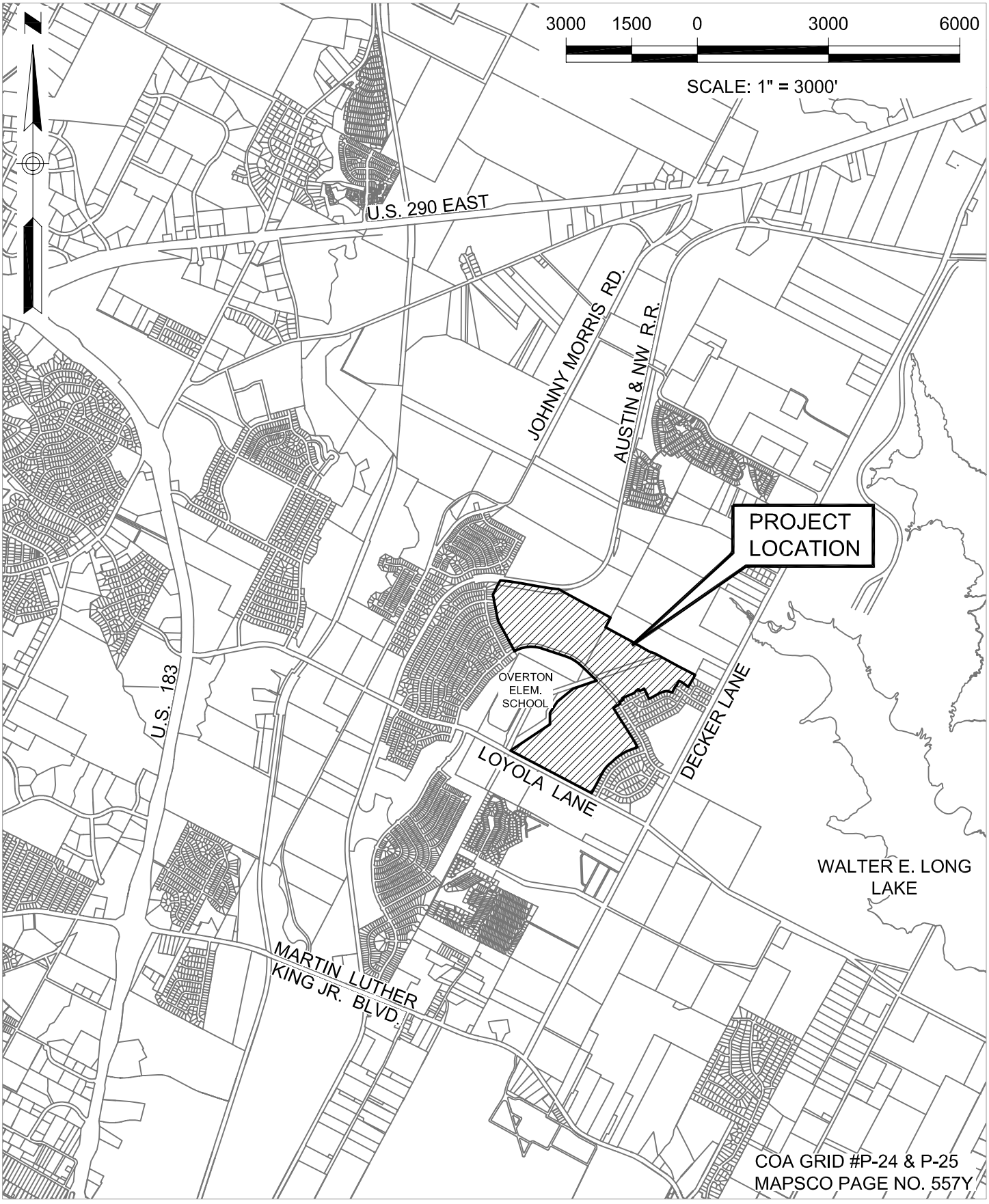
EXHIBIT 1
SITE LOCATION MAP



FOR PLANNING PURPOSES ONLY

LJA Engineering & Surveying, Inc.
5316 Highway 290 West
Suite 150
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

COLONY PARK SUBDIVISION

SITE LOCATION MAP

SHEET NAME

Site Location Map.dwg

1 OF 1

I:\4161\0401\401\Site Location Map.dwg

EXHIBIT 2

AERIAL MAP

EXHIBIT 3

TAX MAPS

(02_1831 & 02_1841)

REVISIONS

01/28/2004 HRG

JURISDICTIONS

AUSTIN COMMUNITY COLLEGE
AUSTIN ISD
CITY OF AUSTIN
MANOR ISD
TCESD NO. 4 & 12
TRAVIS COUNTY

TRAVIS CENTRAL APPRAISAL DISTRICT
8314 Cross Park Drive P.O. Box 149012
Austin, Tx 78754 Austin, Tx 78714
Internet Address WWW.TRAVISCAD.ORG Appraisal Information (512)834-9138
Main Telephone Number (512)834-9317 TDD (512)836-3328
Fax Number (512)835-5371

1"=100" MAP REFERENCES

	2 2333	2 2336	
	2 2133	2 2136	
2 1930	2 1933	2 1936	2 1938
2 1730	2 1733	2 1736	2 1738

MAP NO.

2 1831

2 2621	2 2631	2 2641
2 1821		2 1841
2 1021	2 1031	2 1041

TRIDENT-OAKCREST LLC

TOMMY A. SMITH
3784/109
15.01 A
0218410209

TRIDENT-OAKCREST LLC

ADOLPH A. MILLER

TERRELL TIMMERMANN

DAFFEN CRK ROAD

MANOR I.S.D.
13204/2143
15.911 A
0218410218

DOYLE RAY SMITH
TR200214B183
10.685 A
0218410210

BOBBY G. SMITH
12717/225
3.00 A
0218410215

BOBBY G. SMITH
16885/689
15.04 A
0218410212

BOBBY G. SMITH
4668/659
2.995 A
0218410213

0218410214

LINDA D. PAYNE
TR 1999088596
1.488 A

H. R. SMITH
721/178
29.523 A
0218410207

CEMETERY
54/547
1.00 A
0218410220

DECKER LANE METHODIST CHURCH
63/365
9.43 A
0218410206

EAGLE'S LANDING SUBD.

TCESD NO. 12

AUSTIN CITY LIMITS

COUNTY ROAD

BOB & GERALDINE SMITH

WEST CREST LANE

LAKE DRIVE

H. R. SMITH ADDN.

LARICAL TRAIL

LEILA McKAY

BOB SMITH SUBD.

TOMMY SMITH ETUX

J. BURLESON SUR. 19
ABS. 4

RALPH & PEGGEE PARKER
(74.88 A)
TOTAL 142.888 A
0218410202

2

TCESD NO. 12

AUSTIN CITY LIMITS

TCESD NO. 12

AUSTIN CITY LIMITS

MANOR I.S.D.
AUSTIN I.S.D.

AUSTIN HOUSING FINANCE CORPORATION

JOSE & CYNTHIA GONZALES
13500/1489
3.282 A
0218410203

VINCENT E. MINNIE POOLE
7497/114
1.285 A

0218410217

COLONY PARK HILLS

MAYVIEW DRIVE

VALLEYFIELD DRIVE

BEND DRIVE

LAKESIDE RIDGE DRIVE

VIEW

EAST MEADOW

1-A

1-B

A 3

DECKER LAKE

ITEM 1077

1

0218410301

GARDENS AT DECKER LAKE

COLONY LOOP DR.

COLONY MEADOWS SEC. III PHS. II

AUSTIN DECKER LANE-DECKER LAKE RD. JOINT VENTURE
11458/640
26.583
0218410102

AUSTIN TCESD CITY LIMITS NO. 4

AUSTIN TRAVIS COUNTY LIVESTOCK SHOW

CITY OF AUSTIN

1

CITY OF AUSTIN
433.648 A
0218410101

PHILLIP McELROY SUR. 18
ABS. 16

LAKE WALTER E. LONG (DECKER LAKE) EAST FORK

LAKE WALTER E. LONG (DECKER LAKE) WEST FORK

WM. H. SANDERS SUR. 22
ABS. 670

CITY OF AUSTIN

CITY OF AUSTIN

CITY OF AUSTIN

REVISIONS

12/22/2003 HRG

JURISDICTIONS

AUSTIN COUNTY COLLEGE
AUSTIN ISD
CITY OF AUSTIN
MANOR ISD
TCESD NO. 4
TCESD NO. 12
TRAVIS COUNTY

TRAVIS CENTRAL APPRAISAL DISTRICT
P.O. Box 149012
8314 Cross Park Drive
Austin, Tx 78714-9012
Internet Address WWW.TRAVISCAD.ORG
Main Telephone Number (512)834-9317
Appraisal Information (512)834-9138
Fax Number (512)835-5371
TDD (512)836-3328

N

0' 400'

SCALE

1"=100" MAP REFERENCES

2 2340			
2 2140	2 2143		
2 1940			
2 1740			

MAP NO.

2 1841

2 2631	2 2641	2 2650
2 1831		2 1850
2 1031	2 1041	2 1050

EXHIBIT 4

USGS QUADRANGLES

(AUSTIN EAST & MANOR)

EXHIBIT 5

ZONING MAPS & ZONING VERIFICATION LETTERS

(GRIDS P-24 & P-25)

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting	Property Owner
COLE HUGGINS, P.E. LJA ENGINEERING & SURVEYING, INC. 5316 HIGHWAY 290 WEST, STE.150 AUSTIN, TX. 78735 512-439-4700	AUSTIN HOUSING FINANCE CORPORATION 1000 E. 11TH ST. AUSTIN, TX. 78702 (P.O.BOX 1088; AUSTIN, TX. 78767 512-974-3100

Address Of Property	Legal Description
7201 COLONY LOOP AUSTIN, TX. 78724	ABS 4, SUR 19, BURLESON J, 49.889 AC.

Zoning Map Numbers	Tax Parcel Identification Number
P24,25	02-1831-0501

*Current Zoning	Case Number
P: PUBLIC DISTRICT	C14-03-0010 & ORD. NO.030306-Z-2

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0501 (7201 Colony Loop)

Overlays

Pipeline Restricted Area

Referenced in the Land Development Code of the City of Austin Chapter 25-2-516

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

---

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting

COLE HUGGINS, P.E.
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST, STE.150
AUSTIN, TX. 78735
512-439-4700

Property Owner

AUSTIN HOUSING FINANCE CORPORATION
1000 E. 11TH ST.
AUSTIN, TX. 78702
(P.O.BOX 1088; AUSTIN, TX. 78767
512-974-3100

Address Of Property

LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA.
AUSTIN, TX.
78724

Legal Description

ABS 4, SUR 19, BURLESON J, 2.746 AC.

Zoning Map Numbers

P25

Tax Parcel Identification Number

02-1831-0503

*Current Zoning

P: PUBLIC DISTRICT

Case Number

C14-03-0010 & ORD. NO.030306-Z-2

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

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TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0503 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting

COLE HUGGINS, P.E.
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST, STE.150
AUSTIN, TX. 78735
512-439-4700

Property Owner

AUSTIN HOUSING FINANCE CORPORATION
1000 E. 11TH ST.
AUSTIN, TX. 78702
(P.O.BOX 1088; AUSTIN, TX. 78767
512-974-3100

Address Of Property

LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA.
AUSTIN, TX.
78724

Legal Description

ABS 4, SUR 19, BURLESON J, 6.997 AC.

Zoning Map Numbers

P25

Tax Parcel Identification Number

02-1831-0506

*Current Zoning

P: PUBLIC DISTRICT

Case Number

C14-86-296 & ORD. NO.870107-R

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0506 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting

COLE HUGGINS, P.E.
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST, STE.150
AUSTIN, TX. 78735
512-439-4700

Property Owner

AUSTIN HOUSING FINANCE CORPORATION
1000 E. 11TH ST.
AUSTIN, TX. 78702
(P.O.BOX 1088; AUSTIN, TX. 78767
512-974-3100

Address Of Property

LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA.
AUSTIN, TX.
78724

Legal Description

ABS 4, SUR 19, BURLESON J, 5.761 AC.

Zoning Map Numbers

P24,25

Tax Parcel Identification Number

02-1831-0507

*Current Zoning

P: PUBLIC DISTRICT

Case Number

C14-86-296 & ORD. NO.870107-R

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

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TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0507 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting

COLE HUGGINS, P.E.
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST, STE.150
AUSTIN, TX. 78735
512-439-4700

Property Owner

AUSTIN HOUSING FINANCE CORPORATION
1000 E. 11TH ST.
AUSTIN, TX. 78702
(P.O.BOX 1088; AUSTIN, TX. 78767
512-974-3100

Address Of Property

LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA.
AUSTIN, TX.
78724

Legal Description

ABS 4, SUR 19, BURLESON J, 9.930 AC.

Zoning Map Numbers

P24,25

Tax Parcel Identification Number

02-1831-0508

*Current Zoning

P: PUBLIC DISTRICT

Case Number

C14-03-0010 & ORD. NO.030306-Z-2

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0508 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting	Property Owner
COLE HUGGINS, P.E. LJA ENGINEERING & SURVEYING, INC. 5316 HIGHWAY 290 WEST, STE.150 AUSTIN, TX. 78735 512-439-4700	AUSTIN HOUSING FINANCE CORPORATION 1000 E. 11TH ST. AUSTIN, TX. 78702 (P.O.BOX 1088; AUSTIN, TX. 78767 512-974-3100

Address Of Property	Legal Description
LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA. AUSTIN, TX. 78724	ABS 4, SUR 19, BURLESON J, 3.023 AC.

Zoning Map Numbers	Tax Parcel Identification Number
P24,25	02-1831-0509

*Current Zoning	Case Number
P: PUBLIC DISTRICT	C14-03-0010 & ORD. NO.030306-Z-2

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0509 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 12, 2008*

Party Requesting

COLE HUGGINS, P.E.
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST, STE.150
AUSTIN, TX. 78735
512-439-4700

Property Owner

AUSTIN HOUSING FINANCE CORPORATION
1000 E. 11TH ST.
AUSTIN, TX. 78702
(P.O.BOX 1088; AUSTIN, TX. 78767
512-974-3100

Address Of Property

LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA.
AUSTIN, TX.
78724

Legal Description

ABS 4, SUR 19, BURLESON J, 208.157 AC.

Zoning Map Numbers

P25

Tax Parcel Identification Number

02-1831-0513

*Current Zoning

SF-2: SINGLE FAMILY RESIDENCE-STANDARD LOT; SF-3: FAMILY RESIDENCE; MF-2: MULTI-FAMILY RESIDENCE-LOW DENSITY

Case Number

SF-2: C7A-76-009 & ORD. NO.760617-D (LAND DEVELOPMENT CODE CHPT.25-2-222) & CITY OF AUSTIN ORDINANCE NUMBER 860206-K; **SF-3**: ORD. NO.860206-K; **MF-2**: C14-73-228 & ORD. NO.810122-F

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0513 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

Pipeline Restricted Area

Referenced in the Land Development Code of the City of Austin Chapter 25-2-516

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

505 Barton Springs Rd.
Austin, Texas
78704

City of Austin

One Texas Center, 505 Barton Springs Rd. Austin, Texas 78704

ZONING VERIFICATION LETTER

Date: *February 4, 2008*

Party Requesting	Property Owner
COLE HUGGINS, P.E. LJA ENGINEERING & SURVEYING, INC. 5316 HIGHWAY 290 WEST, STE.150 AUSTIN, TX. 78735 512-439-4700	AUSTIN HOUSING FINANCE CORPORATION 1000 E. 11TH ST. AUSTIN, TX. 78702 (P.O.BOX 1088; AUSTIN, TX. 78767 512-974-3100

Address Of Property	Legal Description
LOYOLA LA.; APPROX. 2500' WEST OF THE INTERSECTION OF LOYOLA LA. & DECKER LA. AUSTIN, TX. 78724	ABS 4, SUR 19, BURLESON J, 14.669 AC.

Zoning Map Numbers	Tax Parcel Identification Number
P25	02-1831-0514

*Current Zoning	Case Number
P: PUBLIC DISTRICT	C14-03-0010 & ORD. NO.030306-Z-2

For questions concerning Zoning Compliance or any Development criteria, Parking, Permitted uses, Zoning violations, Conditional uses, Variances, Destruction and Rebuilding, etc. contact the Development Assistance Center of the City of Austin at (512)974-6370 for Land Use Planner correspondence session.

I, *TONY CASTRO*, Communications and Technology Management Office, City of Austin, Texas, do hereby certify that the information above is true and correct to the best of my ability, according to documents filed with this office.

TONY CASTRO

City of Austin

Communications and Technology Management

Overlays & Neighborhood Plans relative to parcel number 02-1831-0514 (Loyola La.; Approx. 2500' West of the Intersection of Decker La. & Loyola La.)

Overlays

N/A

Neighborhood Plans

N/A

Attached is information regarding the City of Austin Neighborhood Plans and their status to date. For information concerning these Neighborhood Plans and their current status and relativity to development, please contact the necessary personnel on the form attached with the City of Austin Neighborhood Planning Areas map.

*Zoning Subcategory: N/A

*For information regarding Zoning Subcategories and their relativity to development, contact the Development Assistance Center at (512) 974-6370 and ask to speak to a Land Use Planner.

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505 Barton Springs Rd.
Austin, Texas
78704

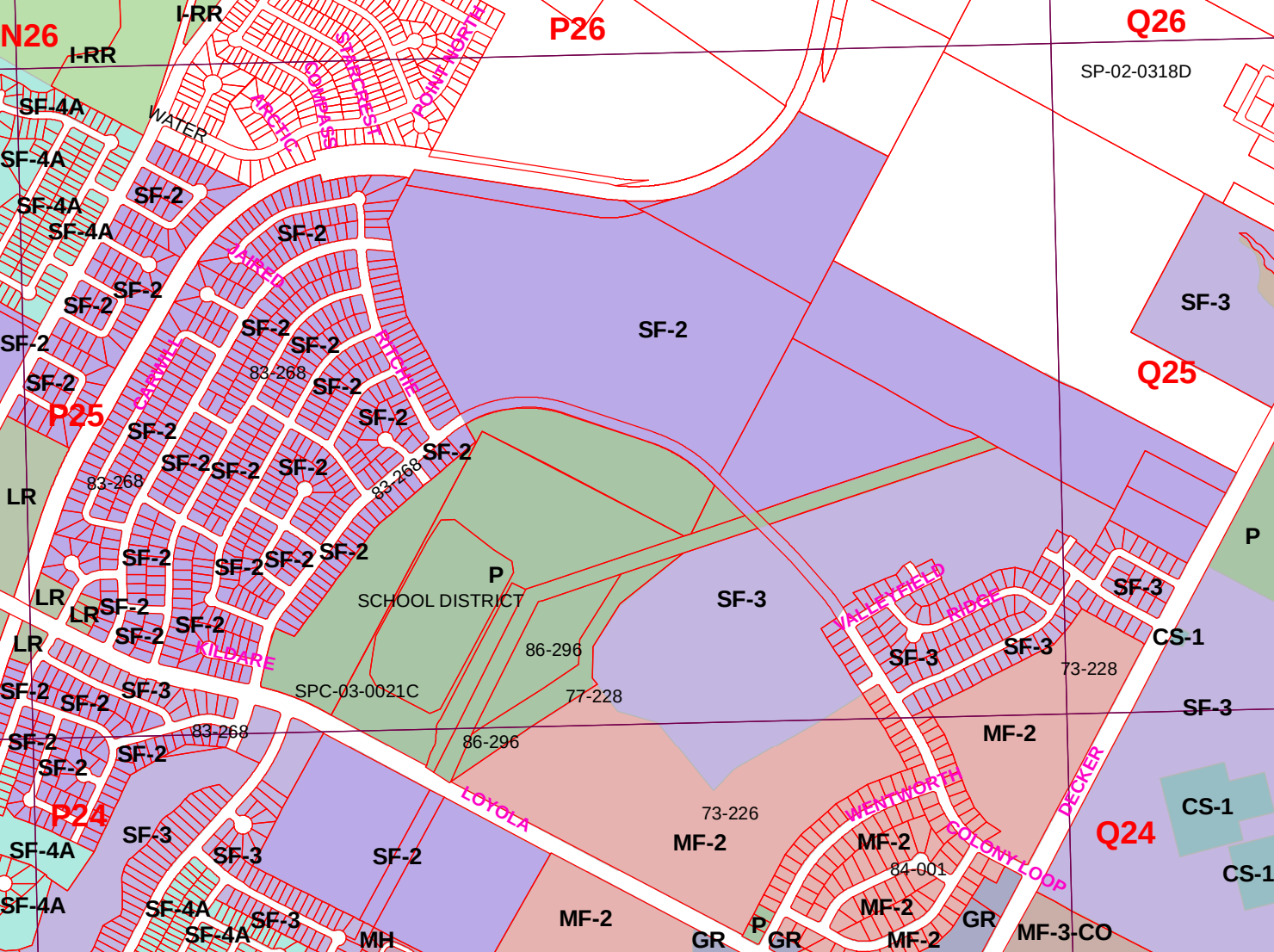

N26
P26
Q26
P25
Q25
P24
Q24
I-RR
SP-02-0318D
SF-4A
SF-2
SF-3
LR
P
MF-2
MF-3-CO
CS-1
MH
GR
WATER
SCHOOL DISTRICT
SPC-03-0021C
83-268
86-296
77-228
73-228
73-226
84-001
LOYOLA
KILDARE
CARROLL
LAKELD
RITCHIE
VALLEYFIELD
RIDGE
WENTWORTH
COLONY LOOP
DECKER

EXHIBIT 6

SCS SOIL SURVEY MAP

EXHIBIT 7

VERDI CONTEXT MAP

EXHIBIT 8

THE MEADOWS OF WALNUT CREEK PRELIMINARY

PRELIMINARY

THE MEADOWS OF WALNUT CREEK

LAND USE:	LOTS	ACRES
SINGLE FAMILY	749	170.72
DUPLEX	95	21.89
FOUR-PLEX	109	40.81
APARTMENTS		35.88
	TOTAL	269.30

DATE: 7-10-84 / 10-5-84
OWNER: M.G.N. CORP.
11220 N. LAMAR BLVD.
AUSTIN, TEXAS 78753

ENGINEER: COMMUNITY ENGINEERING, INC.
ACRES = 269.30
CONTOUR DATUM: CITY STANDARDS 2' INTERVALS
DENSITY:

SINGLE FAMILY	4.39	LOTS PER ACRE
DUPLEX	4.34	" " "
FOUR-PLEX	2.67	" " "

NOTE: AN EASEMENT OF (7.5') SEVEN AND A HALF FEET ALONG REAR OF ALL LOTS IS HEREBY DEDICATED FOR PUBLIC UTILITIES.

SCALE 1" = 200'

GLENN NEANS TRUSTEE
PROPOSED WALNUT CREEK SECTION I & II
APPROVED
PRELIMINARY
(C8-73-70)

APARTMENTS
B-B ZONING
ORDINANCE NO. 810122-F
24.34 ACRES

APARTMENTS
B-B ZONING
ORDINANCE NO. 810122-F
24.236 ACRES
APPROVED PRELIMINARY
(C8-73-70)

1.158 ACRES

FOUR-PLEX

FOUR-PLEX

APARTMENTS

CLARENCE E. SCHIEFFER
VOL. 1318 PG 20 (2-02)

TEDDIE G. DRAKE
VOL. 5775 PG 1501
(8-05)

AUSTIN LAND INVESTMENTS LTD.
VOL. 5172 PG 1157
(6-02)

HIDDEN VALLEY LTD.
VOL. 8054 PG. 741
(1-40)

FLOYD B. HIKS JR. ET. AL.
VOL. 2209 PG. 931 (6-04)

NOTE: SIDEWALKS WILL BE INSTALLED ON BOTH SIDES OF STREETS 64' OR LARGER, SIDEWALKS SHALL BE INSTALLED ON ONE SIDE OF 50' STREETS.

NOTE: PRIOR TO FINAL PLATTING, CONSTRUCTION OF DETENTION POND ON CITY OF AUSTIN PROPERTY MUST BE APPROVED BY PARKS AND RECREATION DEPARTMENT.

APPROVED
10-23-84
PRELIMINARY

7/16/84

C8-84-100

N.T.S.

H.F.G. RAILROAD

JAMMY MARKER RD.

DECKER LANE (FM 3177)

5 MILES
U.S. HWY 183
LOYOLA RD.

SITE LOCATION

THIS PRELIMINARY PLAN COMPLIES WITH ORDINANCE 13-3-27 OF THE CITY OF AUSTIN

Community Engineering
ENGINEERING / PLANNING / SURVEYING
Austin, Texas

design	R.S.J.	drawn	J.A.M.	checked	G.C.	date	7-10-84
SHEET: PRELIMINARY PLAN						sheet	1 of 1

C8-84-100

EXHIBIT 9

SERVICE EXTENSION REQUEST (1745-WATER) &

FIRE FLOW TEST

EXHIBIT 10

WATER/WASTEWATER MAPS (GRIDS P24 & P25)

CITY OF AUSTIN - WASTEWATER COLLECTION SYSTEM

Produced by the Water & Wastewater Utility City of Austin, Texas

Last Update: 09-18-2007

Map Sheet P25

Main
- In Service, City Gravity Main
- In Service, Private Gravity Main
- In Service, Force Main
- In Service, Private Force Main
- In Service, Overflow Main
- Proposed, Gravity Main
- Proposed, Force Main
- Abandoned Main

Sludge Line
- Sludge Line

Manhole
- Cleanout
- Standard In Service
- Standard Proposed
- Odor Control
- Split
- Metered
- Tunnel Shaft

Separator
- Attribute Change
- Maintained By Change
- Material Change
- Ownership Change

Fitting
- Discharge Point
- Reducer
- Connector
- End of Line

Valves
- Air Release Valve
- WW Valve: Closed

Lift Station
- Lift Station

Grade Break
- Grade Break

Project Separator
- Project Separator

Backflow Preventor
- Backflow Preventor

Diversion Type
- Levee
- Weir

WW Onsite Sewage Facility
- Onsite Sewage

Junction
- Diversion Chamber
- Junction Box
- Mixing Chamber

WW Facility
- Alternative Pump
- Discharge Outfall
- Grinder Pump
- Recycle Tank
- Sump Pump
- Wastewater Treatment Plant

WW Disposal Pond
- Disposal Pond

NOTE: THIS MAP IS PRODUCED FOR THE NEEDS OF THE CITY AND NO WARRANTY IS MADE AS TO ITS ACCURACY OR QUALITY.

1:1200 scale maps are available for this grid; additional labels may be visible.

Scale 1:2400
0 100 200 400 600 800 Feet

CITY OF AUSTIN - WASTEWATER COLLECTION SYSTEM

MATCH P25

MATCH N24

MATCH Q24

MATCH P23

Produced by the Water & Wastewater Utility City of Austin, Texas

Last Update: 01-05-2008

Map Sheet P24

Main
- In Service, City Gravity Main
- In Service, Private Gravity Main
- In Service, Force Main
- In Service, Private Force Main
- In Service, Overflow Main
- Proposed, Gravity Main
- Proposed, Force Main
- Abandoned Main

Sludge Line
- Sludge Line

Manhole
- Cleanout
- Standard In Service
- Standard Proposed
- Odor Control
- Split
- Metered
- Tunnel Shaft

Separator
- Attribute Change
- Maintained By Change
- Material Change
- Ownership Change

Fitting
- Discharge Point
- Reducer
- Connector
- End of Line

Valves
- Air Release Valve
- WW Valve: Closed

Lift Station
- Lift Station

Grade Break
- Grade Break

Project Separator
- Project Separator

Backflow Preventor
- Backflow Preventor

Diversion Type
- Levee
- Weir

WW Onsite Sewage Facility
- Onsite Sewage

Junction
- Diversion Chamber
- Junction Box
- Mixing Chamber

WW Facility
- Alternative Pump
- Discharge Outfall
- Grinder Pump
- Recycle Tank
- Sump Pump
- WWTP Wastewater Treatment Plant

WW Disposal Pond
- Disposal Pond

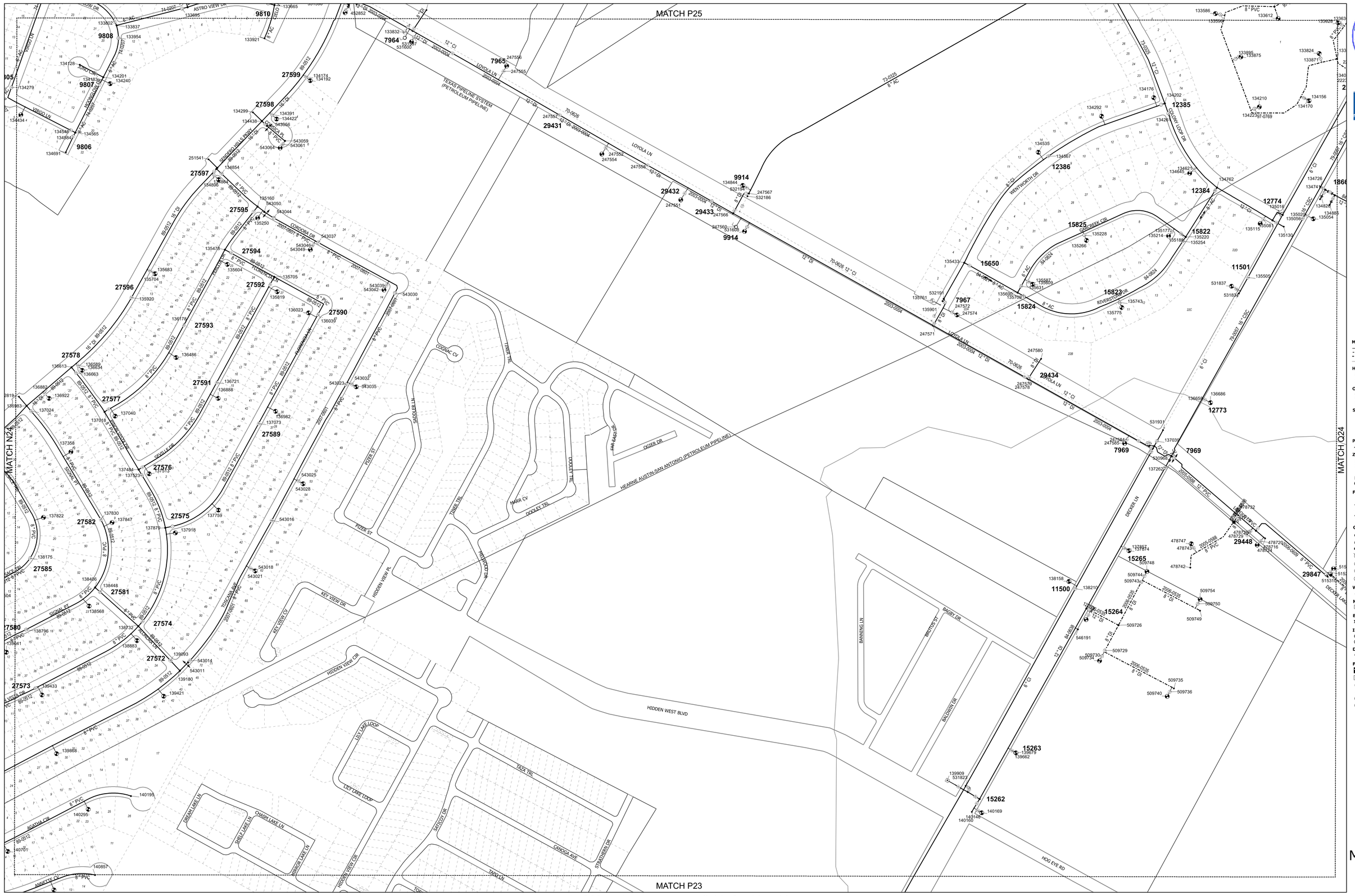
NOTE: THIS MAP IS PRODUCED FOR THE NEEDS OF THE CITY AND NO WARRANTY IS MADE AS TO ITS ACCURACY OR QUALITY.

1:1200 scale maps are available for this grid; additional labels may be visible.

Scale 1:2400

0 100 200 400 600 800Feet

CITY OF AUSTIN - WATER DISTRIBUTION SYSTEM



NOTE: THIS MAP IS PRODUCED FOR THE NEEDS OF THE CITY AND NO WARRANTY IS MADE AS TO ITS ACCURACY OR QUALITY.

1:1200 scale maps are available for this grid; additional labels may be visible.

Scale 1:2400

0 100 200 400 600 800Feet

Produced by the Water & Wastewater Utility City of Austin, Texas

Main
- In Service, City Maint.
- In Service, Private Maint.
- Proposed
- Abandoned

Hydrant
- Hydrant
- Hydrant Proposed

Operating Valve
- Closed
- Open

Separator
- Attribute Change
- Maintained By Change
- Material Change
- Ownership Change

Project Separator
- Project Separator

Zone Valve
- Boundary Valve
- Double Check Valve
- Check Valve
- Pressure Reducing Valve
- Pressure Sustaining Valve

Fitting
- Water Connector
- Water Fireline
- Water Plug
- Water Reducer

Control Valve
- Automatic Air Release Valve
- Drain Valve
- Flush Valve
- Hydrant PRV
- Manual Air Release Valve
- Vacuum - Combination ARV
- Vacuum Release Valve

Water Connection
- Water Connection

Meter
- Water Meter

Backflow Preventer
- Backflow Preventer

Inspection Manhole
- Inspection Manhole
- Inspection Manhole with Valv

Drain Manhole
- Drain Manhole

Facilities
- Water Treatment Plant
- Pump Station
- Reservoir
- Sampling Port
- Hydro Tank
- Water Well

Last Update: 01-05-2008

Map Sheet P24

CITY OF AUSTIN - WATER DISTRIBUTION SYSTEM

MATCH P26

MATCH P24

MATCH Q25

MATCH Q25

TEXAS PIPELINE SYSTEM (PETROLEUM PIPELINE)

Produced by the Water & Wastewater Utility City of Austin, Texas

Main
- In Service, City Maint.
- In Service, Private Maint.
- Proposed
- Abandoned

Hydrant
- Hydrant
- Hydrant Proposed

Operating Valve
- Closed
- Open

Separator
- Attribute Change
- Maintained By Change
- Material Change
- Ownership Change

Project Separator
- Project Separator

Zone Valve
- Boundary Valve
- Double Check Valve
- Check Valve
- Pressure Reducing Valve
- Pressure Sustaining Valve

Fitting
- Water Connector
- Water Fireline
- Water Plug
- Water Reducer

Control Valve
- Automatic Air Release Valve
- Drain Valve
- Flush Valve
- Hydrant PRV
- Manual Air Release Valve
- Vacuum - Combination ARV
- Vacuum Release Valve

Water Connection
- Water Connection

Meter
- Water Meter

Backflow Preventer
- Backflow Preventer

Inspection Manhole
- Inspection Manhole
- Inspection Manhole with Valv

Drain Manhole
- Drain Manhole

Facilities
- Water Treatment Plant
- Pump Station
- Reservoir
- Sampling Port
- Hydro Tank
- Water Well

Last Update: 01-05-2008

Map Sheet P25

NOTE: THIS MAP IS PRODUCED FOR THE NEEDS OF THE CITY AND NO WARRANTY IS MADE AS TO ITS ACCURACY OR QUALITY.

1:1200 scale maps are available for this grid; additional labels may be visible.

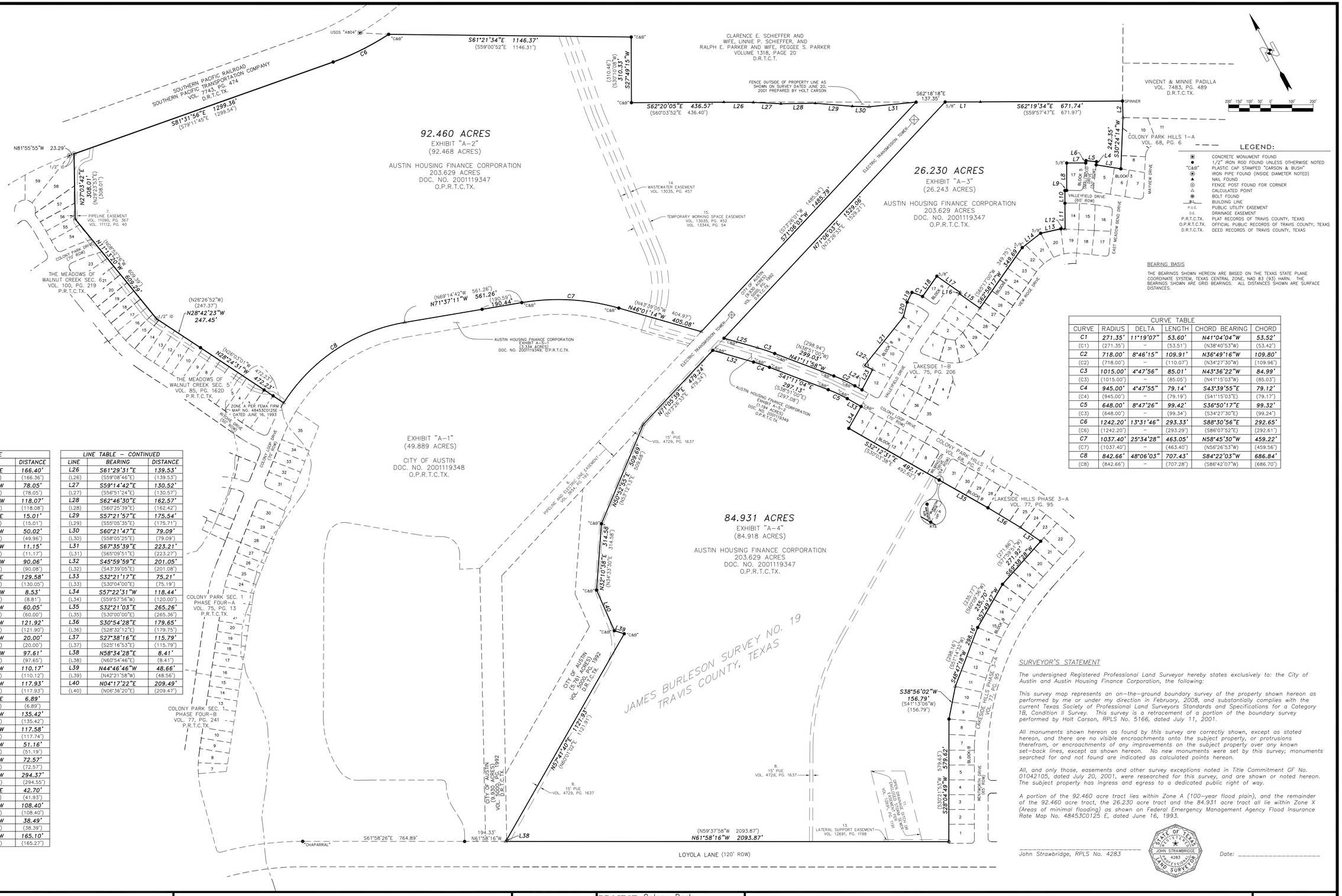
Scale 1:2400

0 100 200 400 600 800Feet

EXHIBIT 11
CONSTRAINT/SLOPE MAP

EXHIBIT 12

TITLE SURVEY



CURVE TABLE					
CURVE	RADIUS	DELTA	LENGTH	CHORD BEARING	CHORD
C1	271.35'	11°19'07"	53.60'	N41°04'04"W	53.52'
(C1)	(271.35')	–	(53.51')	(N38°40'53"W)	(53.42')
C2	718.00'	8°46'15"	109.91'	N36°49'16"W	109.80'
(C2)	(718.00')	–	(110.07')	(N34°27'30"W)	(109.96')
C3	1015.00'	4°47'56"	85.01'	N43°36'22"W	84.99'
(C3)	(1015.00')	–	(85.05')	(N41°15'03"W)	(85.03')
C4	945.00'	4°47'55"	79.14'	S43°39'55"E	79.12'
(C4)	(945.00')	–	(79.19')	(S41°15'03"E)	(79.17')
C5	648.00'	8°47'26"	99.42'	S36°50'17"E	99.32'
(C3)	(648.00')	–	(99.34')	(S34°27'30"E)	(99.24')
C6	1242.20'	13°31'46"	293.33'	S88°30'56"E	292.65'
(C6)	(1242.20')	–	(293.29')	(S86°07'52"E)	(292.61')
C7	1037.40'	25°34'28"	463.05'	N58°45'30"W	459.22'
(C7)	(1037.40')	–	(463.40')	(N56°26'53"W)	(459.56')
C8	842.66'	48°06'03"	707.43'	S84°22'03"W	686.84'
(C8)	(842.66')	–	(707.28')	(S86°42'07"W)	(686.70')

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S62°12'00"E	166.40'
(L1)	(S59°52'39"E)	(166.36')
L2	S26°19'22"W	78.05'
(L2)	(S28°41'09"W)	(78.05')
L3	N52°57'11"W	118.07'
(L3)	(N50°35'16"W)	(118.08')
L4	N34°21'21"E	15.01'
(L4)	(N36°30'18"E)	(15.01')
L5	N56°02'28"W	50.02'
(L5)	(N53°42'00"W)	(49.96')
L6	S33°57'56"W	11.15'
(L6)	(S36°17'00"W)	(11.17')
L7	N62°07'55"W	90.06'
(L7)	(N59°50'09"W)	(90.08')
L8	N27°57'01"E	129.58'
(L8)	(S30°09'50"W)	(130.05')
L9	N66°10'13"W	8.53'
(L9)	(N60°11'23"W)	(8.81')
L10	S27°49'04"W	60.05'
(L10)	(S30°09'00"W)	(60.00')
L11	S27°43'13"W	121.92'
(L11)	(S30°04'21"W)	(121.90')
L12	N59°11'30"W	20.00'
(L12)	(N56°49'00"W)	(20.00')
L13	N74°24'19"W	97.61'
(L13)	(N72°01'49"W)	(97.65')
L14	S80°07'59"W	110.17'
(L14)	(S82°28'48"W)	(110.12')
L15	N26°45'50"W	117.93'
(L15)	(N24°22'41"W)	(117.93')
L16	N63°01'12"E	6.89'
(L16)	(N65°24'21"E)	(6.89')
L17	N26°55'29"W	135.42'
(L17)	(N24°32'20"W)	(135.42')
L18	S63°07'14"W	117.58'
(L18)	(S65°30'23"W)	(117.74')
L19	S54°26'34"W	51.16'
(L19)	(S56°50'16"W)	(51.19')
L20	S41°59'05"W	72.57'
(L20)	(S44°22'47"W)	(72.57')
L21	S66°41'26"W	294.37'
(L21)	(S68°53'55"W)	(294.55')
L22	S36°24'37"E	42.70'
(L22)	(S34°19'00"E)	(41.93')
L23	S55°43'07"W	108.40'
(L23)	(S57°58'00"W)	(108.40')
L24	N32°18'53"W	38.49'
(L24)	(N30°04'00"W)	(38.39')
L25	N46°02'09"W	165.10'
(L25)	(N43°39'05"W)	(165.27')

LINE TABLE – CONTINUED		
LINE	BEARING	DISTANCE
L26	S61°29'31"E	139.53'
(L26)	(S59°08'46"E)	(139.53')
L27	S59°14'42"E	130.52'
(L27)	(S56°51'24"E)	(130.57')
L28	S62°46'30"E	162.57'
(L28)	(S60°25'39"E)	(162.42')
L29	S57°21'57"E	175.54'
(L29)	(S55°05'35"E)	(175.71')
L30	S60°21'47"E	79.09'
(L30)	(S58°05'25"E)	(79.09')
L31	S67°35'39"E	223.21'
(L31)	(S65°09'51"E)	(223.27')
L32	S45°59'59"E	201.05'
(L32)	(S43°39'05"E)	(201.08')
L33	S32°21'17"E	75.21'
(L33)	(S30°04'00"E)	(75.19')
L34	S57°22'31"W	118.44'
(L34)	(S59°57'56"W)	(120.00')
L35	S32°21'03"E	265.26'
(L35)	(S30°00'00"E)	(265.36')
L36	S30°54'28"E	179.65'
(L36)	(S28°32'12"E)	(179.75')
L37	S27°38'16"E	115.79'
(L37)	(S25°16'53"E)	(115.79')
L38	N58°34'28"E	8.41'
(L38)	(N60°54'46"E)	(8.41')
L39	N44°46'46"W	48.66'
(L39)	(N42°21'58"W)	(48.56')
L40	N04°17'22"E	209.49'
(L40)	(N06°36'20"E)	(209.47')

SURVEYOR'S STATEMENT

The undersigned Registered Professional Land Surveyor hereby states exclusively to: the City of Austin and Austin Housing Finance Corporation, the following:

This survey map represents an on-the-ground boundary survey of the property shown hereon as performed by me or under my direction in February, 2008, and substantially complies with the current Texas Society of Professional Land Surveyors Standards and Specifications for a Category 1B, Condition II Survey. This survey is a retracement of a portion of the boundary survey performed by Holt Carson, RPLS No. 5166, dated July 11, 2001.

All monuments shown hereon as found by this survey are correctly shown, except as stated hereon, and there are no visible encroachments onto the subject property, or protrusions therefrom, or encroachments of any improvements on the subject property over any known set-back lines, except as shown hereon. No new monuments were set by this survey; monuments searched for and not found are indicated as calculated points hereon.

All, and only those, easements and other survey exceptions noted in Title Commitment GF No. 01042105, dated July 20, 2001, were researched for this survey, and are shown or noted hereon. The subject property has ingress and egress to a dedicated public right of way.

A portion of the 92.460 acre tract lies within Zone A (100-year flood plain), and the remainder of the 92.460 acre tract, the 26.230 acre tract and the 84.931 acre tract all lie within Zone X (Areas of minimal flooding) as shown on Federal Emergency Management Agency Flood Insurance Rate Map No. 48453C0125 E, dated June 16, 1993.

John Strawbridge, RPLS No. 4283

STATE OF TEXAS JOHN STRAWBRIDGE 4283 REGISTERED PROFESSIONAL LAND SURVEYOR

Date: _____

DATE	BY	REVISIONS

ZWA
Zamora-Warrick and Associates, L.L.C.
Professional Land Surveyors
5316 Highway 290 West, Suite 150 • Austin, Texas 78735
Tel: (512) 899-3333 • Fax (512 899-0655

PROJECT:	Colony Park Boundary Retracement Survey
JOB NUMBER:	07-018-01
DATE:	Feb. 2008
SCALE:	1"=200'
SURVEYOR:	Strawbridge
TECHNICIAN:	Clark
DRAWING:	07-018-01-BASE.dwg
FIELDNOTES:	
PARTYCHIEF:	B.B., G.G.
FIELDBOOKS:	Book No. 298

203.621 ACRES
JAMES BURLESON SURVEY NO. 19
TRAVIS COUNTY, TEXAS

SHEET 1 OF 1

ZWA PLAT No. 07-018-01

EXHIBIT 13

FEMA FIRM Panel No. 48453C0125E

[1]National Geodetic Vertical Datum of 1929

ZONE A

ZONE X

ZONE A

WALTER E. LONG LAKE

PACIFIC RAILROAD

ZONE X

ZONE A

BR 620

LANE

City of Austin
480624

Travis County
Unincorporated Areas
481026

Creek

Decker

TRAVIS COUNTY
CITY OF AUSTIN

FM 3177

577

HOG EYE

581

ROAD

LAKE

DECKER

ZO

surance agent or call the National Flood Insurance Program at (800) 638-6620.

N

APPROXIMATE SCALE

800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 90 OF 410

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUSTIN, CITY OF	480624	0090	E
UNINCORPORATED AREAS	481026	0090	E

Notice To User: The MAP NUMBER shown below should be used when placing map orders; the COMMUNITY NUMBER shown above should be used on insurance applications for the subject community.

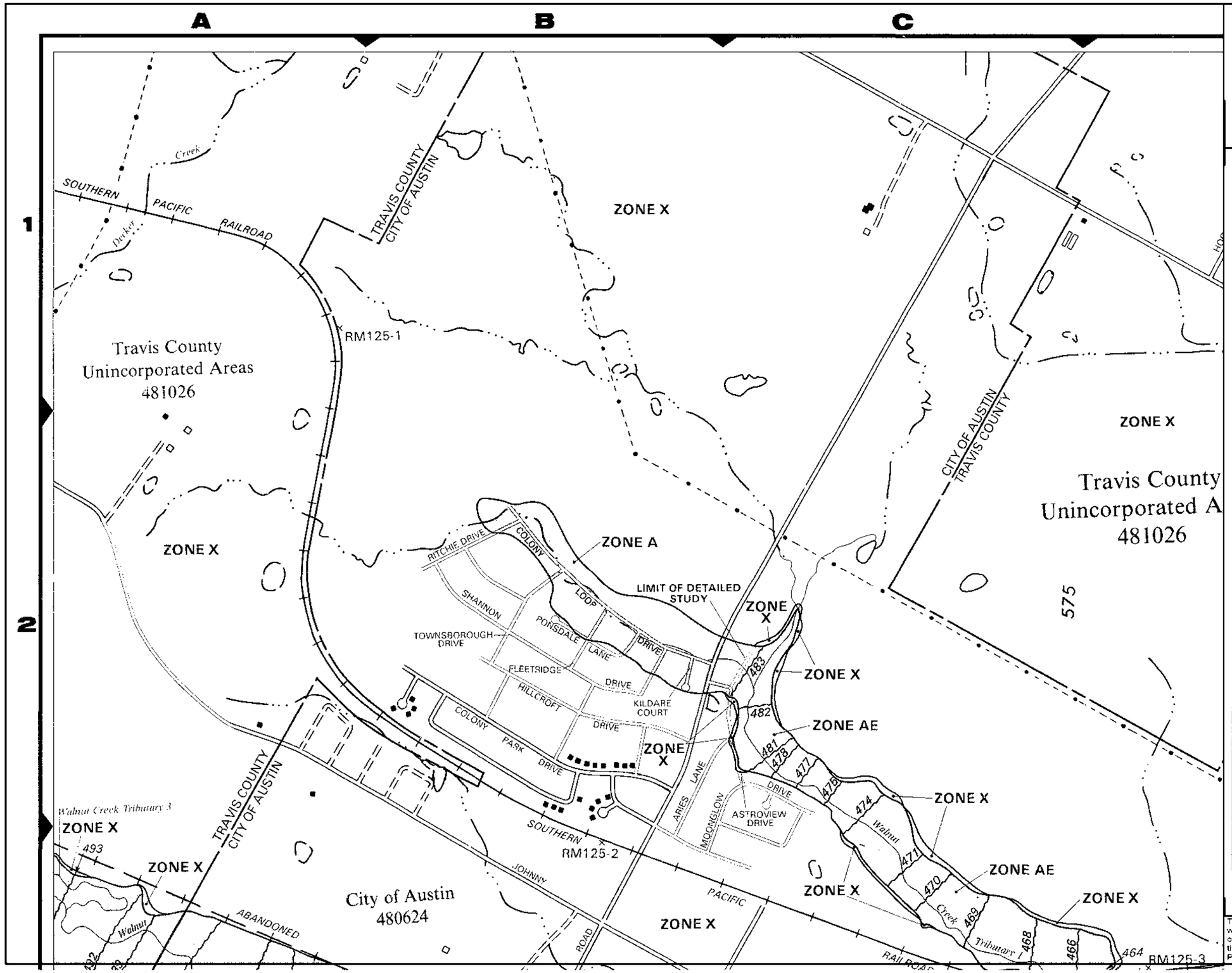
MAP NUMBER

48453C0090 E

EFFECTIVE DATE:

JUNE 16, 1993

Federal Emergency Management Agency



APPROXIMATE SCALE
800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 125 OF 410
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUSTIN, CITY OF	480624	0125	E
UNINCORPORATED AREAS	481026	0125	E

Notice To User: The MAP NUMBER shown below should be used when placing map orders; the COMMUNITY NUMBER shown above should be used on insurance applications for the subject community.

MAP NUMBER
48453C0125 E

EFFECTIVE DATE:
JUNE 16, 1993

Federal Emergency Management Agency

Appendix A

GENERAL WARRANTY DEED (2001119347)

03
0104205 sm

TRV 2001119347
14 pgs

GENERAL WARRANTY DEED

DATE: July 13, 2001

GRANTOR: John Scardino and Haythem S. Dawlett

GRANTOR'S MAILING ADDRESS: 31200 Via Colinas, Suite 200
Westlake Village, California 91362

GRANTEE: Austin Housing Finance Corporation, a Texas public non-profit corporation

GRANTEE'S MAILING ADDRESS: P.O. Box 1088
Austin, Texas 78767-8839
Attention Austin Housing Finance Corporation

CONSIDERATION: Ten Dollars ($10 00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

PROPERTY (Including any improvements):

All that certain tract of land situated in Travis County, Texas, generally described as 203 629 acres of land, more or less, as more fully described on **Exhibit "A"**, attached hereto and incorporated herein for all pertinent purposes, and together with any improvements and fixtures thereon, and any and all rights and appurtenances pertaining to the "Property", including any development rights, utility rights which are appurtenant to, or allocated to the "Property", including, but not limited to, all water and wastewater rights allocable to the Property, including without limitation any exemption from payment of water and wastewater capital recovery fees that may exist in connection with Ordinance No. 970305-B, or any applicable successor ordinance, all easements appurtenant, and any right, title and interest of Seller in and to minerals, mineral rights and royalty interests, adjacent streets, alleys, and rights of way related to the "Property". All of such real property, rights, interests and appurtenances are collectively defined as the "Property".

RESERVATIONS FROM AND EXCEPTIONS TO CONVEYANCE AND WARRANTY:

This conveyance is subject to those matters on **Exhibit "B"** attached hereto and incorporated herein, to the extent, if any, that they are valid and subsisting against the Property or any part thereof (the "Permitted Exceptions") Ad valorem taxes for the current year have been prorated, and are assumed by Grantee

Grantor, for the consideration and subject to the reservations from and exceptions to conveyance and warranty set forth herein, GRANTS, SELLS, AND CONVEYS to Grantee the Property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's successors or assigns forever Grantor hereby binds Grantor and Grantor's successors and assigns to WARRANT AND FOREVER DEFEND all

and singular the Property to Grantee, Grantee's successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty set out herein. Grantor does not retain any liens, express or implied, against the Property.

When the context requires, singular nouns and pronouns include the plural.

GRANTOR:

HAYTHEM S DAWLETT, individually and as Attorney-in-Fact on behalf of JOHN SCARDINO

ACKNOWLEDGMENT

STATE OF TEXAS §

COUNTY OF TRAVIS §

This instrument was acknowledged before me the 13 day of July, 2001, by Haythem S Dawlett, individually and as attorney-in-fact on behalf of John Scardino

(seal)

SUSIE M. REARY
Notary Public, State of Texas
My Commission Expires
SEPT 23, 2001

Notary Public Signature

AFTER RECORDING, RETURN TO:

City of Austin
P.O. Box 1088
Austin, Texas 78767-8839
Attention Real Estate Services Division
File #3688 64-02 (JMP)
TCAD No. 02-1831-0501

EXHIBIT "A"

Approximately 203.629 acres of land, more or less, in Travis County, Texas, as more fully described on **Exhibits "A-2"**, **"A-3"** and **"A-4"**.

EXHIBIT "A-2"

CARSON AND BUSH

PROFESSIONAL SURVEYORS, INC.

1904 FORTVIEW ROAD
AUSTIN, TX 78704
TELEPHONE (512) 442-0990
FACSIMILE (512) 442-1084

JUNE 20, 2001

FIELD NOTE DESCRIPTION OF 92 468 ACRES OF LAND OUT OF THE JAMES BURLESON SURVEY No 19 ABSTRACT No 4 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN (169 714 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 1" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS,** AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS

BEGINNING at a ½" iron pipe found in the South line of that certain (2 51 acre) tract of land as conveyed to Southern Pacific Transportation Company by deed recorded in Volume 7743 Page 474 of the Deed Records of Travis County, Texas, for the Northeasterly corner of Lot 58, Block L, The Meadows of Walnut Creek Section Six, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 100 Page 210 of the Plat Records of Travis County, Texas, and for the Northwesterly corner of that certain (169 714 acre) tract of land as conveyed to John Scardino and Haythem Dawlett by Special Warranty Deed recorded in Volume 12136 Page 2467 of the Real Property Records of Travis County, Texas, and being the Northwesterly corner and **PLACE OF BEGINNING** of the herein described tract,

THENCE with the common line of said Scardino (169 714 acre) tract and said Southern Pacific Transportation Company (2 51 acre) tract, the following two (2) courses,

1) S 79 deg 11' 45" E 1299 54 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
2) along a curve to the left with a radius of 1242 20 ft for an arc length of 293 29 ft and which chord bears S 86 deg 07' 52" E 292 61 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the Southerly line of that certain (36 5 acre) tract of land as conveyed to Clarence E Schieffer, et al, by deed recorded in Volume 1318 Page 20 of the Deed Records of Travis County, Texas, for the most Easterly corner of said Southern Pacific Transportation Company (2 51 acre) tract and for an angle corner of said Scardino (169 714 acre) tract, and being an angle corner of this tract,

THENCE with a Northerly line of said Scardino (169 714 acre) tract, S 59 deg 00' 52" E 1146 31 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for the Southeast corner of said Schieffer (36 5 acre) tract and being in the Westerly line of that certain (32 acre) tract of land as conveyed to Clarence E Schieffer, et al, by deed recorded in Volume 1318 Page 20 of the Deed Records of Travis County, Texas, and being an angle corner of said Scardino (169 714 acre) tract, and being an angle corner of this tract,

THENCE, S 30 deg 10' 08" W 310 46 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for the Southwesterly corner of said Schieffer (32 acre) tract and for an angle corner of said Scardino (169 714 acre) tract, and being an angle corner of this tract,

**AND AT GRANTEE'S REQUEST SUBDIVIDED THE LAND INTO 4 SEPARATE TRACTS, OF WHICH A-1 IS BEING CONVEYED TO THE CITY OF AUSTIN-PARKS AND RECREATION DEPARTMENT FOR PARKLAND PURPOSES

end of Page 1

THENCE with a Northerly line of said Scardino (169 714 acre) tract, the following seven (7) courses,

1) S 60 deg 03' 52" E 436 40 ft to a 60D nail found,
2) S 59 deg 08' 46" E 139 53 ft to a 60D nail found,
3) S 56 deg 51' 24" E 130 57 ft to a 60D nail found,
4) S 60 deg 25' 39" E 162 42 ft to a 60D nail found,
5) S 55 deg 05' 35" E 175 71 ft to a 60D nail found,
6) S 58 deg 05' 25" E 79 09 ft to a 60D nail found,
7) S 65 deg 09' 51" E 223 27 ft to a ½" iron rod found for the Northeasterly corner of said Scardino (169 714 acre) tract and for the Northwesterly corner of that certain (9 930 acre) tract of land as conveyed to the City of Austin by deed recorded in Volume 5000 Page 1992 of the Deed Records of Travis County, Texas, and being the Northeasterly corner of this tract,

THENCE with the common line of said Scardino (169 714 acre) tract and said City of Austin (9 930 acre) tract, S 73 deg 26' 01" W 1485 94 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for the Southeasterly corner of this tract,

THENCE crossing the interior of said Scardino (169 714 acre) tract, the following four (4) courses,

1) N 43 deg 39' 05" W 404 97 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
2) along a curve to the left with a radius of 1037 40 ft for an arc length of 463 40 ft and which chord bears N 56 deg 26' 53" W 459 56 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of tangency,
3) N 69 deg 14' 42" W at 190 59 ft passing a ½" iron rod found, and continuing along the same course for a total distance of 561 26 ft to a ½" iron rod found for a point of curvature,
4) along a curve to the left with a radius of 842 66 ft for an arc length of 707 28 ft and which chord bears S 86 deg 42' 07" W 686 70 ft to a ½" iron rod set at the point of termination of the curving Northerly right-of-way line of Colony Loop Drive for the Southeasterly corner of Lot 1, Block P, The Meadows of Walnut Creek Section Five, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 86 Page 162D of the Plat Records of Travis County, Texas, and being the Southwesterly corner of this tract,

THENCE with the Westerly line of said Scardino (169 714 acre) tract, the following four (4) courses,

1) N 26 deg 03' 01" W 472 23 ft to a ½" iron rod found in the Easterly line of Lot 10, Block P, of said The Meadows of Walnut Creek Section Five,
2) N 26 deg 26' 52" W 247 37 ft to a ½" iron rod found in the Easterly line of Lot 15, Block P, of said The Meadows of Walnut Creek Section Five,
3) N 08 deg 52' 26" W 609 39 ft to a ½" iron rod found in the Easterly line of Lot 55, Block L, of said The Meadows of Walnut Creek Section Six,
4) N 29 deg 23' 53" E 308 01 ft to the **PLACE OF BEGINNING**, containing 92 468 acres of land

SURVEYED June, 2001

Holt Carson
Registered Professional Land Surveyor No 5166

reference map B 652052

STATE OF TEXAS
REGISTERED
HOLT CARSON
5166
PROFESSIONAL
LAND SURVEYOR

FIELD NOTES REVIEWED
By: _____ Date 07/02/01

Engineering Support Section
Department of Public Works
and Transportation

EXHIBIT "A-3"

CARSON AND BUSH

PROFESSIONAL SURVEYORS, INC.

1904 FORTVIEW ROAD
AUSTIN, TX 78704
TELEPHONE (512) 442-0990
FACSIMILE (512) 442-1084

JUNE 20, 2001

FIELD NOTE DESCRIPTION OF 26 243 ACRES OF LAND OUT OF THE JAMES BURLESON SURVEY No 19 ABSTRACT No 4 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN (112 816 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 2" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS,** AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS

BEGINNING at a ½" iron rod found for an angle corner in the Easterly line of that certain (112 816 acre) tract of land as conveyed to John Scardino and Haythem S Dawlett by Special Warranty Deed recorded in Volume 12136 Page 2467 of the Real Property Records of Travis County, Texas, for the most Northerly or Northwest corner of Lot 10, Block 3, Colony Park Hills 1-A, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 68 Page 6 of the Plat Records of Travis County, Texas, and for the Southwesterly corner of that certain (3 288 acre) tract of land as conveyed to Vicente Padilla, et ux, by deed recorded in Volume 7483 Page 489 of the Deed Records of Travis County, Texas, and being an angle corner and **PLACE OF BEGINNING** of the herein described tract,

THENCE with the common line of said Scardino (112 816 acre) tract and said Colony Park Hills 1-A, the following ten (10) courses,

1) S 32 deg 46' 18" W 242 45 ft to a ½" iron rod found in the North line of Lot 6, Block 3 of said Colony Park Hills 1-A,
2) N 50 deg 35' 16" W 118 08 ft to a ½" iron rod found in the Easterly right-of-way line of Smallwood Drive,
3) N 36 deg 30' 18" E 15 01 ft to a ½" iron rod found at the point of termination of the Easterly right-of-way line of Smallwood Drive,
4) N 53 deg 42' W 49 96 ft to a ½" iron rod found at the point of termination of the Westerly right-of-way line of Smallwood Drive,
5) S 36 deg 17' 00" W 11 17 ft to a ½" iron rod found in the Westerly right-of-way line of Smallwood Drive for the Northeast corner of Lot 17, Block 5, of said Colony Park Hills 1-A,
6) N 59 deg 50' 09" W 90 08 ft to a ½" iron rod found for the Northwesterly corner of said Lot 17, Block 5, Colony Park Hills 1-A,
7) S 30 deg 09' 50" W 130 05 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the North right-of-way line of Valleyfield Drive for the Southwesterly corner of said Lot 17, Block 5,
8) N 60 deg 11' 23" W 8 81 ft to a ½" iron rod found at the point of termination of the North right-of-way line of Valleyfield Drive,
9) S 30 deg 09' W 60 00 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" at the point of termination of the South right-of-way line of Valleyfield Drive for the Northwesterly corner of Lot 14, Block 6, of said Colony Park Hills 1-A,
10) S 30 deg 04' 21" W 121 90 ft to a ½" iron rod found in the North line of Lot 19, Block 6, Lakeside "1-B", a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 75 Page 206 of the Plat Records of Travis County, Texas, for the Southwest corner of Lot 14, Block 6, Colony Park Hills 1-A, and being an angle corner of said Scardino (112 816 acre) tract, same being an angle corner of this tract,

**AND AT GRANTEE'S REQUEST SUBDIVIDED THE LAND INTO 4 SEPARATE TRACTS, OF WHICH A-1 IS BEING CONVEYED TO THE CITY OF AUSTIN-PARKS AND RECREATION DEPARTMENT FOR PARKLAND PURPOSES.

THENCE with the common line of said Scardino (112 816 acre) tract and said Lakeside "1-B", the following fourteen (14) courses,

1) N 56 deg 49' W 20 00 ft to a ½" iron rod found,
2) N 72 deg 01' 49" W 97 65 ft to a ½" iron rod found,
3) S 82 deg 28' 48" W 110 12 ft to a ½" iron rod found,
4) S 65 deg 17' 00" W 349 75 ft to a point for the Easterly corner of Lot 4, Block 6, of said Lakeside "1-B",
5) N 24 deg 22' 41" W 117 93 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the Southerly right-of-way line of Valleyfield Drive,
6) N 65 deg 24' 21" E 6 89 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" at the point of termination of the Southerly right-of-way line of Valleyfield Drive,
7) N 24 deg 32' 20" W 135 42 ft to a ½" iron rod found for the Northerly corner of Lot 17, Block 9, of said Lakeside "1-B",
8) S 65 deg 30' 23" W 117 74 ft to a ½" iron rod found in the curving Northeasterly right-of-way line of Cambray Drive for the Southwesterly corner of said Lot 17, Block 9,
9) along a curve to the left with a radius of 271 35 ft for an arc length of 53 51 ft and which chord bears N 38 deg 40' 53" W 53 42 ft to a ½" iron rod found at the point of termination of the Northeasterly right-of-way line of Cambray Drive,
10) S 56 deg 50' 16" W 51 19 ft to a ½" iron rod found at the point of termination of the Southwesterly right-of-way line of Cambray Drive,
11) S 44 deg 22' 47" W 72 57 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors",
12) S 68 deg 53' 55" W 294 55 ft to a ½" iron rod found for the Southwesterly corner of Lot 11, Block 8, of said Lakeside "1-B",
13) S 34 deg 19' E 41 93 ft to a point for the most Northerly corner of Lot 12, Block 8, of said Lakeside "1-B",
14) S 57 deg 58' 00" W 108 40 ft to a ½" iron rod found for the Southwesterly corner of said Lot 12, Block 8, for an angle corner of said Scardino (112 816 acre) tract, and being an angle corner of this tract,

THENCE crossing the interior of said Scardino (112 816 acre) tract, the following five (5) courses,

1) N 30 deg 04" W 38 39 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
2) along a curve to the left with a radius of 718 00 ft for an arc length of 110 07 ft and which chord bears N 34 deg 27' 30" W 109 96 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of tangency,
3) N 38 deg 51' 00" W 298 94 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
4) along a curve to the left with a radius of 1015 00 ft for an arc length of 85 05 ft and which chord bears N 41 deg 15' 03" W 85 03 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of tangency,
5) N 43 deg 39' 05" W 165 27 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the common line of said Scardino (112 816 acre) tract and that certain (9 930 acre) tract of land as conveyed to the City of Austin by deed recorded in Volume 5000 Page 1992 of the Deed Records of Travis County, Texas, and being the Southwesterly corner of this tract,

end of Page 2

THENCE with the common line of said Scardino (112 816 acre) tract and said City of Austin (9 930 acre) tract, N 73 deg 26' 33" E 1529 21 ft to a ½" iron rod found for a Northwesterly corner of said Scardino (112 816 acre) tract and for the Northeasterly corner of said City of Austin (9 930 acre) tract and being the Northwesterly corner of this tract,

THENCE with the Northerly line of said Scardino (112 816 acre) tract, the following two (2) courses,

1) S 59 deg 52' 39" E 166 36 ft to a ½" iron rod found,
2) S 59 deg 57' 47" E 671 97 ft to a ½" iron rod found for the Southeast corner of that certain (32 acre) tract of land as conveyed to Clarence E Schieffer, et al, by deed recorded in Volume 1318 Page 20 of the Deed Records of Travis County, Texas, and for the Northeasterly corner of said Scardino (112 816 acre) tract, and being the Northeasterly corner of this tract,

THENCE with the Easterly line of said Scardino (112 816 acre) tract, S 28 deg 41' 09" W 78 05 ft to the **PLACE OF BEGINNING** containing 26 243 acres of land

SURVEYED June, 2001

Holt Carson
Registered Professional Land Surveyor No 5166

reference map B 652052

FIELD NOTES REVIEWED
By Mike Keith Date 07/12/01
Engineering Support Section
Department of Public Works
and Transportation

EXHIBIT "A-4"

CARSON AND BUSH

PROFESSIONAL SURVEYORS, INC.

1904 FORTVIEW ROAD
AUSTIN, TX 78704
TELEPHONE (512) 442-0990
FACSIMILE (512) 442-1084

JUNE 20, 2001

FIELD NOTE DESCRIPTION OF 84 918 ACRES OF LAND OUT OF THE JAMES BURLESON SURVEY No 19 ABSTRACT No 4 IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN (112 816 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 2" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS,** AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS

BEGINNING at a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the present North right-of-way line of Loyola Lane and in the Easterly line of that certain (112 816 acre) tract of land as conveyed to John Scardino and Haythem S Dawlett by Special Warranty Deed recorded in Volume 12136 Page 2467 of the Real Property Records of Travis County, Texas, and in the Westerly line of Lot 1, Block B, Lakeside Hills Phase 3-A, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 77 Page 95 of the Plat Records of Travis County, Texas, and being the Northeasterly corner of that certain tract of land as conveyed to the City of Austin by Street Deed recorded in Volume 12691 Page 1185 of the Real Property Records of Travis County, Texas, same being the Southeasterly corner and **PLACE OF BEGINNING** of the herein described tract,

THENCE crossing the interior of said Scardino (112 816 acre) tract of land with the present North right-of-way line of Loyola Lane and with the North line of said City of Austin Street Deed tract, N 59 deg 37' 58" W 2093 87 ft to a bolt found in the common line of said Scardino (112 816 acre) tract and that certain (5 761 acre) tract of land as conveyed to the City of Austin by deed recorded in Volume 5000 Page 1992 of the Deed Records of Travis County, Texas, and being the Northwesterly corner of said City of Austin Street Deed tract, same being the Southwesterly corner of this tract, and from which a bolt found for the most Southerly corner of said City of Austin (5 761 acre) tract bears S 60 deg 54' 46" W 11 35 ft ,

THENCE leaving the present North right-of-way line of Loyola Lane with the common line of said Scardino (112 816 acre) tract and said City of Austin (5 761 acre) tract, the following six (6) courses,

1) N 60 deg 54' 46" E 8 41 ft to a ½" iron rod found,
2) N 60 deg 01' 02" E 1121 91 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors",
3) N 42 deg 21' 58" W 48 56 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors",
4) N 06 deg 36' 20" E 209 47 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors",
5) N 34 deg 33' 30" E 314 58 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors",
6) N 53 deg 12' 13" E 509 68 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" in the Southerly line of that certain (9 930 acre) tract of land as conveyed to the City of Austin by deed recorded in Volume 5000 Page 1992 of the Deed Records of Travis County, Texas, for the most Northeasterly corner of said City of Austin (5 761 acre) tract, and being an angle corner of said Scardino (112 816 acre) tract, same being an angle corner of this tract,

**AND AT GRANTEE'S REQUEST SUBDIVIDED THE LAND INTO 4 SEPARATE TRACTS, OF WHICH A-1 IS BEING CONVEYED TO THE CITY OF AUSTIN-PARKS AND RECREATION DEPARTMENT FOR PARKLAND PURPOSES

THENCE with the common line of said Scardino (112 816 acre) tract and said City of Austin (9 930 acre) tract, N 73 deg 26' 33" E 479 24 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for the most Northerly corner of this tract,

THENCE crossing the interior of said Scardino (112 816 acre) tract, the following five (5) courses,

1) S 43 deg 39' 05" E 201 08 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
2) along a curve to the right with a radius of 945 00 ft for an arc length of 79 19 ft and which chord bears S 41 deg 15' 03" E 79 17 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of tangency,
3) S 38 deg 51' 00" E 297 08 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of curvature,
4) along a curve to the right with a radius of 648 00 ft for an arc length of 99 34 ft and which chord bears S 34 deg 27' 30" E 99 24 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for a point of tangency,
5) S 30 deg 04' E 75 19 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors"at the point of termination of the Southwesterly right-of-way line of Colony Loop Drive for the most Northerly corner of Lot 3, Block 13, Lakeside "1-B" a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 75 Page 206 of the Plat Records of Travis County, Texas, and being an angle corner of said Scardino (112 816 acre) tract, same being an angle corner of this tract,

THENCE, S 59 deg 57' 56" W 120 00 ft to a ½" iron rod set with a plastic cap imprinted with "Carson and Bush Professional Surveyors" for the most Westerly corner of said Lot 3, Block 13, Lakeside "1-B",

THENCE, S 30 deg 03' 38" E 492 62 ft to a ½" iron rod found at the point of termination of the Southeasterly right-of-way line of Wilmington Drive for the most Westerly corner of Lot 31, Block B, Colony Park Hills 1-A, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Volume 68 Page 6 of the Plat Records of Travis County, Texas, and being an angle corner of this tract,

THENCE with the common line of said Scardino (112 816 acre) tract and said Block B, of Colony Park Hills 1-A, the following eight (8) courses,

1) S 30 deg 00' 00" E 265 36 ft to a ½" iron rod found,
2) S 28 deg 32' 12" E 179 75 ft to a ½" iron rod found,
3) S 25 deg 16' 53" E 115 79 ft to a ½" iron rod found,
4) S 71 deg 59' 51" W 271 86 ft to a ½" iron rod found,
5) S 60 deg 09' 36" W 235 77 ft to a ½" iron rod found,
6) S 51 deg 14' 32" W 298 16 ft to a ½" iron rod found,
7) S 41 deg 13' 06" W 156 79 ft to a ½" iron rod found,
8) S 30 deg 21' 53" W 579 63 ft to the **PLACE OF BEGINNING,** containing 84 918 acres of land

SURVEYED June, 2001

FIELD NOTES REVIEWED
By Mike Sitton Date 07/03/01
Engineering Support Section
Department of Public Works
and Transportation

reference map B 652052

Holt Carson
Registered Professional Land Surveyor No 5166

STATE OF TEXAS
REGISTERED
HOLT CARSON
5166
PROFESSIONAL
LAND SURVEYOR

EXHIBIT "B"

PERMITTED EXCEPTIONS

1 Pipeline easement to Koch Refining Company, recorded in Volume 11090, Page 367, corrected by Volume 11112, Page 40, Real Property Records, Travis County, Texas

2. Public utility easement to the City of Austin, recorded in Volume 4729, Page 1637, Deed Records of Travis County, Texas

3 A fifteen (15') foot public utility and drainage easement to the City of Austin, recorded in Volume 5951, Page 2170 of the Deed Records of Travis County, Texas.

4 Twenty-five (25') foot storm sewer easement to the City of Austin, recorded in Volume 6299, Page 533 of the Deed Records of Travis County, Texas

5 Open drainage ditch or enclosed storm sewer easement to the City of Austin, recorded in Volume 12691, Page 1191 and Volume 12691, Page 1243 of the Real Property Records of Travis County, Texas.

6 Drainage easement to the City of Austin, recorded in Volume 13137, Page 274 of the Real Property Records of Travis County, Texas

7 A ten (10') foot lateral support (slope) easement to the City of Austin, recorded in Volume 12691, Page 1198 of the Real Property Records of Travis County, Texas

8 Wastewater easement to the City of Austin, recorded in Volume 13035, Page 457 of the Real Property Records of Travis County, Texas

9 Temporary working space easement to the City of Austin, recorded in Volume 13035, Page 452 and Volume 13344, Page 54 of the Real Property Records of Travis County, Texas

10 Mineral reservations, set out in Volume 515, Page 68 and Volume 2088, Page 519 of the Deed Records of Travis County, Texas

11 Fence outside of property line along the northeast property line of Tract "B", as shown on Survey dated June 20, 2001, prepared by Holt Carson, Registered Professional Land Surveyor No 5166

12 Pipeline and electric line easement to the City of Austin, recorded in Volume 3654, Page 193, Deed Records, Travis County, Texas

FILED AND RECORDED

OFFICIAL PUBLIC RECORDS

07-20-2001 12 03 PM 2001119347
CORTEZR $35 00
DANA DEBEAUVOIR ,COUNTY CLERK
TRAVIS COUNTY, TEXAS

Appendix B

UTILITY SERVICE AVAILABILITY LETTERS

TEXAS GAS SERVICE
A DIVISION OF ONEOK

Attn: Jeremy Reyes

Re: Gas Availability
Loyola Ln (East of Decker) – Colony Park
Austin, Travis County, TX

Dear Mr. Reyes,

Gas can be made available to the above-mentioned location. It may be necessary to extend a main, make a street cut and/or bore in order to supply service to your new development. Initially the customer or the developer would pay for all new construction costs. I have included a copy of a map showing the location of the gas mains in the area you have indicated.

In an effort to expedite the installation of natural gas service to your commercial project, Texas Gas Service is providing the following list. In order to complete your project it is essential that you supply the following:

Here are a few items needed to begin the gas service design for your project:

Electronic CAD
- Site and Utility plans on Auto CAD
- MEP's (does not need to be in Auto CAD form) showing meter locations, itemized gas load breakdown, and required gas pressure.
- *(Please do not send by zip file) e-mail listed below*
- Street references
- Desired installation date *(date of installation of base / concrete)*
- Desired Meter set date *(grand opening)*
- Site address
- Topography (if needed)

Planning
- When will they begin construction?
- Desired installation date
  (Construction is at sub-grade /or prior to the installation of base/concrete)
- Desired Meter set date

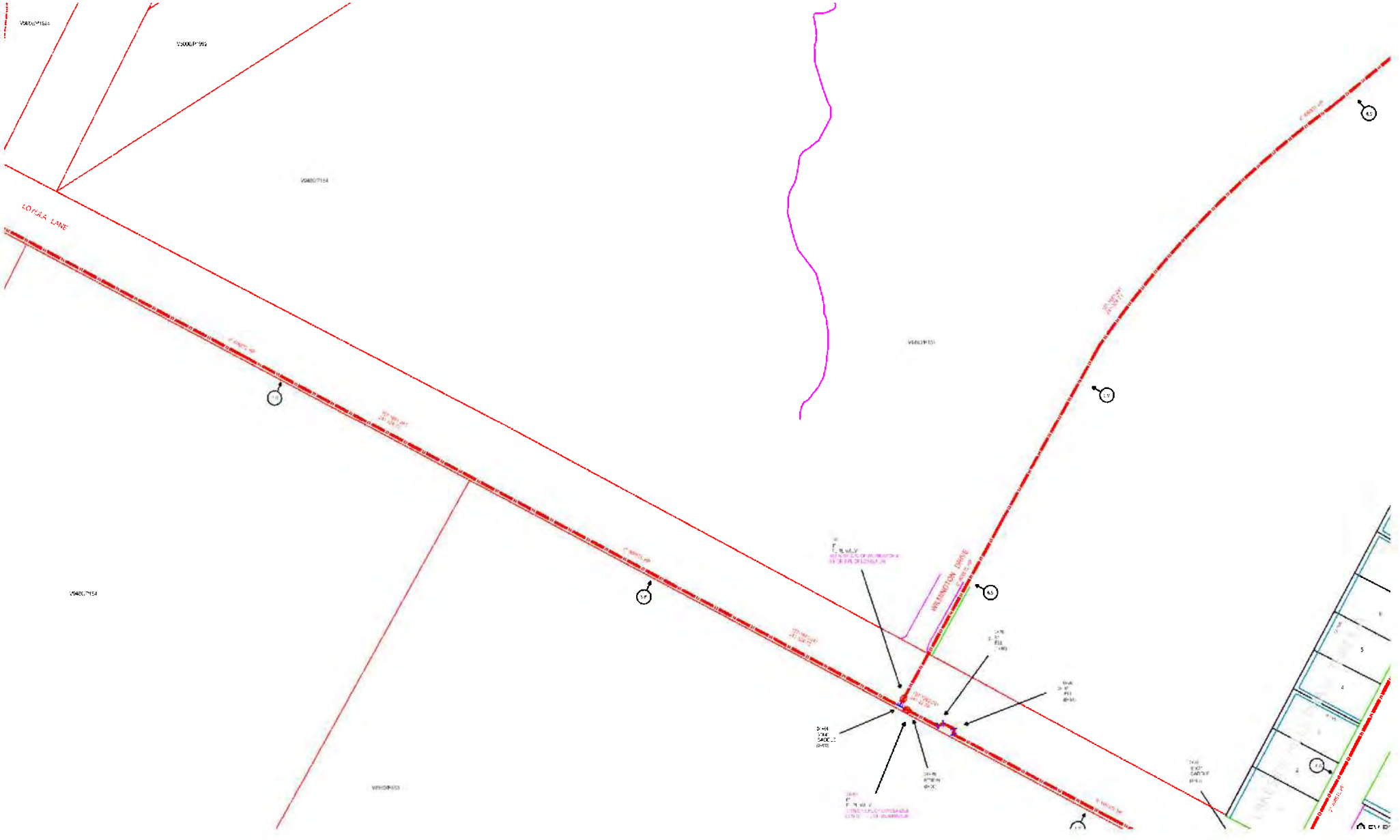
Contacts
- *Contacts name* and phone numbers such as project manager, superintendent, property owner, developer, engineer or architects.

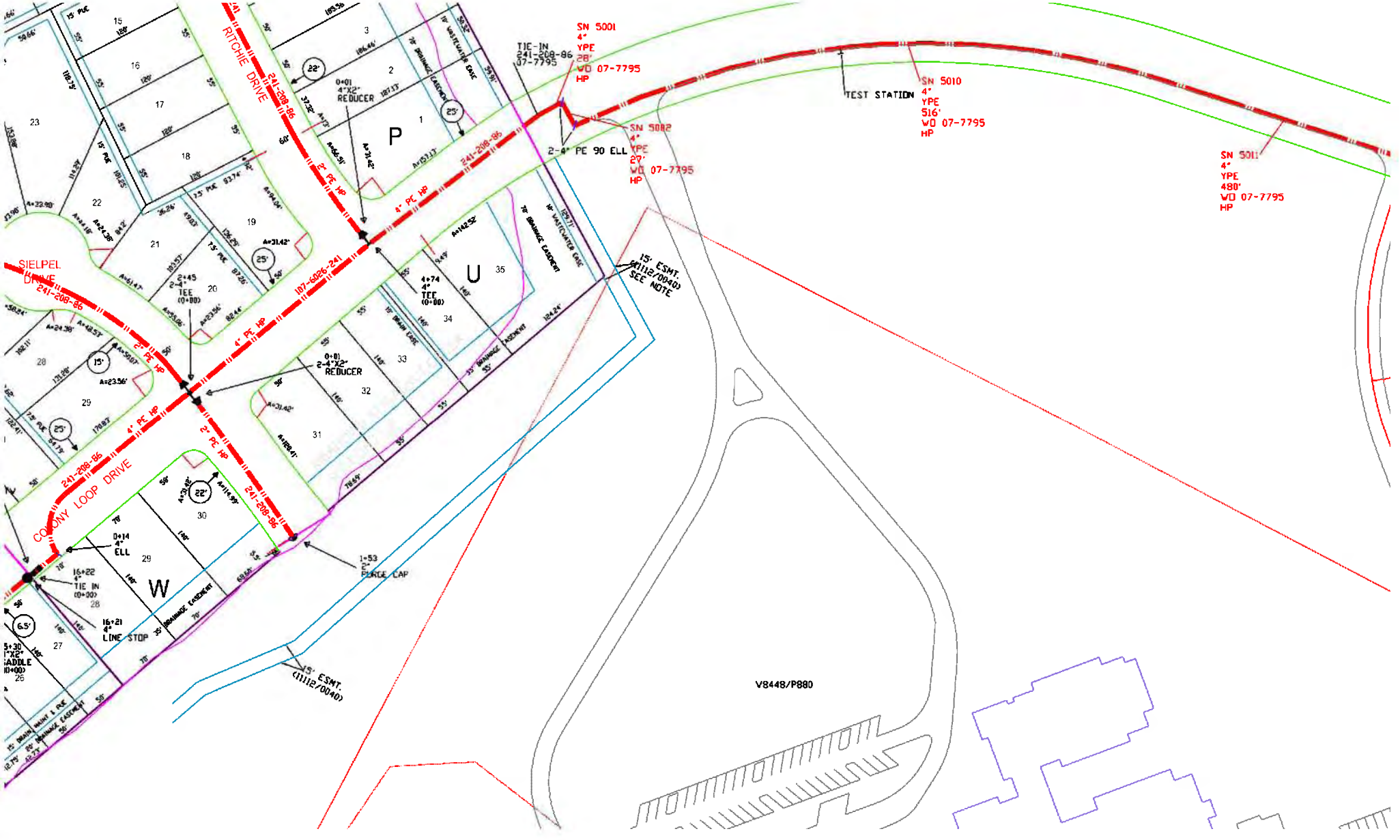
This information may be mailed to our offices or faxed to (512) 465-1104. In addition, AutoCAD, and other electronic files may be emailed to me at **ldunkeson@txgas.com**. If you have any additional questions, I may be reached at (512) 465-1134. Thank you for this opportunity to serve you.

Sincerely,

Linda Dunkeson

New Business Facilitator
Texas Gas Service Company


LOYOLA LANE
WELLINGTON DRIVE


RITCHIE DRIVE
241-208-86
SIELPEL DRIVE
241-208-86
COMONY LOOP DRIVE
241-208-86
107-6026-241
4" PE HP
2" PE HP
SN 5001
4"
YPE
28'
WO 07-7795
HP
TIE-IN
241-208-86
07-7795
TEST STATION
SN 5010
4"
YPE
516'
WO 07-7795
HP
SN 5002
4"
YPE
27'
WO 07-7795
HP
2-4" PE 90 ELL
SN 5011
4"
YPE
480'
WO 07-7795
HP
15' ESMT.
(11112/0040)
SEE NOTE
0+01
4"X2"
REDUCER
2+45
2-4"
TEE
(0+00)
4+74
4"
TEE
(0+00)
0+01
2-4"X2"
REDUCER
0+14
4"
ELL
16+22
4"
TIE IN
(0+00)
16+21
4"
LINE STOP
1+53
2"
FLARE CAP
15' ESMT.
(11112/0040)
P
U
W
V8448/P880

Fax

TIME WARNER CABLE *Now anything's possible.*

To:	JERMEY REYES	**From:**	RODNEY MUENSTER
Fax:	439-4716	**Phone:**	(512) 485-6323
Phone:		**Date:**	1/23/2008
Re:	WILL SERVE LETTER	**Pages:**	2

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

TIME WARNER CABLE *Now anything's possible.*

January 23, 2008

To Whom it may concern

The property known as

AUSTIN HOUSING FINANCE CORP.

located at

ALONG LOYOLA LANE, APPROX. 1400' WEST OF THE INTERESCTION OF DECKER LANE & LOYOLA LANE.

is within the Time Warner Cable service area. Time Warner Cable will provide cable television, high-speed internet and residential digital telephone services to this property as required by the area franchise.

Please contact me at (512) 485-6281 if you need any further assistance.

Sincerely,

Rodney Muenster
Design dept.
Time Warner Cable - Austin Division
12012 N. Mopac Expwy.
Austin, Texas 78758

AUSTIN WATER UTILITY
Utility Development Services Division
625 East 10th Street, Suite 515
Austin, Texas 78701
(512) 972-0207 fax: (512) 972-0251

February 7, 2008

Cole Huggins, P.E.
LJA Engineering & Surveying, Inc.
5316 Highway 290 West, Suite 150
Austin, Texas 78735

Re: Assessment of water and wastewater service for 7900 LOYOLA LN
TCAD Parcel IDs ('0218310506', '0218310507', '0218310508', '0218310513')

Dear Mr. Huggins:

The property at 7900 LOYOLA LN consists of the property described as: TCAD Parcel IDs ('0218310506', '0218310507', '0218310508', '0218310513'). The property elevation contours can be seen in the attached map. The property is within the Central North pressure zone, the WALNUT drainage basin, Grid P25, and the Service Area of the Austin Water Utility. Wastewater flows are part of the WALNUT WW basin.

This property appears to be part of a previous Service Extension Request for Water (SER#1745). The tract appears to be near a 12-inch water line (Project 2003-0004) in LOYOLA LN, a 12-inch water line (Project 85-0910) in COLONY LOOP DR, and an 8-inch water line (Project 73-0325) within the southern portion of the subject tract. Water Pressure Calculations for these lines are provided below:

Pressure Calculation Results			
12-inch water line in LOYOLA LN	**MINIMUM**	**TYPICAL**	**MAXIMUM**
HGL (ft. above MSL)	690	710	720
Pressure (psi)*	64	72	77
12-inch water line in COLONY LOOP DR	**MINIMUM**	**TYPICAL**	**MAXIMUM**
HGL (ft. above MSL)	690	710	720
Pressure (psi)*	57	66	70
8-inch water line within the southern portion of the subject tract	**MINIMUM**	**TYPICAL**	**MAXIMUM**
HGL (ft. above MSL)	690	710	720
Pressure (psi)*	55	64	68

*HGLs and pressures are roughly approximated and not guaranteed. The HGL or pressure in a given zone could vary significantly from this range. Field testing in conjunction with water model analysis is the best source of HGL and pressure information. HGLs can vary significantly especially at remote locations in the water distribution system and near pump station locations. Values do not reflect fire flow conditions.

The property appears to be near an 8-inch Gravity Wastewater Line running north-to-south within the subject tract. The line is connected to manhole Unit ID: 80664 and has an approximate manhole elevation of 491.6 feet.

Service Extension Requests may be required for future water service and may be required for future wastewater service.

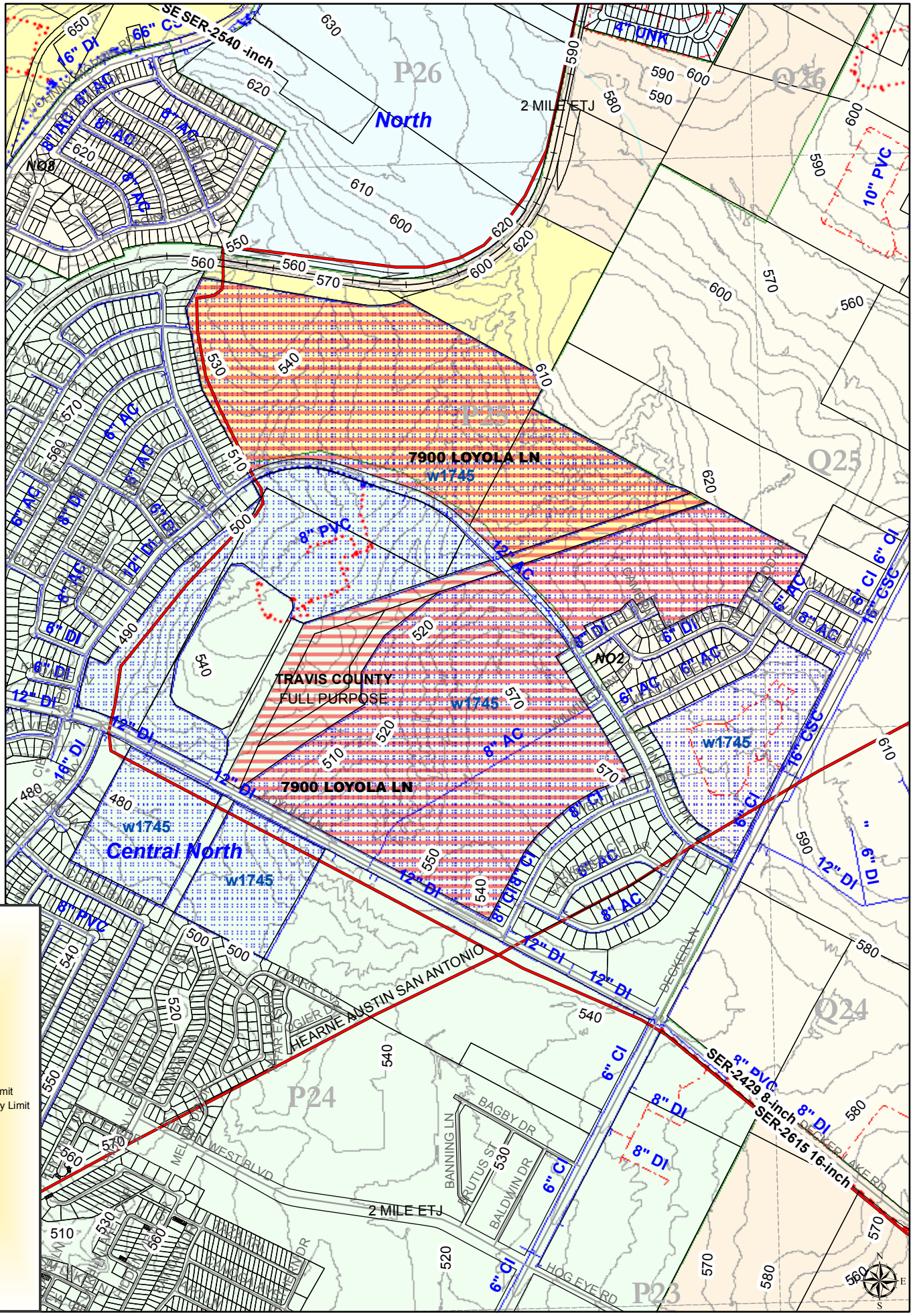
This assessment reflects the best information as of this date. Additional water and wastewater information is available at: ftp://ftp.ci.austin.tx.us/

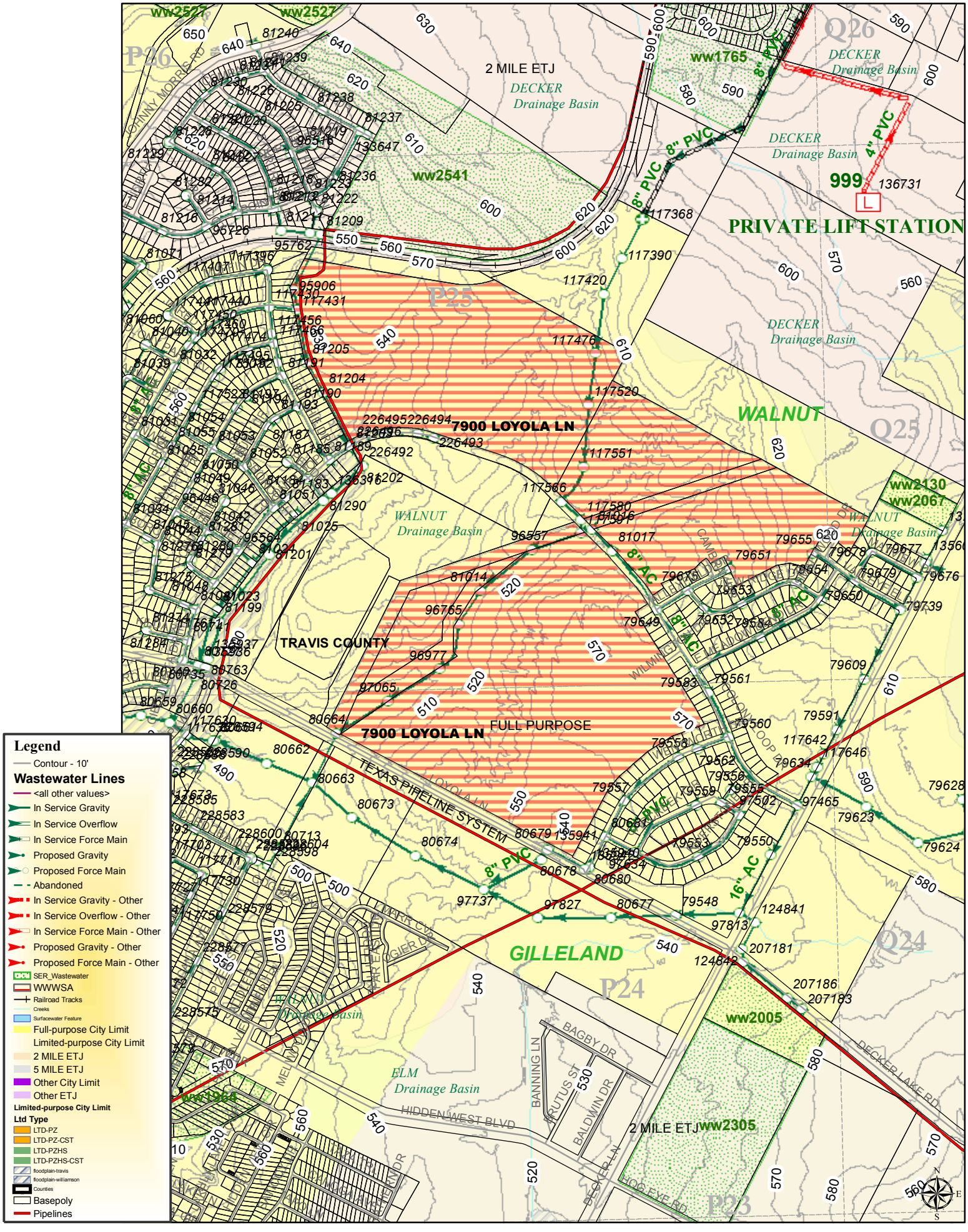
Actual service delivery will be contingent upon available system capacity at the time an application for Tap and/or Service Extension Request is made and will be subject to all fees, charges, ordinances and policies in effect at that time. Notwithstanding this assessment, service may be reasonably limited by the city if necessary to protect the public health, safety and welfare or for compliance with applicable orders or ruling of the State or Federal Government or any political subdivision having lawful jurisdiction over these matters.

If we can provide additional information, please call me at (512) 972-0304 or email me at: James.Grabbs@ci.austin.tx.us.

Sincerely,

James S. Grabbs, P.E.
Utility Development Services Division
Austin Water Utility





City of Austin
Austin's Community-Owned Electric Utility www.austinenergy.com
Town Lake Center • 721 Barton Springs Road • Austin, Texas • 78704

January 28, 2008

LJA Engineering & Surveying
5316 Highway 290 W, Suite 150
Austin, TX 78735

SUBJECT: Electric Service Availability to

Being property identified as Loyola Lane, approximately 1,400 ft west of the intersection of Decker Lane and Loyola Lane, Austin, TX, Travis County, TX and being the same property owned by Austin Housing Finance Corp., identified by TCAD No. 02183105130000 and further identified by the attached sketch.

Dear Sir:

The above described property is located within the Austin Energy's (AE) electric service territory. This letter will confirm that AE can provide electric service.

This confirmation of availability of electric service is conditional upon the obligation of the customer to comply with the technical and regulatory requirements pertaining to the provision of electric service to the above-described property. Please refer to the AE Design Criteria Manual (*www.austinenergy.com/go/designmanual*). In some instances it might be necessary for service to be extended to the property.

Austin Energy Distribution Design Group North will perform the design of service for the facility. When you are ready to proceed with the design, you will need to contact the Design Supervisor, Bud Bearrs at 512-505-7214. He will assign a designer to your project that will be able to provide you information concerning any additional costs, which may be required.

Once the design is completed, there may be a need for additional easements, which must be provided prior to the project being released to construction. For assistance regarding easements, or any other questions concerning the process, please feel free to call me at 512-322-6442.

Sincerely,

Sonny Poole, Supervisor
Public Involvement/Real Estate
Austin Energy
721 Barton Springs Road
Austin, TX 78704

FOR PLANNING PURPOSES ONLY

LJA Engineering & Surveying, Inc.
8310 Highway 290 West
Suite 160
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

COLONY PARK SUBDIVISION

SITE LOCATION MAP

SHEET NAME

Site Location Map.dwg

at&t

Todd Thetford
Area Manager-Eng. Design
South Austin

AT&T Texas
909 Colorado Street
Floor 8th Room 810
South Engineering
Austin, TX 78701

T: 512.870.1450
F: 512.870.3692
tt1879@att.com

January 23, 2008

Jeremy Reyes
5316 Highway 290 West, Ste. 150
Austin, TX 78735

Fax: 512-439-4716

Re: Decker Lane and Loyola Lane

This letter is to advise that the above referenced project lies within the serving area of AT&T Texas. Currently there are no facilities on the undeveloped property. Facilities will be extended/constructed to serve this area, as provided by the tariffs and regulations of the Public Utilities Commission. The facilities provided would need to be constructed and we would request a minimum lead time of 90-120 days to allow for acquisition of permits, engineering design and actual construction. Also, there may be some accommodations, easements, and electrical requirements for your equipment that we need to discuss for inclusion in your plans, i.e. conduit w/ pullstring, backboard, and inside wiring, and joint trench.

I would like to discuss your communications needs with you and would be interested in providing you with any information you may need for making your telecommunications decisions. I look forward to hearing from you and please do not hesitate to contact me with any questions or concerns you may have on your upcoming development. Thank you in advance for your business.

You may contact me at 870-5214 if you need any further assistance.

Sincerely,

Gilbert Magallanez
Manager - Engineering Design

Appendix C

ENVIRONMENTAL ASSESSMENT
(HORIZON ENVIRONMENTAL SERVICES, INC.)

7 March 2008

Environmental Assessment Information
City of Austin Land Development Code (Section 25-8-121)
Compliance Report

RE: Colony Park Tracts B, C, and D, approximately 203.63 acres located on Loyola Lane, Austin, Travis County, Texas
HJN 070200 EA

1.0 INTRODUCTION

This report provides the results of an environmental assessment conducted by Horizon Environmental Services, Inc. (Horizon) on Colony Park Tracts B, C, and D (the Property), located on the north side of Loyola Lane west of its intersection with Decker Lane in Austin, Travis County, Texas. Horizon conducted the field reconnaissance on 6 February 2008. Horizon spent a minimum of 6 person-hours in the field evaluating the site and surrounding area, and completed the assessment process by conducting a review of existing literature.

2.0 ENVIRONMENTAL SETTING

2.1 LAND USE

The Property was vacant at the time of Horizon's site reconnaissance, and no current use of the Property was evident. Evidence of previous dumping activities was visible on the Property. Horizon also observed evidence of local electrical and water utilities on the Property, and an electric transmission line easement runs between Tracts B and C (refer to plat map in Appendix A). Natural gas pipeline marker signs were observed on the southern portion of the Property along Loyola Lane, and markers for a refined products petroleum pipeline were observed along Loyola Lane as well as the western and northern borders of Tract B.

Existing land use bordering the Property was observed as follows:

NORTH: Railroad tracks and vacant rangeland with scattered single-family residences
SOUTH: Loyola Lane with rangeland, single-family residential, and commercial development beyond
EAST: Single-family residential with Decker Lane and commercial development beyond
WEST: Vacant rangeland, Colony Loop Drive, and Colony Park single-family residential development

CORPORATE HEADQUARTERS
1507 South IH 35 ★ Austin, Texas 78741 ★ 512.328.2430 ★ Fax 512.328.1804 ★ www.horizon-esi.com
Certified WBE/DBE/HUB

Loyola Lane borders the Property to the south. Separate portions of Colony Loop Drive abut the Property to the east and west; they are proposed to connect via an extension that will run adjacent to the southern boundary of Tract B and the southwestern boundary of Tract C, as indicated on the plat map attached in Appendix A. Horizon reviewed City of Austin GIS data sets and transportation files and verified that the proposed connection of Colony Loop Drive has been documented and mapped in this location.

2.2 VEGETATION

The Property is situated within the Blackland Prairie vegetational area of Texas (Gould, 1975). Typical vegetation observed within upland areas of the Property include: little bluestem (*Schizachyrium scoparium*), sideoats grama (*Bouteloua curtipendula*), Texas grama (*Bouteloua rigidiseta*), plateau live oak (*Quercus fusiformes*), Ashe juniper (*Juniperus ashei*), and honey mesquite (*Prospois glandulosa*). The dominant wetland plant species observed within drainage areas on the Property was bushy bluestem (*Andropogon glomeratus*). Horizon also observed the presence of small spikerush (*Eleocharis parvula*) and broad-leaf cattail (*Typha latifolia*) in isolated areas of the defined drainages.

2.3 TOPOGRAPHY AND SURFACE WATER

The Property is mapped on the US Geological Survey (USGS) Austin East and Manor, Texas, topographic quadrangles (USGS, 1988). Topography on the Property is sloping in a north-to-south direction toward tributaries of Walnut and Elm creeks. Surface elevation ranges from approximately 500 to 610 feet above mean sea level. The Property is in the Suburban Zone of the Walnut, Decker, and Elm Creek watersheds (COA, 1998), with surface water flow from north-to-south over most of the Property, typically by defined drainage features and gullies located on the Property and overland sheet flow toward tributaries of Walnut and Elm creeks. A very small portion of the Property (southwestern corner of Tract B) lies within the Federal Emergency Management Agency (FEMA) 100-year floodplain boundaries (FEMA, 1993).

A review of the National Wetland Inventory (NWI) maps showed 2 potential wetland areas on the Property (USFWS, 1993). One of the areas indicated on the NWI map corresponds with wetland vegetation (described in Section 2.2 above) observed in the southwestern corner of the Property. A wetland area mapped along the southeastern boundary of the Property was not observed during the site reconnaissance; it has likely been filled in and no longer exists.

2.4 SOILS

Mapped soils on the Property include the following:

SOIL NAME	SOIL TYPE	SOIL DEPTH (FEET)	UNDERLYING MATERIAL	PERMEABILITY	AVAILABLE WATER CAPACITY	SHRINK-SWELL CAPACITY
Burleson clay, 1 to 3% slopes (BsB)	clay, silty clay	0.5 to 5.0	silty clay	very slow	high	high
Ferris-Heiden complex, 8 to 20% slopes (FhF3)	clay, silty clay	0.5 to 4.0	yellow silty clay	very slow	high	high
Heiden clay, 3 to 5% slopes eroded (HeC2)	clay	0 to 1.0	mottled yellow silty clay	very slow	high	high
Heiden gravelly clay, 8 to 20% slopes, eroded (HgF2)	gravelly clay	0 to 4.0	silty clay, chert gravel	very slow	high	high
Houston Black clay, 0 to 1% slopes (HnA)	clay	0 to 7.0	mottled clay	very slow	high	high
Houston Black clay, 1 to 3% slopes (HnB)	clay	0 to 7.0	mottled clay	very slow	high	high
Houston Black gravelly clay, 2 to 8% slopes, eroded (HoD2)	gravelly clay	0 to 6.9	mottled clay	very slow	high	high
Trinity clay, frequently flooded (Tw)	clay	0 to 7.0	silty clay	slow	high	high

Source: NRCS, 2008a and 2008b

2.5 EDWARDS AQUIFER ZONE

The Property is not found within the Edwards Aquifer Recharge, Transition, or Contributing Zones (COA, 1998; TCEQ, 1996).

2.6 GEOLOGY

The Property is underlain by the following geologic units:

GEOLOGIC UNIT	DESCRIPTION
Navarro Group (Kemp Clay, Corsicana Marl, and Neylandville formations) and Marlbrook Marl	Upper part: clay, calcareous, locally silty, massive, thinly laminated, conchoidal fracture, medium-dark gray that weathers medium gray; lower part: clay, dominantly montmorillonitic, silt-size quartz becomes more abundant upward, calcite fragments common, glauconic, disseminated pyrite, blocky with conchoidal fracture, strikingly uniform throughout, light medium gray, weathers light brown to light gray and becomes slightly fissile; thickness approximately 600 feet.

GEOLOGIC UNIT	DESCRIPTION
Pecan Gap Chalk	Chalk in lower part grading upward to chalky marl with microgranular calcite in clay matrix, well-rounded quartz grains in lower part, medium gray, weathers light gray and white; thickness approximately 200 feet, grades laterally in places to marl.
Ozan Formation	Clay, marly, calcareous content decreases upward, montmorillonitic, some glauconite, phosphate pellets, and hematite and pyrite nodules, variable amount of silt-sized quartz and calcite fragments, become more abundant upward, blocky with conchoidal fracture, light gray to brown, weathers light gray to grayish orange and white, develops poor fissility; thickness approximately 600 feet.

Source: UT-BEG, 1981

2.7 WATER WELLS

A review of the records of the Texas Water Development Board (TWDB) revealed 1 documented water well within a 0.5-mile radius from the Property (TWDB, 2008). The well is mapped to the north of the Property and documented as having a depth of 12 feet. Horizon did not observe evidence of any water wells on the Property during the site reconnaissance. The results of this survey do not preclude the existence of undocumented/abandoned wells on the Property.

Should any on-site wells be revealed that are not intended for future use, they should be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation (TDLR), 16 Texas Administrative Code (TAC), Chapter 76. Texas Commission on Environmental Quality (TCEQ) publication RG-347, "Landowner's Guide to Plugging Abandoned Water Wells," provides specific guidance. If a well is intended for use, it must comply with 16 TAC §76.

3.0 CRITICAL ENVIRONMENTAL FEATURES

The City of Austin definition of a critical environmental feature (CEF) includes caves, sinkholes, springs, wetlands, bluffs, canyon rimrock, water wells within the Edwards Aquifer, and significant recharge features located over the Edwards Aquifer Recharge Zone.

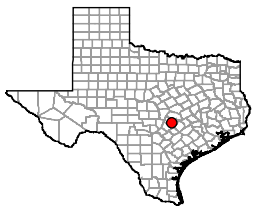
The Property had several drainage features; however, most appeared to be large gullies from heavy erosion of the soils on the Property. Horizon did observe 2 potential wetland CEFs. Both are mapped on Figure 1 and described on the CEF Worksheet in Appendix B, which also includes photographs of the features. The dominant wetland plant species observed within the CEFs was bushy bluestem (*Andropogon glomeratus*). Horizon also observed small spikerush (*Eleocharis parvula*) and broad-leaf cattail (*Typha latifolia*).

CEF W-1 was located within an on-site drainage on the east-central portion of the Property. The feature was approximately 340 feet long and 8 feet wide. CEF W-2 was observed downgradient of the gullies on the southern portion of the Property (Tract D). The

070200\GRAPHICS\070200A12cef.mxd | KAB | 03-04-2008

MAP SOURCE: CAPCOG, 2006.

0 500 1,000
Feet



Horizon Environmental Services, Inc.

FIGURE 1

POTENTIAL CRITICAL ENVIRONMENTAL FEATURES
COLONY PARK PROPERTY
TRACTS B, C, & D
AUSTIN, TRAVIS COUNTY, TEXAS

feature was approximately 165 feet wide and 300 feet long. Feature W-2 appears to be a historic stock tank that is no longer functional as an impoundment, as no standing water was present. Additionally, all wetland vegetation appeared dead and no evidence of new growth from the previous growing season was observed. It is Horizon's opinion that significant changes to the hydrology of the area have occurred as a result of development in the area, and it is unlikely that feature W-2 will continue to function as an herbaceous wetland. However, COA watershed protection personnel would need to confirm this opinion.

No other potential CEFs as defined by the City of Austin were found on or within 150 feet from the Property.

For Horizon Environmental Services, Inc.

Michelle Dorsey
Environmental Specialist

7 March 2008
Date

4.0 REFERENCES

(CAPCOG) Capital Area Council of Governments. 2006 Orthoimagery, Austin East and Manor, Texas, quarter quadrangles. CAPCOG Center for Regional Development, Austin, Texas. 2006.

(COA) City of Austin. *Austin Watershed Regulation Areas.* Austin, Texas: City of Austin, Department of Planning and Development. 30 January 1998.

(FEMA) Federal Emergency Management Agency. Flood Insurance Rate Map (FIRM) Panel No. 48453C0125E, Travis County, Texas. 16 June 1993.

Garner, L.E., and K.P. Young. *Environmental Geology of the Austin Area: An Aid to Urban Planning*. Report of Investigations 86. The University of Texas at Austin, Bureau of Economic Geology. 1976.

Gould, F.W. *Texas Plants – A Checklist and Ecological Summary*. College Station: Texas A&M University. 1975.

(NRCS) US Department of Agriculture, Natural Resources Conservation Service. 2008a. Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed 29 January 2008.

_____. 2008b. Soil Data Mart, <http://soildatamart.nrcs.usda.gov/>. Accessed 29 January 2008.

(TCEQ) Texas Commission on Environmental Quality. Edwards Aquifer Recharge Zone Boundary Maps. 1996.

(TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database (ArcIMS), <http://wiid.twdb.state.tx.us/ims/wwm_drl/viewer.htm?DISCL=1&>. Accessed 29 January 2008.

(USFWS) US Department of the Interior, Fish and Wildlife Service. National Wetland Inventory Map, Austin East and Manor Quadrangles, Texas. 1993.

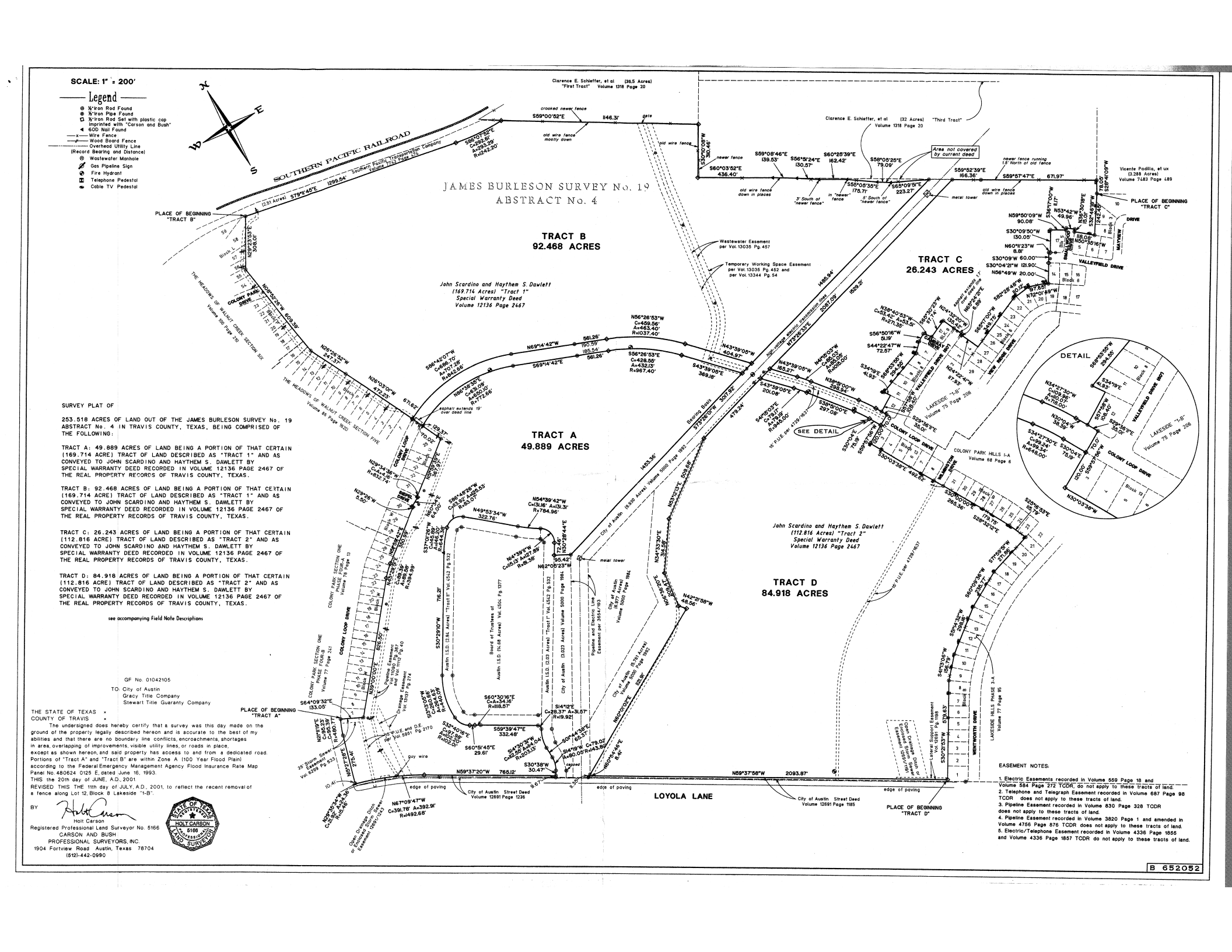
(USGS) US Geological Survey. 7.5-minute series topographic maps, Austin East and Manor, Texas, quadrangles. 1988.

(UT-BEG) University of Texas Bureau of Economic Geology, Proctor, C.V., Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; revised 1981.

Horizon™
Environmental Services, Inc.

APPENDIX A

SURVEY PLAT



SURVEY PLAT OF

253.518 ACRES OF LAND OUT OF THE JAMES BURLESON SURVEY No. 19 ABSTRACT No. 4 IN TRAVIS COUNTY, TEXAS, BEING COMPRISED OF THE FOLLOWING:

TRACT A: 49.889 ACRES OF LAND BEING A PORTION OF THAT CERTAIN (169.714 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 1" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S. DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

TRACT B: 92.468 ACRES OF LAND BEING A PORTION OF THAT CERTAIN (169.714 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 1" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S. DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

TRACT C: 26.243 ACRES OF LAND BEING A PORTION OF THAT CERTAIN (112.816 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 2" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S. DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

TRACT D: 84.918 ACRES OF LAND BEING A PORTION OF THAT CERTAIN (112.816 ACRE) TRACT OF LAND DESCRIBED AS "TRACT 2" AND AS CONVEYED TO JOHN SCARDINO AND HAYTHEM S. DAWLETT BY SPECIAL WARRANTY DEED RECORDED IN VOLUME 12136 PAGE 2467 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

see accompanying Field Note Descriptions

GF No. 01042105

TO: City of Austin
Gracy Title Company
Stewart Title Guaranty Company

THE STATE OF TEXAS ×
COUNTY OF TRAVIS ×

The undersigned does hereby certify that a survey was this day made on the ground of the property legally described hereon and is accurate to the best of my abilities and that there are no boundary line conflicts, encroachments, shortages in area, overlapping of improvements, visible utility lines, or roads in place, except as shown hereon, and said property has access to and from a dedicated road. Portions of "Tract A" and "Tract B" are within Zone A (100 Year Flood Plain) according to the Federal Emergency Management Agency Flood Insurance Rate Map Panel No. 480624 0125 E, dated June 16, 1993.
THIS the 20th day of JUNE, A.D., 2001.
REVISED THIS THE 11th day of JULY, A.D., 2001, to reflect the recent removal of a fence along Lot 12, Block 8 Lakeside "1-B".

BY

Holt Carson
Registered Professional Land Surveyor No. 5166
CARSON AND BUSH
PROFESSIONAL SURVEYORS, INC.
1904 Fortview Road Austin, Texas 78704
(512)-442-0990

STATE OF TEXAS REGISTERED HOLT CARSON 5166 PROFESSIONAL LAND SURVEYOR

EASEMENT NOTES:

1. Electric Easements recorded in Volume 559 Page 18 and Volume 584 Page 272 TCDR, do not apply to these tracts of land.
2. Telephone and Telegraph Easement recorded in Volume 687 Page 98 TCDR does not apply to these tracts of land.
3. Pipeline Easement recorded in Volume 830 Page 328 TCDR does not apply to these tracts of land.
4. Pipeline Easement recorded in Volume 3820 Page 1 and amended in Volume 4756 Page 876 TCDR does not apply to these tracts of land.
5. Electric/Telephone Easement recorded in Volume 4336 Page 1856 and Volume 4336 Page 1857 TCDR do not apply to these tracts of land.

B 652052

Horizon™
Environmental Services, Inc.

APPENDIX B

WETLAND CEF WORKSHEET
AND
ON-SITE PHOTGRAPHS

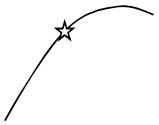
City of Austin Site Review Critical Environmental Feature Worksheet

1	Project Name:	Colony Park Tracts B, C and D	5	Primary Contact Name:	Mr. Danny Miller
2	Project Address:	Colony Loop and Valleyfield Drive Austin, Texas	6	Phone Number:	(512) 439-4700
3	Date:	3/4/2008	7	Prepared By:	Michelle Dorsey
4	Environmental Assessment Date:	2/6/2008	8	CEFS Located? {yes,no} :	YES

9	FEATURE TYPE {Wetland,Rimrock,Recharge Feature,Seep,Spring}	FEATURE ID (eg S-1)	FEATURE LONGITUDE (WGS 1984 in Meters)		FEATURE LATITUDE (WGS 1984 in Meters)		WETLAND DIMENSIONS (ft)		RIMROCK DIMENSIONS (ft)	
			coordinate	*notation*	*coordinate*	*notation*	X	Y	Length	Avg Height
	Wetland	W-1	97.630458 W	DD	30.299587 N	DD	340' L	8' W		
	Wetland	W-2	97.634120 W	DD	30.297009 N	DD	165'	300'		

City of Austin Use Only WPDRD CASE NUMBER:	

For rimrock, locate the midpoint of the segment that describes the feature.



For wetlands, locate the approximate centroid of the feature and the estimated area.

For a spring or seep, locate the source of groundwater that feeds a pool or stream.

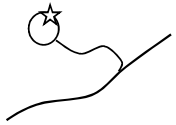


PHOTO 1

View of CEF W-1 located on the central portion of the Property

PHOTO 2

View of CEF W-2 located on the southern portion of the Property

Appendix D

TRANSPORTATION CRITERIA MANUAL TABLE 9-1

TABLE 9-1
PARKING LOT AND GARAGE CRITERIA

A	B	C	D		E	F	
Angle of Parking (degrees)	Width of Stall	Depth of Stall 90° to Aisle	Width of Aisle		Width of Stall Parallel to Aisle	Module Width	
			One Way	Two Way		One Way	Two Way
Standard Parking Spaces							
30	8'6"	16'	13'	--	17'	45'	--
30	9'	16'	12'	--	18'	44'	--
45	8'6"	17'	16'	--	12'	50'	--
45	9'	17'	14'	--	12'9"	48'	--
60	8'6"	18'6"	17'	--	9'10"	54'	--
60	9'	18'6"	16'	--	10'5"	53'	--
75	8'6"	18'6"	21'	--	8'10"	58'	--
75	9'	18'6"	18'	--	9'4"	55'	--
90	8'6"	17'6"	--	27'	8'6"	--	62'
90	9'	17'6"	--	25'	9'	--	60'
Compact Parking Spaces							
45	7'6"	15'11"	13'	18'	10'7"	45'	50'
60	7'6"	16'8"	18'	--	8'8"	52'	--
75	7'6"	16'5"	18'	--	7'10"	51'	--
90	7'6"	15'	--	18'	7'6"	--	48'
Parallel Parking Spaces							
0	8'6"	8'6" (Width)	12'6"	25'	22' (Length)	30'	42'

Appendix E

PRELIMINARY GEOTECHNICAL STUDY
(HVJ ASSOCIATES)

PRELIMINARY GEOTECHNICAL INVESTIGATION AND DESIGN RECOMMENDATION REPORT COLONY PARK DEVELOPMENT AUSTIN, TEXAS

DRAFT

SUBMITTED TO:
LJA ENGINEERING & SURVEYING, INC.

BY
HVJ ASSOCIATES, INC.
MARCH 11, 2008

REPORT NO AG 07 16360

HVJ ASSOCIATES

Houston
Austin
Dallas
San Antonio

4201 Freidrich Lane, Ste. 110
Austin, TX 78744-1045
512.447.9081 Ph
512.443.3442 Fax
www.hvj.com

March 11, 2008

Mr. Danny Miller, P.E.
LJA Engineering & Surveying, Inc.
5316 Highway 290 West, Suite 150
Austin, Texas 78735

Re: Preliminary Geotechnical Investigation – Colony Park Development
Owner: Austin Housing Finance Corporation
HVJ Project No. AG 07 16360

Dear Mr. Miller:

Submitted herein is the report of our preliminary geotechnical investigation and design recommendations for the above referenced project. This study was performed in accordance with our proposal number AG 07 16360 dated July 19, 2007.

It has been a pleasure to work for you on this project and we appreciate the opportunity to be of service. Please notify us if there are questions or if we may be of further assistance.

Sincerely,
HVJ ASSOCIATES, INC.

DRAFT

Jason Schwarz, P.E.
Project Manager

DRAFT

Yonghoon Lee, E.I.T.
Staff Engineer

Copies submitted: 2

The seal appearing on this document was authorized by Jason Schwarz, P.E. 99343 on March 11, 2008. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act.

TABLE OF CONTENTS

Page

ILLUSTRATIONS

APPENDICES

I EXECUTIVE SUMMARY

HVJ Associates, Inc. was retained by LJA Engineering & Surveying, Inc to perform a preliminary geotechnical investigation and design recommendations for the proposed development in Austin, Texas. The site is located on the northeast intersection of Loyola Lane and Colony Loop Drive. The project includes construction of single family homes along with associated structures such as detention ponds, roads, and foundations. This report includes the result from the preliminary geotechnical investigation and design recommendations for the proposed construction.

Twenty soil borings were drilled to approximately 20.0 ft below the existing ground surface to perform the subsurface investigation. A brief summary of the investigational findings and pertinent recommendations are as follows:

1. Based on the field investigation, the subsurface soils encountered in the borings generally consisted of fat clay overlying claystone to the boring termination depth. Laboratory test results indicated the subgrade soils have high expansive characteristics based on the range in soils types. The existing moisture contents indicate the soils are in a relatively dry state and the soil swelling will be moderate to high.
2. Groundwater was not encountered during drilling operations. However, it should be noted that groundwater elevation may fluctuate seasonally in response to rainfall and climate condition.
3. Preliminary design and construction recommendations for detention ponds, roads, and building foundation design parameters were provided. The recommendations should be considered general, not specific for the site since detailed plans for the structures were not available at the time of this study.
4. The City of Austin pavement design program, MFPS, was used for the preliminary designs for the required pavement cross sections. The resulting designs are summarized below:

Location	**Flexible Pavement Section**
Collector Street	4" Hot Mix Asphaltic Concrete (HMAC) 13" Crushed Limestone Base 8" Lime Stabilized Subgrade
Residential Roads	2" Hot Mix Asphaltic Concrete (HMAC) 10" Crushed Limestone Base

Please note that this executive summary does not fully relate HVJ's findings and opinions. These findings and opinions are only presented through the full report.

1. INTRODUCTION

1.1 General

HVJ Associates, Inc. was retained by LJA Engineering & Surveying, Inc to perform a preliminary geotechnical investigation for the proposed project in Austin, Texas. The site is located on the northeast intersection of Loyola Lane and Colony Loop Drive. The project includes construction of single family homes along with associated structures including detention ponds, road pavements, and foundations within approximately 202 acres of the Colony Park tract. The site location is shown in Vicinity Map on Plate 1.

This report includes geotechnical investigational findings, and recommendations for excavation, fill placement/compaction, the slope stability of detention ponds, pavement design, and foundation design.

1.2 Scope of Work

The primary objectives of this study were to gather information on subsurface conditions and to develop a preliminary design and construction recommendations for the proposed structures. The objectives were accomplished by:

1. Drilling soil borings to determine the subsurface stratigraphy and to obtain samples for laboratory testing;

2. Performing laboratory tests to determine physical and engineering characteristics of the soils; and

3. Performing engineering analyses to develop design recommendations for the structures.

The scope of work only includes preliminary geotechnical investigation related to the proposed structures as described above. At the time of the investigation, the exact locations of detention ponds, roads, and buildings were not known. Therefore, general recommendations are provided in this report.

Subsequent sections of this report contain descriptions of the subsurface exploration, laboratory-testing program, general site and subsurface conditions, and design and construction recommendations for the structures.

2. SUBSURFACE EXPLORATION

2.1 General

The field exploration program for the project was conducted on February 25th through 27th, 2008. Twenty soil borings were drilled to the termination depth of 20.0 feet below existing grade. Drilling was performed with truck-mounted equipment using dry auger techniques at the approximate locations shown in Plan of Borings on Plate 3. The boring logs are presented on Plates 4 through 23. Key to terms and symbols are shown on Plates 24A and 24B.

2.2 Sampling Methods

Cohesive soils were sampled by pushing with a three-inch, thin-walled (Shelby) tube sampler in general accordance with ASTM D1587 standard.

Each sample was removed from the sampler in the field, carefully examined, and then classified and sealed in plastic bags for further testing in HVJ's laboratory.

2.3 Borehole Completion

All project borings were backfilled with bentonite chips upon completion of drilling.

2.4 Groundwater Observation

Groundwater observations were performed during drilling operations.

3. LABORATORY TESTING

Select soil samples were tested in the laboratory to determine physical and engineering properties applicable to the project. All tests were performed in accordance with ASTM procedures.

Index property tests including moisture contents, Atterberg limits and percent passing No. 200 sieve were assigned to verify field classification of the cohesive soils by the Unified Soils Classification System. Unconfined compression strength tests were performed to estimate shear strength of select soil samples. The laboratory test results are presented on the boring logs and included in Plates 4 through 23. Also, the laboratory test results summary is presented in Appendix A.

Laboratory test results indicated the subgrade soils have generally high expansive characteristics based on the range in soils types. The existing moisture contents indicate the soils are in a relatively dry state and the soil swelling will be moderate to high.

4. SITE CHRACTERIZATION

4.1 General Geology

According to the Geologic Atlas of Texas, Austin Sheet (University of Texas Bureau of Economic Geology, 1974) and Environmental Geology of the Austin Area: An Aid to Urban Planning (University of Texas Bureau of Economic Geology, 1976), the proposed alignments are located on Alluvium and Taylor Group.

The alluvium is floodplain deposits consisting of brown sands, gravels, silts, and clays near creeks or low lying areas. The silt and clay are calcareous to the surface, dark gray to dark brown. The sand is largely quartz and the gravels are siliceous, mostly chert, quartzite, limestone, and petrified wood.

The Taylor Group has been divided into three formations, based on Keith Young (1965), from bottom to top: Sprinkle, Pecan Gap, and Bergstrom. The formations consist of calcareous, montmorillonitic, highly overconsolidated clay, marly clay, and clay shale varying in color and calcium carbonate content. It is highly plastic, with high swelling potential, and very unstable. When left exposed to the air, it will slake. Thickness of the Taylor Group ranges from approximately 50 feet thick in the area of southeast Austin to approximately 300 feet thick in the area of Walnut Creek.

Based on mapped fault locations, no fault exist within the project limit as shown in the Geology Map on Plate 2.

4.2 Soil Stratigraphy

Based on the field investigation, the subsurface soils encountered in the borings generally consisted of fat clay overlying claystone to the boring termination depth. Detailed descriptions of the materials encountered in the borings are given on the boring logs presented in Plates 4 through 23.

4.3 Groundwater

Groundwater was not encountered during drilling operations. Groundwater depths determined during drilling typically do not accurately reflect the true groundwater conditions, and therefore should be only considered as approximate. Also groundwater may fluctuate seasonally in response to rainfall and climatic conditions.

5. FOUNDATION RECOMMENDATIONS

5.1 General

Colony Park Development will involve construction of single family homes. Based on site characterization study, the subsurface of the site generally consists of fat clays, which have high potential of swelling or shrinking. In this section, engineering characteristics of swelling and shrinking soils are discussed, and relevant recommendations for foundation selections and design are provided.

5.2 Expansive Soil

One of the major design factors for lightly loaded structures in the Austin area is the shrinking and swelling potential of fine-grained soils. The shrink/swell movements can be estimated through the use of the Plasticity Index (PI). Generally, the higher the PI of a material, the greater the potential for soil movements during moisture changes.

Shrink-swell movement occurs in response to soil moisture content changes. Moisture changes occur beneath the slab due to seasonal changes in the relative amount of rainfall and evaporation potential. These variations cause cyclic changes in soil moisture. Also, fluctuation in soil moisture results from the construction of a slab-on-grade floor due to the presence of the slab/vapor barrier/grade beam system. The installation of the slab, vapor barrier, and grade beams reduces the natural moisture transfer from the subsurface beneath the building and generally causes the soil moisture content to increase in the soil beneath the building after construction. Another significant cause of soil moisture change is changes in vegetation, particularly trees, associated with landscaping. Landscape automatic sprinkler systems can also add moisture.

The shrink-swell movement may be assessed by estimating Potential Vertical Rise (PVR). The PVR represents the potential ability of a soil material at a specific density, moisture and loading condition to swell. PVR values were calculated by the TEX 124-E method for the upper 15 feet of soils at the site, using average condition and worst condition (dry state), respectively and summarized in the table below. The existing moisture content values at this site indicate that the soils are in a relatively dry state. It indicates the potential movement of the soils that may be realized if the soils are wetted up from a relatively dry condition. The PVR value is provided to demonstrate the relative severity of the swell potential of the clays at the site; however, we do not intend that the value be used directly as a design parameter. The actual amount of swell the buildings may experience depends on many variables, such as the time of construction or construction methods, which are not known at the time of this study.

Boring #	PVR at average condition (inch)	PVR at dry condition (inches)	PVR at dry condition (inches) with removal and replacement*
B-1	4.38	6.38	0.83
B-2	3.64	5.41	0.78
B-3	5.49	7.36	0.89
B-4	3.97	5.92	0.81
B-5	4.94	6.88	0.86
B-6	3.53	5.23	0.77
B-7	4.94	6.88	0.86
B-8	3.97	5.92	0.81
B-9	4.52	6.52	0.84
B-10	3.74	5.59	0.79
B-11	4.66	6.64	0.85
B-12	4.25	6.23	0.82
B-13	3.64	5.41	0.78
B-14	6.18	7.95	0.93
B-15	4.94	6.88	0.86
B-16	7.16	8.49	0.96
B-17	4.25	6.23	0.82
B-18	4.52	6.52	0.84
B-19	5.07	7.01	0.87
B-20	4.38	6.38	0.83
Average	4.61	6.49	0.84

* Removal and replacement of 14-foot thick natural soils with fill materials of which a liquid limit is 35% and a plasticity index is 15%.

5.3 Building Foundation Selection

Foundations for the structure must satisfy two basic design criteria. First, the bearing pressure transmitted to the foundation soils should not exceed the allowable bearing pressure computed with

an adequate factor of safety. Second, foundation movement due to soil volume change must be within desirable limits.

Based on the criteria above, slab on grade, spread footings, drilled shafts with under-reamed footings, and structural (suspended) floor slabs, are recommended as described below.

5.4 Stiffened Beam and Slab Foundation

Based on our geotechnical investigation, the project site generally consists of highly expansive clays up to the boring termination depth of 20.0 feet. The proposed houses are lightly loaded structures and can be supported by a stiffened beam and slab foundation. A stiffened beam and slab foundation is a slab-on-grade constructed of select fill material, wherein the slab is designed to transfer structural loads to the bearing stratum, and resist differential soil movements.

Beams criss-crossing the interior and around the perimeter provide the stiffening to create a rigid system which may resist the structural loads as well as the external forces generated by the expansive clay soils. A properly designed slab will distribute the loads of the building over a large area and will provide low contact stresses and a large factor of safety against shear failure. All grade beams and floor slabs should be adequately reinforced to minimize cracking as normal movements occur in the foundation soils. A moisture barrier of polyethylene sheeting or similar material should be placed between the slab and the subgrade soils to retard moisture migration through the slab. The structural engineer must determine the beam depth, spacing, and reinforcement based on the slab configuration, anticipated structural loading, and the allowable differential settlement.

The grade beams and stiffening beams founded in the clay or select fill material may be sized as not to exceed a maximum pressure of 2,500 pounds per square foot.

5.5 Spread Footing Foundations

As an alternative to the use of stiffened beam and slab foundations spread footings may be used. Spread footings can adequately support the loads of the lightly loaded structures. In general, it is recommended that the spread footings be founded on the stratum of gravelly sand, sand, and clayey sand below the fat clay. However, the recommended type of materials was not encountered, only fat clays. Consequently, it is recommended that fat clays be excavated and replaced with select fill to a proper depth, where the surcharge from the fill adequately prevents swelling, and the spread footings be founded on the select fill. The footings should be sized for an allowable bearing capacity of 4,000 pounds per square foot. The grade beams used in conjunction with spread footings are discussed in Section 5.7.

5.6 Drilled Pier Foundation Design

The proposed structures may use a drilled pier foundation with under-reamed piers and a suspended slab. Settlements will be negligible for a properly constructed drilled pier foundation. The drilled piers should have an under-reamed or belled end which shall be founded in the very stiff to hard clay at a minimum depth of 15 feet. This depth appears to be below the depth of significant moisture change and the effect of vertical movement in the upper soils will be reduced. The footings should be designed for an allowable net total load pressure of 9,000 pounds per square foot (psf).

If additional load carrying capacity is required, the piers can be designed for a combination of end-bearing and skin friction provided the total load is distributed equally between the two mechanisms. An allowable skin friction value of 300 pounds per square foot is recommended for sizing shafts in contact with the high plasticity clay. It is recommended that the upper 15.0 feet of the soil be non-contributing to the skin friction of the shaft.

Uplift forces will act on drilled shafts as the clay soils surrounding the shaft swell, creating tensile stresses in the concrete that must be resisted by the steel reinforcing structure. One method of estimating the potential uplift force on each of the piers uses the following equation.

$$U_p = 60{,}000d$$

where

U_p = uplift loads, lbs.

d = shaft diameter, ft.

This equation is based on the assumption that the clay soils within the upper 15 feet of the final ground surface contribute to uplift forces acting on the drilled piers. A 15 to 20 foot active zone is considered to be appropriate for naturally occurring seasonal changes in soil moisture content. Events such as ponding of water from inadequate drainage, excessive lawn irrigation, and broken utility lines next to the foundation may effectively increase the active zone depth and result in unanticipated uplift forces and movements.

Each shaft should be provided with sufficient vertical steel reinforcement extending from the top to within six inches of the bottom of the piers to resist tension stresses created by swelling soil uplift. This recommendation should not preclude the use of additional reinforcement for lateral load considerations or axial compression or minimal reinforcement required by codes.

5.7 Grade Beams

Due to the highly expansive clays at this site, the grade beams used in conjunction with spread footings and drilled piers should be protected from the expansive clay soils. A minimum void space of eight inches should be maintained between the grade beam and the soils. Commercially available cardboard void boxes should be sufficient to create the required void. This void space allows movement of the soils below the grade beams without distressing the structural system.

We recommend that exterior grade beams should be at least 24 inches deep, and that interior beams should be at least 18 inches deep. The purpose of the grade beam is to both stiffen the floor slab and to transmit the structural loads to the drilled shaft foundation system bearing on volumetrically stable soils. However, in the absence of special measures such as void boxes, the grade beams will be subjected to shrink-swell loads from the soil beneath the grade beams.

5.8 Floor Slabs – Drilled Pier

The clay soils at the proposed locations of buildings are considered to have a high potential for volume change with changes in moisture content. The best means of eliminating these yearly cyclic floor movements is to use a suspended floor system, in which the floor slabs are structurally suspended and isolated from the expansive subgrade with a minimum of eight inches of void.

5.9 Drilled Footing Construction Considerations.

Pier excavations should be checked for size and to see that the proper penetration into competent soil stratum is obtained and that the foundation surface is free of loose material. Accurate records of the foundation depths and size should be obtained during the construction operations. Foundation concrete should be placed as soon as practical in the same work day after completion of the drilling operations in order to reduce the possibility of water leaks occurring through casings and to avoid the necessity for additional clean out operations.

Groundwater was not encountered in the borings during drilling operations. It should be noted that groundwater levels may vary due to rainfall and other seasonal changes. The contractor should be prepared to dewater the footing excavation to keep the hole clean and dry for this project if water is encountered during construction.

Drilled shaft construction and installation should follow ACI 336.1-89. A few specific recommendations follow.

1. Drilled shaft excavations should be inspected for verticality and side sloughing. Verticality is specified at one inch in ten feet of the shaft length, and should be checked to the full depth of dry augering prior to introducing drilling mud or fluids.

2. Before placing concrete, the pier bottom should be cleaned out with a drilling bucket in order to remove any sediments that may not be displaced by the concrete. The shaft bottoms should be cleaned with a "clean-out" bucket until rotation on the bottom without crowd (i.e. penetration under force) produces little spoil. Probing after clean-out is essential to verify the condition of the base of the shaft.

3. Concrete placement should be accomplished as directed in City of Austin Standard Specification Item 420. The tremie pipe diameter should be at least eight times as large as the largest concrete aggregate size.

4. A computation of the final concrete volume for each shaft should be made. Shafts taking an unreasonably high or low volume of concrete should be cored to check their integrity.

5. Shaft excavations should not be made within three shaft diameters (edge to edge) of shafts which have been concreted within the last 24 hours.

5.10 Drilled Pier Spacing

The spacing between centers of piers should be at least 3 times the bell diameter. The minimum clear spacing between any two under-ream bells should be at least one diameter of the size of the bell. If piers are placed closer, stress concentrations will occur beneath the piers that may exceed the allowable bearing capacity. If a spacing less than three diameters is planned, HVJ Associates, Inc. should be contacted to assess group capacity.

5.11 Building Settlement

With the indicated bearing pressures and loads, settlement is estimated to be less than one (1) inch at the following conditions.

1. An allowable bearing pressure of 2,500 psf for a stiffened beam and slab foundation.

2. The allowable bearing pressure of 4,000 psf is used with a minimum of 14-foot of natural fat clay removed and replaced with select fill material.

3. The drilled pier is founded in very stiff to hard clay at a minimum depth of 15 feet below existing grade and the allowable unit end bearing of 9,000 psf with under-reamed piers and a suspended slab.

Differential settlement will result from variances in subsurface conditions, loading conditions and construction procedures, such as cleanliness of the bearing area. Differential movement between adjacent columns is estimated to be approximately one-half of the total settlement.

5.12 Building Pad Preparation

- The building area should be stripped of all vegetation or other deleterious materials.
- If slab-on-grade is selected, remove at least fourteen feet of existing highly plastic clay material to a minimum of five feet beyond the edge of the building line and replace with select structural fill material.
- The top six inches of the exposed subgrade should be scarified and compacted to greater than 95 percent of the maximum dry density and at ±3 % of optimum as determined by TxDOT TEX-114-E compaction test
- The site should be proof rolled with heavy equipment to evidence any soft spots in the subgrade. The soft spots should be excavated to firm soil and the excavated soils replaced with select fill.

5.13 Select Structural Fill

Select fill should consist of a non-expansive, well graded soil with sufficient binder material for compaction purposes. Crushed limestone meeting the specifications of 1995 TxDOT Item 247, Type A, Grade 3 or better may be used, or alternatively, the following specification may be used as a guide:

Maximum Aggregate	3 inches
Percent Retained on #4 Sieve	25-50
Percent Retained on #40 Sieve	50-75
Plasticity Index	5-15
Non-Organic	

Select fill material should be compacted to a minimum of 95% of TEX-113-E maximum dry density near optimum moisture content. A maximum compacted lift thickness of six inches should be specified, with each lift tested for compliance prior to the addition of subsequent lifts.

5.14 Drainage Materials

Materials used for drainage purposes behind subsurface walls should consist of ASTM-C-33-82, Size 67 gravel aggregate. This material should be compacted to a minimum of 95% of TEX-113-E. Back-washing is not considered to be an acceptable method of backfilling and compacting.

5.15 Foundation Monitoring

We recommend that any fill placed beneath the structure be monitored to determine compliance with the plasticity and compaction requirements discussed above by an accredited construction materials testing laboratory. HVJ Associates would be pleased to provide this service.

It is recommended that each pier and/or beam excavation be monitored by the Project Engineer, Architect, or Owner's Representative prior to placing concrete. The excavation should be checked to verify that a) the piers and/or beams have been constructed to the specified dimensions at the correct depth and into appropriate stratum as recommended in this report, b) the piers and/or beams are concentric with pier shafts or columns, and c) the loose cuttings and any soft-compressible materials have been removed from the bottom of the excavation. Placement of concrete should be accomplished as soon as possible to reduce changes in the state of the stress and caving of the foundation soils. The contractor should not pour piers and/or beams without the prior acceptance by the Project Engineer, Architect, or Owner's Representative.

6. PAVEMENT DESIGN

6.1 General

The proposed project includes single family dwellings with a collector street and a majority of residential streets. The proposed traffic load is not yet defined, but due to the type of development and zoning, vehicular traffic will have a small component of truck traffic, mainly during construction of the housing. We estimate the truck traffic to be less than 5% throughout the life of the pavement. At the issuance of this report we do not have Average Daily Traffic (ADT) volumes per day. The following recommendations are based on typical collector streets, and residential streets we have recommended in swelling soils.

6.2 Pavement Sections

The predominant subgrade soil materials identified in the project borings are highly plastic, fat clay. The fat clay soil types are not recommended as a base directly under the wearing surface. These clays have potentially high to very high expansion characteristics and practically impervious drainage characteristics.

Since the soils investigation for the project site indicates more than two feet of expansive subgrade with Plasticity Indices greater than 25, additional measures are required to reduce the effect of swelling soils on pavement performance, as well as provide a working platform for construction equipment and a moisture barrier to aid in keeping water out of the base. It is recommended that the top eight inches of the finished subgrade be stabilized with hydrated lime for collector streets. The resulting pavement thickness designs for flexible and rigid pavement alternatives are summarized below:

Location	**Flexible Pavement Section**
Collector Street	4" Hot Mix Asphaltic Concrete (HMAC) 13" Crushed Limestone Base 8" Lime Stabilized Subgrade
Residential Roads	2" Hot Mix Asphaltic Concrete (HMAC) 10" Crushed Limestone Base

It is important that proper perimeter drainage be provided so that infiltration of subgrade water from unpaved areas surrounding the pavement is minimized, or if this is not possible, curbs should extend through base and into the subgrade. Extending the base layer beyond the pavement edge will also provide better edge support and reduce the potential for edge cracks.

6.3 Preparation of Subgrade

Subgrade preparation for the proposed pavement sections should consist of clearing, stripping, proof-rolling and lime stabilization. We recommend the following procedures for subgrade preparation:

1. Clear the proposed pavement area. Grubbing operations should be performed to remove root systems of any trees cleared within the limits of the proposed construction.

2. Strip the surface soil to suitable depths. Stripping should extend a minimum of two feet beyond the edge of the proposed pavement.

3. Surfaces exposed after stripping should be proof-rolled with heavy equipment, such as a loaded dump truck, to identify any underlying zones or pockets of soft soils and to remove such weak materials. If backfill is required, the fill material should meet the requirements as described earlier in this report in section 5.13.

4. Scarify the upper eight inches of exposed surface as required, mix with hydrated lime and compact it to 95 percent of maximum dry density as determined by Tex 114E at a moisture content near optimum. For estimation purposes, we recommend using eight percent hydrated lime (by dry weight). We recommend performing additional laboratory testing after subgrade has been prepared to estimate the final required lime. Lime treatment of the clay subgrade should be conducted in general accordance with City of Austin Standard Specifications Item 203.

7. SLOPE STABILITY

The majority of the project is underlain by the Taylor Group. The Taylor Group is comprised of highly-overconsolidated, upper Cretaceous marine clays. These clays and shale are characterized by a high shrink-swell capacity and a high Plasticity Index due to high montmorillite content. The weathered portions, i.e. the clay strata, exhibit downhill creep as a result of the stresses induced during repeated wetting and drying, even on slopes as flat as 11-degrees. The unweathered portion consists of a blue gray low to moderate hardness shale. When exposed, the shale will slake resulting in blocks of material sloughing off the exposed face.

The high swelling, highly plastic clays inherently present difficulties for design and construction. The contractor can expect changes in soil volume depending on drainage patterns that can adversely affect pavement, foundations, and slopes.

These clays generally have natural slopes no greater than 5:1 with residual angles of friction on the order of 11 degrees. Slopes any steeper usually exhibit downslope movements which can either be slow (creep) or fast (slumps or slides) depending on long term wetting and drying patterns.

8. DESIGN REVIEW AND LIMITATIONS

HVJ Associates, Inc. should review the design and construction plans and specifications prior to release to make certain that the pavement design criteria presented herein have been properly interpreted.

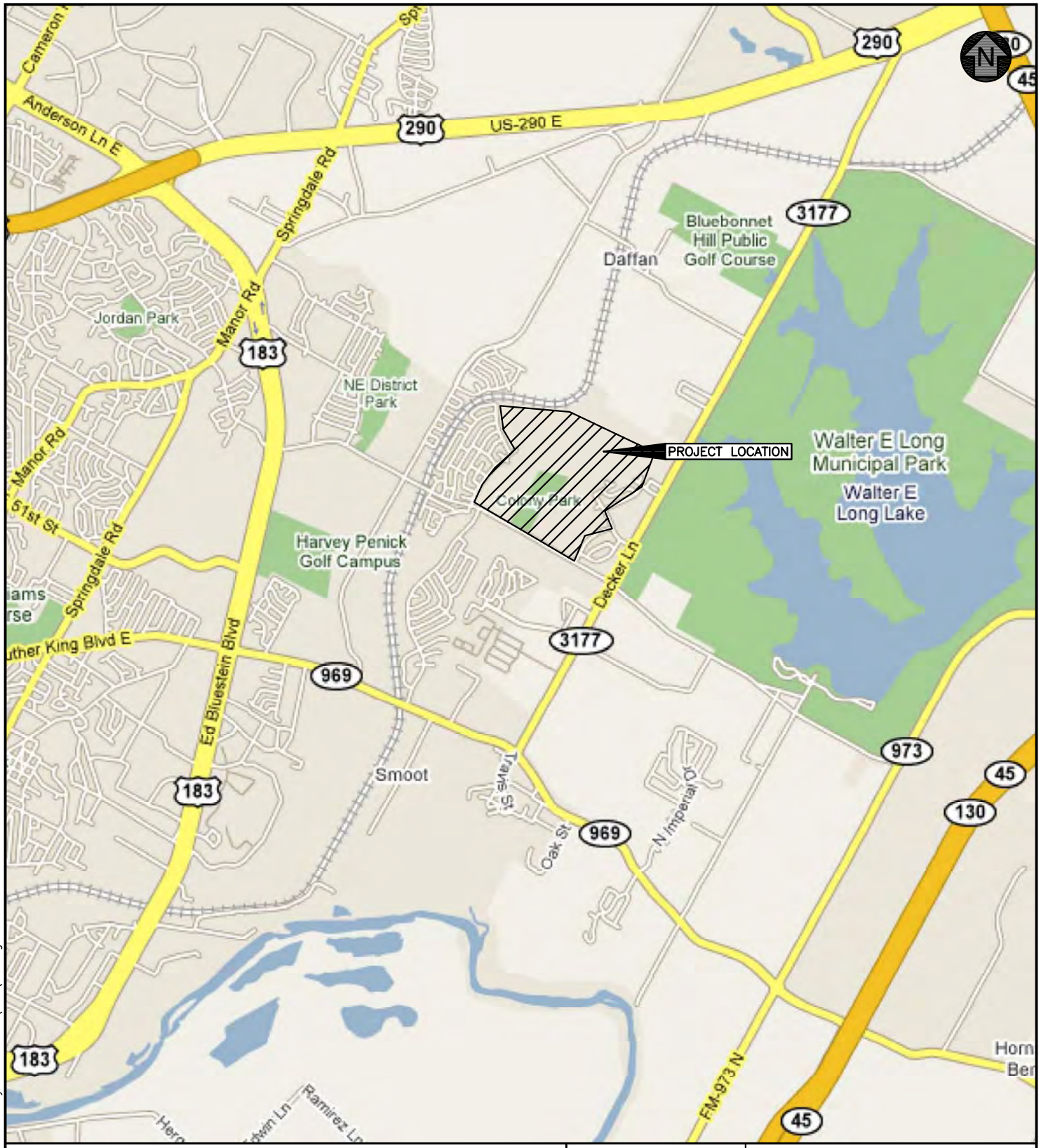
This study was performed for the exclusive use of LJA Engineering & Surveying for specific application to the Colony Park Development in Austin, Texas. HVJ Associates, Inc. has endeavored to comply with generally accepted geotechnical engineering practice common in the local area. HVJ Associates, Inc. makes no warranty, express or implied. The analyses and recommendations contained in this report are based on data obtained from subsurface exploration, laboratory testing, project information provided to HVJ Associates, Inc., and HVJ Associates, Inc.'s experience with similar soils and site conditions.

The methods used indicate subsurface conditions only at the specific location where the single sample was obtained, only at the time it was obtained, and only to the depth penetrated. The sample cannot be relied on to accurately reflect the strata variations that usually exist at locations other than the sampling location. Should any subsurface conditions other than those described in the boring

log be encountered, HVJ Associates, Inc. should be immediately notified so that further investigation and supplemental recommendations can be provided.

Subsurface conditions at the site can differ significantly from those encountered in the boring due to the natural variation of geologic conditions, which may not have been detected by the limited field boring program. In the event that any changes in the nature, design or location of the improvements are made, the conclusions and recommendations in this report should not be considered valid until the changes are reviewed and the conclusions and recommendations modified or verified in writing by HVJ Associates, Inc.

PLATES



TEXAS

MAP LOCATION

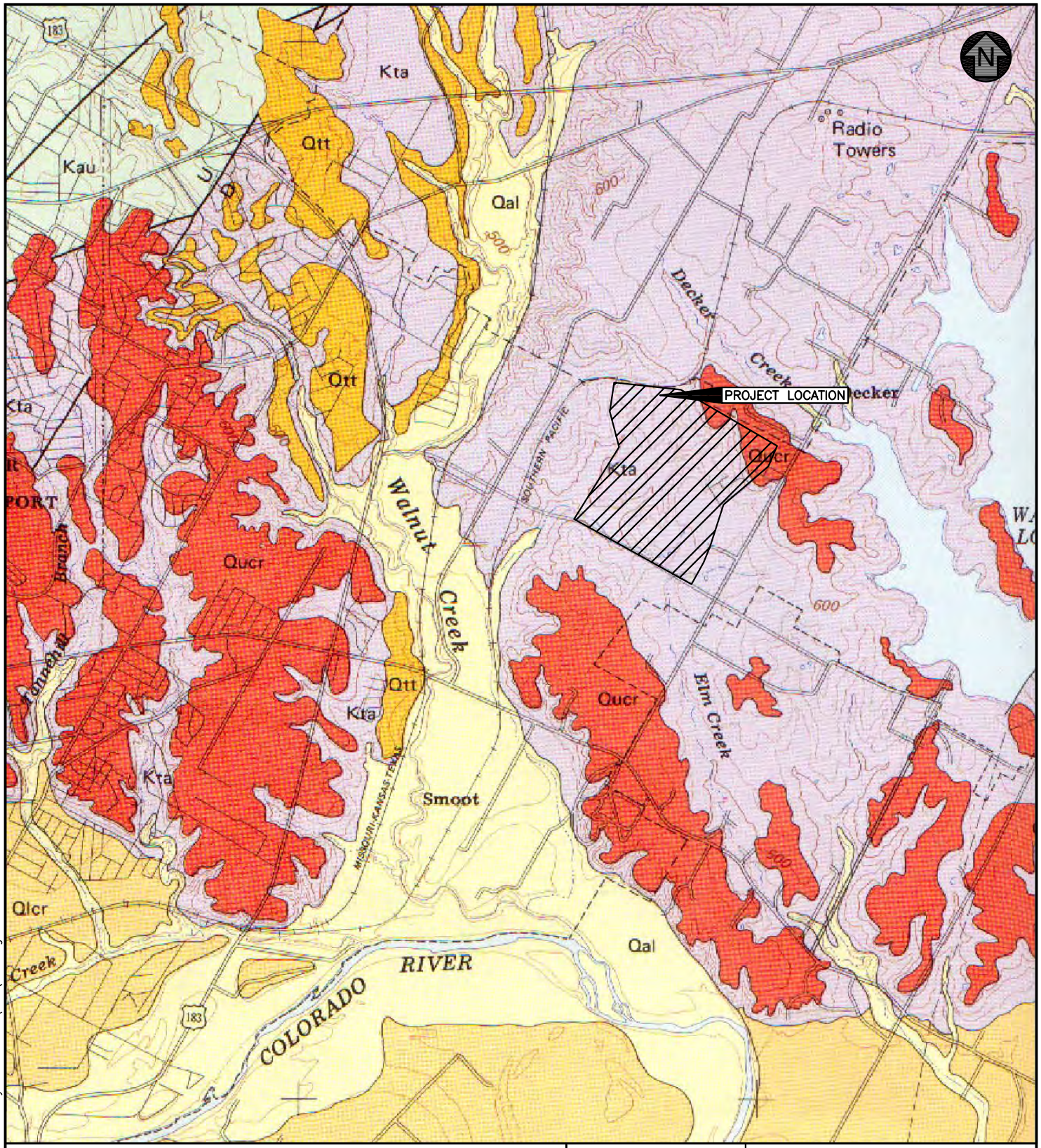
HVJ ASSOCIATES

SCALE: N.T.S		
DATE: 03/04/2008		
DRAWN BY: YL	PROJ. CHK: JS	APPRV. BY: JS

VICINITY MAP
COLONY PARK DEVELOPMENT
AUSTIN, TEXAS

PROJECT NO.: AG 07 16360	FILENAME: VIC	PLATE 1

DATE: 3/6/2008 8:55:40 AM
FILE: P:\GEO\Projects\2007\AG 07 16360 Colony Park - LJA\CAD\VIC.dwg



LEGEND

Qal	ALLUVIUM
Qlcr	LOWER COLORADO RIVER TERRACE DEPOSITS
Qucr	UPPER COLORADO RIVER TERRACE DEPOSITS
Qtt	TRIBUTARY TERRACE DEPOSITS
Kta	TAYLOR GROUP
Kau	AUSTIN GROUP

MAP LOCATION

HVJ ASSOCIATES

SCALE: N.T.S		
DATE: 03/04/2008		
DRAWN BY: YL	PROJ. CHK: JS	APPRV. BY: JS

GEOLOGY MAP
COLONY PARK DEVELOPMENT
AUSTIN, TEXAS

PROJECT NO.: AG 07 16360	FILENAME: GEO	PLATE 2

DATE: 3/6/2008 8:54:40 AM
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DATE: 3/6/2008 10:18:05 AM
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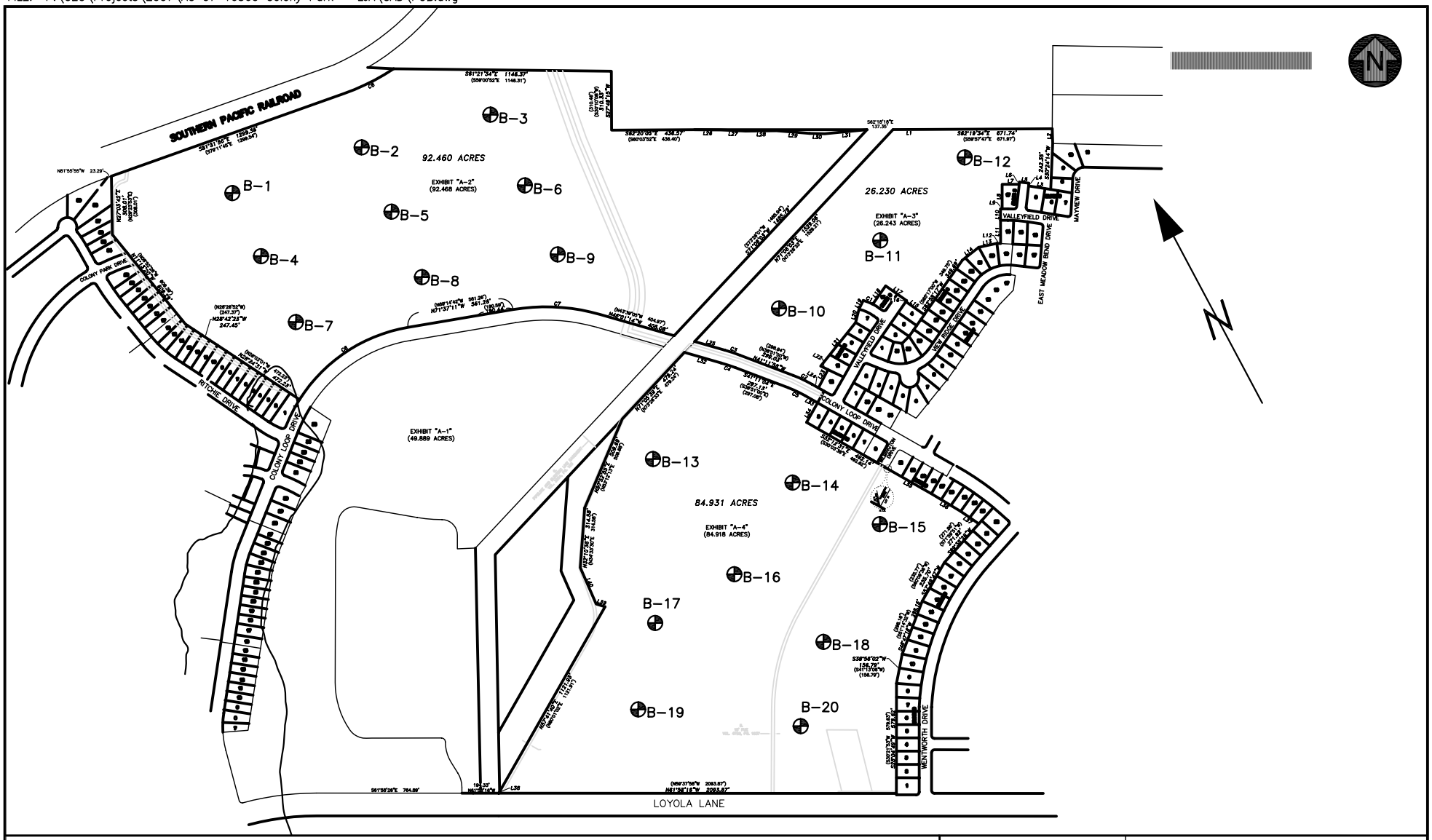


MAP LOCATION

HVJ ASSOCIATES

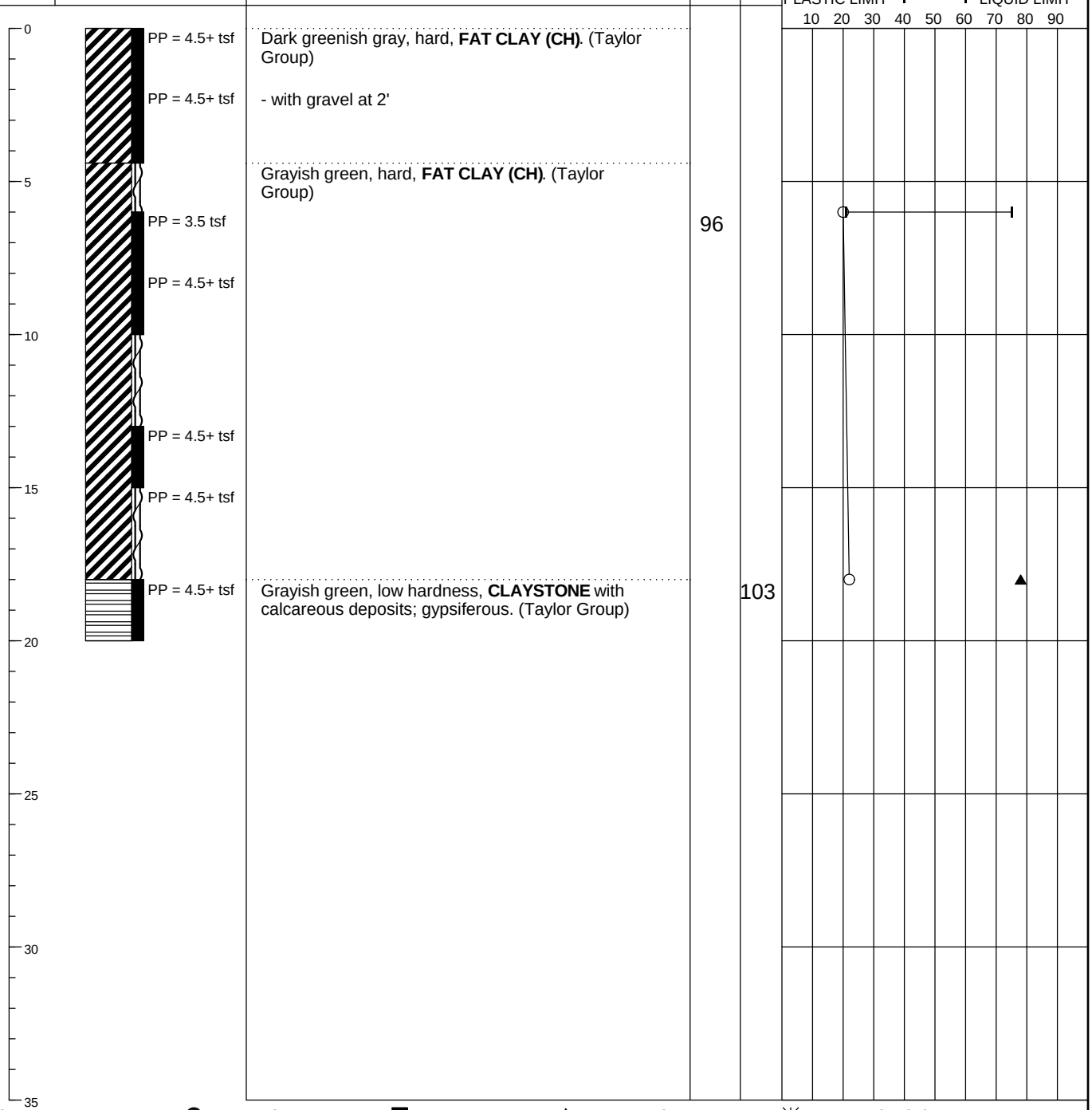
SCALE: N.T.S		
DATE: 03/06/2008		
DRAWN BY: YL	PROJ. CHK: JS	APPRV. BY: JS

PLAN OF BORINGS
COLONY PARK DEVELOPMENT
AUSTIN, TEXAS

PROJECT NO.: AG 07 16360	FILENAME: POB	PLATE 3

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-1
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --



Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 4

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-2
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 4.5+ tsf	Greenish gray, hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)	96	105
	PP = 4.5+ tsf			
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10	PP = 4.5+ tsf			
15	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 5

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-3
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.5 tsf	Greenish gray, stiff to hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)	99	103
	PP = 4.5+ tsf			
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
	PP = 4.0 tsf			
10				
	PP = 4.5+ tsf			
15				
	PP = 4.5+ tsf	Dark gray, hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)		
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90
3.1

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

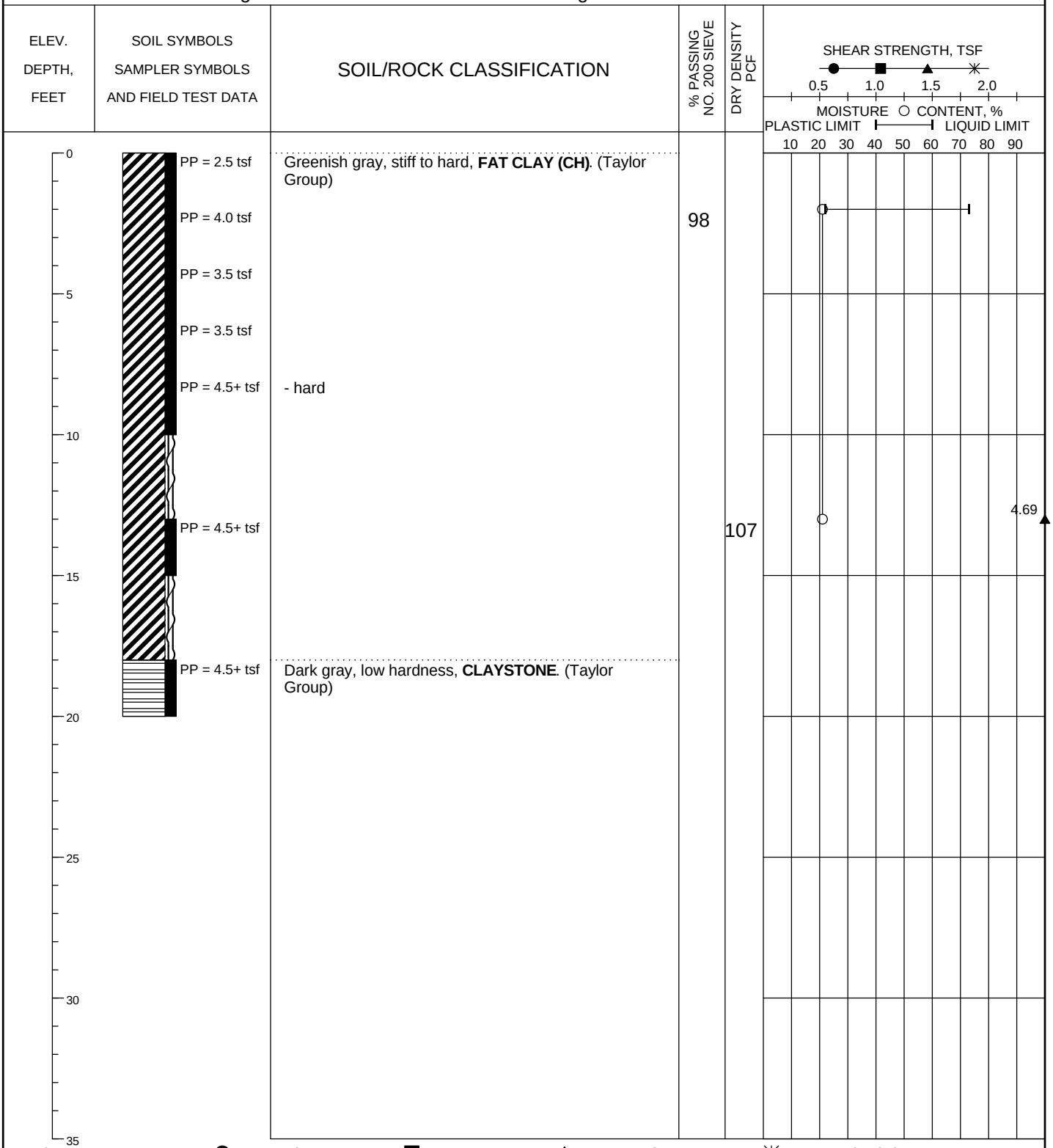
PLATE 6

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-4
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --



Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 7

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-5
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.0 tsf	Dark grayish brown, soft, **FAT CLAY (CH)** with gravel. (Alluvium)		
	PP = 4.0 tsf	Dark greenish gray, very stiff, **FAT CLAY (CH)**. (Taylor Group)	100	
5	PP = 4.5+ tsf	Greenish gray, hard, **FAT CLAY (CH)**. (Taylor Group)		
	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10				
	PP = 4.5+ tsf			104
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 8

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-6
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.5 tsf	Dark brown, soft, **FAT CLAY (CH)** with gravel. (Alluvium)		
	PP = 4.5+ tsf	Grayish green, very stiff to hard, **FAT CLAY (CH)** with calcareous deposits; gypsiferous. (Taylor Group)		
	PP = 4.5+ tsf		99	
5	PP = 4.0 tsf			
	PP = 4.5+ tsf			104
10				
	PP = 4.5+ tsf			
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

3.01

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 9

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-7
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 4.5+ tsf	Dark greenish gray, hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)	91	
	PP = 4.5+ tsf			
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf	Greenish gray, hard, **FAT CLAY (CH)**. (Taylor Group)		104
	PP = 4.5+ tsf			
10				
	PP = 4.5+ tsf	Dark gray, low hardness, **CLAYSTONE** with clay seams. (Taylor Group)		
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 10

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-8
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.5 tsf	Greenish gray, stiff, **FAT CLAY (CH)** with gravel. (Taylor Group)		
	PP = 4.5+ tsf	Greenish gray, hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)		
	PP = 4.5+ tsf			
5	PP = 4.5+ tsf		99	
	PP = 4.5+ tsf			
10	PP = 4.5+ tsf			106
15				
	PP = 4.5+ tsf	Greenish and dark gray, hard, **FAT CLAY (CH)**. (Taylor Group)		
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

3.86

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 11

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-9
Date: 2/26/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 2.0 tsf	Dark greenish gray, stiff to hard, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)		
	PP = 4.5+ tsf		99	
	PP = 4.5+ tsf	Greenish gray, hard, **FAT CLAY (CH)** with orangish brown silt layers throughout. (Taylor Group)		
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10	PP = 4.5+ tsf	- gypsiferous		104
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 12

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-10
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.0 tsf	Dark grayish brown, soft, **FAT CLAY (CH)**. (Alluvium)		
	PP = 2.0 tsf	- greenish gray		
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
	PP = 4.5+ tsf		98	
10				
	PP = 4.5+ tsf			106
15				
	PP = 4.5+ tsf	Dark gray, low hardness, **CLAYSTONE** with orange clay layers; gypsiferous. (Taylor Group)		
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

3.17

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 13

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-11
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.0 tsf	Dark grayish brown, soft, **SANDY FAT CLAY (CH)** with organics. (Alluvium)	71	
	PP = 1.0 tsf			
	PP = 4.5+ tsf	Dark grayish brown, stiff to hard,**FAT CLAY (CH)** with calcareous deposits. (Alluvium)		
5	PP = 2.0 tsf	Greenish gray, hard, **FAT CLAY (CH)** with orange clay layers; gypsiferous. (Taylor Group)		
	PP = 4.5+ tsf			101
10				
	PP = 4.5+ tsf			
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 14

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-12
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 2.5 tsf PP = 4.0 tsf PP = 4.5+ tsf PP = 4.5+ tsf PP = 4.5+ tsf PP = 4.5+ tsf	Greenish gray, stiff, **FAT CLAY (CH)** with calcareous deposits. (Taylor Group)	100	105
5				
10				
15				
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

2.76

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 15

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-13
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.0 tsf	Grayish green, soft to stiff, **FAT CLAY (CH)**. (Taylor Group)		
	PP = 2.0 tsf			
	PP = 4.5+ tsf	Grayish green, hard, **FAT CLAY (CH)** with calcareous deposits; gypsiferous. (Taylor Group)	98	
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10	PP = 4.5+ tsf	Orange and gray, low hardness, **CLAYSTONE**. (Taylor Group)		108
15	PP = 4.5+ tsf	Dark gray, low hardness, **CLAYSTONE**. (Taylor Group)		
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

4.65

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 16

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-14
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.0 tsf	Dark gray, soft, **FAT CLAY (CH)** with gravel. (Alluvium)		
	PP = 3.0 tsf	Grayish green, very stiff, **FAT CLAY (CH)** with orange clay layers; gypsiferous. (Taylor Group)	99	
5	PP = 4.0 tsf			
	PP = 3.0 tsf			
	PP = 4.0 tsf			
10				
	PP = 4.5+ tsf			121
15				
	PP = 4.5+ tsf	Dark gray, low hardness, **CLAYSTONE**. (Taylor Group)		
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 17

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-15
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.5 tsf	Dark grayish brown, soft to hard, **FAT CLAY (CH)** with gravel. (Alluvium)	87	125
	PP = 4.5+ tsf			
	PP = 4.5+ tsf	Grayish green, hard, **FAT CLAY (CH)** with calcareous deposits; gypsiferous. (Taylor Group)		
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10	PP = 4.5+ tsf			
15	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 18

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-16
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 1.5 tsf	Greenish gray, stiff, **FAT CLAY (CH)** with orange clay layers. (Taylor Group)	99	
	PP = 2.0 tsf			
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10				
	PP = 4.0 tsf	Grayish green, very stiff, **FAT CLAY (CH)** with calcareous deposits; gypsiferous. (Taylor Group)		97
15				
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90 4.5

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

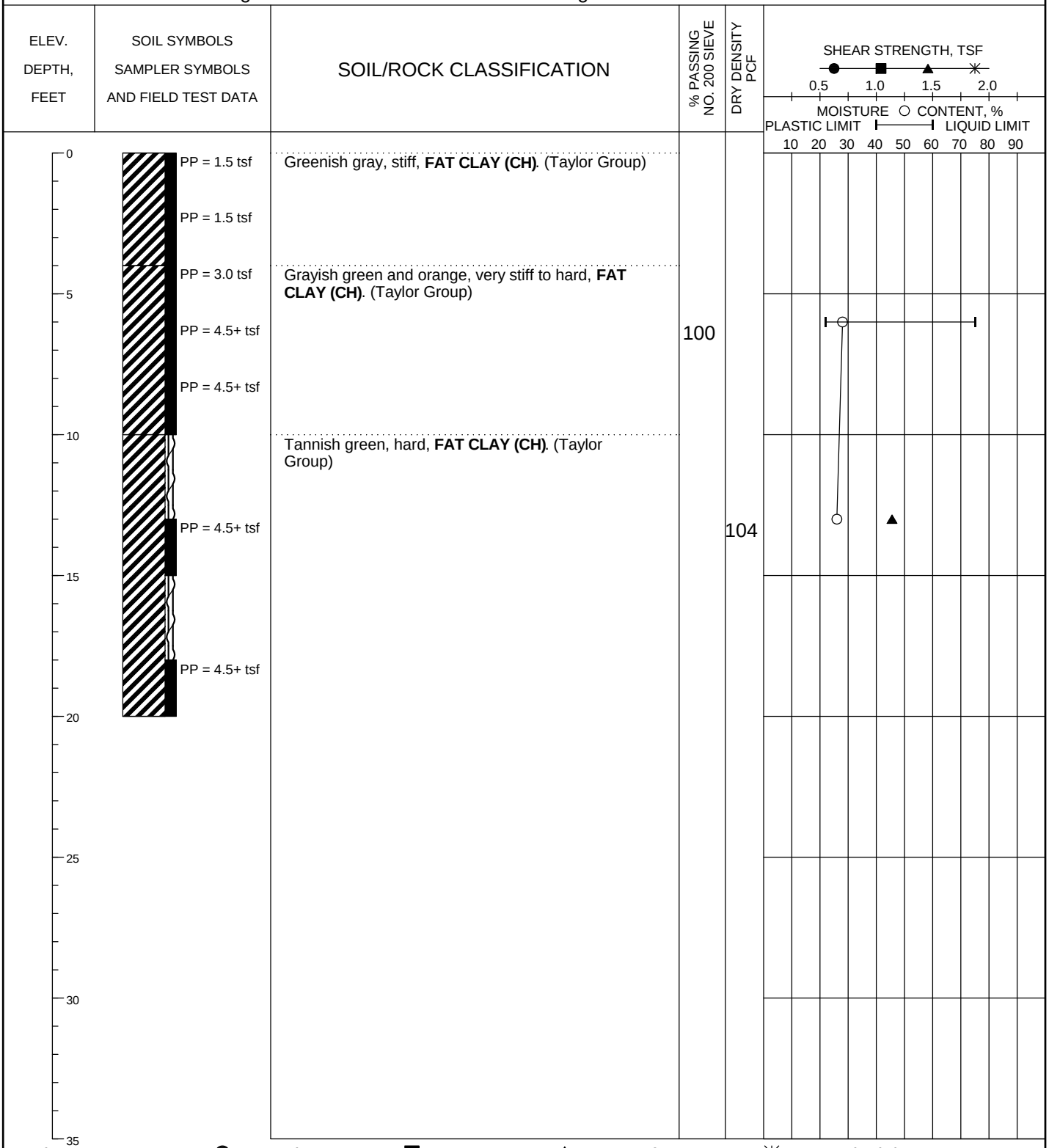
PLATE 19

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-17
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --



Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 20

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-18
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 2.5 tsf	Dark brown, stiff to hard, **FAT CLAY (CH)** with gravel. (Alluvium)		
	PP = 2.5 tsf			
5	PP = 2.0 tsf			
	PP = 2.0 tsf	Greenish gray, stiff, **FAT CLAY (CH)**; gypsiferous. (Taylor Group)	99	
	PP = 1.5 tsf	- with calcareous deposits		
10				
	PP = 4.5+ tsf	Grayish green, very stiff to hard, **FAT CLAY (CH)**. (Taylor Group)		95
15				
	PP = 4.0 tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT LIQUID LIMIT
10 20 30 40 50 60 70 80 90

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 21

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-19
Date: 2/27/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 4.5+ tsf	Dark greenish brown, hard, **FAT CLAY (CH)**. (Taylor Group)		
	PP = 4.5+ tsf	- with gravel		
	PP = 4.0 tsf	Greenish gray, very stiff to hard, **FAT CLAY (CH)**. (Taylor Group)	97	
5	PP = 4.5+ tsf			
		- reddish brown layers		
10				
	PP = 4.5+ tsf	- claystone layers from 13.2' to 13.7'		108
15				
	PP = 4.5+ tsf	- reddish brown silt layers with gypsum		
20		Dark gray, low hardness, **CLAYSTONE**. (Taylor Group)		
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

3.99

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 22

HVJ ASSOCIATES

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

LOG OF BORING

Project: Colony Park Development
Project No.: AG 07 16360
Boring No.: B-20
Date: 2/25/2008
Elevation:
Groundwater during drilling: ---
Northing: --
Station: --
Groundwater after drilling: ---
Easting: --
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0	PP = 3.0 tsf	Dark greenish gray, very stiff, **FAT CLAY (CH)** with gravel. (Alluvium)		
	PP = 3.0 tsf	Grayish and orangish green, very stiff, **FAT CLAY (CH)**. (Taylor Group)	99	
	PP = 3.0 tsf	Orangish green, very stiff to hard, **FAT CLAY (CH)**. (Taylor Group)		
5	PP = 4.5+ tsf			
	PP = 4.5+ tsf			
10		Tannish green, hard, **FAT CLAY (CH)**. (Taylor Group)		
	PP = 4.5+ tsf			104
15				
	PP = 4.5+ tsf			
20				
25				
30				
35				

SHEAR STRENGTH, TSF
0.5 1.0 1.5 2.0
MOISTURE ○ CONTENT, %
PLASTIC LIMIT — LIQUID LIMIT
10 20 30 40 50 60 70 80 90

2.65

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

See Plate 3 for boring location.

PLATE 23

LOG OF SOIL BORING AG 07 16360 COLONY PARK TRACT.GPJ HVJ.GDT 3/10/08

HVJ ASSOCIATES

SOIL SYMBOLS

Soil Types


Clay


Silt


Sand


Fill

Modifiers


Clayey


Silty


Sandy Clay


Cemented

Construction Materials


Asphaltic Concrete


Stabilized Base


Fill or Debris


Base

SAMPLER TYPES


Thin Walled Shelby Tube


No Recovery

Split Barrel


Auger


Liner Tube


Jar Sample

WATER LEVEL SYMBOLS

Groundwater level determined during drilling operations


Groundwater level after drilling in open borehole or piezometer

SOIL GRAIN SIZE

Classification	Particle Size	Particle Size or Sieve No. (U.S. Standard)
Clay	< 0.002 mm	< 0.002 mm
Silt	0.002 - 0.075 mm	0.002 mm - #200 sieve
Sand	0.075 - 4.75 mm	#200 sieve - #4 sieve
Gravel	4.75 - 75 mm	#4 sieve - 3 in.
Cobble	75 - 200 mm	3 in. - 8 in.
Boulder	> 200 mm	> 8 in.

DENSITY OF COHESIONLESS SOILS

Descriptive Term	Penetration Resistance "N" * Blows/Foot
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	> 50

CONSISTENCY OF COHESIVE SOILS

Consistency	Undrained Shear Strength (tsf)
Very Soft	0 - 0.125
Soft	0.125 - 0.25
Firm	0.25 - 0.5
Stiff	0.5 - 1.0
Very Stiff	1.0 - 2.0
Hard	> 2.0

PENETRATION RESISTANCE

3/6	Blows required to penetrate each of three consecutive 6-inch increments per ASTM D-1586 *
50/4"	If more than 50 blows are required, driving is discontinued and penetration at 50 blows is noted
0/18"	Sampler penetrated full depth under weight of drill rods and hammer

* The N value is taken as the blows required to penetrate the final 12 inches

TERMS DESCRIBING SOIL STRUCTURE

Slickensided	Fracture planes appear polished or glossy, sometimes striated
Fissured	Breaks along definite planes of fracture with little resistance to fracturing
Inclusion	Small pockets of different soils, such as small lenses of sand scattered through a mass of clay
Parting	Inclusion less than 1/4 inch thick extending through the sample
Seam	Inclusion 1/4 inch to 3 inches thick extending through the sample
Layer	Inclusion greater than 3 inches thick extending through the sample
Laminated	Soil sample composed of alternating partings of different soil type
Stratified	Soil sample composed of alternating seams or layers of different soil type
Intermixed	Soil sample composed of pockets of different soil type and laminated or stratified structure is not evident
Calcareous	Having appreciable quantities of calcium carbonate
Ferrous	Having appreciable quantities of iron
Nodule	A small mass of irregular shape

HVJ ASSOCIATES

PROJECT NO.: AG 07 16360

DRAWING NO.: PLATE 24A

KEY TO TERMS AND SYMBOLS USED ON BORING LOGS FOR SOIL

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ROCK TYPES


Limestone


Shale


Sandstone


Highly Weathered Limestone


Weathered Shale


Weathered Sandstone


Weathered Limestone


Dolomite


Granite

SAMPLER TYPES


Thin-Walled Tube


Rock Core


Standard Penetration Test


Auger


THD Cone Penetration Test


Bag Sample

SOLUTION AND VOID CONDITIONS

Void	Interstice; a general term for pore space or other openings in rock.
Cavities	Small solutional concavities.
Vuggy	Containing small cavities, usually lined with a mineral of different composition from that of the surrounding rock.
Vesicular	Containing numerous small, unlined cavities, formed by expansion of gas bubbles or steam during solidification of the rock.
Porous	Containing pores, interstices, or other openings which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large. Most frequent in limestones and dolomites.

HARDNESS

Friable	Crumbles under hand pressure
Low Hardness	Can be carved with a knife
Moderately Hard	Can be scratched easily with a knife
Very Hard	Cannot be scratched with a knife

WEATHERING GRADES OF ROCKMASS(1)

Slightly	Discoloration indicates weathering of rock material and discontinuity surfaces.
Moderately	Less than half of the rock material is decomposed or disintegrated to a soil.
Highly	More than half of the rock material is decomposed or disintegrated to a soil.
Completely	All rock material is decomposed and/or disintegrated into soil. The original mass structure is still largely intact.
Residual Soil	All rock material is converted to soil. The mass structure and material fabric are destroyed.

JOINT DESCRIPTION

SPACING		INCLINATION		SURFACES	
Very Close	<2"	Horizontal	0-5	Slickensided	Polished, grooved
Close	2"-12"	Shallow	5-35	Smooth	Planar
Medium Close	12"-3'	Moderate	35-65	Irregular	Undulating or granular
Wide	>3'	Steep	65-85	Rough	Jagged or pitted
		Vertical	85-90		

REFERENCES:

(1) British Standard (1981) Code of Practice for Site Investigation, BS 5930.

(2) The Bridge Div., Tx. Highway Dept. Foundation Exploration & Design Manual, 2nd Division, revised June, 1974.

BEDDING THICKNESS(2)

Very Thick	>4'
Thick	2'-4'
Thin	2"-2'
Very Thin	1/2"-2"
Laminated	0.08"-1/2"
Thinly Laminated	<0.08"

Information on each boring log is a compilation of subsurface conditions and soil and rock classifications obtained from the field as well as from laboratory testing of samples. Strata have been interpreted by commonly accepted procedures. The stratum lines on the logs may be transitional and approximate in nature. Water level measurements refer only to those observed at the times and places indicated, and may vary with time, geologic condition or construction activity.

HVJ ASSOCIATES

PROJECT NO.: AG 07 16360

DRAWING NO.: PLATE 24B

KEY TO TERMS AND SYMBOLS USED ON BORING LOGS FOR ROCK

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APPENDIX A

LABORATORY TEST RESULTS SUMMARY

LABORATORY TEST RESULTS SUMMARY
Project Name: Colony Park Development
Project Number: AG 07 16360

Boring No.	Depth (ft)	% Passing No. 200 Sieve	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Wet Unit Wt. (pcf)	Dry Unit Wt. (pcf)	Strength Test	Compressive Strength (tsf)	Hand Penetrometer Reading (tsf)
B-1										
	0.0-2.0									4.5+
	2.0-4.0									4.5+
	6.0-8.0	95.6	75	54	20.0					3.5
	8.0-10.0									4.5+
	13.0-15.0									4.5+
	18.0-20.0				22.1	125.4	102.7	UC Soil	3.9	4.5+
B-2										
	0.0-2.0									4.5+
	2.0-4.0	95.5	69	48	22.1					4.5+
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				21.8	127.5	104.7	UC Soil	3.7	4.5+
	18.0-20.0									4.5+
B-3										
	0.0-2.0									1.5
	2.0-4.0									4.5+
	4.0-6.0	98.5	86	62	28.9					4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.0
	13.0-15.0				25.0	128.8	103.1	UC Soil	6.2	4.5+
	18.0-20.0									4.5+
B-4										
	0.0-2.0									2.5
	2.0-4.0	98.0	73	51	21.0					4.0
	4.0-6.0									3.5
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				20.7	129.5	107.3	UC Soil	9.4	4.5+
	18.0-20.0									4.5+
B-5										
	0.0-2.0									1.0
	2.0-4.0	99.5	80	58	25.6					4.0
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	13.0-15.0				23.4	128.4	104.1	UC Soil	2.5	4.5+
	18.0-20.0									4.5+
B-6										
	0.0-2.0									1.5
	2.0-4.0									4.5+
	4.0-6.0	98.7	67	47	24.0					4.5+
	6.0-8.0									4.0
	8.0-10.0				23.8	128.2	103.6	UC Soil	6.0	4.5+
	13.0-15.0									4.5+
	18.0-20.0									4.5+

LABORATORY TEST RESULTS SUMMARY
Project Name: Colony Park Development
Project Number: AG 07 16360

Boring No.	Depth (ft)	% Passing No. 200 Sieve	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Wet Unit Wt. (pcf)	Dry Unit Wt. (pcf)	Strength Test	Compressive Strength (tsf)	Hand Penetrometer Reading (tsf)
B-7										
	0.0-2.0									4.5+
	2.0-4.0									4.5+
	4.0-6.0	91.4	82	58	25.2					4.5+
	6.0-8.0									4.5+
	8.0-10.0				20.8	125.8	104.1	UC Soil	3.1	
	13.0-15.0									4.5+
	18.0-20.0									4.5+
B-8										
	0.0-2.0									1.5
	2.0-4.0									4.5+
	4.0-6.0									4.5+
	6.0-8.0	98.5	72	51	21.7					4.5+
	8.0-10.0									4.5+
	13.0-15.0				21.4	129.0	106.3	UC Soil	7.7	4.5+
	18.0-20.0									4.5+
B-9										
	0.0-2.0									2.0
	2.0-4.0	98.9	75	55	23.7					4.5+
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				22.7	127.9	104.3	UC Soil	4.8	4.5+
	18.0-20.0									4.5+
B-10										
	0.0-2.0									1.0
	2.0-4.0									2.0
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	8.0-10.0	97.8	70	49	25.4					4.5+
	13.0-15.0				22.8	130.7	106.4	UC Soil	6.3	4.5+
	18.0-20.0									4.5+
B-11										
	0.0-2.0									1.0
	2.0-4.0	71.3	83	56	31.4					1.0
	4.0-6.0									4.5+
	6.0-8.0									2.0
	8.0-10.0				25.5	126.8	101.0	UC Soil	4.9	4.5+
	13.0-15.0									4.5+
	18.0-20.0									4.5+
B-12										
	0.0-2.0									2.5
	2.0-4.0	99.5	75	53	25.5					4.0
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				25.0	131.1	104.9	UC Soil	5.5	4.5+
B-13										
	0.0-2.0									1.0
	2.0-4.0									2.0
	4.0-6.0	98.1	69	48	26.0					4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				21.5	131.0	107.8	UC Soil	9.3	4.5+
	18.0-20.0									4.5+

LABORATORY TEST RESULTS SUMMARY
Project Name: Colony Park Development
Project Number: AG 07 16360

Boring No.	Depth (ft)	% Passing No. 200 Sieve	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Wet Unit Wt. (pcf)	Dry Unit Wt. (pcf)	Strength Test	Compressive Strength (tsf)	Hand Penetrometer Reading (tsf)
B-14										
	0.0-2.0									1.0
	2.0-4.0	99.3	97	68	35.8					3.5
	4.0-6.0									4.0
	6.0-8.0									3.0
	8.0-10.0									4.0
	13.0-15.0				27.0	153.7	121.1	UC Soil	4.2	4.5+
	18.0-20.0									4.5+
B-15										
	0.0-2.0									1.5
	2.0-4.0	86.7	83	58	23.6					4.5+
	4.0-6.0									4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				25.4	156.3	124.7	UC Soil	2.1	4.5+
	18.0-20.0									4.5+
B-16										
	0.0-2.0									1.5
	2.0-4.0									2.0
	4.0-6.0	98.7	96	76	30.0					4.5+
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				28.7	124.6	96.9	UC Soil	3.3	4.0
B-17										
	0.0-2.0									1.5
	2.0-4.0									1.5
	4.0-6.0									3.0
	6.0-8.0	99.6	75	53	27.8					4.5+
	8.0-10.0									4.5+
	13.0-15.0				25.8	130.6	103.8	UC Soil	2.3	4.5+
	18.0-20.0									4.5+
B-18										
	0.0-2.0									2.5
	2.0-4.0									2.5
	4.0-6.0									2.0
	6.0-8.0	99.4	77	55	28.1					2.0
	8.0-10.0									1.5
	13.0-15.0				28.4	122.4	95.3	UC Soil	2.3	4.5+
	18.0-20.0									4.0
B-19										
	0.0-2.0									4.5+
	2.0-4.0									4.5+
	4.0-6.0	97.0	81	59	22.1					4.0
	6.0-8.0									4.5+
	13.0-15.0				23.1	132.7	107.8	UC Soil	8.0	4.5+
	18.0-20.0									4.5+
B-20										
	0.0-2.0									3.0
	2.0-4.0	99.3	77	54	25.2					3.0
	4.0-6.0									3.0
	6.0-8.0									4.5+
	8.0-10.0									4.5+
	13.0-15.0				25.4	130.1	103.8	UC Soil	5.3	4.5+
	18.0-20.0									4.5+

Appendix F

KOCH PIPELINE PLANS