Austin and Travis County's Parks and Open Space plan. Lagos shares nearly a mile of border with the future Gilleland Greenway. Numerous improvements including trail heads, parking, trails, play fields, lakes, wildlife habitat, nature educational exhibits, habitat enhancement or playscapes could be developed.

In addition to these preservation areas, Lagos will incorporate food and nature garden sites, to develop all age awareness of nature at work and how food grows and benefits the community.

(iii) To provide an alternative for more efficient use of land and infrastructure

Wildlife water fowl habitat and natural areas will be integrated into each of the strategically placed habitat lakes that will be maintained at constant levels such that they will act as wildlife and waterfowl attractants and will also be part of a complex, state-of-the-art water quality system. Providing wet pond storm water bio-filtration during rain events, these ponds will serve many uses, including water quality, wildlife management, and public use and enjoyment for young and old alike. These ponds are systematically organized to reduce storm sewer infrastructure cost and provide aesthetic improvements to the community that typical stormwater management facilities cannot provide.

The City of Manor requires 5% of a site area be dedicated as parkland in a typical subdivision. This would equate to roughly 7.3 acres of the Lagos development within the City of Manor. At this time, approximately 14 acres are being dedicated as parkland, open space, and a wildlife management preserve. None of the parkland lies in a floodplain, and the area resides in the heart of the development – allowing for a greater, more convenient greenspace for the entire community.

The Lagos development intends to dedicate 50 feet of right of way for future expansions to Blake Manor Road, and has established a future right of way reserve as wide as 120 feet for a potential expansion to FM 973 at the southeast corner of the property. Safety is paramount in any development, and Lagos is dedicating this land to help ensure that the roadways surrounding it can provide adequate capacity for Manor's growing needs. Internal streets will be designed per the City of Austin Transportation Criteria Manual, and several minor arterial roadways with 70 feet of right of way will be used to provide access to the development.

(iv) To encourage harmonious and coordinated development

Substantial 6, 8 and 10 foot wide bicycle and pedestrian trails will be able to be developed connecting the Highway 290 "Manor Expressway" trail to the Austin to Manor Rail Trail; the Parmer Lane trails, the WildHorse Connector and the future Gilleland Creek Greenway Trails, as well as numerous neighborhood trails within Lagos connecting neighborhoods, schools, businesses and community assets.

Numerous lakes, parks; some with improved Playgrounds and Playscapes, will be developed along public roadways and trails. Playground facilities will be all-age and all-ability accessible. A number of multi-use play fields would be developed for neighborhood sports activities, including soccer, softball, little league, basketball, football, lacrosse, and other activities.

(v) To facilitate the analysis of the effect of the development upon the economy and area

The most evident way that the Lagos Master Planned Community will provide improvements to the surrounding area and the City as a whole is in the additional residents that the development will serve. These residents will bring additional commerce and connection throughout the City.

The development will add to the tax base of the City, both through residents of Lagos and through businesses using the proposed commercial space. As the Lagos development is abutting several major roadways within the City, it makes logistical sense to offer a diverse set of uses in the area. The future roadway connector network will only increase the opportunity for the Lagos development to make a positive impact on both the City economy and the residents themselves.

(vi) To provide and result in an enhanced residential and/or work environment

Lagos' development will center around a series of man made lakes, embedded within the Community. These lakes will provide visual and recreational amenities for the public, in general, and the residents specifically. Lake front home sites will be very desirable.

Many of the lakes in Lagos will contain fishery habitats, with hydrophilic vegetation strategically designed to promote game fish development suitable for catch and release enjoyment. The lakes will be designed and built with many public amenities, including educational pavilions, fishing points, picnic points and knolls and water front park spaces. The lakes' interpretive center and surrounding wildlife habitat will be maintained by the Lagos Gilliland Wildlife Habitat Conservation Foundation.

(vii) To achieve overall coordinated mixed-use developments

The draught of the last three years has taken its toll on the riparian woodlands along Gilleland Creek within the planned Greenway. Nearly 50% of the mature trees in some areas have perished. The Lagos development would facilitate a professional reforestation program in conjunction with the planned park and greenway improvements listed above.

The Lagos development also proposes space dedicated to village clusters – a detached low density multi-family area. Tentative densities from these areas is approximately 10 units per acre. Somewhat akin to town homes, these clusters will allow for more options for potential residents of the Lagos development. Rather than construct apartment complexes side by side with single family residences, the Lagos development aims to use village clusters to diversify the property. Typical zoning regulations would not easily allow for this solution.

Subdivision Variances Requested

The Subdivision Variances requested for the Lagos PUD are as follows:

1. An aerial photograph may be submitted at the preliminary plat stage rather than a tree survey.
2. An inventory of significant trees that identifies the number of significant trees by category (trees 18 inches in caliper or larger and trees between 8 and 18 inches in caliper) to remain during construction and the number of significant trees in each category designated to be removed during construction shall be permitted with construction plans.
3. The number of replacement trees that will be installed, without the identification of the particular location at which the replacement trees shall be installed, shall be submitted with construction plans.
4. Significant cottonwood, hackberry or mesquite trees removed shall be replaced at a rate of 50% per caliper inch with an approved hardwood tree. All other significant trees must be replaced at the ratios defined in the city's subdivision ordinance.
5. The minimum lot area and lot width requirements (including the percentage of total lots within the master land plan that are permitted to be of such minimum lot area and lot width category), height and setback requirements, lot coverage requirements, parking requirements, and landscaping requirements for each lot shall be as set forth in the minimum development standards for lots within the master land plan and outside the corporate boundaries of the city or as set forth in the pud variances for lots within the pud and the corporate boundaries of the city.
6. Lots shall not be required to face a similar lot across the street.
7. Side lot lines shall not be required to project away from the front lot line at approximately right angles to street lines and radial to curved street lines.
8. The construction of sidewalks in residential and commercial areas need not be completed prior to final approval and acceptance of a final plat, but must be completed prior to the issuance of a certificate of occupancy or within 2 years from the approval of the final plat. A cost estimate for the construction of any sidewalks in residential areas not constructed prior to the final approval and acceptance of the final plat shall be prepared and a bond for 110% of such costs shall be posted with the city. Each year the developer and city may agree to the additional sidewalks in residential areas that were completed during the previous year and reduce the amount of the bond to reflect the construction costs of the sidewalks that have been completed. Sidewalks in residential areas not completed prior to the end of the 2-year period shall be completed by the developer or by the city with the bond funds. Failure to provide sufficient bonds or complete the sidewalks in residential areas shall not obligate the city to build sidewalks. The construction of sidewalks in non-residential areas shall be completed during subdivision construction.
9. Lot frontage widths of single-family lots shall be as follows:
 - a. Not more than 45% of such lots, not including cul-de-sac lots, may have a lot frontage width of not less than 40 feet.

- b. 55% or more of such lots, not including cul-de-sac lots, shall have a lot frontage width of 50 feet or greater.
 - c. Any cul-de-sac lot shall have a lot frontage width of no less than 30 feet.
10. The minimum single-family residential lot shall be 6,000 feet.
11. Front setbacks for single-family residential lots shall be staggered as follows:
- a. 40% of all lots within the property shall have a set back of 20 feet from the front property line.
 - b. 20 % of all lots within the property shall have a set back of 22.5 feet from the front property line.
 - c. 20% of all lots within the property shall have a set back of 25 feet from the front property line
 - d. 20% of all lots within the property shall have a set back of 27.5 feet from the front property line.
12. Single-family residential lots have a minimum side set back of five (5) feet for each lot.
13. Single-family residential lots have a minimum rear set back of ten (10) feet for each lot.

Zoning Variances Requested

The Zoning Variances requested for the Lagos PUD are as follows:

1. Apprvoed Land Uses

The land uses shown on the master plan shall be permitted. Changes to the location of the land uses shown on the master plan shall be granted by the planning and zoning commission if: (a) the proposed land uses are consistent with the following table; or (b) the change in location of land uses does not result in a higher density use than the use shown on the master plan. Any application for a change in location of land uses is deemed approved if the planning and zoning commission does not disapprove it within 30 days after the date the application is filed with the city secretary. If the planning and zoning commission disapproves an application for a change of land uses, then the applicant may appeal that disapproval to the city council. The city council will act on the appeal within 30 days of the date the appeal is filed with the city secretary.

TABLE 1: SITE DATA AND ACREAGES

LAND USE	ACREAGE	PERCENTAGE OF TOTAL ACREAGE
SINGLE-FAMILY RESIDENTIAL (R-2*)	96.4	65.92%
VILLAGE CLUSTER RESIDENTIAL (R-3)	11.4	7.76%
COMMERCIAL (C-1 AND C-2)	14.1	9.63%
OPEN SPACE (OS)	14.2	9.72%
MAJOR ROADWAYS	10.2	6.97%
TOTAL	146.2	100%

2. Minimum Lot Size, Height and Placement Requirements

TABLE 2: SETBACK, HEIGHT, AND LOT WIDTH INFORMATION

LAND USE	FRONT YARD SETBACK (FT)	SIDE YARD SETBACK (FT)	STREET SIDE YARD SETBACK (FT)	REAR YARD SETBACK (FT)	MINIMUM LOT SIZE (SF)	MINIMUM LOT WIDTH (FT)	MAXIMUM HEIGHT LIMIT (FT)
R-1*	25	10	15	25	6,000	50-60	35
R-2	20	5	15	10	7,200	50	35
C-1	25	7	15	15	5,750	50	60
OS	25	10	15	25	7,500	60	35

Note: single-family development will follow setback and height guidelines for the r-2 zoning district, but will allow for a minimum lot size of 6,000 square feet for a portion of the development.

3. Lot Coverage

TABLE 3: ALLOWABLE LOT COVERAGE

LAND USE	MAIN BUILDINGS	MAIN AND ACCESSORY BUILDINGS
R-2*	40%	50%
R-3	40%	50%
C-1 AND C-2	60%	70%
OS	50%	60%

4. Parking

Off-street parking for more than five vehicles and loading areas shall be effectively screened by a private fence, hedge, planting or natural vegetation or topography on each side which adjoins land designated for a residential use or a residential use.

5. Landscaping

The following percentage of the net area of each lot shall be landscaped. The net lot area shall equal the total lot area less the area to be left unimproved because of the existence of natural features that are worthy of preservation or that would make improvements impractical.

TABLE 4: LANDSCAPING REQUIREMENTS

LAND USE	NET LOT AREA
R-2*	SEE NOTE
R-3	20%
C-1 AND C-2	15%
OS	20%

Note: minimum landscape requirements for each lot within a single-family, dwelling, or a manufactured home, shall be a minimum of two (2) two-inch trees, six (6) two-gallon shrubs and lawn grass from the property line to the front two (2) corners of the structure. Residential structures on reverse frontage lots shall also be required to screen the rear of the structure from the abutting highway, access road, or other public right-of-ways.

Landscaping placed within public right-of-way shall not be credited to the minimum landscape requirements by this section unless the developer and the city negotiate a license agreement by which the developer assumes the responsibility for the maintenance, repair and replacement for all landscaping located within the public right-of-way.

6. Maximum Density

TABLE 5: ALLOWABLE MAXIMUM DENSITIES

LAND USE	MAXIMUM DENSITY
R-3	10 UNITS PER ACRE
C-1 AND C-2	1.8 TO 1 FAR

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Robert J. Smith, P.E.
Senior Project Manager

Kimley»Horn

December 16, 2015
City of Manor
Attn: Tom Bolt
105 E Eggleston St.
Manor, TX 78653

RE: Lagos Master Planned Community PUD Plan
Comments received via email

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Scott Dunlop on November 16, 2015. The original comments have also been included below for reference.

City of Manor - Scott Dunlop - 512-272-5555

1. We're looking for how this zoning achieves the purposes and objectives set forth in the zoning ordinance (185 Sec 49(a)(i-vii)). Also in return for deviating from traditional zoning standards there has to be an increase in another public amenity; like additional improved parkland, better streets, amenity centers available to the entire city, etc. These need to be explicitly detailed so Council and determine if the PUD zoning is more beneficial than traditional zoning.

Response: Please see the attached letter highlighting the vision of the proposed Lagos community. Descriptions of proposed benefits and tangible examples are provided in this document. These uses convey that PUD zoning would be more beneficial than traditional zoning, especially as the City of Manor continues to grow.

2. The types of land uses need to be described too, like is it single-family detached or attached and what are village clusters envisioned to be?

Response: All areas marked as single family on the exhibit will be dedicated to detached single family housing. The Village clusters are envisioned to be somewhat similar to town homes at an approximate density of 10 living units per acre. These residences are envisioned to be detached – our client feels that this option is a better fit for the rest of the community than a typical multifamily apartment complex.

3. There's also note 10 that states the minimum lot size is 4,000 sq ft. for single-family but the chart says 6,000.

Response: Note 10 has been corrected to match the chart.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "R. J. Smith", with a long horizontal stroke extending to the right.

Robert J. Smith, P.E.
Senior Project Manager

December 24, 2015

Mr. Tom Bolt
Director of Development Services/City Manager
City of Manor
P.O. Box 387
Manor, TX 78653

Re: Master Plan Review for
Lagos PUD
City of Manor, Texas

Dear Mr. Bolt:

The first submittal of the Master Plan for Lagos PUD prepared by Kimley-Horn and Associates and delivered to our office on December 18, 2015, has been reviewed for compliance with the City of Manor Zoning Ordinance 185. Based upon our review, we can offer the following comments:

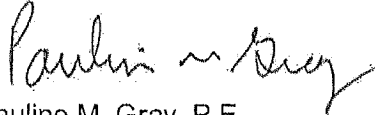
1. The Master Plan should be retitled Preliminary Site Plan.
2. A Preliminary Site Plan of the entire property should be submitted. Section 49(e) of the City of Manor Zoning Ordinance 185 requires that a **Preliminary Site Plan of the entire property** within the Planned Unit Development be submitted in order for the Commission to study and review the plan prior to any recommendation to, or consideration by, the City Council of the Planned Unit Development district ordinance.
3. Section 49(e)(iii)(B) requires that information be submitted describing the environmental impact of the development relating to the preservation of existing natural resources on the site and the impact on the natural resources of the surrounding properties and neighborhood.
4. Details of the relationship of the proposed development to adjacent uses in terms of harmonious use and design, setbacks, maintenance of property values and negative impacts should be provided per Section 49(e)(iii)(C).
5. Section 49(e)(iii)(D) requires that details for the provision of a safe and efficient vehicular and pedestrian circulation system be provided.
6. The design and location of proposed off-street parking spaces and loading facilities are not indicated on the plan as required by Section 49(e)(iii)(E) of Zoning Ordinance 185. Off street parking and loading facilities must be indicated on the plan in order to ensure that all such spaces are usable and are safely and conveniently arranged.
7. Section 49(e)(iii)(F) requires that the proposed streets should be shown on the Preliminary Plan in order to show that the streets have sufficient width and suitable grades and that the streets have been designed to accommodate prospective traffic and to provide access for firefighting and emergency equipment to buildings.

8. The coordination of streets should be shown on the Preliminary Plan so as to show that a convenient system consistent with the Thoroughfare Plan of the City will be created as is required by Section 49(e)(iii)(G) of the Zoning Ordinance.
9. Section 49(e)(iii)(H) requires that details of the use of landscaping and screening be provided with the preliminary plan in order demonstrate that adequate buffers are provided to shield lights, noise, movement or activities from adjacent properties when necessary and to show that the landscaping and screening complement the design and location of buildings and are integrated into the overall site design.
10. The location, size and configuration of open space areas should be shown on the Preliminary Plan to ensure that such areas are suitable for intended recreation and conservation uses.
11. Information should be provided to demonstrate the adequacy of water, drainage, sewage facilities, garbage disposal and other utilities necessary for essential services for residents and occupants.

Please provide a written response narrative that identifies how each of the comments was addressed. Additional comments may be rendered based upon reviews of updated submittal information.

Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.

Copy: Robert J. Smith, P.E., Kimley-Horn and Associates
Scott Dunlop, City of Manor

PMG/s

PN 100-986-10



Kimley»Horn

February 17, 2016
Jay Engineering Company, Inc.
Attention: Pauline M. Gray, P.E.
P.O.Box 1220
Leander, Texas 78646

RE: Preliminary Site Plan review for Lagos PUD City of Manor, Texas

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Pauline M. Gray, P.E., letter dated on December 24, 2015. The original comments have also been included below for reference.

1. The Master Plan should be retitled Preliminary Site Plan.

Response: The exhibit title has been revised upon discussions with City of Manor staff on January 12, 2016.

2. A Preliminary Site Plan of the entire property should be submitted. Section 49(e) of the City of Manor Zoning Ordinance 185 requires that a **Preliminary Site Plan of the entire property** within the Planned Unit Development be submitted in order for the Commission to study and review the plan prior to any recommendation to, or consideration by, the City Council of the Planned Unit Development district ordinance.

Response: The attached preliminary site plan has been revised to meet the requirements set forth in Section 49(e) of the City of Manor Zoning Ordinance.

3. Section 49(e)(iii)(B) requires that information be submitted describing the environmental impact of the development relating to the preservation of existing natural resources on the site and the impact on the natural resources of the surrounding properties and neighborhood.

Response: Please find attached a copy of an environmental assessment of the Lagos property compiled by SWCA Environmental Consultants, dated June 2014. This assessment details the hydrogeologic conditions of the Lagos property, as well as on-site floodplain, critical environmental features, critical water quality zones, and other notable natural features. Kimley-Horn has taken care to consider these features when creating the preliminary site plan, and intends to use the findings of the SWCA report to develop the property in a responsible manner. This report should provide sufficient information to satisfy section 49(e)(iii)(B).

4. Details of the relationship of the proposed development to adjacent uses in terms of harmonious use and design, setbacks, maintenance of property values and negative impacts should be provided per Section 49(e)(iii)(C).

Response: Notes have been added to the preliminary site plan to clarify that the requirements of Section 49(e)(iii)(C) will be sufficiently met. The Proposed development intends to continue harmonious use with the adjacent Hamilton point subdivision by providing right of way for future widening of E Brenham Street and Blake Manor Road to ensure adequate access and prevent congestion. The proposed internal street network ties in with existing roadways adjacent to the property to provide a smooth and seamless transition from one property to the next. The commercial tracts will provide restaurants and retail space for nearby residents to enjoy, and offices to provide additional jobs in the area. More information will be provided in the final design of the site.

5. Section 49(e)(iii)(D) requires that details for the provision of a safe and efficient vehicular and pedestrian circulation system be provided.

Response: The preliminary site plan now details the circulation system throughout the property. Street sections will be laid out to meet the guidelines specified in the City of Austin Transportation Criteria Manual to ensure that vehicular and pedestrian circulation through the development satisfies section 49(e)(iii)(D) of the City of Manor Zoning Ordinance.

6. The design and location of proposed off-street parking spaces and loading facilities are not indicated on the plan as required by Section 49(e)(iii)(E) of Zoning Ordinance 185. Off street parking and loading facilities must be indicated on the plan in order to ensure that all such spaces are usable and are safely and conveniently arranged.

Response: The preliminary site plan has taken the requirements of section 49(e)(iii)(E) into consideration. All parking and loading facilities will meet municipal requirements, including requirements set forth in the City of Austin Transportation Criteria Manual as required, and ensuring adequate ADA parking spaces are provided. Notes clarifying these regulations have been added to the preliminary site plan.

7. Section 49(e)(iii)(F) requires that the proposed streets should be shown on the Preliminary Plan in order to show that the streets have sufficient width and suitable grades and that the streets have been designed to accommodate prospective traffic and to provide access for firefighting and emergency equipment to buildings.

Response: A preliminary trip generation analysis has been provided as part of the submittal package. As there is some uncertainty concerning the exact uses of the commercial parcels at this time, a breakdown of 75% office, 5% restaurant, and 20% retail was assumed for the trip generation. The Floor to Area ratio of these uses were assumed to be 0.4 for office, 0.2 for restaurant, and 0.25 for retail uses. These assumptions are specified on the preliminary site plan as well. The forthcoming Lagos TIA will analyze the trip generation and other traffic impacts more thoroughly.

Streets have been designed to meet the City of Austin Transportation Criteria Manual in regards to minimum radii, right-of-way widths, etc. The street network is now shown on the preliminary plan to satisfy the requirements of section 49(e)(iii)(F).

8. The coordination of streets should be shown on the Preliminary Plan so as to show that a convenient system consistent with the Thoroughfare Plan of the City will be created as is required by Section 49(e)(iii)(G) of the Zoning Ordinance.

Response: The development includes right-of-way dedication to allow Blake Manor Road to be widened to a 4 lane major arterial per the City of Manor thoroughfare plan. In addition to this dedication, other potential roadway alignments were considered when creating the preliminary site plan. The future Wildhorse connector is displayed on the preliminary site plan. Additionally, the FM 973 realignment per the thoroughfare plan is displayed on the plan. Discussions with City staff and TXDOT are ongoing to determine the best manner to provide connectivity to the area. The forthcoming Lagos TIA will expound on these issues in greater depth.

9. Section 49(e)(iii)(H) requires that details of the use of landscaping and screening be provided with the preliminary plan in order demonstrate that adequate buffers are provided to shield lights, noise, movement or activities from adjacent properties when necessary and to show that the landscaping and screening complement the design and location of buildings and are integrated into the overall site design.

Response: Notes have been added to the preliminary site plan to clarify the landscape requirements for the development. Lights, noise, movement and other activities will be shielded from adjacent properties. The commercial and village cluster tracts will be designed and planned to accommodate these requirements as well. More information concerning specific landscaping and screen walls will be provided with the final design.

10. The location, size and configuration of open space areas should be shown on the Preliminary Plan to ensure that such areas are suitable for intended recreation and conservation uses.

Response: Open space areas are now shown and labeled on the preliminary site plan. The open space area intends to provide a variety of amenities to the development, including fishing ponds with trails along the banks and a natural greenspace for the residents to enjoy.

11. Information should be provided to demonstrate the adequacy of water, drainage, sewage facilities, garbage disposal and other utilities necessary for essential services for residents and occupants.

Response: A table detailing the LUE's generated by the development has been added to the preliminary site plan. Please see the attached water and wastewater calculations for additional information. In regards to the commercial lots, the same assumptions for the preliminary trip generation analysis were used to determine LUE's.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Robert J. Smith, P.E.
Senior Project Manager

Kimley»»Horn

Project Number

	9060	727	968	385	342	461	507	6838	770	323	280	362	408	6838	603	724	323	280	335	389
Totals	9060	727	968	385	342	461	507	6838	770	323	280	362	408	6838	603	724	323	280	335	389

AM and/or PM rates correspond to peak hour of generator

- Worksheet is intended as a planning tool. Verify results w/ ITE Trip Generation 9th Edition

LAGOS PLANNED UNIT DEVELOPMENT - MANOR

WATER CAPACITY CALCULATIONS

Population:

	LUE's	People per LUE	Total Pop.
	678.00	3.5	2,373.00
Total	678.00		2,373.00

Data from City of Austin Utility Criteria Manual

Peak hour demand	900 Gal/Person/Day	=	0.00139 cfs
Peak Daily Demand	530 Gal/Person/Day	=	0.00082 cfs

Calculations

Total Peak Hour Demand	2,135,700 Gal/Day	or	1,483.13 gpm	=	3.30 cfs
Total Peak Daily Demand	1,257,690 Gal/Day	or	873.40 gpm	=	1.95 cfs

Fire Flow

Sprinkler Reduction Used

Anticipated Fire Flow Demand	1,500.00 gpm	=	3.34 cfs
Duration of Fire Flow	2 hours		

LAGOS PLANNED UNIT DEVELOPMENT - MANOR

WASTEWATER CAPACITY CALCULATIONS

Design Criteria

Project Data

Development Size =

146.2 Acres

Population:

	LUE's	People per LUE	Total Pop.
	678.00	3.5	2,373.00
Total	678.00		2,373.00

Data from City of Austin Utility Criteria Manual

Wastewater Generation =

70 gal/person/day

Inflow and Infiltration =

750 Gal/ Acre*Day

Calculations

Total Avg Dry Weather Flow (F) -

166,110 Gal/day

or

115.35 gpm

Peaking Factor (Mp =)

3.53 Unitless

$$Mp = \frac{18 + (0.0206 * F)^{0.5}}{4 + (0.0206 * F)^{0.5}}$$

Min. Flow Factor (Mm =)

0.22 Unitless

$$Mm = 0.2 * (0.0144 * F)^{0.198}$$

Minimum Dry Weather Flow -

36,733.65 Gal/day

or

25.51 gpm

=

0.06 cfs

Peak Dry Weather Flow -

585,767 Gal/day

406.78 gpm

=

0.91 cfs

I&I Contribution -

109,635 Gals/Day

or

76.14 gpm

=

0.17 cfs

Total Peak Wet Weather Flow -

695,402 Gal/ Day

or

482.92 gpm

=

1.08 cfs

Lagos
706 Investment Partnership, Ltd.
Wildlife Management Plan for 2015-2019
Site Visit Conducted on April 19, 2015
Summary

Property Description:

± 681.192 acres in eastern Travis County off of FM 973 and Blake Manor Road, approximately 1 mile south of US Highway 290 in Manor, Texas. See attachment for specific Travis CAD account numbers.

Ownership:

706 Investment Partnership, Ltd.
9900 Hwy 290 E
Manor, TX 78653

Current Use:

Valued under 1-d-1 open spaces agricultural use appraisal.

Planned Use:

Wildlife management for active recreational use and passive aesthetic enjoyment; to be valued under 1-d-1w wildlife management use appraisal.

Target Indigenous Species:

Songbirds
Mourning Dove
White-tailed Deer
Wild Turkey

Planned Management Practices: (7 out of 7)

Habitat Control

1. Brush Management 2015-2019

Erosion Control

1. Pond Construction and Major Repair 2015-2024

Predator Control

1. Imported Red Fire Ant Control 2015-2019

Supplemental Water

1. Marsh/Wetland Restoration or Development 2015-2024
2. Well/Troughs/Windmill Overflow/Other Wildlife Waterers 2015-2024

Supplemental Food

1. Feeders and Mineral Supplementation 2015-2019

Providing Shelters

1. Nest Boxes, Bat Boxes 2015-2019
2. Brush Piles and Slash Retention 2015-2019

Making Census Counts to Determine Population

1. Songbird Transects and Counts 2015-2019

Lagos
706 Investment Partnership, Ltd.
Wildlife Management Plan for 2015-2019
Prepared by PLATEAU Land & Wildlife Management, Inc.
Site Visit Conducted on April 19, 2015

Property Description

Size	+/- 681.192 acres
Location	eastern Travis County
Nearest Town/Major Intersection	1 mile south of US Highway 290 in Manor, Texas off of FM 973 and Blake Manor Road
Shape	Irregular
Boundary Features	The western boundary occurs along FM 973 while the northern boundary occurs along Blake Manor Road. All remaining boundaries occur along fence lines with neighboring tracts.
Significant Water Features	One large pond and two smaller tanks occur on the property. Numerous drainages bisect the property, typically draining from east to west.
Terrain	Gently sloping from east to west.
Elevation	Maximum - 560 ft MSL Minimum - 475 ft MSL
Fencing	Perimeter
Wildlife Use Appraisal Region	Eastern Edwards Plateau
Ecological Region	Blackland Prairie
River Sub-Basin	Lower Colorado-Cummins
Major River Basin	Colorado River
Coastal Bay	Matagorda Bay
Average Rainfall for Area	32-34 inches/yr

Current Habitat Description

The Lagos property consists of two major habitat types including:

1. Old Pasture
2. Mixed Woodlands

Old Pasture

Where It Occurs:

The overwhelming dominating habitat throughout the entire property is old pasture.

Canopy Layer:

Canopy cover within this habitat is extremely variable, dependant on the amount of regrowth, invasive mesquite. Scattered portions of the old pasture are nearly void of canopy species, and in some cases void of any wooded species. Mesquite has severely invaded the majority of the property, and is representative of the various age classes of growth. In some cases, hackberry, cedar elm, or bois d'arc can be found scattered amongst the dense mesquite layer.

Shrub Layer:

Mesquite can be found in large sections of similar structure, indicating previous efforts to control. Diversity is extremely low throughout with only a scattering of other species occurring. Prickly pear cactus, condalia spp., twist-leaf yucca, bumelia, and lime prickly-ash were seen scattered throughout, in extremely limited numbers.

Herbaceous Layer:

The herbaceous community is comprised of a mixture of weedy forbs and dense cool season grasses. Some patches are comprised almost entirely of weedy forbs such as croton, giant ragweed, silver-leaf nightshade, cocklebur, evening primrose, and Indian paintbrush. When grass is present, cool season grasses such as rescuegrass, Texas wintergrass, Japanese brome, and ryegrass are common with a scattering of warm season remnants such as silver bluestem and limited little bluestem.

Plants Observed/Expected:

Trees	Shrubs/Vines/Succulents	Grasses/Forbs
Mesquite Cedar elm Hackberry Bois d'arc Bumelia	Young mesquite Prickly pear cactus Bumelia Twist-leaf yucca Lime prickly-ash Flame-leaf sumac Condalia spp. Willow baccharis	Rescuegrass Texas wintergrass Ryegrass Japanese brome Coastal bermudagrass Silver bluestem Little bluestem Cocklebur Silver-leaf nightshade Evening primrose Indian paintbrush Erect gayfeather Western ragweed Croton Giant ragweed

Mixed Woodlands

Where It Occurs:

The mixed woodlands are found along the drainages, scattered fence lines, and a small woodland patch located along the northern boundary.

Canopy Layer:

Canopy within these woodlands is typically comprised of hackberry, mesquite, bois d'arc, bumelia, Texas ash, and occasional non-natives such as Chinese tallow and chinaberry.

Shrub Layer:

The understory shrub layer is often limited with low diversity. Young mesquite dominates the layer with scattered flame-leaf sumac, possumhaw, bumelia, condalia, and prickly pear cactus.

Herbaceous Layer:

The herbaceous community is limited within the denser habitats with only a scattering of grasses and forbs occurring. A few pockets of giant reed are present. Giant ragweed occurs along the edges of the woodlands and the old pasture habitats.

Plants Observed/Expected:

Trees	Shrubs/Vines/Succulents	Grasses/Forbs
Hackberry	Young mesquite	Little bluestem
Cedar elm	Bumelia	Giant reed
Bois d'arc	Prickly pear cactus	Giant ragweed
Texas ash	Possumhaw	Croton
Bumelia	Condalia	Various paspalums
Chinaberry	Flame-leaf sumac	Virginia wildrye
Chinese tallow	Willow baccharis	Texas wintergrass
	Greenbriar	Frostweed

Management Priorities:

Numerous activities can benefit the wildlife on the property and can be broken to immediate action items. Those that will be more long-term will likely take a few years to initiate. Activities that will immediately benefit wildlife include the treatment of imported red fire ants, control of invasive mesquite, installation of nesting boxes for cavity nesting species such as wrens and titmouse, and providing permanent food and water sources a wide variety of wildlife. Eventually, the creation of scattered ponds and seasonal wetlands, which may be maintained by pumped water will provide valuable habitat for wildlife. The benefits of long-term mesquite control can be compounded by the planting a mixture of native trees and shrubs.

White-tailed Deer:

Based on discussions with the landowner, deer numbers are currently low. While deer are not a target species of this wildlife management plan and hunting is not a formal component of this plan, reducing deer numbers is encouraged as it will increase the abundance and diversity of seed-producing forbs (an important food source for a variety of seed eaters), encourage recruitment of important shrubs and trees (important cover and food sources for a variety of birds and mammals), and increase amounts of available forage for all wildlife. The use of corn or other supplemental feeders on properties where no hunting will occur is discouraged.

Soil Types (from NRCS Soil Descriptions)

There are six main soil types located on the Lagos property in Travis County.

Map unit: FhF3 - Ferris-Heiden complex, 8 to 20 percent slopes, severely eroded

The Ferris, severely eroded component makes up 60 percent of the map unit. Slopes are 8 to 20 percent. This component is on linear gilgai on ridges on plains. The component is in the Eroded Blackland Pe 44-64 ecological site. This series consists of clay soils. Climax vegetation includes big and little bluestem, indiagrass switchgrass, wildrye, meadow dropseed, Texas wintergrass, silver bluestem Engelmann daisy Maximilian sunflower gayfeather black samson, bundleflower sensitivebrier neptunia prairie clovers, scurfpea, button snakeroot, and groundplum.

Map unit: HeD2 - Heiden clay, 5 to 8 percent slopes, moderately eroded

The Heiden, eroded component makes up 95 percent of the map unit. Slopes are 5 to 8 percent. This component is on linear gilgai on ridges on plains. This component is in the Blackland Pe 44-64 ecological site. This series consists of clay soils. Climax vegetation is little bluestem, big bluestem, indiagrass, and switchgrass; with Maximilian sunflower, Engelmann daisy, button snakeroot, bundle flowers, prairie clover, prairie parsley, Indian plantain, and gayfeather.

Map unit: HnB - Houston Black clay, 1 to 3 percent slopes

The Houston Black component makes up 95 percent of the map unit. Slopes are 1 to 3 percent. This component is on circular gilgai on ridges on plains. This component is in the Blackland Pe 44-64

ecological site. This series consists of clay soils. Climax vegetation is little bluestem, big bluestem, indiagrass, and switchgrass; with Maximilian sunflower, Engelmann daisy, button snakeroot, bundle flowers, prairie clover, prairie parsley, Indian plantain, and gayfeather.

Map unit: HnC2 - Houston Black clay, 3 to 5 percent slopes, moderately eroded

The Houston Black, eroded component makes up 95 percent of the map unit. Slopes are 3 to 5 percent. This component is on linear gilgai on ridges on plains. This component is in the Blackland Pe 44-64 ecological site. This series consists of clay soils. Climax vegetation is little bluestem, big bluestem, indiagrass, and switchgrass; with Maximilian sunflower, Engelmann daisy, button snakeroot, bundle flowers, prairie clover, prairie parsley, Indian plantain, and gayfeather.

Map unit: HoD2 - Houston Black gravelly clay, 2 to 8 percent slopes, moderately eroded

The Houston Black, eroded component makes up 95 percent of the map unit. Slopes are 2 to 8 percent. This component is on linear gilgai on ridges on plains. This component is in the Blackland Pe 44-64 ecological site. This series consists of clay soils. Climax vegetation is little bluestem, big bluestem, indiagrass, and switchgrass; with Maximilian sunflower, Engelmann daisy, button snakeroot, bundleflowers, prairie clover, prairie parsley, Indian plantain, and gayfeather.

Map unit: Tw - Tinn clay, 0 to 1 percent slopes, frequently flooded

The Tinn component makes up 95 percent of the map unit. Slopes are 0 to 1 percent. This component is on circular gilgai on flood plains on plains. The component is in the Clayey Bottomland Pe 44-64 ecological site. Climax vegetation supports oak, elm, hackberry, and ash with understory of grape, greenbrier, honeysuckle, and hawthorn. Virginia wildrye, switchgrass, eastern gamagrass, and beaked panicum occur with blood ragweed, ironweed, white crownbeard, and spiny aster.

Past History of Land Use and Wildlife

The Lagos property has historically been used for agriculture and is valued under 1-d-1 open space valuation. The abundance of wildlife currently on the property provides both passive and aesthetic enjoyment for the landowner's family and friends.

Landowners' Goals

The landowner intends to manage this land to the benefit of native wildlife and sustaining habitat including restoration to healthy community associations of Blackland Prairie woody and grassland species. It is their intention to restore and manage this land for increased biodiversity for the passive and aesthetic enjoyment afforded by the property. This healthy habitat will be managed primarily for the benefit of songbirds, white-tailed deer, Mourning Dove and ground-nesting birds such as Wild Turkey. While the target species of this plan are restricted to the above species, activities performed will benefit a wide variety of wildlife in addition to improving overall land health and ecological function. Because different portions of the property are suitable for different types of wildlife, actively managing for multiple species concurrently is consistent with wildlife management principles and will maximize overall benefit to wildlife.

Wildlife Management Plan

Preparation and implementation of this wildlife management plan involves enumerating the target species, planned practices, and monitoring methods. This plan was prepared by Mark Gray, wildlife biologist, of Plateau Land and Wildlife Management, Inc. The site visit to gather information used for this plan was conducted on April 19, 2015.

Planned Wildlife Management Practices

Habitat Control

1. Brush Management. (2015-2019) Overgrowth of mesquite will be controlled to reduce density/prevent invasion and improve habitat for wildlife. Mesquite is a root-sprouter and requires chemical treatment or complete bud zone removal to achieve control. Chemical treatment method is dictated by the size and structure of the trees. Mechanical control involves uprooting the plant with a power-grubber or other grubbing attachment.

Large trees with rough bark should be treated with the cut-stump method that involves cutting the plant off at ground-level and immediately spraying the stump with a 15% mix of Remedy™ in diesel or Remedy RTU. This method may be used in conjunction with hydraulic shears to remove the above-ground portion of the plant. Shears with built-in herbicide application capabilities streamline the process. This treatment can be applied at any time of the year.

Trees with few basal stems (trunks emerging from the ground) and smooth bark can be treated using the low-volume basal spray method, which eliminates the need to cut the tree down prior to treatment. This involves spraying the lower 12-18 inches of each basal stem with a 15%-25% mix of Remedy™ in diesel or Remedy RTU. This method may be applied throughout the year, but best results are achieved during the growing season.

Young, regrowth plants (particularly those <8ft tall with many basal stems) can be quickly controlled by a foliar application of ½% Remedy and ½% Reclaim in water or a ¼%-¾% mix of Sendero herbicide in water. A surfactant such as methylated seed oil (MSO) and dye should be added to the mixture. This method should only be applied in the late spring/early summer once the leaves turn dark green and no new, light-green leaves are present on the plant.

All of these methods are detailed in the Brush Busters program for mesquite control (<http://texnat.tamu.edu/about/brush-busters/>). Brush management will annually affect a minimum of 10 acres. Receipts for chemicals, and a map indicating areas controlled each year will be available on request.

In addition, in order to provide cover and shelter for songbirds and other wildlife, young hardwoods will be planted and/or protected from deer browsing. Protecting young saplings with either fencing or slash material will allow these trees to grow and contribute to the tree layer. Excessive browsing by deer on important hardwoods is having a detrimental impact on woody plant diversity, including the Lagos property. Trees to protect include Spanish oak, Eve's necklace, hackberry, and escarpment black cherry. Maps of locations of plantings and protected areas along with photographs of protected plants will be available on request.

Erosion Control

1. Pond Construction and Major Repair. (2015-2024) A series of small and larger ponds will be constructed for the purpose of controlling and preventing erosion while providing habitat diversity and wildlife benefits. These ponds will be supplemented year round by well water pumped directly on-site. Creation of shallow water areas as primary production wetlands will be undertaken where feasible. This activity will count for 10 years of credit upon completion as long as annual maintenance is performed. The pond construction areas is indicated on the attached map. Photos and associated records will be available on request.

Predator Control

1. Imported Red Fire Ant (IRFA) Control. (2015-2019) The landowner is aware of the potential negative effect of Imported Red Fire Ants on wildlife populations due to food decrease and direct predation of bird nestlings and other wildlife. Imported Red Fire Ants will be monitored annually (fall or spring), and appropriate control measures will be taken in infested areas with non-toxic products (i.e. growth inhibiting, metabolic modifying, or hormone interrupting baits) as much as possible. Extinguish Plus is an effective and cost-efficient fire ant control bait for use on areas not intended for grazing beef cattle or other livestock used for feed. If treated areas are to be grazed by livestock to be used for human consumption, then regular Extinguish or a similarly approved product for grazing should be used. The bait should be applied at the rate of 2-5 tbsp/mound or according to label directions. Spring and fall mound applications produce the greatest effect. A minimum of 25 acres will be monitored and treated as needed annually. The treatment area is represented on the attached map. Records of areas treated and receipts for fire ant bait will be available upon request.

Supplemental Water

1. Marsh / Wetland Restoration or Development. (2015-2024) Supplemental water will be provided in the form of shallow wetlands for songbirds, turkey, dove, deer, amphibians, and migratory waterfowl. This newly developed small seasonal wetland will not only provide supplemental water but will also help control erosion of the down slope area. The shallow areas will capture or slow a significant volume of water that washes down the uplands in large rainfall events. Efforts should be made to create a diversity of aquatic habitats (ex: deep pools, shallow mud flats, etc.) and to maximize the amount of edge by creating irregularly-shaped wetland sides. This activity will count for 10 years of credit upon completion. Maps and photos will be available on request.
2. Well/Trough/Windmill Overflow/Other Wildlife Watering Devices. (2015-2024) Supplemental water will be provided for songbirds, Wild Turkey, dove, and white-tailed deer through 3-4 wildlife water sources. The watering facilities will be enhanced for wildlife use by installing rock ramps or perch wire from the ground, over the trough lip, and to the bottom of the trough. The modifications will provide better access for small mammals, reptiles, and songbirds and a way to avoid drowning if water levels drop. Rainwater catchment will provide the water source for these devices designed specifically for wildlife. Water catchment supplied water sources may need to be supplemented during especially dry periods. Ideal distribution for most wildlife is ¼-½ mile between sources. This activity will count for 10 years of credit upon completion as long as annual maintenance is performed. Maps of the water source locations will be available on request.

Providing Supplemental Supplies of Food

1. Feeders and Mineral Supplementation. (2015-2019) The optimum feeding regime for songbirds, dove, and turkey during the breeding season would include at least three platform-style birdseed feeders. The birdseed feeders should be filled with a mixture of 75% scratch grains and 25% black-oil sunflower seeds. The feeders should be filled regularly, kept clean, and may be relocated as needed. During the winter, the birdseed feeders should contain at least 25% sunflowers due to the increased need for fat reserves. Receipts for birdfeed should be kept and available upon request, along with a photo of each feeder.

Providing Shelters

1. Nest Boxes, Bat Boxes. (2015-2019) The landowner will place nest boxes in appropriate habitat throughout the property. After these boxes have been placed, the nest box program will consist of annual monitoring, repair, upkeep, and replacement. Approximately 40 boxes will be erected.

Titmouse boxes (20 boxes recommended) should be placed on woodland edges, oak parklands, or anywhere grassy areas and trees meet. Wren boxes (20 boxes recommended) should be located in wooded shrubby habitats.

All boxes located in open or semi-open habitats should face the northeast to minimize the amount of heat entering the box. The nest boxes will be monitored annually for predators, occupancy and successful breeding. All songbird boxes should be cleaned in later winter before the breeding season begins. Copies of monitoring information and a map of nest box locations will be provided upon request.

2. Brush Piles and Slash Retention. (2015-2019) This practice involves placement and retention of brush piles to provide additional wildlife cover and protection for saplings of desirable plant species. Teepees of limbs or posts will provide cover for small mammals and ground nesting birds. In addition to providing wildlife habitat, brush piles placed at the base of desirable shrubs/trees such as white shin oak, Spanish oak, and cedar elm will promote their regeneration. Brush piles should be mound- or tepee-shaped and located in areas without significant amounts of cover-providing shrubs. Ideally, they should be 6-8 feet high and 10-15 feet in diameter. The largest material should form the base and layers of smaller limbs and branches should be added as filler. Care should be taken to create an open cavity at the base of the pile to promote animal use. A minimum of 10 properly constructed brush piles will be created each year the practice is performed. Existing brush piles may be reshaped and maintained annually, as an alternative to new construction. Maps indicating location of shelters and representative photos will be available on request.

Making Census Counts to Determine Population

1. Songbird Transects and Counts. (2015-2019) An annual breeding and wintering songbird survey as per accepted protocol will be conducted on the property. These surveys will provide information helpful in monitoring trends in the health and sustainability of songbird populations. Copies of survey design and data will be available on request.

March 8, 2016

Mr. Tom Bolt
Director of Development Services/City Manager
City of Manor
P.O. Box 387
Manor, TX 78653

Re: Master Plan Second Review for
Lagos PUD
City of Manor, Texas

Dear Mr. Bolt:

The third submittal of the Master Plan for Lagos PUD prepared by Kimley-Horn and Associates and delivered to our office electronically on March 2, 2016, has been reviewed for compliance with the City of Manor Zoning Ordinance 185. Based upon our review, we can offer the following **new comments along with previous comments that have not been cleared**:

1. Hike and Bike Trails should be shown on the Preliminary Site Plan Exhibit, along the connection to 973 and along Blake Manor Road.
2. Cross-sections for proposed roadways should be shown as well as cross-sections for the proposed hike and bike trails.
3. Permitted uses in commercial sectors should be added to the PUD plan.
4. A note should be added to the Preliminary Site Plan stating that Duplexes **SHALL NOT BE** allowed in any portion of the Lagos PUD.
5. Village Clusters should be classified as R-3 not commercial. Village Clusters should be better defined.
6. More detail should be shown as to what is proposed for the open space/parkland/wildlife management preserve area. Proposed ponds should be shown on the plans.
7. The wildlife management function of the open space should be defined and information about who will manage it should be shown.
8. The future ROW reserve shown on Lot A-10 looks as if it is located at the edge of pavement. A shoulder that is at least 10' wide needs to be added and the future ROW should be adjusted accordingly.
9. The proposed alignment of the future Wildhorse Connector/Future FM 973 is not consistent with Manor's Master Roadway Plan.

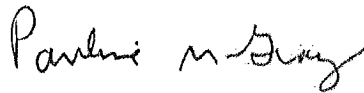
10. A note should be added to the plan that states the development will be in accordance with the environmental assessment for the site.

11. Better defined constraints on uses, such as minimum commercial square footage, etc., should be added to the plan.

Please provide a written response narrative that identifies how each of the comments was addressed. Additional comments may be rendered based upon reviews of updated submittal information.

Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Copy: Robert J. Smith, P.E., Kimley-Horn and Associates
Scott Dunlop, City of Manor

Kimley»Horn

April 7, 2016
Jay Engineering Company, Inc.
Attention: Pauline M. Gray, P.E.
P.O.Box 1220
Leander, Texas 78646

RE: Master Plan Second Review for Lagos PUD City of Manor, Texas

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Pauline M. Gray, P.E., letter dated on March 8, 2016. The original comments have also been included below for reference.

1. Hike and Bike Trails should be shown on the Preliminary Site Plan Exhibit, along the connection to 973 and along Blake Manor Road.

Response: The hike and bike trails (identified as shared use path on the plan to be consistent with Travis County's plans) are now shown on the Preliminary Site Plan exhibit along FM 973 and along Blake Manor Road. See note 20 for further description on responsibility of construction.

2. Cross-sections for proposed roadways should be shown as well as cross-sections for the proposed hike and bike trails.

Response: The Cross-sections for proposed roadways and the proposed hike and bike trails (shared use path) have been added to the plans.

3. Permitted uses in commercial sectors should be added to the PUD plan.

Response: Permitted uses have been added to the plan taken almost verbatim from the City of Manor Zoning Ordinance for C1 and C2 Zoning.

4. A note should be added to the Preliminary Site Plan stating that Duplexes SHALL NOT BE allowed in any portion of the Lagos PUD.

Response: Note #18 has been added to the plan stating no duplexes are allowed in this PUD.

5. Village Clusters should be classified as R-3 not commercial. Village Clusters should be better defined.

Response: Village Clusters have been classified as R-3. See attached exhibit identifying a potential layout.

6. More detail should be shown as to what is proposed for the open space/parkland/wildlife management preserve area. Proposed ponds should be shown on the plans.

Response: The proposed grading of the pond is now shown on the plans. See Note #22 regarding the required amenities to the pond area.

7. The wildlife management function of the open space should be defined and information about who will manage it should be shown.

Response: Note #21 has been added to the plan in response to this comment.

8. The future ROW reserve shown on Lot A-10 looks as if it is located at the edge of pavement. A shoulder that is at least 10' wide needs to be added and the future ROW should be adjusted accordingly.

Response: The future ROW reserve has been expanded by 10' as requested and has been dimensioned accordingly.

9. The proposed alignment of the future Wildhorse Connector/Future FM 973 is not consistent with Manor's Master Roadway Plan.

Response: Per discussions with Tom Bolt and the attached letter, we understand that we have City support of the alignment. In addition, please find the potential connection to the Future TxDOT preferred alignment. We have reviewed TxDOT's requirements to determine the connections. Please note that the roadway section as shown for Wildhorse Connector/Future FM 973 is schematic and for illustrative purposes only.

10. A note should be added to the plan that states the development will be in accordance with the environmental assessment for the site.

Response: Note #19 has been added to the plan indicating the site will be in accordance with the environmental assessment for the site.

11. Better defined constraints on uses, such as minimum commercial square footage, etc., should be added to the plan.

Response: PUD Data Table 6 has been updated to show the requested constraints.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "R. J. Smith", with a long horizontal flourish extending to the right.

Robert J. Smith, P.E.
Associate

April 11, 2016

Mr. Tom Bolt
Director of Development Services/City Manager
City of Manor
P.O. Box 387
Manor, TX 78653

Re: Lagos PUD Preliminary Master Plan

Dear Mr. Bolt:

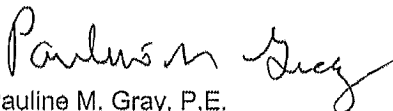
The submittal for Lagos PUD Preliminary Site Plan, as submitted by Kimley-Horn & Associates, Inc. on April 7, 2016, has been reviewed by our office. The review response letter states that the proposed connections are schematic and shown for illustrative purposes only. There are concerns regarding the proposed potential connections to the Future TxDOT preferred alignment of the future Wildhorse Connector/Future FM 973 that should be addressed.

1. The proposed intersections appear to be at non-right angles. Subdivision Ordinance 263B Section 42(b)(6) requires that street intersection be as nearly as right angles as practicable.
2. There are no curb radii labeled for the proposed intersections. It cannot be determined if the proposed radii meet minimum design requirements set forth in the Austin Transportation Criteria Manual Section 1.3.1(D)(3) which defines the minimum curb radii allowed at intersections.
3. The proposed connection near Phases III and V appears to be right lane in and out only. Section 49(e)(iii)(F) of Zoning Ordinance 185 requires the sufficient width and suitable grade and location of streets designed to accommodate prospective traffic and to provide access for firefighting and emergency equipment to buildings. The proposed connection needs to be checked for compatibility with plans for future TxDOT facilities for the area. Section 42(b)(2) of Subdivision Ordinance 263B states that adequate streets shall be provided and the arrangement, character, extent, width, grade, and location of each shall conform to the comprehensive plan of the City and professional urban planning and shall be considered in their relation to existing and planned streets, to topographical conditions, and to public safety and convenience. Right lane in and right lane out may not be appropriate for this area. The Traffic Impact Analysis should be. Further review and coordination with TxDOT is warranted.

The proposed Lagos PUD Preliminary Master Plan should be discussed by the Planning and Zoning Commission at their next meeting on April 13, 2016, but it is our recommendation that the Commission **not approve** the plan at this time. Further information should be provided in regards to the proposed connections to the Future TxDOT alignment of the Wildhorse Connector/Future FM 973.

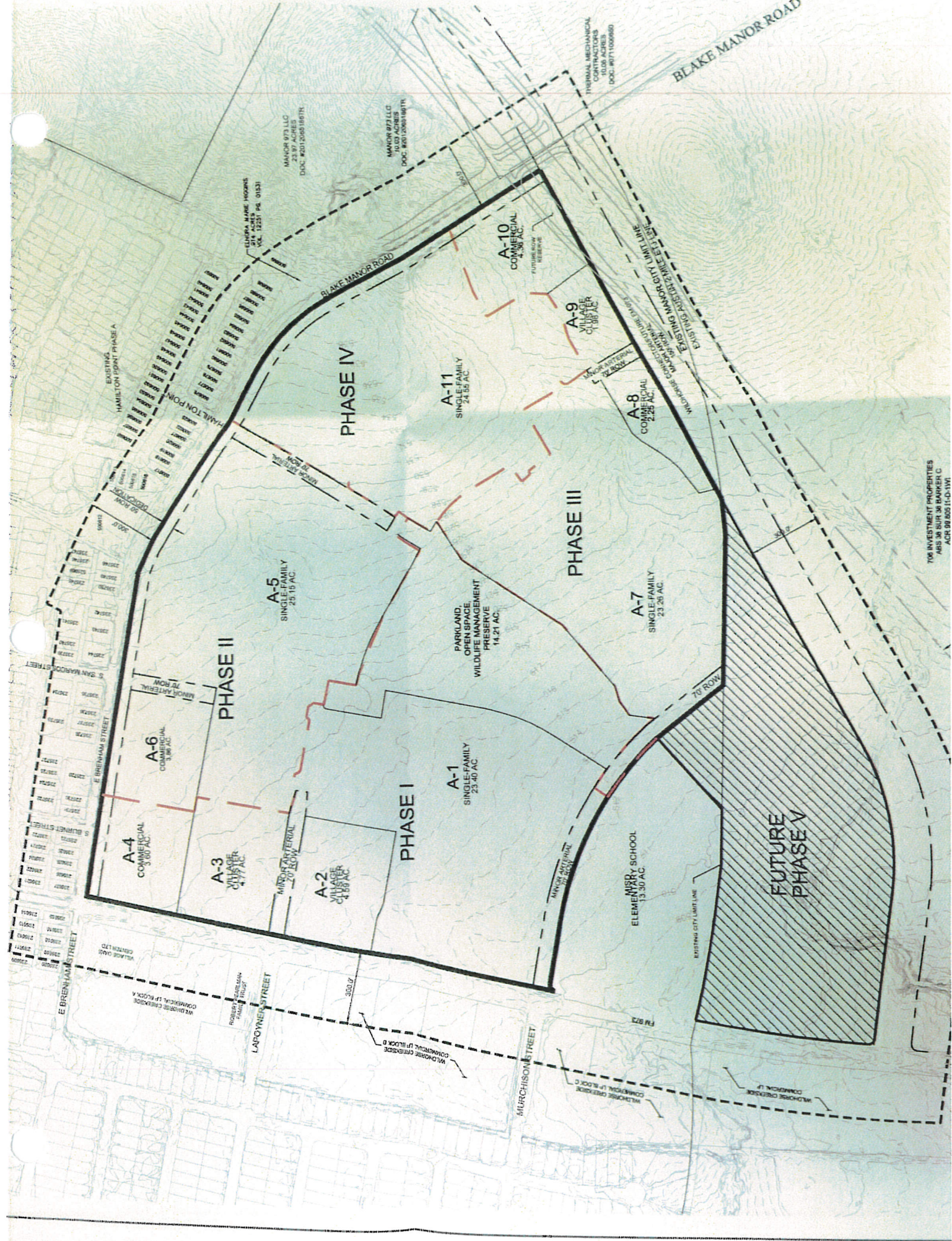
Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Copy: Robert J. Smith, P.E., Kimley-Horn and Associates
Scott Dunlop, City of Manor



708 INVESTMENT PROPERTIES
ABS 38 BUY 38 BANKER C
ACR 99 883 110-111

JAY ENGINEERING COMPANY, INC.

P.O. Box 1220 (512) 259-3882
Leander, TX 78646 Fax 259-8016

Texas Registered Engineering Firm F-4780

November 30, 2015

Robert J. Smith, P.E.
Kimely-Horn and Associates, Inc.
10814 Jollyville Road, Avallon IV, Suite 300
Austin, Texas 78759

Re: First Concept Plan Review for
Lagos Master Planned Community
City of Manor, Texas

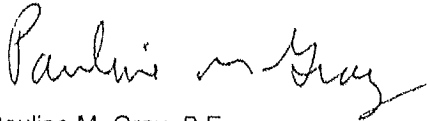
Dear Mr. Smith:

The Lagos Master Planned Community Concept Plan, submitted by Kimley-Horn and Associates, Inc. and received by our office on November 9, 2015, has been reviewed for completeness and compliance with the City of Manor Subdivision Ordinance. We can offer the following comments based upon our review:

1. The location map on the concept plan is not to the correct scale as required in Section 21(c)(3) of Subdivision Ordinance 263B. A location map drawn at a scale of two thousand (2,000) feet per inch showing the area within a one (1) mile radius of the proposed subdivision must be shown on the plan. Use of the latest USGS 7.5 minute quadrangle map is recommended.
2. The future FM 973 50' R.O.W. dedication to TXDOT should be shown on the concept plan.
3. The R.O.W. dedication width for Blake Manor Road should be shown on the concept plan.
4. Section 21(c)(1) requires that the surveyor name, address and phone number be shown on the concept plan.
5. The date the concept plan was revised and/or prepared is required to be shown on the concept plan per Section 21(c)(2).
6. Section 21(c)(8)(ii) requires that the estimated traffic volume to be generated by all proposed development other than single family residential be shown on the concept plan.

The Concept Plan does not meet the minimum informational requirements of Subdivision Ordinance 263 and is therefore administratively incomplete. Additional comments may be generated as requested information is provided. A comment response letter, indicating how each comment has been addressed, must be included with a resubmitted plan. Review of this submittal does not constitute a verification of all data, information and calculations supplied by the applicant are accurate, complete, or adequate for the intended purpose. The engineer of record is solely responsible for the completeness, accuracy, and adequacy of his/her submittal, whether or not City Engineers review the application for Ordinance compliance. Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Cc: Tom Bolt, City of Manor
Scott Dunlop, City of Manor

Kimley»Horn

December 16, 2015
City of Manor
Attn: Tom Bolt
105 E Eggleston St.
Manor, TX 78653

RE: *Lagos Master Planned Community Concept Plan*
Comments received November 30, 2015

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Jay Engineering Company, Inc. on November 30, 2015. The original comments have also been included below for reference.

Jay Engineering Company, Inc. - Pauline M. Gray, P.E. -
512-259-3882

1. The location map on the concept plan is not to the correct scale as required in Section 21(c)(3) of Subdivision Ordinance 263B. A location map drawn at a scale of two thousand (2,000) feet per inch showing the area within a one (1) mile radius of the proposed subdivision must be shown on the plan. Use of the latest USGS 7.5 minute quadrangle map is recommended.

Response: The location map is now at the proper scale.

2. The future Fm 973 50' R.O.W. dedication to TXDOT should be shown on the concept plan.

Response: The dedication is now shown and labeled on the concept plan.

3. The R.O.W. dedication width of Blake Manor Road should be shown on the concept plan.

Response: The dedication is now shown and labeled on the concept plan.

4. Section 21(c)(1) requires that the surveyor name, address and phone number be shown on the concept plan.

Response: The surveyor information is now provided on the concept plan.

5. The date the concept plan was revised and/or prepared is required to be shown on the concept plan per Section 21(c)(2).

Response: Noted. The date is now displayed on the concept plan.

6. Section 21(c)(8)(ii) requires that the estimated traffic volume to be generated by all proposed development other than single family residential be shown on the concept plan.

Response: Please see the attached letter describing the estimated traffic volume to be generated by the development.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "R. J. Smith", with a long horizontal stroke extending to the right.

Robert J. Smith, P.E.
Senior Project Manager

Kimley»Horn

December 17, 2015

City of Manor
Attn: Tom Bolt
105 E Eggleston St
Manor, Texas 78653

**Re: Lagos Master Planned Community – Trip Generation
SE corner of FM 973 and Blake Manor Road
Manor, Texas 78653**

Dear Mr. Bolt,

The purpose of this letter is to comply with Section 21(c)(8)(ii) of City code, which requires the development to show traffic volumes generated by all non-single family development as part of the concept plan.

The proposed concept plan contains approximately 146 acres of land located at the southeast corner of FM 973 and Blake Manor Road in Manor, Texas and Travis County. The proposed development intends to provide single family lots, retail lots, restaurant, residential condominium/townhomes, and public parks.

Traffic generated by proposed land-uses was estimated through 'Trip Generation Rates'. The acknowledged source of trip generation rates is the 9th edition of *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land-uses. The trips indicated are actually one-way trips or trip ends, where one vehicle entering and exiting the site is counted as two trips (one inbound trip and one outbound trip). The table below summarizes the resulting weekday daily, AM and PM peak hour trip generation.

Table 1: Proposed Land-Use – Trip Generation


Land-Use	ITE Code	Density	AM PEAK-PERIOD			PM PEAK-PERIOD			DAILY TRIPS
			Total	In	Out	Total	In	Out	
Retail	820	16,715 SF**	16	10	6	62	30	32	714
Fast Food Restaurant (NO Drive Thru)	933a	1,848 SF**	81	49	32	48	24	24	1324
Residential Condominium/Townhouse	230	141 Units	62	11	51	73	49	24	820
Total			159	70	89	183	103	80	2858

** - Assuming Floor to area ratio of 0.25

If you have any questions or comments regarding this request, please contact me at 512-418-1771.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Brian D. Van De Walle, P.E., PTOE
Senior Project Manager

JAY ENGINEERING COMPANY, INC.

P.O. Box 1220

Leander, TX 78646

(512) 259-3882

Fax 259-8016

Texas Registered Engineering Firm F-4780

December 24, 2015

Robert J. Smith, P.E.
Kimley-Horn and Associates, Inc.
10814 Jollyville Road, Avallon IV, Suite 300
Austin, Texas 78759

Re: Second Concept Plan Review for
Lagos Master Planned Community
City of Manor, Texas

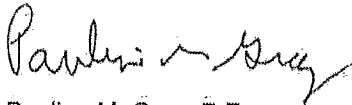
Dear Mr. Smith:

The Lagos Master Planned Community Concept Plan, submitted by Kimley-Horn and Associates, Inc. and received by our office on December 18, 2015, has been reviewed for completeness and compliance with the City of Manor Subdivision Ordinance. We can offer the following comments based upon our review:

1. The Concept Plan **CANNOT** be approved until an approved zoning plan (PUD) is in place.
2. Significant existing features on, or within 200 feet of, the property, such as railroads, roads, **buildings**, utilities and drainage structures should be shown on the Concept Plan.
3. Proposed arterial and **collector streets** should be shown on the Concept Plan.

Review of this submittal does not constitute a verification of all data, information and calculations supplied by the applicant are accurate, complete, or adequate for the intended purpose. The engineer of record is solely responsible for the completeness, accuracy, and adequacy of his/her submittal, whether or not City Engineers review the application for Ordinance compliance. Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Cc: Tom Bolt, City of Manor
Scott Dunlop, City of Manor

Kimley»Horn

February 16, 2016
Jay Engineering Company, Inc.
Attention: Pauline M. Gray, P.E.
P.O.Box 1220
Leander, Texas 78646

RE: Second Concept Plan Review for Lagos Master Planned Community City of Manor, Texas

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Pauline M. Gray, P.E., letter dated on December 24, 2015. The original comments have also been included below for reference.

1. The Concept Plan CANNOT be approved until an approved zoning plan (PUD) is in place.

Response: Noted. The PUD Preliminary Site Plan has been submitted concurrently and is under review.

2. Significant existing features on, or within 200 feet of, the property, such as railroads, roads, buildings, utilities and drainage structures should be shown on the Concept Plan.

Response: Aerial imagery is now displayed on the concept plan to highlight all significant existing buildings, roadways, etc. on the concept plan. The approximate location of significant drainage structures have been labeled on the plan as well.

3. Proposed arterial and collector streets should be shown on the Concept Plan.

Response: The proposed street layout is now displayed on the concept plan.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Robert J. Smith, P.E.
Senior Project Manager

JAY ENGINEERING COMPANY, INC.

P.O. Box 1220

Leander, TX 78646

(512) 259-3882

Fax 259-8016

Texas Registered Engineering Firm F-4780

March 2, 2016

Robert J. Smith, P.E.
Kimley-Horn and Associates, Inc.
10814 Jollyville Road, Avallon IV, Suite 300
Austin, Texas 78759

Re: Third Concept Plan Review for
Lagos Master Planned Community
City of Manor, Texas

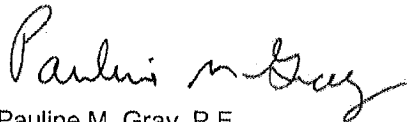
Dear Mr. Smith:

The Lagos Master Planned Community Concept Plan, submitted by Kimley-Horn and Associates, Inc. and received by our office on February 17, 2016, has been reviewed for completeness and compliance with the City of Manor Subdivision Ordinance. We can offer the following comments based upon our review (satisfied comments stricken, new or outstanding comments in bold):

1. The Concept Plan **CANNOT** be approved until an approved zoning plan (PUD) is in place.
- ~~2. Significant existing features on, or within 200 feet of, the property, such as railroads, roads, buildings, utilities and drainage structures should be shown on the Concept Plan.~~
- ~~3. Proposed collector streets should be shown on the Concept Plan per Section 21(c)(9) of Subdivision Ordinance 263B.~~
4. A note should be added stating duplexes **WILL NOT BE** allowed in the Lagos Planned Unit Development.
5. Village Clusters should be classified as R-3 not commercial.
6. The future ROW reserve shown on Lot A-10 looks as if it is located at the edge of pavement. A shoulder that is at least 10' wide needs to be added and the future ROW should be adjusted accordingly.

Review of this submittal does not constitute a verification of all data, information and calculations supplied by the applicant are accurate, complete, or adequate for the intended purpose. The engineer of record is solely responsible for the completeness, accuracy, and adequacy of his/her submittal, whether or not City Engineers review the application for Ordinance compliance. Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Cc: Tom Bolt, City of Manor
Scott Dunlop, City of Manor

JAY ENGINEERING COMPANY, INC.

P.O. Box 1220

Leander, TX 78646

(512) 259-3882

Fax 259-8016

Texas Registered Engineering Firm F-4780

March 8, 2016

Robert J. Smith, P.E.
Kimely-Horn and Associates, Inc.
10814 Jollyville Road, Avallon IV, Suite 300
Austin, Texas 78759

Re: Fourth Concept Plan Review for
Lagos Master Planned Community
City of Manor, Texas

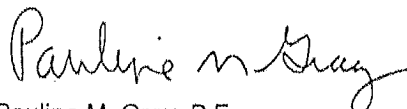
Dear Mr. Smith:

The Lagos Master Planned Community Concept Plan, submitted by Kimley-Horn and Associates, Inc. and received electronically by our office on March 2, 2016, has been reviewed for completeness and compliance with the City of Manor Subdivision Ordinance. We can offer the following comments based upon our review (satisfied comments stricken, new or outstanding comments in bold):

1. The Concept Plan **CANNOT** be approved until an approved zoning plan (PUD) is in place.
- ~~2. Significant existing features on, or within 200 feet of, the property, such as railroads, roads, buildings, utilities and drainage structures should be shown on the Concept Plan.~~
- ~~3. Proposed collector streets should be shown on the Concept Plan per Section 21(c)(9) of Subdivision Ordinance 263B.~~
4. A note should be added stating duplexes **WILL NOT BE** allowed in any portion of the Lagos Planned Unit Development.
- ~~5. Village Clusters should be classified as R-3 not commercial.~~
6. The future ROW reserve shown on Lot A-10 looks as if it is located at the edge of pavement. A shoulder that is at least 10' wide needs to be added and the future ROW should be adjusted accordingly.
7. The proposed alignment of the Wildhorse Connector/Future FM 973 roadway is not consistent with Manor's Master Roadway plan.
8. The Concept Plan will need to include any variances and requirements listed on the PUD plan.

Review of this submittal does not constitute a verification of all data, information and calculations supplied by the applicant are accurate, complete, or adequate for the intended purpose. The engineer of record is solely responsible for the completeness, accuracy, and adequacy of his/her submittal, whether or not City Engineers review the application for Ordinance compliance. Please call if you have any questions or need additional information.

Sincerely,



Pauline M. Gray, P.E.
PMG/s

Cc: Tom Bolt, City of Manor
Scott Dunlop, City of Manor

Kimley»Horn

April 7, 2016
Jay Engineering Company, Inc.
Attention: Pauline M. Gray, P.E.
P.O.Box 1220
Leander, Texas 78646

RE: Fourth Concept Plan Review for Lagos Master Planned Community City of Manor, Texas

To Whom It May Concern:

Please accept this Comment Response Letter for the above referenced project. This submittal is in response to the comments provided by Pauline M. Gray, P.E., letter dated on March 8, 2016. The original comments have also been included below for reference.

1. The Concept Plan CANNOT be approved until an approved zoning plan (PUD) is in place.

Response: Understood.

- ~~2. Significant existing features on, or within 200 feet of, the property, such as railroads, roads, buildings, utilities and drainage structures should be shown on the Concept Plan.~~

Response: Comment Cleared.

- ~~3. Proposed collector streets should be shown on the Concept Plan per Section 21(e)(9) of Subdivision Ordinance 263B.~~

Response: Comment Cleared.

4. A note should be added stating duplexes WILL NOT BE allowed in any portion of the Lagos Planned Unit Development.

Response: Note #18 has been added to the plan stating no duplexes are allowed in this PUD.

- ~~5. Village Clusters should be classified as R-3 not commercial.~~

Response: Comment Cleared.

6. The future ROW reserve shown on Lot A-10 looks as if it is located at the edge of pavement. A shoulder that is at least 10' wide needs to be added and the future ROW should be adjusted accordingly.

Response: The future ROW reserve has been expanded by 10' as requested and has been dimensioned accordingly.

7. The proposed alignment of the Wildhorse Connector/Future FM 973 roadway is not consistent with Manor's Master Roadway plan.

Response: Per discussions with Tom Bolt and the attached letter, we understand that we have City support of the alignment. In addition, please find the potential connection to the Future TxDOT preferred alignment. We have reviewed TxDOT's requirements to determine the connections. Please note that the roadway section as shown for Wildhorse Connector/Future FM 973 is schematic and for illustrative purposes only.

8. The Concept Plan will need to include any variances and requirements listed on the PUD plan.

Response: The notes from the PUD plan have been added to the concept plan to include any variances and requirements.

Please contact me at 512-418-1771 if additional information is required.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Robert J. Smith, P.E.
Associate