130 ENVIRONMENTAL PARK

APPENDIX IIB
LAND USE ANALYSIS

Technically Complete October 28, 2014

LAND USE ANALYSIS

130 Environmental Park
Type I & Type V Facilities

August 2013

Prepared by:
John Worrall Consulting LLC
509 Camino Barranca
Round Mountain, TX 78663
830.825.3029

Technically Complete October 28, 2014

Introduction

The 130 Environmental Park facility is proposed to include a Type I municipal solid waste landfill and a Type V municipal solid waste transfer station. The proposed facility encompasses approximately 520 acres and is to be developed in a rural area in northern Caldwell County, more than two miles north of the city of Lockhart (refer also to Figure LU-1).

The purpose of this land use evaluation is to address land use issues as required by TCEQ in support of applications for TCEQ municipal solid waste facility authorizations for the 130 Environmental Park. Specifically, this evaluation addresses those portions of TCEQ rules pertaining to land use compatibility. The relevant rule portions, as excerpted from 30 TAC 330.61, are:

(g) Land-use map. This is a constructed map of the facility showing the boundary of the facility and any existing zoning on or surrounding the property and actual uses (e.g., agricultural, industrial, residential, etc.) both within the facility and within one mile of the facility. The owner or operator shall make every effort to show the location of residences, commercial establishments, schools, licensed day-care facilities, churches, cemeteries, ponds or lakes, and recreational areas within one mile of the facility boundary...

(h) Impact on surrounding area. A primary concern is that the use of any land for a municipal solid waste facility not adversely impact human health or the environment. The owner or operator shall provide information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals by analyzing the compatibility of land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest. To assist the commission in evaluating the impact of the site on the surrounding area, the owner or operator shall provide the following:

(1) if available, a published zoning map for the facility and within two miles of the facility for the county or counties in which the facility is or will be located. If the site requires approval as a nonconforming use or a special permit from the local government having jurisdiction, a copy of such approval shall be submitted;

(2) information about the character of surrounding land uses within one mile of the proposed facility;

(3) information about growth trends within five miles of the facility with directions of major development;

(4) the proximity to residences and other uses (e.g., schools, churches, cemeteries, historic structures and sites, archaeologically significant sites, sites having exceptional aesthetic quality, etc.) within one mile of the facility. The owner or operator shall provide the approximate number of residences and commercial establishments within one mile of the proposed facility including the distances and directions to the nearest residences and commercial establishments. Population density and proximity to residences and other uses described in this paragraph may be considered for assessment of compatibility...

List of Figures

Zoning

Because the site is not in an incorporated area, there is no zoning at the site. Moreover, the site is more than two miles from any incorporated city; hence there is no zoning within two miles.

The site is not within the extraterritorial jurisdiction of Lockhart or any other incorporated city and is therefore not subject to the subdivision regulations of any city. The site does not require approval as a nonconforming use or a special permit from any local government.

Character of Surrounding Land Uses

Open & Agricultural land is the predominant land use within one mile of the facility boundary, comprising 93.3% of the land area within one mile (refer also to Figure LU-2). Nearly all of this open land is agricultural pasture lands or forested floodplain lands.

Land use within one mile is specifically characterized as follows:

Land Use	Acres	Percentage	Remarks
Open & Agricultural	4,094	93.3	
Residential	217	4.9	126 residences
Water Bodies	65	1.5	
Commercial/Industrial	11	0.3	5 establishments
Total	4,387 ac	100 %	not including facility boundary

Source: Field Inventories, June 3 and June 27, 2013

All of the *Residential* land (217 estimated acres) is single family residential, consisting of 126 residences and representing an estimated 4.9% of the land area within one mile.

There are approximately 65 acres of *Water Bodies* within one mile of the facility boundary, representing approximately 1.5% of the area within one mile. Water bodies consist of stock tanks, and the Site 21 Reservoir south of the facility boundary.

Commercial/Industrial land use (five establishments) makes up only 0.3% of the land area within one mile.

Growth Trends

The 130 Environmental Park site is in northern Caldwell County, more than two miles north of Lockhart and 30 driving miles south of downtown Austin.

Caldwell County is one of the five counties of the Austin-Round Rock-San Marcos Metropolitan Statistical Area (Austin MSA). According to the Texas State Data Center, the Austin MSA was the fastest growing metropolitan area in the state of Texas from 2000 to 2010, growing more than 37% from approximately 1.25 million persons to more than 1.7 million.

Of the five counties of the Austin MSA, Caldwell County has the smallest population and is growing at the slowest rate.

Population Growth, by County

Austin MSA Counties	**2000**	**2010**	**% Change**
Bastrop County	57,733	75,660	31%
Caldwell County	**32,194**	**37,548**	**17%**
Hays County	97,589	157,800	62%
Travis County	812,280	1,025,127	26%
Williamson County	249,967	416,326	67%

Source: Texas State Data Center

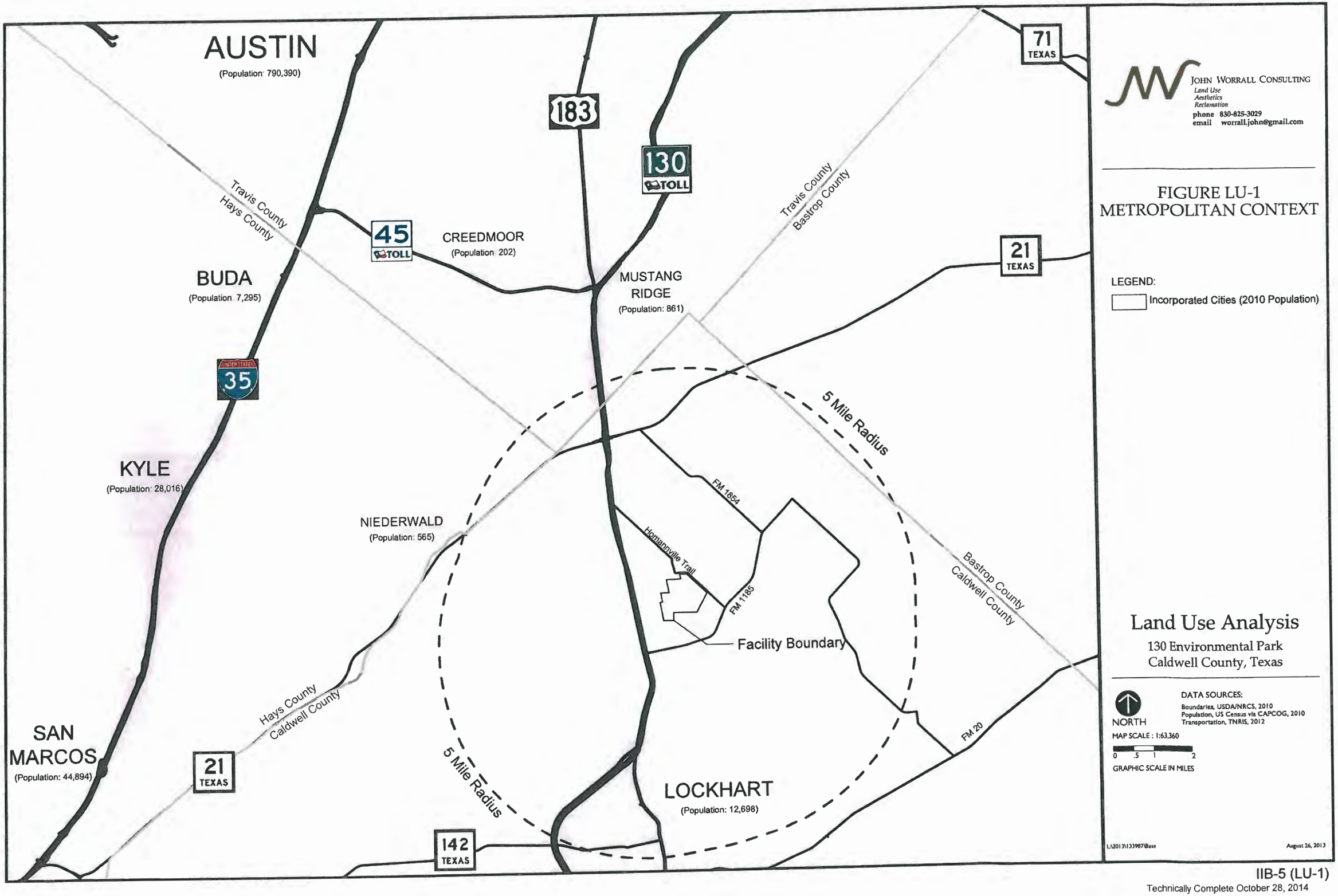
Figure LU-3 depicts the influence of Austin metropolitan growth trends, with greater growth occurring to the north of the site, as well to the west, along I-35--all beyond five miles of the facility boundary. Within five miles of the site, population growth from 2000 through 2010 was uniformly less than 5%, except to the south, where northern Lockhart lost population. Over time, and given the recent completion of SH 130, development growth trends can be expected to continue from the north, into the five mile radius.

Proximity
As of June 2013, there are 126 residences within one mile of the facility boundary. The nearest residence to the proposed facility is on Homannville Trail, estimated to be approximately 185 feet west of the facility boundary, and approximately 345 feet from the landfill footprint.

There are five business establishments within one mile. The most proximate business establishment (which is also a recreation area) is a golf driving range on the east side of SH 130-US 183, approximately 2450 feet west of the facility boundary and 3740 feet from the landfill footprint.

The Texas Historic Sites Atlas of the Texas Historical Commission does not identify any historic sites or structures or any archaeological sites within one mile of the facility boundary. Per AR Consultants, Inc., the Texas Archaeological Sites Atlas does identify sites within one mile of the facility boundary (refer to Figure 17, Appendix A of the Cultural Resources Survey, Part II, Appendix IIF.)

There are no churches, daycare centers, schools, or sites having exceptional aesthetic quality within one mile of the facility boundary.



JOHN WORRALL CONSULTING
Land Use
Aesthetics
Reclamation
phone 830-825-3029
email worrall.john@gmail.com

FIGURE LU-1
METROPOLITAN CONTEXT

LEGEND:

Incorporated Cities (2010 Population)

Land Use Analysis

130 Environmental Park
Caldwell County, Texas

NORTH

DATA SOURCES:
Boundaries, USDA/NRCS, 2010
Population, US Census via CAPCOG, 2010
Transportation, TNRIS, 2012

MAP SCALE : 1:63,360

0 .5 1 2

GRAPHIC SCALE IN MILES

L\2013\133987\Base

August 26, 2013

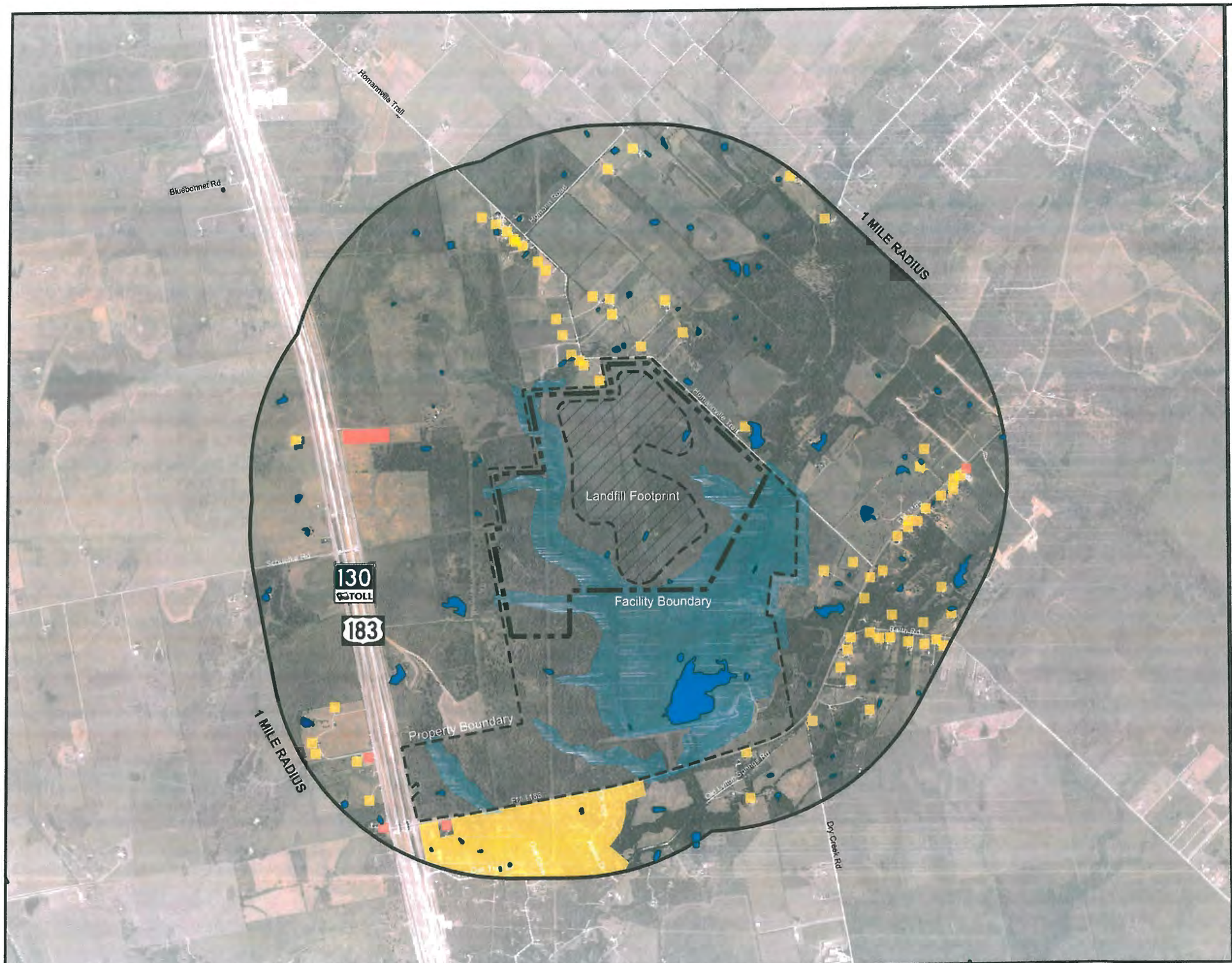


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FIGURE LU-2
LAND USE - 1 MILE

- Residential - Single Family (126 Residences)
- Commercial (5 Establishments)
- Open & Agricultural Land
- Facility Boundary
- Water Bodies
- 100 year Floodplain (Zone A) - partial
- Landfill Footprint

There are no schools, day care centers, churches, or cemeteries within one mile.

Land Use Analysis

130 Environmental Park
Caldwell County, Texas

NORTH

DATA SOURCES:
Field Inventory, June 3, 2013 & June 27, 2013
Aerial Photography, USDA/NRCS, 2012

MAP SCALE : 1:12,000

0 500' 1000' 2000'

GRAPHIC SCALE IN FEET

L:\2013\133987\Context

August 26, 2013

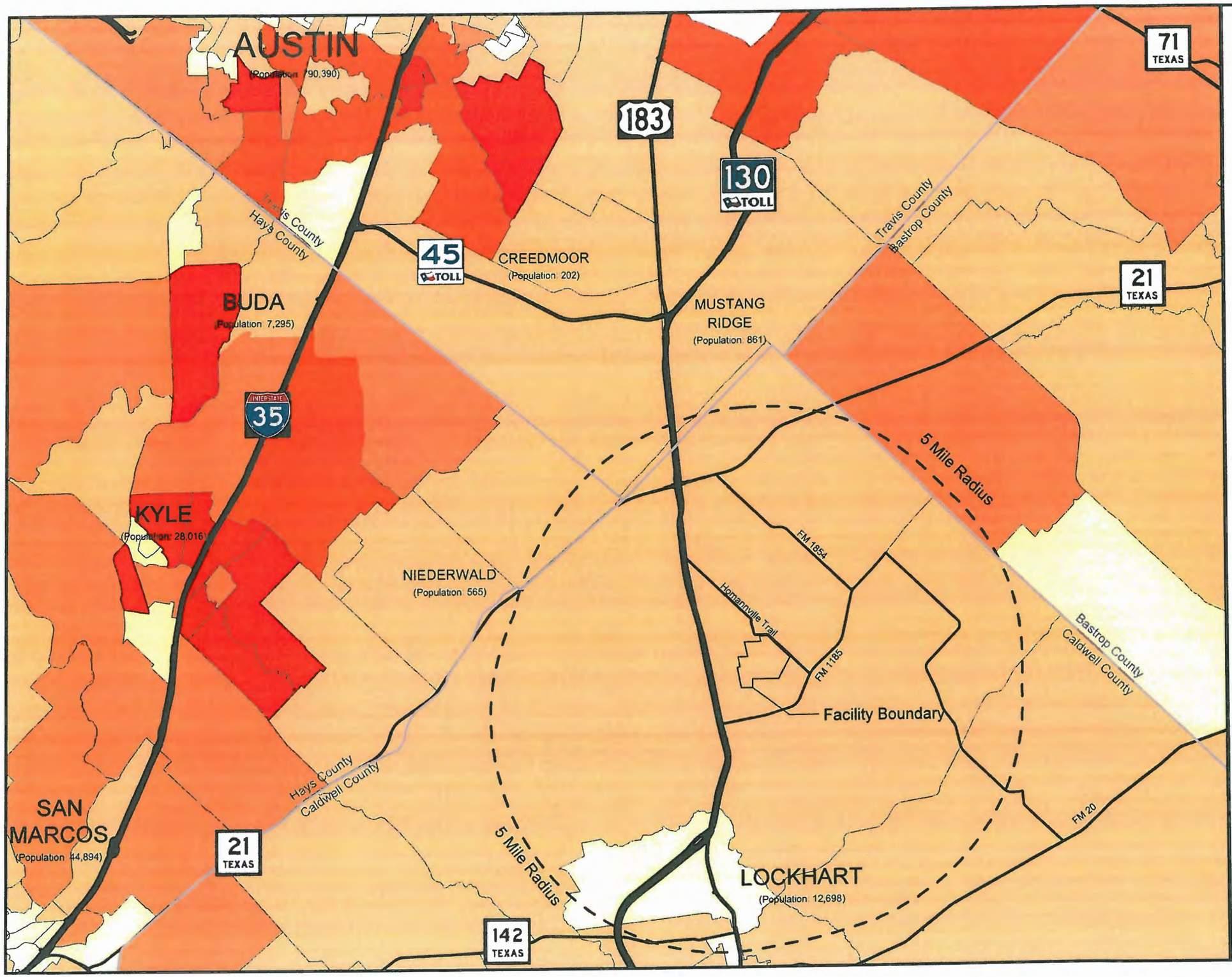

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FIGURE LU-3
METROPOLITAN GROWTH TRENDS 2000-2010

Population Change by Block Group

- Less than 0%
- 0.00-5.00%
- 5.01-10.00%
- 10.01-15.00%
- Greater than15.01%

Land Use Analysis

130 Environmental Park
Caldwell County, Texas

NORTH

MAP SCALE : 1:63,360

0 .5 1 2

GRAPHIC SCALE IN MILES

DATA SOURCES:
Boundaries, USDA/NRCS, 2010
ESRI, USA Population Change 2000-2010, 2013
Population, US Census via CAPCOG, 2010
Transportation, TNRIS, 2012

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August 26, 2013

130 ENVIRONMENTAL PARK

APPENDIX IIC
TRANSPORTATION STUDY

Technically Complete October 28, 2014

Texas Department of Transportation®
P. O. BOX 15426 | AUSTIN, TEXAS 78761-5426 | (512) 832-7000 | WWW.TXDOT.GOV

May 28, 2014

COPY

Mr. Matthew Udenenwu
Texas Commission on Environmental Quality
MC-124
P.O.BOX 13087
Austin, Texas 78711-3087

Re: 130 Environmental Park [Landfill] - Caldwell County
Municipal Solid Waste (MSW)- Permit Application No. 2383
Permit Application - Application Summary for Agency Review
Tracking No. 17458939; CN604375972/RN106897036

Dear Mr. Udenenwu:

This letter serves as notice that the Texas Department of Transportation's review of the Application Summary for the referenced municipal solid waste facility located on the NE corner of the US183/SH130 and FM1185 intersection in Caldwell County, Texas, is complete. The following are final comments.

Access mitigation as mentioned in Type I Permit Application Appendix IIC Transportation Study on sheet IIC-33, page 26 and dated 02-12-14 is satisfactory. No other issues remain.

If you have any further questions or require additional information please contact Imelda Barrett, P.E., Director of Transportation Operations, at (512) 832-7115.

Sincerely,

Greg A. Malatek, P.E.
Austin District Engineer

cc: Imelda L. Barrett, P.E., Director, Transportation Operations, Austin District, TxDOT
Gary Morris, Permit Office, Austin District, TxDOT

BIGGS & MATHEWS ENVIRONMENTAL
Consulting Engineers • Hydrogeologists
Mansfield • Wichita Falls

August 30, 2013

Imelda Barrett, P.E.
Director of Operations
Texas Department of Transportation
Austin District
P.O. Drawer 15426
Austin, Texas 78761-5426

Re: 130 Environmental Park
Caldwell County, Texas
Documentation of Coordination

Dear Ms. Barrett:

On behalf of 130 Environmental Park, LLC, Biggs & Mathews Environmental, Inc. (BME) is preparing an application for the 130 Environmental Park, which includes a municipal solid waste landfill and transfer station to be located in northern Caldwell County, Texas. The purpose of this letter is to document coordination with the Texas Department of Transportation (TxDOT) consistent with the municipal solid waste regulations, 30 Administrative Code Chapter 330 (30TAC §330.61(i)(4). Additionally, we are requesting information regarding any proposed roadway improvements in the vicinity of the facility.

Lee Engineering has conducted a Traffic Impact Analysis (TIA) (copy attached) for the 130 Environmental Park and concluded existing roadway infrastructure has adequate capacity to accommodate site traffic. As shown on the attached drawing (Detailed Highway Map), the facility site entrance is located approximately 1,500 feet north of the intersection of US Highway 183 and Farm to Market Road 1185. As detailed in the Lee Engineering report, historical traffic count data from TxDOT Austin District's 2002-2011 count maps was used in the analysis. We are not aware of any TxDOT location restrictions that would be applicable to the proposed facility.

The 130 Environmental Park facility entrance is proposed to be constructed along with a right turn deceleration lane on US Highway 183, as shown in the TIA, and will be consistent with TxDOT *Access Management Manual* (effective July 2011) and requirements of the TxDOT Austin District. A TxDOT Driveway Permit will be obtained from the Austin District prior to construction of the proposed entrance and deceleration lane.

BME would like TxDOT to provide information regarding any traffic or location restrictions in the vicinity of the facility.

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • Phone: 817-563-1144 • Fax: 817-563-1224

Please call or e-mail me at 817-563-1144 or kwelch@biggsandmathews.com if you have any questions or need additional information.

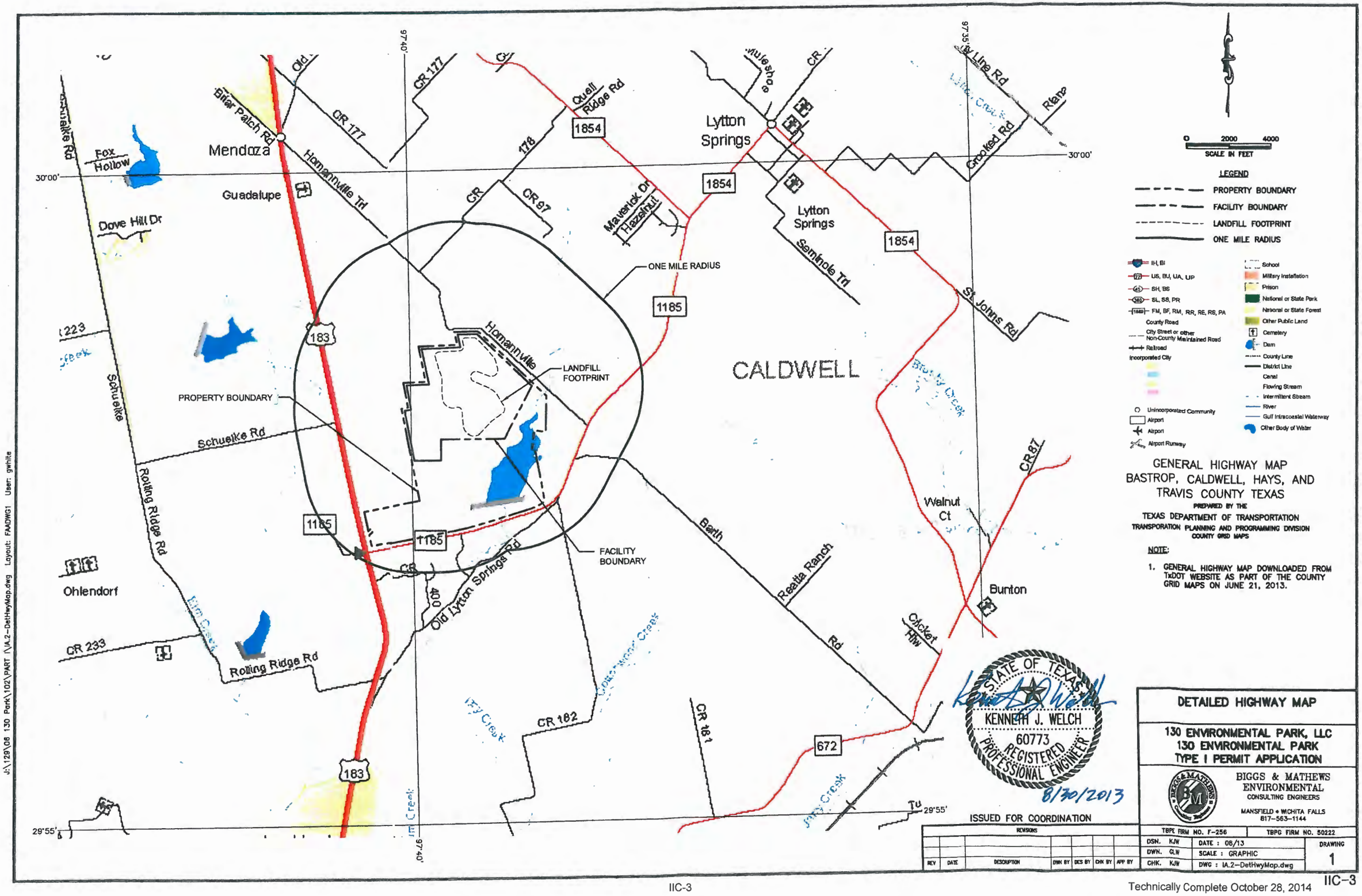
Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL
TBPE No. F-256 ◆ TBPG No. 50222

Kenneth J. Welch, P.E.
Principal Engineer

Attachments: Detailed Highway Map
Traffic Impact Analysis for 130 Environmental Park

cc: Mr. John Denholm III, P.E., PTOE, Lee Engineering
Mr. Ernest Kaufmann, President and Manager of 130 Environmental Park, LLC



GENERAL HIGHWAY MAP
BASTROP, CALDWELL, HAYS, AND TRAVIS COUNTY TEXAS

PREPARED BY THE
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORATION PLANNING AND PROGRAMMING DIVISION
COUNTY GRID MAPS

NOTE:

1. GENERAL HIGHWAY MAP DOWNLOADED FROM TxDOT WEBSITE AS PART OF THE COUNTY GRID MAPS ON JUNE 21, 2013.

STATE OF TEXAS
KENNETH J. WELCH
60773
REGISTERED
PROFESSIONAL ENGINEER
8/30/2013

ISSUED FOR COORDINATION

REVISIONS						
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DETAILED HIGHWAY MAP

130 ENVIRONMENTAL PARK, LLC
130 ENVIRONMENTAL PARK
TYPE I PERMIT APPLICATION

BIGGS & MATHEWS ENVIRONMENTAL
CONSULTING ENGINEERS
MANSFIELD • WICHITA FALLS
817-563-1144

TBPE FIRM NO. F-256		TBPG FIRM NO. 50222
DSN. KJW	DATE : 08/13	DRAWING 1
DWN. GLW	SCALE : GRAPHIC	
CHK. KJW	DWG : IA.2-DetHwyMap.dwg	

J:\129\06 130 Park\102\PART I\IA.2-DetHwyMap.dwg Layout: FAADWG1 User: gwhite

TRAFFIC IMPACT ANALYSIS FOR 130 ENVIRONMENTAL PARK CALDWELL COUNTY, TEXAS

Prepared for:
130 Environmental Park, LLC

Prepared by:

LEE ENGINEERING
3030 LBJ Freeway, Suite 1660
Dallas, Texas 75234
(972) 248-3006
TBPE Firm # F-450

Revised Report
September 22, 2014

Replaces February 12, 2014 Report

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F-450
Lee Engineering

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Lee Engineering
F-450

INTRODUCTION

130 Environmental Park, LLC intends to permit and operate a new municipal solid waste facility in northern Caldwell County. The 130 Environmental Park will include a Type I municipal solid waste disposal facility and a Type V municipal solid waste transfer station. The purpose of this traffic report is to address traffic / transportation as required by TCEQ in support of a permit application for the 130 Environmental Park Type I municipal solid waste disposal facility and a registration application for the 130 Environmental Park Type V municipal solid waste transfer station facility. The permitted Type I landfill permit boundary and the registered Type V transfer station registration boundary are coincident. Both facilities will use the same access to US 183, a two-lane site driveway serving the landfill and transfer station facilities. A recycling center is also proposed on the property and will share the same access to US 183. This traffic report addresses the requirements for all three facilities within the 130 Environmental Park

The 130 Environmental Park has a single proposed access point to northbound US 183. The proposed access point is located approximately 1,500 feet north of FM 1185. The 130 Environmental Park is proposed to operate with hours for incoming waste hauling vehicles of 3:00 AM to 5:00 PM Monday through Friday during a typical week. No waste will be accepted at the facility after 5:00 PM. Limited operation of approximately seven (7) hours is anticipated on Saturdays. In addition, the facility will accept public waste from Caldwell County residents on Saturdays at no cost. The facility is expected to be closed on Sundays.

Figure 1 presents a detailed highway map prepared for the site that depicts the general location of proposed development and the surrounding roadway network. A one-mile radius around the site is also shown on the figure.

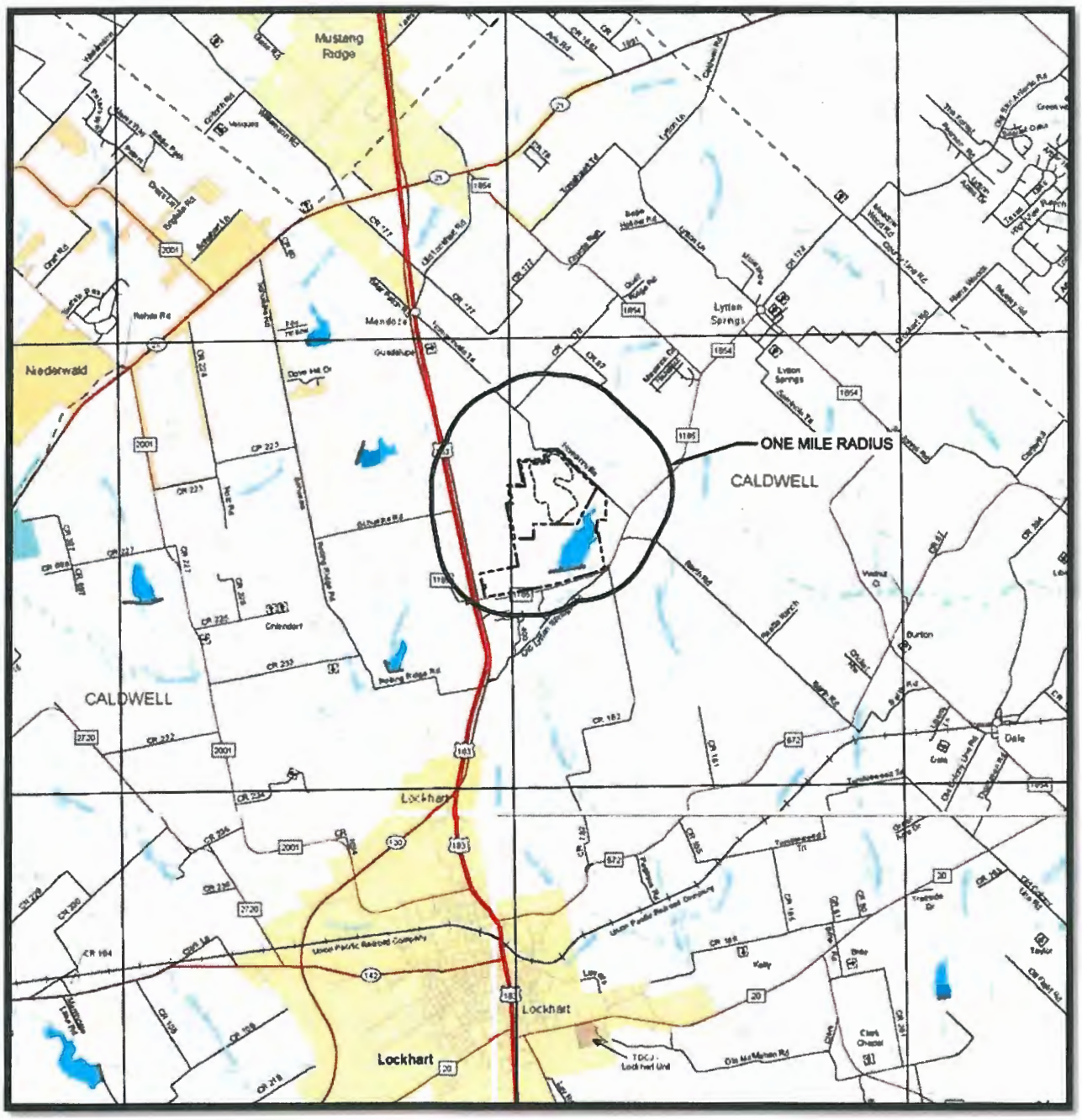
Three analysis years are addressed as part of this study:

2015 – the projected opening year (Build-out);
2020 – five years after the facility opens (Future); and
2058 – projected end of life of the facility (Horizon).

The end of life Horizon year analysis for the year 2058 was conducted and presented first due to the fact that if an intersection operates adequately under 2058 traffic volumes, then it will also do so under 2015 and 2020 volumes as well.

The end of life Horizon year of 2058 was selected based on the Texas Commission on the Environmental Quality (TCEQ) rule requiring analysis during the life of the facility.

Figure 1. Vicinity Map



While build-out and future year (five years after build out) analyses are commonplace in development traffic impact analyses, it should be noted that a horizon year of 44 years in the future is not typically standard practice. The Institute of Transportation Engineers (ITE), a professional society of traffic and transportation engineers, recommends that an analysis horizon of five to ten years be used for most site impact analyses. However, in this case, TCEQ requires this uncommon analysis.

The study area for this traffic study consisted of the primary access roads within one mile of the proposed facility. These are State Highway 130 (SH 130), and U.S. Highway 183 (US 183). These two roadways are described in more detail below:

State Highway 130 – State Highway 130 (SH 130) is a multi-lane tollway with a posted speed limit of 85 miles per hour in the vicinity of the site. SH 130 is an access controlled tolled freeway facility providing a connection between Seguin and Austin. SH 130 is constructed with an asphalt pavement.

US 183 – US 183 has a posted speed limit of 65 miles per hour in the vicinity of the site. US 183 in the vicinity of the site functions as the frontage roads for SH 130 and provides access between local and collector roadways and the entry and exit ramps for SH 130. US 183 is constructed with an asphalt pavement.

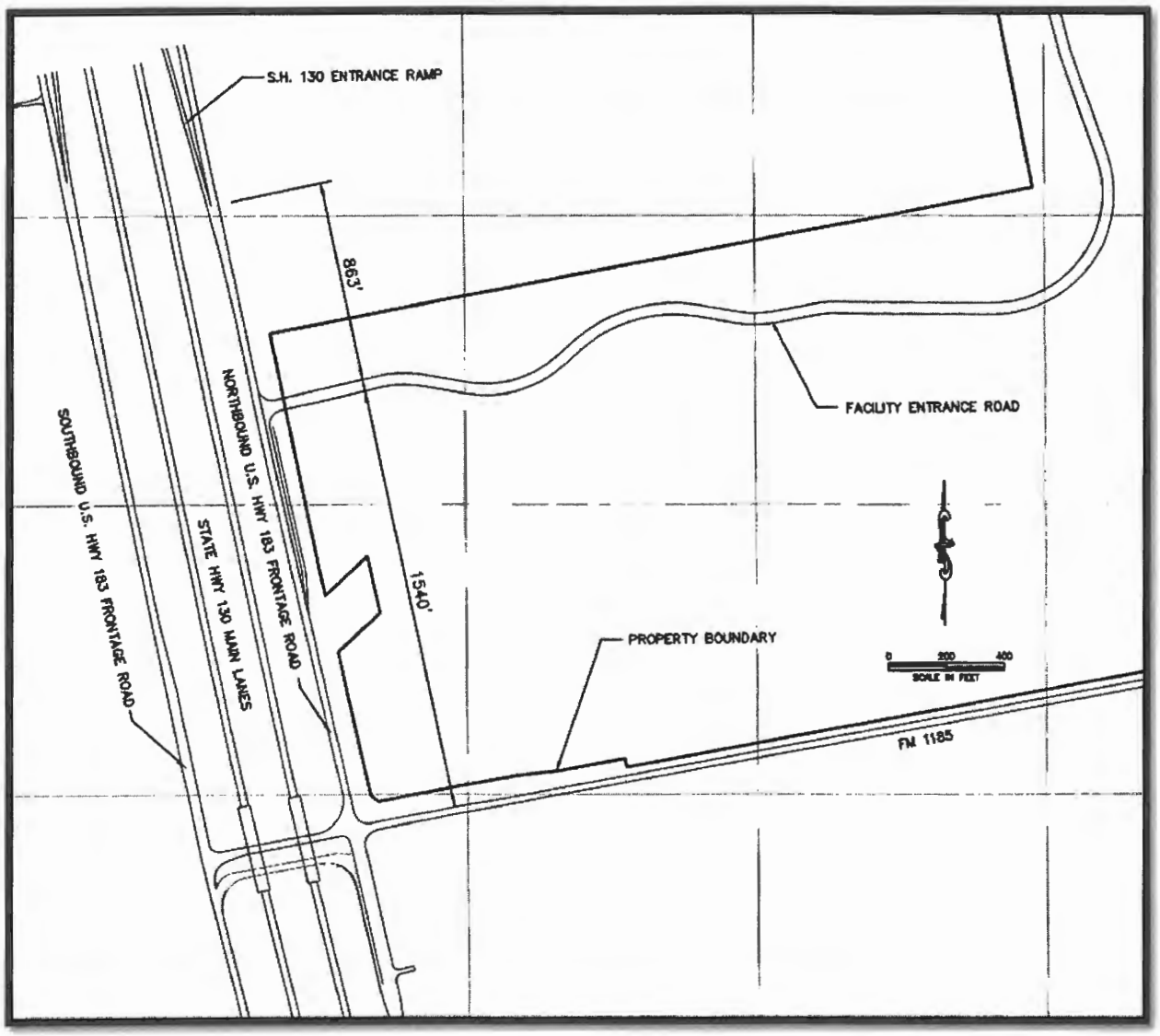
The two grade separations nearest to the facility are at Farm to Market Road 1185 (FM 1185) south of the site and Schuelke Road north of the site. While not primary access roads, site traffic will use these interchanges to access the site and the intersections with US 183 are included in this analysis. A brief description of these two roadways is provided for informational purposes below:

Farm-to-Market Road 1185 – FM 1185 is a two lane undivided asphalt roadway south of the site. The FM 1185 intersections with US 183 are currently stop controlled along FM 1185 only, with US 183 having uncontrolled approaches. A traffic signal has been constructed at this location but currently operates in red/yellow flashing mode only. The posted speed limit on FM 1185 is 60 mph.

Schuelke Road – Schuelke Road is a two lane undivided roadway located north of the proposed 130 Environmental Park. Schuelke Road forms a tee intersection with northbound US 183. The US 183 intersections with Schuelke Road are currently uncontrolled with the Schuelke Road approaches being stop controlled. The posted speed limit on Schuelke Road is 35 mph. At the US 183 intersection Schuelke Road is constructed with an asphalt pavement. The Schuelke Road bridge over SH 130 is constructed with a concrete bridge deck

Figure 2 depicts the proposed driveway on US 183 serving the 130 Environmental Park.

Figure 2: Site Plan



TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Trip Generation

The Institute of Transportation Engineers publication *Trip Generation* is typically used to obtain estimates of the amount of vehicular trips generated by a specific land use. However, *Trip Generation* does not contain data on either a municipal solid waste disposal facility or a municipal solid waste transfer station facility land use. As such, representatives of 130 Environmental Park provided trip generation data based on the expected operation of the facility. The trip generation estimates were developed based on the facility waste acceptance rate and anticipated customer mix. A detailed breakdown of this estimate appears in the appendix of this study.

The majority of vehicles accessing the facility are expected to be waste route collection vehicles, waste transfer trucks, and recycling center trucks. A route collection vehicle (and a recycling center truck) is approximately 35 feet long and is considered a single unit vehicle. A transfer truck is a semi-trailer combination vehicle with a 53 foot long trailer. The impact of single unit vehicles, such as busses and RVs, and combination vehicles, such as semi-trailers, on traffic operations is different than that of passenger cars. This is primarily due to the different acceleration, deceleration and handling characteristics of these larger vehicles.

The *Highway Capacity Manual* contains an adjustment factor to convert truck and bus volumes into passenger car equivalents. Using a passenger car equivalency adjustment factor of 1.5 for each truck, the trips generated by the landfill were converted into passenger car equivalents in order to estimate the traffic impacts of the facility. The adjusted daily trip generation data is also presented in **Table 1**.

The percentage of daily site traffic occurring during the analysis peak hours are presented in **Table 2**.

Table 1. Daily Trip Generation Data With Conversion to Passenger Car Equivalents

2015 Trip Generation (Build-out)						
Vehicle Types	Average Daily Trips (Actual Vehicles)			Average Daily Trips (Passenger car equivalents)		
	Enter	Exit	Total	Enter	Exit	Total
Route Collection Vehicles	110	110	220	165	165	330
Transfer Trucks	15	15	30	23	23	46
Small Loads (~1 ton)	25	25	50	38	38	76
Passenger Vehicles	28	28	56	28	28	56
Miscellaneous Trucks	4	4	8	6	6	12
Recycling Center Pass. Cars	12	12	24	12	12	24
Recycling Center Trucks	40	40	80	60	60	120
TOTAL	234	234	468	332	332	664
2020 Trip Generation (Future)						
Vehicle Types	Average Daily Trips (Vehicles)			Average Daily Trips (Passenger car equivalents)		
	Enter	Exit	Total	Enter	Exit	Total
Route Collection Vehicles	119	119	238	178	178	357
Transfer Trucks	16	16	32	24	24	48
Small Loads (~1 ton)	27	27	54	41	41	82
Passenger Vehicles	30	30	60	30	30	60
Miscellaneous Trucks	5	5	10	8	8	16
Recycling Center Pass. Cars	13	13	26	13	13	26
Recycling Center Trucks	43	43	86	65	65	130
TOTAL	253	253	506	359	359	718
2058 Trip Generation (Horizon)						
Vehicle Types	Average Daily Trips (Vehicles)			Average Daily Trips (Passenger car equivalents)		
	Enter	Exit	Total	Enter	Exit	Total
Route Collection Vehicles	216	216	432	324	324	648
Transfer Trucks	29	29	58	44	44	88
Small Loads (~1 ton)	49	49	98	74	74	148
Passenger Vehicles	55	55	110	55	55	110
Miscellaneous Trucks	8	8	16	12	12	24
Recycling Center Pass. Cars	24	24	48	24	24	48
Recycling Center Trucks	78	78	156	118	118	236
TOTAL	459	459	918	651	651	1,302

Trip Generation Data Source: 130 Environmental Park, LLC.

Because data for peak hour traffic generation or hourly generation for the proposed land uses is not contained in ITE's *Trip Generation* it was necessary to obtain information from the operator of the facility. 130 Environmental Park, LLC provided an estimated distribution of arriving traffic during each hour of a typical operational day, and these are included in the appendix of this study. Lee Engineering then calculated the percentage of the daily traffic that occurs during each hour. This distribution of traffic over the day allows the estimation of traffic generated by the site during any specific hour.

Traffic operations during the traditional AM and PM peak periods of the adjacent street are typically analyzed within a traffic study for a development. Traffic operations are analyzed for the peak one hour within each peak period. The AM peak hour selected for analysis was 7:00 AM to 8:00 AM based on the traffic counts collected and the site trip generation characteristics. The PM peak hour of the adjacent street was determined to occur between 4:15 PM and 5:15 PM based on the automated traffic counts collected.

The facility is anticipated to generate the highest amount of traffic during the 10:00 AM to 11:00 AM hour with 11.1% of the daily site generated traffic occurring during this hour. The 10:00 AM to 11:00 AM hour was selected for analysis as the peak hour of the generator. **Table 2** presents the percentage of daily traffic accessing the facility during each analysis hour.

Table 2: Percentage of Daily Traffic Accessing Site

Period	Hour	Percentage of Daily Site Traffic During the Analysis Hour[2]
AM Peak Hour of US 183[1]	0700-0800	8.1 %
PM Peak Hour of US 183[1]	1600-1700	6.4 %
Peak Hour of Facility[3]	1000-1100	11.1 %

1 - Peak hour based on traffic counts collected 5/15/2013
2 - Hourly Percentage Data based on information provided by 130 Environmental Park, LLC
3 - Projected peak hour of the facility based on information provided by 130 Environmental Park, LLC

The passenger car equivalent volumes from Table 1 were then multiplied by the hourly percentages to determine the amount of traffic accessing the site during the three analysis peak hours. This results in the hourly trip generation presented in Table 3.

Table 3: Hourly Trip Generation in Passenger Car Equivalents

2015 Trip Generation (Build-out) (Passenger car equivalents)								
AM Peak Hour (8.1% of Daily)			PM Peak Hour (6.4% of Daily)			Facility Peak Hour (11.1% of Daily)		
Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
27	27	54	21	21	42	37	37	74
2020 Trip Generation (Future) (Passenger car equivalents)								
AM Peak Hour (8.1% of Daily)			PM Peak Hour (6.4% of Daily)			Facility Peak Hour (11.1% of Daily)		
Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
29	29	58	23	23	46	40	40	80
2058 Trip Generation (Horizon) (Passenger car equivalents)								
AM Peak Hour (8.1% of Daily)			PM Peak Hour (6.4% of Daily)			Facility Peak Hour (11.1% of Daily)		
Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
53	53	106	42	42	84	72	72	144

The volumes shown above are the passenger car equivalent volumes for the site that were used in all traffic analyses. The predicted number of actual vehicles accessing the site is lower than the equivalent number shown in Table 3. This results in a conservative estimate of site impact.

The site is also expected to accept waste and recyclables at no cost from Caldwell County residents at the facility on Saturdays only. The predicted amount of this daily traffic on Saturday accessing the center is relatively low, 60 vehicles per day at Build-out in 2015 and 118 vehicles per day at the end of life of the facility in 2058. Saturday volumes on major highways such as US 183 and SH 130 are generally lower than those occurring during the weekday AM and PM peak hours. As such no analysis is conducted for the Saturday volumes as they are not anticipated to have an impact on the access roadways.

Trip Distribution

The distribution of site generated traffic entering and leaving the development on the area roadways was prepared based on the locations of principal roadways and information provided by 130 Environmental Park, LLC. The site will have a single proposed access point on US 183, a one-way northbound frontage road. Thus, all site traffic will enter the site by making a northbound right turn into the site, and all traffic will exit the site by making a westbound right turn out of the site.

- 65% of site traffic is estimated to access/egress the site to/from the north
    - 33% of site traffic is estimated to access/egress the site via US 183
    - 32% of site traffic is estimated to access/egress the site via SH 130
- 35% of site traffic is estimated to access/egress the site to/from the south
    - 35% of site traffic will access/egress the site to/from the site via US 183

The directional distribution was used to assign site traffic to the adjacent roadway network and the site driveway.

Traffic Assignment

Traffic volumes expected to be generated by the 130 Environmental Park were assigned to the area roadways and the site driveway based on the directional distribution described above.

The 2015 (Build-out) site-generated traffic volumes are provided in **Figure 3**.

The 2020 (Future) site-generated traffic volumes are provided in **Figure 4**.

The 2058 (Horizon) site-generated traffic volumes are provided in **Figure 5**.

Figure 3. 2015 (Build-out) Site Generated Traffic Volumes (Passenger car equivalents)

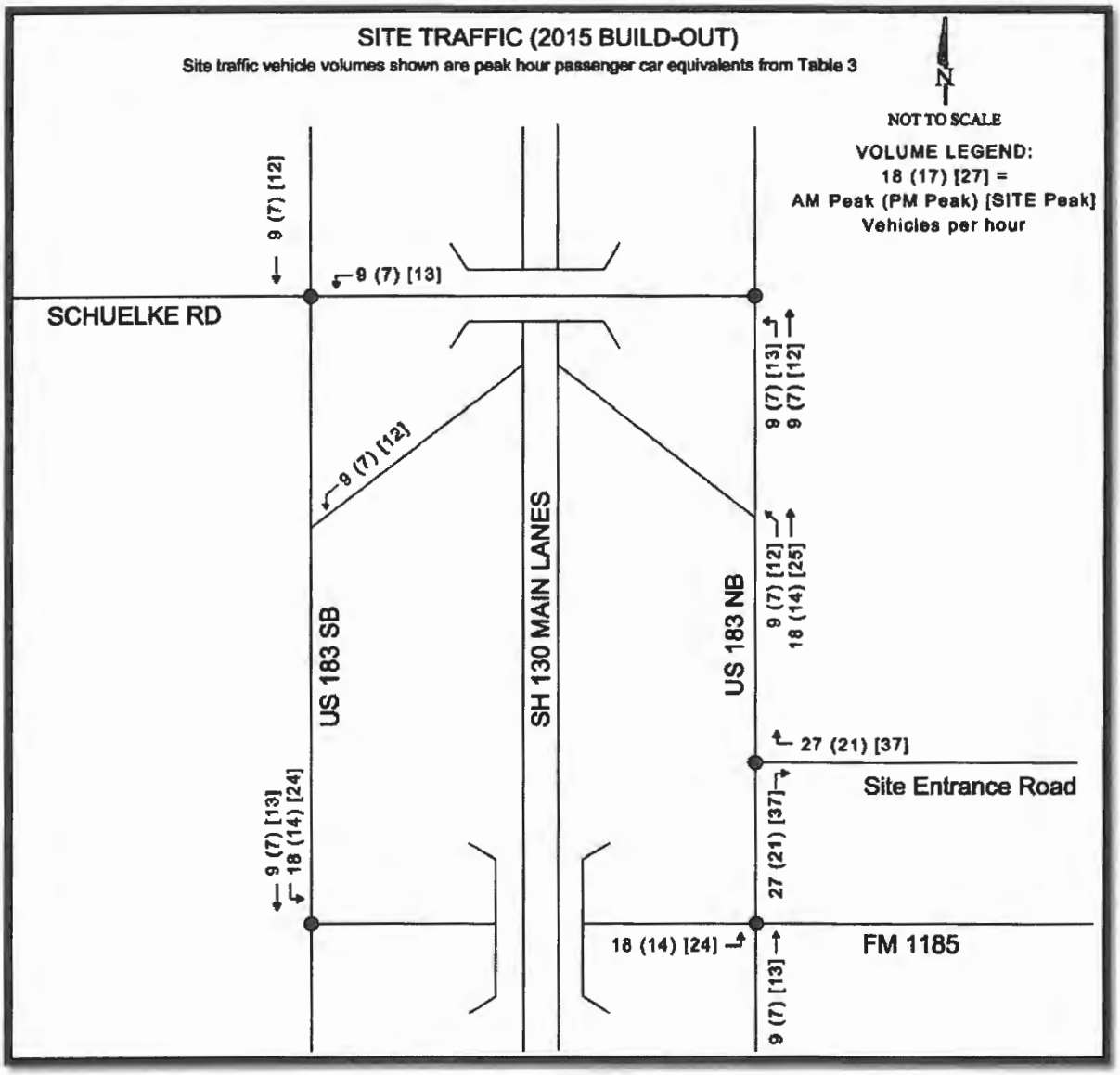


Figure 4. 2020 (Future) Site Generated Traffic Volumes (Passenger car equivalents)

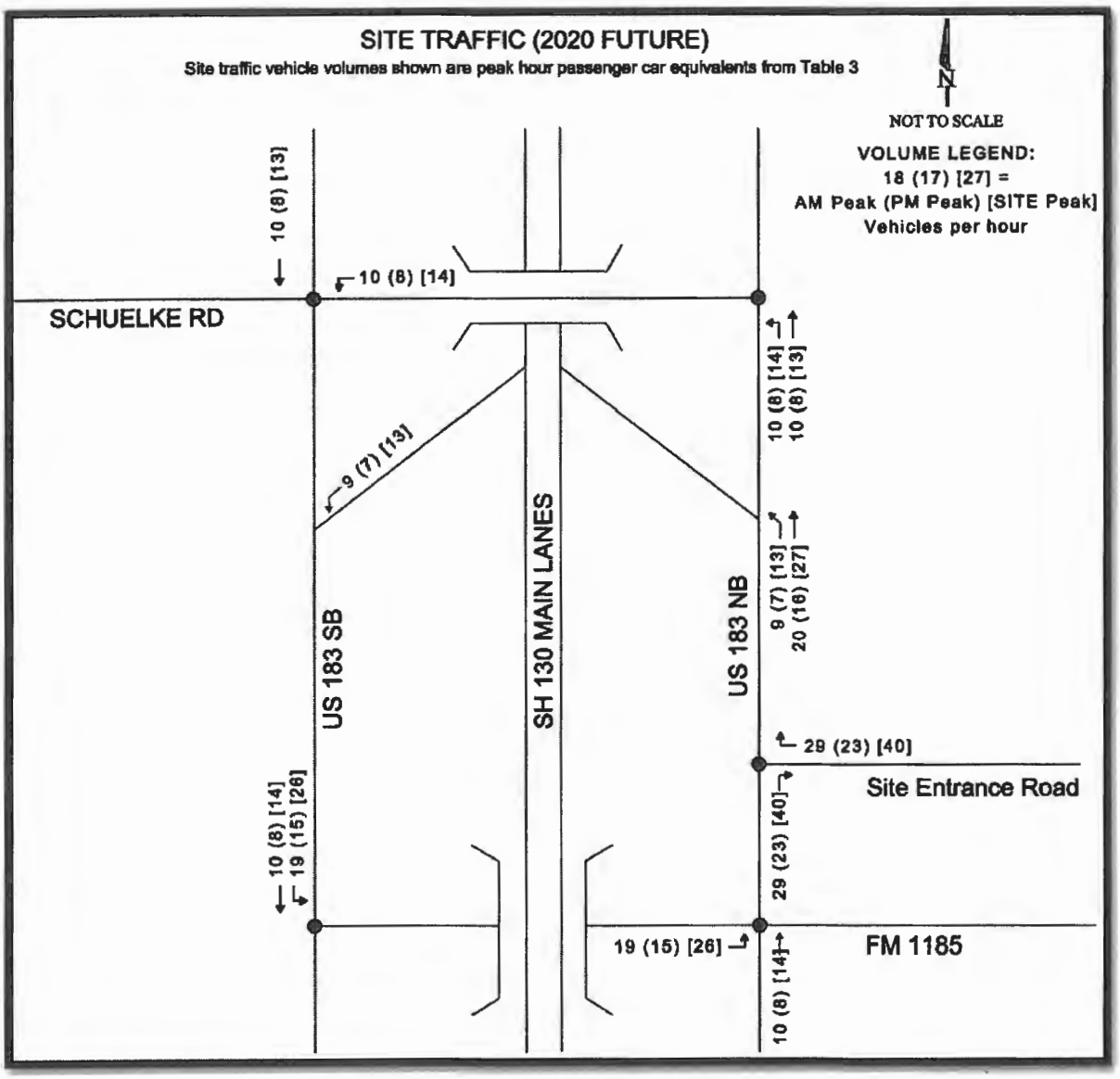
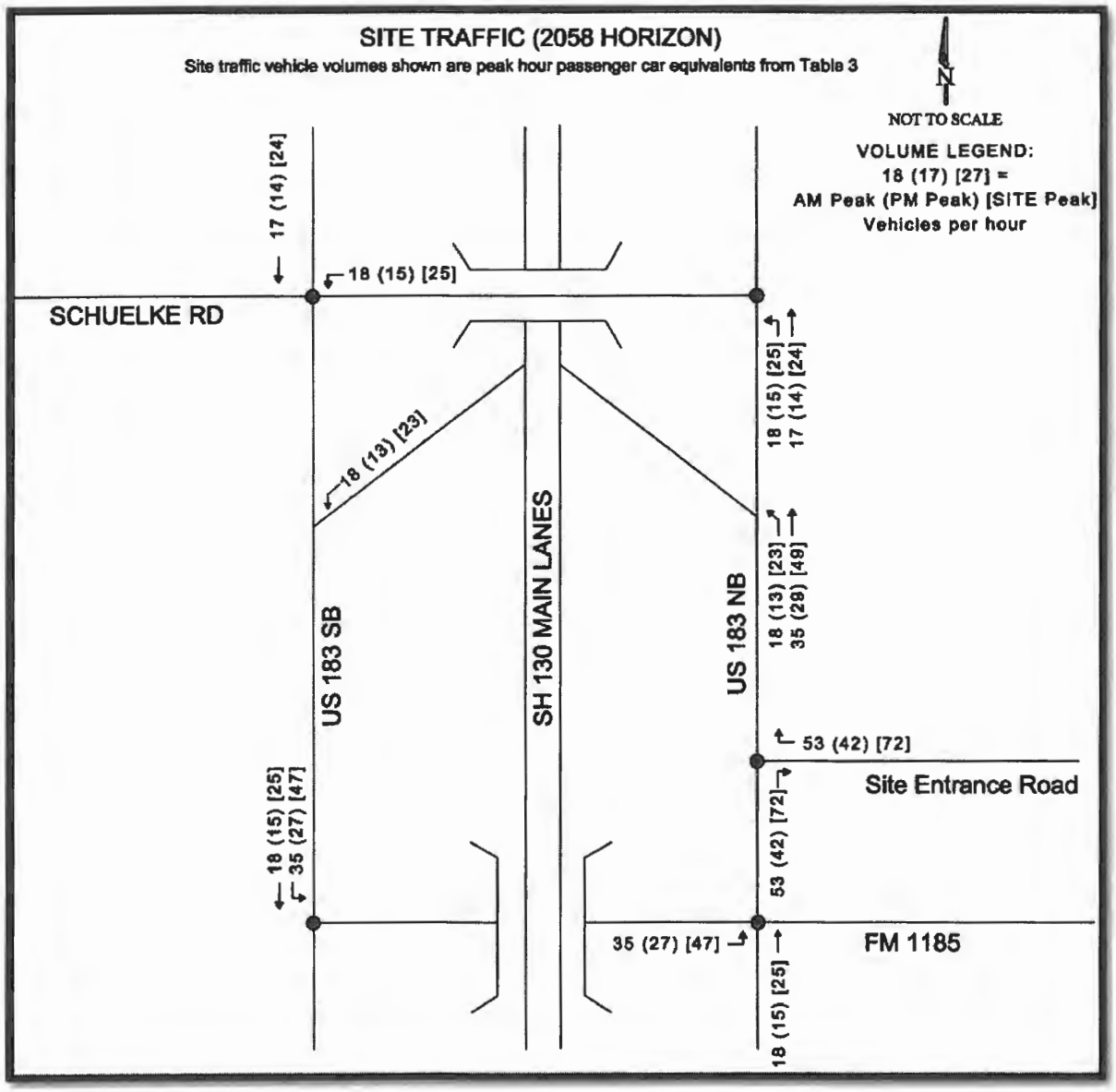


Figure 5. 2058 (Horizon) Site Generated Traffic Volumes (Passenger car equivalents)



EXISTING AND PROJECTED TRAFFIC VOLUMES

Existing Volumes

Twenty-four hour automated traffic counts were collected on US 183 in the vicinity of the site as well as on the SH 130 main lanes on Wednesday, May 15, 2013. Additional counts were also collected along FM 1185 and Schuelke Road in the vicinity of the intersections with US 183. The 24-hour counts collected are summarized in **Table 4**.

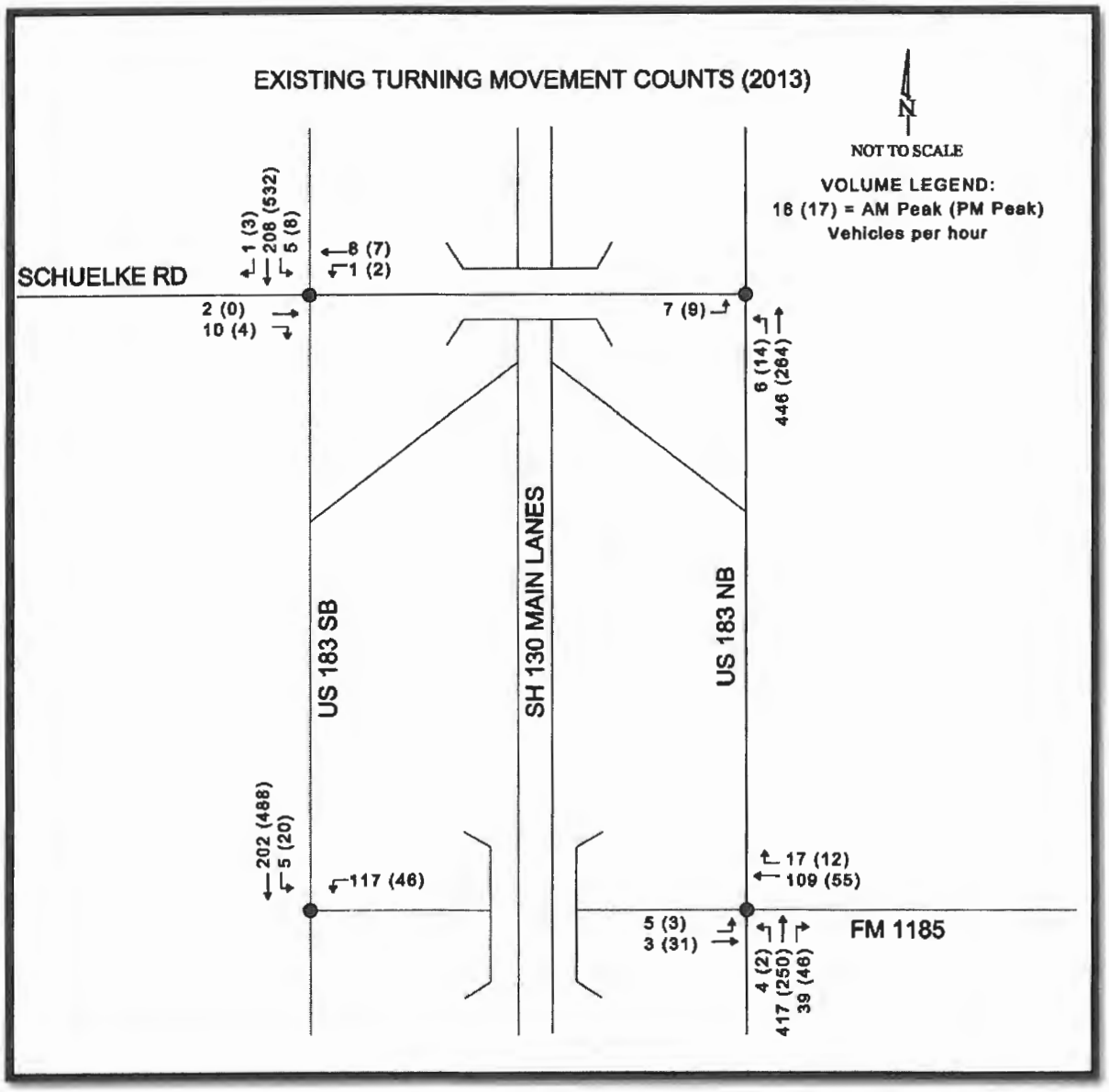
Table 4: Automated Traffic Volumes Collected

Location	Travel Direction	24 Hour Volume	AM Peak Volume[1] (0700-0800)	Facility Peak Hour Volume[1] (1000-1100)	PM Peak Volume[1] (1600-1700)
US 183 Northbound South of FM 1185	NB	4,704	479	218	323
US 183 Southbound North of FM 1185	SB	4,058	235	223	422
SH 130 Main Lanes Near FM 1185	NB	4,407	245	343	291
	SB	5,232	285	337	422
Schuelke Road West of US 183	EB	94	13	9	6
	WB	86	10	3	13
FM 1185 East of US 183	EB	658	28	31	83
	WB	646	154	53	51

[1] – Vehicles per hour

Manual turning movement counts for the AM and PM peak periods were also collected at the intersections of FM 1185 and US 183 and at the intersections of Schuelke Road with US 183. Figure 6 presents the existing turning movement counts collected Thursday, May 16, 2013.

Figure 6. Existing Turning Movement Counts



Historical Traffic Volume Data

Historical count data for the area was obtained from TxDOT Austin District count maps for 2002 through 2012. An image excerpt from the 2012 count map appears in **Figure 7**.

This image shows the four historical count locations depicted in Table 5 circled in red. The count location on US 183 north of FM 1185 was new in the year 2011 and no historical data is available for it prior to that year from other count maps.

Figure 7: TxDOT 2012 Historical Count Map Excerpt (Average Vehicles Per Day)

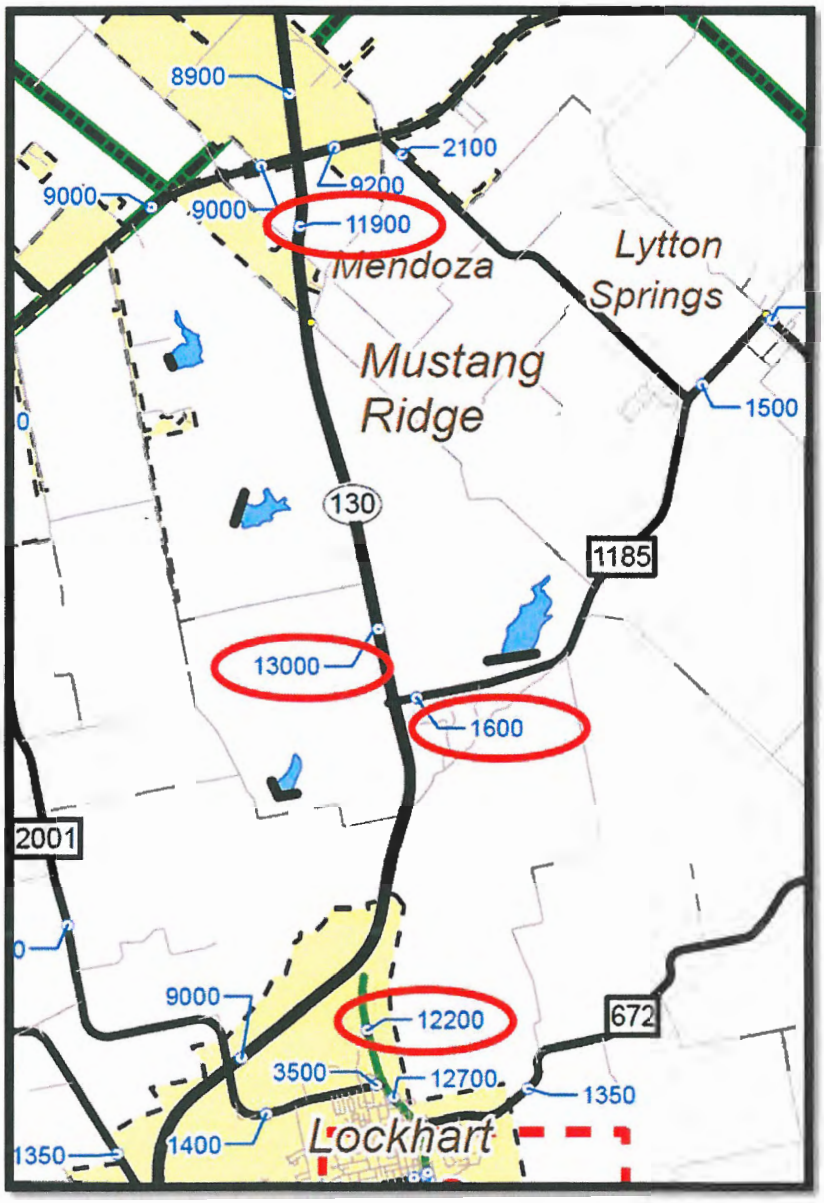


Table 5 presents the historical count data for the site area.

Table 5: TxDOT Historical Count Data (Average Annual Daily Traffic)

Count Map Year	US 183 north of FM 2001	US 183 south of SH 21	FM 1185 east of US 183	US 183 north of FM 1185
2002	13,600	12,300	1,450	Not on map
2003	13,000	11,700	1,350	Not on map
2004	13,500	12,000	1,500	Not on map
2005	14,580	11,290	1,400	Not on map
2006	12,600	12,300	1,300	Not on map
2007	13,800	12,400	1,450	Not on map
2008	12,600	12,300	1,300	Not on map
2009	13,000	12,200	1,300	Not on map
2010	14,700	13,500	1,700	Not on map
2011*	13,200	12,500	1,400	12,500
2012*	12,200	11,900	1,600	13,000

Source: TxDOT Austin District Traffic Count Maps
All volumes represent a daily traffic volume
* TxDOT's 2011 and 2012 count map shows a new count location on US 183 north of FM 1185

Based on the average annual daily traffic volumes shown in Table 5, traffic volumes in the study area are relatively stable. The traffic volumes fluctuate upwards and downwards over the 10 year period and do not appear to show any consistent trend.

Background Traffic Volumes (2015 / 2020)

The TxDOT Statewide Planning map has a 2010 and 2030 daily traffic volume listed for US 183 north of FM 1185 in the vicinity of the site. The 2010 volume shown on the Statewide Planning Map is 14,100 vehicles per day and the 2030 volume shown is 19,740. An annual average growth rate of 1.7 percent can be calculated from these two data points.

The existing turning movement volumes collected and shown in Figure 6 were grown annually by 1.7 percent to arrive at background traffic volumes for the years 2015 and 2020. These background volumes are shown in **Figure 8** and **Figure 9**.

Background Traffic Volumes (2058)

The facility is expected to have a site life of 44 years. The 1.7 percent annual growth used to develop the 2015 and 2020 volumes was maintained in order to estimate the 2058 background volume. The projected 2058 traffic volumes are shown in **Figure 10**.

Figure 8. 2015 (Build-out) Background Traffic Volumes

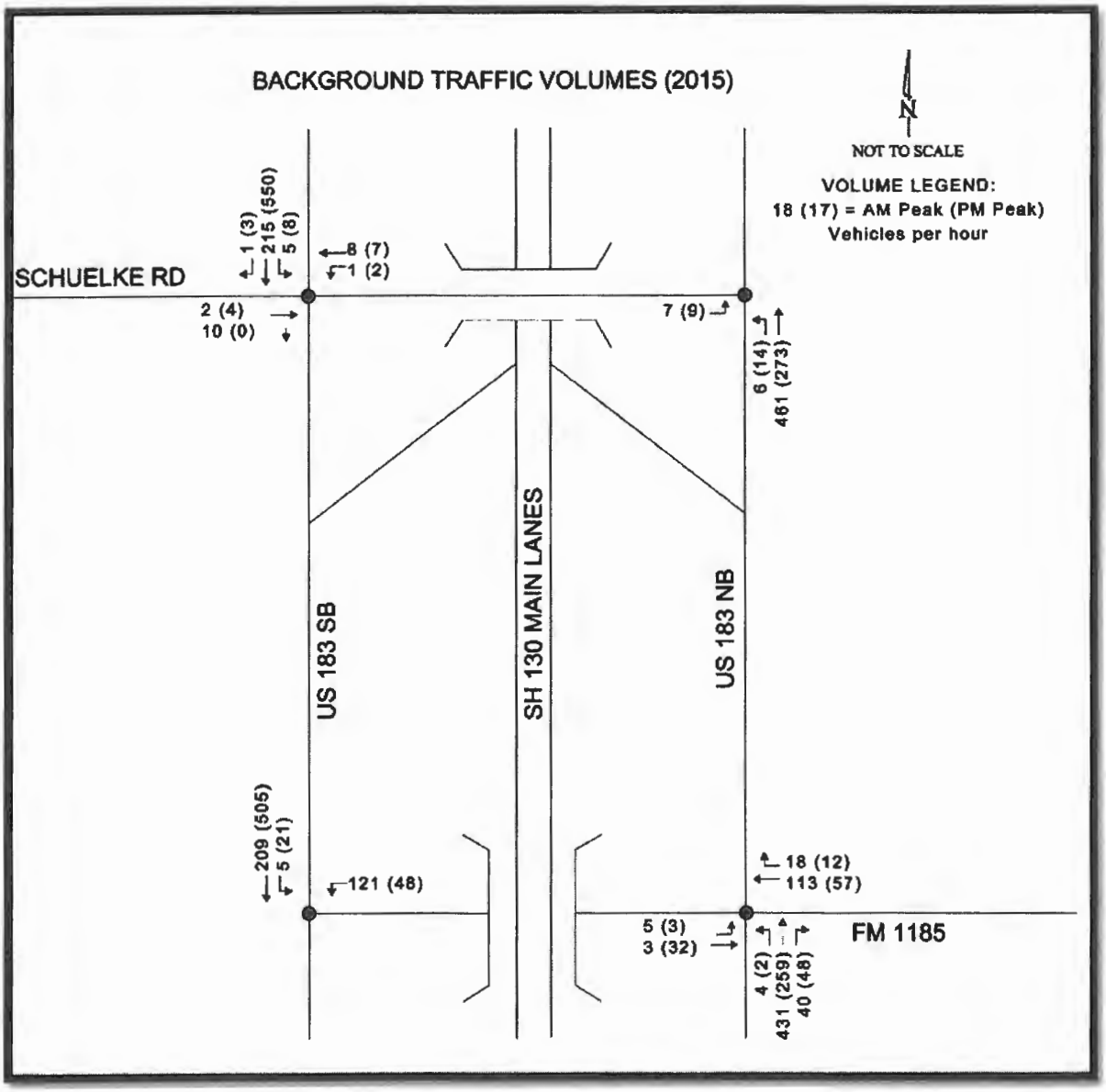


Figure 9. 2020 (Future) Background Traffic Volumes

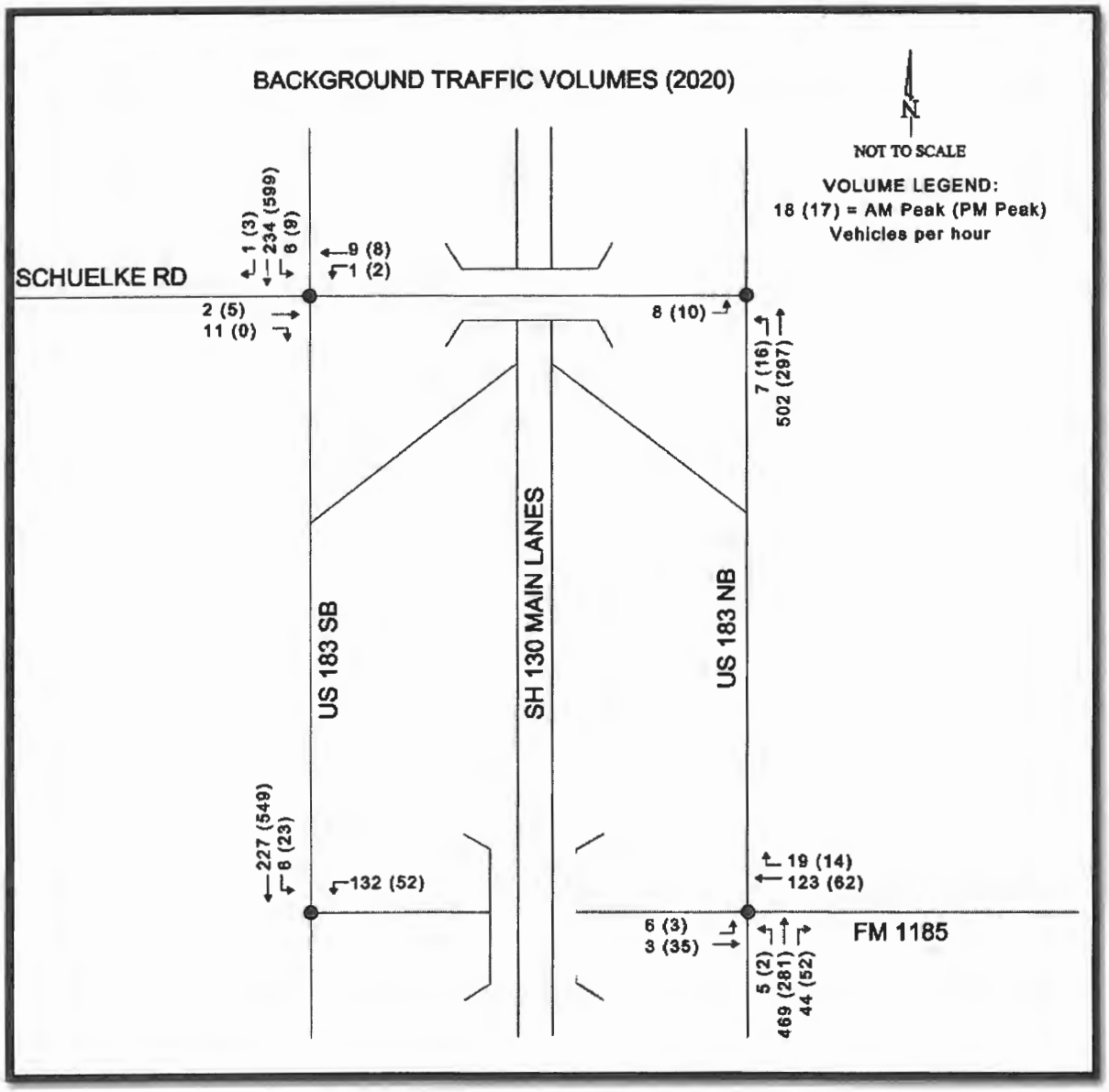
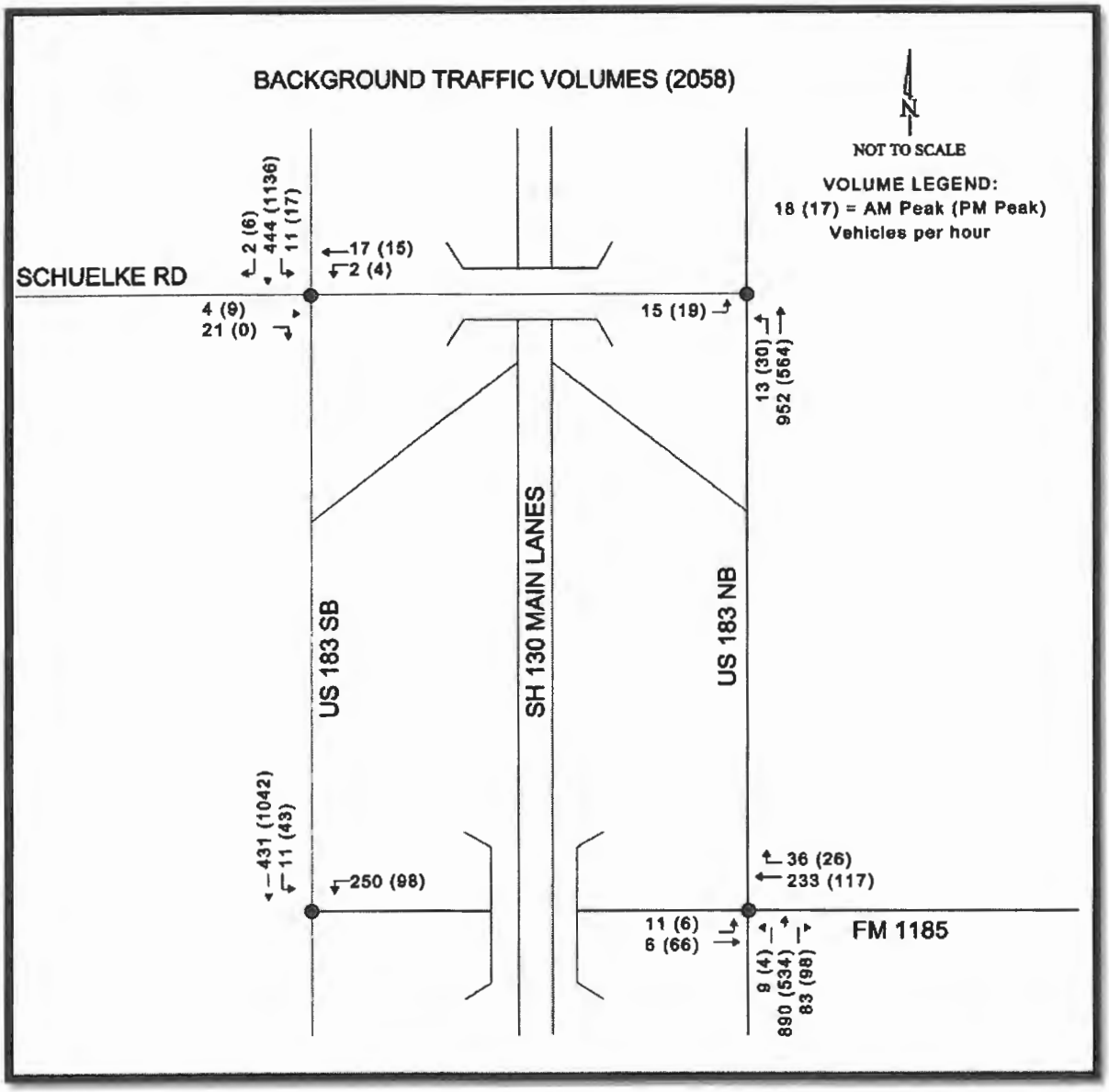


Figure 10. 2058 (Horizon) Background Traffic Volumes



Total Traffic Volumes

The site generated traffic volumes shown in Figures 3, 4, and 5 were added to the background traffic volumes shown in Figures 8, 9, and 10 to obtain the projected total traffic volumes for each of the analysis years –2015 (Build-out), 2020 (Future), and 2058 (Horizon).

The projected 2015 (Build-out) total traffic volumes are shown in **Figure 11.**

The projected 2020 (Future) total traffic volumes are shown in **Figure 12.**

The projected 2058 (Horizon) total traffic volumes are shown in **Figure 13.**

Figure 11. 2015 (Build-out) Total Traffic Volumes (Background + Site)

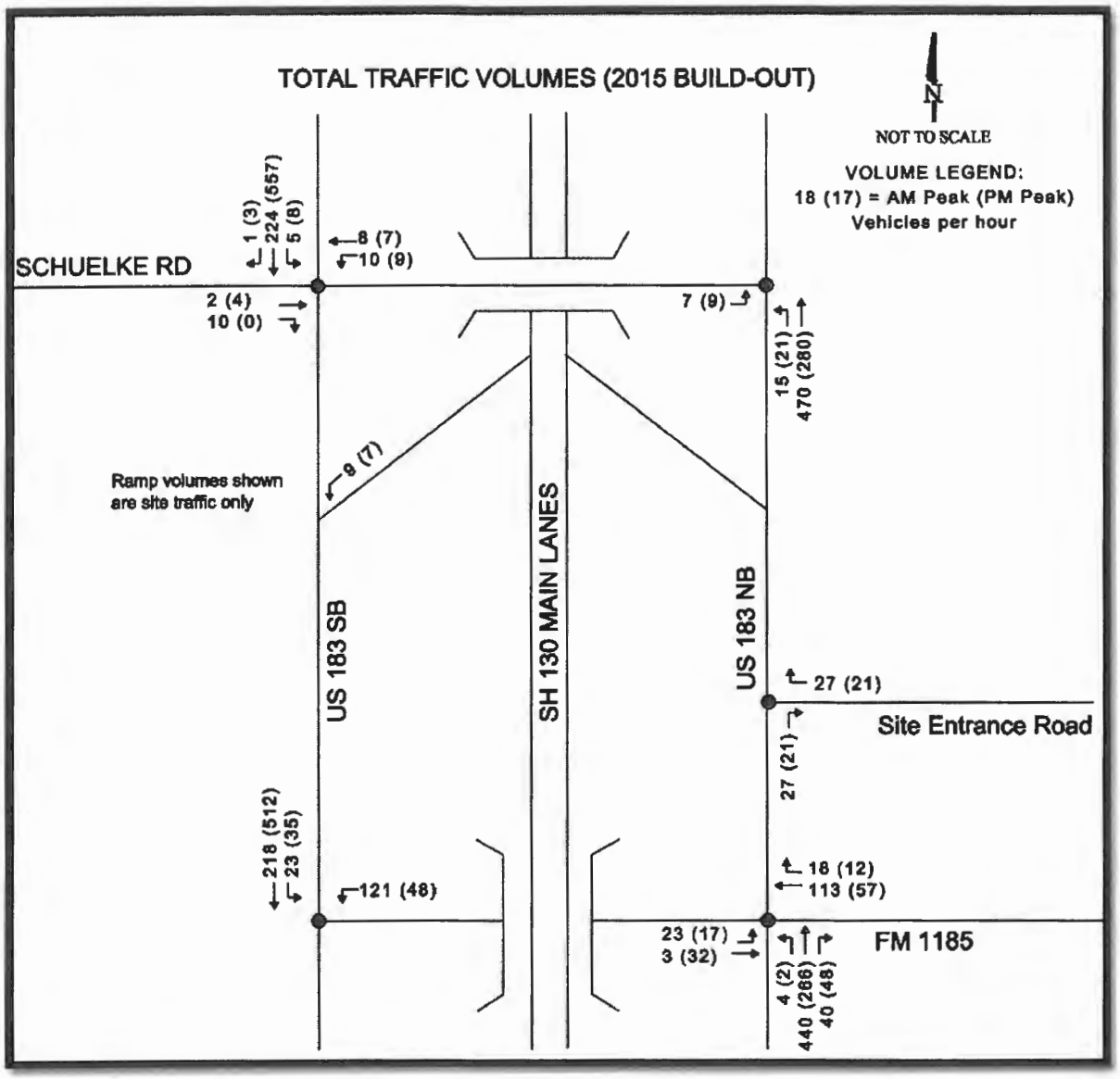


Figure 12. 2020 (Future) Total Traffic Volumes (Background + Site)

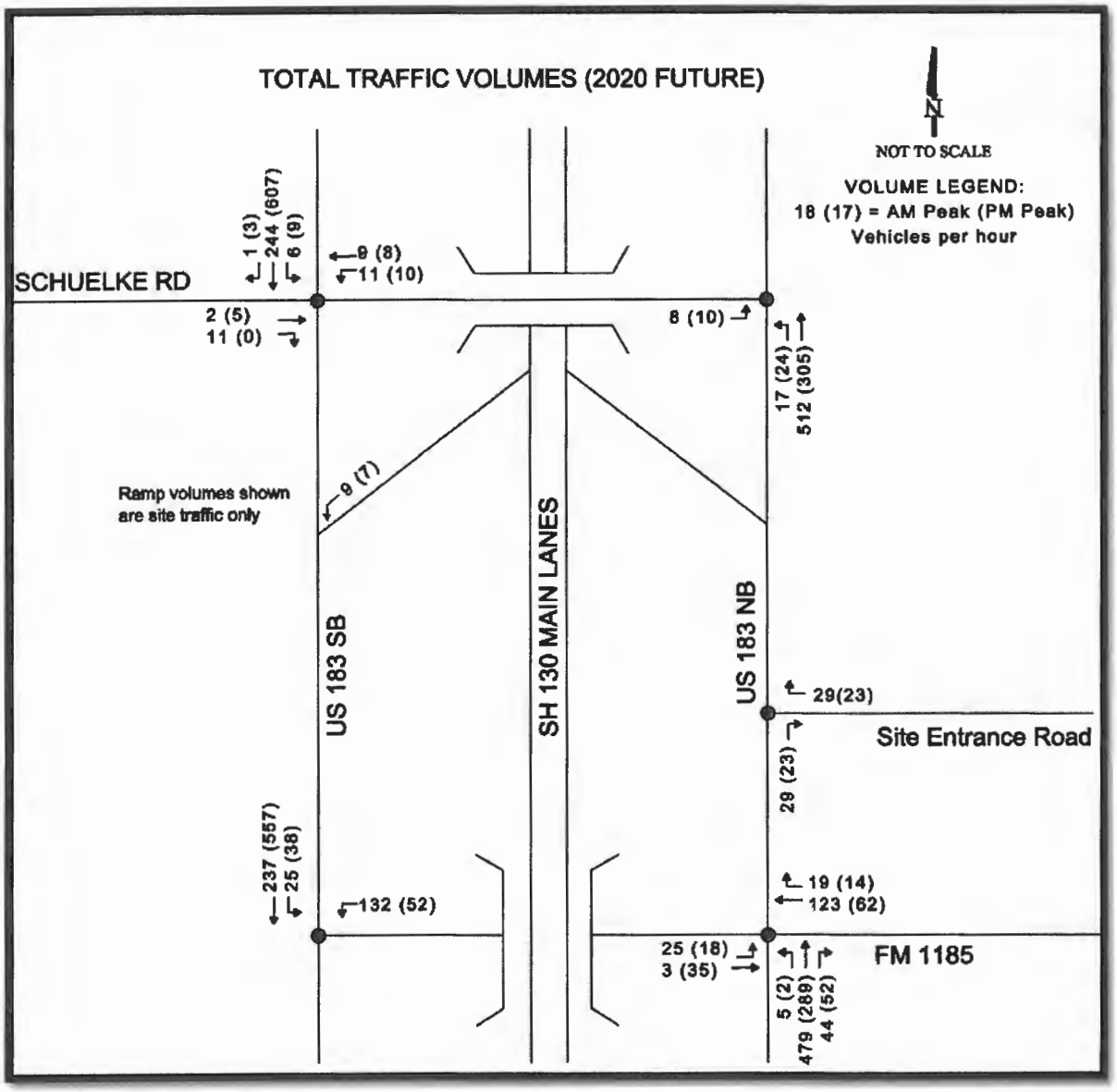
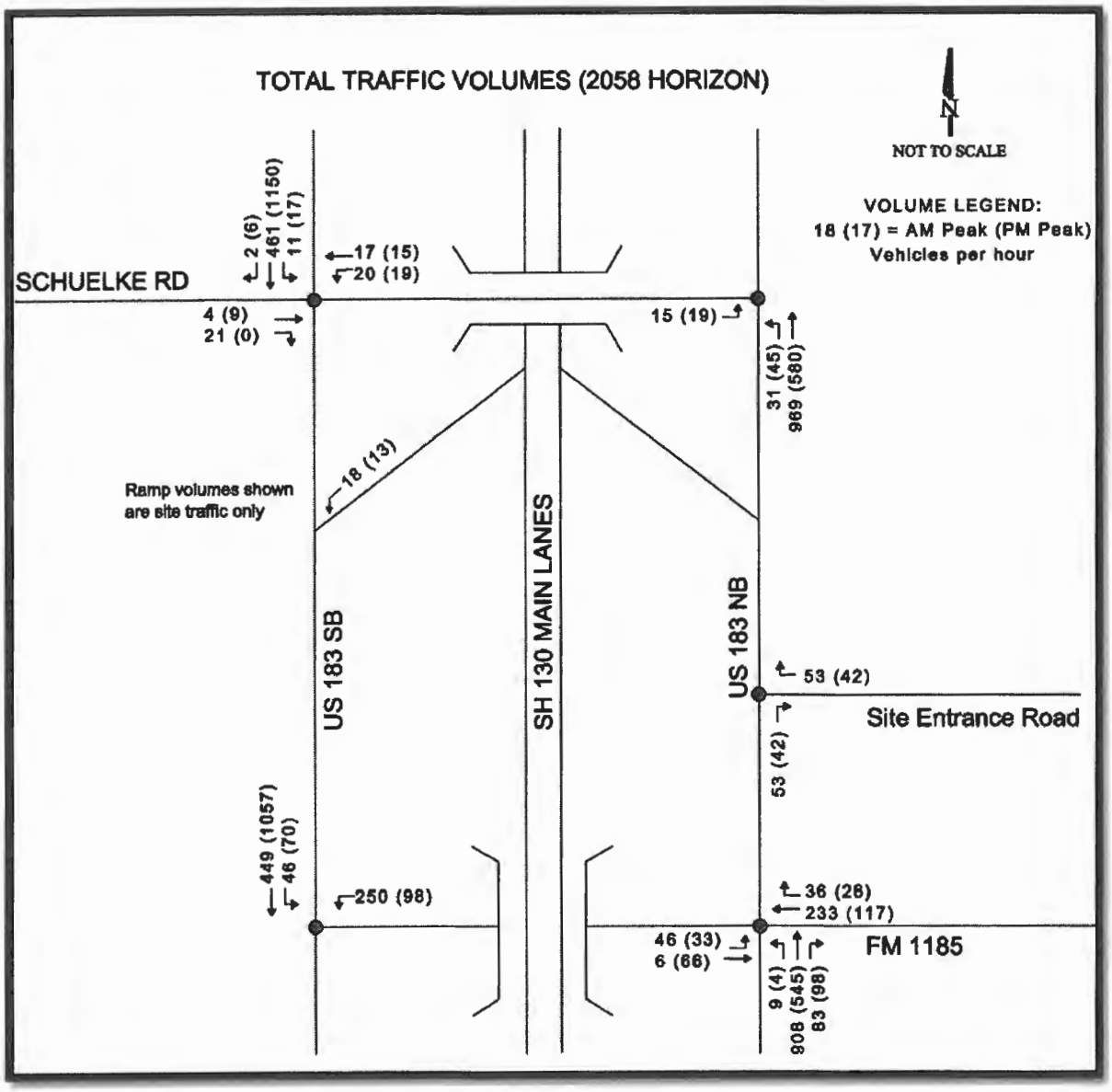


Figure 13. 2058 (Horizon) Total Traffic Volumes (Background + Site)



TRAFFIC ANALYSES

Intersection Capacity Analysis

Intersection capacity analysis was conducted using the 2058 Horizon year total traffic volumes. If an intersection operates acceptably under the 2058 volumes, then it will also perform acceptably under the 2015 and 2020 volumes.

The *Highway Capacity Manual* defines levels of service for automobiles at intersections based on the amount of average delay, in seconds/vehicle, experienced at the intersection. The Level of Service (LOS) of an intersection is a qualitative measure of the capacity and operating conditions and is directly related to vehicle delay.

For unsignalized intersections, the levels of service, as shown in **Table 6**, are defined by average control delay in seconds per vehicle. LOS is given a letter designation from A to F, with LOS A representing shorter delays and LOS F representing longer delays. **Table 7** presents the levels of service thresholds for signalized intersections.

Table 6: Level of Service Criteria for Unsignalized Intersections

Level-of-Service (LOS)	Average Control Delay (seconds/vehicle)
A	≤ 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	> 50.0

SOURCE: *Highway Capacity Manual,* Transportation Research Board, 2010.

Table 7: Level of Service Criteria for Signalized Intersections

Level-of-Service (LOS)	Average Control Delay (seconds/vehicle)
A	≤ 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	> 80.0

SOURCE: *Highway Capacity Manual,* Transportation Research Board, 2010.

Unsignalized two-way stop control analysis was performed for the existing intersections along US 183 in the vicinity of the site as well as the proposed site access roadway intersection with US 183 northbound.

- Northbound and Southbound US 183 at FM 1185
- Northbound and Southbound US 183 at Schuelke Road
- Northbound US 183 at Proposed Site Entrance Roadway

Based on the existing 24-hour automated traffic counts (Table 4), the 10:00 AM to 11:00 AM site peak hour is a relatively low volume period for background traffic as compared to the peak AM and PM periods. Turning movement counts were conducted during the AM and PM peak periods only, and are not available for 10:00 AM-11:00 AM. The FM 1185 and Schuelke Road intersections with northbound and southbound US 183 were only analyzed during the heavier volume AM and PM peak hours.

The proposed site driveway to US 183 northbound was analyzed using the background turning movement volumes for the AM and PM peak hours. A site peak hour analysis for the 10:00 AM to 11:00 AM hour was conducted using the 2058 AM background volumes as they are higher than the 10:00 AM hour and allow for a more conservative analysis of the driveway performance during the site peak hour.

2058 (Horizon) Traffic Analysis

Table 8 presents the results of the 2058 capacity analysis for the study area intersections. As can be seen in the table, the US 183 northbound intersection at FM 1185 experiences significant delay if operated as an unsignalized intersection in 2058. It is important to note that this intersection presently (2013) has traffic signal infrastructure installed and is operating in the flashing yellow/red mode. It is unlikely that this intersection would remain unsignalized 44 years into the future. A signalized intersection analysis was also conducted for the 2058 total traffic volumes. The analysis indicates that the intersection will operate in an acceptable fashion as a signalized intersection with the predicted traffic volumes.

Table 8: 2058 (Horizon) Total Traffic - Intersection Capacity Analyses Results

US 183 Southbound and FM 1185 (Unsignalized - TWSC)					
		EB	WB	NB	SB[2]
2058 AM Peak		---	16.5 (C)	---	---
2058 PM Peak		---	21.6 (C)	---	---
US 183 Northbound and FM 1185 (Unsignalized - TWSC)					
		EB	WB	NB[2]	SB
2058 AM Peak		> 300 (F)	172.5 (F)	---	---
2058 PM Peak		20.0 (C)	18.4 (C)	---	---
US 183 at FM 1185 (Signalized)[1]					
	Intersection	EB	WB	NB	SB
2058 AM Peak	23.8 (C) NB 15.1 (B) SB	---	31.8 (C)	22.5 (C)	18.9 (B)
2058 PM Peak	19.4 (B) NB 30.0 (C) SB	---	25.1 (C)	19.7 (B)	32.1 (C)
US 183 Northbound and Schuelke Road (Unsignalized - TWSC)					
		EB	WB	NB[2]	SB
2058 AM Peak		14.3 (B)	---	---	---
2058 PM Peak		12.1 (B)	---	---	---
US 183 Southbound and Schuelke Road (Unsignalized - TWSC)					
		EB	WB	NB	SB[2]
2058 AM Peak		10.8 (B)	12.8 (B)	---	---
2058 PM Peak		31.1 (D)	26.1 (D)	---	---

Note: 1 – Only the external diamond approaches shown for signalized analysis.
2 – In the unsignalized intersection analyses, the northbound and southbound through traffic movements on US 183 will experience no delay at intersections or the site driveway and are predicted to operate at levels of service "A" in all analysis years.

Unsignalized intersection capacity analysis was conducted under 2058 traffic conditions for the proposed site access roadway connection to northbound US 183. As can be seen in **Table 9**, acceptable operation at the proposed access point is anticipated for the duration of the site life.

Table 9: 2058 (Horizon) Total Traffic – Site Access Driveway – Unsignalized Intersection Capacity Analyses Results

US 183 and Proposed Site Entrance Road (Unsignalized - TWSC)				
	EB	WB	NB[1]	SB
2058 AM Peak	---	18.8 (C)	---	---
2058 Site Peak	---	19.5 (C)	---	---
2058 PM Peak	---	13.5 (B)	---	---

1 – In the unsignalized intersection analyses, the northbound through traffic movements on US 183 will experience no delay at the site driveway and are predicted to operate at levels of service "A" in all analysis years.

AUXILIARY LANE ANALYSIS

Deceleration Lanes

Access to the proposed driveway will be provided via a proposed driveway connection to US 183. This driveway will be newly constructed and will be approximately 1,450 feet north of FM 1185. The driveway to the site will be approximately 700 feet south of the painted gore for the SH 130 northbound entrance ramp.

Guidelines contained in TxDOT's Access Management Manual for roadways with a posted speed limit greater than 45 mph indicate that right turn deceleration lanes should be considered for right turn volumes greater than 50 vehicles per hour. Based on site traffic data provided by 130 Environmental Park, LLC, the adjusted site traffic (passenger car equivalents) is unlikely to exceed 50 right turns per hour during the peak hour until the facility has been open for approximately 40 years.

Based strictly on volume, the proposed site driveway does not warrant a deceleration lane at this time. However, right turn deceleration lanes should also be considered at locations where high truck volumes, heavy peak flow volumes, or other conditions exist where the safety and efficiency of the facility would be improved by the deceleration lane. Because the driveway will serve mostly trucks, and due to the high speed nature of US 183, Lee Engineering recommends that a right-turn deceleration lane be provided at the proposed site driveway.

Based on the topography of the site and the configuration of the existing property line, Lee Engineering recommends that a deceleration lane with the following dimensions be provided at the site entrance roadway:

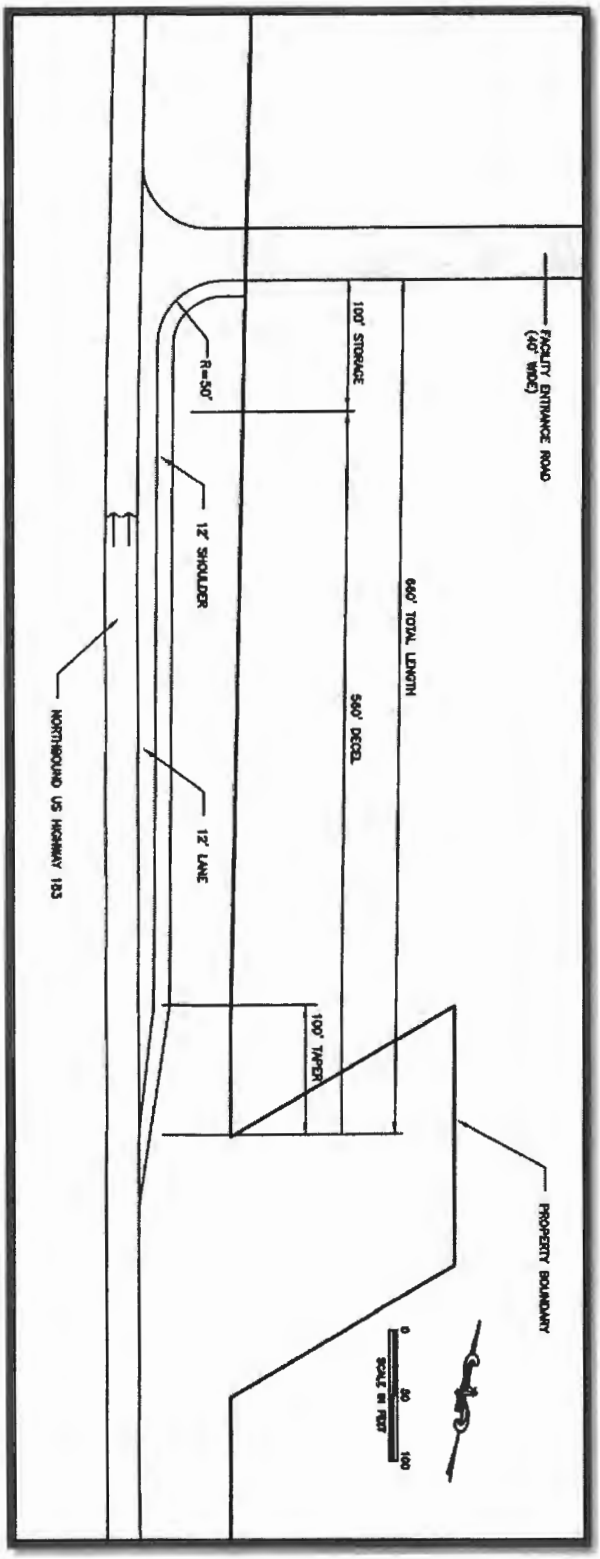
- Total Length: 660 feet (includes taper and storage)
- Taper Length: 100 feet
- Storage Length: 100 feet (includes 50' radius)
- Deceleration Length: 560 feet (includes taper)

Figure 14 presents a graphic depicting the recommended auxiliary lanes for the site access driveway.

Acceleration Lanes

Guidelines in TxDOT's Access Management Manual indicate that right turn acceleration lanes should be considered where right turn egress volumes exceed 200 vehicles per hour. The facility peak hour is predicted to generate 51 exiting vehicles during the 2058 facility peak (72 passenger car equivalents). The roadway profile along US 183 north of the site is sloped downhill slightly away from the proposed driveway location. Due to the low volume nature of the exit movement along with the downhill slope, Lee Engineering does not recommend a northbound acceleration lane be provided at the site.

Figure 14: Deceleration Lane Configuration



INTERSECTION SIGHT DISTANCE

As part of this traffic analysis, the required and available sight distances for motorists accessing the proposed site were evaluated. Guidelines for providing sight distance on roadways and intersections are provided by the American Association of State Highway and Transportation Officials (AASHTO) and published in the 2004 edition of *A Policy on Geometric Design of Highways and Streets*. Text from this document, discussing the minimum (stopping sight) and desirable (intersection) sight distances, is provided below:

> *Stopping sight distance is provided continuously along each highway or street so that drivers have a view of the roadway ahead that is sufficient to allow drivers to stop. The provision of stopping sight distance at all locations along each highway or street, including intersection approaches, is fundamental to intersection operation. (p. 650)*
>
> *If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road. (p.651)*

For the intersection of the site driveway and US 183, the minimum required (based on stopping sight distance) and desirable (based on intersection sight distance) sight distances were estimated using procedures published in AASHTO's *A Policy on Geometric Design of Highways and Streets* (2004). The design vehicle used was a combination truck which has an initial time gap of 10.5 seconds. This time gap is suitable for right turn maneuvers from the site driveway directly into the northbound through lanes of US 183. This time gap results in a calculated desirable intersection sight distance value of approximately 1,003 feet for the combination truck.

A passenger car has an initial time gap of 6.5 seconds. The calculated desirable intersection sight distance for a passenger car is approximately 621 feet.

In order to evaluate the adequacy of existing sight distances looking left from the proposed site driveway, the available intersection sight distances were determined by field survey measurement. Surveyors measured the lines of sight looking left from the proposed sight driveway location. The observer was positioned at the approximate driver's eye location in the exit lane of the proposed site driveway. The observer was positioned at 7.6 feet above the existing US 183 roadway edge line elevation to simulate the driver's eye height of a combination truck as specified in AASHTO. A target object with a height of 3.5 feet above the pavement was used to determine

the maximum available sight distance looking left (to the south) along US 183. Additional survey measurements determined the available intersection sight distance for a passenger car with a driver's eye height of 3.5 feet above the pavement.

Based on the field survey measurements, adequate sight distance is available at the proposed site driveway. The summary of the sight distance evaluation is presented in **Table 10**.

Table 10: Analysis of Intersection Sight Distance

Major Roadway	US 183	
Posted Speed Limit	65 mph	
Minor Roadway	Site Driveway	
Design Vehicle	Passenger Car	Combination Truck WB 67
Driver's Eye (Observation) Height	3.5'	7.6'
Target Object Height	3.5'	3.5'
MINIMUM Sight Distance (Stopping)	645'	645'
DESIRABLE Sight Distance (Intersection)	621'	1003'
Available Sight Distance to the Left	924'	3809'
Available Sight Distance to the Right	Not applicable to right turn movement	
Sight Distance Available > MINIMUM To the Left	YES	YES
Sight Distance Available > DESIRABLE To the Left	YES	YES

The proposed location of the site driveway will provide adequate sight distance to the south for both combination trucks and passenger cars exiting the site.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this study for the 130 Environmental Park, the following conclusions and recommendations are made:

- The 130 Environmental Park is estimated to generate approximately 468 trips on a daily basis during 2015 (Build-out), 506 per day during 2020 (Future), and 918 per day during 2058 (Horizon). **These trips include traffic generated by the solid waste disposal facility, the waste transfer station, and the recycling center.**

- Intersection capacity analysis results for US 183 indicate that the roadway adjacent to 130 Environmental Park is predicted to operate at acceptable levels of service under 2058 total traffic conditions. **US 183 has adequate capacity available to serve the traffic generated by the 130 Environmental Park**. 130 Environmental Park traffic is predicted to have minimal impact to US 183 traffic flow.

- **Table 11** presents a summary of the 130 Environmental Park generated traffic volumes as a percentage of the total traffic volumes on US 183 under 2015, 2020, and 2058 traffic conditions. As shown, the 130 Environmental Park will contribute a minimal amount of traffic to US 183 in the area.

Table 11: Site Traffic as a Percentage of Total Traffic

Analysis Year	Projected Daily Volume US 183 north of FM 2001	Daily Site Traffic (Entry+Exit)	Site Traffic Percentage of Total Traffic
2015 (Build-out)	13,450	468	3.5%
2020 (Future)	14,630	506	3.5%
2058 (Horizon)	27,750	918	3.3%

- The site driveway connection to US 183 should be constructed with a northbound right turn deceleration lane.

- No other roadway improvements are necessary to accommodate site traffic. The existing roadway infrastructure has adequate capacity to accommodate the site generated traffic.

- US 183 will be adequate to handle the predicted volumes of site traffic throughout the life of the 130 Environmental Park facility.

APPENDIX

130 Environmental Park

YEAR 1 ESTIMATED SITE TRAFFIC

Assumptions:

1. Incoming Waste Volume = 1500 tons per day
2. % Waste in Route Trucks = 73.33 %
3. % Waste in Transfer Trucks = 25 %
4. % Waste in Small Loads = 1.67 %
5. Route Truck Avg. Load = 10 tons
6. Transfer Truck Avg. Load = 25 tons
7. Small Load Avg. Load = 1 tons
8. Passenger Cars = 28 cars per day (employees, vendors, visitors, etc.)
9. Misc. Trucks = 4 trucks per day (supplies, material, leachate, recyclables, etc.)
10. Recycling Passenger Cars = 12 cars per day (employees)
11. Recycling Trucks = 40 trucks per day
12. Saturday Convenience Center Vehicles = 60 vehicles per day (Saturday only)

Estimated Number of Incoming Vehicles	2-3* a.m.	3-4 a.m.	4-5 a.m.	5-6 a.m.	6-7 a.m.	7-8* a.m.	8-9 a.m.	9-10 a.m.	10-11* a.m.	11-12 a.m.	12-1 p.m.	1-2 p.m.	2-3 p.m.	3-4 p.m.	4-5 p.m.	5-6 p.m.	6-7* p.m.	TOTAL
Route Trucks	0	7	8	7	5	5	5	9	10	10	8	8	9	10	9	0	0	110
Transfer Trucks	0	2	0	2	1	3	1	2	0	1	0	1	0	2	0	0	0	15
Small Load Trucks	0	0	0	0	0	1	1	2	2	3	3	4	3	3	3	0	0	25
Passenger Cars	5	0	0	0	0	5	1	1	6	1	1	1	1	1	0	0	5	28
Misc. Trucks	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	4
Recycling Pass. Cars	3	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	3	12
Recycling Trucks	0	2	3	2	2	2	2	3	4	4	3	3	3	4	3	0	0	40
																		234

*5 arriving passenger cars and 3 arriving recycling passenger cars in this hour are assumed to be employees who depart during the 9th hour after arrival

<u>Estimated Directional Distribution (% of incoming vehicles)</u>

From the North (Southbound on 130) 65%

From the South (Northbound on 130) 35%

All vehicles will enter the site going northbound on 183

All vehicles will exit the site going northbound on 183

ADDITIONAL DETAIL ON ESTIMATED TRAFFIC VOLUME CALCULATION

130 Environmental Park

ESTIMATED SITE TRAFFIC

Required: Estimate daily site traffic for each year during projected site life.

Assumptions:

1. Year 1 daily site traffic per Year 1 Estimated Site Traffic spreadsheet.
2. 50-year site life per 50-year Site Life Estimate spreadsheet.
3. Each traffic category increases at an annual rate of 1.58% (80% of CAPCOG Region Population Projections).

	Route Trucks			Transfer Trucks			Small Load Trucks			Passenger Cars			Miscellaneous Trucks			Recycling Passenger Cars			Recycling Trucks			Total Vehicles		
Year	Enter Route Trucks	Exit Route Trucks	Total Route Trucks	Enter Transfer Trucks	Exit Transfer Trucks	Total Transfer Trucks	Enter Small Loads	Exit Small Loads	Total Small Loads	Enter Cars	Exit Cars	Total Cars	Enter Misc Trucks	Exit Misc Trucks	Total Misc Trucks	Enter Recycling Cars	Exit Recycling Cars	Total Recycling Cars	Enter Recycling Trucks	Exit Recycling Trucks	Total Recycling Trucks	Enter Total	Exit Total	Total
1	110	110	220	15	15	30	25	25	50	28	28	56	4	4	8	12	12	24	40	40	80	234	234	468
2	112	112	223	15	15	30	25	25	51	28	28	57	4	4	8	12	12	24	41	41	81	238	238	475
3	114	114	227	15	15	31	26	26	52	29	29	58	4	4	8	12	12	25	41	41	83	241	241	483
4	115	115	231	16	16	31	26	26	52	29	29	59	4	4	8	13	13	25	42	42	84	245	245	491
5	117	117	234	16	16	32	27	27	53	30	30	60	4	4	9	13	13	26	43	43	85	249	249	498
6	119	119	238	16	16	32	27	27	54	30	30	61	4	4	9	13	13	26	43	43	87	253	253	506
7	121	121	242	16	16	33	27	27	55	31	31	62	4	4	9	13	13	26	44	44	88	257	257	514
8	123	123	246	17	17	33	28	28	56	31	31	62	4	4	9	13	13	27	45	45	89	261	261	522
9	125	125	249	17	17	34	28	28	57	32	32	63	5	5	9	14	14	27	45	45	91	265	265	531
10	127	127	253	17	17	35	29	29	58	32	32	64	5	5	9	14	14	28	46	46	92	269	269	539
11	129	129	257	18	18	35	29	29	58	33	33	66	5	5	9	14	14	28	47	47	94	274	274	547
12	131	131	261	18	18	36	30	30	59	33	33	67	5	5	10	14	14	29	48	48	95	278	278	556
13	133	133	266	18	18	36	30	30	60	34	34	68	5	5	10	14	14	29	48	48	97	282	282	565
14	135	135	270	18	18	37	31	31	61	34	34	69	5	5	10	15	15	29	49	49	98	287	287	574
15	137	137	274	19	19	37	31	31	62	35	35	70	5	5	10	15	15	30	50	50	100	291	291	583
16	139	139	278	19	19	38	32	32	63	35	35	71	5	5	10	15	15	30	51	51	101	296	296	592
17	141	141	283	19	19	39	32	32	64	36	36	72	5	5	10	15	15	31	51	51	103	301	301	601
18	144	144	287	20	20	39	33	33	65	37	37	73	5	5	10	16	16	31	52	52	104	305	305	611
19	146	146	292	20	20	40	33	33	66	37	37	74	5	5	11	16	16	32	53	53	106	310	310	621
20	148	148	296	20	20	40	34	34	67	38	38	75	5	5	11	16	16	32	54	54	108	315	315	630
21	151	151	301	21	21	41	34	34	68	38	38	77	5	5	11	16	16	33	55	55	109	320	320	640
22	153	153	306	21	21	42	35	35	69	39	39	78	6	6	11	17	17	33	56	56	111	325	325	650
23	155	155	311	21	21	42	35	35	71	40	40	79	6	6	11	17	17	34	56	56	113	330	330	661
24	158	158	316	22	22	43	36	36	72	40	40	80	6	6	11	17	17	34	57	57	115	336	336	671
25	160	160	320	22	22	44	36	36	73	41	41	82	6	6	12	17	17	35	58	58	117	341	341	682
26	163	163	326	22	22	44	37	37	74	41	41	83	6	6	12	18	18	36	59	59	118	346	346	693
27	165	165	331	23	23	45	38	38	75	42	42	84	6	6	12	18	18	36	60	60	120	352	352	703
28	168	168	336	23	23	46	38	38	76	43	43	86	6	6	12	18	18	37	61	61	122	357	357	715
29	171	171	341	23	23	47	39	39	78	43	43	87	6	6	12	19	19	37	62	62	124	363	363	726
30	173	173	347	24	24	47	39	39	79	44	44	88	6	6	13	19	19	38	63	63	126	369	369	737
31	176	176	352	24	24	48	40	40	80	45	45	90	6	6	13	19	19	38	64	64	128	375	375	749
32	179	179	358	24	24	49	41	41	81	46	46	91	7	7	13	20	20	39	65	65	130	380	380	761
33	182	182	363	25	25	50	41	41	83	46	46	92	7	7	13	20	20	40	66	66	132	386	386	773
34	185	185	369	25	25	50	42	42	84	47	47	94	7	7	13	20	20	40	67	67	134	393	393	785
35	187	187	375	26	26	51	43	43	85	48	48	95	7	7	14	20	20	41	68	68	136	399	399	797
36	190	190	381	26	26	52	43	43	87	48	48	97	7	7	14	21	21	42	69	69	138	405	405	810
37	193	193	387	26	26	53	44	44	88	49	49	98	7	7	14	21	21	42	70	70	141	411	411	823
38	196	196	393	27	27	54	45	45	89	50	50	100	7	7	14	21	21	43	71	71	143	418	418	836
39	200	200	399	27	27	54	45	45	91	51	51	102	7	7	15	22	22	44	73	73	145	425	425	849
40	203	203	405	28	28	55	46	46	92	52	52	103	7	7	15	22	22	44	74	74	147	431	431	863
41	206	206	412	28	28	56	47	47	94	52	52	105	7	7	15	22	22	45	75	75	150	438	438	876
42	209	209	418	29	29	58	48	48	95	53	53	106	8	8	15	23	23	46	76	76	152	445	445	890
43	212	212	425	29	29	58	48	48	97	54	54	108	8	8	15	23	23	46	77	77	155	452	452	904
44	216	216	432	29	29	58	49	49	98	55	55	110	8	8	16	24	24	47	78	78	157	459	459	918

Convenience Center Vehicles (Saturday Only)		
Enter Convenience Vehicles	Exit Convenience Vehicles	Total Convenience Vehicles
60	60	120
61	61	122
62	62	124
63	63	126
64	64	128
65	65	130
66	66	132
67	67	134
68	68	136
69	69	138
70	70	140
71	71	143
72	72	145
74	74	147
75	75	149
76	76	152
77	77	154
78	78	157
80	80	159
81	81	162
82	82	164
83	83	167
85	85	169
86	86	172
87	87	175
89	89	178
90	90	180
92	92	183
93	93	186
95	95	189
96	96	192
98	98	195
99	99	198
101	101	201
102	102	204
104	104	208
105	105	211
107	107	214
109	109	218
111	111	221
112	112	225
114	114	228
116	116	232
118	118	236