



LSC TRANSPORTATION CONSULTANTS, INC.
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Walden Preserve 2 Filing No. 4A
Traffic Technical Memorandum
(LSC #184810)
September 7, 2018

Revise all text from
filing no. "4A" to filing
no. "4"

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Date

Add "PCD File No. SF-18-034"



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September 7, 2018

Mr. Matt Dunston
Walden Holdings 1, LLC
17145 Colonial Park Drive
Monument, CO 80132

RE: Walden Preserve 2 Filing No. 4A
El Paso County, CO
Traffic Technical Memorandum
LSC #184810

Dear Matt:

LSC Transportation Consultants, Inc. has prepared this traffic technical memorandum for Filing 4A of the Walden Preserve 2 development. As shown in Figure 1, the site is generally located east of State Highway (SH) 83 and north of Hodgen Road, north of Colorado Springs in unincorporated El Paso County, Colorado. More specifically, the site is located northeast of the intersection of Walden Way and Pinehurst Circle (south intersection).

LSC prepared a traffic impact study (TIS) for the entire Walden Preserve 2 development dated September 14, 2014 and an addendum report for the Colorado Department of Transportation (CDOT) dated November 3, 2014. Since completion of the TIS and addendum report 43 lots for single-family homes have been platted in Filings 1 through 3 and public improvements required for those filings have been completed. An additional 23 lots are currently proposed to be platted as Filing 4A.

An amendment to the PUD Plan is proposed as part of this filing. The proposed amendment would shift one single-family lot from the north end of the development (future Filing 7) to the middle of the development (currently proposed Filing 4A). This change will have a negligible effect on the results/findings of the overall traffic report.

REPORT CONTENTS

This report presents:

- Recent/current street and traffic conditions in the vicinity of the site for identification of existing and planned street widths, lane geometries, traffic controls, posted speed limits, street classification, etc.

- Intersection sight distance at the proposed access to this filing – the intersection of Pinehurst Circle/Walden Way.
- Comparison of the current Walden Preserve 2 land uses to those shown in the PUD Plan TIS for the same land areas.
- The projected average weekday and peak-hour vehicle-trips to be generated by the proposed filing and amendment to the PUD Plan.
- The assignment of the projected trips to the existing and planned street system.
- The recommended street classifications for the internal streets within the proposed development.
- The project's obligation (if any) to the County roadway improvement fee program.
- The project's CDOT requirements per Access Permit No. 215017.

ROADWAY AND TRAFFIC CONDITIONS

Area Streets and Roads

The major roadways in the vicinity of the site are shown in Figure 1 and are described below.

State Highway (SH) 83 extends from Colorado Springs north to Parker and areas of southeast Denver. In the vicinity of the site, SH 83 is classified as a Regional Highway (R-A). At this location SH 83 is a two-lane rural highway with two- to four-foot shoulders and a speed limit of 60 miles per hour (mph). The intersections with Hodgen Road and Walker Road are signalized. The intersection with Walden Way is unsignalized with Stop-sign control for the westbound traffic.

Hodgen Road is a two-lane paved Rural Minor Arterial road that extends west from the intersection of Roller Coaster Road/Baptist Road to Eastonville Road. The speed limit on Hodgen Road is generally 55 mph east of SH 83.

Walden Way is a local roadway that extends southeast from SH 83 to the intersection of Timber Meadows Drive/Pond View Place.

Timber Meadows Drive is a Minor Collector roadway that extends south from the intersection of Walden Way/Pond View Place to just south of Hodgen Road.

Walker Road/Highway 105. Highway 105 west of State Highway 83 is a Principal Arterial and Walker Road east of State Highway 83 is a Collector roadway. Both are currently two-lane roadways but the Major Transportation Corridors Plan (MTCP) shows a future four-lane cross section on Highway 105 west of SH 83.

BACKGROUND

Walker Road Connection

The Walden Preserve 2 PUD plan includes a future connection north to Walker Road (Pinehurst Circle). This will be a significant improvement to the traffic distribution system of the project and will result in a reduced traffic impact on both the north section of Walden Way just east of SH 83 and Timber Meadow Drive to the south. This connection is not required with this filing. However, the connection is required prior to any additional development beyond this filing.

Add a section regarding Timber Meadow Dr. What is its current condition? Is the cross section to County Standard? Is there any off-site improvement responsibility by the Applicant with respect to Timber Meadow Dr and Timber Meadow Dr/Hodgens intersection?

The developers of Walden Preserve 2 are working with School District 38, which owns a 70-acre parcel on the southeast corner of the intersection of SH 83 and Walker Road. It is anticipated that a school will be built on the site in the short term. It is our understanding that the location of the Walden District wastewater treatment plant (1,400 feet west of Highway 83) has been selected for the intersection of Walker Road and the future connection.

SH 83/Walker/SH 105

At the time the PUD Plan TIS and amendment report were prepared the intersection of SH 83/Walker Road/SH 105 was two-way Stop-sign controlled. The need to signalize this intersection and estimates for fair share contributions towards the cost of the signal were a major focus of both reports. Since completion of the reports a traffic signal has been installed by CDOT. The November 3, 2014 addendum report identified a fair share contribution of 17.6 percent of the total cost for all of Walden Preserve 2. The currently proposed Filing 4A represents 19.8 percent of the total development (23 of 116 lots). CDOT Access Permit No. 215017 established the obligations for future subdivision filings (of which this Filing 4A is one). A copy of Access Permit No. 215017 is attached for reference. A CDOT access permit application will need to be submitted to CDOT for this filing for purposes of processing an amount due of \$6,714.69 for the previously identified fair share contribution associated with this filing to the traffic signal (now in place) at Highway 83 and Walker Road. This amount represents the prorated amount for 23 lots. (The original escrow table included in the Access Permit showed \$6,422.75 for 22 lots for this filing, which was previously called Filing 3.)

SH 83/Walden Way

The PUD Plan TIS assumed the intersection of SH 83/Walden Way would be restricted to right-in/right-out only. Prior to completion of the amendment report the applicant held discussions with the residents along Walden Way. The applicant indicated to LSC that many of the residents were resistant to either closing off the intersection entirely or installing major improvements to it, for instance constructing a raised island to prohibit left-turn movements and converting the intersection to a right in/right out. The amendment report therefore presented a revised analysis assuming no changes to this intersection. The report concluded that no improvements would be needed at this intersection in the foreseeable future.

Was there a CDOT access permit that specified converting to a RIRO? On the original study, what was the trigger which would warrant the change to a RIRO? Coordinate with CDOT for their requirements regarding any proposal to Highway 83.

LAND USE AND ACCESS

The PUD Plan TIS and amendment report assumed Walden Preserve 2 would be developed with 116 lots for single-family homes. The number of lots in the currently proposed amendment for the entire development remains the same but lot line adjustments have resulted in one additional lot in the area currently proposed as Filing No 4A and one less lot in the north end of the development shown as future Filing 7.

The currently proposed Filing 4A is planned to include **23 lots** for single-family homes. Access is proposed to an extension of Pinehurst Circle. The site plan is shown in Figure 2.

INTERSECTION SIGHT DISTANCE

The intersection sight distance at the planned new east leg of the intersection of Pinehurst Circle and Walden Way has been field-checked and meets County standards. The posted speed limit on Walden Way is 30 mph. The ECM-prescribed intersection sight distance is 335 feet. The field-measured sight distance is over 600 feet to the north and south along Walden Way.

TRIP GENERATION

The site-generated vehicle-trips were estimated using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 1 shows the current trip generation estimate for the currently proposed Filing 4A and the entire Walden Preserve 2 development at buildout. Table 1 also shows the trip generation estimate from the PUD Plan TIS and amendment report for comparison. The trip generation estimate from the previous report was based on the trip generation rates from the *Trip Generation 9th* edition.

As shown in Table 1 Walden Preserve Filing 4A is projected to generate about 217 new vehicle-trips on the average weekday, with about one-half of the vehicles entering and one-half of the vehicles exiting in a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about four vehicles would enter and 13 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:30 and 6:30 p.m., about 14 vehicles would enter and eight vehicles would exit the site.

TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the adjacent roadway system is an important factor in determining the site's traffic impacts. The specific trip distribution estimates are shown in Figure 3. These estimates represent the percentages of the site-generated traffic volumes projected to be oriented to and from the major approaches to the site. The directional distribution estimates are based on the following factors: traffic counts conducted in the area; the location of the site with respect to the Colorado Springs metropolitan

area and other developed areas; the existing and planned roadway system serving the site, particularly SH 83 and Hodgen Road, and Highway 105; and the land uses proposed for the site.

When the distribution percentages (from Figure 3) are applied to the trip generation estimates (from Table 1), the resulting site-generated traffic volumes can be determined. Figures 4 and 5 show the daily and weekday morning and afternoon peak-hour short-term site-generated traffic volume estimates. The short-term site-generated traffic volumes shown in Figure 4 assume Pinehurst Circle has been extended north of Walden Way adjacent to Filing 4A only. The short-term site-generated traffic volumes shown in Figure 5 assume Pinehurst Circle has been extended north to Walker Road. Figure 6 shows the long-term site-generated traffic volumes. The long-term site-generated traffic volumes assume Pinehurst Circle has been extended north to Walker Road.

2040 TOTAL TRAFFIC

Please refer to PUD Plan TIS and amendment report for the 2040 total traffic volumes and level of service analysis.

SUBDIVISION STREET CLASSIFICATIONS

All streets within the currently proposed Walden Preserve 2 Filing 4A including the extension of Pinehurst Circle should be classified as Rural Local.

This contradicts the final plat note which states road impact fee to be paid in full. Verify with the developer and revise either the TIS or the Plat to match.

TRANSPORTATION IMPROVEMENT FEE PROGRAM

The proposed subdivision filing will be required to participate in the Countywide Transportation Improvement Fee Program. This project will annex into the 10 mil PID. Based on a per-lot upfront building permit fee of \$923 per dwelling unit, the total building permit fee amount for the 23 lots within Filing 4A would be \$21,229.

CDOT SIGNAL CONTRIBUTION PER ACCESS PERMIT NO. 215017

A CDOT access permit application will need to be submitted to CDOT for purposes of processing an amount due to CDOT of \$6,714.69 for the previously identified contribution associated with this filing to the traffic signal (now in place) at Highway 83 and Walker Road. This amount represents the prorated amount for 23 lots. (The original escrow table included in the Access Permit showed \$6,422.75 for 22 lots for this filing, which was previously called Filing 3.)

* * * * *

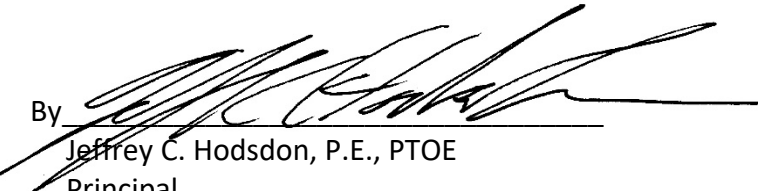
Provide an updated Traffic Signal Escrow Table (Exhibit A of the access permit) which includes the filing 3 and this filing 4A. FYI: Provide an updated tally with each subsequent final plat application.

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By



Jeffrey C. Hodsdon, P.E., PTOE
Principal

JCH:KDF:bjwb

Enclosures: Table 1
Figures 1-6
Walden Preserve 2 Amended PUD Plan
TIS for the overall PUD and CDOT Addendum Report (for reference)
CDOT Access Permit No. 215017 (included for reference)

1. Add a "recommendations and conclusions" section.
2. ECM B.1.3 notes that if the original TIS is older than 3 years, an entirely new TIS shall be prepared. Either comply with this section or submit a deviation request. If the deviation request is approved then a condition of approval will likely be placed to note that an entirely new TIS shall be prepared (w/ new traffic counts) with the subsequent final plat application.

**Table 1
Walden Preserve 2 Filing No. 4A
Trip Generation Estimate**

Filing	ITE Land Use Code	Land Use Description	Trip Generation Units	Average Weekday Traffic	Trip Generation Rates ⁽¹⁾				Total Trips Generated					
					Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		
					In	Out	In	Out		In	Out	In	Out	
Currently Proposed Filing														
4A	210	Single-Family Detached Housing	23 DU ⁽²⁾	9.44	0.19	0.56	0.62	0.37	217	4	13	14	8	
Recorded Plats														
1	210	Single-Family Detached Housing	21 DU	9.44	0.19	0.56	0.62	0.37	198	4	12	13	8	
2	210	Single-Family Detached Housing	18 DU	9.44	0.19	0.56	0.62	0.37	170	3	10	11	7	
3	210	Single-Family Detached Housing	4 DU	9.44	0.19	0.56	0.62	0.37	38	1	2	2	1	
		Total Filings 1, 2 & 3	43 DU						406	8	24	27	16	
		Total Filings 1-4	66 DU						623	12	37	41	24	
Future Filings														
5	210	Single-Family Detached Housing	14 DU	9.44	0.19	0.56	0.62	0.37	132	3	8	9	5	
6	210	Single-Family Detached Housing	13 DU	9.44	0.19	0.56	0.62	0.37	123	2	7	8	5	
7	210	Single-Family Detached Housing	23 DU	9.44	0.19	0.56	0.62	0.37	217	4	13	14	8	
		Total Filings 5, 6 & 7	50 DU						472	9	28	31	18	
		Total at Buildout	116 DU						1,095	21	64	72	42	
Buildout Trip Generation Estimate from Walden Preserve 2 Preliminary Plan and Filings 1 and 2 Updated Traffic Impact Study by LSC dated 9/17/2014														
- - -	210	Single-Family Detached Housing	116 DU ⁽²⁾	9.52	0.19	0.56	0.63	0.37	1,104	22	65	73	43	

Notes:

(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)

(2) DU = Dwelling Units

Source: LSC Transportation Consultants, Inc.



North Arrow
Approximate Scale
Scale: 1" = 2,000'

Figure 1

Vicinity Map

Walden Preserve Filing 4A (LSC #184810)



Approximate Scale
Scale: 1" = 1,000'

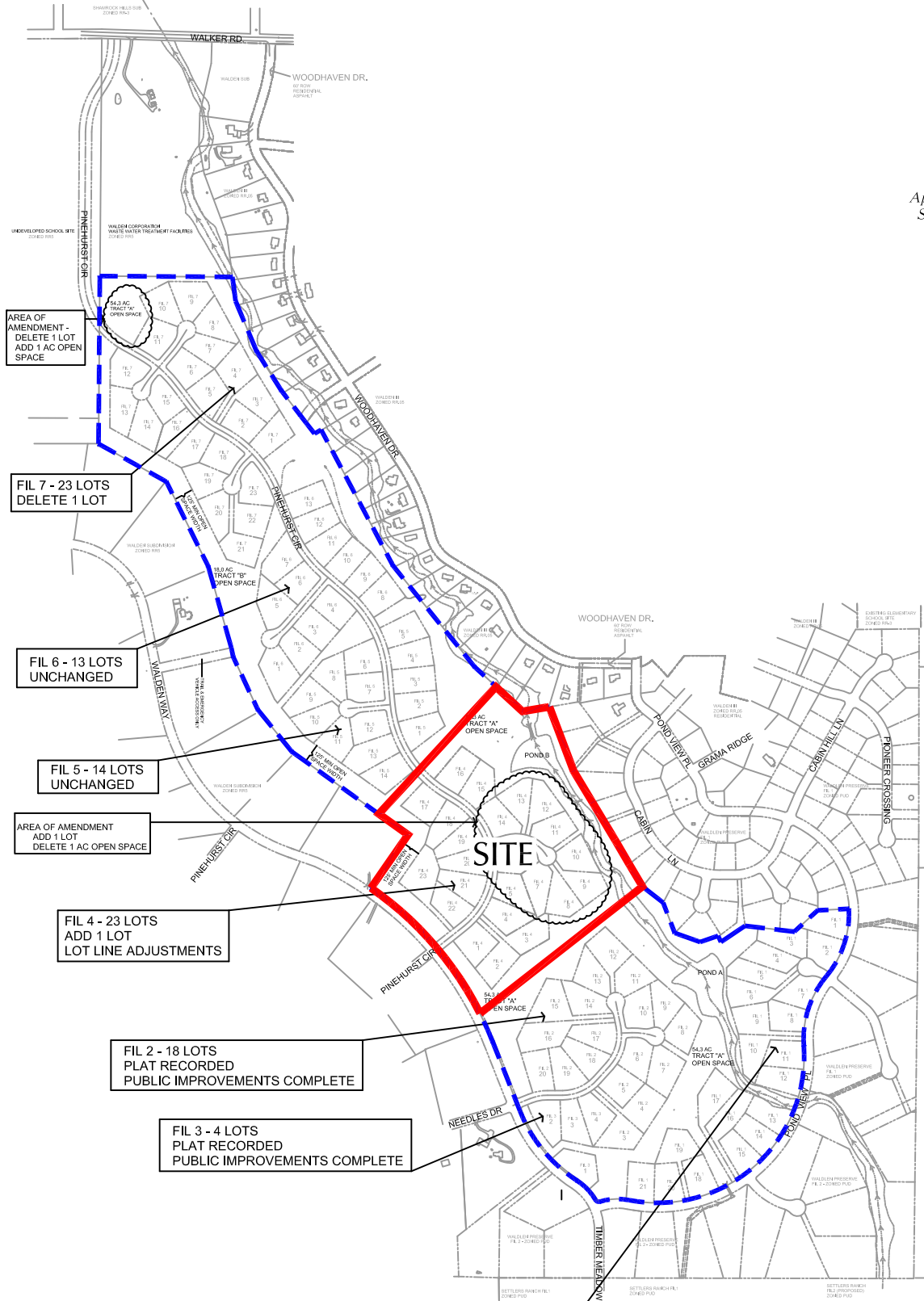


Figure 2
Site Plan

Walden Preserve Filing 4A (LSC #184810)



Provide an explanation in the Trip Distribution Narrative why the distribution assumes a approximately half of the trips going out from Walker Road would go back in through Hodgen in the short-term but not on the long-term.

Identify the % Distribution going to Timber Meadow Dr.

Revise the legend. Staff assumes the denominator is "Long-Term"

LEGEND:

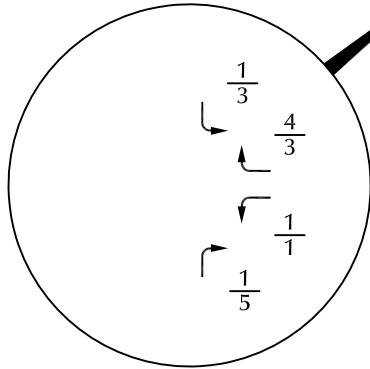
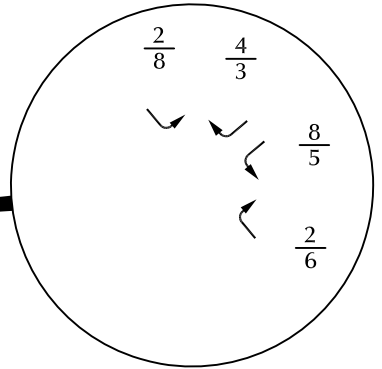
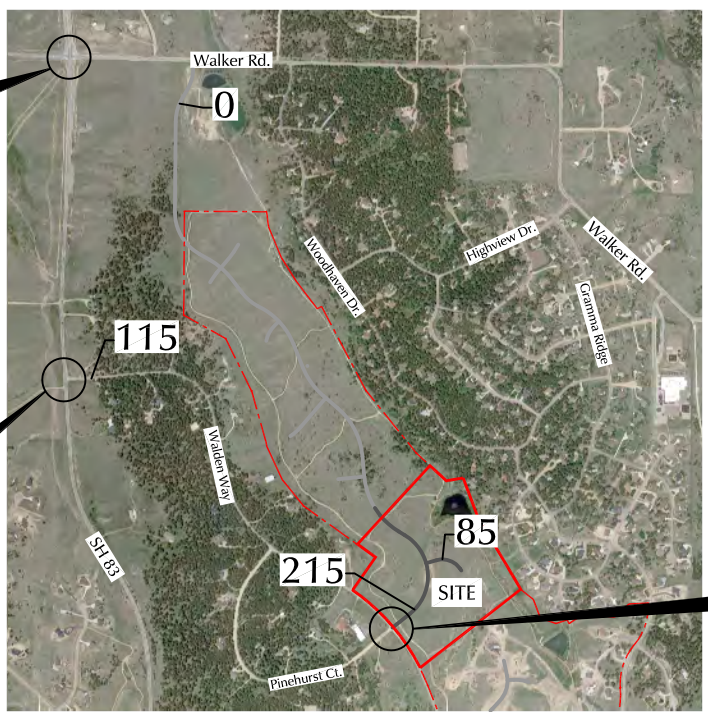
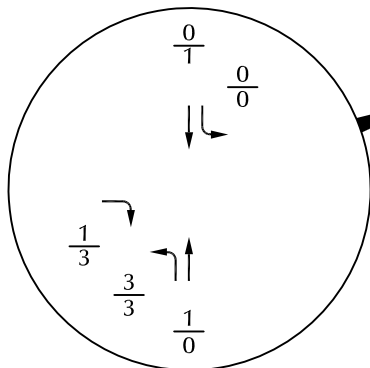
$$\frac{XX\%}{XX\%} = \frac{\text{Short-Term Percent Directional Distribution}}{\text{Short-Term Percent Directional Distribution}}$$



Figure 3

Directional Distribution of Site-Generated Traffic

Walden Preserve Filing 4A (LSC #184810)

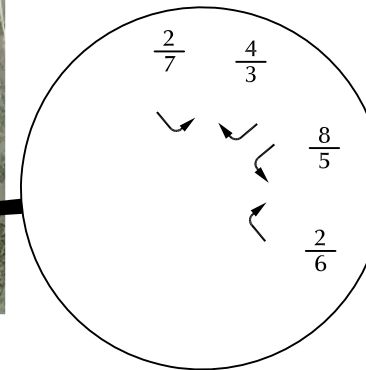
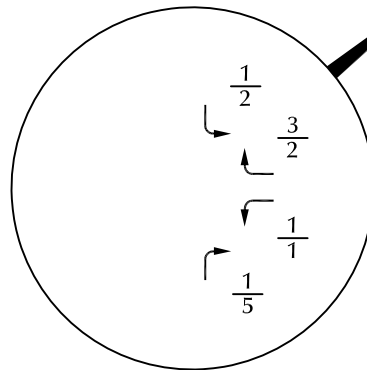
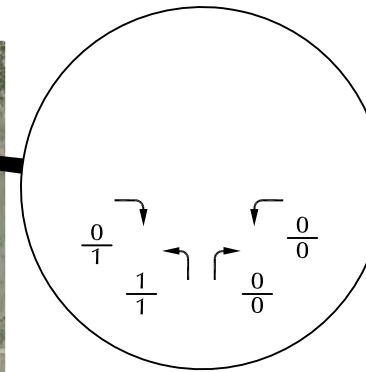
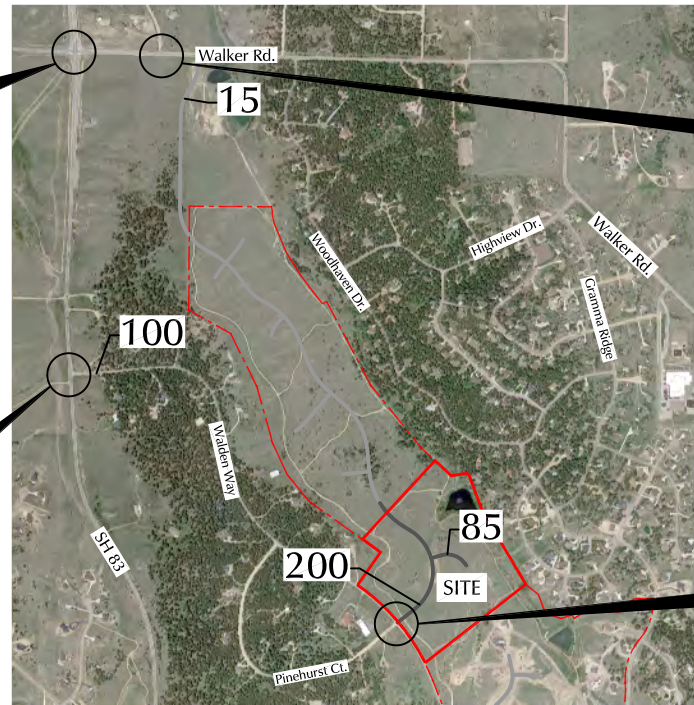
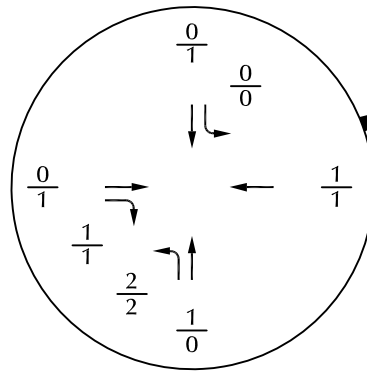


Approximate Scale
Scale: 1" = 1,200'

Figure 4
Assignment of
Short-Term Site-Generated Traffic
Without Pinehurst Extension

Walden Preserve Filing 4A (LSC #184810)

LEGEND:
 $\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$
 X,XXX = Average Weekday Traffic (vehicles per day)



Approximate Scale
Scale: 1" = 1,200'

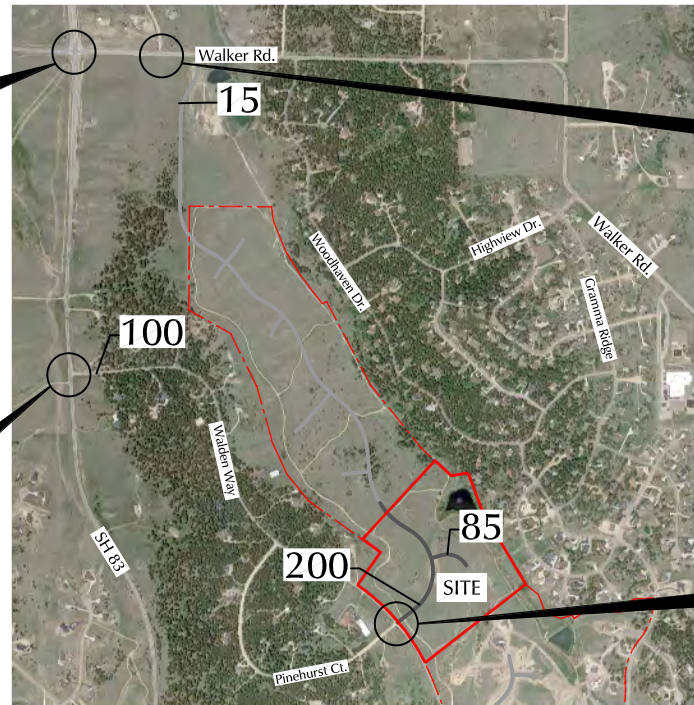
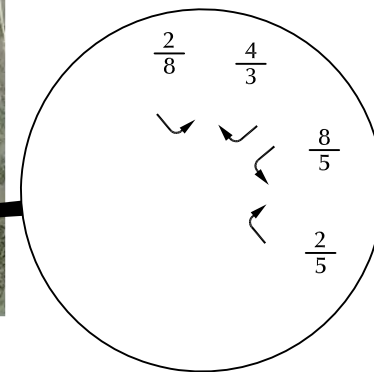
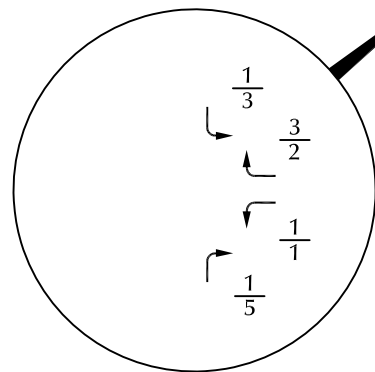
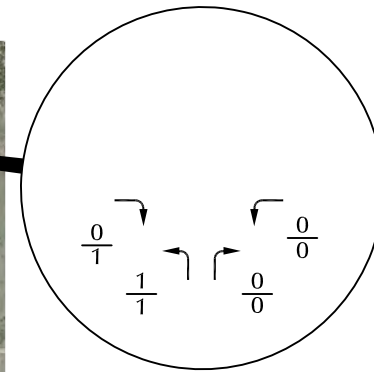
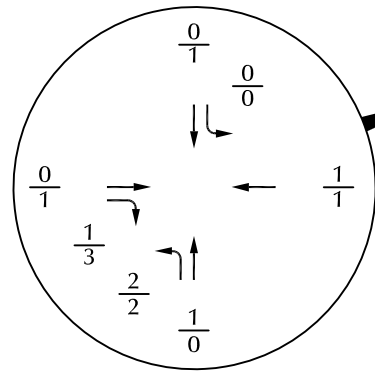
LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Weekday Traffic (vehicles per day)

Figure 5
Assignment of
Short-Term Site-Generated Traffic
With Pinehurst Extension

Walden Preserve Filing 4A (LSC #184810)



Approximate Scale
Scale: 1" = 1,200'

LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX= Average Weekday Traffic (vehicles per day)

Figure 6
**Assignment of
Buildout Site-Generated Traffic**

Walden Preserve Filing 4A (LSC #184810)

WALDEN PRESERVE 2 - FILING NO. 4A

AMENDED PUD DEVELOPMENT PLAN

OWNED AND DEVELOPED BY: WALDEN HOLDINGS I LLC, 17145 COLONIAL PARK DR, MONUMENT, CO 80132
PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO

LEGAL DESCRIPTION - WALDEN PRESERVE 2, FILING NO. 4:

A TRACT OF LAND BEING A PORTION OF THAT TRACT OF LAND AS DESCRIBED IN DEED RECORDED UNDER RECEPTION NO. 213109361 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER, LOCATED IN THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER (SW1/4 SW1/4) OF SECTION 14, THE SOUTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER (SE1/4 SE1/4) OF SECTION 22 AND THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER (NW1/4 NW1/4) OF SECTION 23, ALL IN TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE 6th P.M., EL PASO COUNTY, COLORADO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF TRACT A, WALDEN PRESERVE 2, FILING NO. 2, AS RECORDED UNDER RECEPTION NO. 215713641 OF SAID COUNTY RECORDS, SAID POINT ALSO BEING THE COMMON SOUTHWESTERLY CORNER OF LOT 9 AND LOT 10, WALDEN PRESERVE FILING NO. 1, AS RECORDED UNDER RECEPTION NO. 205122356 OF SAID COUNTY RECORDS, AS MONUMENTED BY A REBAR AND RED CAP STAMPED "PLSC RLS 25968", FROM WHICH THE MOST WESTERLY CORNER OF SAID TRACT A, SAID POINT ALSO BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF WALDEN WAY, AS SHOWN ON THE PLAT OF WALDEN III, AS RECORDED IN PLAT BOOK H-2 AT PAGE 19 UNDER RECEPTION NO. 000417849 OF SAID COUNTY RECORDS, AS MONUMENTED BY A REBAR AND ORANGE CAP STAMPED "RAMPART SL 26965" BEARS S52°00'21"W (PER SAID PLAT OF WALDEN PRESERVE 2, FILING NO. 2), A DISTANCE OF 1329.52 FEET (OF RECORD) AND IS THE BASIS OF BEARINGS USED HEREIN;

THENCE S52°00'21"W ALONG THE NORTHWESTERLY LINE OF SAID TRACT A, A DISTANCE OF 1329.52 FEET TO THE MOST WESTERLY CORNER THEREOF, SAID POINT ALSO BEING A POINT ON SAID EASTERLY RIGHT-OF-WAY LINE;
THENCE ALONG THAT LINE COMMON TO SAID TRACT AND SAID EASTERLY RIGHT-OF-WAY LINE AND ALONG THE ARC OF A 2185.61 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 28°23'06", AN ARC LENGTH OF 1082.77 FEET (THE LONG CHORD OF WHICH BEARS N41°00'30"W, A LONG CHORD DISTANCE OF 1071.73 FEET) TO AN ANGLE POINT ON THE WESTERLY LINE OF SAID TRACT, SAID POINT ALSO BEING THE MOST SOUTHERLY CORNER OF TRACT 10 OF SAID WALDEN III;
THENCE ALONG THAT LINE COMMON TO SAID TRACT AND SAID TRACT 10 TO THE FOLLOWING 2 COURSES:

- 1.) THENCE N34°47'06"E, A DISTANCE OF 417.69 FEET;
- 2.) THENCE N54°20'22"W, A DISTANCE OF 231.20 FEET;
- THENCE N44°28'12"E, A DISTANCE OF 844.52 FEET;
- THENCE N89°11'30"E ALONG THE SOUTHERLY LINE OF WALDEN III, FILING 3, AS RECORDED IN PLAT BOOK R-2 AT PAGE 49 UNDER RECEPTION NO. 02880707 OF SAID COUNTY RECORDS AND THE WESTERLY EXTENSION THEREOF, A DISTANCE OF 516.58 FEET TO THE NORTHWEST CORNER OF SAID WALDEN PRESERVE FILING NO. 1;
- THENCE ALONG THAT LINE COMMON TO SAID TRACT AND THE WESTERLY LINE OF SAID WALDEN PRESERVE FILING NO. 1 THE FOLLOWING TWO (2) COURSES:

 - 1.) THENCE S20°41'02"E, A DISTANCE OF 442.48 FEET;
 - 2.) THENCE S30°46'38"E, A DISTANCE OF 866.95 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 45.27 ACRES OF LAND, MORE OR LESS.

DEVELOPMENT NOTES:

1. NO CHANGE TO THE TOTAL NUMBER OF LOTS OR THE TOTAL AREA OF OPEN SPACE IS PROPOSED WITHIN THE AMENDMENT.
2. SEE SHEET 2 OF SIX FOR NAMES AND ADDRESSES OF FIL 4 ADJOINING OWNERS.
3. SEE SHEET 4 OF SIX FOR PROPOSED ROADWAY CROSS SECTION.
4. WATER SHALL BE PROVIDED BY THE WALDEN CORPORATION
5. WASTE WATER COLLECTION AND TREATMENT SHALL BE PROVIDED BY THE WALDEN CORPORATION
6. ALL PLATTED OPEN SPACE TRACTS SHALL BE OWNED AND MAINTAINED BY THE OWNERS' ASSOCIATION OR THE PROPOSED METROPOLITAN DISTRICT.
7. ALL OPEN SPACE TRACTS TO BE DRAINAGE AND UTILITY EASEMENTS IN THEIR ENTIRETY.
8. ALL DRAINAGE FACILITIES LOCATED WITHIN THE PUD OPEN SPACE TRACTS SHALL BE MAINTAINED BY THE PROPERTY OWNERS' ASSOCIATION OR PROPOSED METROPOLITAN DISTRICT IN ACCORDANCE WITH A STANDARD EL PASO COUNTY DRAINAGE DETENTION MAINTENANCE AGREEMENT.
9. ALL ROADWAYS AND DRAINAGE FACILITIES LOCATED WITHIN DEDICATED COUNTY RIGHT-OF-WAYS AND SPECIFIED EASEMENTS SHALL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND WILL BE OWNED AND MAINTAINED BY EL PASO COUNTY.
10. THE PROPOSED METHOD OF GUARANTEEING FUNDS SHALL BE APPROVED BY AND ACCEPTABLE TO THE EL PASO COUNTY ATTORNEYS OFFICE.
11. THIS LAND USE APPLICATION INCLUDES CONSTRUCTION OF CENTRAL WATER DISTRIBUTION SYSTEM IMPROVEMENTS, CENTRAL WASTEWATER COLLECTION SYSTEM IMPROVEMENTS, AND THE FOLLOWING POTENTIAL FUTURE INFRASTRUCTURE IMPROVEMENTS TO THE WALDEN CORPORATION WATER AND WASTE WATER SYSTEMS:
 - CONSTRUCTION OF WATER STORAGE TANK NO. 2
 - DRILLING OF ADDITIONAL WELLS IN OPEN SPACE AREAS AND UTILITY EASEMENTS
 - CONSTRUCTION OF WELL HOUSES AND BOOSTER PUMP STATION BUILDINGS WITHIN OPEN SPACE AREAS
 - WASTEWATER TREATMENT FACILITY IMPROVEMENTS

THE FACILITIES INCLUDED IN THIS NOTATION, AND ANY OTHER FUTURE FACILITIES, MAY BE SUBJECT TO THE COUNTY ADOPTED 1041 REGULATIONS.

12. ALL PROPERTY WITHIN THIS PUD ZONE IS SUBJECT TO ROAD IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM (RESOLUTION NO. 12-382), AS AMENDED, AT THE TIME OF BUILDING PERMIT APPLICATION OR AT THE TIME OF FINAL PLAT RECORDATION.

13. THE DEVELOPER INTENDS TO PAY SCHOOL FEES IN LIEU OF LAND DEDICATION

14. THE DEVELOPER INTENDS TO DEDICATE THE REGIONAL TRAIL EASEMENT AS INDICATED.

15. THE OPEN SPACE SHALL BE MAINTAINED BY THE PROPERTY OWNERS' ASSOCIATION OR, IF CREATED, THE PROPOSED METROPOLITAN DISTRICT. THE COMMUNITY WATER FACILITIES AND THE COMMUNITY WASTEWATER FACILITIES IN THIS PUD SHALL BE OPERATED AND MAINTAINED BY THE WALDEN CORPORATION EXCEPT TO THE EXTENT SUCH OPERATION AND MAINTENANCE ARE UNDERTAKEN BY THE PROPOSED METROPOLITAN DISTRICT.

16. THE DEVELOPER INTENDS TO ENTER INTO A PARKLANDS AGREEMENT THAT WILL PERMIT THE DEVELOPER TO BUILD THE REGIONAL TRAIL AND RECEIVE CREDIT AGAINST THE REGIONAL PARK FEES AND TO RECEIVE CREDIT AGAINST THE URBAN PARK FEES FOR URBAN PARK AMENITIES.
17. OPEN SPACE WILL BE INCLUDED IN EACH FINAL PLAT SUCH THAT THE CUMULATIVE AMOUNT EQUALS OR EXCEEDS THE MINIMUM OPEN SPACE REQUIREMENTS IDENTIFIED WITHIN THE EL PASO COUNTY LAND DEVELOPMENT CODE'S PUD ZONE REQUIREMENTS.
18. THE CONSTRUCTED REGIONAL TIER I TRAIL SHALL BE LOCATED A MINIMUM OF FIFTY FEET (50') FROM THE 5 ACRE WALDEN III TRACTS ALONG WALDEN WAY.
19. NO MORE THAN 66 LOTS MAY BE PLATTED IN THE PUD UNTIL CONSTRUCTION DRAWINGS AND ADEQUATE FINANCIAL ASSURANCES ARE APPROVED AND/OR ACCEPTED FOR CONSTRUCTION CONNECTING (A) THE MAIN ROAD THROUGH THE NORTHERN PORTION OF THE PUD WITH (B) A PUBLIC ROAD EXTENDING SOUTH FROM WALKER RD. AND SUCH PUBLIC RIGHT OF WAY HAS BEEN DEDICATED TO AND ACCEPTED BY THE COUNTY.
20. ALL TRAILS SHALL BE CONSIDERED OPEN FOR EQUESTRIAN USE EXCEPT AS OTHERWISE DEPICTED ON THE FOLLOWING SHEETS.
21. OPEN SPACE TRACT AREAS SHOWN ON SHEETS 1, 3, 4, 5 & 6 ARE RELATIVE TO THE TOTAL PROJECT AREA. OPEN SPACE TRACT AREAS SHOWN ON SHEET 2 (FIL 4) ARE RELATIVE TO THE FILING 4 FINAL PLAT.

STANDARD PCD PUD PLAN NOTES

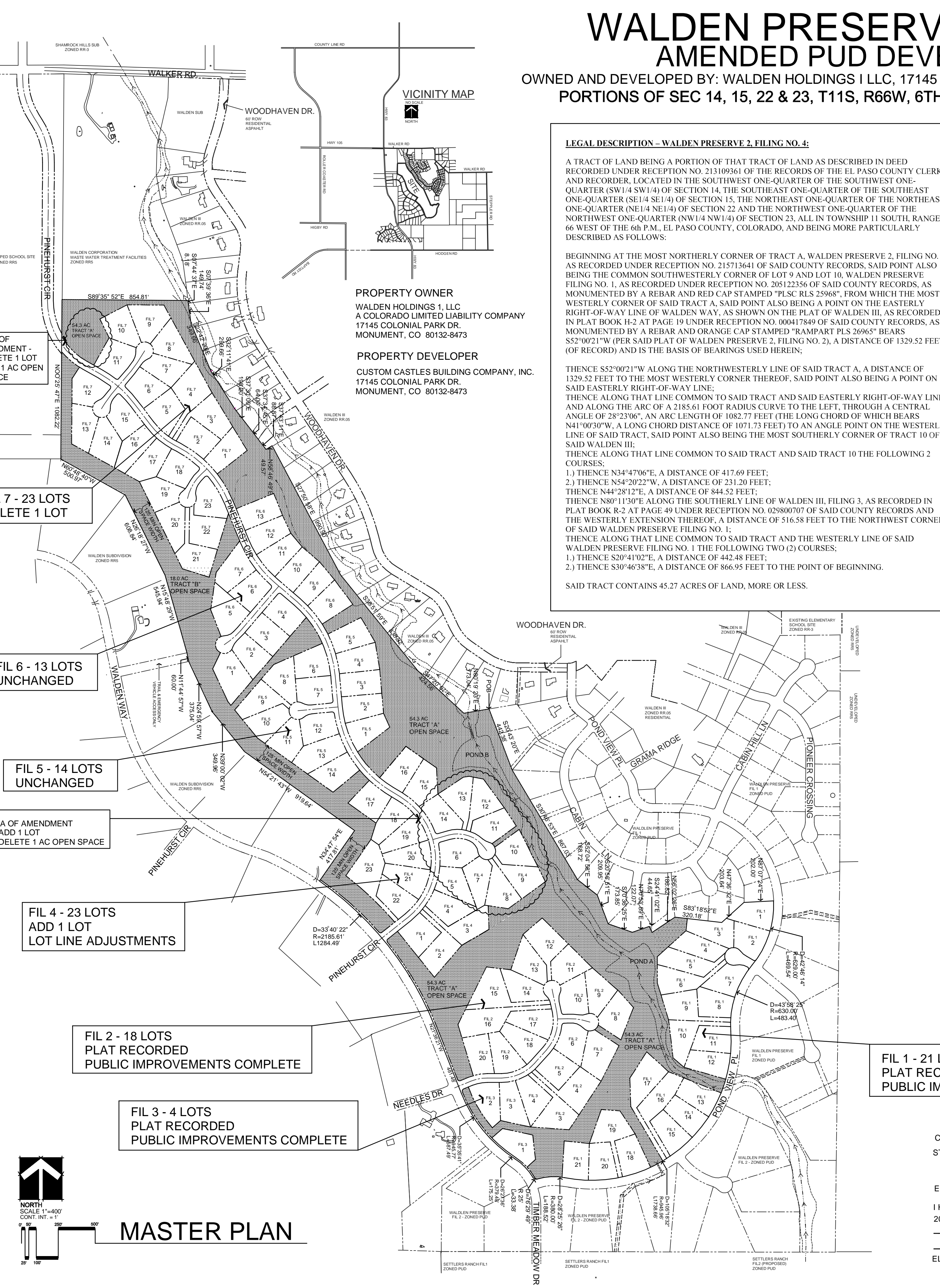
1. THE FOLLOWING REPORTS HAVE BEEN SUBMITTED IN ASSOCIATION WITH THE PUD PLAN FOR THIS PUD ZONE AND ARE ON FILE AT THE COUNTY DEVELOPMENT SERVICES DEPARTMENT: TRANSPORTATION IMPACT STUDY; DRAINAGE REPORT; WATER RESOURCES REPORT; WASTEWATER DISPOSAL REPORT; GEOLOGY AND SOILS REPORT; FIRE PROTECTION REPORT; NATURAL FEATURES REPORT.
2. DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATIONS, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENTS, IF ANY, OF APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO DIVISION OF WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORPS OF ENGINEERS AND THE U.S. FISH AND WILDLIFE SERVICE REGARDING THE ENDANGERED SPECIES ACT, PARTICULARLY AS RELATED TO THE LISTED SPECIES IDENTIFIED IN THE PROJECT'S ENVIRONMENTAL ASSESSMENT.
3. NO DRIVEWAY SHALL BE ESTABLISHED UNLESS AN ACCESS PERMIT HAS BEEN GRANTED BY EL PASO COUNTY.

SHEET INDEX

- SHEET 1 - COVER SHEET & MASTER PLAN
- SHEET 2 - FILING 4 AMENDED PUD PLAN
- SHEET 3 - FILING 5 & 6 AMENDED PUD PLAN
- SHEET 4 - FILING 7 AMENDED PUD PLAN
- SHEET 5 - PHASING PLAN
- SHEET 6 - LANDSCAPE BUFFER PLAN

DEVELOPMENT DATA & CRITERIA

- SF LOTS - 116 LOTS, 125.08 AC, (60%)
- OPEN SPACE RECREATIONAL - 65.10 AC (31%)
- OPEN SPACE DRAINAGE FACILITIES - 7.23 AC (4%)
- OPEN SPACE TOTAL - 72.33 AC (35%)
- ROAD ROW - 8969 LF, 11.41 AC (5%)
- TOTAL - 116 LOTS, 208.82 AC (100%)
- MIN LOT SIZE - 1.0 AC
- AVE LOT SIZE - 1.08 AC
- GR. DENSITY - 1 LOT / 1.87 AC
- * DRAINAGE FACILITIES ARE ESTIMATED TO BE APPROXIMATELY 10% OF THE TOTAL OPEN SPACE AREA
- MAX. BLDG. HT. - 30' (PER CODE MEASUREMENT)
- BLDG SETBACKS - FRONT - 25'
- SIDE - 15'
- REAR - 25'
- STANDARD UTILITY & DRAINAGE EASEMENTS
- FRONT - 15'
- SIDE - 10'
- REAR - 10'
- PERIMETER - 30'



CLERK AND RECORDER CERTIFICATION

STATE OF COLORADO
JSS

EL PASO COUNTY

I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON _____ OF _____
20__ AT _____ O'CLOCK AND WAS RECORDED PER RECEPTION NUMBER _____

EL PASO COUNTY CLERK AND RECORDER

DATE

GENERAL PROVISIONS

- THE PURPOSE AND INTENT OF THE PUD ZONING IS TO PROVIDE FOR THE DEVELOPMENT OF 116 SINGLE FAMILY RESIDENTIAL LOTS AT A MINIMUM SIZE OF 1.0 AC.

- AUTHORITY

THE PUD IS AUTHORIZED BY CHAPTER 4 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, AS ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

- APPLICABILITY

THE PROVISIONS OF THIS PUD SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THIS DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.

- ADOPTION

THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCE THE FINDINGS AND DECISIONS OF THE EL PASO COUNTY BOARD OF COUNTY COMMISSIONERS THAT THIS DEVELOPMENT PLAN FOR WALDEN PRESERVE 2 IS IN GENERAL CONFORMITY WITH THE EL PASO COUNTY MASTER PLAN, EL PASO COUNTY POLICY PLAN AND APPLICABLE SMALL AREA PLAN(S); IS AUTHORIZED UNDER THE PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE; AND THAT THE EL PASO COUNTY LAND DEVELOPMENT CODE AND THIS DEVELOPMENT PLAN COMPLIES WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

- RELATIONSHIP TO COUNTY REGULATIONS

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF WALDEN PRESERVE 2. PROVIDED, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT, THE RELEVANT PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, AS AMENDED AND IN EFFECT AT THE TIME OF THE PUD PLAN APPROVAL (OR OWNER ACKNOWLEDGE TO PUD CHANGES WITH THE CODE), OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF EL PASO COUNTY, SHALL BE APPLICABLE.

- ENFORCEMENT

TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PUD AND OF THE PUBLIC IN PRESERVATION OF THE INTEGRITY OF THIS DEVELOPMENT PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND AND THE LOCATION OF COMMON OPEN SPACE SHALL RUN IN FAVOR OF EL PASO COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW.

- CONFLICT

WHERE THERE IS MORE THAN ONE PROVISION WITH THE DEVELOPMENT PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISION WHICH IS MOST RESTRICTIVE OR IMPOSES HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN.

- MAXIMUM LEVEL OF DEVELOPMENT

THE TOTAL NUMBER OF DWELLINGS OR THE TOTAL COMMERCIAL, BUSINESS, OR INDUSTRIAL INTENSITY SHOWN ON THE DEVELOPMENT PLAN FOR DEVELOPMENT WITHIN THE SPECIFIED PLANNING AREAS IS THE MAXIMUM DEVELOPMENT REQUESTED FOR PLATTING OR CONSTRUCTION (PLUS ANY APPROVED DENSITY TRANSFERS). THE ACTUAL NUMBER OF DWELLINGS OR LEVEL OF DEVELOPMENT MAY BE LESS DUE TO SUBDIVISION OR SITE DEVELOPMENT REQUIREMENTS, LAND CARRYING CAPACITY, OR OTHER REQUIREMENTS OF THE BOARD OF COUNTY COMMISSIONERS.

- PROJECT TRACKING

AT THE TIME OF ANY FINAL PLAT APPLICATION, THE APPLICANT SHALL PROVIDE A SUMMARY OF THE DEVELOPMENT TO DATE, TO DEVELOPMENT SERVICES DEPARTMENT, IN ORDER TO ASSURE MAXIMUM DEVELOPMENT LIMITS ARE NOT EXCEEDED.

"OWNERSHIP"

KNOW ALL MEN BY THESE PRESENTS THAT WALDEN HOLDINGS I, LLC, A COLORADO LIMITED LIABILITY COMPANY IS OWNER OF PROPERTY DESCRIBED AS PARCEL NUMBER 6123001023, WITHIN THE AFORESAID LEGAL DESCRIPTION, WALDEN PRESERVE 2 FIL 4A PUD DEVELOPMENT PLAN.

IN WITNESS WHEREOF:

THE AFORESAID HAVE EXECUTED THESE PRESENTS THIS _____ DAY OF _____, 20__

MATTHEW W. DUNSTON, MANAGING MEMBER
WALDEN HOLDINGS I, LLC

STATE OF COLORADO
JSS

COUNTY OF EL PASO

THE ABOVE AND FOREGOING STATEMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20__ BY MATTHEW W. DUNSTON

WITNESS MY HAND AND OFFICIAL SEAL: _____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

OWNERSHIP CERTIFICATION

A QUALIFIED TITLE INSURANCE COMPANY DUELY QUALIFIED, INSURED, OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY WALDEN HOLDINGS I, LLC AT THE TIME OF THIS APPLICATION.

STATE OF COLORADO
JSS

EL PASO COUNTY

THE ABOVE AND FOREGOING STATEMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20__ BY _____

WITNESS MY HAND AND OFFICIAL SEAL: _____
NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

COUNTY CERTIFICATION

THIS REZONING REQUEST TO PUD HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE BOARD OF RESOLUTION NO. _____ APPROVING THE PUD AND ALL APPLICABLE EL PASO COUNTY REGULATIONS.

DIRECTOR, PLANNING AND COMMUNITY DEVELOPMENT

DATE

LRA

LAND RESOURCE ASSOCIATES
8736 MOUNTAIN RD.
CHIRTA PARK, CO 80809
719-684-2298

SHEET TITLE:
COVER SHEET

ISSUED FOR:
COUNTY REVIEW

project number

computer file

issue date
AUG 10, 2018

drawn by
DFJ

checked by
DFJ

revisions

sheet number

1 OF SIX

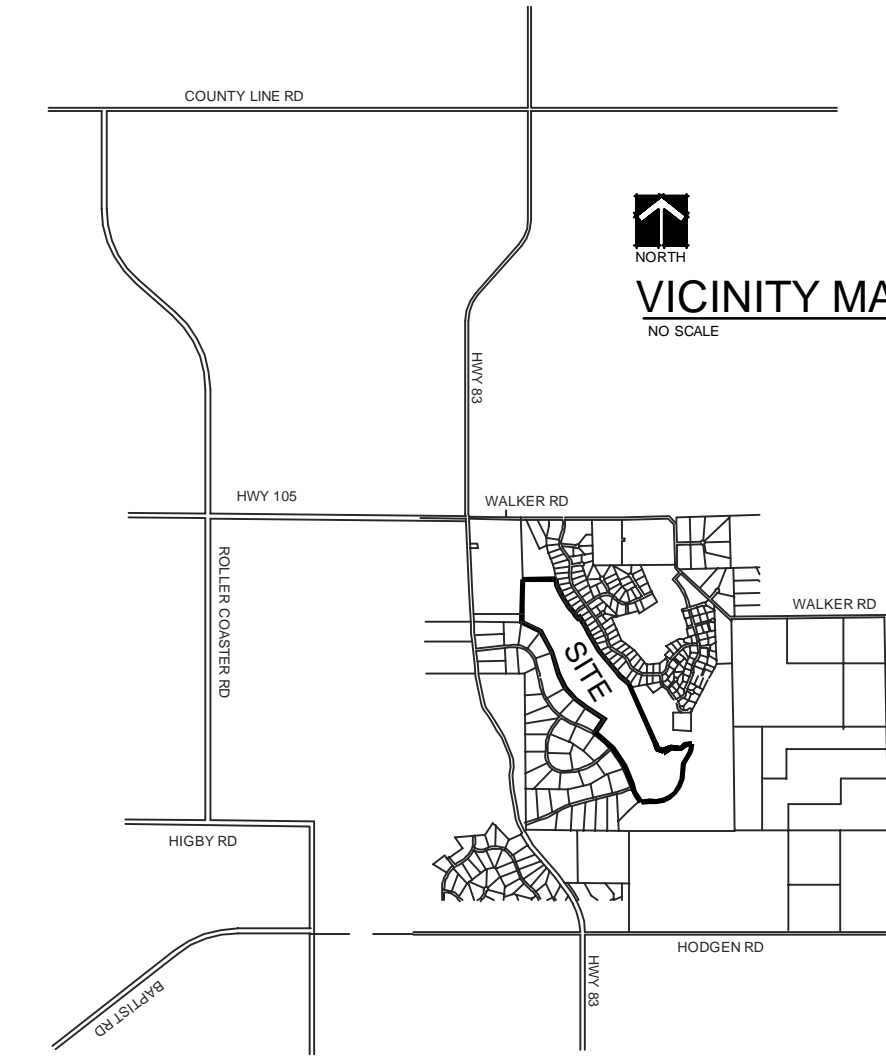
PCD FILE NO.

WALDEN PRESERVE 2 - FILING 4A AMENDED PUD DEVELOPMENT PLAN

OWNED & DEVELOPED BY: WALDEN HOLDINGS I LLC, 17145 COLONIAL PARK DR, MONUMENT, CO 80132
PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO

FILING NO. 4 - ADJOINING OWNERS

- ① 61223 02 008
MARITTA V GOLDMAN , 3645 PINEHURST CIR, COLO SPGS, CO 80908-1330
- ② 61220 01 005
ROBIN & LEILANI GLASER, 17420 WALDEN WY, COLO SPGS, CO 80908-1325
- ③ 61220 01 006
ANN THURSTON, 17440 WALDEN WY, COLO SPGS, CO 80908-1325
- ④ 61150 03 004
DAVID & SANDRA WORTLEY, 17525 WALDEN WY, COLO SPGS, CO 80908-1326
- ⑤ 61230 01 023
WALDEN HOLDINGS I, LLC, 1230 SCARSBROOK CT, MONUMENT, CO 8012-8487
- ⑥ 61140 04 003
CINDY HARROLD, 17760 WOODHAVEN DR, COLO SPGS, CO 80908-1380
- ⑦ 61140 04 009
PHILIP & CAROL MEHL, 17688 CABIN HILL LN, COLO SPGS, CO 80908-1450
- ⑧ 61140 04 010
DERRICK & KATHERINE ANKROM, 17680 CABIN HILL LN, COLO SPGS, CO 80908-1450
- ⑨ 61140 04 011
CHRISTOPHER & ANNE CULLEN, 17672 CABIN HILL LN, COLO SPG, CO 80908-1450
- ⑩ 61140 04 012
ROBERT WALTERS, 15954 JACKSOON CREEK PKWY, #523, MONUMENT, CO 80132-8532
- ⑪ 61140 04 013
GARY & MELISSA MUTO, 17656 CABIN HILL LN, COLO SPGS, CO 80908-1450
- ⑫ 61140 04 014
MATTHEW & VONNE CARVER, POB 869, MONUMENT, CO 80132-0869
- ⑬ 61140 04 016
ERIC & KRISTA BOGENRIEF, POB 1402, PALMER LAKE, CO 80133
- ⑭ 61140 04 017
DAVID REED & KATHLEEN FLARITY, 17632 CABIN HILL LN, COLO SPGS, CO 80908-1450
- ⑮ 61230 01 001
MAX & LESLIE LANTZ, 17624 CABIN HILL LN, COLO SPGS, CO 80908-1450
- ⑯ 61230 01 067
CUSTOM CASTLES BLDG CO INC, 1230 SCARSBROOK CT, MONUMENT, CO 80132-8487
- ⑰ 61140 04 015
WALDEN CORPORATION, 17145 COLONIAL PARK DR, MONUMENT, CO 80132-8473



FIL 4 DEVELOPMENT DATA

SINGLE FAMILY LOTS - 23 LOTS, 24.23 AC (54%)
OPEN SPACE - 18.16 AC (40%)
ROAD ROW - 1,912 LF, 2.88 AC (6%)

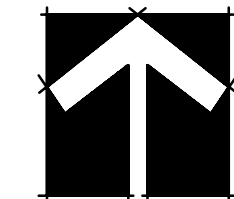
TOTAL - 45.27 AC (100%)

MIN. LOT SIZE - 1.00 AC
AVE. LOT SIZE - 1.05 AC
GR. DENSITY - 1 LOT / 1.97 AC

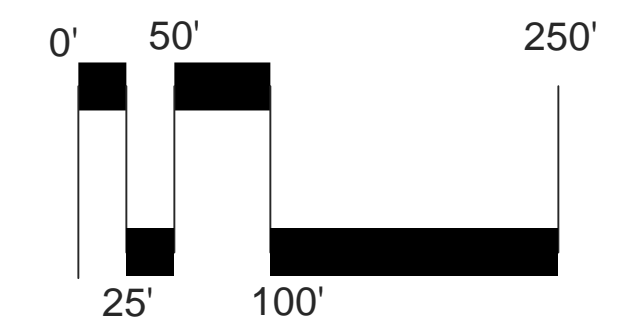
STANDARD BLDG SETBACKS

FRONT 25'
SIDE 15'
REAR 25'
STANDARD UTILITY & DRAINAGE EASEMENTS
FRONT 15'
SIDE 10'
REAR 10'

* THERE ARE NO SLOPES 30% OR GREATER ON THIS SITE



NORTH
SCALE 1"=100'-0"
CONT. INT. = 2'



PLAN SYMBOLS

INDICATES CULVERT

INDICATES MIN 150' LOT
WIDTH AT FRONT YARD
BUILDING SETBACK

INDICATES INCREASED BLDG
SETBACK DUE TO FLAG LOT
CONFIGURATION

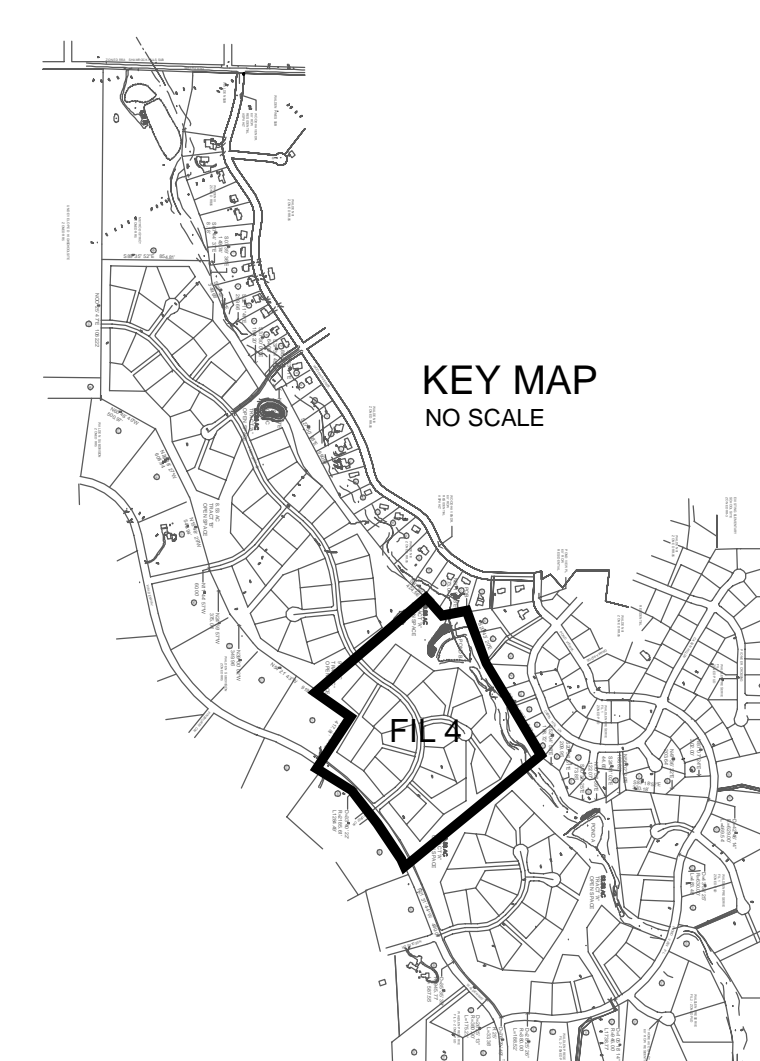
INDICATES REGIONAL TIER 1 TRAIL IN 25' EASEMENT
OWNED AND MAINTAINED BY COUNTY PARKS. FINAL
ALIGNMENT FOR TRAIL NOT ADJOINING PROPERTY LINE TO
BE DETERMINED PER PARKS TRAIL AGREEMENT

INDICATES LOCAL TRAIL OWNED AND MAINTAINED BY
METRO DISTRICT OR PROPERTY OWNERS' ASSOC.
NO ADDITIONAL EASEMENT REQUIRED

INDICATES EXISTING TRAIL & MAINTENANCE ROAD
OWNED AND MAINTAINED BY METRO DISTRICT OR
PROPERTY OWNERS ASSOC TO REMAIN. NO
ADDITIONAL EASEMENT REQUIRED.

INDICATES REGIONAL TIER 1 TRAIL IN 25' EASEMENT
OWNED AND MAINTAINED BY COUNTY PARKS. FINAL
ALIGNMENT TO BE DETERMINED PER PARKS TRAIL
AGREEMENT.

INDICATES LOCAL TRAIL OWNED AND MAINTAINED BY
METRO DISTRICT OR PROPERTY OWNERS' ASSOC.
NO ADDITIONAL EASEMENT REQUIRED.



NOTE: OPEN SPACE AREAS SHOWN ON THIS SHEET
ARE RELATIVE TO THE FIL 4 FINAL PLAT TRACT AREAS.

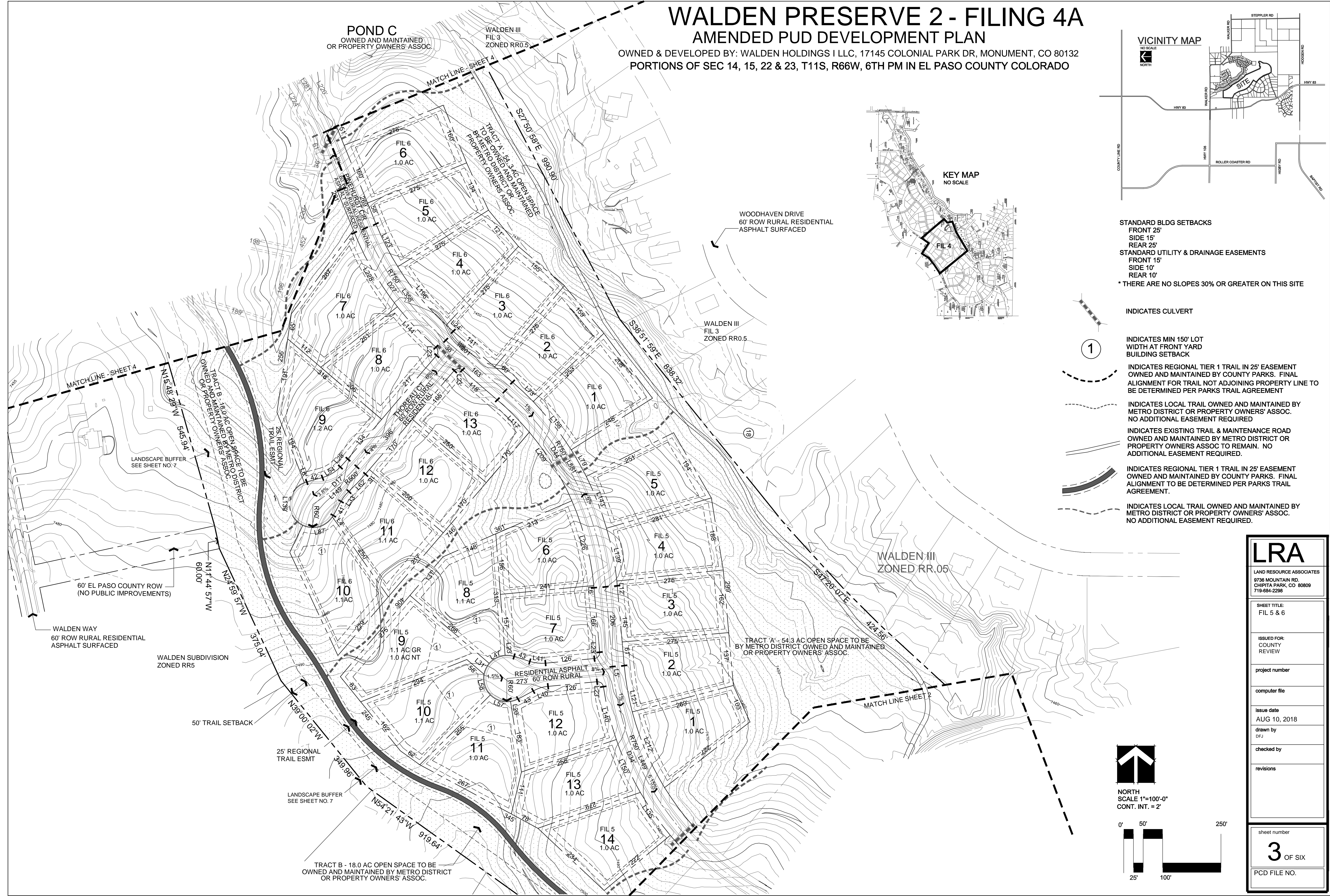
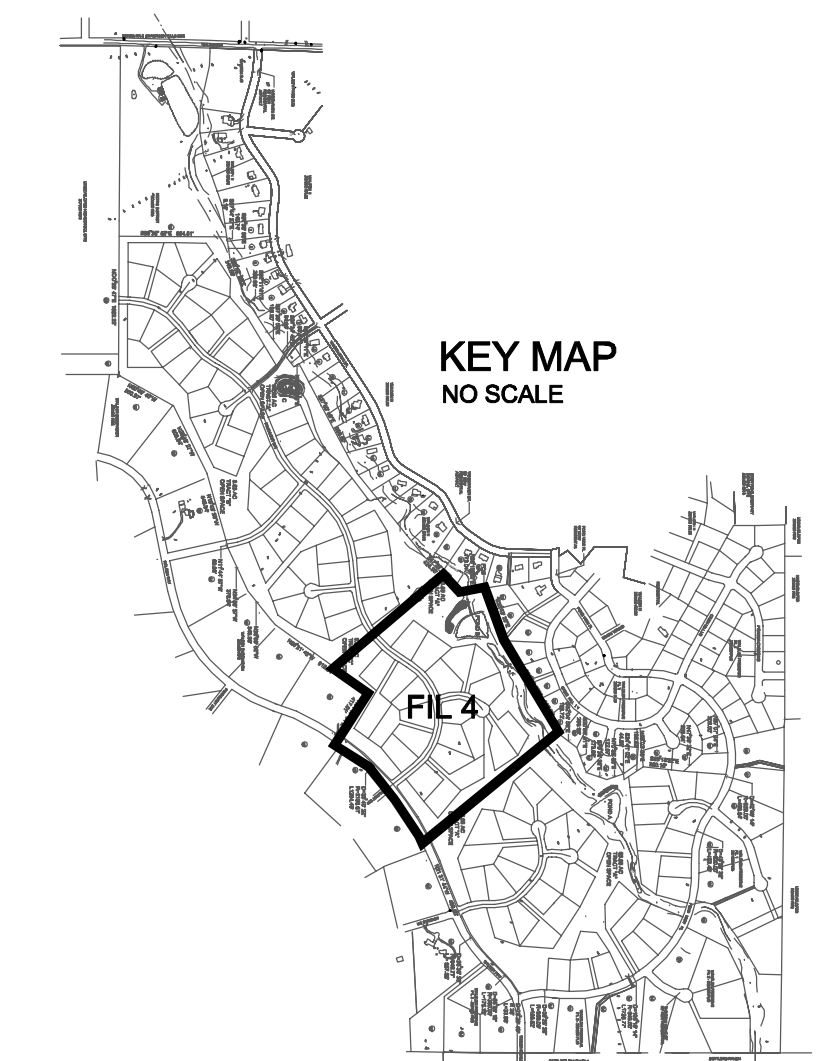
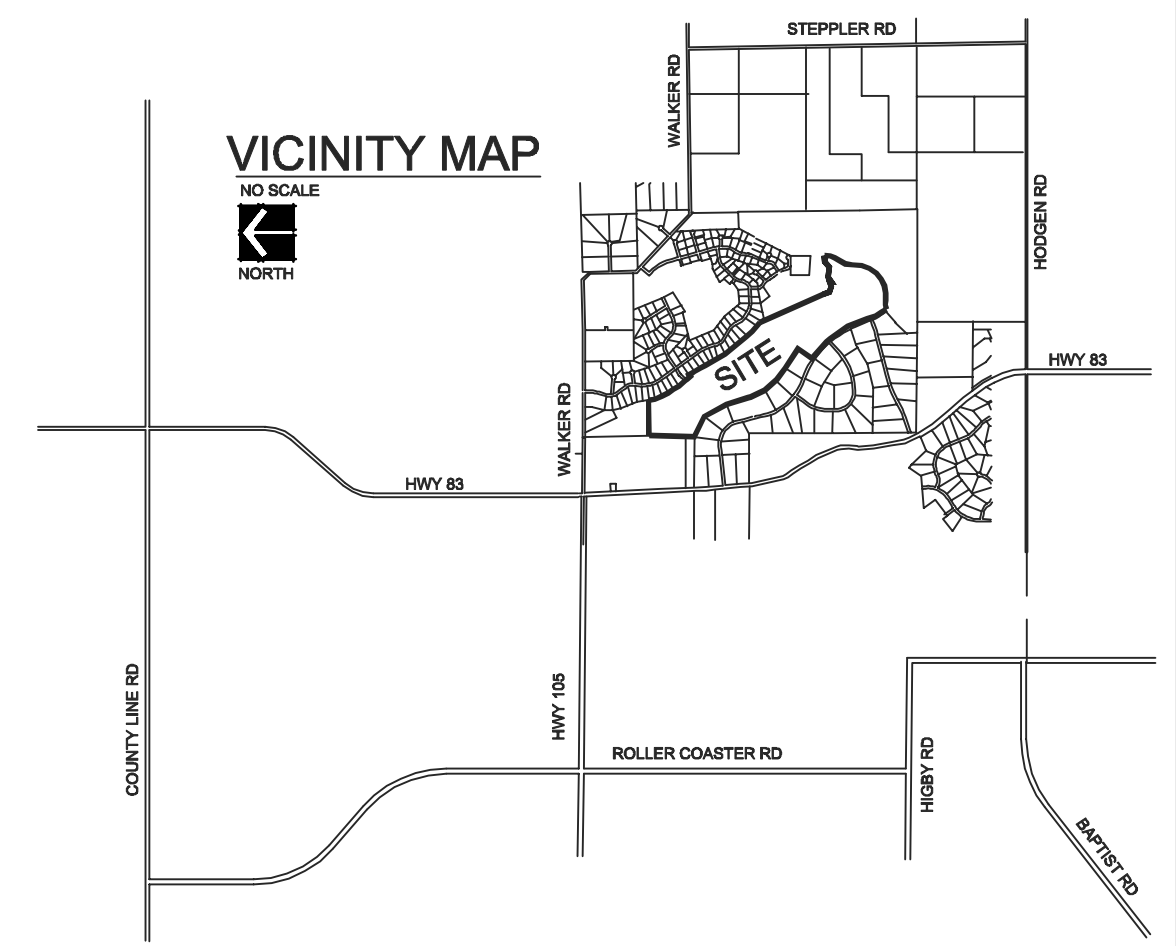


D = 28°23' 06"
R = 2185.61'
L = 1082.77'

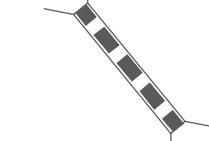

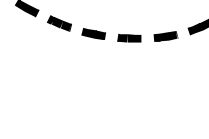




LRA LAND RESOURCE ASSOCIATES 9736 MOUNTAIN RD. CHIPITA PARK, CO 80809 719-884-2298	
SHEET TITLE:	FILING NO.4
ISSUED FOR:	COUNTY REVIEW
project number	
computer file	
issue date	AUG 10, 2018
drawn by	DFJ
checked by	
revisions	
sheet number	2 OF SIX
PCD FILE NO.	

WALDEN PRESERVE 2 - FILING 4A AMENDED PUD DEVELOPMENT PLAN

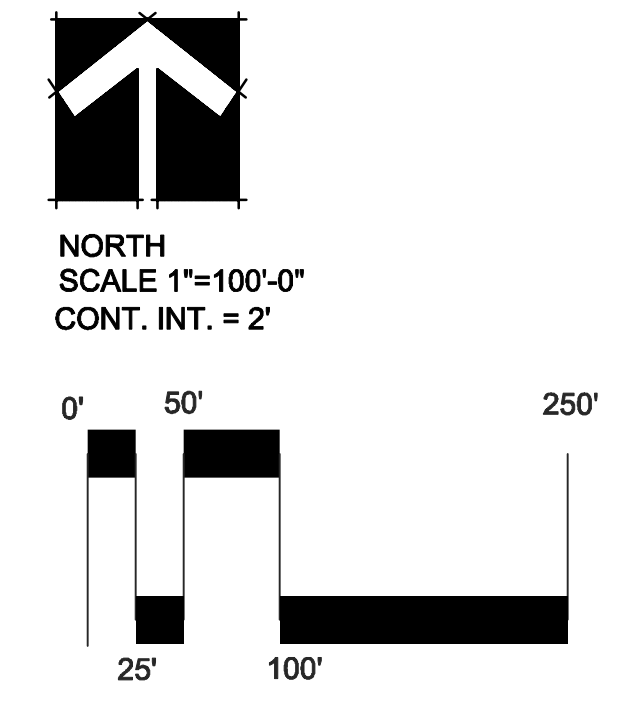
OWNED & DEVELOPED BY: WALDEN HOLDINGS I LLC, 17145 COLONIAL PARK DR, MONUMENT, CO 80132
PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO



- STANDARD BLDG SETBACKS**
FRONT 25'
SIDE 15'
REAR 25'
- STANDARD UTILITY & DRAINAGE EASEMENTS**
FRONT 15'
SIDE 10'
REAR 10'
- * THERE ARE NO SLOPES 30% OR GREATER ON THIS SITE

-  INDICATES CULVERT
-  INDICATES MIN 150' LOT WIDTH AT FRONT YARD BUILDING SETBACK
-  INDICATES REGIONAL TIER 1 TRAIL IN 25' EASEMENT OWNED AND MAINTAINED BY COUNTY PARKS. FINAL ALIGNMENT FOR TRAIL NOT ADJOINING PROPERTY LINE TO BE DETERMINED PER PARKS TRAIL AGREEMENT
-  INDICATES LOCAL TRAIL OWNED AND MAINTAINED BY METRO DISTRICT OR PROPERTY OWNERS' ASSOC. NO ADDITIONAL EASEMENT REQUIRED
-  INDICATES EXISTING TRAIL & MAINTENANCE ROAD OWNED AND MAINTAINED BY METRO DISTRICT OR PROPERTY OWNERS ASSOC TO REMAIN. NO ADDITIONAL EASEMENT REQUIRED.
-  INDICATES REGIONAL TIER 1 TRAIL IN 25' EASEMENT OWNED AND MAINTAINED BY COUNTY PARKS. FINAL ALIGNMENT TO BE DETERMINED PER PARKS TRAIL AGREEMENT.
-  INDICATES LOCAL TRAIL OWNED AND MAINTAINED BY METRO DISTRICT OR PROPERTY OWNERS' ASSOC. NO ADDITIONAL EASEMENT REQUIRED.

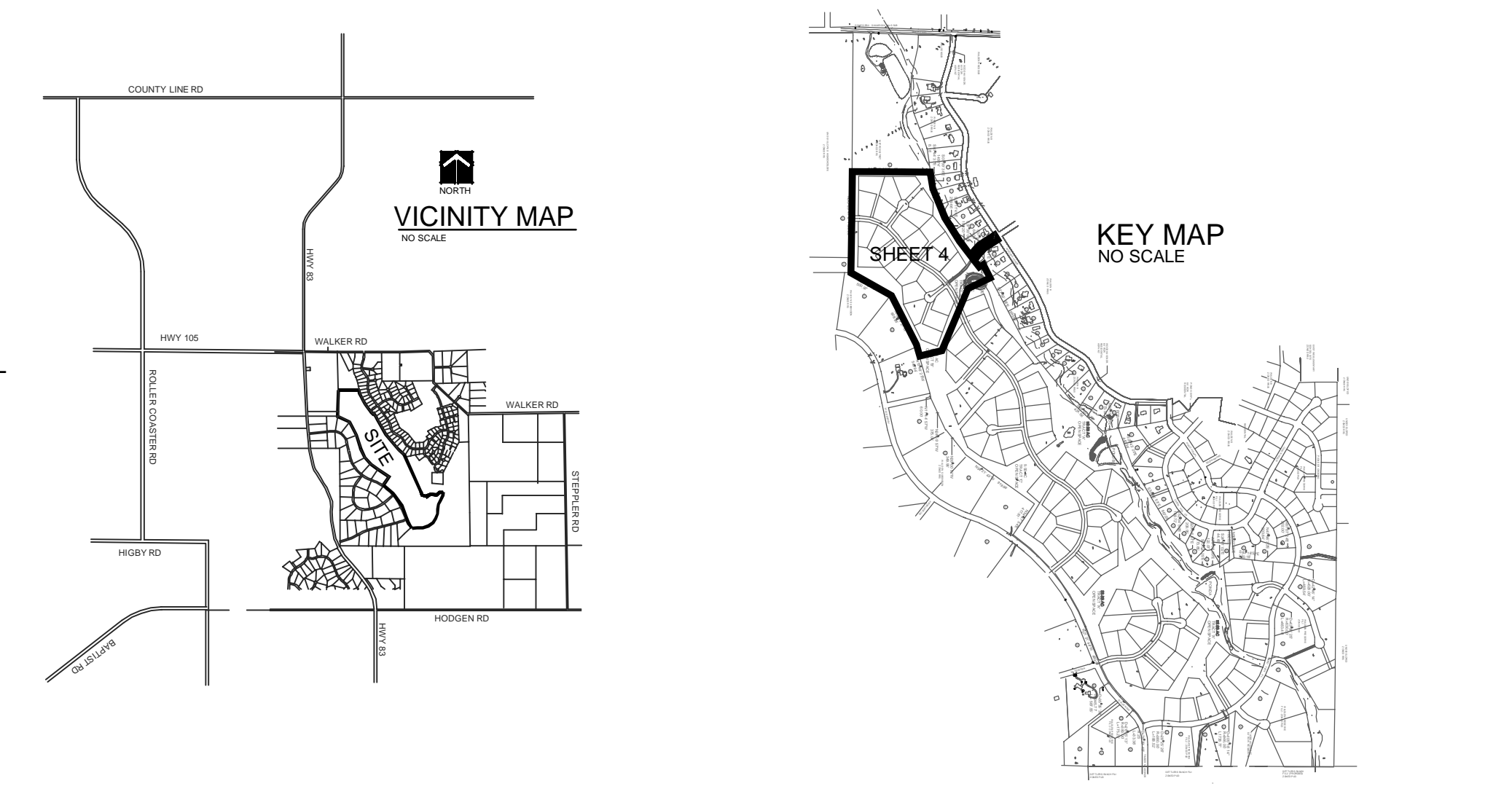
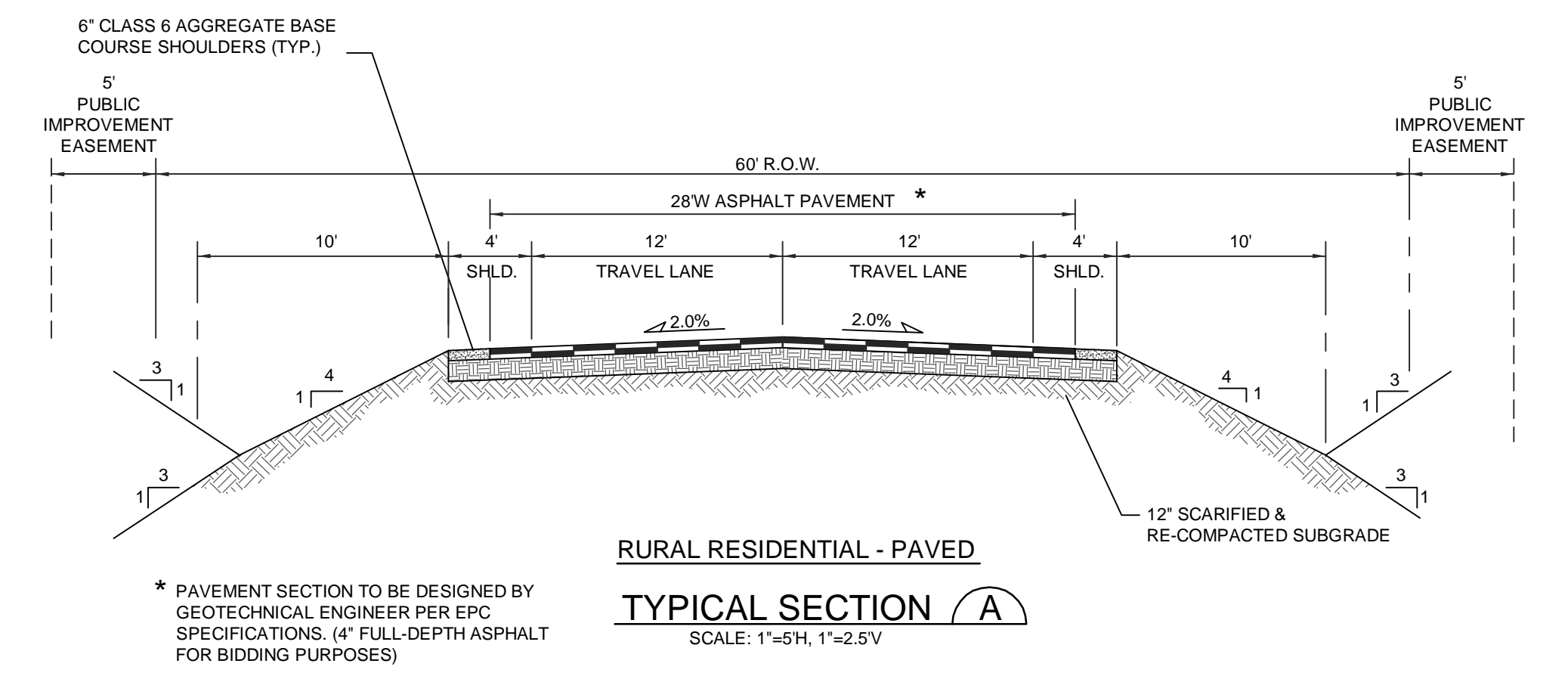
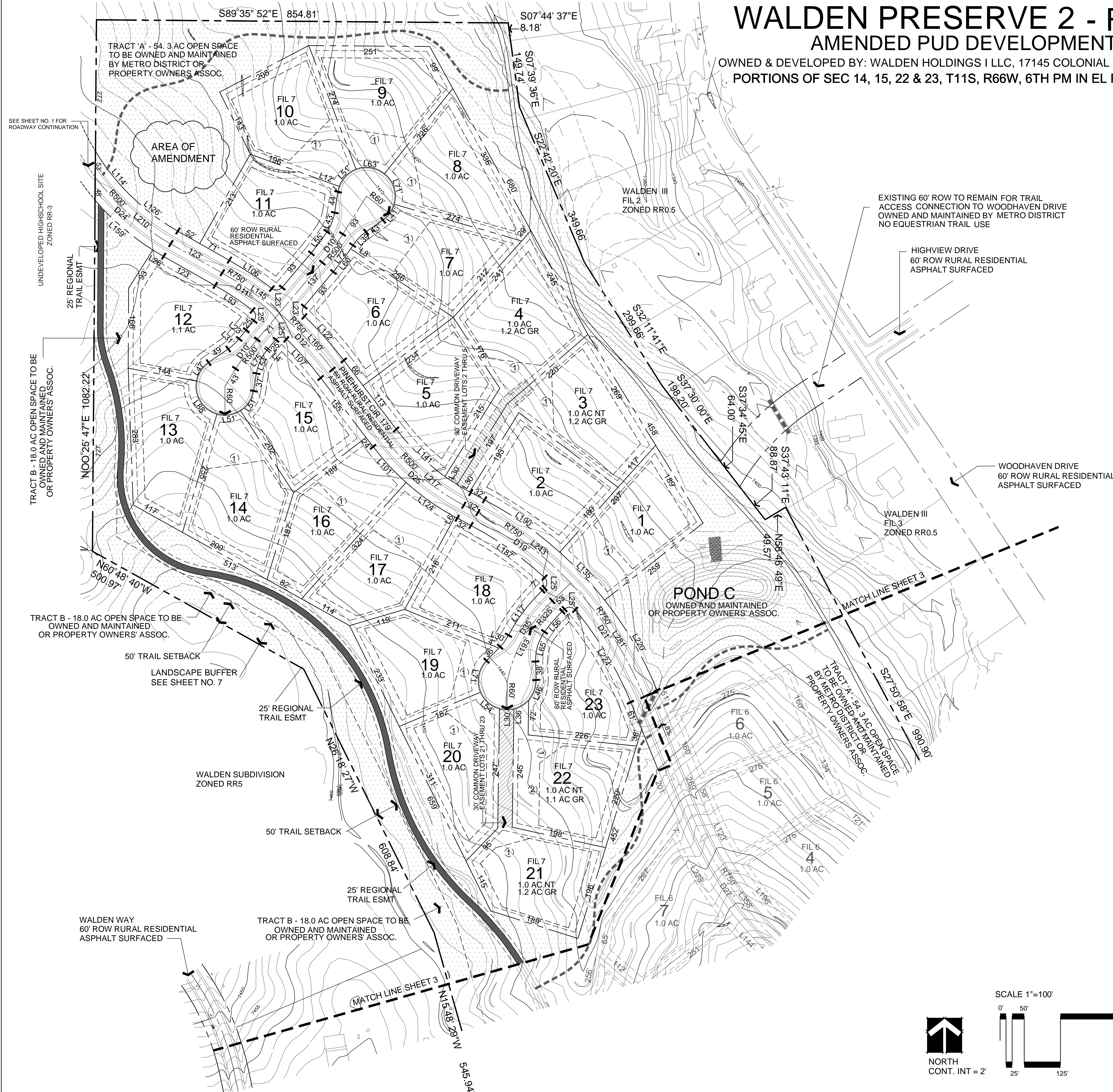
LRA LAND RESOURCE ASSOCIATES 9736 MOUNTAIN RD. CHIPITA PARK, CO 80809 719-684-2296	
SHEET TITLE: FIL 5 & 6	
ISSUED FOR: COUNTY REVIEW	
project number	
computer file	
issue date	AUG 10, 2018
drawn by	DFJ
checked by	
revisions	
sheet number	3 OF SIX
PCD FILE NO.	



WALDEN PRESERVE 2 - FILING 4A

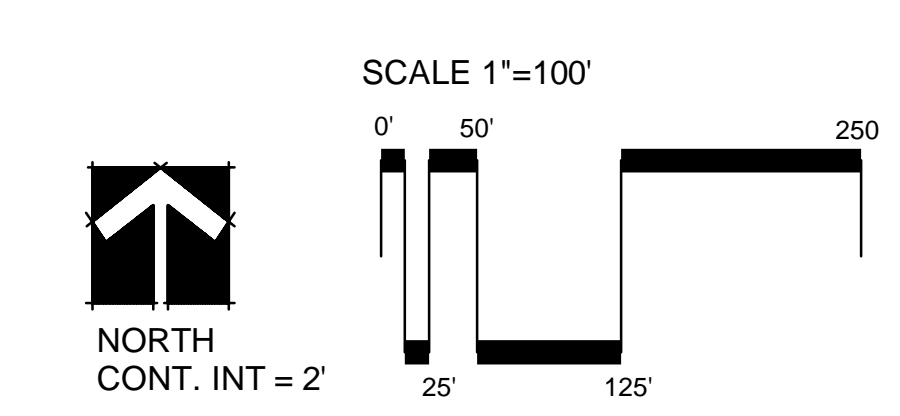
AMENDED PUD DEVELOPMENT PLAN

OWNED & DEVELOPED BY: WALDEN HOLDINGS I LLC, 17145 COLONIAL PARK DR, MONUMENT, CO 80132
 PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO



- STANDARD BLDG SETBACKS**
 FRONT 25'
 SIDE 15'
 REAR 25'
- STANDARD UTILITY & DRAINAGE EASEMENTS**
 FRONT 15'
 SIDE 10'
 REAR 10'
- * THERE ARE NO SLOPES 30% OR GREATER ON THIS SITE

- ① INDICATES MIN 150' LOT WIDTH AT FRONT YARD BUILDING SETBACK
- ② INDICATES INCREASED BLDG SETBACK DUE TO FLAG LOT CONFIGURATION
- INDICATES CULVERT
- INDICATES EXISTING TRAIL & MAINTENANCE ROAD OWNED AND MAINTAINED BY METRO DISTRICT OR PROPERTY OWNERS ASSOC TO REMAIN. NO ADDITIONAL EASEMENT REQUIRED.
- INDICATES REGIONAL TIER 1 TRAIL IN 25' EASEMENT OWNED AND MAINTAINED BY COUNTY PARKS. FINAL ALIGNMENT TO BE DETERMINED PER PARKS TRAIL AGREEMENT.
- INDICATES LOCAL TRAIL OWNED AND MAINTAINED BY METRO DISTRICT OR PROPERTY OWNERS' ASSOC. NO ADDITIONAL EASEMENT REQUIRED.

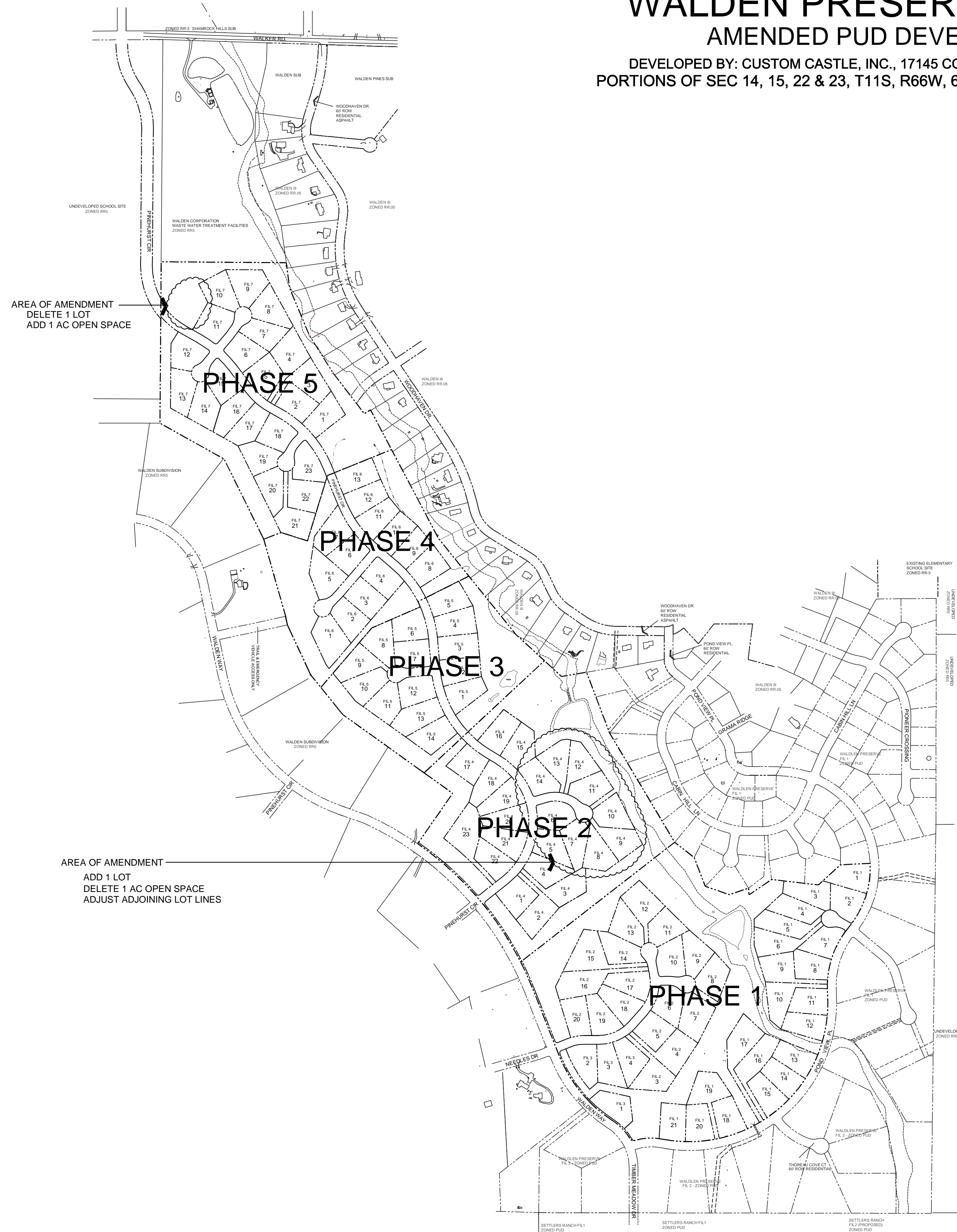


LRA	
LAND RESOURCE ASSOCIATES 9736 MOUNTAIN RD. CHIPITA PARK, CO 80809 719-684-2298	
SHEET TITLE:	FILING 7
ISSUED FOR:	COUNTY REVIEW
project number	
computer file	
issue date	AUG 10, 2018
drawn by	DFJ
checked by	
revisions	
sheet number	4 OF SIX
PCD FILE NO.	

WALDEN PRESERVE 2 - FILING 4A

AMENDED PUD DEVELOPMENT PLAN

DEVELOPED BY: CUSTOM CASTLE, INC., 17145 COLONIAL PARK DR., MONUMENT, CO. 80132
 PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO



PHASING DATA

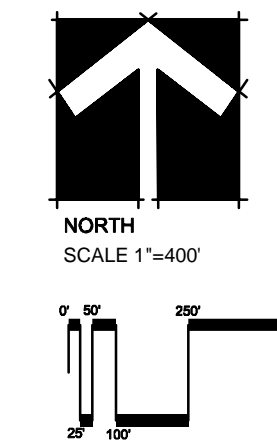
PHASE NO.	FILING NO	NO. LOTS	OPEN SPACE AREA (AC)	TOTAL AREA (AC)
1	1,2,3	43	21.99	71.67
2	4	23	18.16	45.27
3	5	14	8.21	24.67
4	6	13	10.63	26.09
5	7	23	13.34	41.12
TOTAL		116	72.33	208.82

PHASING NOTES

1. THE TOTAL NUMBER OF LOTS CANNOT EXCEED 66 UNTIL SUCH TIME AS PINEHURST CIRCLE IS COMPLETED BETWEEN WALKER ROAD AND WALDEN WAY. SEE BOCC PUD APPROVAL CONDITIONS FOR SPECIFIC DETAILS OF AGREEMENT. COMPLETION OF FIL 4 WILL BRING THE TOTAL NUMBER OF PLATTED LOTS TO 66.
2. SEE PARKS LAND AGREEMENT FOR PHASING REQUIREMENTS RELATED TO THE DEDICATION OF THE REGIONAL TRAIL EASEMENT AND CONSTRUCTION OF THE TIER ONE REGIONAL TRAIL.
3. THE TIMING RELATED TO THE CONSTRUCTION OF INDIVIDUAL PHASES WILL DEPEND UPON MARKET FORCES AND ACTUAL ABSORPTION RATES EXPERIENCED.
4. PHASE ONE, INCLUDING FILINGS 1, 2 & 3, HAVE RECORDED PLATS AND FULLY CONSTRUCTED PUBLIC IMPROVEMENTS AND ARE NOT INCLUDED WITHIN THIS PUD DEVELOPMENT PLAN AMENDMENT.

MAINTENANCE STATEMENT

1. ALL OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS' ASSOCIATION OR BY THE METROPOLITAN DISTRICT.
2. ALL ROADS AND DRAINAGE FACILITIES LOCATED WITHIN COUNTY DEDICATED ROWS TO BE OWNED AND MAINTAINED BY EL PASO COUNTY.
3. ALL DRAINAGE FACILITIES LOCATED ON PRIVATELY OWNED LOTS TO BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS.
4. ALL DRAINAGE FACILITIES LOCATED WITHIN PROPERTY OWNERS' ASSOCIATION OWNED OPEN SPACE TRACTS OR METROPOLITAN DISTRICT OWNED OPEN SPACE TRACTS TO BE MAINTAINED BY PROPERTY OWNER IN ACCORDANCE WITH A STANDARD EL PASO COUNTY DRAINAGE DETENTION MAINTENANCE AGREEMENT.



LRA
 LAND RESOURCE ASSOCIATES
 9736 MOUNTAIN RD.
 CHIRTA PARK, CO 80809
 719-684-2298

SHEET TITLE:
 PHASING PLAN

ISSUED FOR:
 COUNTY REVIEW

project number

computer file

issue date
 AUG 10, 2018

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 DFJ

checked by

revisions

sheet number
5 OF SIX

PCD FILE NO.

PLANTING PLAN - LANDSCAPE BUFFERS

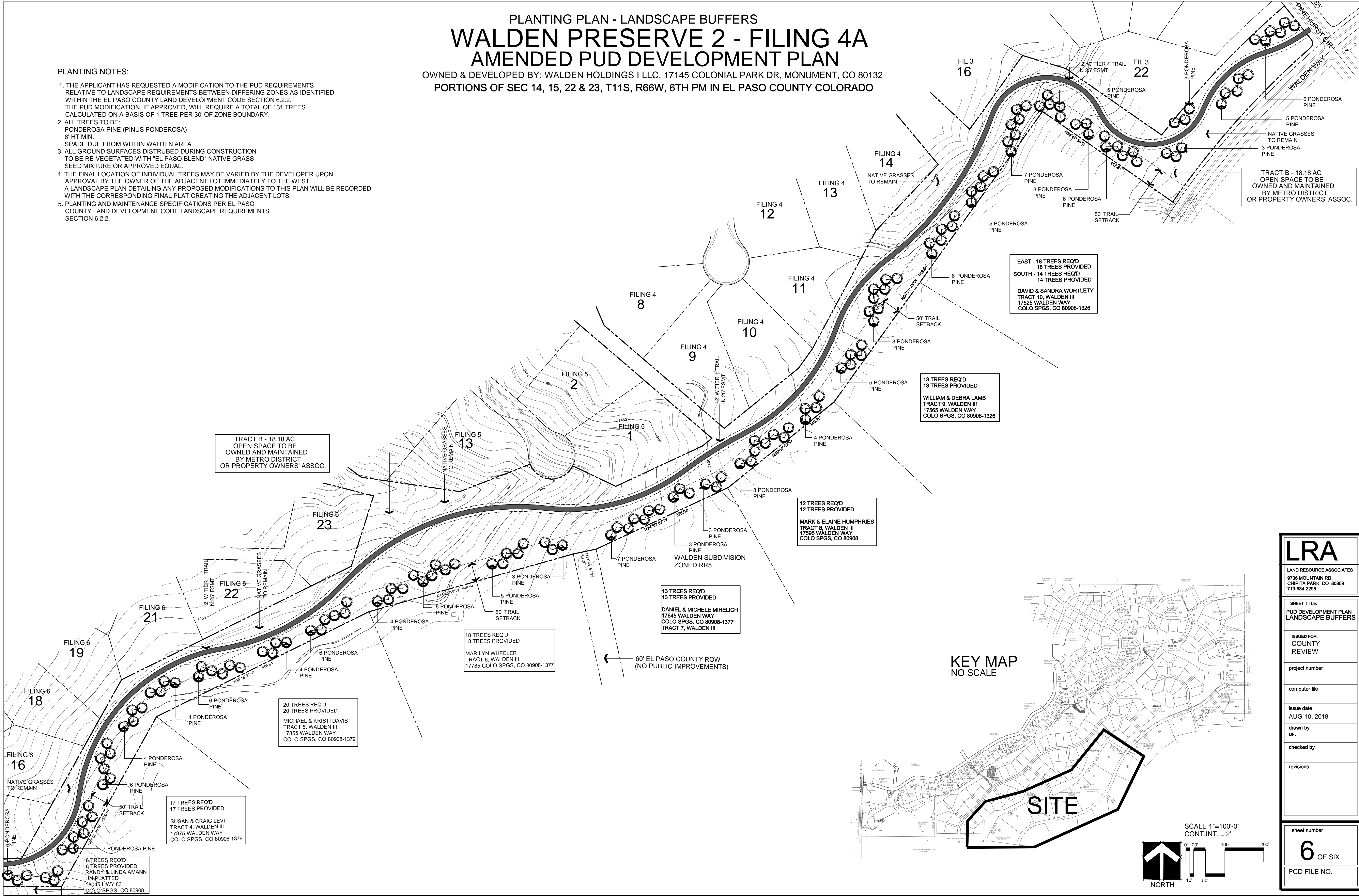
WALDEN PRESERVE 2 - FILING 4A

AMENDED PUD DEVELOPMENT PLAN

OWNED & DEVELOPED BY: WALDEN HOLDINGS I LLC, 17145 COLONIAL PARK DR, MONUMENT, CO 80132
 PORTIONS OF SEC 14, 15, 22 & 23, T11S, R66W, 6TH PM IN EL PASO COUNTY COLORADO

PLANTING NOTES:

1. THE APPLICANT HAS REQUESTED A MODIFICATION TO THE PUD REQUIREMENTS RELATIVE TO LANDSCAPE REQUIREMENTS BETWEEN DIFFERING ZONES AS IDENTIFIED WITHIN THE EL PASO COUNTY LAND DEVELOPMENT CODE SECTION 6.2.2. THE PUD MODIFICATION, IF APPROVED, WILL REQUIRE A TOTAL OF 131 TREES CALCULATED ON A BASIS OF 1 TREE PER 30' OF ZONE BOUNDARY.
2. ALL TREES TO BE:
 PONDEROSA PINE (PINUS PONDEROSA)
 6' HT MIN.
 SPADE DUE FROM WITHIN WALDEN AREA
3. ALL GROUND SURFACES DISTURBED DURING CONSTRUCTION TO BE RE-VEGETATED WITH "EL PASO BLEND" NATIVE GRASS SEED MIXTURE OR APPROVED EQUAL.
4. THE FINAL LOCATION OF INDIVIDUAL TREES MAY BE VARIED BY THE DEVELOPER UPON APPROVAL BY THE OWNER OF THE ADJACENT LOT IMMEDIATELY TO THE WEST. A LANDSCAPE PLAN DETAILING ANY PROPOSED MODIFICATIONS TO THIS PLAN WILL BE RECORDED WITH THE CORRESPONDING FINAL PLAT CREATING THE ADJACENT LOTS.
5. PLANTING AND MAINTENANCE SPECIFICATIONS PER EL PASO COUNTY LAND DEVELOPMENT CODE LANDSCAPE REQUIREMENTS SECTION 6.2.2.



TRACT B - 18.18 AC
 OPEN SPACE TO BE
 OWNED AND MAINTAINED
 BY METRO DISTRICT
 OR PROPERTY OWNERS' ASSOC.

EAST - 18 TREES REQ'D
 18 TREES PROVIDED
 SOUTH - 14 TREES REQ'D
 14 TREES PROVIDED
 DAVID & SANDRA WORTLEY
 TRACT 10, WALDEN III
 17525 WALDEN WAY
 COLO SPGS, CO 80908-1326

13 TREES REQ'D
 13 TREES PROVIDED
 WILLIAM & DEBRA LAMB
 TRACT 9, WALDEN III
 17565 WALDEN WAY
 COLO SPGS, CO 80908-1326

12 TREES REQ'D
 12 TREES PROVIDED
 MARK & LAINE HUMPHRIES
 TRACT 8, WALDEN III
 17585 WALDEN WAY
 COLO SPGS, CO 80908

13 TREES REQ'D
 13 TREES PROVIDED
 DANIEL & MICHELE MIHELICH
 17645 WALDEN WAY
 COLO SPGS, CO 80908-1377
 TRACT 7, WALDEN III

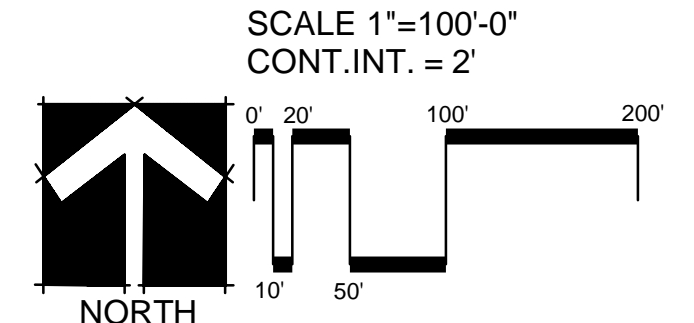
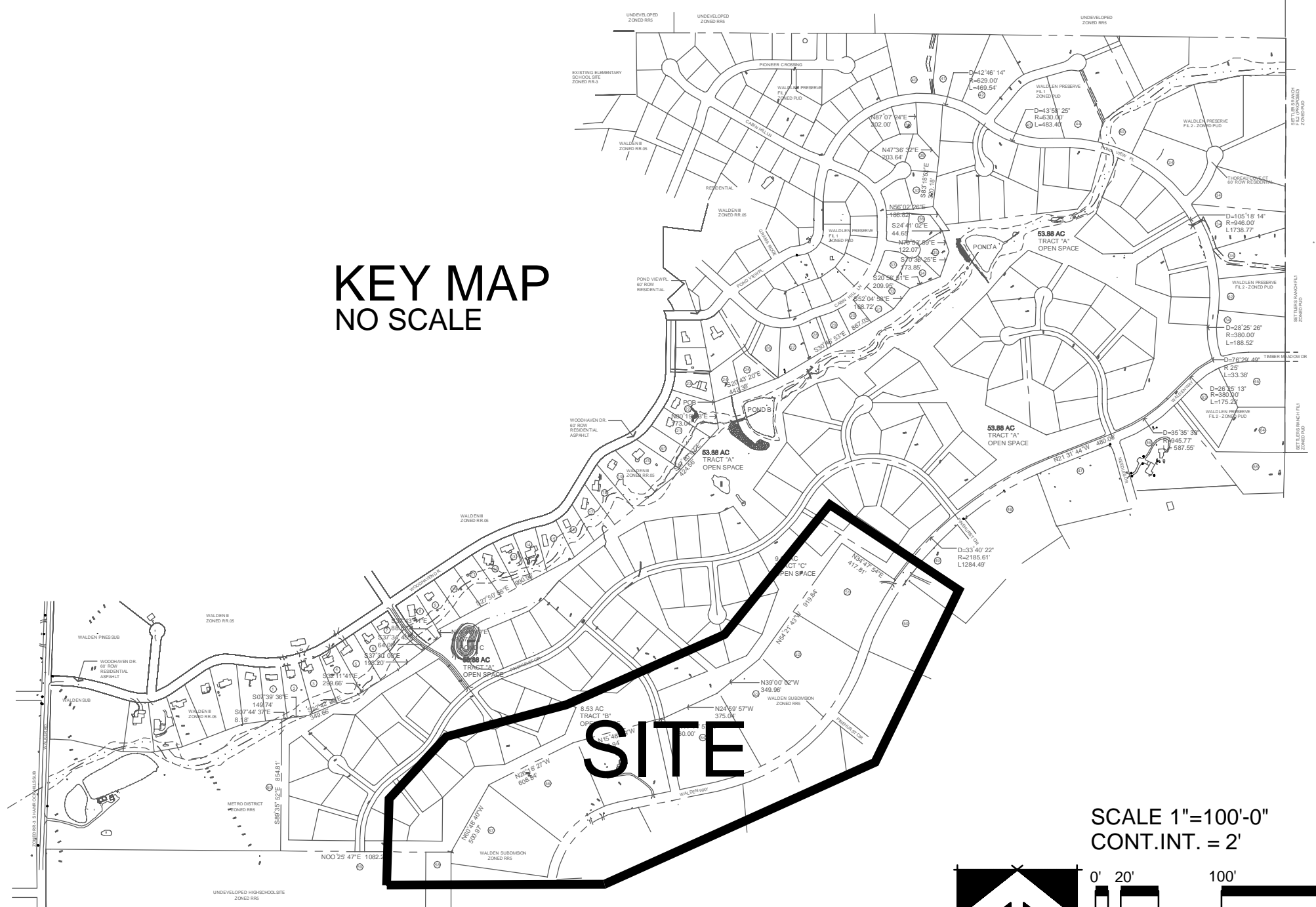
18 TREES REQ'D
 18 TREES PROVIDED
 MARILYN WHEELER
 TRACT 6, WALDEN III
 17785 COLO SPGS, CO 80908-1377

20 TREES REQ'D
 20 TREES PROVIDED
 MICHAEL & KRISTI DAVIS
 TRACT 5, WALDEN III
 17855 WALDEN WAY
 COLO SPGS, CO 80908-1379

17 TREES REQ'D
 17 TREES PROVIDED
 SUSAN & CRAIG LEVI
 TRACT 4, WALDEN III
 17875 WALDEN WAY
 COLO SPGS, CO 80908-1379

6 TREES REQ'D
 6 TREES PROVIDED
 RANDY & LINDA AMANN
 UN-PLATTED
 18045 HWY 83
 COLO SPGS, CO 80908

TRACT B - 18.18 AC
 OPEN SPACE TO BE
 OWNED AND MAINTAINED
 BY METRO DISTRICT
 OR PROPERTY OWNERS' ASSOC.



LRA	
LAND RESOURCE ASSOCIATES 9738 MOUNTAIN RD. CHIPPITA PARK, CO 80809 719-684-2298	
SHEET TITLE: PUD DEVELOPMENT PLAN LANDSCAPE BUFFERS	
ISSUED FOR: COUNTY REVIEW	
project number	
computer file	
issue date AUG 10, 2018	
drawn by DFJ	
checked by	
revisions	
sheet number 6 OF SIX	
PCD FILE NO.	



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September 17, 2014

Mr. Matt Dunston
Walden Holdings 1, LLC
17145 Colonial Park Drive
Monument, CO 80132

RE: Walden Preserve 2
Preliminary Plan and Filings 1 and 2
Updated Traffic Impact Study
LSC #144380

Dear Mr. Dunston:

LSC has prepared this updated traffic impact report for the planned Walden Preserve 2 residential development. This report has been prepared for submittal with the Preliminary Plan and Filings 1 and 2 plat submittals. The previous traffic impact study was dated May 31, 2013 and was submitted with the PUD. The site is located east of State Highway (SH) 83 and north of Hodgen Road, north of Colorado Springs in unincorporated El Paso County, Colorado. The site is planned to include 116 single-family detached houses at buildout. Primary access will be to SH 83 on the west via Walden Way, to Hodgen Road on the south via Timber Meadows Drive, and to Walker Road via an extension of Pinehurst Circle (following Filing No. 3). The site location is shown on Figure 1.

This updated report is being prepared for submittal to El Paso County Development Services and the Colorado Department of Transportation (CDOT). The report contains an estimate of the vehicle trips to be generated by the proposed development, estimates of the projected site-generated traffic volumes on the area street system, and impacts of additional traffic on the roadway system. The report also includes recommendations for roadway system improvements to mitigate the traffic impacts. The report presents the estimated percentage contribution to the future signal at SH 83 and Walker and improvements at Walden Way/SH 83.

PREVIOUS REPORTS

The previous reports for Walden Preserve are dated December 8, 2005 and May 31, 2013 (the May 2013 report was for Walden Preserve 2). The December 8, 2005 report had originally shown the conversion of the State Highway 83/Walden Way intersection to a right-in/right-out. The May 31, 2013 report also showed this. This report continues to reflect the conversion to a right-in/right-out-

only intersection as shown on the approved PUD plan. A new Colorado State Highway Access Permit will be required for the SH 83/Walden Way intersection.

This report is an update to the May 31, 2013 report reflecting the approved PUD plan including the future connection north to Walker Road following the development of 66 lots. This report also has been updated to 2040 traffic and includes the potential development of the middle school site to the north. Aside from these changes (which, with the PUD plan approved, included the removal of the north connection to Walden Way previously shown) the plan is basically the same as the plan shown in the May 31, 2013 report.

BACKGROUND AND LAND USE PLAN

The development is located in a residential area. There are existing subdivisions surrounding the site. Figure 2 presents a context map of the Walden Preserve development site and the surrounding area. The figure shows the other area developments and vacant parcels.

Appendix Figure 1 shows a plan exhibit from the traffic study dated May 31, 2013 submitted with the PUD plan. This has been provided for reference.

Please refer to the PUD report dated May 31, 2013 for the complete history and explanation of this exhibit. This has been included as the signal warrant analysis included the older PUD Filings 1 and 2.

Phasing and Access

Figure 3 shows the approved PUD plan with the proposed phasing plan. The initial phase (Phases 1 and 2) will include the 42 lots located on the south end of the site. Access to this initial phase is planned on Pond View Place and to Walden Way aligning with Needles Drive.

Access to SH 83 would be at the existing Walden Way intersection. This access point is to be converted to a right-in/right-out.

Following Filing 3 (Phase 3), an extension of Pinehurst Circle would be constructed north from Filing 3 to Walker Road. Phases 3 through 7 would all have access to Pinehurst Circle.

ROADWAY AND TRAFFIC CONDITIONS

Area Streets and Roads

The major roadways in the vicinity of the site are shown in Figure 1 and are described below.

- **State Highway (SH) 83** extends from Colorado Springs north to Parker and areas of southeast Denver. In the vicinity of the site, SH 83 is classified as a Regional Highway (R-A). At this location, SH 83 is a two-lane rural highway with two to four-foot shoulders and a speed limit of

60 miles per hour (mph). The intersection with Hodgen Road is signalized. The intersection with Walden Way is unsignalized with Stop-sign control for the westbound traffic. This intersection is planned to be converted to a right-in/right-out.

- **Hodgen Road** is a two-lane paved Rural Minor Arterial road which extends west from the intersection of Roller Coaster Road/Baptist Road to Eastonville Road. The speed limit on Hodgen Road is generally 55 mph east of SH 83.
- **Walden Way** is a local roadway which extends southeast from SH 83 to the intersection of Timber Meadows Drive/Pond View Place.
- **Timber Meadows Drive** is a Minor Collector roadway which extends south from the intersection of Walden Way/Pond View Place to just south of Hodgen Road.
- **Walker Road/Highway 105.** Highway 105 west of State Highway 83 is a Principal Arterial and Walker Road east of State Highway 83 is a Collector roadway. Both are currently two-lane roadways but the *Major Transportation Corridors Plan (MTCP)* shows a future four-lane cross section on Highway 105 west of SH 83. The intersection with SH 83 is unsignalized. This report assumes planned CDOT improvements at this intersection.

Existing (2012) Traffic and Lane Geometry

Figure 4 shows the current lane geometry plus weekday morning and afternoon peak-hour traffic count data. Peak-hour traffic volumes are shown for SH 83/Hodgen Road, SH 83/Walden Way, SH 83/Highway 105/Walker Road, Walden Way/Pond View Place, and Timber Meadows Drive/Hodgen Road. The peak-hour volumes are based on data collected by LSC in December 2011, April 2012, and November 2012. Figure 4 also shows the 2013 Average Annual Daily Traffic (AADT) on SH 83 based on data from the Colorado Department of Transportation and the average daily traffic on Pond View Place east of Walden Way based on a machine count by LSC in November 2012. The traffic count reports are attached.

Existing (2012) Levels of Service

The existing (2012) levels of service at the key area intersections are also shown in Figure 4. All of the analyzed intersections are shown to operate at acceptable levels of service. Further discussion and explanation on levels of service is presented later in this report.

Projected Future Background Traffic

Figures 5 and 6 show the projected background traffic volumes for the years 2017 and 2040, respectively, on the area roadway system. Background traffic is the traffic projected to be on the roadway system without consideration of Walden Preserve 2 traffic. The 2017 background traffic volumes include the through traffic and the traffic generated by the development of area vacant

parcels including the original Walden Preserve (not Walden Preserve 2) Filings 1 and 2, Settler's Ranch located just south of the site, and Majestic Pines but assume zero traffic generated by the site. The 2017 background traffic volumes also incorporate the conversion of the SH 83/Walden Way intersection to a right-in/right-out. The 2040 background traffic volumes assume the extension of Pinehurst Circle north to Walker Road. The 2040 background traffic includes traffic estimated to be generated by the development of the parcel located on the southeast corner of Walker/SH 83 as a middle school with access to Pinehurst Circle just south of Walker Road. The background traffic volumes are estimates by LSC based on CDOT 20-year growth factors and previous work completed by LSC in the vicinity of the site.

TRIP GENERATION

The Walden Preserve 2 development will contain 116 single-family detached houses upon completion. The amount of traffic to be generated by Walden Preserve 2 has been estimated using the nationally published trip generation rates found in *Trip Generation, 9th Edition, 2012* by the Institute of Transportation Engineers (ITE). The average weekday and peak-hour vehicle-trips have been estimated. Table 1 shows the results of the trip generation estimate.

As shown in Table 1, Phase 1 and Phase 2 combined are expected to generate about 400 vehicle-trips on the average weekday, with about 200 vehicles entering and 200 vehicles exiting during a 24-hour period. During the morning peak hour, about eight vehicles would enter and 24 vehicles would exit the site. During the afternoon peak hour, about 26 vehicles would enter and 16 vehicles would exit the site. The morning peak hour generally occurs for one hour between 6:30 and 8:30 a.m. and the afternoon peak hour generally occurs for one hour between 4:30 and 6:30 p.m.

At buildout, the development is expected to generate about 1,100 vehicle-trips on the average weekday, with about 550 vehicles entering and 550 vehicles exiting during a 24-hour period. During the morning peak hour, about 22 vehicles would enter and 65 vehicles would exit the site. During the afternoon peak hour, about 74 vehicles would enter and 49 vehicles would exit the site.

TRAFFIC DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the adjacent roadway system is an important factor in determining the site's traffic impacts. The specific trip distribution estimates are shown in Figure 7. These estimates represent the percentages of the site-generated traffic volumes projected to be oriented to and from the major approaches to the site. The directional distribution estimates are based on the following factors: traffic counts conducted in the area; the location of the site with respect to the Colorado Springs metropolitan area and other developed areas; the existing and planned roadway system serving the site, particularly SH 83 and Hodgen Road, and Highway 105; and the land uses proposed for the site.

TRAFFIC IMPACTS

Site-Generated Traffic

When the distribution percentages (from Figure 7) are applied to the trip generation estimates (from Table 1), the resulting site-generated traffic volumes can be determined. Figures 8 and 9 show the daily and weekday morning and afternoon peak-hour site-generated traffic volume estimates for Phases 1 and 2 and at buildout. The Phases 1 and 2 site-generated traffic represents the additional traffic from the 42 lots located on the south end of the site. The buildout site-generated traffic represents the traffic from the 116 new lots.

Years 2017 and 2040 Total Traffic

The total traffic volumes for the years 2017 and 2040 are shown in Figures 10 and 11, respectively. The 2017 total traffic volumes are the sum of the 2017 background traffic volumes (from Figure 5) plus the initial phase site-generated traffic volumes (from Figure 8). The 2040 total traffic volumes are the sum of the 2040 background traffic volumes (from Figure 6) plus the buildout site-generated traffic volumes (from Figure 9).

Projected Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from “A” to “F.” LOS A is indicative of very little congestion or delay. LOS F is indicative of a high level of congestion or delay.

The SH 83/Hodgen Road, SH 83/Walden Way, Hodgen Road/Timber Meadow Drive, and Walden Way/Timber Meadows/Pond Place intersections have been analyzed to determine the existing and projected levels of service using Synchro. The level of service analysis results are shown in Figures 10 and 11. The level of service reports are attached. Unsignalized intersection levels of service are expressed in terms of the levels of service of specific turning movements/approaches—most notably, the minor street approach or specific turning movements. Signalized intersections also include the level of service for the overall intersection.

- **SH 83/Hodgen Road:** The intersection of SH 83/Hodgen Road is projected to continue to operate at a satisfactory level of service during the morning and afternoon peak hours based on 2017 and 2040 total traffic volumes.
- **SH 83/Walden Way:** The right-in/right-out SH 83/Walden Way intersection is projected to operate at LOS B for the westbound right-turn movement during the morning and afternoon peak hours based on the projected 2017 and 2040 total traffic volumes.
- **Hodgen Road/Timber Meadow Drive:** The Stop-sign-controlled Hodgen Road/Timber Meadow Drive intersection is projected to operate at a satisfactory level of service during the

morning and afternoon peak hours for the side street approaches based on the projected 2017 and 2040 total traffic volumes.

- **Timber Meadows Drive/Walden Way/Pond View Place:** The Stop-sign-controlled Timber Meadows/Walden Way/Pond View intersection is projected to operate at a satisfactory level of service during peak hours for all approaches based on projected 2017 and 2040 total traffic volumes.
- **SH 83/Walker Road/Highway 105:** By 2017, with assumed increases in background traffic alone, the minor street approach left and through movements would see delay in the E and F ranges during peak periods. However, these movement levels of service would improve once the intersection is signalized. Once signalized, this intersection is projected to operate at a satisfactory level of service based on projected 2017 and 2040 total traffic volumes.
- **Pinehurst Circle/Walker Road:** Pinehurst Circle was assumed to be extended north to Walker Road some time after Phases 1 and 2 but before the 67th lot is constructed in Walden Preserve 2. The new intersection of Pinehurst/Waker is projected to operate at a satisfactory level of service as a two-way stop-sign-controlled intersection based on the projected 2040 total traffic volumes.

Traffic Signal Warrant Analysis

LSC has completed a traffic signal warrant analysis for the SH 83/Highway 105/Walker Road intersection to estimate both the timing of the signal (based on the intersection meeting warrants) and the percentage of traffic by this project at the time the signal may become warranted. LSC estimates that warrants may be met by 2018 assuming growth in background traffic, buildout of Walden Preserve (which may not occur by 2048), the restriction of SH 83/Walden Way to right-/right-out only and the connection of Pinehurst Circle to Walker Road. The traffic from this project would constitute 15 percent of the eastbound and westbound approach volumes based on the total estimated traffic volumes at the time it is projected to meet a four-hour volume warrant.

The estimated warrants are based on the turning movement counts completed at the SH 83/Highway 105 intersection, estimated growth in through traffic, a projected shift in existing traffic volumes due to the restriction of Walden Way/SH 83 to right-in/right-out only, and the extension of Pinehurst Circle to Walker Road, and site-generated traffic estimates at buildout of Walden Preserve 2.

Table 2 shows the peak-hour traffic volumes for background and site traffic. The attached Appendix Figure 2 shows the specific breakdown of the traffic volumes assumed in this analysis and the total 2018 volumes. Table 3 shows the peak-hour traffic expanded to two hours in the morning peak and two hours in the afternoon peak. Table 4 shows Table 3 volumes with a growth factor applied to the background traffic volumes. The factor was increased from 1.0 until the resulting four hours worth of volumes were shown to meet the thresholds for the four-hour volumes. With the warrants shown to be met with a growth factor of 1.2, this could potentially translate to approximately year 2018.

Table 4 also shows the calculated site-generated percentage of the total at the time the signal is projected to meet a warrant based on minor street approach left and through turning movements only. This percentage is based on a weighted average of the site-generated to total percentages of all four hours analyzed.

Average Daily Traffic Impacts

Each of the figures shows the projected average daily traffic volumes on the roadway sections.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

The initial two plats within the Walden Preserve development (Phase 1 and Phase 2) are collectively expected to generate about 400 vehicle-trips on the average weekday, with about 200 vehicles entering and 200 vehicles exiting during a 24-hour period. During the morning peak hour, about eight vehicles would enter and 24 vehicles would exit the site. During the afternoon peak hour, about 26 vehicles would enter and 16 vehicles would exit the site.

At buildout, the Walden Preserve development is expected to generate about 1,100 vehicle-trips on the average weekday, with about 550 vehicles entering and 550 vehicles exiting during a 24-hour period. During the morning peak hour, about 22 vehicles would enter and 65 vehicles would exit the site. During the afternoon peak hour, about 74 vehicles would enter and 49 vehicles would exit the site.

Average Daily Traffic Impacts

The figures show the projected average daily traffic volumes on the roadway sections within the Walden Preserve development.

Projected Levels of Service

Figures 5, 6, 10, and 11 show the level of service analysis results. The recommended traffic control and lane geometry for the years 2017 and 2040 are shown in Figures 10 and 11, respectively. Level of service was discussed in detail previously in this report.

All intersections are projected to operate at acceptable levels of service through the horizon year. The exception is anticipated to be the minor street approaches at the SH 83/Walker Road intersection prior to the traffic signal being warranted. CDOT has indicated that this project will be required to participate in the future traffic signal at this intersection.

Recommendations

SH 83/Walden Way

LSC recommends that the Walden Way/SH 83 intersection be restricted to right-in/right-out with Phase 1. As the southbound left-turn lane is currently warranted, the conversion to right-in/right-out would need to occur with the first phase. New development traffic added to the Walden Way access to SH 83 would need to be approved by CDOT through the access permit process. Also, a right-turn acceleration lane would not be required. The right-in/right-out access would need to be designed to physically prevent left-turning movements. Given the rural, high-speed design of the road, LSC recommends that a right-turn channelizing island be installed using a raised channelizing island with beveled curb (not vertical curb) set back from the edge of the northbound through lane. LSC also recommends that the island include narrow extensions for a short distance to the north and south to further discourage left turning movements. The design should also include pavement markings and breakaway object markers. "No left turn" signs must also be used. The intersection will remain Stop-sign controlled. A northbound right-turn deceleration lane is not required by code, however a portion of a right-turn lane will be needed for northbound right-turning traffic to maneuver to the right of the channelizing island. Attached is a preliminary concept for the intersection improvements. The northbound right-turn lane may be shortened in the final design, pending CDOT approval, as a northbound right-turn deceleration lane is not required based on turning volumes.

Hodgen Road/Timber Meadow Drive

No further improvements will be necessary.

Hodgen Road

Hodgen Road east of SH 83 has recently been upgraded with a PPRTA project. No further widening of Hodgen Road would be necessary as a result of this project. The intersection with SH 83 is signalized.

SH 83/Walker Road/Highway 105

CDOT has completed intersection improvements including additional laneage and traffic islands to channelize right-turn movements on the eastbound and westbound intersection approaches. Side-street-traffic-actuated flashing yellow warning beacons have also been installed on the northbound and southbound approaches to the intersection for safety. As growth continues to occur in the area and through traffic increases along SH 83, a traffic signal is expected to be warranted (LSC growth assumptions would translate to a signal being warranted by 2020).

Calculated Percentage Toward the Future Traffic Signal

Based on calculations presented in Table 4, LSC estimates that at buildout, Walden Preserve traffic at this intersection would constitute 15.5 percent of the total volume for the eastbound/westbound

through/left turning movements. The following Table 5 presents the suggested percentages by filing to be included as part of the access permit from CDOT.

Filing No. 1	5.88% (including traffic from original Filings 1 and 2)
Filing No. 2	1.37%
Filing No. 3	1.53%
Walker Connection is Installed	
Filing No. 4	1.55%
Filing No. 5	1.44%
Filing No. 6	3.81%
Project Total	15.58%

Funds escrowed to CDOT for a future traffic signal at this intersection should be eligible for credit and reimbursement through the countywide fee program. The Highway 83 and Highway 105 intersection is the intersection of MTCP roadways. The applicant will need to go before the Fee Advisory Committee to request approval of credit.

Walker Road/Pinehurst Circle

Based on the criteria contained in the El Paso County *Engineering Criteria Manual* and the projected 2040 total traffic volumes, an eastbound right-turn deceleration lane and a westbound left-turn lane will be required on Walker Road approaching Pinehurst Circle. The need for these lanes is primarily due to the assumption that the parcel located southeast of SH 83 and Walker Road will be developed as a middle school with access to Pinehurst Circle.

Pedestrian Trail Crossings

The **trail approaches** (not roadway approaches) to the roadway trail intersections should be posted with Stop-signs if these are intended to be used by cyclists. If the sight distance is limited and the trails are determined to be significant enough to warrant them, advance yellow warning signs for pedestrian crossings could be installed along with pavement markings in the form of crosswalks as appropriate per the *Manual on Uniform traffic Control Devices (MUTCD)*.

Roadway Classifications

Figure 12 shows the recommended street classifications in the vicinity of the site. Streets within the first two plats would be rural local streets.

Intersection Cost Sharing Analysis

LSC has prepared a cost sharing analysis for the Walden Way/Highway 83 right-in/right-out improvements. The results of this analysis suggest a contribution of 23 percent from Majestic Pines and the remaining 77 percent from Walden Preserve 2. Either project could file for cost recovery against other future developments if it is anticipated that said other developments' traffic would benefit from the completion of this improvement (i.e., if another projects' traffic would otherwise add turning movements to the southbound left turn at this intersection if the improvement were not completed).

Countywide Roadway Improvement Fee Program

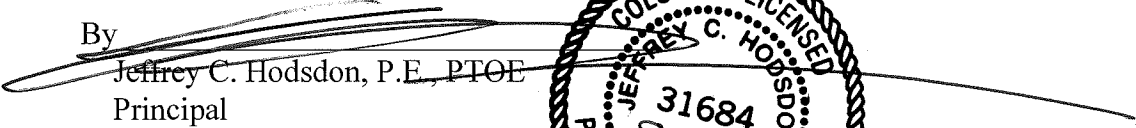
This project will be required to participate in this fee program.

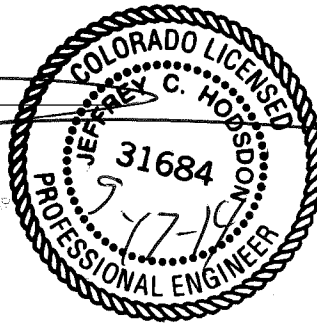
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We trust this traffic impact study will assist you in gaining approval of the proposed Walden Preserve 2 Preliminary Plan and first two plats. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By 
Jeffrey C. Hodsdon, P.E., PTOE
Principal



JCH:bjwb

- Enclosures: Tables 1-4
Figures 1-12
Appendix Figures 1-2
Traffic Count Reports
Level of Service Reports

**Table 1
Walden Preserve PUD Development Plan
Trip Generation Estimate**

ITE Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾				Total Trips Generated					
			Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour	
				In	Out	In	Out		In	Out	In	Out
Phase 1												
210	Single-Family Detached Housing	42 DU ⁽²⁾	9.52	0.19	0.56	0.63	0.37	400	8	24	26	16
Buildout												
210	Single-Family Detached Housing	116 DU ⁽²⁾	9.52	0.19	0.56	0.63	0.37	1,104	22	65	73	43
Notes:												
(1) Source: "Trip Generation, 9th Edition, 2012" by the Institute of Transportation Engineers (ITE)												
(2) DU = Dwelling Units												
Source: LSC Transportation Consultants, Inc.												

**Table 2
Traffic Signal Warrant Analysis
Peak-Hour Volumes
Walden Preserve**

	Vehicles Per Hour	
	Peak Hour 7:00-8:00 a.m.	Peak Hour 4:45-5:45 p.m.
MINOR STREET TRAFFIC		
Eastbound		
Site-Generated Traffic⁽¹⁾		
Left	0	0
Through	9	30
Right	###	##
Background Traffic⁽²⁾		
Left	11	45
Through	32	68
Right	###	###
Westbound		
Site-Generated Traffic		
Left	7	5
Through	17	12
Background Traffic		
Left	52	18
Through	87	52
Eastbound Minor Street	52	143
Westbound Minor Street	163	87
MAJOR STREET TRAFFIC		
Northbound		
Site-Generated Traffic		
Left	13	9
Through	3	2
Right	4	12
Background Traffic		
Left	111	143
Through	130	245
Right	17	40
Southbound		
Site-Generated Traffic		
Left	2	5
Through	0	1
Right	0	0
Background Traffic		
Left	9	8
Through	237	167
Right	47	34
Major Street Totals		
	7:00-8:00 a.m.	5:00-6:00 p.m.
	573	666

Notes:

(1) Includes Filing 1, 2 and Current PUD Amendment Area

(2) Based on 2012 traffic volumes with shift in traffic pattern due to the restriction of Walden Way/SH 83 and a new connection to Walker

Source: LSC Transportation Consultants, Inc.

**Table 3
Traffic Signal Warrant Analysis
Four-Hour Volumes
Walden Preserve**

	Vehicles Per Hour			
	6:30-7:30 a.m.	7:30-8:30 a.m.	4:00-5:00 p.m.	5:00-6:00 p.m.
MINOR STREET TRAFFIC				
Eastbound				
Site-Generated Traffic⁽¹⁾				
Left	0	0	0	0
Through	8	5	27	30
Right	###			##
Background Traffic⁽²⁾				
Left	11	12	32	47
Through	16	38	49	50
Right	97	104	99	98
Westbound				
Site-Generated Traffic				
Left	0	0	0	0
Through	15	13	12	11
Background Traffic				
Left	47	43	35	15
Through	76	59	43	47
Eastbound Minor Street	35	55	108	127
Westbound Minor Street	139	115	90	73
MAJOR STREET TRAFFIC				
Site-Generated Traffic				
Northbound				
Left	12	13	13	12
Through	3	3	3	3
Right	0	4	0	0
Southbound				
Left	2	1	4	6
Through	0	0	1	1
Right	0	0	0	0
Background Traffic				
All NB and SB Approach Traffic	501	518	584	637
Major Street Totals				
	6:30-7:30 a.m.	7:30-8:30 a.m.	4:00-5:00 p.m.	5:00-6:00 p.m.
	517	540	605	658

Notes:

(1) Includes Filing 1, 2 and Current PUD Amendment Area

(2) Based on 2012 traffic volumes with shift in traffic pattern due to the restriction of Walden Way/SH 83 and a new connection to Walker

Source: LSC Transportation Consultants, Inc.

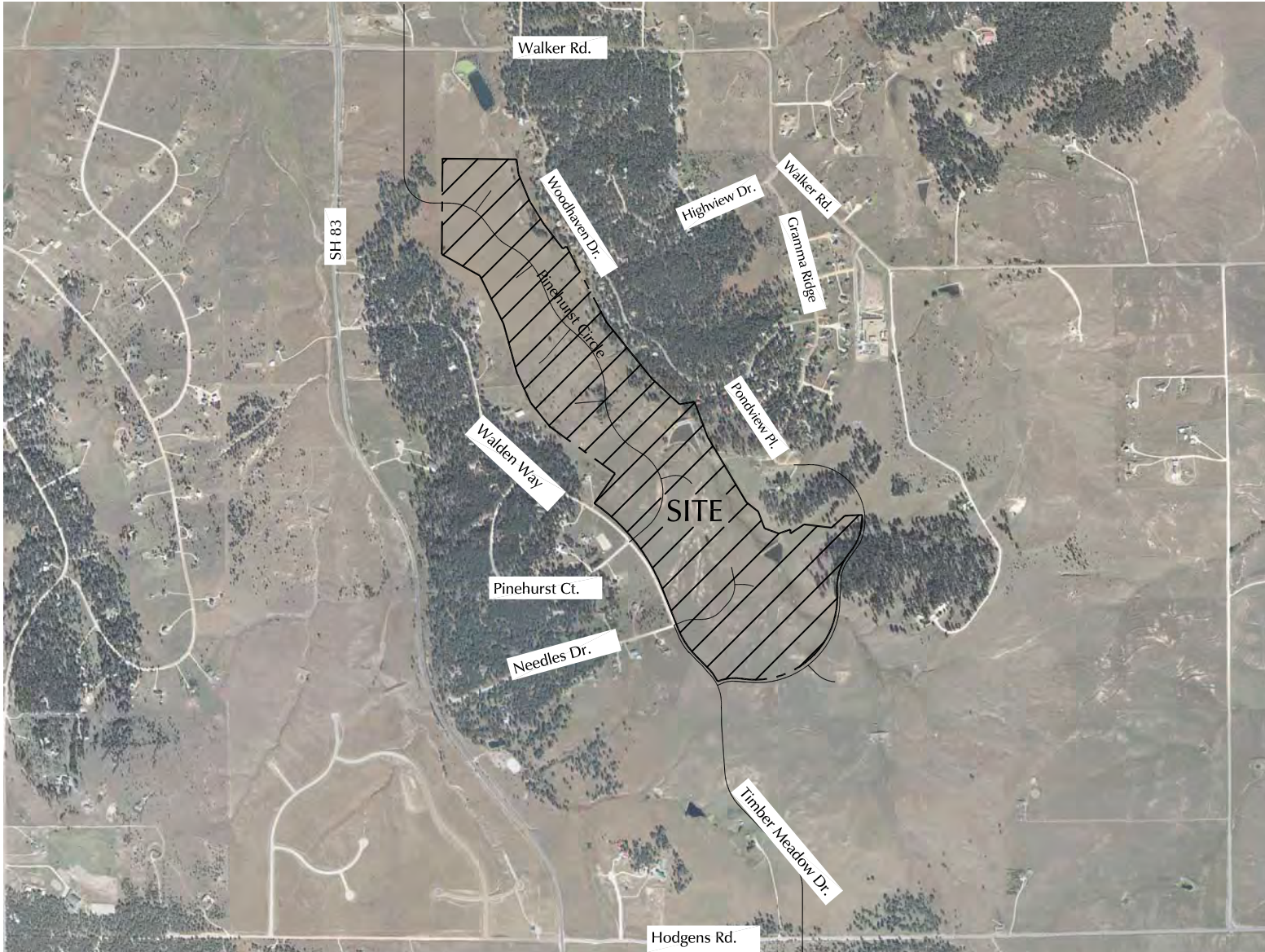
**Table 4
Traffic Signal Warrant Analysis
Future Four Hour Volumes
Walden Preserve**

	Vehicles Per Hour				
	6:30-7:30 a.m.	7:30-8:30 a.m.	4:00-5:00 p.m.	5:00-6:00 p.m.	
MINOR STREET TRAFFIC					
Eastbound					
Site-Generated Traffic⁽¹⁾					
Left	0	0	0	0	
Through	8	5	27	30	
Right	###	0	0	##	
Background Traffic⁽²⁾					
Left	13	14	38	56	
Through	19	46	59	60	
Right	116	125	119	118	
Westbound					
Site-Generated Traffic					
Left	0	0	0	0	
Through	15	13	12	11	
Background Traffic					
Left	56	52	42	18	
Through	91	71	51	57	
Eastbound Minor Street	40	66	124	146	
Westbound Minor Street	163	135	105	85	
MAJOR STREET TRAFFIC					
Site-Generated Traffic					
Northbound					
Left	12	13	13	12	
Through	3	3	3	3	
Right	0	4	0	0	
Southbound					
Left	2	1	4	6	
Through	0	0	1	1	
Right	0	0	0	0	
Background Traffic					
All NB and SB approach traffic	601	622	701	764	
Major Street Totals					
	7:00-8:00 a.m.	12 noon-1:00 p.m.	4:00-5:00 p.m.	5:00-6:00 p.m.	
	617	644	722	785	
Eastbound			21.48%	20.54%	Average 15.21%
Westbound	9.38%	9.44%			Weighted Average 15.58%
Major Street + Higher Minor Street	780	779	846	931	

Notes:

(1) Includes Filing 1, 2 and Current PUD Amendment Area

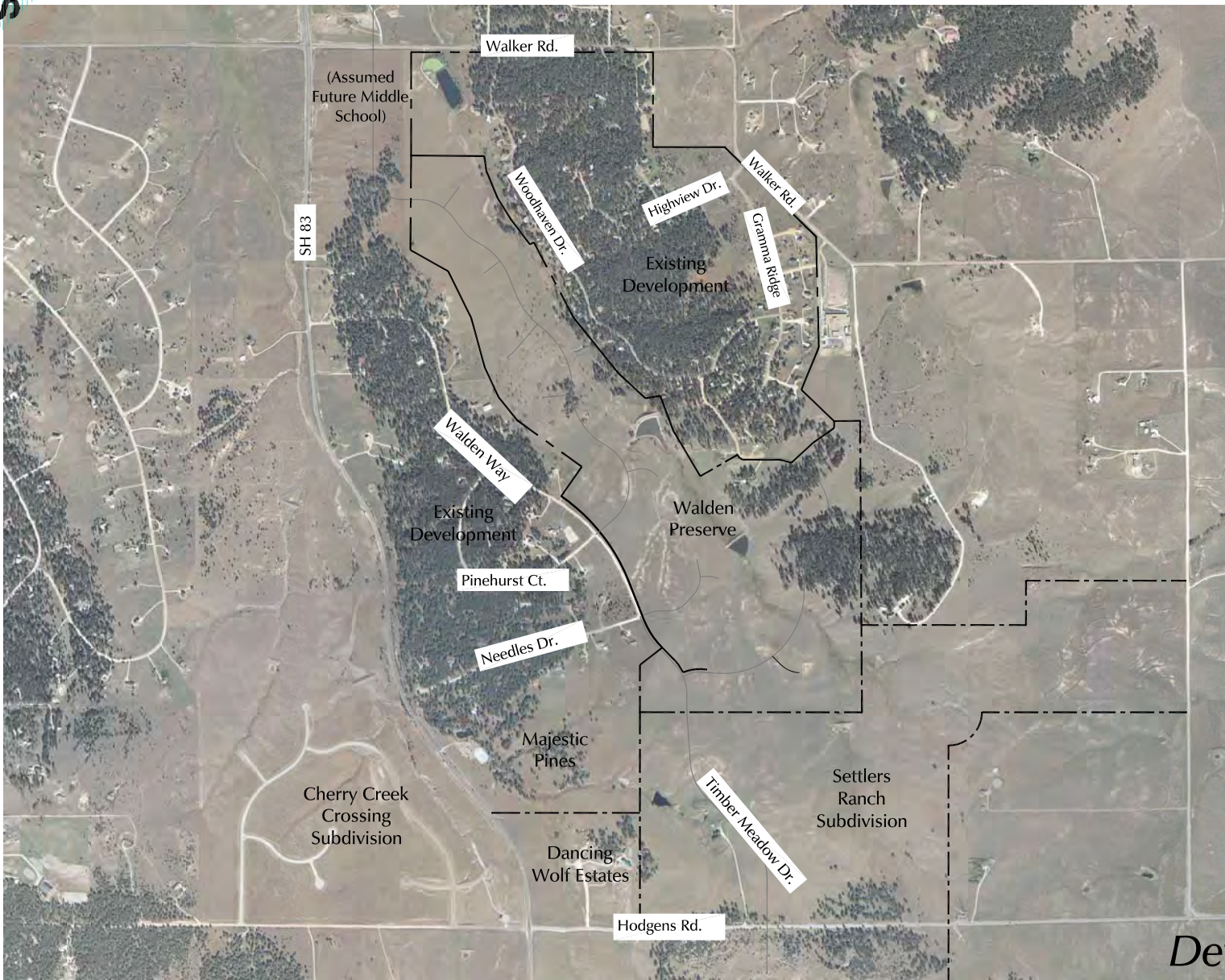
(2) Growth factor of 1.2 applied to current background traffic volumes



Approximate Scale
Scale: 1" = 1,800'

Figure 1
**Vicinity
Map**

Walden Preserve 2 (LSC #144380)




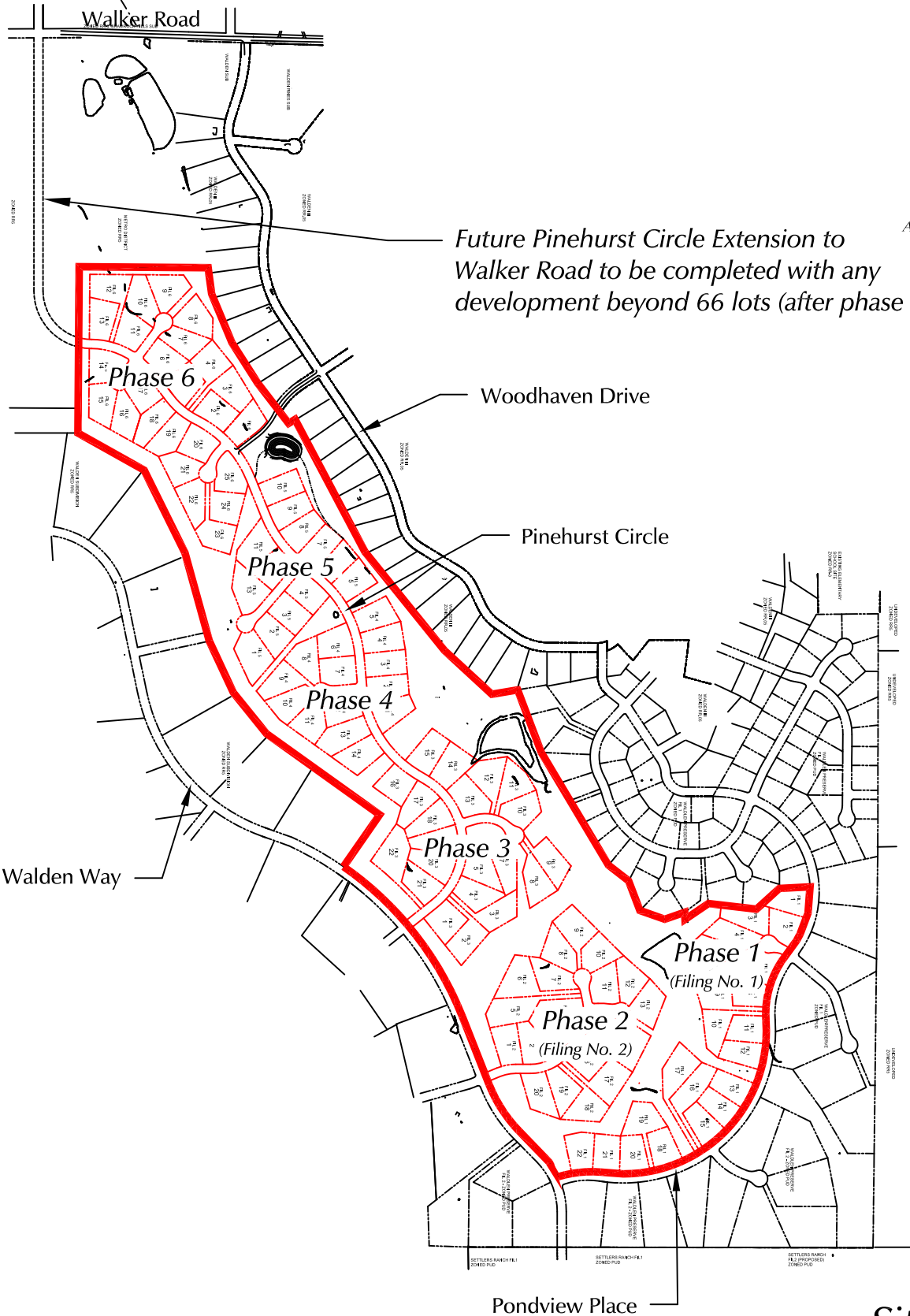

Approximate Scale
Scale: 1" = 1,800'

Figure 2
**Development
Context Map**
Walden Preserve 2 (LSC #144380)



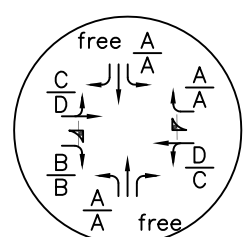
Approximate Scale
Scale: 1" = 1,000'

Figure 3

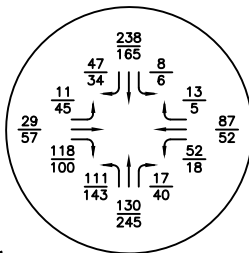
Site Plan with Phasing

Walden Preserve 2 (LSC #144380)

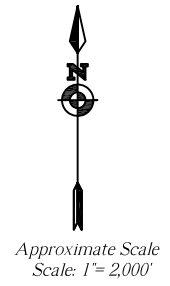
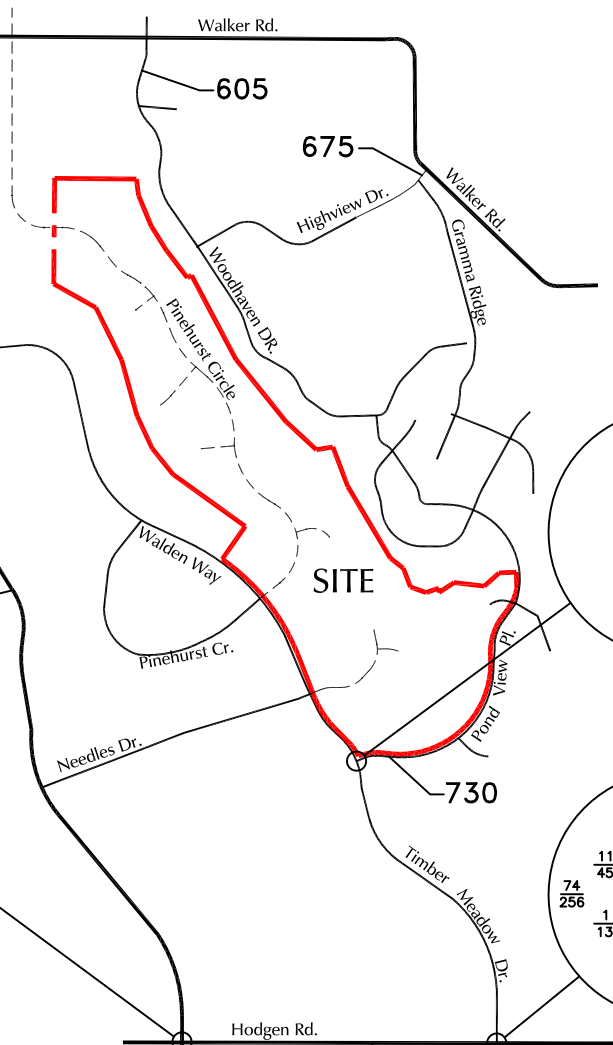
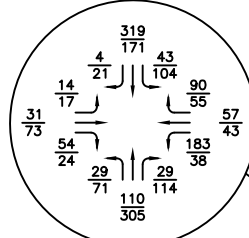
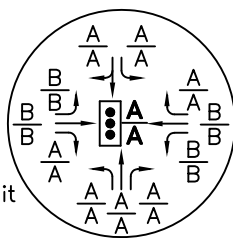
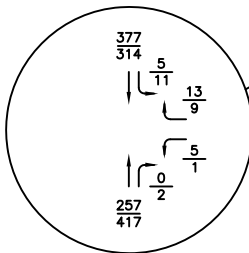
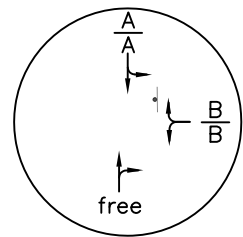







Lane Geometry by following 2013 CDOT Project



6,800*



LEGEND:

-  = Speed Limit
-  = Traffic Signal
-  = Stop Sign

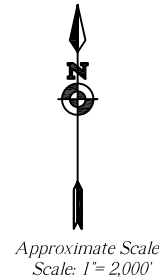
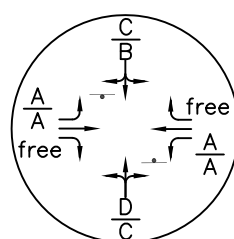
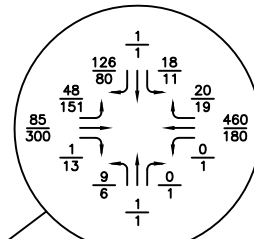
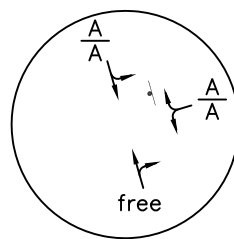
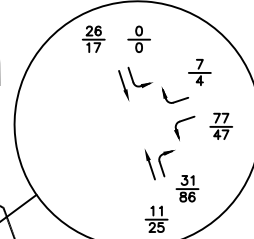
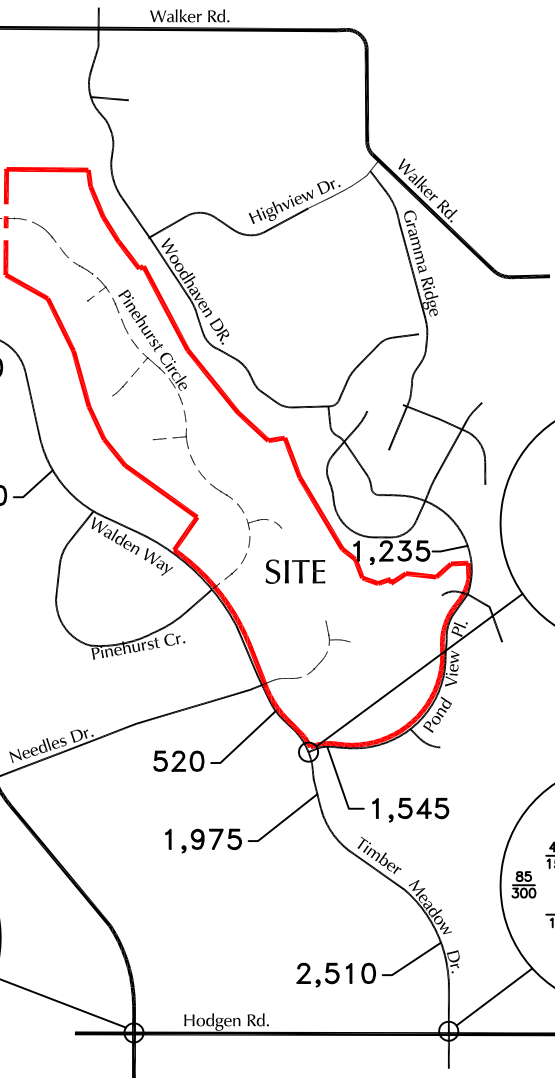
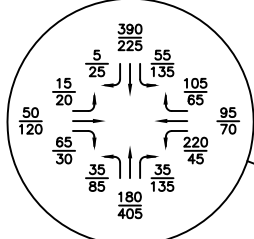
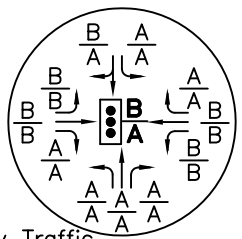
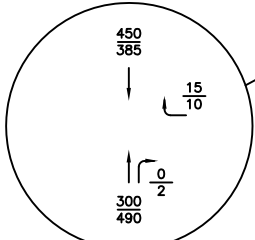
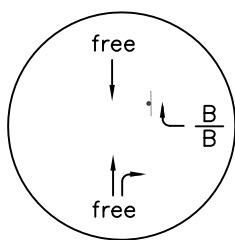
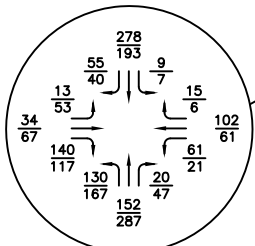
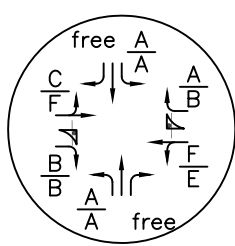
620 = Average Weekday Traffic
 $\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$
 *2013 CDOT Average Annual Daily Traffic (AADT)
 **See attached count reports for specific count dates
 Traffic counts by LSC Dec. 2011, April 2012 & Nov. 2012

- $\frac{A}{A}$ = Individual AM Peak-Hour Level of Service
- $\frac{A}{A}$ = Individual PM Peak-Hour Level of Service
- $\frac{A}{A}$ = Entire Intersection AM Peak-Hour Level of Service
- $\frac{A}{A}$ = Entire Intersection PM Peak-Hour Level of Service

Traffic Count Data, Lane Geometry, Traffic Control and Level of Service

Walden Preserve 2 (LSC #144380)

Figure 4



LEGEND:

= Traffic Signal

= Stop Sign

620 = Average Weekday Traffic

$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

$\frac{A}{A}$ = Individual AM Peak-Hour Level of Service

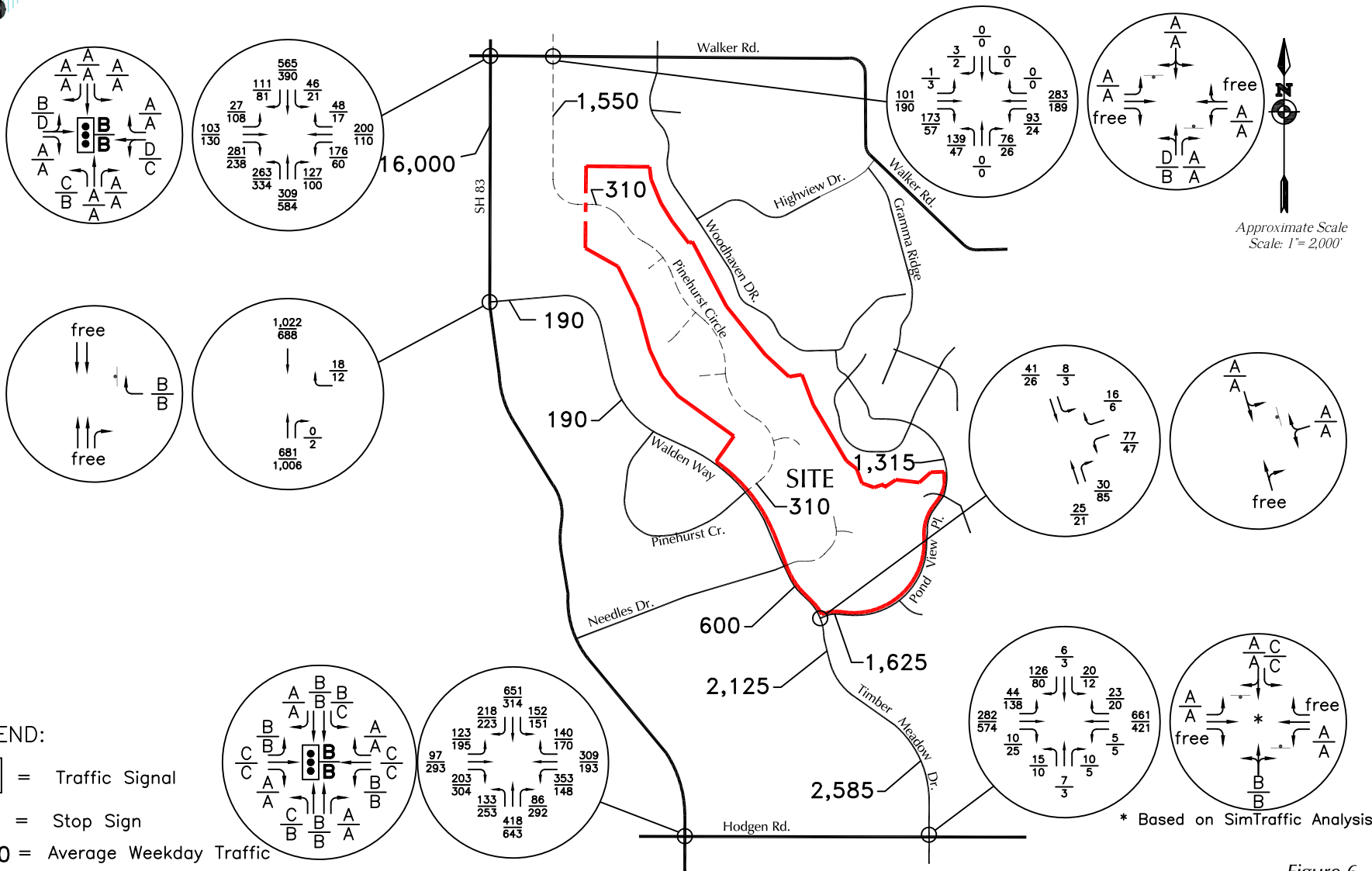
$\frac{A}{A}$ = Individual PM Peak-Hour Level of Service

$\frac{A}{A}$ = Entire Intersection AM Peak-Hour Level of Service

$\frac{A}{A}$ = Entire Intersection PM Peak-Hour Level of Service

Figure 5
**Year 2017 Background Traffic,
 Geometry, Traffic Control and Level of Service**

Walden Preserve 2 (LSC #144380)



LEGEND:

= Traffic Signal

= Stop Sign

620 = Average Weekday Traffic

$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

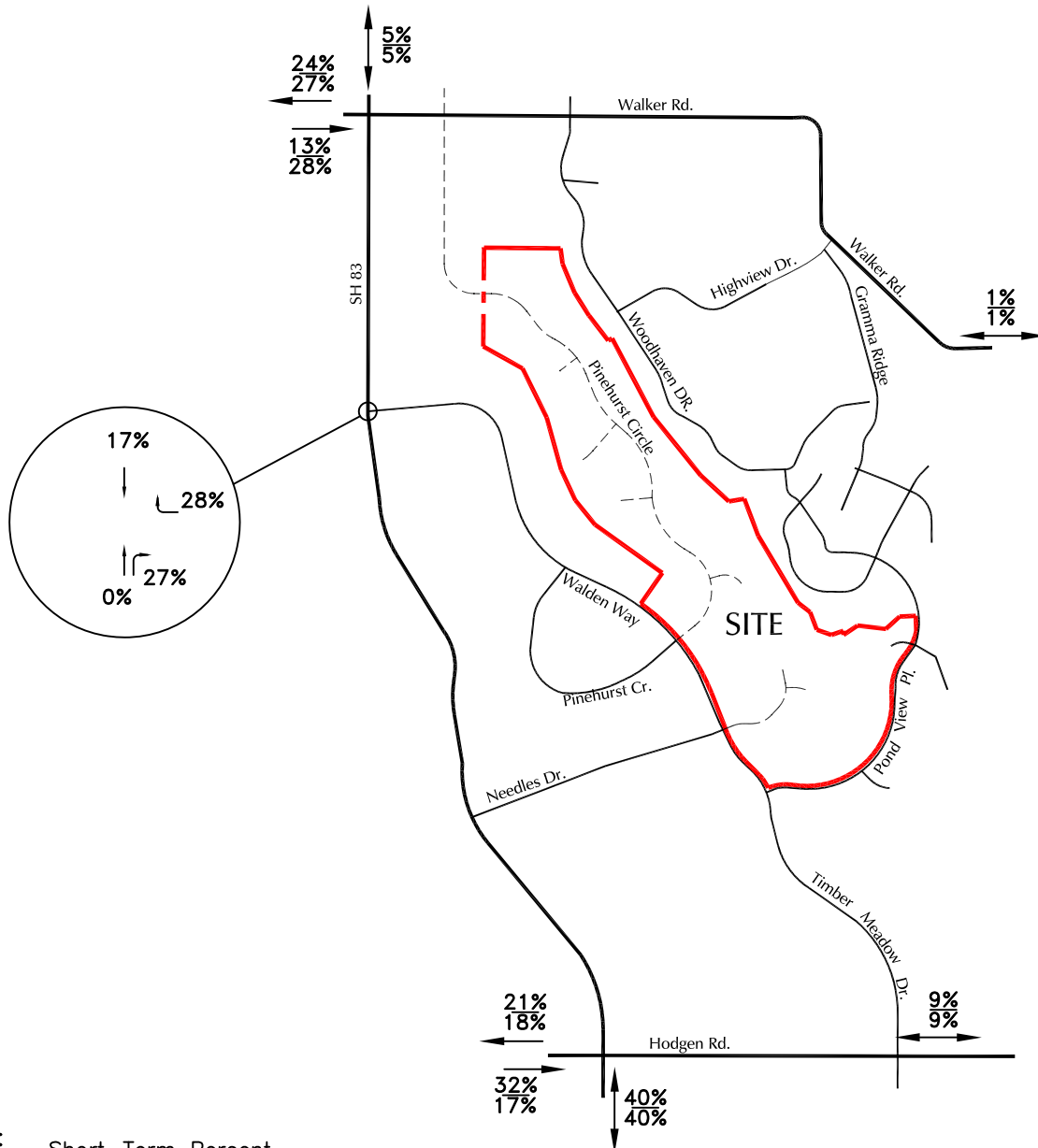
$\frac{A}{A}$ = $\frac{\text{Individual AM Peak-Hour Level of Service}}{\text{Individual PM Peak-Hour Level of Service}}$

$\frac{A}{A}$ = $\frac{\text{Entire Intersection AM Peak-Hour Level of Service}}{\text{Entire Intersection PM Peak-Hour Level of Service}}$

Year 2040 Background Traffic, Geometry, Traffic Control and Level of Service

Walden Preserve 2 (LSC #144380)

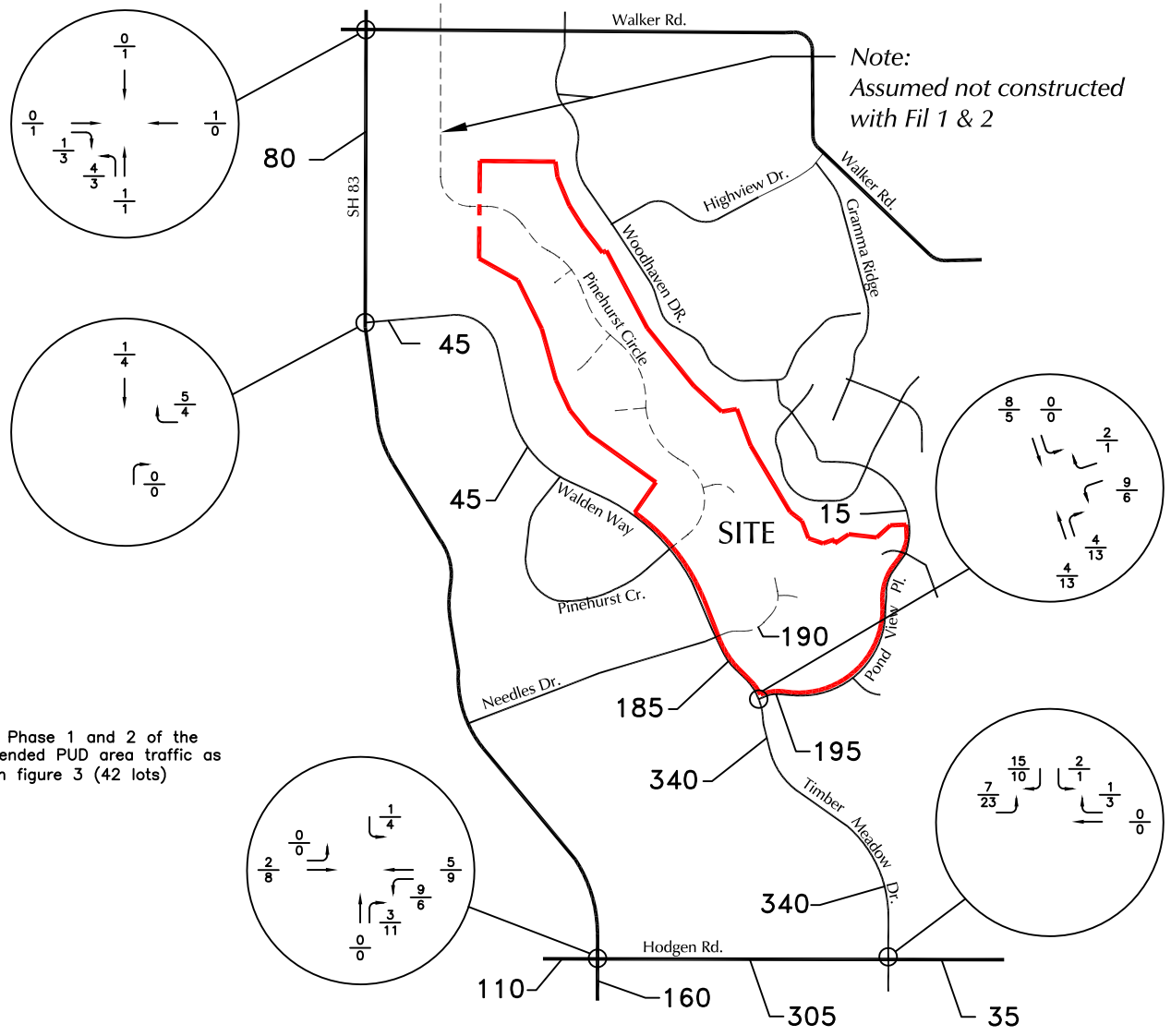
Figure 6



Approximate Scale
Scale: 1" = 2,000'

LEGEND:
 40% = Short-Term Percent of Directional Distribution
 40% = Long-Term Percent of Directional Distribution

Figure 7
Directional Distribution of Site-Generated Traffic
 Walden Preserve 2 (LSC #144380)



NOTE:
Includes Phase 1 and 2 of the
new amended PUD area traffic as
shown in figure 3 (42 lots)

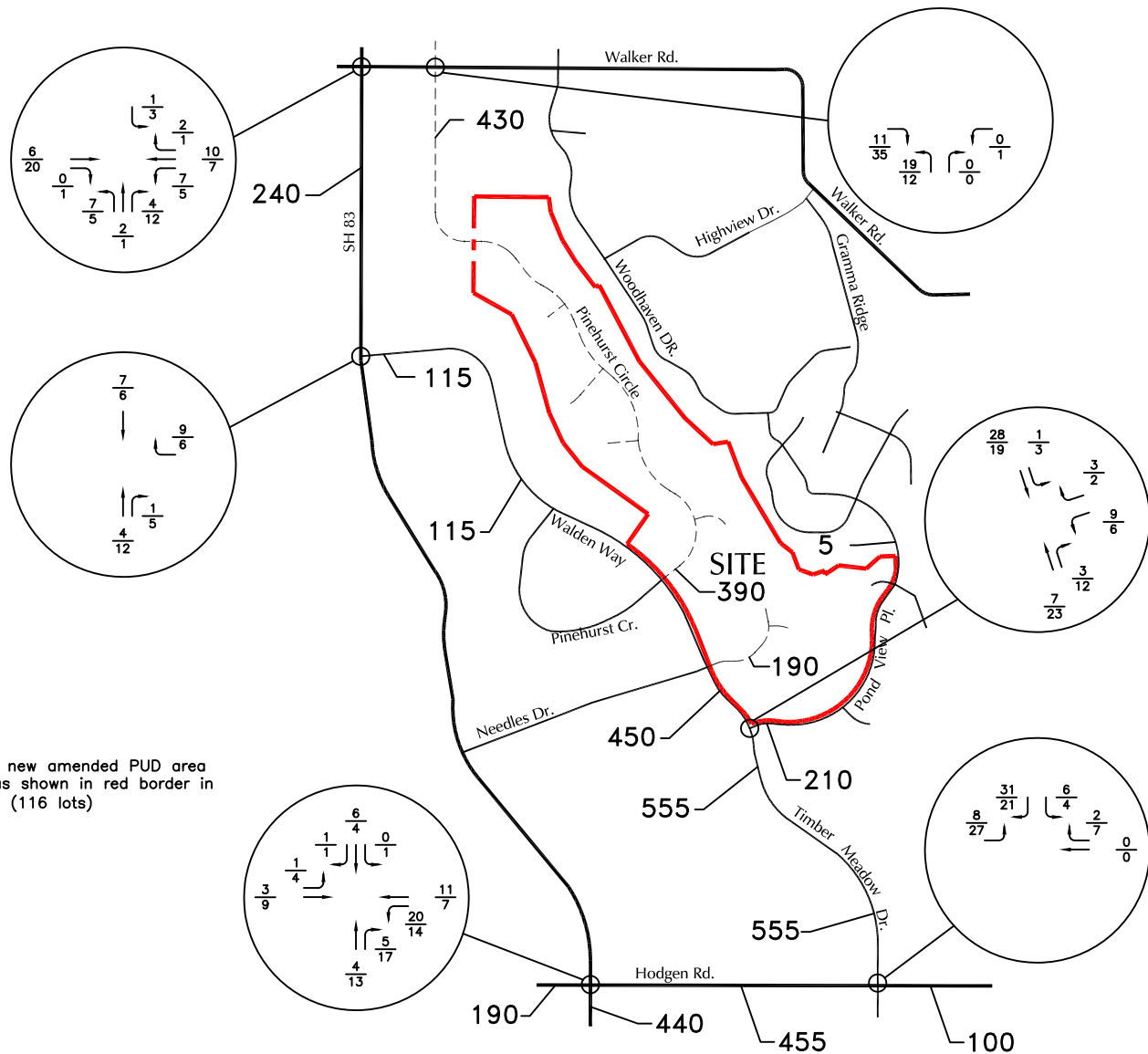
LEGEND:

620 = Average Weekday Traffic

$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

Figure 8
**Assignment of
Phases 1 & 2 (Fil. 1 & 2) Site-Generated Traffic**

Walden Preserve 2 (LSC #144380)



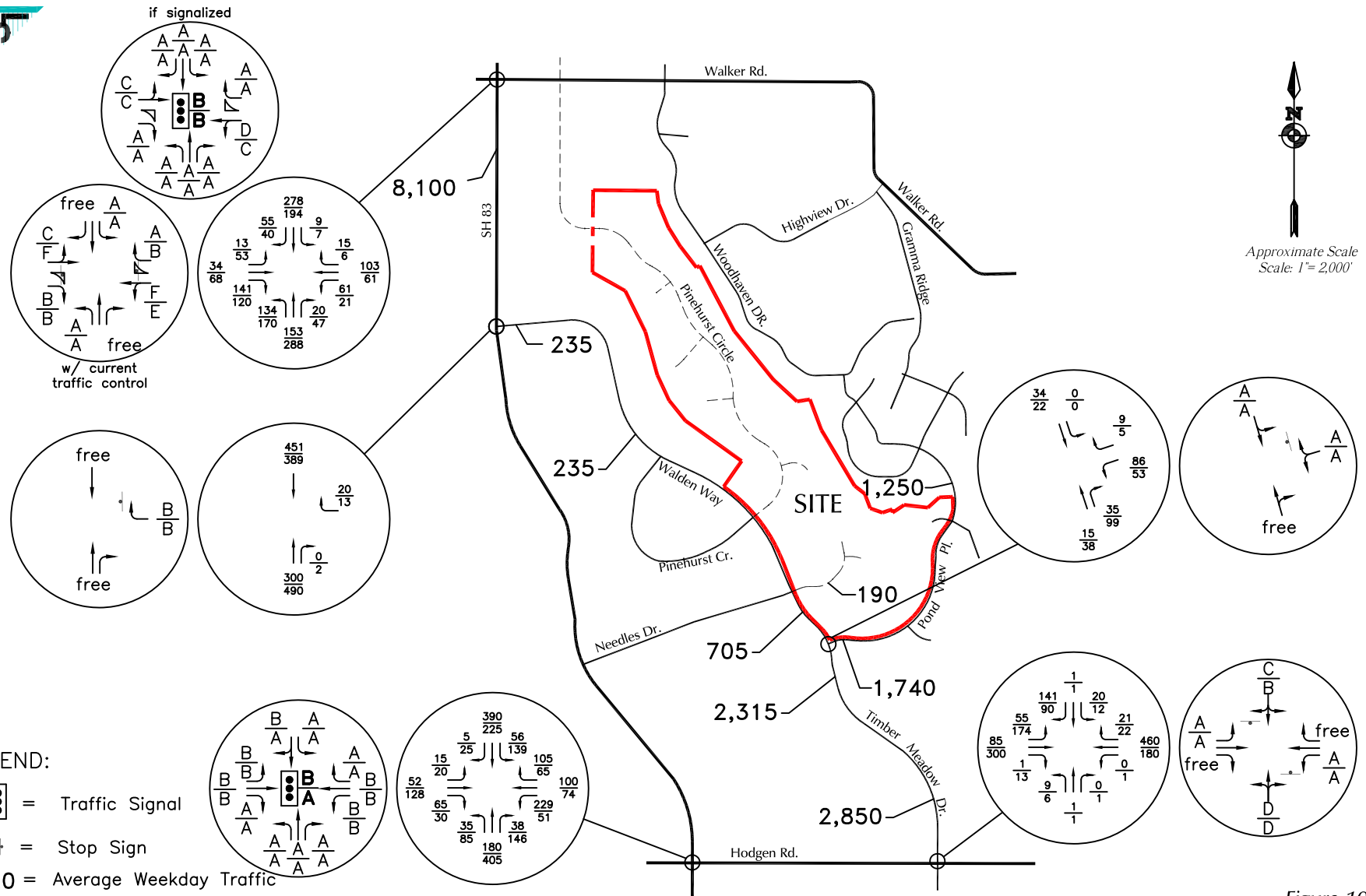
Approximate Scale
Scale: 1" = 2,000'

NOTE:
Includes new amended PUD area
traffic as shown in red border in
figure 3 (116 lots)

LEGEND:

- 620 = Average Weekday Traffic
- $\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

Figure 9
**Assignment of
Buildout Site-Generated Traffic**
Walden Preserve 2 (LSC #144380)



Approximate Scale
Scale: 1" = 2,000'

LEGEND:

= Traffic Signal

= Stop Sign

620 = Average Weekday Traffic

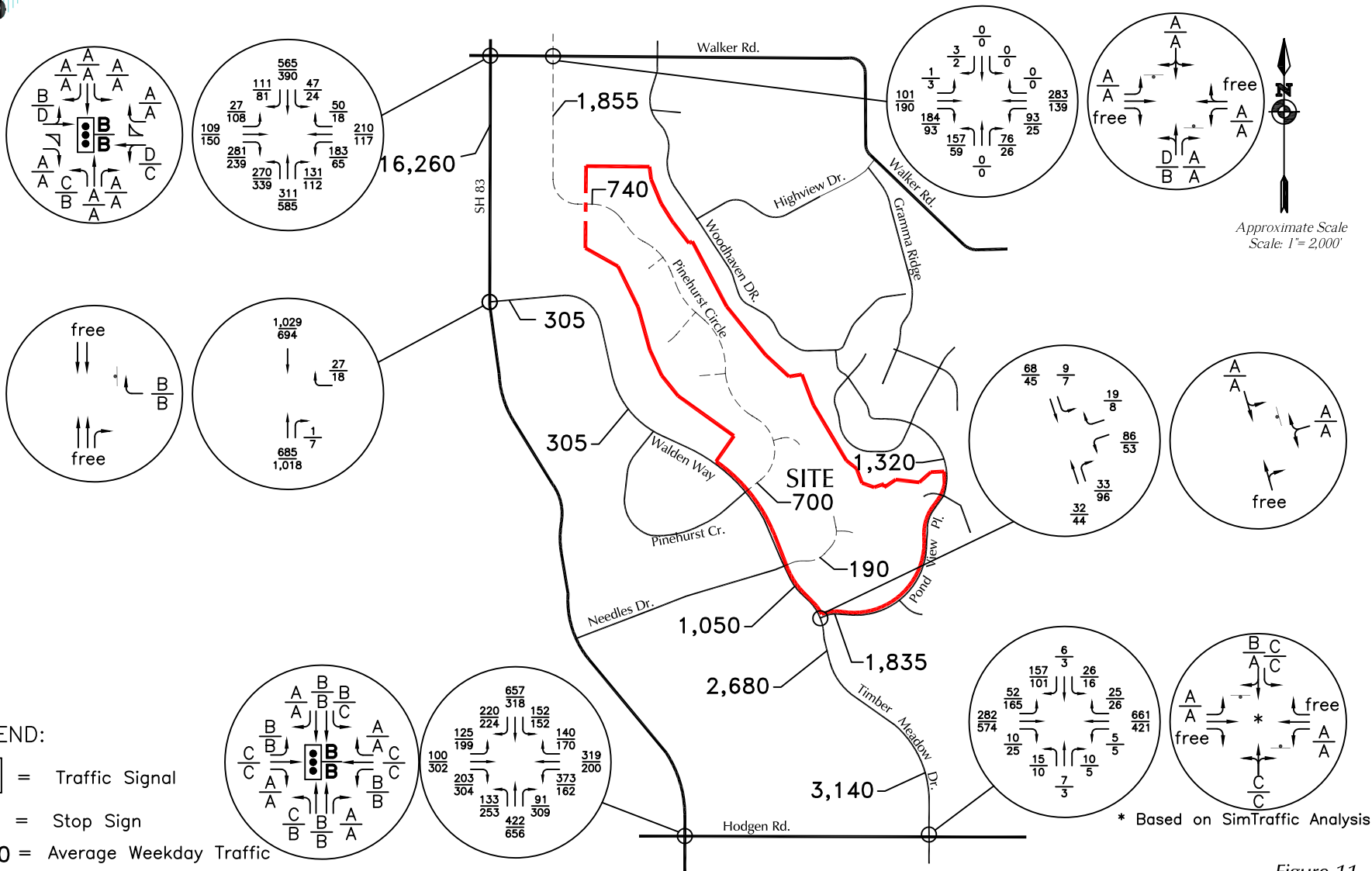
$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

$\frac{A}{A}$ = $\frac{\text{Individual AM Peak-Hour Level of Service}}{\text{Individual PM Peak-Hour Level of Service}}$

$\frac{\underline{A}}{\underline{A}}$ = $\frac{\text{Entire Intersection AM Peak-Hour Level of Service}}{\text{Entire Intersection PM Peak-Hour Level of Service}}$

Figure 10
**Year 2017 Total Traffic,
Geometry, Traffic Control and Level of Service**

Walden Preserve 2 (LSC #144380)



LEGEND:

= Traffic Signal

= Stop Sign

620 = Average Weekday Traffic

$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

$\frac{A}{A}$ = $\frac{\text{Individual AM Peak-Hour Level of Service}}{\text{Individual PM Peak-Hour Level of Service}}$

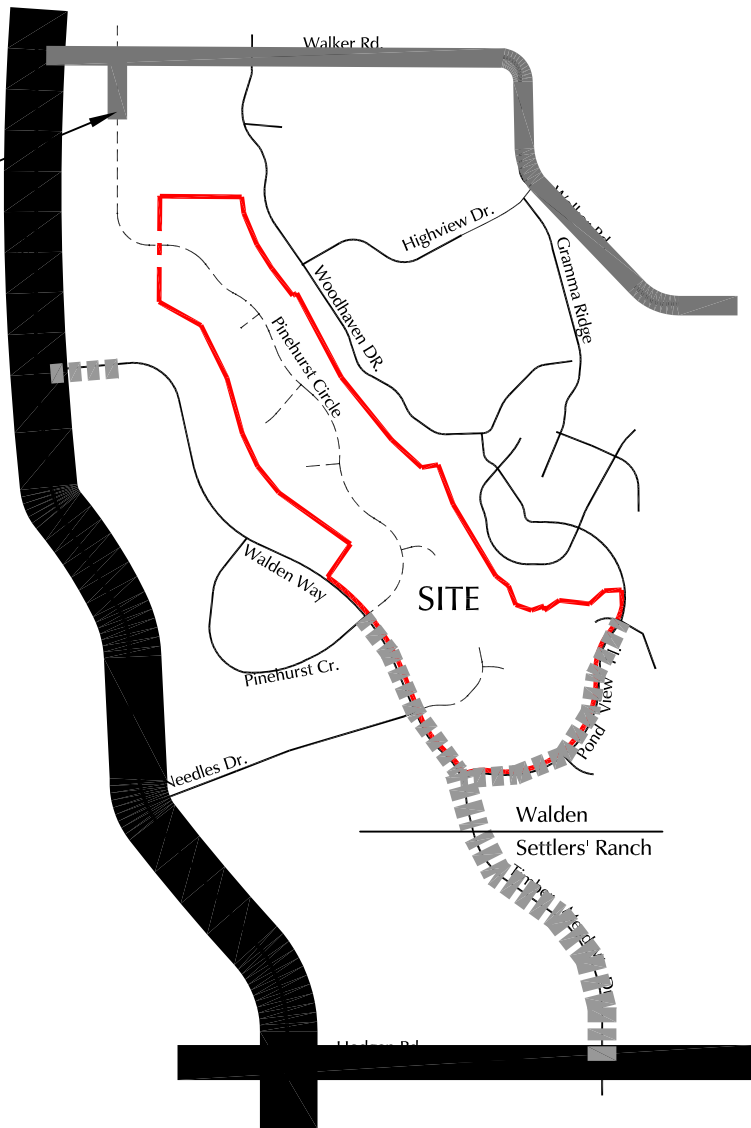
$\frac{A}{A}$ = $\frac{\text{Entire Intersection AM Peak-Hour Level of Service}}{\text{Entire Intersection PM Peak-Hour Level of Service}}$

* Based on SimTraffic Analysis

Figure 11
**Year 2040 Total Traffic,
Geometry, Traffic Control and Level of Service**

Walden Preserve 2 (LSC #144380)

Collector south
to school entrance



Approximate Scale
Scale: 1" = 2,000'

LEGEND:







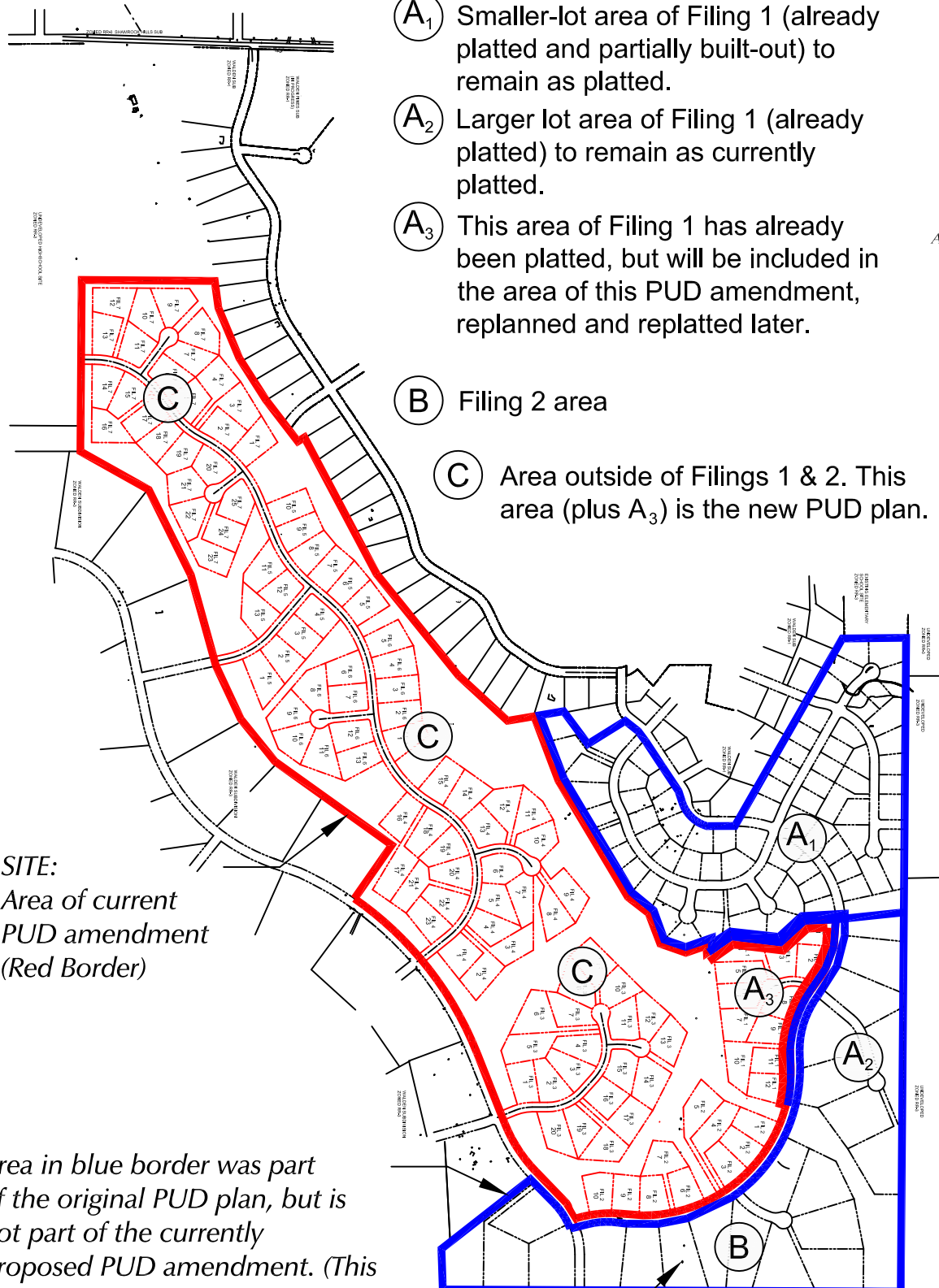

-  Principal Arterial
-  Minor Arterial
-  Collector (2 lanes)
-  Minor Residential Collector with 60' R.O.W.
-  Minor Residential Collector with 80' R.O.W. (existing-within Settlers' Ranch)
-  Local

Figure 12
**Recommended Roadway
Functional Classifications**
Walden Preserve 2 (LSC #144380)



- A₁** Smaller-lot area of Filing 1 (already platted and partially built-out) to remain as platted.
- A₂** Larger lot area of Filing 1 (already platted) to remain as currently platted.
- A₃** This area of Filing 1 has already been platted, but will be included in the area of this PUD amendment, replanned and replatted later.
- B** Filing 2 area
- C** Area outside of Filings 1 & 2. This area (plus A₃) is the new PUD plan.


 Approximate Scale
 Scale: 1"= 1,000'

SITE:
 Area of current
 PUD amendment
 (Red Border)

Area in blue border was part
 of the original PUD plan, but is
 not part of the currently
 proposed PUD amendment. (This
 area was included in original TIS).

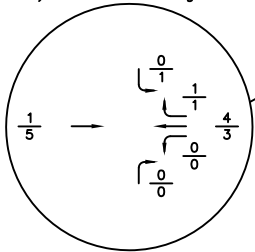
Filing 2 Site

Appendix Figure 1

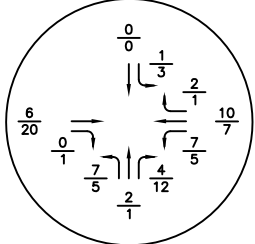
(Figure 3 from May 31, 2013 PUD Report)
Comparison to Previous Plan



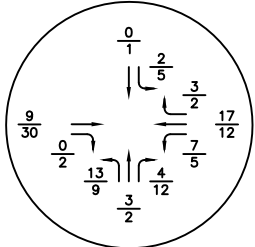
Traffic Generated by Existing (Nov 2012) homes in Filing 1 Only



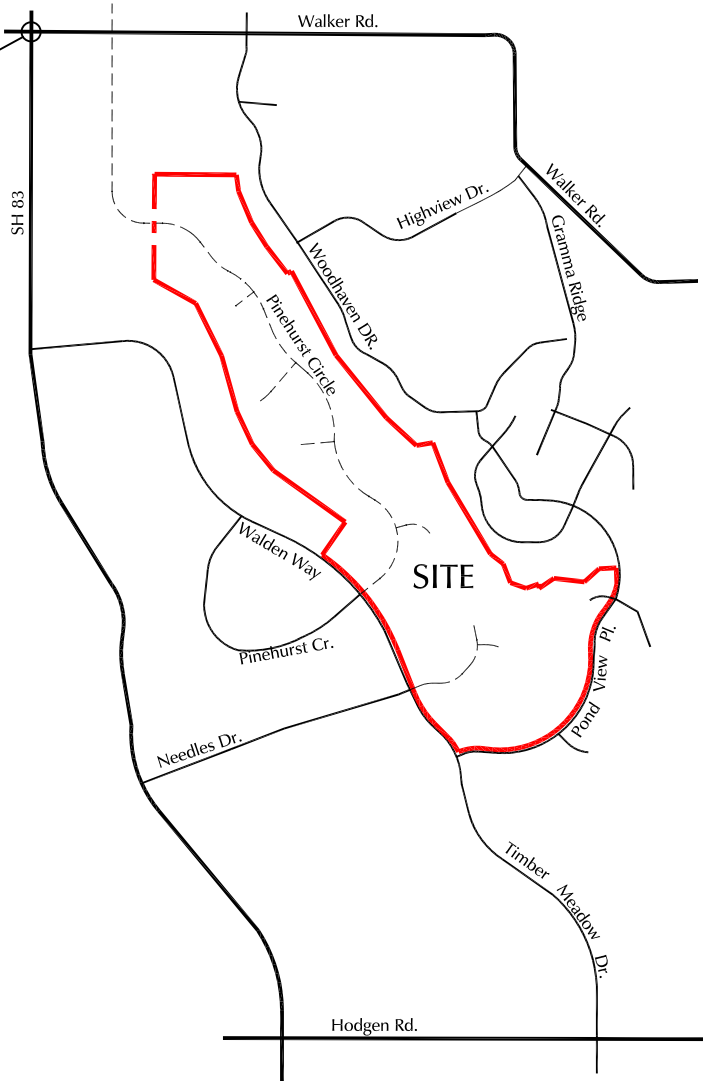
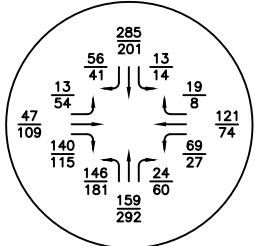
Traffic Generated by PUD (at buildout) Only



Traffic Generated by Filings 1, 2 + PUD



2018 Total Traffic



Approximate Scale
Scale: 1" = 2,000'

LEGEND:

$$\frac{26}{31} = \frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$$

* Based on SimTraffic Analysis

Appendix Figure 2
**SH 83/ Walker Traffic
Signal Warrant Analysis Volumes**

Walden Preserve 2 (LSC #144380)

LSC Transportation Consultants, Inc.

516 N. Tejon St.

LSC Transportation Consultants, Inc.

Site Name : Timber Meadow Dr - Hodgen Rd AM

Site Code : 00000000

Start Date : 04/19/2012

Page No : 1

Groups Printed- Unshifted

Start Time	Timber Meadow Dr From North				Hodgen Rd From East				Timber Meadow Dr From South				Hodgen Rd From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	9	0	1	0	0	83	0	0	0	0	0	0	0	20	1	0	114
06:45 AM	8	0	0	0	0	81	0	0	0	1	4	0	0	18	2	0	114
Total	17	0	1	0	0	164	0	0	0	1	4	0	0	38	3	0	228
07:00 AM	14	1	0	0	0	79	0	0	0	0	0	0	1	21	1	0	117
07:15 AM	17	0	1	0	4	106	0	0	0	0	5	0	0	15	7	0	155
07:30 AM	9	0	2	0	1	70	1	0	1	0	1	0	2	15	3	0	105
07:45 AM	10	0	0	0	2	60	0	0	0	1	0	0	2	25	9	0	109
Total	50	1	3	0	7	315	1	0	1	1	6	0	5	76	20	0	486
08:00 AM	9	1	1	0	0	59	0	0	0	0	2	0	3	19	6	0	100
08:15 AM	6	1	0	0	0	59	0	0	1	0	1	0	1	20	4	0	93
Grand Total	82	3	5	0	7	597	1	0	2	2	13	0	9	153	33	0	907
Apprch %	91.1	3.3	5.6	0.0	1.2	98.7	0.2	0.0	11.8	11.8	76.5	0.0	4.6	78.5	16.9	0.0	
Total %	9.0	0.3	0.6	0.0	0.8	65.8	0.1	0.0	0.2	0.2	1.4	0.0	1.0	16.9	3.6	0.0	

LSC Transportation Consultants, Inc.

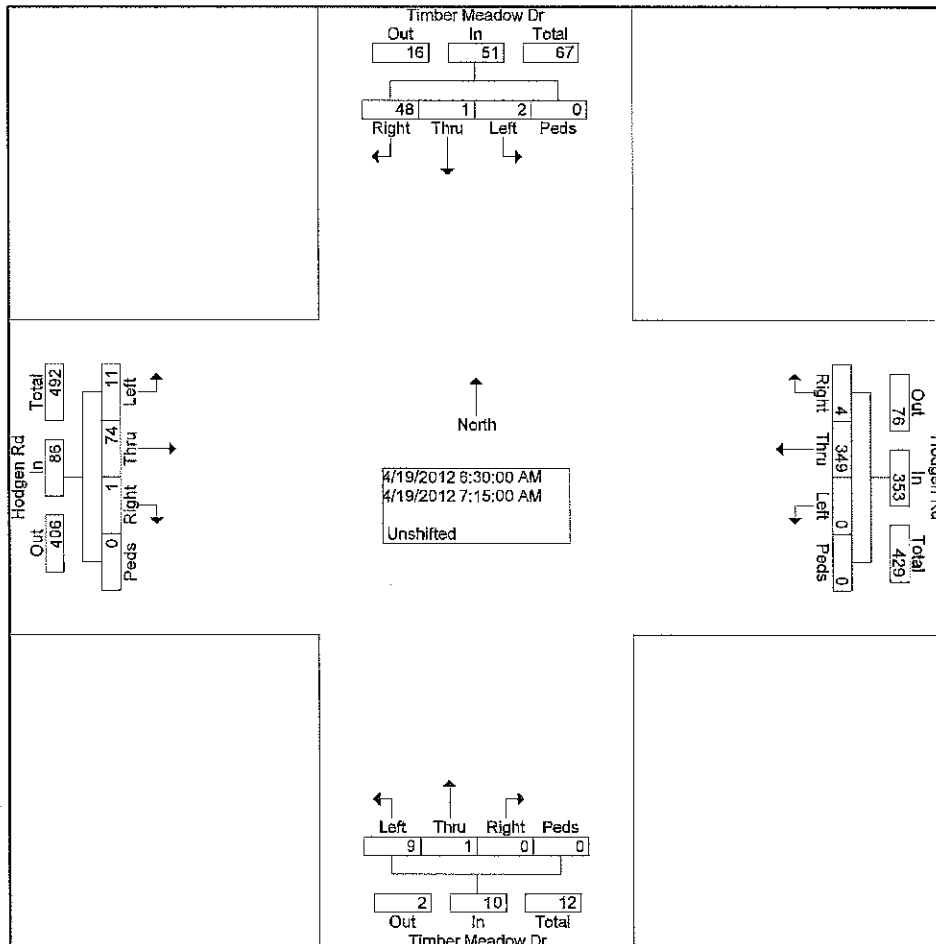
516 N. Tejon St.
 Colorado Springs, CO
 (719) 633-2868

File Name : Timber Meadow Dr - Hodgen Rd AM
 Site Code : 00000000

Start Date : 04/19/2012

Page No : 2

Start Time	Timber Meadow Dr From North					Hodgen Rd From East					Timber Meadow Dr From South					Hodgen Rd From West					Int. Total	
	Rig ht	Thru	Le ft	Pe ds	App. Total	Rig ht	Thru	Le ft	Pe ds	App. Total	Rig ht	Thru	Le ft	Pe ds	App. Total	Rig ht	Thru	Le ft	Pe ds	App. Total		
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																						
Intersection	06:30 AM																					
Volume	48	1	2	0	51	4	34	9	0	0	353	0	1	9	0	10	1	74	11	0	86	500
Percent	94.1	2.0	3.9	0.0		1.1	98.9	0.0	0.0		0.0	10.0	90.0	0.0		1.2	86.0	12.8	0.0			
07:15 Volume	17	0	1	0	18	4	10	6	0	0	110	0	0	5	0	5	0	15	7	0	22	155
Peak Factor	0.806																					
High Int.	07:15 AM																					
Volume	17	0	1	0	18	4	10	6	0	0	110	0	1	4	0	5	1	21	1	0	23	
Peak Factor	0.708					0.802					0.500					0.935						



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Colorado Springs, CO

(719) 633-2868

File Name : Timber Meadow Dr - Hodgen Rd PM

Site Code : 00000000

Start Date : 04/19/2012

Page No : 1

Groups Printed- Unshifted

Start Time	Timber Meadow Dr From North				Hodgen Rd From East				Timber Meadow Dr. From South				Hodgen Rd From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:15 PM	4	1	1	0	2	38	0	0	0	3	2	0	2	66	10	0	129
04:30 PM	7	0	2	0	2	37	1	0	0	0	1	0	2	68	11	0	131
04:45 PM	9	0	1	0	0	36	0	0	0	0	2	0	1	60	10	0	119
Total	20	1	4	0	4	111	1	0	0	3	5	0	5	194	31	0	379
05:00 PM	10	0	0	0	1	33	0	0	0	0	3	0	4	57	10	0	118
05:15 PM	3	1	1	0	0	49	0	0	1	1	0	0	6	71	14	0	147
05:30 PM	5	0	0	0	1	45	0	0	0	0	0	0	0	48	9	0	108
05:45 PM	6	0	1	0	1	30	0	0	1	0	1	0	4	50	12	0	106
Total	24	1	2	0	3	157	0	0	2	1	4	0	14	226	45	0	479
06:00 PM	5	0	2	0	1	23	0	0	1	3	2	0	3	50	14	0	104
Grand Total	49	2	8	0	8	291	1	0	3	7	11	0	22	470	90	0	962
Apprch %	83.1	3.4	13.6	0.0	2.7	97.0	0.3	0.0	14.3	33.3	52.4	0.0	3.8	80.8	15.5	0.0	
Total %	5.1	0.2	0.8	0.0	0.8	30.2	0.1	0.0	0.3	0.7	1.1	0.0	2.3	48.9	9.4	0.0	

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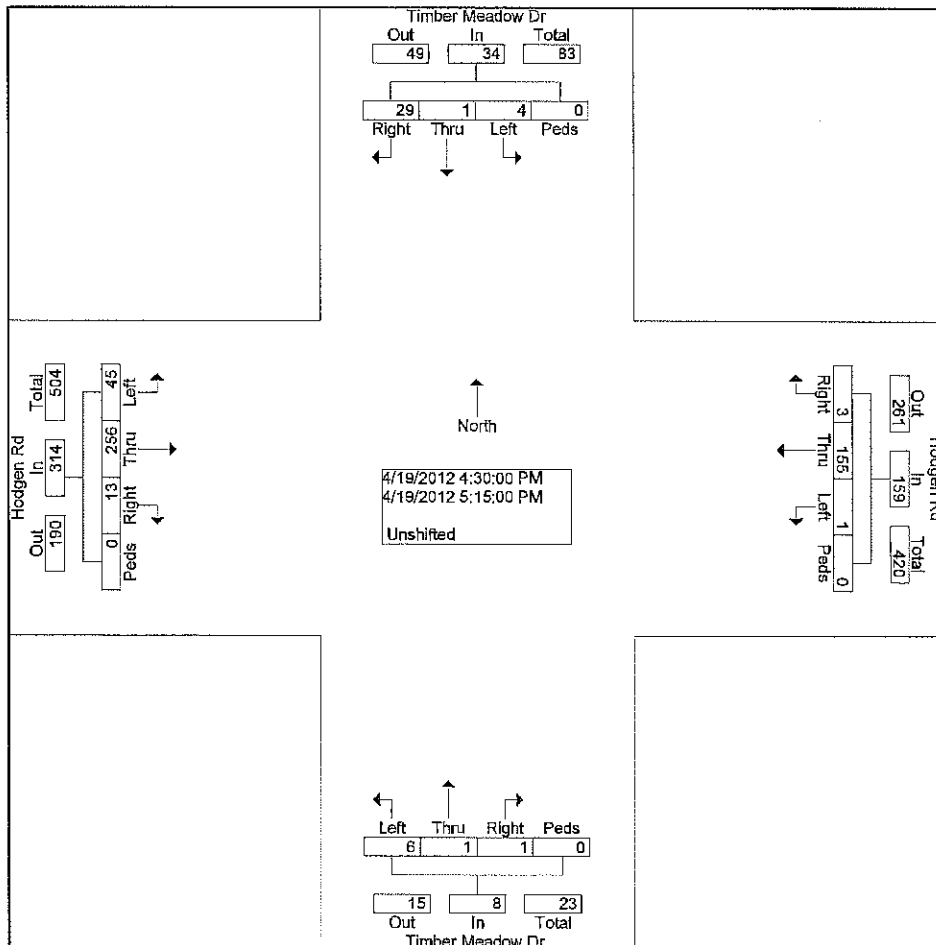
Site Name : Timber Meadow Dr - Hodgen Rd PM

Site Code : 00000000

Start Date : 04/19/2012

Page No : 2

Start Time	Timber Meadow Dr From North					Hodgen Rd From East					Timber Meadow Dr. From South					Hodgen Rd From West					Int. Total
	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	29	1	4	0	34	3	15	1	0	159	1	1	6	0	8	13	25	45	0	314	515
Percent	85.3	2.9	11.8	0.0		1.9	97.5	0.6	0.0		12.5	12.5	75.0	0.0		4.1	81.5	14.3	0.0		
05:15 Volume	3	1	1	0	5	0	49	0	0	49	1	1	0	0	2	6	71	14	0	91	147
Peak Factor																					
High Int. Volume	04:45 PM					05:15 PM					05:00 PM					05:15 PM					
Peak Factor	0.85					0.81					0.66					0.86					3



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File Name : Hwy 83-Hodgen AM
 Site Code : 00000000
 Start Date : 12/14/2011
 Page No : 1

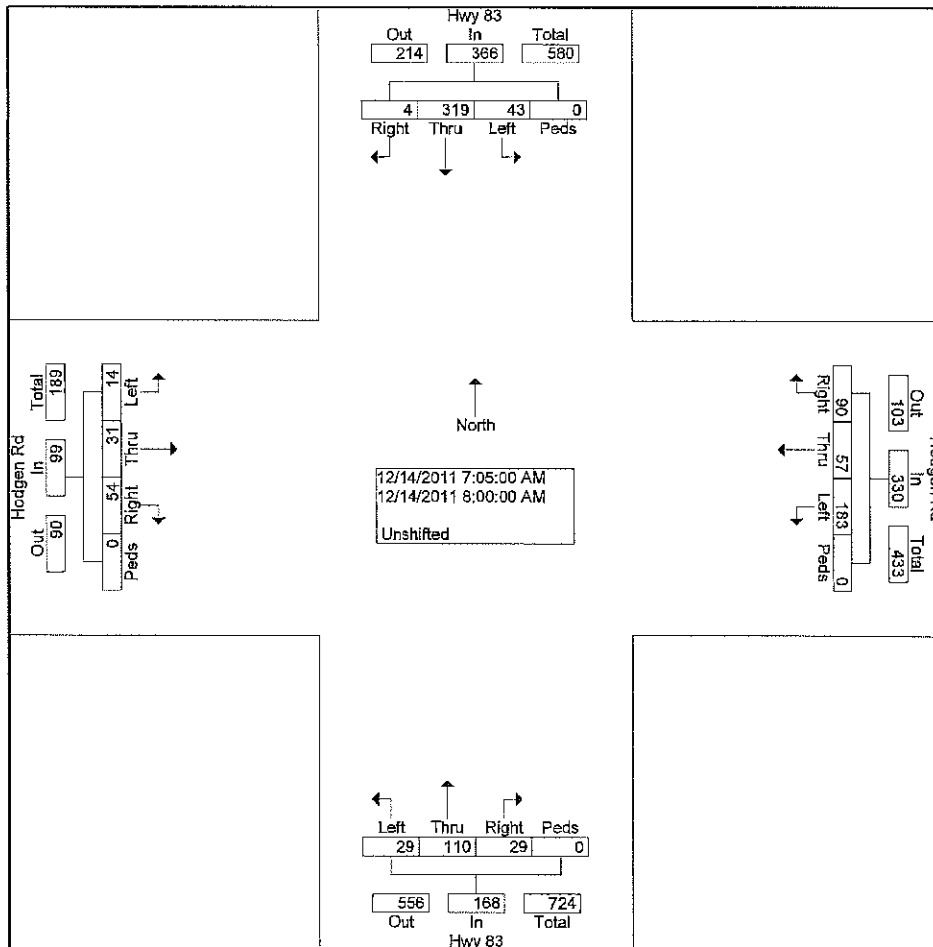
Groups Printed- Unshifted

Start Time	Hwy 83 From North				Hodgen Rd From East				Hwy 83 From South				Hodgen Rd From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	19	2	0	9	2	10	0	2	5	0	0	1	3	0	0		53
06:35 AM	7	22	2	0	3	4	9	0	1	5	0	0	1	4	0	0		58
06:40 AM	0	21	2	0	6	1	15	0	1	7	0	0	1	3	0	0		57
06:45 AM	0	22	5	0	6	5	17	0	2	3	0	0	4	0	0	0		64
06:50 AM	0	20	6	0	7	6	14	0	1	2	3	0	3	2	0	0		64
06:55 AM	1	25	2	0	13	4	16	0	0	5	2	0	4	0	0	0		72
Total	8	129	19	0	44	22	81	0	7	27	5	0	14	12	0	0		368
07:00 AM	0	19	0	0	2	8	12	0	0	8	1	0	2	0	0	0		52
07:05 AM	0	25	4	0	9	3	17	0	2	6	4	0	3	4	1	0		78
07:10 AM	0	30	3	0	7	9	11	0	3	8	1	0	3	1	0	0		76
07:15 AM	1	21	2	0	10	10	18	0	2	12	3	0	4	4	2	0		89
07:20 AM	0	30	5	0	6	8	18	0	1	6	1	0	7	0	3	0		85
07:25 AM	0	32	2	0	5	6	21	0	2	12	2	0	10	5	0	0		97
07:30 AM	0	29	3	0	9	3	12	0	2	9	2	0	4	0	1	0		74
07:35 AM	0	14	6	0	7	6	23	0	3	7	3	0	6	2	2	0		79
07:40 AM	0	25	3	0	8	3	8	0	2	6	5	0	3	2	3	0		68
07:45 AM	0	29	5	0	8	3	19	0	1	16	1	0	2	2	2	0		88
07:50 AM	1	25	5	0	9	3	11	0	2	12	1	0	3	3	0	0		75
07:55 AM	1	28	4	0	7	2	15	0	5	10	4	0	4	5	0	0		85
Total	3	307	42	0	87	64	185	0	25	112	28	0	51	28	14	0		946
08:00 AM	1	31	1	0	5	1	10	0	4	6	2	0	5	3	0	0		69
08:05 AM	1	15	1	0	11	3	5	0	2	7	1	0	3	2	0	0		51
08:10 AM	1	25	2	0	8	5	5	0	3	8	2	0	5	3	1	0		68
08:15 AM	1	23	2	0	4	2	6	0	7	14	1	0	6	5	3	0		74
08:20 AM	0	9	3	0	4	5	15	0	1	11	2	0	5	3	5	0		63
08:25 AM	2	22	2	0	4	1	7	0	1	20	0	0	5	3	2	0		69
Grand Total	17	561	72	0	167	103	314	0	50	205	41	0	94	59	25	0		1708
Apprch %	2.6	86.3	11.1	0.0	28.6	17.6	53.8	0.0	16.9	69.3	13.9	0.0	52.8	33.1	14.0	0.0		
Total %	1.0	32.8	4.2	0.0	9.8	6.0	18.4	0.0	2.9	12.0	2.4	0.0	5.5	3.5	1.5	0.0		

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 516 N. Tejon St.
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File Name : Hwy 83-Hodgen AM
 Site Code : 00000000
 Start Date : 12/14/2011
 Page No : 2

Start Time	Hwy 83 From North					Hodgen Rd From East					Hwy 83 From South					Hodgen Rd From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Peak Hour From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Intersection	07:05 AM																				
Volume	4	319	43	0	366	90	57	183	0	330	29	110	29	0	168	54	31	14	0	99	963
Percent	1.1	87.2	11.7	0.0		27.3	17.3	55.5	0.0		17.3	65.5	17.3	0.0		54.5	31.3	14.1	0.0		
07:25 Volume	0	32	2	0	34	5	6	21	0	32	2	12	2	0	16	10	5	0	0	15	97
Peak Factor	0.827																				
High Int. Volume	07:20 AM																				
Peak Factor	0	30	5	0	35	10	10	18	0	38	5	10	4	0	19	10	5	0	0	15	0.827
	0.87					0.72					0.73					0.55					0
	1					4					7					0					



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LSC Transportation Consultants, Inc.

File Name : Hwy 83-Hodgen pM
 Site Code : 00000000
 Start Date : 12/13/2011
 Page No : 1

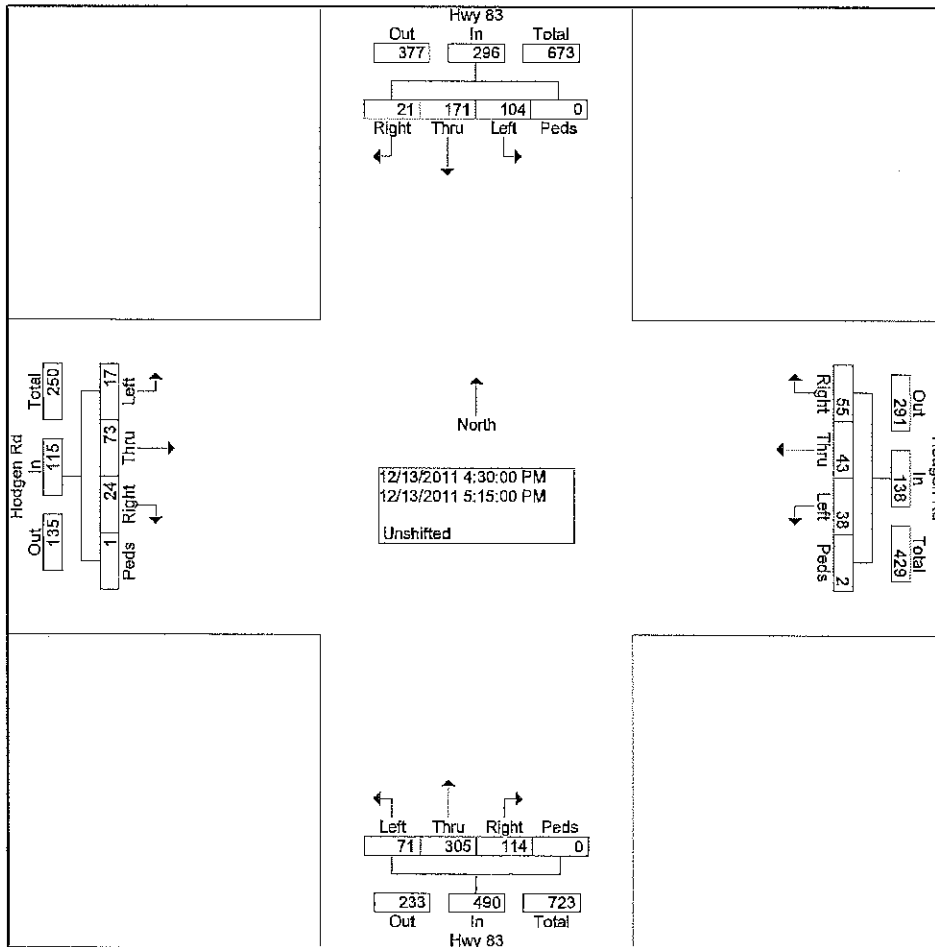
Groups Printed- Unshifted

Start Time	Hwy 83 From North				Hodgen Rd From East				Hwy 83 From South				Hodgen Rd From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:15 PM	3	47	22	0	17	13	12	0	18	73	21	0	6	27	3	0	262
04:30 PM	5	48	31	0	21	15	12	0	30	73	19	0	6	19	5	1	285
04:45 PM	5	43	27	0	11	10	5	0	29	61	15	0	4	12	0	0	222
Total	13	138	80	0	49	38	29	0	77	207	55	0	16	58	8	1	769
05:00 PM	3	39	27	0	5	9	14	0	24	82	14	0	6	26	4	0	253
05:15 PM	8	41	19	0	18	9	7	2	31	89	23	0	8	16	8	0	279
05:30 PM	7	29	15	0	14	9	10	1	42	82	12	0	12	20	2	0	255
05:45 PM	2	44	14	0	4	14	9	0	26	70	15	0	5	16	6	0	225
Total	20	153	75	0	41	41	40	3	123	323	64	0	31	78	20	0	1012
06:00 PM	2	23	23	0	7	16	8	0	21	84	15	0	3	15	2	0	219
Grand Total	35	314	178	0	97	95	77	3	221	614	134	0	50	151	30	1	2000
Apprch %	6.6	59.6	33.8	0.0	35.7	34.9	28.3	1.1	22.8	63.4	13.8	0.0	21.6	65.1	12.9	0.4	
Total %	1.8	15.7	8.9	0.0	4.9	4.8	3.9	0.2	11.1	30.7	6.7	0.0	2.5	7.6	1.5	0.1	

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File Name : Hwy 83-Hodgen PM
 Site Code : 00000000
 Start Date : 12/13/2011
 Page No : 2

Start Time	Hwy 83 From North					Hodgen Rd From East					Hwy 83 From South					Hodgen Rd From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	21	171	104	0	296	55	43	38	2	138	114	305	71	0	490	24	73	17	1	115	1039
Percent	7.1	57.8	35.1	0.0		39.9	31.2	27.5	1.4		23.3	62.2	14.5	0.0		20.9	63.5	14.8	0.9		
04:30 Volume	5	48	31	0	84	21	15	12	0	48	30	73	19	0	122	6	19	5	1	31	285
Peak Factor	0.911																				
High Int. Volume	04:30 PM					04:30 PM					05:15 PM					05:00 PM					
Peak Factor	5	48	31	0	84	21	15	12	0	48	31	89	23	0	143	6	26	4	0	36	0.79
	1					0.71					0.85					0.79					9



LSC Transportation Consultants, Inc.
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LSC Transportation Consultants, Inc.

File Name : Hwy 83 - Walden Way AM
 Site Code : 00000000
 Start Date : 04/18/2012
 Page No : 1

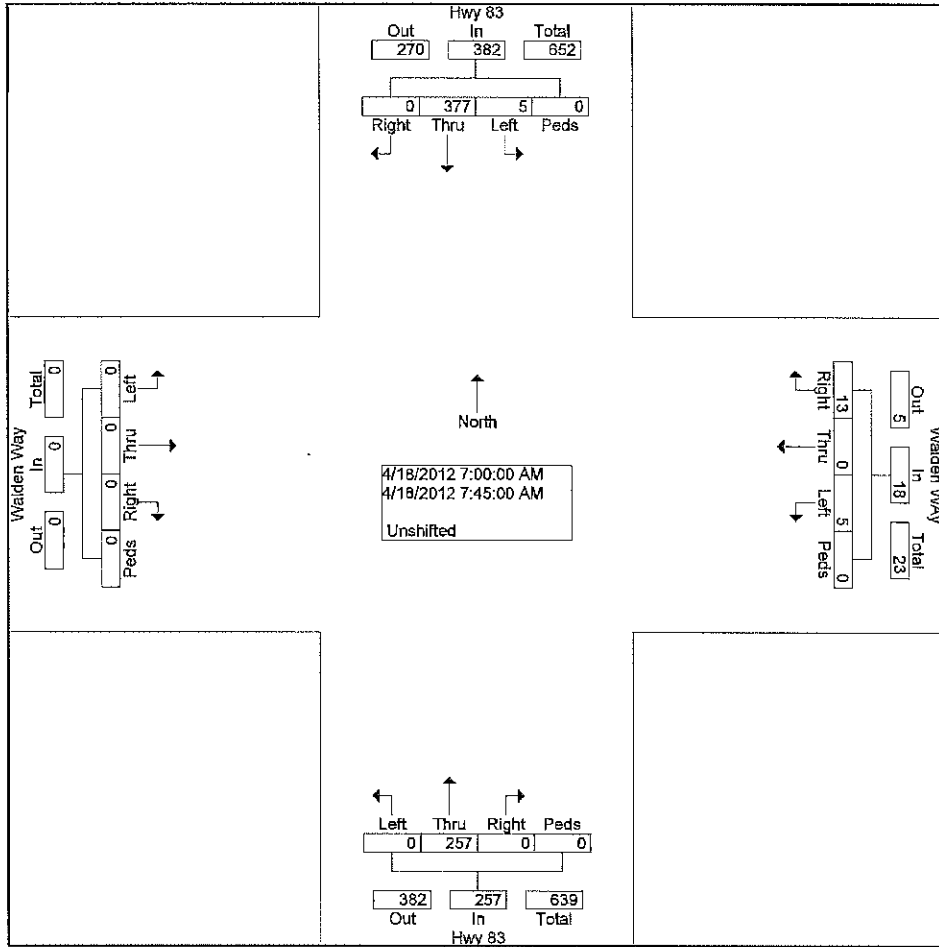
Groups Printed- Unshifted

Start Time	Hwy 83 From North				Walden Way From East				Hwy 83 From South				Walden Way From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	107	0	0	2	0	0	0	0	37	0	0	1	0	0	0	147
06:45 AM	0	91	0	0	5	0	4	0	0	36	0	0	0	0	0	0	136
Total	0	198	0	0	7	0	4	0	0	73	0	0	1	0	0	0	283
07:00 AM	0	96	2	0	6	0	0	0	0	57	0	0	0	0	0	0	161
07:15 AM	0	98	0	0	3	0	1	0	0	64	0	0	0	0	0	0	166
07:30 AM	0	94	2	0	1	0	2	0	0	82	0	0	0	0	0	0	181
07:45 AM	0	89	1	0	3	0	2	0	0	54	0	0	0	0	0	0	149
Total	0	377	5	0	13	0	5	0	0	257	0	0	0	0	0	0	657
08:00 AM	0	71	0	0	2	0	0	0	2	60	0	0	0	0	0	0	135
08:15 AM	0	66	1	0	2	0	0	0	0	53	0	0	0	0	0	0	122
Grand Total	0	712	6	0	24	0	9	0	2	443	0	0	1	0	0	0	1197
Apprch %	0.0	99.2	0.8	0.0	72.7	0.0	27.3	0.0	0.4	99.6	0.0	0.0	100.0	0.0	0.0	0.0	
Total %	0.0	59.5	0.5	0.0	2.0	0.0	0.8	0.0	0.2	37.0	0.0	0.0	0.1	0.0	0.0	0.0	

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File Name : Hwy 83 - Walden Way AM
 Site Code : 00000000
 Start Date : 04/18/2012
 Page No : 2

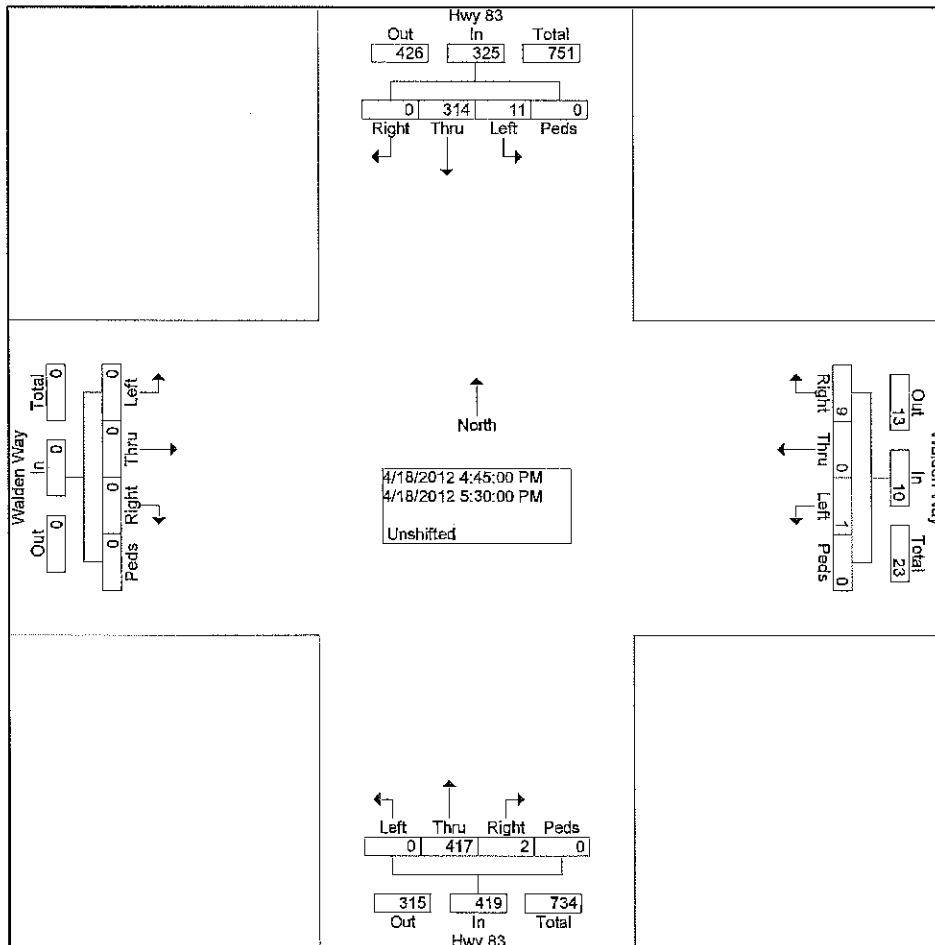
Start Time	Hwy 83 From North					Walden Way From East					Hwy 83 From South					Walden Way From West					Int. Total		
	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total			
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																							
Intersection	07:00 AM																						
Volume	0	37	7	5	0	382	13	0	5	0	18	0	25	7	0	0	257	0	0	0	0	0	657
Percent	0.0	98.	7	1.3	0.0		72.	0.0	27.	0.0		0.0	10	0.0	0.0		0.0	0.0	0.0	0.0			
07:30 Volume	0	94	2	0	96	1	0	2	0	3	0	82	0	0	82	0	0	0	0	0	0	181	
Peak Factor	0.907																						
High Int. Volume	07:00 AM					07:00 AM					07:30 AM					6:15:00 AM							
Peak Factor	0	96	2	0	98	6	0	0	0	6	0	82	0	0	82								
	0.97					0.75					0.78					4							
	4					0					4												



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File Name : Hwy 83 - Walden Way PM
 Site Code : 00000000
 Start Date : 04/18/2012
 Page No : 2

Start Time	Hwy 83 From North					Walden Way From East					Hwy 83 From South					Walden Way From West					Int. Total
	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	314	11	0	325	9	0	1	0	10	2	417	0	0	419	0	0	0	0	0	754
Percent	0.0	96.6	3.4	0.0		90.0	0.0	10.0	0.0		0.5	99.5	0.0	0.0		0.0	0.0	0.0	0.0		
05:15 Volume	0	81	2	0	83	3	0	0	0	3	2	109	0	0	111	0	0	0	0	0	197
Peak Factor	0.957																				
High Int.	05:00 PM					04:45 PM					04:45 PM					4:00:00 PM					
Volume	0	86	1	0	87	3	0	0	0	3	0	113	0	0	113						
Peak Factor	0.934					0.833					0.927										



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LSC Transportation Consultants, Inc.

File Name : US 83 - CR105 AM

Site Code : 00000000

Start Date : 11/15/2012

Page No : 1

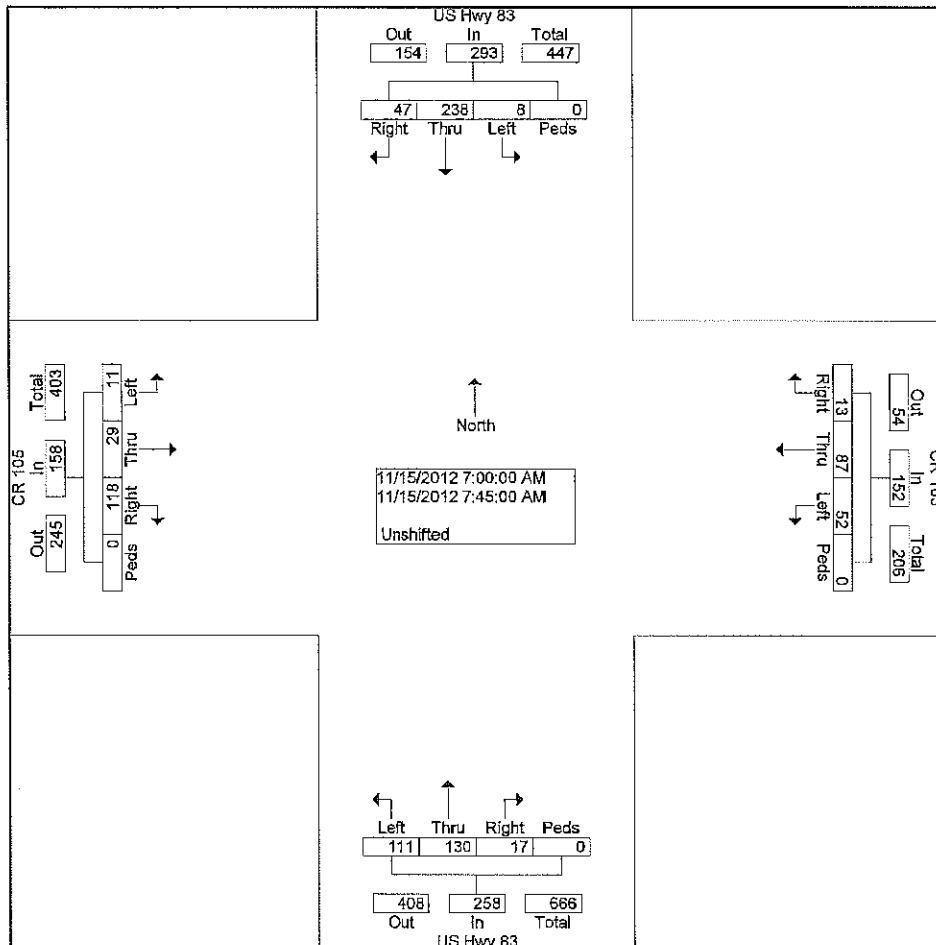
Groups Printed- Unshifted

Start Time	US Hwy 83 From North				CR 105 From East				US Hwy 83 From South				CR 105 From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	8	56	2	0	5	10	7	0	1	37	18	0	20	3	2	0	169
06:45 AM	13	42	0	0	5	18	15	0	2	35	21	0	17	2	4	0	174
Total	21	98	2	0	10	28	22	0	3	72	39	0	37	5	6	0	343
07:00 AM	13	55	1	0	5	28	17	0	2	40	26	0	27	6	1	0	221
07:15 AM	12	56	0	0	2	22	8	0	2	31	29	0	33	6	4	0	205
07:30 AM	10	76	3	0	5	16	12	0	5	24	24	0	35	4	2	0	216
07:45 AM	12	51	4	0	1	21	15	0	8	35	32	0	23	13	4	0	219
Total	47	238	8	0	13	87	52	0	17	130	111	0	118	29	11	0	861
08:00 AM	2	48	4	0	2	13	8	0	4	32	24	0	22	12	6	0	177
08:15 AM	6	47	0	0	1	11	8	0	10	37	21	0	24	10	0	0	175
Grand Total	76	431	14	0	26	139	90	0	34	271	195	0	201	56	23	0	1556
Apprch %	14.6	82.7	2.7	0.0	10.2	54.5	35.3	0.0	6.8	54.2	39.0	0.0	71.8	20.0	8.2	0.0	
Total %	4.9	27.7	0.9	0.0	1.7	8.9	5.8	0.0	2.2	17.4	12.5	0.0	12.9	3.6	1.5	0.0	

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File Name : US 83 - CR105 AM
 Site Code : 00000000
 Start Date : 11/15/2012
 Page No : 2

Start Time	US Hwy 83 From North					CR 105 From East					US Hwy 83 From South					CR 105 From West					Int. Total
	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	47	238	8	0	293	13	87	52	0	152	17	130	11	0	258	118	29	11	0	158	861
Percent	16.0	81.2	2.7	0.0		8.6	57.2	34.2	0.0		6.6	50.4	43.0	0.0		74.7	18.4	7.0	0.0		
07:00 Volume Peak Factor	13	55	1	0	69	5	28	17	0	50	2	40	26	0	68	27	6	1	0	34	221
High Int. Peak Factor	07:30 AM					07:00 AM					07:45 AM					07:15 AM					0.974
Volume	10	76	3	0	89	5	28	17	0	50	8	35	32	0	75	33	6	4	0	43	
Peak Factor	0.823					0.760					0.860					0.919					



LSC Transportation Consultants, Inc.

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LSC Transportation Consultants, Inc.

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File Name : US 83 - CR105 PM

Site Code : 00000000

Start Date : 11/15/2012

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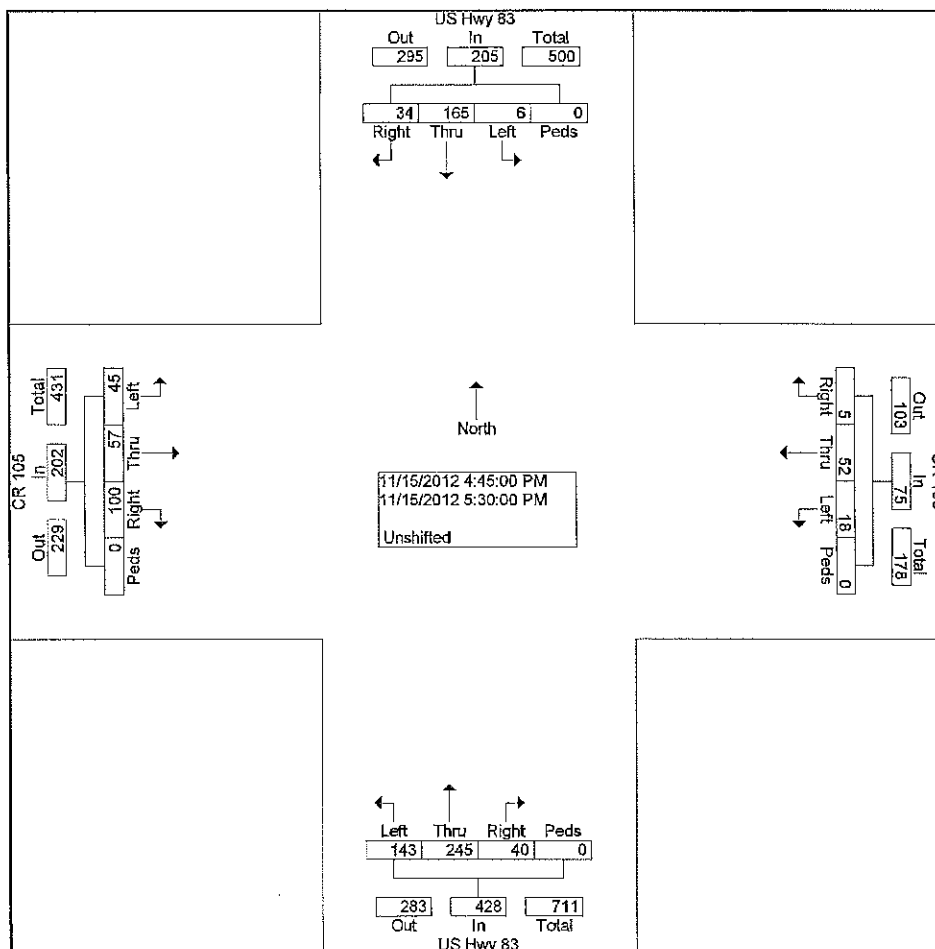
Groups Printed- Unshifted

Start Time	US Hwy 83 From North				CR 105 From East				US Hwy 83 From South				CR 105 From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	11	44	2	0	5	12	9	0	7	60	27	0	28	14	10	0	229
04:15 PM	7	43	2	0	3	5	10	0	9	52	27	0	22	15	10	0	205
04:30 PM	9	53	7	0	1	14	10	0	6	41	25	0	22	8	4	0	200
04:45 PM	9	34	1	0	1	13	6	0	11	63	36	0	27	14	8	0	223
Total	36	174	12	0	10	44	35	0	33	216	115	0	99	51	32	0	857
05:00 PM	6	49	2	0	0	8	5	0	9	68	38	0	32	21	15	0	253
05:15 PM	7	29	1	0	1	15	5	0	12	58	34	0	19	11	9	0	201
05:30 PM	12	53	2	0	3	16	2	0	8	56	35	0	22	11	13	0	233
05:45 PM	7	41	5	0	0	9	3	0	11	62	34	0	25	9	10	0	216
Total	32	172	10	0	4	48	15	0	40	244	141	0	98	52	47	0	903
Grand Total	68	346	22	0	14	92	50	0	73	460	256	0	197	103	79	0	1760
Apprch %	15.6	79.4	5.0	0.0	9.0	59.0	32.1	0.0	9.3	58.3	32.4	0.0	52.0	27.2	20.8	0.0	
Total %	3.9	19.7	1.3	0.0	0.8	5.2	2.8	0.0	4.1	26.1	14.5	0.0	11.2	5.9	4.5	0.0	

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File Name : US 83 - CR105 PM
 Site Code : 00000000
 Start Date : 11/15/2012
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Start Time	US Hwy 83 From North					CR 105 From East					US Hwy 83 From South					CR 105 From West					Int. Total
	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	Rig ht	Thru	Lef t	Pe ds	App. Total	
Peak Hour	From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Intersecti on	04:45 PM																				
Volume	34	165	6	0	205	5	52	18	0	75	40	245	14	0	428	10	57	45	0	202	910
Percent	16.6	80.5	2.9	0.0		6.7	69.3	24.0	0.0		9.3	57.2	33.4	0.0		49.5	28.2	22.3	0.0		
05:00 Volume	6	49	2	0	57	0	8	5	0	13	9	68	38	0	115	32	21	15	0	68	253
Peak Factor	0.899																				
High Int. Volume	05:30 PM					05:15 PM					05:00 PM					05:00 PM					
Peak Factor	12	53	2	0	67	1	15	5	0	21	9	68	38	0	115	32	21	15	0	68	0.74
	0.76					0.89					0.93					0.74					
	5					3					0					3					



COUNTER MEASURES INC.

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DENVER, COLORADO

303-333-7409

N/S STREET: TIMBER MEADOWS DR
 E/W STREET: POND VIEW PL
 CITY: BLACK FOREST
 COUNTY: EL PASO

File Name : TIMBPOND
 Site Code : 00000005
 Start Date : 11/15/2012
 Page No : 1

Groups Printed- VEHICLES

Start Time	TIMBER MEADOW DR Southbound			POND VIEW PL Westbound			TIMBER MEADOW DR Northbound			Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	2	0	6	0	0	0	1	0	0	0	0	9
06:45 AM	0	2	0	8	0	0	0	1	1	0	0	0	12
Total	0	4	0	14	0	0	0	2	1	0	0	0	21
07:00 AM	0	0	0	6	0	1	0	1	6	0	0	0	14
07:15 AM	0	1	0	10	0	0	0	1	9	0	0	0	21
07:30 AM	0	4	0	14	0	0	0	2	1	0	0	0	21
07:45 AM	0	1	0	4	0	0	0	0	3	0	0	0	8
Total	0	6	0	34	0	1	0	4	19	0	0	0	64
08:00 AM	0	1	0	10	0	0	0	0	2	0	0	0	13
08:15 AM	1	1	0	8	0	0	0	4	3	0	0	0	17
Total	1	2	0	18	0	0	0	4	5	0	0	0	30
04:00 PM	0	0	0	15	0	1	0	3	7	0	0	0	26
04:15 PM	0	2	0	2	0	0	0	1	7	0	0	0	12
04:30 PM	0	1	0	1	0	1	0	3	12	0	0	0	18
04:45 PM	0	1	0	6	0	0	0	3	4	0	0	0	14
Total	0	4	0	24	0	2	0	10	30	0	0	0	70
05:00 PM	0	1	0	4	0	0	0	4	10	0	0	0	19
05:15 PM	0	3	0	5	0	0	0	4	11	0	0	0	23
05:30 PM	0	1	0	3	0	0	0	3	11	0	0	0	18
05:45 PM	0	1	0	4	0	0	0	3	9	0	0	0	17
Total	0	6	0	16	0	0	0	14	41	0	0	0	77
Grand Total	1	22	0	106	0	3	0	34	96	0	0	0	262
Apprch %	4.3	95.7	0.0	97.2	0.0	2.8	0.0	26.2	73.8	0.0	0.0	0.0	
Total %	0.4	8.4	0.0	40.5	0.0	1.1	0.0	13.0	36.6	0.0	0.0	0.0	

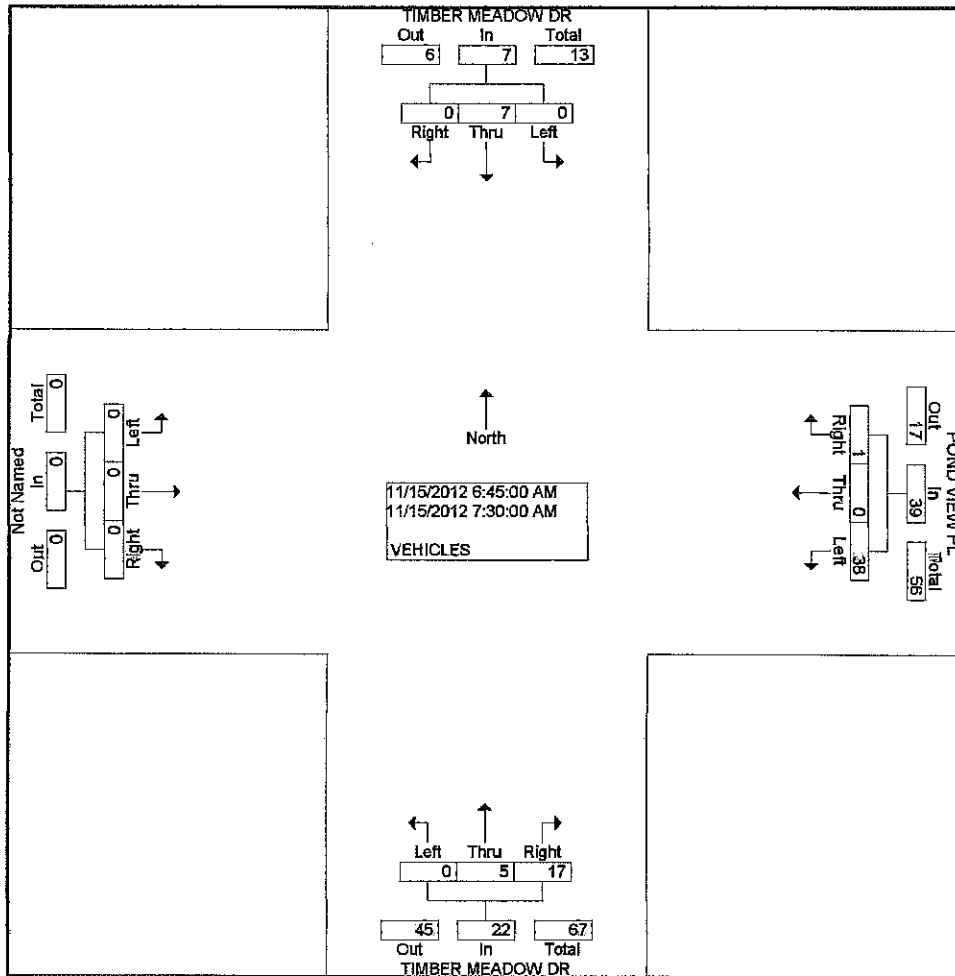
COUNTER MEASURES INC.

1889 YORK ST
DENVER, COLORADO
303-333-7409

N/S STREET: TIMBER MEADOWS DR
E/W STREET: POND VIEW PL
CITY: BLACK FOREST
COUNTY: EL PASO

File Name : TIMBPOND
Site Code : 0000005
Start Date : 11/15/2012
Page No : 2

Start Time	TIMBER MEADOW DR Southbound				POND VIEW PL Westbound				TIMBER MEADOW DR Northbound				Eastbound				int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																	
Intersection	06:45 AM																
Volume	0	7	0	7	38	0	1	39	0	5	17	22	0	0	0	0	68
Percent	0.0	100.0	0.0		97.4	0.0	2.6		0.0	22.7	77.3		0.0	0.0	0.0		
07:30 Volume	0	4	0	4	14	0	0	14	0	2	1	3	0	0	0	0	21
Peak Factor	0.810																
High Int. Volume	07:30 AM				07:30 AM				07:15 AM				6:15:00 AM				
Volume	0	4	0	4	14	0	0	14	0	1	9	10					
Peak Factor	0.438				0.696				0.550								



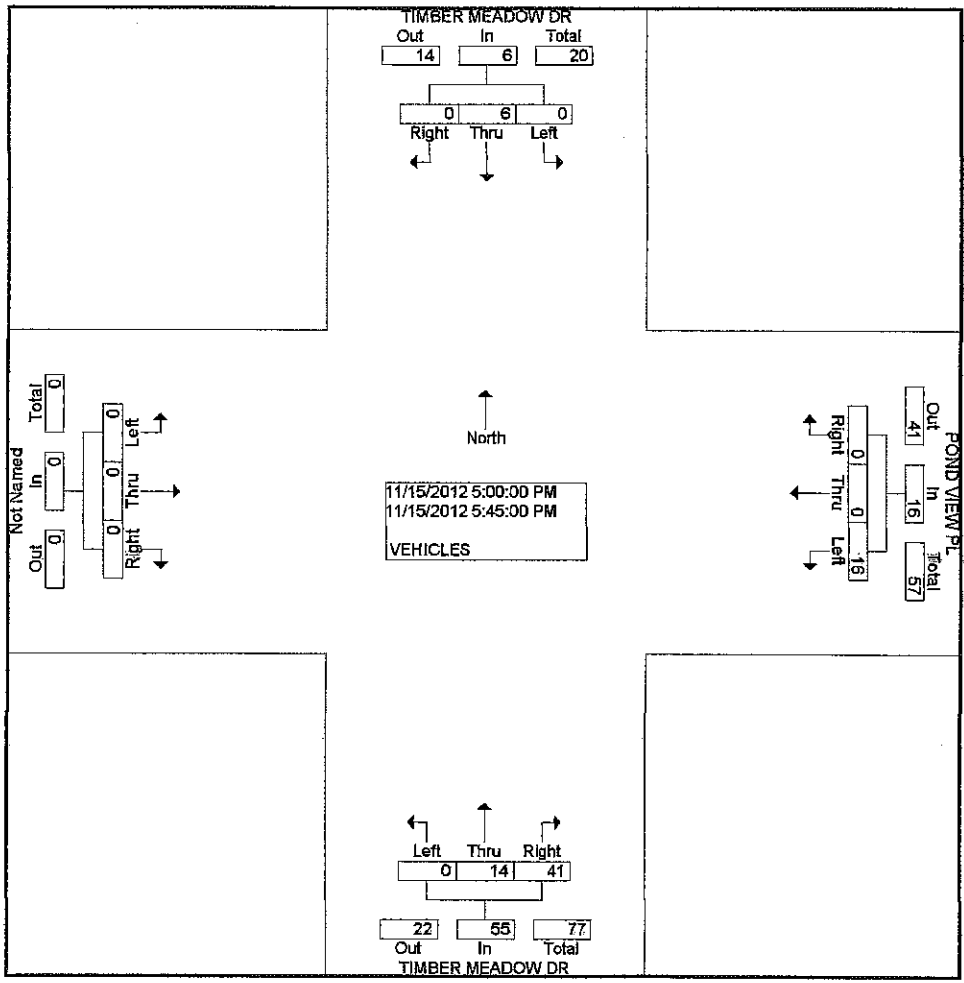
COUNTER MEASURES INC.

1889 YORK ST
DENVER, COLORADO
303-333-7409

N/S STREET: TIMBER MEADOWS DR
E/W STREET: POND VIEW PL
CITY: BLACK FOREST
COUNTY: EL PASO

File Name : TIMBPOND
Site Code : 00000005
Start Date : 11/15/2012
Page No : 2

Start Time	TIMBER MEADOW DR Southbound				POND VIEW PL Westbound				TIMBER MEADOW DR Northbound				Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	0	6	0	6	16	0	0	16	0	14	41	55	0	0	0	0	77
Percent	0.0	100.0	0.0		100.0	0.0	0.0		0.0	25.5	74.5		0.0	0.0	0.0		
05:15 Volume	0	3	0	3	5	0	0	5	0	4	11	15	0	0	0	0	23
Peak Factor																	0.837
High Int.	05:15 PM																
Volume	0	3	0	3	5	0	0	5	0	4	11	15					
Peak Factor	0.500				0.800				0.917								



LSC Transportation Consultants, Inc.

516 N. Tejon St.
Colorado Springs, CO
719-633-2868

Timber Meadow NO Hodgen - vol
Site Code:
Station ID:

Latitude: 0' 0.000 South

Start Time	16-Apr-12		17-Apr-12		18-Apr-12		19-Apr-12		20-Apr-12		Weekday Average		21-Apr-12		22-Apr-12		
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	
12:00 AM	*	*	*	*	*	*	*	*	2	0	2	0	3	2	2	5	
01:00	*	*	*	*	*	*	*	*	1	1	1	1	1	0	0	0	
02:00	*	*	*	*	*	*	*	*	6	0	6	0	2	2	1	2	
03:00	*	*	*	*	*	*	*	*	0	0	0	0	1	0	3	0	
04:00	*	*	*	*	*	*	*	*	0	4	0	4	0	2	10	1	
05:00	*	*	*	*	*	*	*	*	0	6	0	6	0	1	1	6	
06:00	*	*	*	*	*	*	*	*	1	31	1	31	1	8	1	6	
07:00	*	*	*	*	*	*	*	*	10	54	10	54	10	26	5	10	
08:00	*	*	*	*	*	*	*	*	21	43	21	43	13	31	6	32	
09:00	*	*	*	*	*	*	*	*	9	39	9	39	22	56	5	27	
10:00	*	*	*	*	*	*	*	21	44	32	42	26	43	19	41	20	33
11:00	*	*	*	*	*	*	*	30	27	35	52	32	40	22	47	21	32
12:00 PM	*	*	*	*	*	*	*	29	30	36	24	32	27	36	35	30	26
01:00	*	*	*	*	*	*	*	19	28	22	37	20	32	26	33	26	27
02:00	*	*	*	*	*	*	*	30	23	29	32	30	28	36	26	32	19
03:00	*	*	*	*	*	*	*	50	61	39	26	44	44	33	41	30	28
04:00	*	*	*	*	*	*	*	50	60	49	48	50	54	25	39	20	29
05:00	*	*	*	*	*	*	*	46	40	43	47	44	44	27	31	41	17
06:00	*	*	*	*	*	*	*	52	26	53	43	52	34	19	29	17	13
07:00	*	*	*	*	*	*	*	36	29	23	21	30	25	19	10	18	16
08:00	*	*	*	*	*	*	*	21	14	17	10	19	12	12	7	17	6
09:00	*	*	*	*	*	*	*	21	1	24	3	22	2	20	5	9	7
10:00	*	*	*	*	*	*	*	7	3	21	3	14	3	13	1	2	0
11:00	*	*	*	*	*	*	*	0	1	7	6	4	4	3	2	1	0
Total Day	0	0	0	0	0	0	412	387	480	572	469	570	363	475	318	342	
							799		1052		1039		838		660		
AM Peak Vol.							11:00	10:00	11:00	07:00	11:00	07:00	09:00	09:00	11:00	10:00	
PM Peak Vol.							18:00	15:00	18:00	16:00	18:00	16:00	12:00	15:00	17:00	16:00	
							30	44	35	54	32	54	22	56	21	33	
							52	61	53	48	52	54	36	41	41	29	

LSC Transportation Consultants, Inc.

516 N. Tejon St.
Colorado Springs, CO
719-633-2868

Timber Meadow NO Hodgen - vol
Site Code:
Station ID:

Latitude: 0' 0.000 South

Start Time	23-Apr-12		24-Apr-12		25-Apr-12		26-Apr-12		27-Apr-12		28-Apr-12		29-Apr-12	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	3	0	1	2	0	0	1	1	1	1	1	1	1	1
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0
03:00	1	0	0	2	0	2	0	0	0	0	0	0	0	0
04:00	2	2	2	2	2	2	2	0	0	0	0	0	0	0
05:00	0	8	0	4	0	7	0	15	0	0	0	0	0	0
06:00	2	31	1	30	5	47	7	28	0	0	4	0	0	0
07:00	17	87	11	67	17	82	18	78	16	16	16	16	16	16
08:00	26	37	28	54	33	62	32	62	30	30	30	30	30	30
09:00	22	43	15	38	17	39	15	53	17	17	17	17	17	17
10:00	23	46	13	29	12	29	*	*	16	16	16	16	16	16
11:00	20	39	27	46	21	33	*	*	23	23	23	23	23	23
12:00 PM	20	19	27	50	20	26	*	*	22	22	22	22	22	22
01:00	24	28	34	38	20	21	*	*	26	26	26	26	26	26
02:00	33	31	34	51	21	24	*	*	29	29	29	29	29	29
03:00	38	32	49	42	42	29	*	*	43	43	43	43	43	43
04:00	42	57	43	40	51	44	*	*	45	45	45	45	45	45
05:00	55	45	66	51	54	43	*	*	58	58	58	58	58	58
06:00	40	33	52	29	55	41	*	*	49	49	49	49	49	49
07:00	46	16	33	26	32	9	*	*	37	37	37	37	37	37
08:00	26	20	25	21	21	14	*	*	24	24	24	24	24	24
09:00	21	5	25	13	10	8	*	*	19	19	19	19	19	19
10:00	7	2	10	1	14	1	*	*	10	10	10	10	10	10
11:00	5	0	2	2	2	2	*	*	3	3	3	3	3	3
Total	473	581	499	638	449	563	76	237	0	0	474	597	0	0
Day	1054		1137		1012		313		0		1071		0	
AM Peak	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00
Vol.	26	87	28	67	33	82	32	78	30	30	78	78	30	78
PM Peak	17:00	16:00	17:00	14:00	18:00	16:00	17:00	16:00	17:00	16:00	17:00	16:00	17:00	16:00
Vol.	55	57	66	51	55	44	58	47	58	58	47	47	58	47
Comb. Total	1054		1137		1012		1112		1052		2110		838	
ADT	ADT 959		ADT 959		ADT 959		ADT 959		ADT 959		ADT 959		ADT 959	

660

COUNTER MEASURES INC.

Location: HIGHVIEW DR S/O WALKER RD
 City: DENVER
 County: EL PASO
 Direction: NORTHBOUND-SOUTHBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111305

Start Time	14-Nov-12 Wed	NB	SB	Total
12:00 AM		1	0	1
01:00		0	1	1
02:00		1	0	1
03:00		0	1	1
04:00		1	1	2
05:00		6	2	8
06:00		26	12	38
07:00		33	16	49
08:00		28	15	43
09:00		14	11	25
10:00		12	12	24
11:00		15	13	28
12:00 PM		17	13	30
01:00		22	24	46
02:00		20	18	38
03:00		25	22	47
04:00		30	28	58
05:00		38	48	86
06:00		13	19	32
07:00		19	15	34
08:00		14	14	28
09:00		4	8	12
10:00		3	5	8
11:00		0	0	0
Total		342	298	640
Percent		53.4%	46.6%	
AM Peak		07:00	07:00	07:00
Vol.		33	16	49
PM Peak		17:00	17:00	17:00
Vol.		38	48	86

COUNTER MEASURES INC.

Location: HIGHVIEW DR S/O WALKER RD
 City:
 County: EL PASO
 Direction: NORTHBOUND-SOUTHBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111305

Start Time	15-Nov-12 Thu	NB	SB	Total
12:00 AM		0	0	0
01:00		0	0	0
02:00		0	0	0
03:00		0	0	0
04:00		2	1	3
05:00		6	6	12
06:00		25	12	37
07:00		43	27	70
08:00		32	21	53
09:00		22	16	38
10:00		20	14	34
11:00		19	16	35
12:00 PM		18	21	39
01:00		27	21	48
02:00		16	16	32
03:00		37	36	73
04:00		30	36	66
05:00		27	31	58
06:00		26	26	52
07:00		12	19	31
08:00		5	10	15
09:00		5	8	13
10:00		3	2	5
11:00		0	1	1
Total		375	340	715
Percent		52.4%	47.6%	
AM Peak		07:00	07:00	07:00
Vol.		43	27	70
PM Peak		15:00	15:00	15:00
Vol.		37	36	73
Grand Total		717	638	1355
Percent		52.9%	47.1%	

ADT

ADT 640

AADT 640

COUNTER MEASURES INC.

Location: POND VIEW DR E/O TIMBER MEADOW
 City:
 County: EL PASO
 Direction: EASTBOUND-WESTBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111307

Start Time	14-Nov-12 Wed	EB	WB	Total
12:00 AM		1	0	1
01:00		3	0	3
02:00		0	0	0
03:00		0	0	0
04:00		0	1	1
05:00		0	7	7
06:00		3	30	33
07:00		22	44	66
08:00		14	40	54
09:00		17	26	43
10:00		18	22	40
11:00		15	14	29
12:00 PM		19	26	45
01:00		23	18	41
02:00		24	20	44
03:00		46	30	76
04:00		26	23	49
05:00		50	33	83
06:00		30	10	40
07:00		20	4	24
08:00		16	6	22
09:00		11	3	14
10:00		8	1	9
11:00		3	1	4
Total		369	359	728
Percent		50.7%	49.3%	
AM Peak		07:00	07:00	07:00
Vol.		22	44	66
PM Peak		17:00	17:00	17:00
Vol.		50	33	83

COUNTER MEASURES INC.

Location: POND VIEW DR E/O TIMBER MEADOW
 City:
 County: EL PASO
 Direction: EASTBOUND-WESTBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111307

Start Time	15-Nov-12 Thu	EB	WB	Total
12:00 AM		3	1	4
01:00		0	0	0
02:00		0	0	0
03:00		0	0	0
04:00		0	2	2
05:00		2	7	9
06:00		3	26	29
07:00		19	36	55
08:00		25	44	69
09:00		22	24	46
10:00		18	21	39
11:00		27	22	49
12:00 PM		30	25	55
01:00		18	34	52
02:00		19	18	37
03:00		40	30	70
04:00		28	21	49
05:00		40	16	56
06:00		31	16	47
07:00		14	6	20
08:00		12	8	20
09:00		25	2	27
10:00		5	2	7
11:00		4	0	4
Total		385	361	746
Percent		51.6%	48.4%	
AM Peak		11:00	08:00	08:00
Vol.		27	44	69
PM Peak		15:00	13:00	15:00
Vol.		40	34	70
Grand Total		754	720	1474
Percent		51.2%	48.8%	

ADT

ADT 728

AADT 728

COUNTER MEASURES INC.

Location: WOODHAVEN DR S/O WALKER RD
 City:
 County: EL PASO
 Direction: NORTHBOUND-SOUTHBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111312

Start Time	14-Nov-12 Wed	NB	SB	Total
12:00 AM		0	2	2
01:00		1	1	2
02:00		0	0	0
03:00		0	0	0
04:00		3	1	4
05:00		12	2	14
06:00		30	4	34
07:00		58	10	68
08:00		21	15	36
09:00		17	8	25
10:00		18	12	30
11:00		11	15	26
12:00 PM		16	13	29
01:00		18	14	32
02:00		11	17	28
03:00		13	28	41
04:00		21	45	66
05:00		16	44	60
06:00		16	17	33
07:00		9	15	24
08:00		4	14	18
09:00		2	12	14
10:00		1	2	3
11:00		1	1	2
Total		299	292	591
Percent		50.6%	49.4%	
AM Peak		07:00	08:00	07:00
Vol.		58	15	68
PM Peak		16:00	16:00	16:00
Vol.		21	45	66

COUNTER MEASURES INC.

Location: WOODHAVEN DR S/O WALKER RD
 City:
 County: EL PASO
 Direction: NORTHBOUND-SOUTHBOUND

1889 YORK ST
 DENVER, COLORADO 80206
 303-333-7409

Site Code: 111312

Start Time	15-Nov-12 Thu	NB	SB	Total
12:00 AM		0	1	1
01:00		0	1	1
02:00		0	0	0
03:00		0	0	0
04:00		2	0	2
05:00		10	2	12
06:00		31	5	36
07:00		49	10	59
08:00		18	12	30
09:00		17	12	29
10:00		10	8	18
11:00		20	10	30
12:00 PM		20	16	36
01:00		22	13	35
02:00		20	34	54
03:00		22	38	60
04:00		20	28	48
05:00		18	34	52
06:00		21	30	51
07:00		12	19	31
08:00		2	17	19
09:00		2	7	9
10:00		0	4	4
11:00		2	2	4
Total		318	303	621
Percent		51.2%	48.8%	
AM Peak		07:00	08:00	07:00
Vol.		49	12	59
PM Peak		13:00	15:00	15:00
Vol.		22	38	60
Grand Total		617	595	1212
Percent		50.9%	49.1%	

ADT

ADT 591

AADT 591

Timings
1: SH 83 & Hodgen Rd

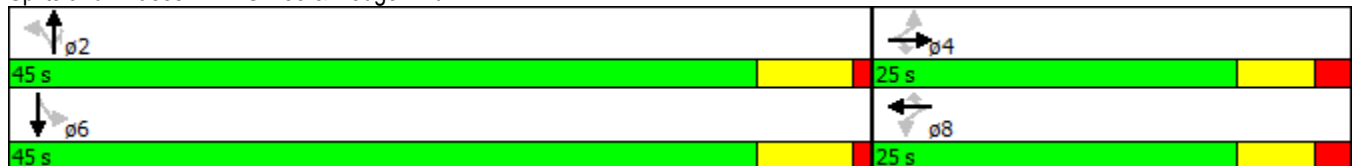
Existing (2012) Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	14	31	54	183	57	90	29	110	29	43	319
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4			8			2			6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	4	4	4	8	8	8	2	2	2	6	6
Switch Phase											
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	15.2	15.2	15.2	15.2	15.2	15.2	27.6	27.6	27.6	27.6	27.6
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.54	0.54	0.54	0.54	0.54
v/c Ratio	0.04	0.07	0.13	0.48	0.11	0.18	0.06	0.12	0.04	0.07	0.34
Control Delay	12.0	12.2	4.5	18.4	12.6	4.2	7.3	7.2	2.1	7.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	12.2	4.5	18.4	12.6	4.2	7.3	7.2	2.1	7.2	8.6
LOS	B	B	A	B	B	A	A	A	A	A	A
Approach Delay		8.0			13.5			6.3			8.5
Approach LOS		A			B			A			A

Intersection Summary

Cycle Length: 70	
Actuated Cycle Length: 50.8	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	13	257	0	5	377
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	78	78	99	99
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	6	16	329	0	5	381

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	720	329	0
Stage 1	329	-	-
Stage 2	391	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	398	717	1242
Stage 1	734	-	-
Stage 2	688	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	396	717	1242
Mov Cap-2 Maneuver	396	-	-
Stage 1	734	-	-
Stage 2	685	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	585	1242
HCM Lane V/C Ratio	-	-	0.037	0.004
HCM Control Delay (s)	-	-	11.4	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	8.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	29	118	52	87	13	111	130	17	8	238	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yeild	-	-	Yeild	-	-	None	-	-	None
Storage Length	-	-	200	-	-	200	100	-	100	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	95	95	95	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	2	5	2
Mvmt Flow	11	29	118	68	114	17	117	137	18	8	238	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	682	625	238	640	625	137	238	0	0	137	0	0
Stage 1	254	254	-	371	371	-	-	-	-	-	-	-
Stage 2	428	371	-	269	254	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	364	401	801	388	401	911	1329	-	-	1447	-	-
Stage 1	750	697	-	649	620	-	-	-	-	-	-	-
Stage 2	605	620	-	737	697	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	252	364	801	289	364	911	1329	-	-	1447	-	-
Mov Cap-2 Maneuver	252	364	-	289	364	-	-	-	-	-	-	-
Stage 1	684	693	-	592	565	-	-	-	-	-	-	-
Stage 2	432	565	-	599	693	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	26.7	3.4	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1329	-	-	324	801	332	911	1447	-	-
HCM Lane V/C Ratio	0.088	-	-	0.123	0.147	0.551	0.019	0.006	-	-
HCM Control Delay (s)	8	-	-	17.7	10.3	28.4	9	7.5	-	-
HCM Lane LOS	A	-	-	C	B	D	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.5	3.1	0.1	0	-	-

Timings
1: SH 83 & Hodgen Rd

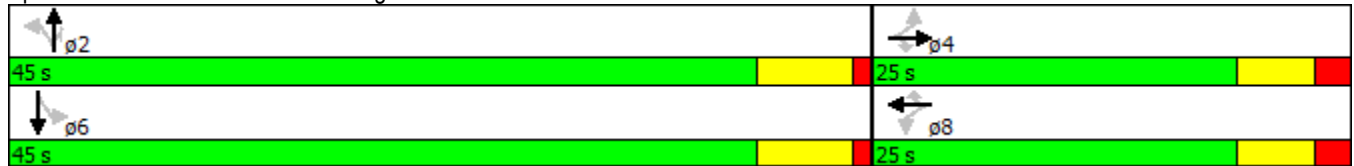
Existing (2012) Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	17	73	24	38	43	55	71	305	114	104	171
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4			8			2			6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	4	4	4	8	8	8	2	2	2	6	6
Switch Phase											
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	10.7	10.7	10.7	10.7	10.7	10.7	30.8	30.8	30.8	30.8	30.8
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.67	0.67	0.67	0.67	0.67
v/c Ratio	0.06	0.19	0.07	0.14	0.11	0.15	0.11	0.29	0.12	0.18	0.18
Control Delay	14.0	15.2	3.7	15.0	14.4	5.8	4.9	5.4	1.5	5.5	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	15.2	3.7	15.0	14.4	5.8	4.9	5.4	1.5	5.5	4.6
LOS	B	B	A	B	B	A	A	A	A	A	A
Approach Delay		12.6			11.1			4.4			4.9
Approach LOS		B			B			A			A

Intersection Summary

Cycle Length: 70	
Actuated Cycle Length: 45.9	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	9	417	2	11	314
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	94	94	97	97
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	1	11	444	2	11	324

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	791	445	0
Stage 1	445	-	-
Stage 2	346	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	361	617	1125
Stage 1	650	-	-
Stage 2	721	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	357	617	1125
Mov Cap-2 Maneuver	357	-	-
Stage 1	650	-	-
Stage 2	712	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	575	1125	-
HCM Lane V/C Ratio	-	-	0.021	0.01	-
HCM Control Delay (s)	-	-	11.4	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection									
Int Delay, s/veh	8.5								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	45	57	100	18	52	5	143	245	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	Yeild	-	-	Yeild	-	-	None
Storage Length	-	-	200	-	-	200	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	100	100	100	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2
Mvmt Flow	61	77	135	18	52	5	154	263	43

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	794	768	183	806	768	263	183	0	0
Stage 1	197	197	-	571	571	-	-	-	-
Stage 2	597	571	-	235	197	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	306	332	859	300	332	776	1392	-	-
Stage 1	805	738	-	506	505	-	-	-	-
Stage 2	490	505	-	768	738	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	240	294	859	185	294	776	1392	-	-
Mov Cap-2 Maneuver	240	294	-	185	294	-	-	-	-
Stage 1	716	734	-	450	449	-	-	-	-
Stage 2	383	449	-	576	734	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	21.1	23.4	2.6
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	267	859	255	776	1301	-	-
HCM Lane V/C Ratio	0.11	-	-	0.516	0.157	0.275	0.006	0.005	-	-
HCM Control Delay (s)	7.9	-	-	32	10	24.4	9.7	7.8	-	-
HCM Lane LOS	A	-	-	D	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.7	0.6	1.1	0	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	6	165	34
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	100	-	100
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	90	90	90
Heavy Vehicles, %	2	5	2
Mvmt Flow	7	183	38

Major/Minor Major2

Conflicting Flow All	263	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1301	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1301	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SB

HCM Control Delay, s	0.2
HCM LOS	

Minor Lane/Major Mvmt

Timings
1: SH 83 & Hodgen Rd

2017 Total Traffic
AM Peak Hour

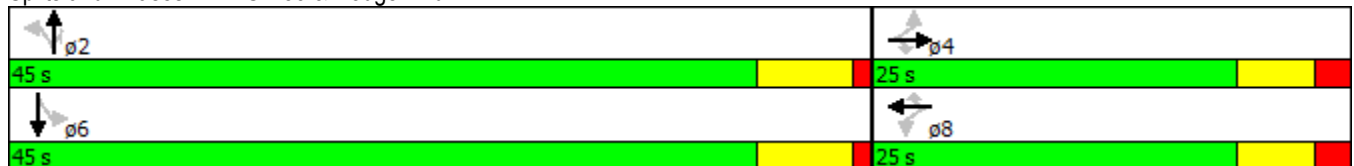
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	15	52	65	229	100	105	35	180	38	56	390
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4			8			2			6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	4	4	4	8	8	8					
Switch Phase											
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	17.0	17.0	17.0	17.0	17.0	17.0	27.2	27.2	27.2	27.2	27.2
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.04	0.10	0.14	0.56	0.17	0.19	0.09	0.20	0.05	0.10	0.44
Control Delay	11.7	12.2	4.2	19.9	12.9	4.0	8.3	8.3	2.9	8.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	12.2	4.2	19.9	12.9	4.0	8.3	8.3	2.9	8.1	10.4
LOS	B	B	A	B	B	A	A	A	A	A	B
Approach Delay		8.2			14.4			7.5			10.1
Approach LOS		A			B			A			B

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 52.2
 Natural Cycle: 55
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 10.8
 Intersection Capacity Utilization 71.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

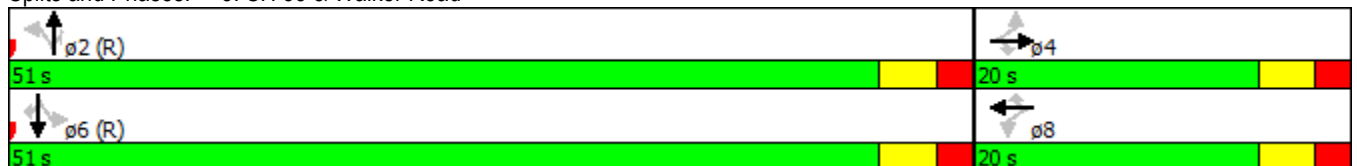
2017 Total Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	34	141	61	103	15	134	153	20	9	278	55
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	28.2%	28.2%	28.2%	28.2%	28.2%	28.2%	71.8%	71.8%	71.8%	71.8%	71.8%	71.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.3	13.3		13.3	13.3	47.7	47.7	47.7	47.7	47.7	47.7
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.67	0.67	0.67	0.67	0.67	0.67
v/c Ratio		0.15	0.34		0.72	0.06	0.19	0.13	0.02	0.01	0.23	0.05
Control Delay		24.4	7.4		41.6	7.1	5.6	4.9	1.4	4.6	5.4	1.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		24.4	7.4		41.6	7.1	5.6	4.9	1.4	4.6	5.4	1.6
LOS		C	A		D	A	A	A	A	A	A	A
Approach Delay		11.6			38.7			5.0			4.8	
Approach LOS		B			D			A			A	

Intersection Summary

Cycle Length: 71
 Actuated Cycle Length: 71
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.4
 Intersection LOS: B
 Intersection Capacity Utilization 50.0%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: SH 83 & Walker Road



Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	20	300	0	0	451
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	500	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	78	78	99	99
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	24	385	0	0	456

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	841	385	0
Stage 1	385	-	-
Stage 2	456	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	338	667	1185
Stage 1	692	-	-
Stage 2	643	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	338	667	1185
Mov Cap-2 Maneuver	338	-	-
Stage 1	692	-	-
Stage 2	643	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	667	1185	-
HCM Lane V/C Ratio	-	-	0.036	-	-
HCM Control Delay (s)	-	-	10.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	55	85	1	0	460	21	9	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	300	-	100	0	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	80	80	80	50	50	50
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0
Mvmt Flow	56	87	1	0	575	26	18	2	0

Major/Minor	Major1	Major2	Minor1						
Conflicting Flow All	575	0	0	87	0	0	874	774	87
Stage 1	-	-	-	-	-	-	199	199	-
Stage 2	-	-	-	-	-	-	675	575	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1008	-	-	1522	-	-	272	332	977
Stage 1	-	-	-	-	-	-	807	740	-
Stage 2	-	-	-	-	-	-	447	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1008	-	-	1522	-	-	161	314	977
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	314	-
Stage 1	-	-	-	-	-	-	762	699	-
Stage 2	-	-	-	-	-	-	276	506	-

Approach	EB	WB	NB
HCM Control Delay, s	3.4	0	29.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	169	1008	-	-	1522	-	-	477
HCM Lane V/C Ratio	0.118	0.056	-	-	-	-	-	0.478
HCM Control Delay (s)	29.1	8.8	-	-	0	-	-	19.3
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0	-	-	2.5

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	20	1	141
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	71	71	71
Heavy Vehicles, %	0	0	0
Mvmt Flow	28	1	199

Major/Minor **Minor2**

Conflicting Flow All	775	774	575
Stage 1	575	575	-
Stage 2	200	199	-
Critical Hdwy	7.1	6.5	6.2
Critical Hdwy Stg 1	6.1	5.5	-
Critical Hdwy Stg 2	6.1	5.5	-
Follow-up Hdwy	3.5	4	3.3
Pot Cap-1 Maneuver	318	332	521
Stage 1	507	506	-
Stage 2	806	740	-
Platoon blocked, %			
Mov Cap-1 Maneuver	303	314	521
Mov Cap-2 Maneuver	303	314	-
Stage 1	479	506	-
Stage 2	759	699	-

Approach **SB**

HCM Control Delay, s	19.3
HCM LOS	C

Minor Lane/Major Mvmt

Intersection									
Int Delay, s/veh	15.1								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	13	34	141	61	103	15	134	153	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	Yeild	-	-	Yeild	-	-	None
Storage Length	-	-	200	-	-	200	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2
Mvmt Flow	13	34	141	80	136	20	141	161	21

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	807	739	278	756	739	161	278	0	0
Stage 1	296	296	-	443	443	-	-	-	-
Stage 2	511	443	-	313	296	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	300	345	761	325	345	884	1285	-	-
Stage 1	712	668	-	594	576	-	-	-	-
Stage 2	545	576	-	698	668	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	176	305	761	221	305	884	1285	-	-
Mov Cap-2 Maneuver	176	305	-	221	305	-	-	-	-
Stage 1	634	664	-	529	513	-	-	-	-
Stage 2	349	513	-	536	664	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	13.7	53.5	3.6
HCM LOS	B	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1285	-	-	254	761	267	884	1418	-	-
HCM Lane V/C Ratio	0.11	-	-	0.185	0.185	0.808	0.022	0.006	-	-
HCM Control Delay (s)	8.1	-	-	22.4	10.8	57.6	9.2	7.6	-	-
HCM Lane LOS	A	-	-	C	B	F	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.7	0.7	6.3	0.1	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	9	278	55
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	100	-	100
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	100	100	100
Heavy Vehicles, %	2	5	2
Mvmt Flow	9	278	55

Major/Minor Major2

Conflicting Flow All	161	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1418	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1418	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SB

HCM Control Delay, s	0.2
HCM LOS	

Minor Lane/Major Mvmt

Intersection

Int Delay, s/veh 4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	86	9	15	35	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	93	10	16	38	0	37

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	72	35	0
Stage 1	35	-	-
Stage 2	37	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	935	1041	1558
Stage 1	990	-	-
Stage 2	988	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	935	1041	1558
Mov Cap-2 Maneuver	935	-	-
Stage 1	990	-	-
Stage 2	988	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	944	1558	-
HCM Lane V/C Ratio	-	-	0.109	-	-
HCM Control Delay (s)	-	-	9.3	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Timings
1: SH 83 & Hodgen Rd

2017 Total Traffic
PM Peak Hour

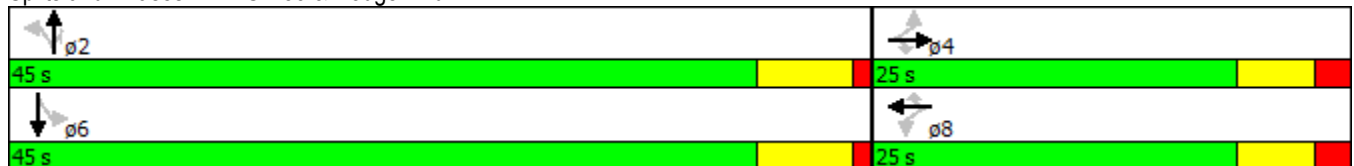
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	20	128	30	51	74	65	85	405	146	139	225
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4			8			2			6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	4	4	4	8	8	8	2	2	2	6	6
Switch Phase											
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effect Green (s)	12.0	12.0	12.0	12.0	12.0	12.0	31.0	31.0	31.0	31.0	31.0
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25	0.25	0.66	0.66	0.66	0.66	0.66
v/c Ratio	0.07	0.30	0.08	0.18	0.18	0.16	0.14	0.39	0.16	0.30	0.24
Control Delay	13.4	15.9	4.4	15.0	14.4	5.2	5.9	7.0	1.6	7.8	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	15.9	4.4	15.0	14.4	5.2	5.9	7.0	1.6	7.8	5.7
LOS	B	B	A	B	B	A	A	A	A	A	A
Approach Delay		13.7			11.4			5.6			6.4
Approach LOS		B			B			A			A

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 47.3
 Natural Cycle: 55
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.39
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization 68.9%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

2017 Total Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	68	120	21	61	6	170	288	47	7	194	40
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Split (%)	28.6%	28.6%	28.6%	28.6%	28.6%	28.6%	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.0	13.0		13.0	13.0	49.0	49.0	49.0	49.0	49.0	49.0
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.70	0.70	0.70	0.70	0.70	0.70
v/c Ratio		0.58	0.38		0.26	0.02	0.23	0.24	0.05	0.01	0.17	0.04
Control Delay		33.8	7.1		25.5	0.2	5.2	4.9	1.5	4.1	4.5	1.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		33.8	7.1		25.5	0.2	5.2	4.9	1.5	4.1	4.5	1.6
LOS		C	A		C	A	A	A	A	A	A	A
Approach Delay		20.5			23.7			4.6			4.0	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 42.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 5: SH 83 & Walker Road



Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	13	490	2	0	389
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	94	94	97	97
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	16	521	2	0	401

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	923	522	0
Stage 1	522	-	-
Stage 2	401	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	302	559	1054
Stage 1	599	-	-
Stage 2	681	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	302	559	1054
Mov Cap-2 Maneuver	302	-	-
Stage 1	599	-	-
Stage 2	681	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1054	-
HCM Lane V/C Ratio	-	-	0.028	-	-
HCM Control Delay (s)	-	-	11.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	174	300	13	1	180	22	6	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	300	-	100	0	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	81	81	81	50	50	50
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0
Mvmt Flow	202	349	15	1	222	27	12	2	2

Major/Minor	Major1	Major2	Minor1						
Conflicting Flow All	222	0	0	349	0	0	1042	978	349
Stage 1	-	-	-	-	-	-	753	753	-
Stage 2	-	-	-	-	-	-	289	225	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1359	-	-	1221	-	-	210	252	699
Stage 1	-	-	-	-	-	-	405	420	-
Stage 2	-	-	-	-	-	-	723	721	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1359	-	-	1221	-	-	157	214	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	157	214	-
Stage 1	-	-	-	-	-	-	345	358	-
Stage 2	-	-	-	-	-	-	610	720	-

Approach	EB	WB	NB
HCM Control Delay, s	2.9	0	26.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	181	1359	-	-	1221	-	-	595
HCM Lane V/C Ratio	0.088	0.149	-	-	0.001	-	-	0.244
HCM Control Delay (s)	26.8	8.1	-	-	8	-	-	13
HCM Lane LOS	D	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.5	-	-	0	-	-	1

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	12	1	90
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	71	71	71
Heavy Vehicles, %	0	0	0
Mvmt Flow	17	1	127

Major/Minor **Minor2**

Conflicting Flow All	980	978	222
Stage 1	225	225	-
Stage 2	755	753	-
Critical Hdwy	7.1	6.5	6.2
Critical Hdwy Stg 1	6.1	5.5	-
Critical Hdwy Stg 2	6.1	5.5	-
Follow-up Hdwy	3.5	4	3.3
Pot Cap-1 Maneuver	231	252	823
Stage 1	782	721	-
Stage 2	404	420	-
Platoon blocked, %			
Mov Cap-1 Maneuver	203	214	823
Mov Cap-2 Maneuver	203	214	-
Stage 1	666	720	-
Stage 2	341	358	-

Approach **SB**

HCM Control Delay, s	13
HCM LOS	B

Minor Lane/Major Mvmt

Intersection									
Int Delay, s/veh	14.3								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	53	68	120	21	61	6	170	288	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	Yeild	-	-	Yeild	-	-	None
Storage Length	-	-	200	-	-	200	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	100	100	100	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2
Mvmt Flow	72	92	162	21	61	6	183	310	51

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	937	906	216	952	906	310	216	0	0
Stage 1	231	231	-	675	675	-	-	-	-
Stage 2	706	675	-	277	231	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	245	276	824	239	276	730	1354	-	-
Stage 1	772	713	-	444	453	-	-	-	-
Stage 2	427	453	-	729	713	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	175	237	824	121	237	730	1354	-	-
Mov Cap-2 Maneuver	175	237	-	121	237	-	-	-	-
Stage 1	668	708	-	384	392	-	-	-	-
Stage 2	309	392	-	506	708	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	39.6	35.7	2.7
HCM LOS	E	E	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	205	824	190	730	1250	-	-
HCM Lane V/C Ratio	0.135	-	-	0.798	0.197	0.432	0.008	0.006	-	-
HCM Control Delay (s)	8.1	-	-	68.6	10.4	37.6	10	7.9	-	-
HCM Lane LOS	A	-	-	F	B	E	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	5.7	0.7	2	0	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	7	194	40
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	100	-	100
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	90	90	90
Heavy Vehicles, %	2	5	2
Mvmt Flow	8	216	44

Major/Minor Major2

Conflicting Flow All	310	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1250	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1250	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SB

HCM Control Delay, s	0.2
HCM LOS	

Minor Lane/Major Mvmt

Intersection

Int Delay, s/veh 2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	53	5	66	99	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	58	5	72	108	0	45

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	171	126	0
Stage 1	126	-	-
Stage 2	45	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	821	927	1403
Stage 1	902	-	-
Stage 2	980	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	821	927	1403
Mov Cap-2 Maneuver	821	-	-
Stage 1	902	-	-
Stage 2	980	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	829	1403	-
HCM Lane V/C Ratio	-	-	0.076	-	-
HCM Control Delay (s)	-	-	9.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Timings
1: SH 83 & Hodgen Rd

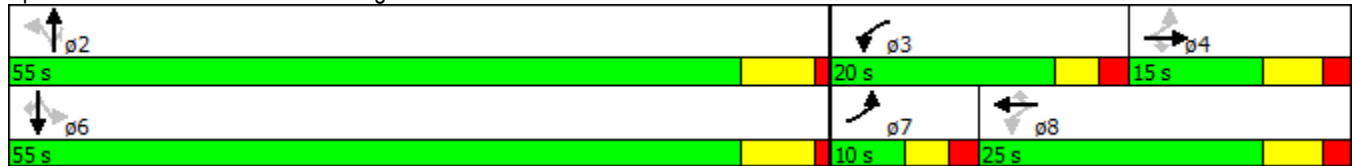
2040 Background Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	97	203	353	309	140	133	418	86	152	651	218
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	8.0	8.0	4.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	9.0	15.0	15.0	9.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	10.0	15.0	15.0	20.0	25.0	25.0	55.0	55.0	55.0	55.0	55.0	55.0
Total Split (%)	11.1%	16.7%	16.7%	22.2%	27.8%	27.8%	61.1%	61.1%	61.1%	61.1%	61.1%	61.1%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	18.8	10.7	10.7	30.5	21.6	21.6	28.4	28.4	28.4	28.4	28.4	26.4
Actuated g/C Ratio	0.29	0.16	0.16	0.46	0.33	0.33	0.43	0.43	0.43	0.43	0.43	0.40
v/c Ratio	0.34	0.34	0.49	0.57	0.53	0.24	0.56	0.29	0.12	0.43	0.45	0.30
Control Delay	14.8	29.2	8.8	16.4	23.4	5.0	24.8	13.0	0.8	17.8	14.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	29.2	8.8	16.4	23.4	5.0	24.8	13.0	0.8	17.8	14.6	3.2
LOS	B	C	A	B	C	A	C	B	A	B	B	A
Approach Delay		15.2			17.1			13.8			12.6	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 65.9	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

2040 Background Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	103	281	176	200	48	263	309	127	46	565	111
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		23.6	23.6		23.6	23.6	38.4	38.4	38.4	38.4	38.4	38.4
Actuated g/C Ratio		0.34	0.34		0.34	0.34	0.55	0.55	0.55	0.55	0.55	0.55
v/c Ratio		0.27	0.42		0.83	0.09	0.68	0.17	0.14	0.08	0.32	0.13
Control Delay		19.0	5.1		39.6	6.3	21.7	8.1	1.8	7.8	9.2	1.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		19.0	5.1		39.6	6.3	21.7	8.1	1.8	7.8	9.2	1.8
LOS		B	A		D	A	C	A	A	A	A	A
Approach Delay		9.5			35.8			12.1			7.9	
Approach LOS		A			D			B			A	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 14.8
 Intersection Capacity Utilization 69.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: SH 83 & Walker Road



SimTraffic Performance Report

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #1 7:00

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	4.2	0.3	0.0	0.0	0.0	0.0	8.9	10.1	9.3	1.7

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #2 7:15

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	4.7	0.4	0.0	0.0	0.0	0.0	13.7	24.3	9.8	2.2

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #3 7:30

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	4.6	0.4	0.0	1.4	0.0	0.0	9.3	12.5	8.7	1.8

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #4 7:45

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	3.6	0.4	0.0	0.0	0.0	0.0	12.3	11.6	8.2	1.6

3: Timber Meadow Drive & Hodgen Rd Performance by lane Entire Run

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	4.4	0.4	0.0	0.5	0.0	0.0	11.4	15.7	9.6	1.9

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	18	681	0	0	1022
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	500	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	95	78	99	95
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	22	717	0	0	1076

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1255	358	0
Stage 1	717	-	-
Stage 2	538	-	-
Critical Hdwy	6.8	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	166	644	893
Stage 1	450	-	-
Stage 2	555	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	166	644	893
Mov Cap-2 Maneuver	166	-	-
Stage 1	450	-	-
Stage 2	555	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 644	893	-
HCM Lane V/C Ratio	-	- 0.034	-	-
HCM Control Delay (s)	-	- 10.8	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection

Int Delay, s/veh 4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	77	16	25	30	8	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	84	17	27	33	9	45

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	105	43	0 0 60 0
Stage 1	43	-	- - - -
Stage 2	62	-	- - - -
Critical Hdwy	6.41	6.21	- - 4.11 -
Critical Hdwy Stg 1	5.41	-	- - - -
Critical Hdwy Stg 2	5.41	-	- - - -
Follow-up Hdwy	3.509	3.309	- - 2.209 -
Pot Cap-1 Maneuver	895	1030	- - 1550 -
Stage 1	982	-	- - - -
Stage 2	963	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	890	1030	- - 1550 -
Mov Cap-2 Maneuver	890	-	- - - -
Stage 1	982	-	- - - -
Stage 2	957	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 911	1550	-
HCM Lane V/C Ratio	-	- 0.111	0.006	-
HCM Control Delay (s)	-	- 9.4	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.4	0	-

Intersection													
Int Delay, s/veh	6.5												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	101	173	93	283	0	139	0	76	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	250	250	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	75	75	92	92	75	75	75	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	110	231	124	308	0	185	0	101	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	308	0	0	110	0	0	669	668	110	668	668	308
Stage 1	-	-	-	-	-	-	112	112	-	556	556	-
Stage 2	-	-	-	-	-	-	557	556	-	112	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1253	-	-	1480	-	-	371	379	943	372	379	732
Stage 1	-	-	-	-	-	-	893	803	-	515	513	-
Stage 2	-	-	-	-	-	-	515	513	-	893	803	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1253	-	-	1480	-	-	345	347	943	311	347	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	347	-	311	347	-
Stage 1	-	-	-	-	-	-	892	802	-	515	470	-
Stage 2	-	-	-	-	-	-	470	470	-	796	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.2	20.7	9.9
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	345	943	1253	-	-	1480	-	-	732
HCM Lane V/C Ratio	0.537	0.107	0.001	-	-	0.084	-	-	0.004
HCM Control Delay (s)	26.9	9.3	7.9	-	-	7.7	-	-	9.9
HCM Lane LOS	D	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	3	0.4	0	-	-	0.3	-	-	0

Timings
1: SH 83 & Hodgen Rd

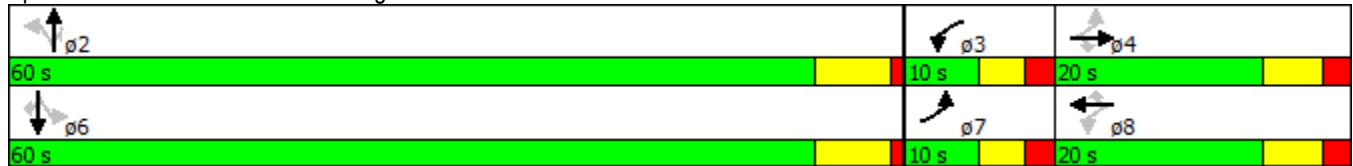
2040 Background Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	195	293	304	148	193	170	253	643	292	151	314	223
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	8.0	8.0	4.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	9.0	15.0	15.0	9.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	60.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	11.1%	22.2%	22.2%	11.1%	22.2%	22.2%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	24.1	16.1	16.1	24.1	16.1	16.1	29.8	29.8	29.8	29.8	29.8	27.8
Actuated g/C Ratio	0.38	0.25	0.25	0.38	0.25	0.25	0.47	0.47	0.47	0.47	0.47	0.43
v/c Ratio	0.46	0.68	0.51	0.44	0.45	0.35	0.58	0.42	0.35	0.58	0.21	0.29
Control Delay	17.4	32.2	6.3	17.4	25.0	6.1	18.0	12.1	2.4	22.1	10.2	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	32.2	6.3	17.4	25.0	6.1	18.0	12.1	2.4	22.1	10.2	2.6
LOS	B	C	A	B	C	A	B	B	A	C	B	A
Approach Delay		18.6			16.5			11.0			10.4	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 64	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

2040 Background Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	130	238	60	110	17	334	584	100	21	390	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		17.9	17.9		17.9	17.9	44.1	44.1	44.1	44.1	44.1	44.1
Actuated g/C Ratio		0.26	0.26		0.26	0.26	0.63	0.63	0.63	0.63	0.63	0.63
v/c Ratio		0.79	0.43		0.56	0.04	0.60	0.29	0.10	0.05	0.19	0.08
Control Delay		42.5	5.3		28.6	4.7	14.1	6.8	1.8	6.5	6.3	1.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		42.5	5.3		28.6	4.7	14.1	6.8	1.8	6.5	6.3	1.9
LOS		D	A		C	A	B	A	A	A	A	A
Approach Delay		23.9			26.4			8.7			5.6	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 12.9
 Intersection Capacity Utilization 64.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: SH 83 & Walker Road



SimTraffic Performance Report**3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #1 5:00**

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.3	0.3	0.0		0.0	0.0	13.2	16.0	4.4	1.0

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #2 5:15

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.0	0.3	0.0	1.7	0.0	0.0	11.9	14.0	5.5	1.0

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #3 5:30

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.0	0.3	0.0	1.0	0.0	0.0	9.0	17.2	4.8	1.0

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #4 5:45

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	1.6	0.3	0.0	1.3	0.0	0.0	11.0	13.9	5.5	1.0

3: Timber Meadow Drive & Hodgen Rd Performance by lane Entire Run

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.0	0.3	0.0	1.0	0.0	0.0	11.2	15.3	5.5	1.1

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	12	1006	2	0	688
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	500	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	94	94	97	97
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	14	1070	2	0	709

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1425	535	0	0	1070	0
Stage 1	1070	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	129	495	-	-	659	-
Stage 1	295	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	129	495	-	-	659	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	295	-	-	-	-	-
Stage 2	686	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	495	659	-
HCM Lane V/C Ratio	-	-	0.029	-	-
HCM Control Delay (s)	-	-	12.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	47	6	21	85	3	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	51	7	23	92	3	28

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	104	69	115
Stage 1	69	-	-
Stage 2	35	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	896	997	1480
Stage 1	956	-	-
Stage 2	990	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	894	997	1480
Mov Cap-2 Maneuver	894	-	-
Stage 1	956	-	-
Stage 2	988	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	905	1480	-
HCM Lane V/C Ratio	-	-	0.064	0.002	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection									
Int Delay, s/veh	2.2								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	190	57	24	139	0	47	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	250	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	207	62	26	151	0	51	0	28

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	151	0	0	207	0	0	417	416	207
Stage 1	-	-	-	-	-	-	213	213	-
Stage 2	-	-	-	-	-	-	204	203	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	1364	-	-	546	527	833
Stage 1	-	-	-	-	-	-	789	726	-
Stage 2	-	-	-	-	-	-	798	733	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1430	-	-	1364	-	-	536	516	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	536	516	-
Stage 1	-	-	-	-	-	-	787	724	-
Stage 2	-	-	-	-	-	-	781	719	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	1.1	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	833	1430	-	-	1364	-	-	895
HCM Lane V/C Ratio	0.095	0.034	0.002	-	-	0.019	-	-	0.002
HCM Control Delay (s)	12.4	9.5	7.5	-	-	7.7	-	-	9
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0.1	-	-	0

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	2

Major/Minor

	Minor2		
Conflicting Flow All	416	416	151
Stage 1	203	203	-
Stage 2	213	213	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	547	527	895
Stage 1	799	733	-
Stage 2	789	726	-
Platoon blocked, %			
Mov Cap-1 Maneuver	520	516	895
Mov Cap-2 Maneuver	520	516	-
Stage 1	797	719	-
Stage 2	761	724	-

Approach

	SB
HCM Control Delay, s	9
HCM LOS	A

Minor Lane/Major Mvmt

Timings
1: SH 83 & Hodgen Rd

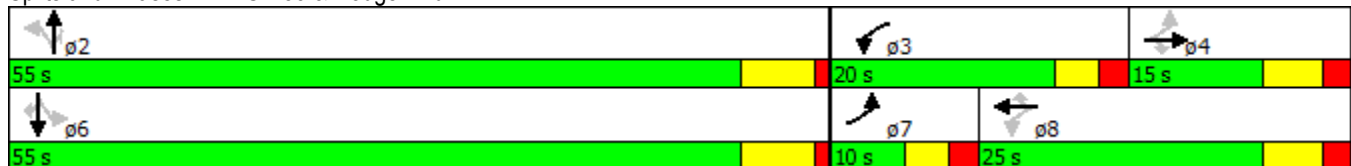
2040 Total Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	100	203	373	319	140	133	422	91	152	657	220
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	8.0	8.0	4.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	9.0	15.0	15.0	9.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	10.0	15.0	15.0	20.0	25.0	25.0	55.0	55.0	55.0	55.0	55.0	55.0
Total Split (%)	11.1%	16.7%	16.7%	22.2%	27.8%	27.8%	61.1%	61.1%	61.1%	61.1%	61.1%	61.1%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	18.8	10.8	10.8	30.9	22.0	22.0	28.5	28.5	28.5	28.5	28.5	26.4
Actuated g/C Ratio	0.28	0.16	0.16	0.47	0.33	0.33	0.43	0.43	0.43	0.43	0.43	0.40
v/c Ratio	0.36	0.35	0.49	0.60	0.54	0.24	0.57	0.29	0.12	0.43	0.46	0.30
Control Delay	15.1	29.5	8.8	17.1	23.6	5.0	25.5	13.1	0.9	18.0	14.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	29.5	8.8	17.1	23.6	5.0	25.5	13.1	0.9	18.0	14.7	3.2
LOS	B	C	A	B	C	A	C	B	A	B	B	A
Approach Delay		15.5			17.6			13.9			12.8	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 66.4	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

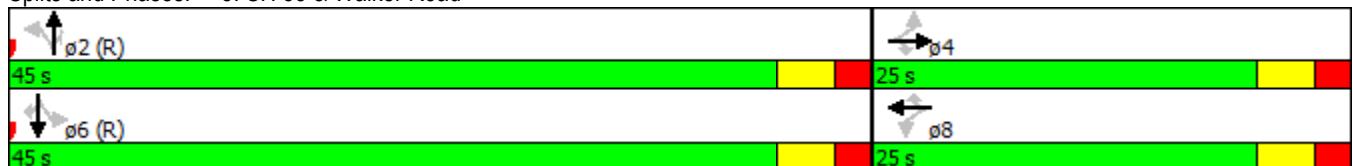
2040 Total Traffic
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	109	281	183	210	50	271	311	131	47	565	111
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		24.8	24.8		24.8	24.8	37.2	37.2	37.2	37.2	37.2	37.2
Actuated g/C Ratio		0.35	0.35		0.35	0.35	0.53	0.53	0.53	0.53	0.53	0.53
v/c Ratio		0.26	0.41		0.83	0.09	0.73	0.18	0.15	0.09	0.33	0.13
Control Delay		18.7	5.0		39.4	6.3	25.1	8.4	1.8	7.7	9.6	1.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.7	5.0		39.4	6.3	25.1	8.4	1.8	7.7	9.6	1.8
LOS		B	A		D	A	C	A	A	A	A	A
Approach Delay		9.4			35.7			13.6			8.3	
Approach LOS		A			D			B			A	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 15.5
 Intersection Capacity Utilization 69.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: SH 83 & Walker Road



SimTraffic Performance Report

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #1 7:00

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	5.2	0.4	0.0	0.9	0.0	0.0	9.6	14.6	10.0	2.3

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #2 7:15

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	7.2	0.4	0.0	0.9	0.0	0.0	19.3	21.9	12.2	2.9

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #3 7:30

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	5.1	0.4	0.0	0.0	0.0	0.0	13.5	20.3	9.2	2.5

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #4 7:45

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	4.7	0.4	0.0	2.4	0.0	0.0	26.9	12.4	11.5	2.7

3: Timber Meadow Drive & Hodgen Rd Performance by lane Entire Run

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	5.6	0.4	0.0	1.0	0.0	0.0	17.5	17.5	11.6	2.7

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	27	685	1	0	1029
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	500	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	95	78	99	95
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	33	721	1	0	1083

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1263	361	0
Stage 1	721	-	-
Stage 2	542	-	-
Critical Hdwy	6.8	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	164	641	890
Stage 1	448	-	-
Stage 2	553	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	164	641	890
Mov Cap-2 Maneuver	164	-	-
Stage 1	448	-	-
Stage 2	553	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	641	890
HCM Lane V/C Ratio	-	-	0.051	-
HCM Control Delay (s)	-	-	10.9	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection

Int Delay, s/veh 4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	86	19	32	33	9	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	93	21	35	36	10	74

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	146	53	0
Stage 1	53	-	-
Stage 2	93	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	849	1017	1536
Stage 1	972	-	-
Stage 2	933	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	843	1017	1536
Mov Cap-2 Maneuver	843	-	-
Stage 1	972	-	-
Stage 2	926	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	870	1536
HCM Lane V/C Ratio	-	-	0.131	0.006
HCM Control Delay (s)	-	-	9.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0

Intersection												
Int Delay, s/veh	7.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	101	184	93	283	0	157	0	76	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	0	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	75	75	92	92	75	75	75	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	110	245	124	308	0	209	0	101	0	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	308	0	0	110	0	0	669	668	110	668	668	308
Stage 1	-	-	-	-	-	-	112	112	-	556	556	-
Stage 2	-	-	-	-	-	-	557	556	-	112	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1253	-	-	1480	-	-	371	379	943	372	379	732
Stage 1	-	-	-	-	-	-	893	803	-	515	513	-
Stage 2	-	-	-	-	-	-	515	513	-	893	803	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1253	-	-	1480	-	-	345	347	943	311	347	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	347	-	311	347	-
Stage 1	-	-	-	-	-	-	892	802	-	515	470	-
Stage 2	-	-	-	-	-	-	470	470	-	796	802	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.2			23.5			9.9		
HCM LOS							C			A		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	345	943	1253	-	-	1480	-	-	732			
HCM Lane V/C Ratio	0.607	0.107	0.001	-	-	0.084	-	-	0.004			
HCM Control Delay (s)	30.3	9.3	7.9	-	-	7.7	-	-	9.9			
HCM Lane LOS	D	A	A	-	-	A	-	-	A			
HCM 95th %tile Q(veh)	3.8	0.4	0	-	-	0.3	-	-	0			

Timings
1: SH 83 & Hodgen Rd

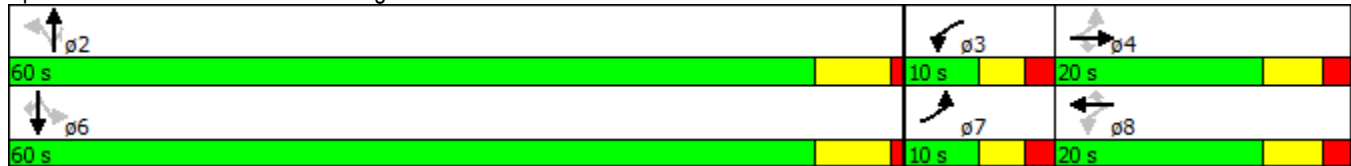
2040 Total Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	302	304	162	200	170	253	656	309	152	318	224
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	8.0	8.0	4.0	8.0	8.0	25.0	25.0	25.0	25.0	25.0	25.0
Minimum Split (s)	9.0	15.0	15.0	9.0	15.0	15.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	60.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	11.1%	22.2%	22.2%	11.1%	22.2%	22.2%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	24.1	16.1	16.1	24.1	16.1	16.1	30.2	30.2	30.2	30.2	30.2	28.2
Actuated g/C Ratio	0.37	0.25	0.25	0.37	0.25	0.25	0.47	0.47	0.47	0.47	0.47	0.44
v/c Ratio	0.48	0.71	0.51	0.50	0.47	0.35	0.58	0.43	0.37	0.59	0.21	0.29
Control Delay	18.2	33.7	6.4	19.1	25.7	6.2	17.9	12.1	2.4	22.6	10.2	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	33.7	6.4	19.1	25.7	6.2	17.9	12.1	2.4	22.6	10.2	2.6
LOS	B	C	A	B	C	A	B	B	A	C	B	A
Approach Delay		19.6			17.5			10.8			10.4	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 64.4	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: SH 83 & Hodgen Rd



Timings
5: SH 83 & Walker Road

2040 Total Traffic
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	150	239	65	117	18	339	585	112	24	390	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		18.7	18.7		18.7	18.7	43.3	43.3	43.3	43.3	43.3	43.3
Actuated g/C Ratio		0.27	0.27		0.27	0.27	0.62	0.62	0.62	0.62	0.62	0.62
v/c Ratio		0.82	0.42		0.61	0.04	0.62	0.29	0.12	0.06	0.20	0.08
Control Delay		44.3	5.2		30.2	5.3	15.0	7.1	1.8	6.7	6.6	2.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.3	5.2		30.2	5.3	15.0	7.1	1.8	6.7	6.6	2.0
LOS		D	A		C	A	B	A	A	A	A	A
Approach Delay		25.4			28.0			9.1			5.8	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 13.8
 Intersection Capacity Utilization 66.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: SH 83 & Walker Road



SimTraffic Performance Report

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #1 5:00

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.3	0.3	0.0	0.0	0.0	0.0	19.9	12.1	4.2	1.3

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #2 5:15

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.6	0.3	0.0	1.8	0.0	0.0	9.3	22.2	5.9	1.3

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #3 5:30

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.0	0.3	0.0	1.3	0.0	0.0	13.2	16.2	5.0	1.1

3: Timber Meadow Drive & Hodgen Rd Performance by lane Interval #4 5:45

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.8	0.3	0.0	2.2	0.0	0.0	16.8	14.1	4.6	1.2

3: Timber Meadow Drive & Hodgen Rd Performance by lane Entire Run

Lane	EB	EB	EB	WB	WB	WB	NB	SB	SB	All
Movements Served	L	T	R	L	T	R	LTR	L	TR	
Stop Del/Veh (s)	2.4	0.3	0.0	1.4	0.0	0.0	15.7	16.7	5.2	1.2

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	18	1018	7	0	694
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	500	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	94	94	97	97
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	22	1083	7	0	715

Major/Minor	Minor1	Minor2	Major1	Major2	Major2	Major2
Conflicting Flow All	1441	541	0	0	1083	0
Stage 1	1083	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	126	491	-	-	652	-
Stage 1	291	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	126	491	-	-	652	-
Mov Cap-2 Maneuver	126	-	-	-	-	-
Stage 1	291	-	-	-	-	-
Stage 2	684	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	491	652	-
HCM Lane V/C Ratio	-	-	0.044	-	-
HCM Control Delay (s)	-	-	12.7	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection

Int Delay, s/veh 2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	53	8	44	96	7	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	58	9	48	104	8	49

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	164	100	0
Stage 1	100	-	-
Stage 2	64	-	-
Critical Hdwy	6.41	6.21	4.11
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	2.209
Pot Cap-1 Maneuver	829	958	1435
Stage 1	927	-	-
Stage 2	961	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	824	958	1435
Mov Cap-2 Maneuver	824	-	-
Stage 1	927	-	-
Stage 2	955	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	839	1435	-
HCM Lane V/C Ratio	-	-	0.079	0.005	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection									
Int Delay, s/veh	2.3								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	190	93	24	139	0	59	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	250	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	207	101	26	151	0	64	0	28

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	151	0	0	207	0	0	417	416	207
Stage 1	-	-	-	-	-	-	213	213	-
Stage 2	-	-	-	-	-	-	204	203	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	1364	-	-	546	527	833
Stage 1	-	-	-	-	-	-	789	726	-
Stage 2	-	-	-	-	-	-	798	733	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1430	-	-	1364	-	-	536	516	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	536	516	-
Stage 1	-	-	-	-	-	-	787	724	-
Stage 2	-	-	-	-	-	-	781	719	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	1.1	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	833	1430	-	-	1364	-	-	895
HCM Lane V/C Ratio	0.12	0.034	0.002	-	-	0.019	-	-	0.002
HCM Control Delay (s)	12.6	9.5	7.5	-	-	7.7	-	-	9
HCM Lane LOS	B	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.4	0.1	0	-	-	0.1	-	-	0

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	2

Major/Minor

	Minor2		
Conflicting Flow All	416	416	151
Stage 1	203	203	-
Stage 2	213	213	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	547	527	895
Stage 1	799	733	-
Stage 2	789	726	-
Platoon blocked, %			
Mov Cap-1 Maneuver	520	516	895
Mov Cap-2 Maneuver	520	516	-
Stage 1	797	719	-
Stage 2	761	724	-

Approach

	SB
HCM Control Delay, s	9
HCM LOS	A

Minor Lane/Major Mvmt



516 North Tejon Street
Colorado Springs, CO 80903
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lscs.com

November 3, 2014

Mr. Matt Dunston
Walden Holdings 1, LLC
17145 Colonial Park Drive
Monument, CO 80132

RE: Walden Preserve 2
Preliminary Plan and Filings 1 and 2
Addendum Report for CDOT
LSC #144380

Dear Mr. Dunston:

LSC has prepared this letter addendum to the September 17, 2014 traffic report for Walden Preserve 2. This letter has been prepared due to the results of updated traffic counts at the Walden Way/State Highway 83 intersection and changes to the internal road layout of the subdivision which will shift some site-generated traffic from the north section of Walden Way to the north to Walker Road.

This addendum report concludes that: 1) no improvements are warranted now or are projected to be warranted in the foreseeable future at the intersection of Walden Way/SH 83, and 2) a Four-Hour Volume traffic signal warrant appears to already be warranted at the intersection of SH83 and Walker/Highway 105.

The site location is shown in Figure 1. The development context map is shown in Figure 2. This report presents a proposed change **from** the future right-in/right-out configuration shown in the traffic report for the intersection of Walden Way/State Highway 83 **to** keeping the intersection as a full-movement intersection. This addendum letter also provides a status update regarding the proposed future Walden Preserve 2 connection to Walker Road.

This addendum report contains the following:

- An introduction to the proposed September 17, 2014 traffic report modification regarding the Walden Way/State Highway 83 intersection.
- Status update regarding the proposed Walden Preserve 2 connection to Walker Road.

- Current morning and afternoon peak-hour traffic volume counts at the intersection of Walden Way/State Highway 83. These update the April 2012 volumes contained in the September 17, 2014 traffic report. Based on these counts, this report also presents estimated adjustments to the November 2012 counts at Walker/SH 83. It is based on these adjustments that a traffic signal warrant appears to be met currently.
- Status of nearby/adjacent subdivisions relative to the number of constructed homes.
- Updates to the projected background traffic volumes at the Walden Way/State Highway 83 intersection contained in the September 17, 2014 traffic report. Updates to the projected background traffic volumes at Walker/State Highway 83.
- Updates to the projected site-generated traffic volumes at the Walden Way/State Highway 83 intersection contained in the September 17, 2014 traffic report and updates to the projected site-generated traffic volumes at the Walker/State Highway 83 intersection.
- Updated projections of future total traffic at these two intersections and levels of service.
- Update to the traffic signal warrant analysis and anticipated percentages of participation by this project at Walker Road/State Highway 105.
- Updates to recommendations for the Walden Way/State Highway 83 intersection with the proposal to keep the intersection as it currently exists, full movement, and concentrate efforts on the Walker Road/SH 83 intersection.

INTRODUCTION/BACKGROUND

During the development review process of the Walden Preserve 2 PUD plan, the applicant proposed a future connection north to Walker Road. This will be a significant improvement to the traffic distribution system of the project and will result in a reduced traffic impact on both the north section of Walden Way just east of SH 83 and Timber Meadow Drive to the south. The other significant change to the plan was the removal of the northern connection between Walden Preserve 2 and Walden Way. This change will further discourage Walden Preserve 2 trips from using the north section of Walden Way in favor of the future connection to the north to Walker Road. These two changes from the previous plan iterations are illustrated in Figure 3.

The applicant has held discussions with the residents along Walden Way. The applicant has indicated to LSC that many of the residents are resistant to either closing off the intersection entirely or installing major improvements to it, for instance constructing a raised island to prohibit left-turn movements and converting the intersection to a right-in-right-out. The applicant has indicated to LSC from their discussions that residents are not dissatisfied with the current configuration and do not see a need for improvements. Given the views expressed by the Walden Way residents and the proposed investment in the Walker Road connection and other efforts by the applicant to discourage Walden Preserve 2 traffic from using the north end of Walden Way, the applicant would prefer to focus resources on improvements to Walker Road in the vicinity of the proposed location of the Walden PUD connection to Walker Road and the signalization of Walker Road/State Highway 83.

The developers of Walden Preserve 2 are working with School District 38, which owns a 70-acre parcel on the southeast corner of the intersection. It is anticipated that eventually a school of some sort, not a high school, will be built on the site and will contribute more traffic at the intersection of Walker Road/SH 83. Therefore, the developers are proposing to concentrate their efforts at Walker/SH 83, where funding will be most beneficial as the traffic signal is warranted. The Walker Road intersection is identified in the County *Major Thoroughfares Transportation Plan* as a Major Collector. The west leg of the intersection (Highway 105) is a Principal Arterial. It is also important to note that Highway 105 west of Highway 83 is a PPRTA project and PPRTA funds may be available to match developer contributions for future signalization.

The applicant met with CDOT on October 3, 2014 to discuss the concept of focusing efforts on the improvements to Walker Road and signalization of Walker Road/State Highway 105 rather than toward construction costs to restrict Walden Way to right-in/right out. CDOT was receptive to the concept of focusing efforts at Walker/SH 83 and requested this proposal/letter update from LSC on behalf of the applicant. LSC has been requested by the applicant to reevaluate the originally proposed right-in/right-out at Walden Way. CDOT requested an analysis of the Walden Way intersection assuming the current full-movement configuration and the effects of this change at the SH 83/Highway 105/Walker Road intersection. The effects of this change at SH83/Walker Road of interest to CDOT is primarily the change in signal percentage contribution by Walden Preserve 2.

WALKER ROAD CONNECTION STATUS

The applicant and consultant team met with the County Engineer on-location in the field on Walker Road to discuss options for the proposed future intersection of Walker Road/Walden Preserve 2 north connection. Options discussed included an intersection aligning with Shannon Road (890 feet west of Highway 83) and an intersection at the location of the Walden District wastewater treatment plant (1,400 feet west of Highway 83). The potential for the need for both access points depending on the size and circulation/capacity needs of the future school at the southeast corner of Highway 83/Walker Road was also discussed. The applicant will be conducting some initial design work to evaluate these options relative to sight distance and potential future right-of-way and turn lane needs. As preliminary design concepts are developed, these would be sent to CDOT for review as although this project will primarily involve the County road, we anticipate interest by CDOT because of the proximity to the SH 83 intersection. The developers plan to have the street connection north to Walker Road constructed by the time half the homes are built within Walden Preserve 2.

UPDATED TRAFFIC VOLUME COUNTS

LSC has completed updated traffic counts during the morning and afternoon peak hour at the Walden Way/SH 83 intersection. The count data sheets are attached for reference. The attached Figure 4 shows the count results from the new counts taken in October 2014. Through traffic on SH 83 has increased since the previous count. Regarding the southbound left-turn movement, the previous count from 2012 indicated an afternoon southbound peak-hour left-turn volume of 11 vehicles per hour, which was over the 10 vph maximum volume before a left-turn lane would be required (RA Classification in the State Highway Access Code). The recent October 2014 count shows a southbound left-turn volume of four vehicles per hour.

STATUS OF ADJACENT SUBDIVISIONS

Figure 2 shows the existing and planned area subdivisions. Figure 3 shows the adjacent subdivisions, the total number of lots within Walden III, Walden Preserve Filing 2 and the large lot area of Filing No. 1 and the number of homes built.

The purpose of compiling these data is 1) to evaluate the current and previous intersection turning volumes at Walden Way against the area trip generation and 2) to estimate the added turning movements at the intersection that would be generated by the future, yet-to-be-built homes in these areas. This information has been used to estimate both the background and site-generated turning movements at the Walden Way/SH 83 intersection.

The primary current users of the Walden Way intersection and the north end of Walden Way are the 41 homes in Walden III (excepting lots with access directly to SH 83). Also, homes have been built on most of the lots in Walden Preserve Filing 2, the next closest subdivision to the Walden Way/SH 83 intersection.

The southbound left-turn volume and the westbound right-turn volume have decreased from the 2012 traffic count despite additional homes having been constructed in the original Walden Preserve Filings 1 and 2 near the Walden Way/Pond View Place intersection to the south. There are a couple of possible reasons for the turn movement reductions despite the additional homes: 1) The general commuter peak distribution to/from this area may have shifted slightly from north to south since 2012 possibly due to improved economic conditions in the Colorado Springs area. 2) Through traffic has increased on State Highway 83 and traffic from the subdivisions in the Walden/Settlers Ranch area and resident motorists are opting to utilize the more major intersections of Hodgen/SH 83 and Walker/SH 83 to either travel eastbound straight across SH 83 and use Walker and Hodgen and the local/collector street network as a route to their homes rather than using the Walden Way/SH 83 intersection.

UPDATED TRAFFIC PROJECTIONS AND ANALYSIS

Figures 5 and 6 show revised background traffic estimates. Figure 7 shows the directional distribution and Figures 8 and 9 show the revised estimates of site-generated turning movement volumes at the Walden Way/SH 83 and Walker Road/Highway 83 intersections. Figures 10 and 11 show the resulting updated total traffic volumes, levels of service, and laneage.

Based on the estimated turning movements and the State Highway Access Code turning volume threshold, auxiliary turn lane improvements at Walden Way/SH 83 would not be required.

Tables 1 and 2 show the revised signal warrant analysis and estimates of signal warrant fair share percentage for Walden Preserve. Based on estimated existing traffic at Highway 83/Walker Road, a signal is currently warranted at this intersection.

SUMMARY

The data and projections contained in this addendum report support leaving the intersection of Walden Way/SH 83 as it currently exists. The applicant's updated percentage toward SH 83/Walker signalization is 17.6 percent. The signal appears to be warranted now, earlier than previously anticipated, primarily due to significant increases in peak-hour through traffic on SH 83 since 2012.

Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By 
Jeffrey C. Hodsdon, P.E., PTOE
Principal



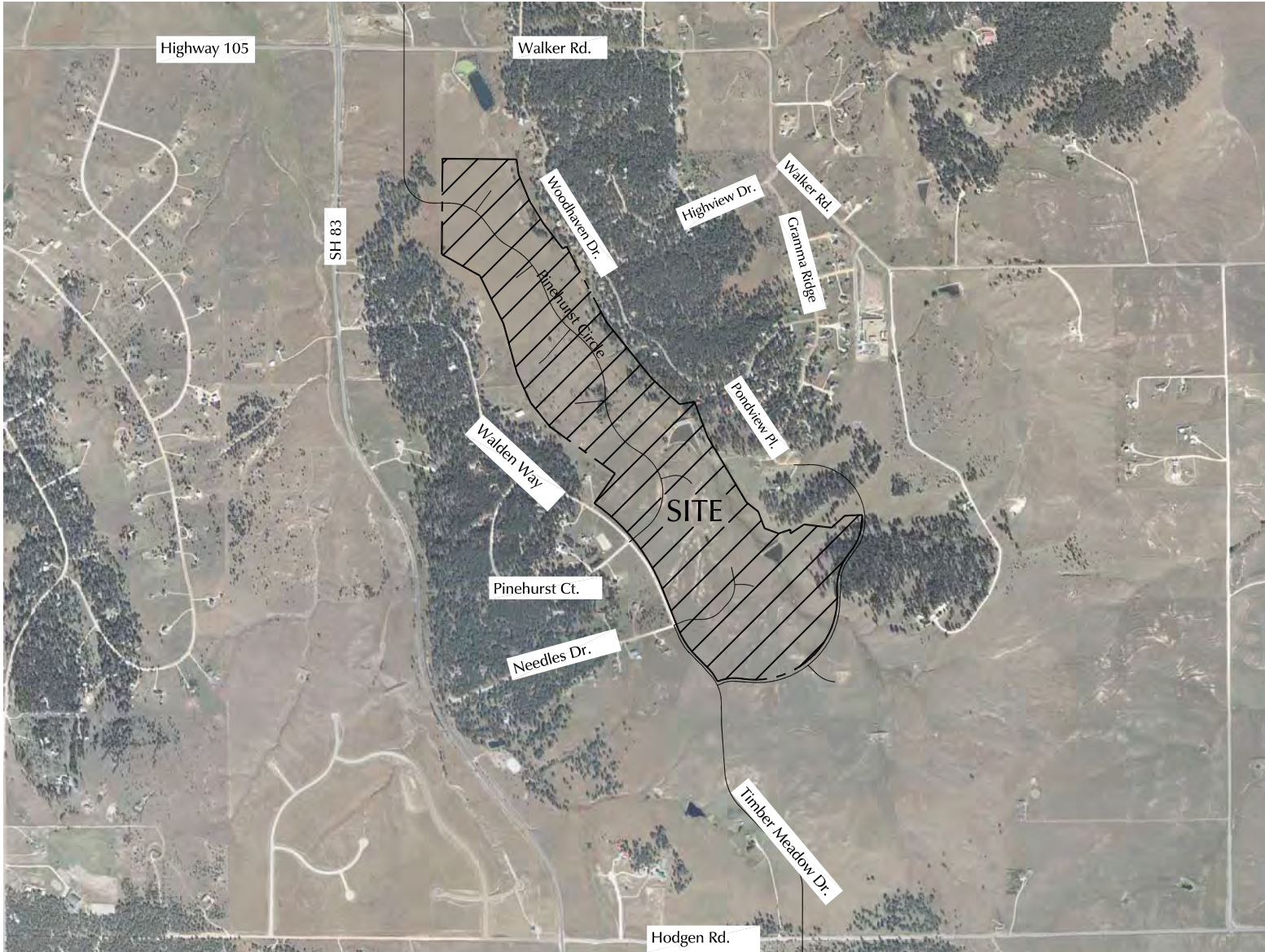
JCH:bjwb

Enclosures: Tables 1 and 2
Figures 1-11
Traffic Count Reports

Table 1 Traffic Signal Warrant Analysis Peak-Hour Volumes Walden Preserve 2		
	Vehicles Per Hour	
	Peak Hour 7:00-8:00 a.m.	Peak Hour 4:45-5:45 p.m.
MINOR STREET TRAFFIC		
Westbound		
Site-Generated Traffic⁽¹⁾		
Left	6	4
Through	20	14
Right	###	##
Background Traffic⁽²⁾		
Left	55	25
Through	90	55
Right	###	###
Eastbound		
Site-Generated Traffic		
Left	0	0
Through	8	27
Right	###	###
Background Traffic		
Left	15	45
Through	30	60
Right	###	###
Westbound Minor Street	171	98
Eastbound Minor Street	53	132
MAJOR STREET TRAFFIC		
Northbound		
Site-Generated Traffic		
Left	10	7
Through	3	2
Right	4	12
Background Traffic		
Left	125	150
Through	190	240
Right	20	50
Southbound		
Site-Generated Traffic		
Left	1	5
Through	1	1
Right	0	0
Background Traffic		
Left	10	10
Through	250	315
Right	50	40
Major Street Totals		
	7:00-8:00 a.m.	5:00-6:00 p.m.
	664	832
Notes:		
(1) Includes original Filings 1, 2 and buildout of Walden Preserve 2		
(2) Based on Existing (2014) Traffic Volumes		
Source: LSC Transportation Consultants, Inc.		

**Table 2
Traffic Signal Warrant Analysis
Four-Hour Volumes - Baseline + Original Filings 1, 2 and buildout of Walden Preserve 2
Walden Preserve 2**

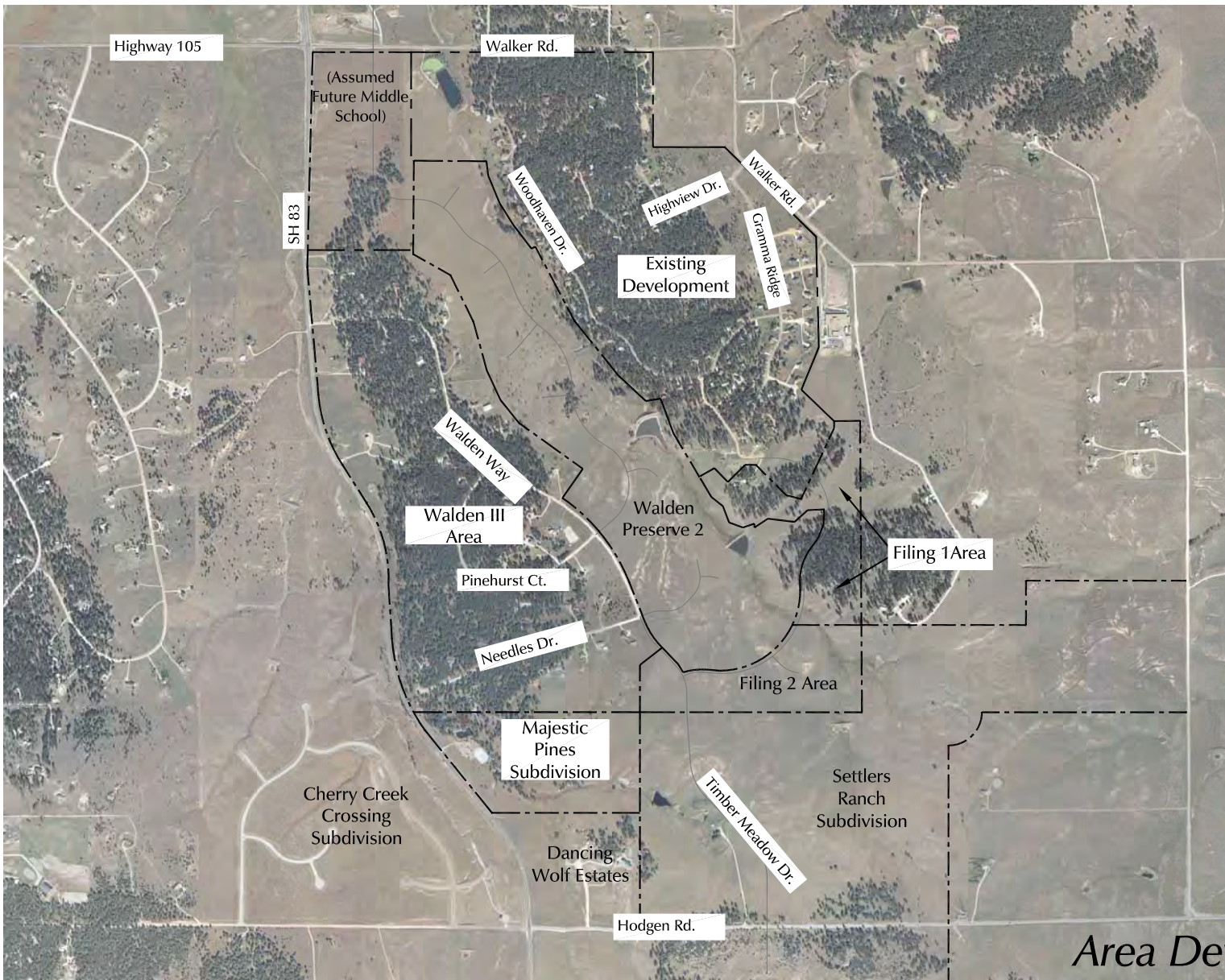
	Vehicles Per Hour			
	6:30-7:30 a.m.	7:30-8:30 a.m.	4:00-5:00 p.m.	5:00-6:00 p.m.
MINOR STREET TRAFFIC				
Westbound				
Site-Generated Traffic⁽¹⁾				
Left	5	3	3	5
Through	16	10	12	16
Right	###	###	###	###
Background Traffic⁽²⁾				
Left	50	45	41	23
Through	81	63	46	51
Right	###	###	###	###
Eastbound				
Site-Generated Traffic				
Left	0	0	0	0
Through	7	7	22	30
Right	###	###	###	###
Background Traffic				
Left	14	19	32	47
Through	18	40	53	55
Westbound Minor Street	152	121	102	95
Eastbound Minor Street	39	66	107	132
MAJOR STREET TRAFFIC				
Northbound				
Site-Generated Traffic				
Left	9	6	6	8
Through	3	2	2	2
Right	3	2	10	10
Background Traffic				
Left	103	108	121	149
Through	194	160	212	238
Right	10	29	41	51
Southbound				
Site-Generated Traffic				
Left	1	1	4	5
Through	1	1	1	1
Right	0	0	0	0
Background Traffic				
Left	5	12	15	15
Through	219	228	299	343
Right	49	32	41	39
Major Street Totals				
	6:30-7:30 a.m.	7:30-8:30 a.m.	4:00-5:00 p.m.	5:00-6:00 p.m.
	597	581	752	861
Higher Minor Street				
Site-Generated (vhp)	21	13	22	30
Site-Generated (% of Total)	13.8%	10.7%	20.6%	22.7%
Total	152	121	107	132
Weighted Average			17.60%	
4-Hour Vehicular Volume Traffic Signal Warrant Threshold⁽³⁾				
Met?	91	97	65	60
	YES	YES	YES	YES
Notes:				
(1) Includes original Filings 1, 2 and buildout of Walden Preserve 2				
(2) Based on Existing (2014) Traffic Volumes				
(3) <i>Manual on Uniform Traffic Control Devices</i> , Figure 4C-2				
Warrant 2, Four-Hour Vehicular Volume (70% Factor) (1 lane & 1 lane)				
Source: LSC Transportation Consultants, Inc.				



Approximate Scale
Scale: 1" = 1,800'

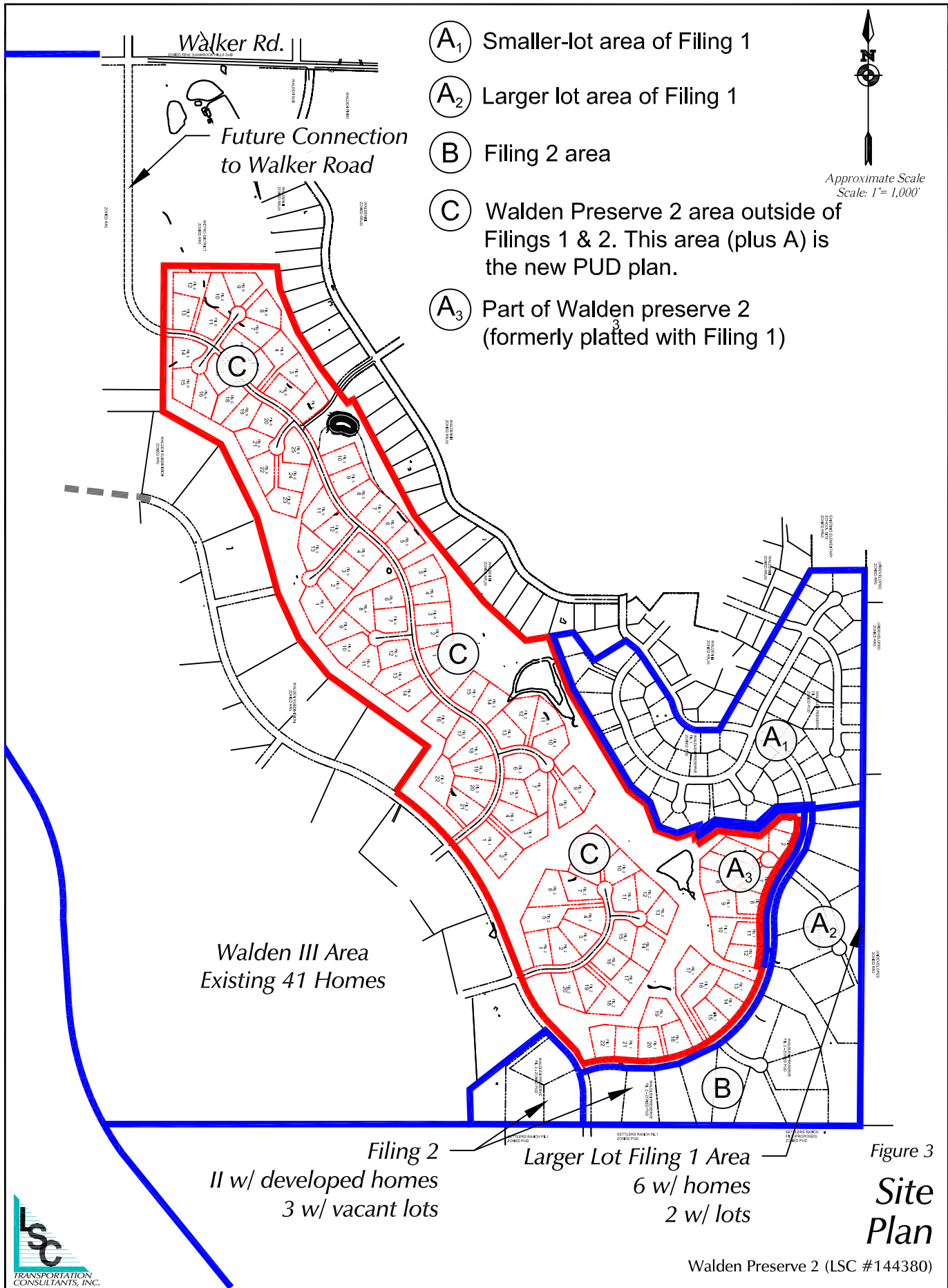
Figure 1
**Vicinity
Map**

Walden Preserve 2 (LSC #144380)



Approximate Scale
Scale: 1" = 1,800'

Figure 2
**Area Development
Context Map**
Walden Preserve 2 (LSC #144380)



A₁ Smaller-lot area of Filing 1

A₂ Larger lot area of Filing 1

B Filing 2 area

C Walden Preserve 2 area outside of Filings 1 & 2. This area (plus A) is the new PUD plan.

A₃ Part of Walden preserve 2 (formerly platted with Filing 1)

Approximate Scale
Scale: 1"= 1,000'

Walker Rd.
Future Connection to Walker Road

Walden III Area
Existing 41 Homes

Filing 2
11 w/ developed homes
3 w/ vacant lots

Larger Lot Filing 1 Area
6 w/ homes
2 w/ lots

Figure 3
Site Plan

Walden Preserve 2 (LSC #144380)



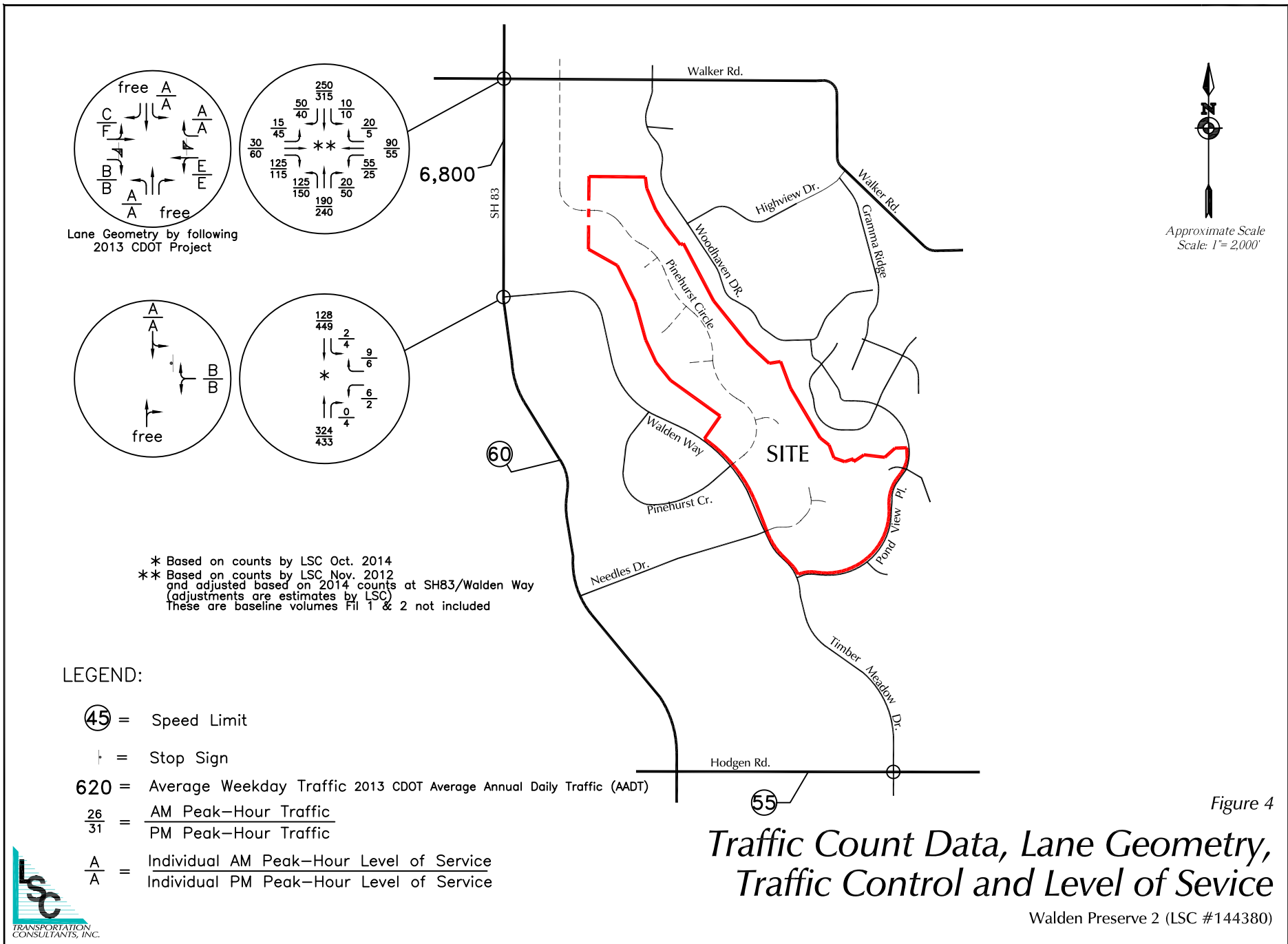
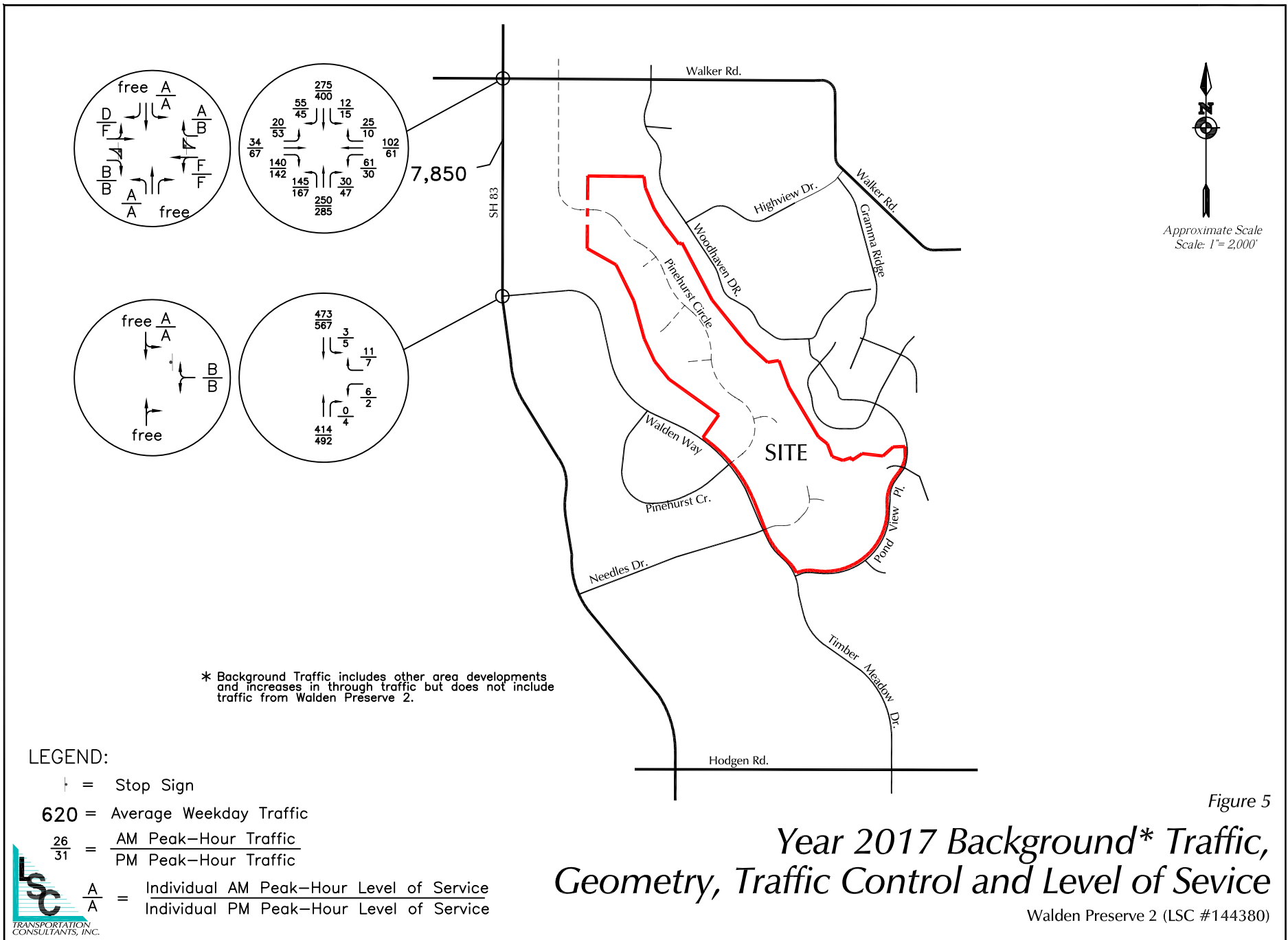
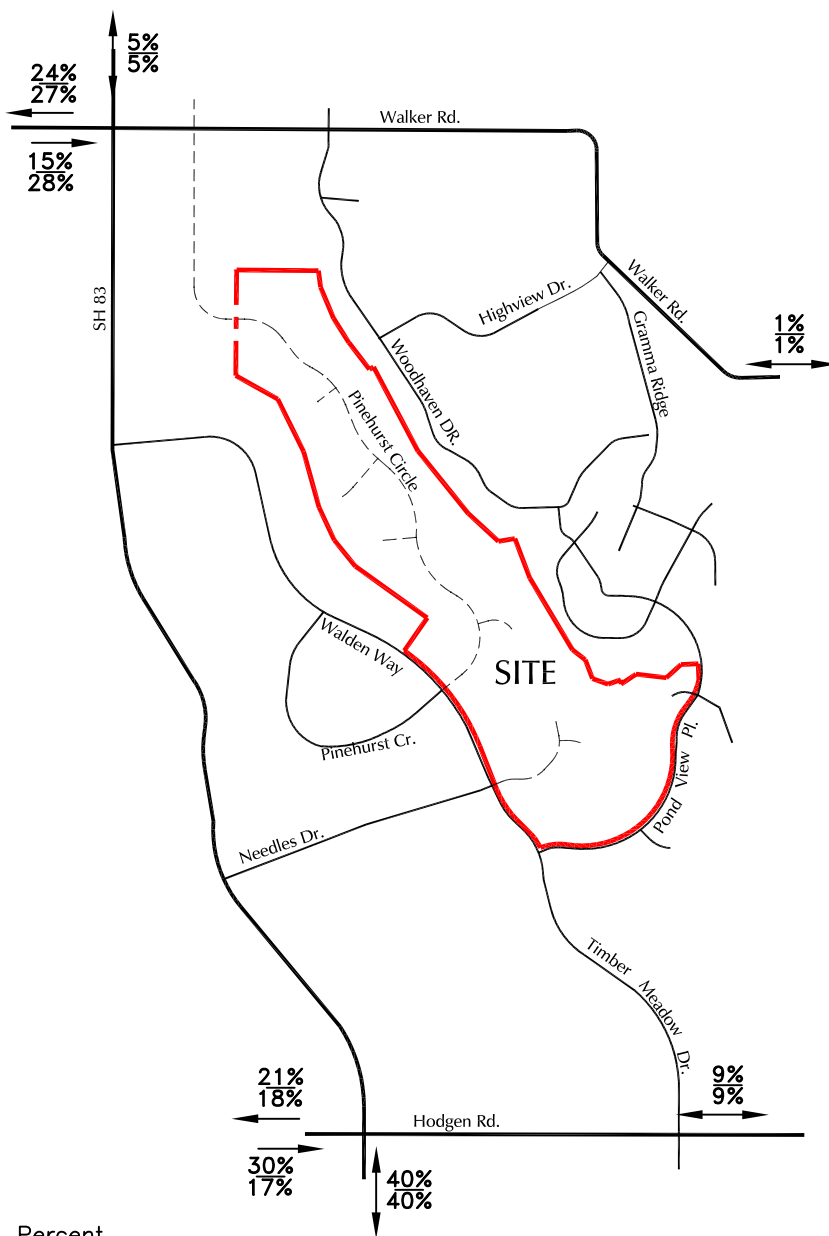


Figure 4
**Traffic Count Data, Lane Geometry,
 Traffic Control and Level of Service**

Walden Preserve 2 (LSC #144380)







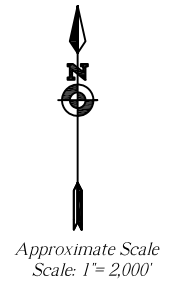
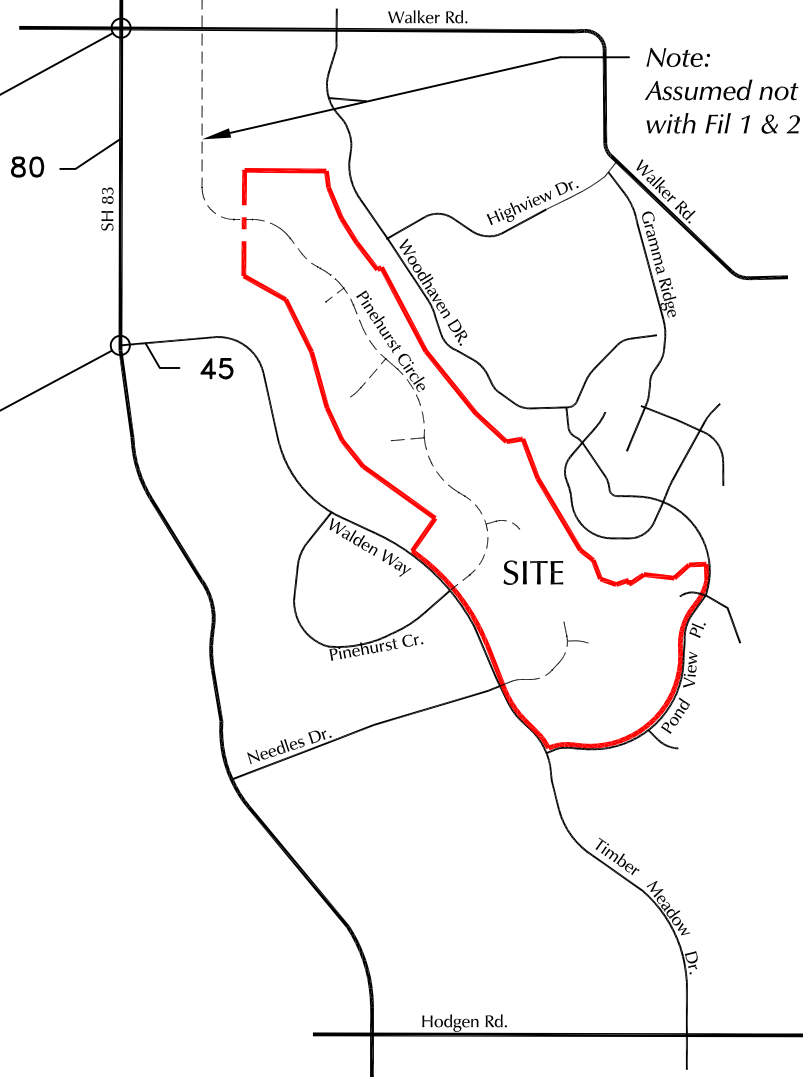
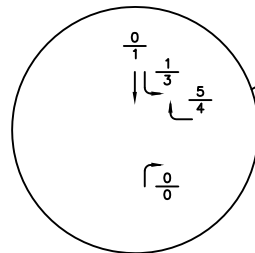
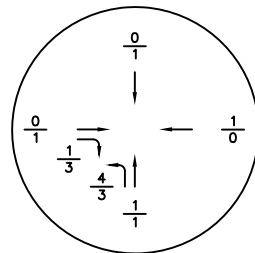
Approximate Scale
Scale: 1" = 2,000'



LEGEND:
 40% = Short-Term Percent of Directional Distribution
 40% = Long-Term Percent of Directional Distribution

Figure 7
Directional Distribution of Site-Generated Traffic

Walden Preserve 2 (LSC #144380)



NOTE:
Includes Phase 1 and 2 of the
new amended PUD area traffic as
shown in figure 3 (42 lots)

LEGEND:

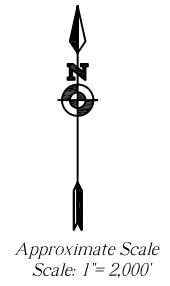
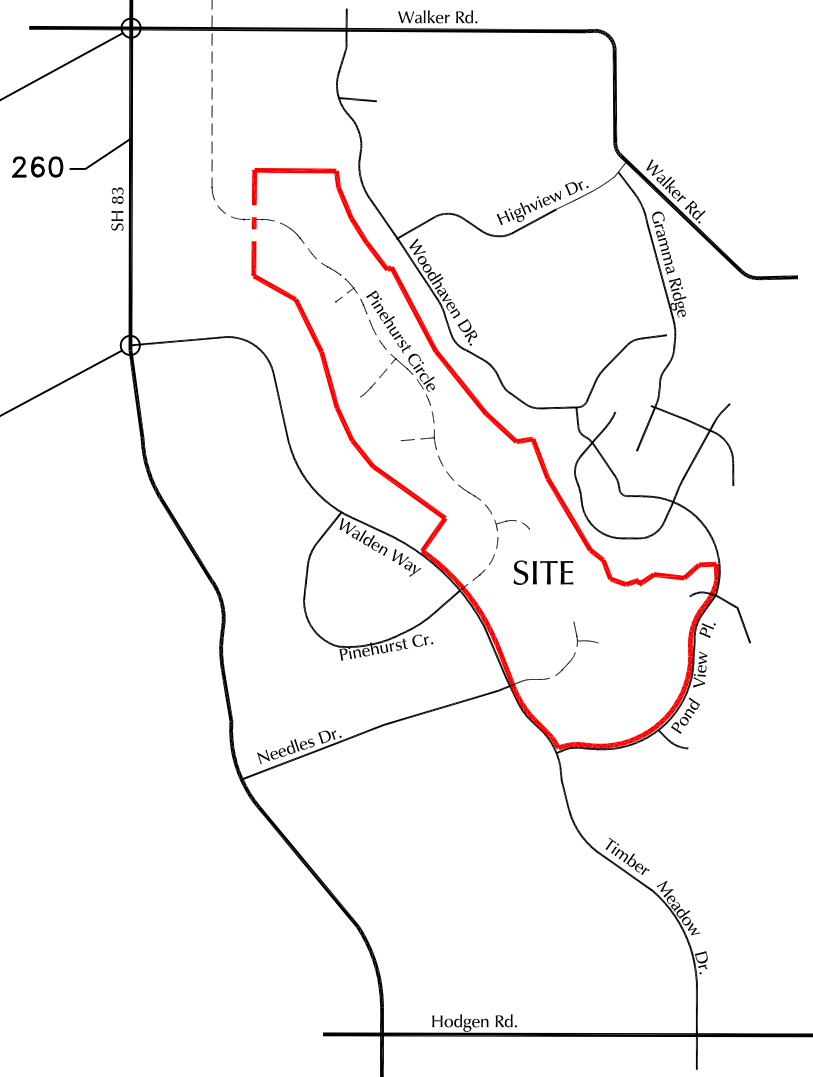
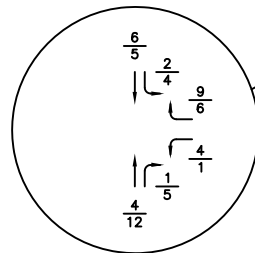
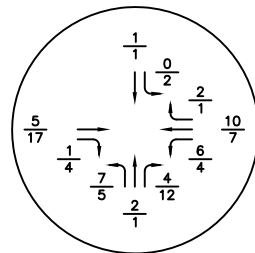
- 620 = Average Weekday Traffic
- $\frac{26}{31}$ = AM Peak-Hour Traffic
- PM Peak-Hour Traffic

Assignment of Phases 1 & 2 (Fil. 1 & 2) Site-Generated Traffic

Walden Preserve 2 (LSC #144380)



Figure 8



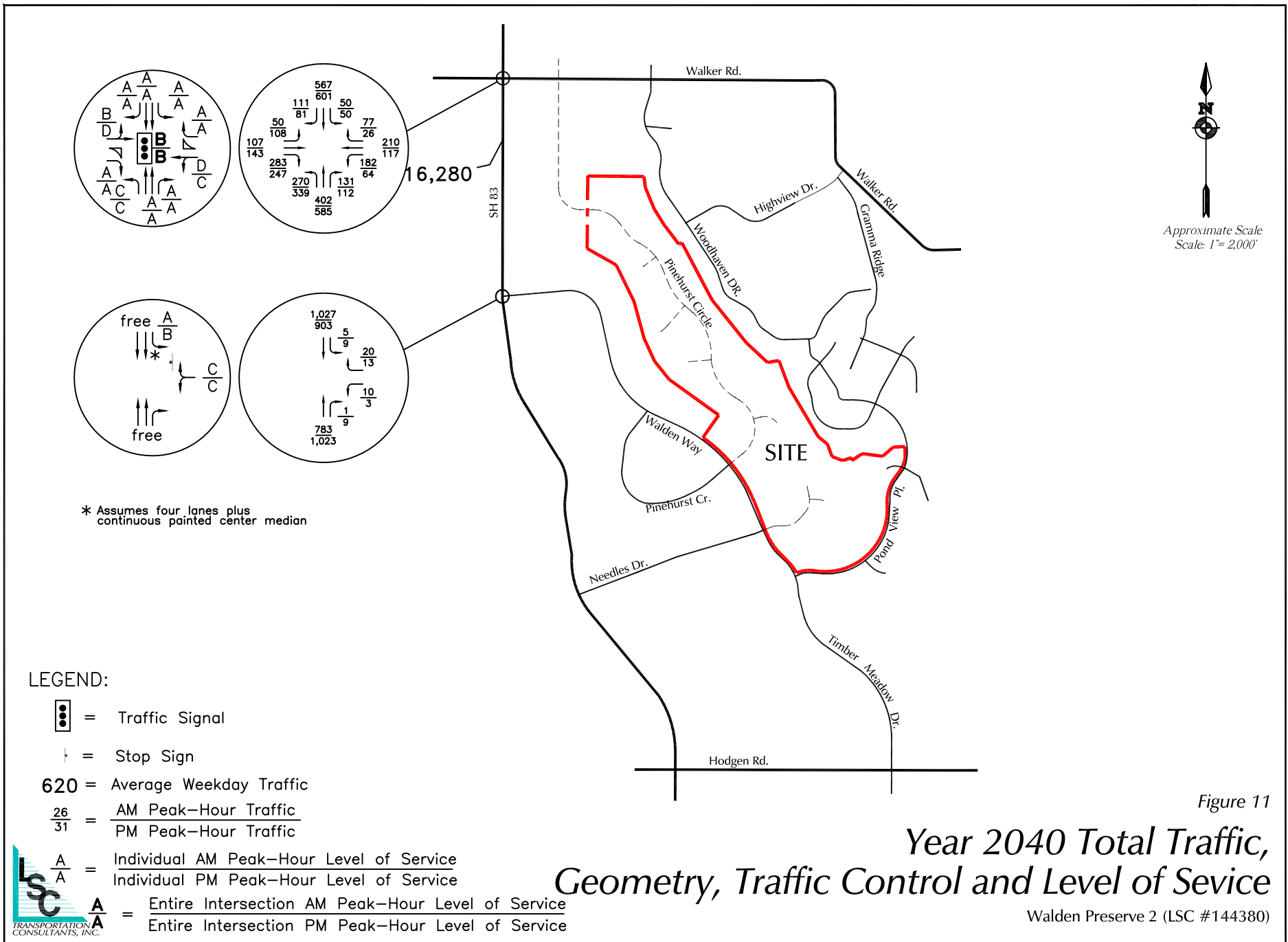
NOTE:
Includes new amended PUD area
traffic as shown in red border in
figure 3 (116 lots)

LEGEND:

- 620 = Average Weekday Traffic
- $\frac{26}{31}$ = AM Peak-Hour Traffic
- PM Peak-Hour Traffic

Figure 9
**Assignment of
Buildout Site-Generated Traffic**
Walden Preserve 2 (LSC #144380)

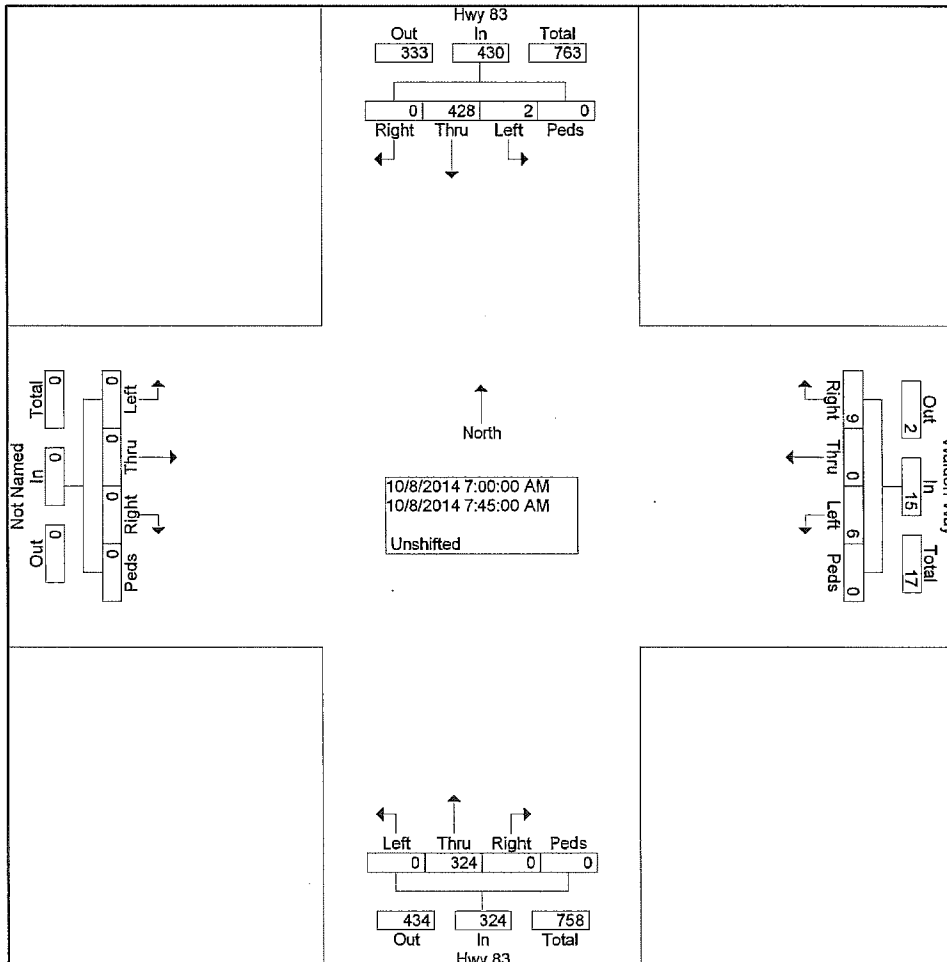




LSC Transportation Consultants, Inc.
 516 N. Tejon St.
 Colorado Springs, CO
 (719) 633-2868

File Name : Hwy 83 - Walden Way AM2
 Site Code : 00000000
 Start Date : 10/08/2014
 Page No : 2

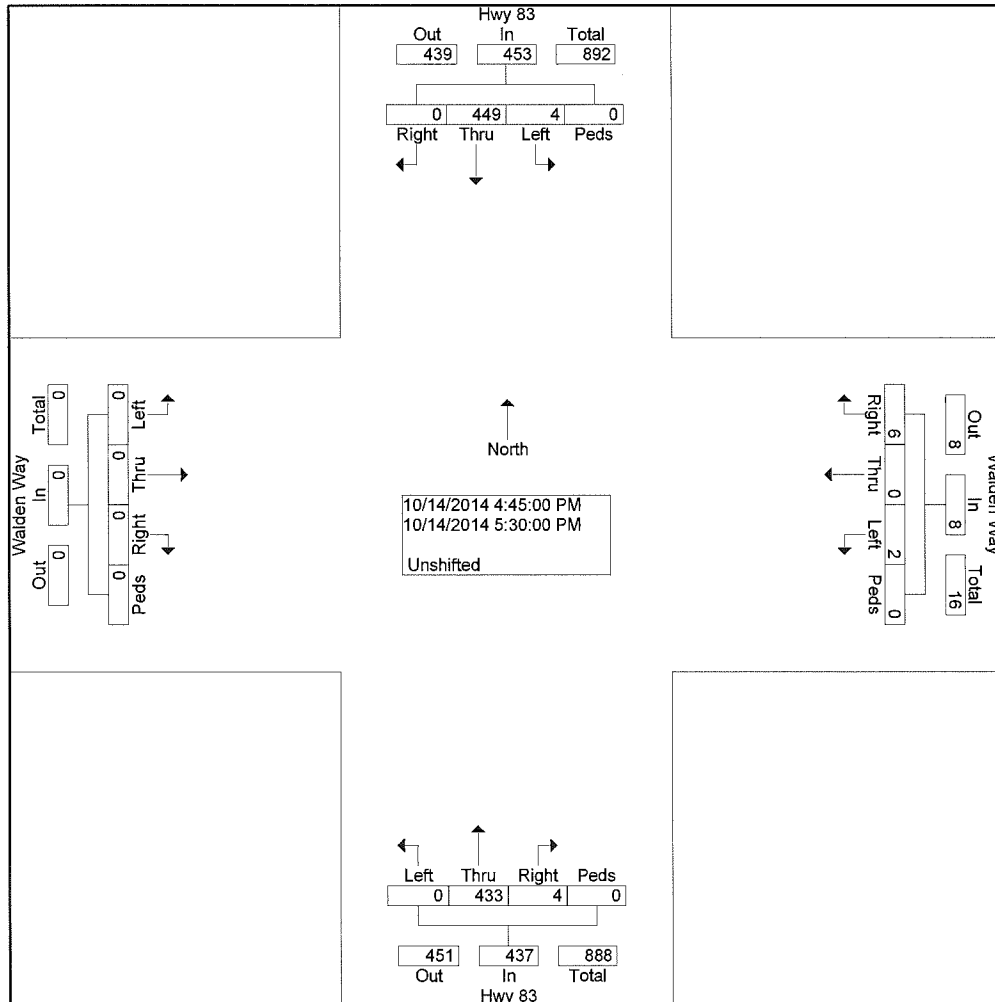
Start Time	Hwy 83 From North					Walden Way From East					Hwy 83 From South					From West					Int. Total
	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	0	428	2	0	430	9	0	6	0	15	0	324	0	0	0	0	0	0	0	0	769
Percent	0.0	99.5	0.5	0.0		60.0	0.0	40.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
07:30 Volume	0	113	1	0	114	1	0	3	0	4	0	92	0	0	92	0	0	0	0	0	210
Peak Factor																					
High Int.	07:30 AM					07:00 AM					07:30 AM					6:15:00 AM					
Volume	0	113	1	0	114	4	0	0	0	4	0	92	0	0	92						
Peak Factor	0.943					0.938					0.880										



LSC Transportation Consultants, Inc.
 516 N. Tejon St.
 Colorado Springs, CO
 (719) 633-2868

File Name : Hwy 83 - Walden Way PM3
Site Code : 00000000
Start Date : 10/14/2014
Page No : 2

Start Time	Hwy 83 From North					Walden Way From East					Hwy 83 From South					Walden Way From West					Int. Total
	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	
Peak Hour	From 04:00 PM to 05:45 PM - Peak 1 of 1																				
Intersection	04:45 PM																				
Volume	0	449	4	0	453	6	0	2	0	8	4	433	0	0	437	0	0	0	0	0	898
Percent	0.0	99.1	0.9	0.0		75.0	0.0	25.0	0.0		0.9	99.1	0.0	0.0		0.0	0.0	0.0	0.0		
04:45 Volume	0	129	0	0	129	1	0	0	0	1	3	117	0	0	120	0	0	0	0	0	250
Peak Factor																					
High Int.	04:45 PM																				
Volume	0	129	0	0	129	2	0	1	0	3	3	117	0	0	120	3:45:00 PM					
Peak Factor	0.878					0.667					0.910										





COLORADO

Department of Transportation

Transportation Systems
Management & Operations

Region 2 Traffic Section
905 Erie Ave., P.O. Box 536
Pueblo, Colorado 81002
(719) 546-5407 Fax:(719) 562-5523

May 28, 2015

ATTN: Jeff Hodsdon
LSC Transportation Consultants
516 North Tejon Street
Colorado Springs, CO 80903

RE: State Highway Access Permit No. 215017, Located on Highway 83, Milepost 28.0, in El Paso County

Dear Jeff,

The Colorado Department of Transportation (CDOT) has received your signed permit and application fee. A copy of the issued permit enclosed. CDOT has issued a Notice to Proceed for this permit since the permit did not require any additional construction of the access. Please keep a copy of the access permit and the notice to proceed for your files.

If you have any questions or need more information, please contact me at the office listed above.

Respectfully,

Valerie Sword
Region 2 Access Manager

XC: Andre Brackin, El Paso County
Karami
Lollar
Quintana/Patrol 21
Jagow/Lewis/file



COLORADO DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ACCESS CODE
NOTICE TO PROCEED

CDOT Permit No.	215017
SH/S/MP	83 A / 28.000 / R
Local Jurisdiction	El Paso County

Permittee(s):
 El Paso County Public Svc Dept
 Andre Brackin
 3275 Akers Drive
 Colorado Springs, CO 80922

Applicant:
 LSC Transportation Consultants
 Jeff Hodsdon
 516 North Tejon Street
 Colorado Springs, CO 80903

The permittee is hereby authorized to proceed with access construction within state highway right-of-way in accordance with the above referenced State Highway Access Permit and this Notice to Proceed.

This Notice to Proceed is valid only if the referenced Access Permit has not expired. Access Permits expire one year from date of issue if not under construction, or completed. Access Permits may be extended in accordance with Section 2.3(11)(d), of the Access Code.

Adequate advance warning is required at all times during access construction, in conformance with the Manual on Uniform Traffic Control Devices for Streets and Highways.

All construction shall be completed in an expeditious and safe manner and shall be finished within 45 days from initiation. The permittee or applicant shall notify the Department prior to commencing construction as indicated on the Access Permit.

Both the Access Permit and this Notice To Proceed shall be available for review at the construction site.

This Notice to Proceed is conditional. The following items shall be addressed prior to or during construction as appropriate.

No new construction required. A Letter of Credit has been received for \$39,996.20.

Municipality or County Approval (When the appropriate local authority retains issuing authority)

By (X)	Title	Date
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This Notice is not valid until signed by a duly authorized representative of the Department

Colorado Department of Transportation

By (X) <i>Valerie Inwood</i>	Title <i>Access Mgr</i>	Date 5/28/2015
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Copy distribution: Required: Region (original) Applicant Staff Access Section
 Make copies as necessary for: Local Authority MTCE Patrol Quintana/21
 Inspector Todd Ausburn Traffic Engineer

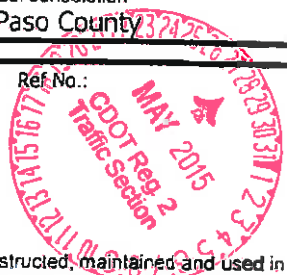
**COLORADO DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ACCESS PERMIT**

CDOT Permit No. **215017**
 State Highway No/Mp/Side
83 A / 28.000 / R
 Local Jurisdiction
El Paso County

Permit fee **\$300.00** Date of transmittal **4/30/2015** Region/Section/Patrol **2 / 04 / Quintana/21**

The Permittee(s):
 El Paso County Public Svc Dept
 Andre Brackin
 3275 Akers Drive
 Colorado Springs, CO 80922
 719-520-6460

Applicant:
 LSC Transportation Consultants
 Jeff Hodsdon
 516 North Tejon Street
 Colorado Springs, CO 80903
 719-633-2868



Ref No.:

is hereby granted permission to have an access to the state highway at the location noted below. The access shall be constructed, maintained and used in accordance with this permit, including the State Highway Access Code and any attachments, terms, conditions and exhibits. This permit may be revoked by the issuing authority if at any time the permitted access and its use violate any parts of this permit. The issuing authority, the Department and their duly appointed agents and employees shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise of the permit.

Location: Walden Preserve 2 Filings 1 and 2
 Parcel is located East of Hwy 83 and South of HWY 50 (Walker Rd.)

Access to Provide Service to: Land Use Code: (Size or Count) (Units)
 210 - Single-Family Detached Housing 42 EACH

Additional Information:
Escrow of \$39,996.20 for future signal at Walker Road is required.

PAID
\$300.00 CK#6626
5/15/15

MUNICIPALITY OR COUNTY APPROVAL

Required only when the appropriate local authority retains issuing authority.

Signature <i>Andre P. Brackin</i>	Print Name ANDRE P. BRACKIN	Title COUNTY ENGINEER	Date 5-5-15
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Upon the signing of this permit the permittee agrees to the terms and conditions and referenced attachments contained herein. All construction shall be completed in an expeditious and safe manner and shall be finished within 45 days from initiation. The permitted access shall be completed in accordance with the terms and conditions of the permit prior to being used.

The permittee shall notify Todd Ausbun with the Colorado Department of Transportation in Pueblo, Colorado at (719) 696-1403, at least 48 hours prior to commencing construction within the State Highway right-of-way.

The person signing as the permittee must be the owner or legal representative of the property served by the permitted access and have full authority to accept the permit and its terms and conditions.

Permittee Signature	Print Name	Date
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This permit is not valid until signed by a duly authorized representative of the Department.

COLORADO DEPARTMENT OF TRANSPORTATION

Signature <i>Valerie Sward</i>	Print Name Valerie Sward	Title Access Mgr	Date (of issue) 5/28/15
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Copy Distribution: Required 1 Region, 2 Applicant, 3 Staff Access Section, 4 Central Files. Make copies as necessary for: Local Authority, MTCE Patrol, Inspector, Traffic Engineer. Previous editions are obsolete and may not be used. Page 1 of 3 CDOT Form #101 5/07

The following paragraphs are excerpts of the State Highway Access Code. These are provided for your convenience but do not alleviate compliance with all sections of the Access Code. A copy of the State Highway Access Code is available from your local issuing authority (local government) or the Colorado Department of Transportation (Department). When this permit was issued, the issuing authority made its decision based in part on information submitted by the applicant, on the access category which is assigned to the highway, what alternative access to other public roads and streets is available, and safety and design standards. Changes in use or design not approved by the permit or the issuing authority may cause the revocation or suspension of the permit.

APPEALS

1. Should the permittee or applicant object to the denial of a permit application by the Department or object to any of the terms or conditions of a permit placed there by the Department, the applicant and permittee (appellant) have a right to appeal the decision to the [Transportation] Commission [of Colorado]. To appeal a decision, submit a request for administrative hearing to the Transportation Commission of Colorado within 60 days of transmittal of notice of denial or transmittal of the permit for signature. Submit the request to the Transportation Commission of Colorado, 4201 East Arkansas Avenue, Denver, Colorado 80222-3400. The request shall include reasons for the appeal and may include changes, revisions, or conditions that would be acceptable to the permittee or applicant.
2. Any appeal by the applicant or permittee of action by a local issuing authority shall be filed with the local authority and be consistent with the appeal procedures of the local authority.
3. In submitting the request for administrative hearing, the appellant has the option of including within the appeal a request for a review by the Department's internal administrative review committee pursuant to [Code] subsection 2.10. When such committee review is requested, processing of the appeal for formal administrative hearing, 2.9(5) and (6), shall be suspended until the appellant notifies the Commission to proceed with the administrative hearing, or the appellant submits a request to the Commission or the administrative law judge to withdraw the appeal. The two administrative processes, the internal administrative review committee, and the administrative hearing, may not run concurrently.
4. Regardless of any communications, meetings, administrative reviews or negotiations with the Department or the internal administrative review Committee regarding revisions or objections to the permit or a denial, if the permittee or applicant wishes to appeal the Department's decision to the Commission for a hearing, the appeal must be brought to the Commission within 60 days of transmittal of notice of denial or transmittal of the permit.

PERMIT EXPIRATION

1. A permit shall be considered expired if the access is not under construction within one year of the permit issue date or before the expiration of any authorized extension. When the permittee is unable to commence construction within one year after the permit issue date, the permittee may request a one year extension from the issuing authority. No more than two one-year extensions may be granted under any circumstances. If the access is not under construction within three years from date of issue the permit will be considered expired. Any request for an extension must be in writing and submitted to the issuing authority before the permit expires. The request should state the reasons why the extension is necessary, when construction is anticipated, and include a copy of page 1 (face of permit) of the access permit. Extension approvals shall be in writing. The local issuing authority shall obtain the concurrence of the Department prior to the approval of an extension, and shall notify the Department of all denied extensions within ten days. Any person wishing to reestablish an access permit that has expired may begin again with the application procedures. An approved Notice to Proceed, automatically renews the access permit for the period of the Notice to Proceed.

CONSTRUCTION

1. Construction may not begin until a Notice to Proceed is approved. (Code subsection 2.4)
2. The construction of the access and its appurtenances as required by the terms and conditions of the permit shall be completed at the expense of the permittee except as provided in subsection 2.14. All materials used in the construction of the access within the highway right-of-way or on permanent easements, become public property. Any materials removed from the highway right-of-way will be disposed of only as directed by the Department. All fencing, guard rail, traffic control devices and other equipment and materials removed in the course of access construction shall be given to the Department unless otherwise instructed by the permit or the Department inspector.
3. The permittee shall notify the individual or the office specified on the permit or Notice to Proceed at least two working days prior to any construction within state highway right-of-way. Construction of the access shall not proceed until both the access permit and the Notice to Proceed are issued. The access shall be completed in an expeditious and safe manner and shall be finished within 45 days from initiation of construction within the highway right-of-way. A construction time extension not to exceed 30 working days may be requested from the individual or office specified on the permit.
4. The issuing authority and the Department may inspect the access during construction and upon completion of the access to ensure that all terms and conditions of the permit are met. Inspectors are authorized to enforce the conditions of the permit during construction and to halt any activities within state right-of-way that do not comply with the provisions of the permit, that conflict with concurrent highway construction or maintenance work, that endanger

highway property, natural or cultural resources protected by law, or the health and safety of workers or the public.

5. Prior to using the access, the permittee is required to complete the construction according to the terms and conditions of the permit. Failure by the permittee to abide by all permit terms and conditions shall be sufficient cause for the Department or issuing authority to initiate action to suspend or revoke the permit and close the access. If in the determination of the Department or issuing authority the failure to comply with or complete the construction requirements of the permit create a highway safety hazard, such shall be sufficient cause for the summary suspension of the permit. If the permittee wishes to use the access prior to completion, arrangements must be approved by the issuing authority and Department and included in the permit. The Department or issuing authority may order a halt to any unauthorized use of the access pursuant to statutory and regulatory powers. Reconstruction or improvement of the access may be required when the permittee has failed to meet required specifications of design or materials. If any construction element fails within two years due to improper construction or material specifications, the permittee shall be responsible for all repairs. Failure to make such repairs may result in suspension of the permit and closure of the access.

6. The permittee shall provide construction traffic control devices at all times during access construction, in conformance with the M.U.T.C.D. as required by section 42-4-104, C.R.S., as amended.

7. A utility permit shall be obtained for any utility work within highway right-of-way. Where necessary to remove, relocate, or repair a traffic control device or public or private utilities for the construction of a permitted access, the relocation, removal or repair shall be accomplished by the permittee without cost to the Department or issuing authority, and at the direction of the Department or utility company. Any damage to the state highway or other public right-of-way beyond that which is allowed in the permit shall be repaired immediately. The permittee is responsible for the repair of any utility damaged in the course of access construction, reconstruction or repair.

8. In the event it becomes necessary to remove any right-of-way fence, the posts on either side of the access shall be securely braced with an approved end post before the fence is cut to prevent any slacking of the remaining fence. All posts and wire removed are Department property and shall be turned over to a representative of the Department.

9. The permittee shall ensure that a copy of the permit is available for review at the construction site at all times. The permit may require the contractor to notify the individual or office specified on the permit at any specified phases in construction to allow the field inspector to inspect various aspects of construction such as concrete forms, subbase, base course compaction, and materials specifications. Minor changes and additions may be ordered by the Department or local authority field inspector to meet unanticipated site conditions.

10. Each access shall be constructed in a manner that shall not cause water to enter onto the roadway or shoulder, and shall not interfere with the existing drainage system on the

right-of-way or any adopted municipal system and drainage plan.

11. By accepting the permit, permittee agrees to save, indemnify, and hold harmless to the extent allowed by law, the issuing authority, the Department, its officers, and employees from suits, actions, claims of any type or character brought because of injuries or damage sustained by any person resulting from the permittee's use of the access permit during the construction of the access.

CHANGES IN ACCESS USE AND PERMIT VIOLATIONS

1. It is the responsibility of the property owner and permittee to ensure that the use of the access to the property is not in violation of the Code, permit terms and conditions or the Act. The terms and conditions of any permit are binding upon all assigns, successors-in-interest, heirs and occupants. If any significant changes are made or will be made in the use of the property which will affect access operation, traffic volume and or vehicle type, the permittee or property owner shall contact the local issuing authority or the Department to determine if a new access permit and modifications to the access are required.

2. When an access is constructed or used in violation of the Code, section 43-2-147(5)(c), C.R.S., of the Act applies. The Department or issuing authority may summarily suspend an access permit and immediately order closure of the access when its continued use presents an immediate threat to public health, welfare or safety. Summary suspension shall comply with article 4 of title 24, C.R.S.

MAINTENANCE

1. The permittee, his or her heirs, successors-in-interest, assigns, and occupants of the property serviced by the access shall be responsible for meeting the terms and conditions of the permit, the repair and maintenance of the access beyond the edge of the roadway including any cattle guard and gate, and the removal or clearance of snow or ice upon the access even though deposited on the access in the course of Department snow removal operations. Within unincorporated areas the Department will keep access culverts clean as part of maintenance of the highway drainage system. However, the permittee is responsible for the repair and replacement of any access-related culverts within the right-of-way. Within incorporated areas, drainage responsibilities for municipalities are determined by statute and local ordinance. The Department will maintain the roadway including auxiliary lanes and shoulders, except in those cases where the access installation has failed due to improper access construction and/or failure to follow permit requirements and specifications in which case the permittee shall be responsible for such repair. Any significant repairs such as culvert replacement, resurfacing, or changes in design or specifications, requires authorization from the Department.

1. A NOTICE TO PROCEED TO CONSTRUCTION, CDOT Form 1265, is required before beginning the construction of the access or any activity in the highway right-of-way. All submittals, documents, plans, and other items that must be completed shall be submitted and approved by the Department before a NOTICE TO PROCEED to construction will be issued.
2. The access is located on the east side of State Highway 83, at Walker Road or approximately milepost 28.13.
3. This section of highway is a Category R-A highway.
4. The Permittee/Applicant shall provide the Department with the following submittals, documents, plans and other items for review prior to the issuance of a NOTICE TO PROCEED to construction:
 - a) A written request for a NOTICE TO PROCEED including the access permit number listed above.
 - b) The Permittee/Applicant shall provide the Department with an Escrow document in the amount of \$39,996.20 for the future installation of a signal at Walker Road.
5. This Access Permit is issued to allow access to State Highway 83 for a change in use of the property. The previous use of the access was to serve the County road Walker Rd. The access will now serve Walker Rd and a 42-lot residential subdivision - Walden Preserve 2 Filings 1 & 2.
6. No new construction or improvements are required by the issuance of this Access Permit.
7. The Permittee shall refer to all additional standard requirements attached to this permit. This includes CDOT Form 101b, enclosed additional terms, conditions, exhibits, and noted attachments.
8. The following criteria were used to establish this Access Permit:
 - a) The Application for Access Permit (CDOT Form 137) dated February 18, 2015 and accepted by the regional office on April 6, 2015 and all attachments.
 - b) State Highway Access Code, Volume 2, CCR-601-1; Effective date August 31, 1998
 - c) The State Highway Access Category Assignment Schedule, as revised.
 - d) The Colorado Department of Transportation (CDOT) M&S Standard Plans
 - e) Vicinity Map
 - f) Exhibit A, Traffic Signal Escrow Table prepared by LSC Transportation Consultants
 - g) Approved Traffic Report, signed and sealed by Jeff Hodsdon, PE #31684, dated November 3, 2015.
9. This Access Permit is issued in accordance with the 1998 State Highway Access Code (2CCR 601-1), and is based in part upon the information submitted by the Permittee. This Access Permit is only for the use and purpose stated in the Application and on the Permit. Any changes, based upon existing and/or anticipated future conditions in traffic volumes, drainage, types of traffic, or other operational aspects may render this permit void, requiring a new Application for Access Permit to be submitted for review by the Department and/or Issuing Authority.
10. If necessary, minor changes, corrections and/or additions to the Permit may be ordered by the Department Inspector, other Department representative, or the local authority, to meet unanticipated site conditions. Changes may not be in violation of the State Highway Access Code. All major changes to the permit must be approved in writing by the Department prior to commencement of any work on or within the State Highway right-of-way.
11. Backing maneuvers within and into the State Highway right-of-way are strictly prohibited. All vehicles shall enter and exit the highway right-of-way in a forward movement. Backing into the right-of-way shall be considered a violation of the Terms and Conditions of the Access Permit and may result in the revocation of the Permit by the Department and/or Issuing Authority.
12. This access will be allowed a full movement. However, left turn movements in and out of this access may be prohibited at some future date.
13. Any additional permits and clearances required by other Federal, State, Local Government Agencies or Ditch Companies is the responsibility of the Permittee and/or Applicant.

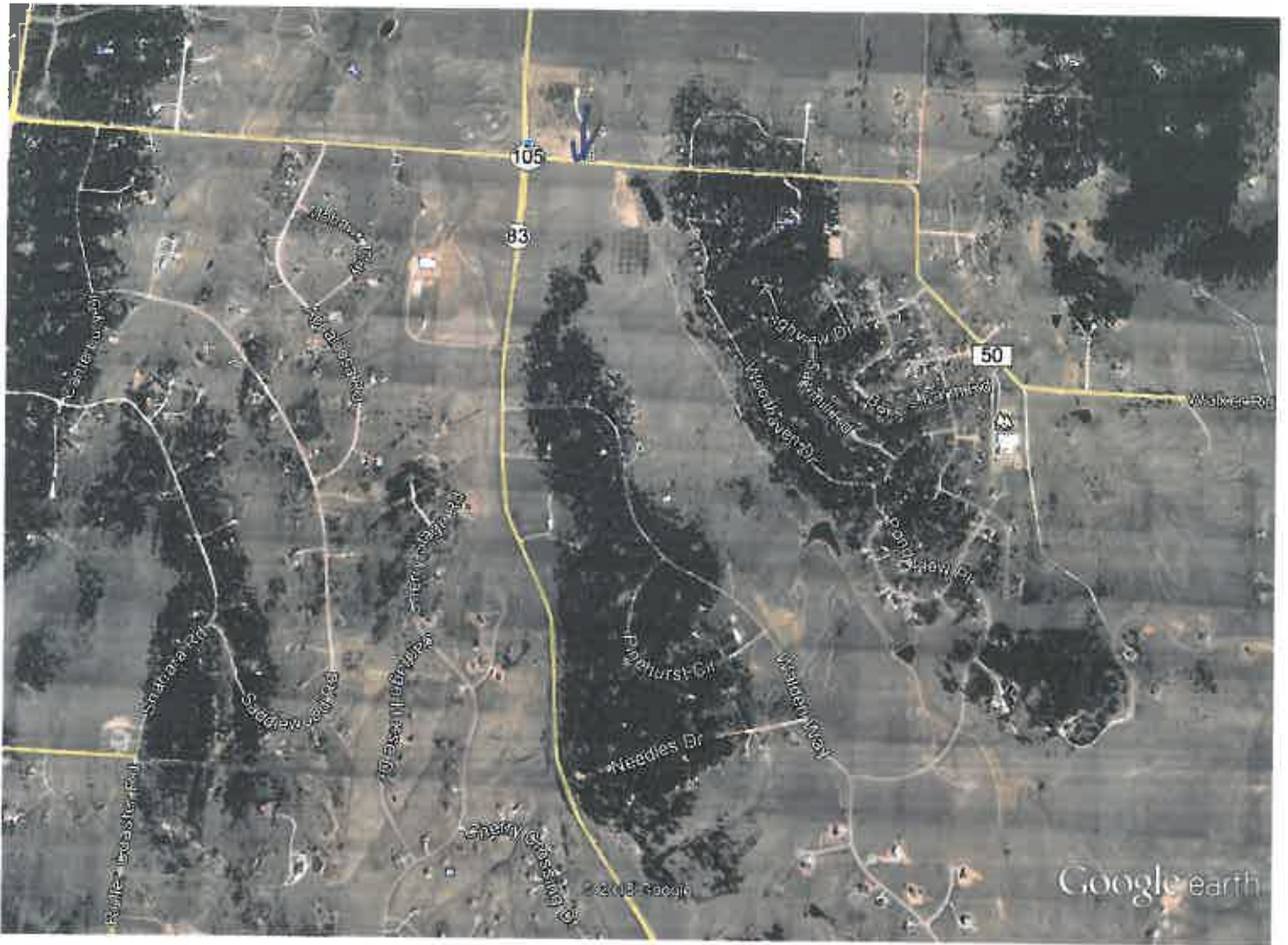
14. The Permittee is responsible for obtaining any necessary additional federal, state and/or local government agency permits or clearances required for construction of the access. Approval of this access permit does not constitute verification of this action by the Permittee.
15. All access permit requirements shall be met prior to the herein-authorized use of this access.
16. The Permittee is responsible for any utilities and/or traffic control devices disrupted by the construction of this access and all expense incurred for repair. There are existing utilities on the highway right-of-way by permit. Owners of those utilities must be contacted. Any work necessary to protect existing permitted utilities, such as encasements, bulwarks, etc. will be the responsibility of the Permittee.
 - a) The Permittee is hereby advised that other utilities may exist within the proposed permit area. Permittee shall implement any and all measures to protect any existing utilities from damage.
 - b) Non-Destructive Air-vacuum Excavation (potholing) to expose the utilities being surveyed to determine their exact depth and location maybe necessary before any work commences. A core hole saw cut is the recommended method of entry through pavement for potholing. Flowfill is required for backfill of the core hole under the pavement or on the roadway.
 - c) The vacuum excavation technique is used not only to expose utilities but also for other uses that are benefited by the non-invasive/non-destructive, environmentally friendly technology such as dewatering or drill fluid/saw cutting fluid removal.
 - d) The Contractor shall utilize a spotter to assist in the visual inspection of all excavation work as it progresses near existing CDOT Intelligent Transportation Systems fiber optic line conduits, pull boxes and manholes. The Contractor shall provide a spotter to aid equipment operators when construction activities are near marked or unmarked fiber lines.
 - e) The spotter shall observe all excavation work as it progresses to ensure that no damage occurs to existing underground fiber lines. When the spotter has visual sight of the underground conduit, the spotter shall notify the equipment operator of the proximity to the conduit and begin to guide the excavation work. The spotter shall guide all excavation work around the conduit to ensure no damage occurs.
17. Additional CDOT permits are required for work involving water, sanitary sewer, gas, electrical, telephone and landscaping within the right-of-way.
18. The Permittee shall maintain adequate, unobstructed sight distance in both directions from the access. When determining the distance between accesses, the point of tangent shall be used where a radius is present, or the beginning of the curb cut. The minimum sight distance that shall be maintained along the highway for the access shall be 450 feet. The minimum sight distance that shall be maintained for the vehicle entering the highway shall be 550 feet.
19. Any landscaping or potentially obstructing objects such as but not limited to advertising signs, structures, trees, and bushes, shall be designed, placed, and maintained at a height not to interfere with the sight distance needed by any vehicle using the access. Planting of tree(s), which will be over 4 inches in caliper at maturity, will not be allowed within 30 feet of the edge of the traveled way. All other objects shall not exceed a total height of thirty inches from the top of final grade. The Department will require any object or landscaping that becomes unsightly or is considered to be a traffic hazard to be removed by the Permittee at no cost to the Department.
20. It is the responsibility of the Permittee to prevent all livestock from entering the State Highway right of way at this access location. Any livestock that does enter the highway right of way shall be the sole responsibility of the Permittee.
21. The access width, for an access without curbs, shall be measured exclusive of the radii or flares. The width of any non-traversal median is not counted as part of the access width. Only the travel portion is measured.

22. All discharges to the CDOT highway drainage system must comply with the applicable provisions of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations, and are subject to inspection by the CDOT and CDPHE. CDOT recommends this development devise and implement a permanent plan for periodic removal and disposal of sediment from detention facilities and for maintenance of development detention facilities. Attached is the CDOT Environmental Clearances Information Summary listing some of the more commonly encountered environmental permits/clearances that may apply to activities and contacts for questions regarding these permits/clearances.
23. Within unincorporated areas, the Department will keep access culverts clean as part of maintenance of the highway drainage system. However, the Permittee is responsible for the repair and replacement of any access-related culverts within the right-of-way. Within incorporated areas, drainage responsibilities for municipalities are determined by statute and local ordinance.
24. The highway drainage system is for the protection of the state highway right-of-way, structures, and appurtenances. It is not designed nor intended to serve the drainage requirement of abutting or other properties beyond undeveloped historical flow. Drainage to the state highway right-of-way shall not exceed the undeveloped historical rate of flow.
25. All drainage appurtenances required for detention and release shall be located and fully maintainable outside the highway right-of-way.
26. This Permit hereby replaces all previous access permit(s) for this ownership, which now become null and void.
27. CDOT retains the right to perform any necessary maintenance work in this area.
28. A "Notice to Proceed" (CDOT Form 1265) is required to complete the access permitting process, even when construction is not required.

Exhibit A

Traffic Signal Escrow Amounts State Highway 83/Walker Road Intersection Walden Preserve 2 Subdivision

Filing	Number of Lots	Status	Portion of total cost estimate of \$61,600
Original Walden Preserve Filing 1	81	Platted & Recorded	\$23,647.39
Original Walden Preserve Filing 2	14	Platted & Recorded	\$4,087.20
Walden Preserve 2 Filing No. 1	22	Approved; They will be recording ASAP. The county just needs a document from CDOT R2 Access evidencing compliance with CDOT requirements.	\$6,422.75
Walden Preserve 2 Filing No. 2	20	Approved; They will be recording ASAP. The county just needs a document from CDOT R2 Access evidencing compliance with CDOT requirements.	\$5,838.86
Subtotal - Current Access Permit for Fil 1 & Fil 2			\$39,996.20
Future Filings			Future Amounts
Walden Preserve 2 Filing No. 3	22	Preliminary Plan Approved; Plat not submitted yet.	\$6,422.75
Walden Preserve 2 Filing No. 4	14		\$4,087.20
Walden Preserve 2 Filing No. 5	13		\$3,795.26
Walden Preserve 2 Filing No. 6	25		\$7,298.58
Subtotal - Future Filings			\$21,603.80
Total		211	\$61,600.00
Source: LSC Transportation Consultants, Inc.			Date: March 31, 2015
Walden Preserve 2 lots 116		Total Signal Cost	\$350,000.00
		% by Walden Pres	17.6%
		Cost to Walden	\$61,600.00



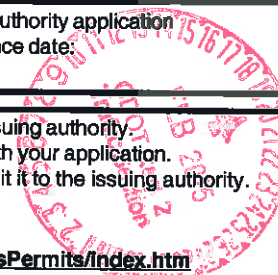
Google earth



Vicinity Map
Access Permit # 215017

COLORADO DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ACCESS PERMIT APPLICATION

Issuing authority application
acceptance date:



- Instructions:
- Contact the Colorado Department of Transportation (CDOT) or your local government to determine your issuing authority.
 - Contact the issuing authority to determine what plans and other documents are required to be submitted with your application.
 - Complete this form (some questions may not apply to you) and attach all necessary documents and Submit it to the issuing authority.
 - Submit an application for each access affected.
 - If you have any questions contact the issuing authority.
 - For additional information see CDOT's Access Management website at <http://www.dot.state.co.us/AccessPermits/Index.htm>
- Please print or type**

1) Property owner (Permittee) El Paso County Public Svc Dpt.-Andre Brackin		2) Agent for permittee (if different from property owner) LSC Transportation Consult.-Jeff Hodsdon															
Street address 3275 Akers Drive		Mailing address 516 North Tejon Street															
City, state & zip CO. Springs, CO. 80922	Phone # (719) 520-6460	City, state & zip CO. Springs, CO. 80903	Phone # (required) (719) 633-2868														
E-mail address AndreBrackin@ElPasoCo.com		E-mail address if available Jeff@LSCTrans.com															
3) Address of property to be served by permit (required) El Paso County Parcel Number 6123001022																	
4) Legal description of property: If within jurisdictional limits of Municipality, city and/or County, which one? <table style="width:100%; border:none;"> <tr> <td style="border:none;">county</td> <td style="border:none;">subdivision</td> <td style="border:none;">block</td> <td style="border:none;">lot</td> <td style="border:none;">section</td> <td style="border:none;">township</td> <td style="border:none;">range</td> </tr> <tr> <td style="border:none;">El Paso</td> <td style="border:none;">See Attach. Plat</td> <td style="border:none;"></td> <td style="border:none;"></td> <td style="border:none;"></td> <td style="border:none;"></td> <td style="border:none;"></td> </tr> </table>				county	subdivision	block	lot	section	township	range	El Paso	See Attach. Plat					
county	subdivision	block	lot	section	township	range											
El Paso	See Attach. Plat																
5) What State Highway are you requesting access from? SH 83A		6) What side of the highway? <input type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W															
7) How many feet is the proposed access from the nearest mile post? 253 feet <input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W from: 28		How many feet is the proposed access from the nearest cross street? 0 feet <input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W from: Walker Rd.															
8) What is the approximate date you intend to begin construction? 5/1/2015																	
9) Check here if you are requesting a: <input type="checkbox"/> new access <input type="checkbox"/> temporary access (duration anticipated: _____) <input type="checkbox"/> improvement to existing access <input checked="" type="checkbox"/> change in access use <input type="checkbox"/> removal of access <input type="checkbox"/> relocation of an existing access (provide detail)																	
10) Provide existing property use vacant land																	
11) Do you have knowledge of any State Highway access permits serving this property, or adjacent properties in which you have a property interest? <input checked="" type="checkbox"/> no <input type="checkbox"/> yes, if yes - what are the permit number(s) and provide copies: _____ and/or, permit date: _____																	
12) Does the property owner own or have any interests in any adjacent property? <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, if yes - please describe: <p style="text-align:center;">Parcel 6115000005</p>																	
13) Are there other existing or dedicated public streets, roads, highways or access easements bordering or within the property? <input type="checkbox"/> no <input checked="" type="checkbox"/> yes, if yes - list them on your plans and indicate the proposed and existing access points.																	
14) If you are requesting agricultural field access - how many acres will the access serve? N/A																	
15) If you are requesting commercial or industrial access please indicate the types and number of businesses and provide the floor area square footage of each.																	
N/A																	
16) If you are requesting residential development access, what is the type (single family, apartment, townhouse) and number of units?																	
Single Family Detached																	
(Walden Preserve 2, Filing No.1)	22																
17) Provide the following vehicle count estimates for vehicles that will use the access. Leaving the property then returning is two counts.																	
Indicate if your counts are <input checked="" type="checkbox"/> peak hour volumes or <input type="checkbox"/> average daily volumes.	# of passenger cars and light trucks at peak hour volumes 1	# of multi unit trucks at peak hour volumes 0															
# of single unit vehicles in excess of 30 ft. 0	# of farm vehicles (field equipment) 0	Total count of all vehicles 1															

18) Check with the issuing authority to determine which of the following documents are required to complete the review of your application.

- a) Property map indicating other access, bordering roads and streets.
- b) Highway and driveway plan profile.
- c) Drainage plan showing impact to the highway right-of-way.
- d) Map and letters detailing utility locations before and after development in and along the right-of-way.
- e) Subdivision, zoning, or development plan.
- f) Proposed access design.
- g) Parcel and ownership maps including easements.
- h) Traffic studies.
- i) Proof of ownership.

1- It is the applicant's responsibility to contact appropriate agencies and obtain all environmental clearances that apply to their activities. Such clearances may include Corps of Engineers 404 Permits or Colorado Discharge Permit System permits, or ecological, archeological, historical or cultural resource clearances. The CDOT Environmental Clearances Information Summary presents contact information for agencies administering certain clearances, information about prohibited discharges, and may be obtained from Regional CDOT Utility/Special Use Permit offices or accessed via the CDOT Planning/Construction-Environmental-Guidance webpage <http://www.dot.state.co.us/environmental/Forms.asp>.

2- All workers within the State Highway right of way shall comply with their employer's safety and health policies/ procedures, and all applicable U.S. Occupational Safety and Health Administration (OSHA) regulations - including, but not limited to the applicable sections of 29 CFR Part 1910 - Occupational Safety and Health Standards and 29 CFR Part 1926 - Safety and Health Regulations for Construction.

Personal protective equipment (e.g. head protection, footwear, high visibility apparel, safety glasses, hearing protection, respirators, gloves, etc.) shall be worn as appropriate for the work being performed, and as specified in regulation. At a minimum, all workers in the State Highway right of way, except when in their vehicles, shall wear the following personal protective equipment: High visibility apparel as specified in the Traffic Control provisions of the documentation accompanying the Notice to Proceed related to this permit (at a minimum, ANSI/ISEA 107-1999, class 2); head protection that complies with the ANSI Z89.1-1997 standard; and at all construction sites or whenever there is danger of injury to feet, workers shall comply with OSHA's PPE requirements for foot protection per 29 CFR 1910.136, 1926.95, and 1926.96. If required, such footwear shall meet the requirements of ANSI Z41-1999.

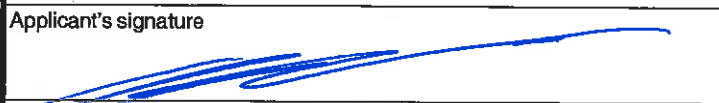
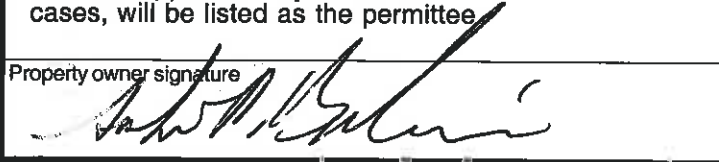
Where any of the above-referenced ANSI standards have been revised, the most recent version of the standard shall apply.

3- The Permittee is responsible for complying with the Revised Guidelines that have been adopted by the Access Board under the American Disabilities Act (ADA). These guidelines define traversable slope requirements and prescribe the use of a defined pattern of truncated domes as detectable warnings at street crossings. The new Standards Plans and can be found on the Design and Construction Project Support web page at: <http://www.dot.state.co.us/DesignSupport/>, then click on *Design Bulletins*.

If an access permit is issued to you, it will state the terms and conditions for its use. Any changes in the use of the permitted access not consistent with the terms and conditions listed on the permit may be considered a violation of the permit.

The applicant declares under penalty of perjury in the second degree, and any other applicable state or federal laws, that all information provided on this form and submitted attachments are to the best of their knowledge true and complete.

I understand receipt of an access permit does not constitute permission to start access construction work.

Applicant's signature 	Print name Jeffrey C. Hodsdon	Date 2/18/15
If the applicant is not the owner of the property, we require this application also to be signed by the property owner or their legally authorized representative (or other acceptable written evidence). This signature shall constitute agreement with this application by all owners-of-interest unless stated in writing. If a permit is issued, the property owner, in most cases, will be listed as the permittee.		
Property owner signature 	Print name Andre P. Brackin	Date Feb. 9, 2015

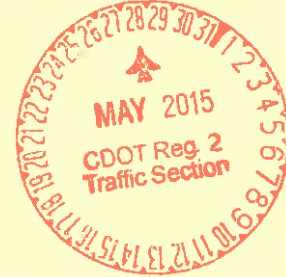


IRREVOCABLE STANDBY LETTER OF CREDIT
NO. 2015-3

DATE: May 15, 2015 AMOUNT: \$39,996.20

EXPIRATION DATE: None

TO: STATE OF COLORADO
DEPARTMENT OF
TRANSPORTATION
REGION 2 TRAFFIC AND
SAFETY
P.O. BOX 536
PUEBLO, CO 81002



RE: Colorado State Highway Access Permit No. 215017

ATTENTION: Valerie Sword. Access Manager, CDOT Region 2

We hereby issue an Irrevocable Standby Letter of Credit in your favor for the account of Custom Castles Building Company, Inc. for the development of Walden Preserve 2, Filing No. 1 and Filing No. 2 as per access permit No. 215017. Requests to draw on this letter of credit will require a written draft presented to us and must be accompanied with the following documents:

1. Your officially signed statement that Custom Castles Building Company, Inc.'s payment of the amount on the referenced access permit is due but unpaid after 30 days' notice to Custom Castles Building Company, Inc.
3. The original letter of credit issued by the undersigned bank.

The issuer shall not be in any way responsible for performance by any beneficiary of its obligations, nor for the form, sufficiency, correctness, genuineness, authority of any person signing, falsification or legal effect of any documents called for if such documents on their face appear in order.

This Letter of Credit is subject to the law and customs and practices of the trade existing in the area where the beneficiary is located, said Letter of Credit shall be subject to the Uniform Customs and Practice of Documentary Credits (1983 Revision,) International Chamber of Commerce, Publication No. 400.

Integrity Bank & Trust - Bank

By: Michael Casarez, Commercial Loan Officer

A handwritten signature in blue ink, appearing to read 'Michael Casarez'.

LSC TRANSPORTATION CONSULTANTS, INC.

516 North Tejon Street
Colorado Springs, CO 80903
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lscs.com


TRANSPORTATION
CONSULTANTS, INC.

May 15, 2015

Valerie Sword
Region 2 Access Manager
CDOT - Region 2 Traffic Section
905 Erie Avenue
Pueblo, CO 81002



RE: Notice to Proceed Request
Walden Preserve 2 Filings 1 & 2
LSC #144380

Dear Valerie:

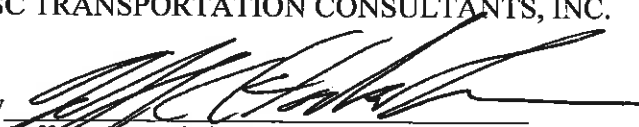
The purpose of this letter is to request the Notice to Proceed (NTP) for Access Permit number 201017 along with the finalized access permit. Please find enclosed the signed access permit (signed by the permittee, the County Engineer), the permit fee, and the letter of credit from Integrity Bank. From our previous discussions, it is our understanding that a letter of credit would be acceptable to CDOT in lieu of a cash escrow to satisfy permit condition number 4b.

Regarding the letter of credit process, the following is our understanding. When CDOT starts a project to install the signal referenced in the access permit, assigns a project code to the project, and opens a project financial account, CDOT will send a letter requesting payment of the \$39,996.20 by Custom Castles Building Company, Inc., and Custom Castles Building Company, Inc. agrees to pay that amount within 30 days of receipt of that request. If CDOT receives that payment within that time, CDOT will return the letter of credit to Custom Castles Building Company, Inc. in exchange for the payment and deposit the funds in the signalization project account. If CDOT does not receive that payment within that time, but not otherwise, CDOT may draw on the letter of credit and will deposit the funds in the signalization project account.

Provided the attached letter of credit is in a form acceptable to CDOT, it is our understanding that the terms requirements for issuance of the NTP have been met. Please prepare and issue the final permit and NTP as soon as possible as these items are required for subdivision plat recordation.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By 
Jeffrey C. Hodsdon, P.E., PTOE
Principal

JCH:bjwb

Enclosed: Executed Access Permit
Permit Fee Check
Letter of Credit from Integrity Bank

CUSTOM CASTLES BUILDING CO., INC.

PH. 719-488-2598
1230 SCARBROOK CT
MONUMENT, CO 80132

6626

82-699/1070

DATE 5/15/15

PAY TO THE ORDER OF

C DOT

\$ 300⁰⁰

Three hundred & 00/100

DOLLARS

 Security Features Details on Back.



Integrity
BANK & TRUST
P.O. BOX 1580 1480 CIPRANI LOOP
MONUMENT, CO 80132 1-877-577-2289

Walden Development

FOR AP215017

Permitt Fee

[Signature] MP

#103912

⑈006626⑈ ⑆