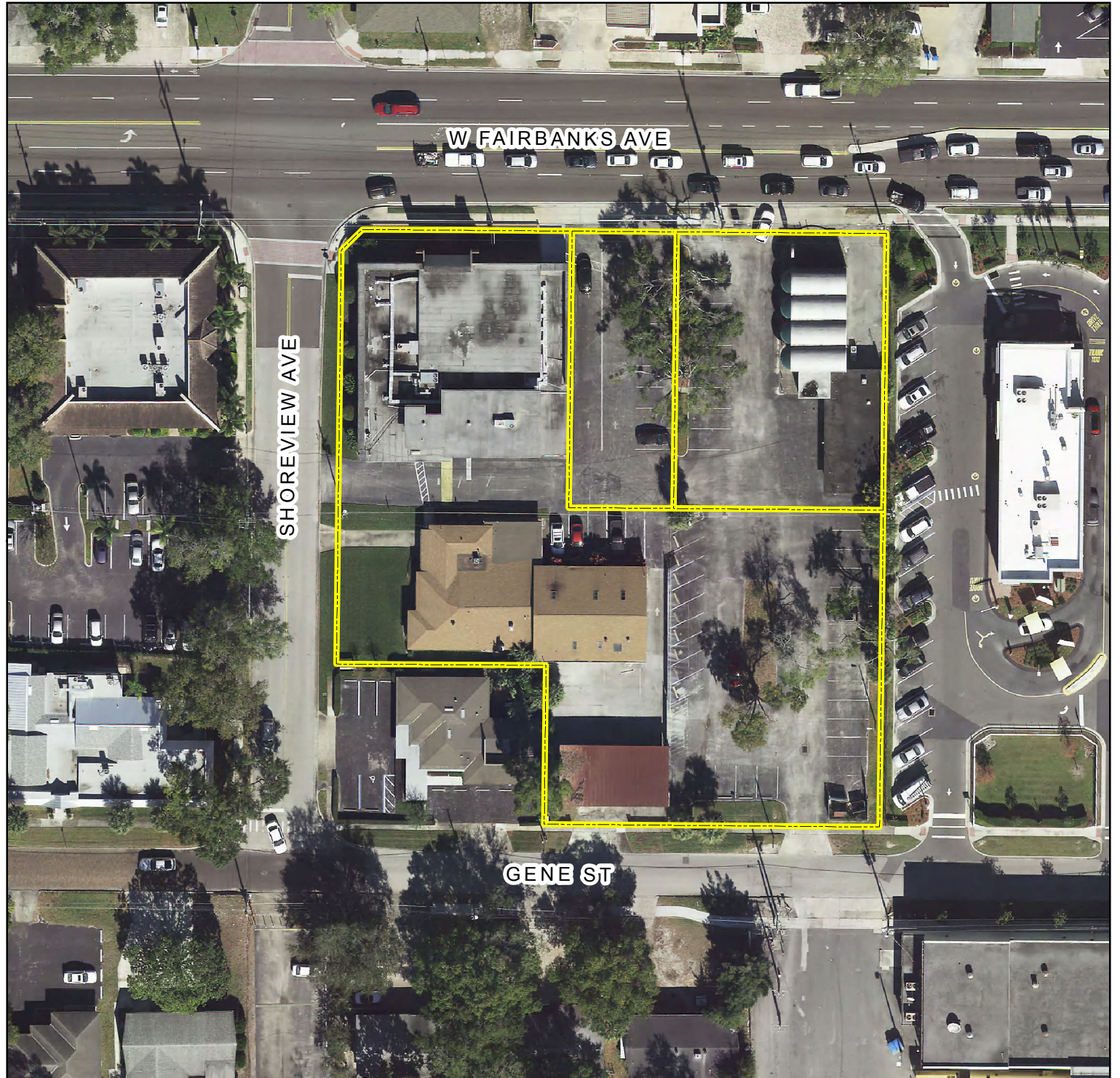




SITE LOCATION
1350/1324/1308
W FAIRBANKS AVENUE
City of Winter Park
Florida





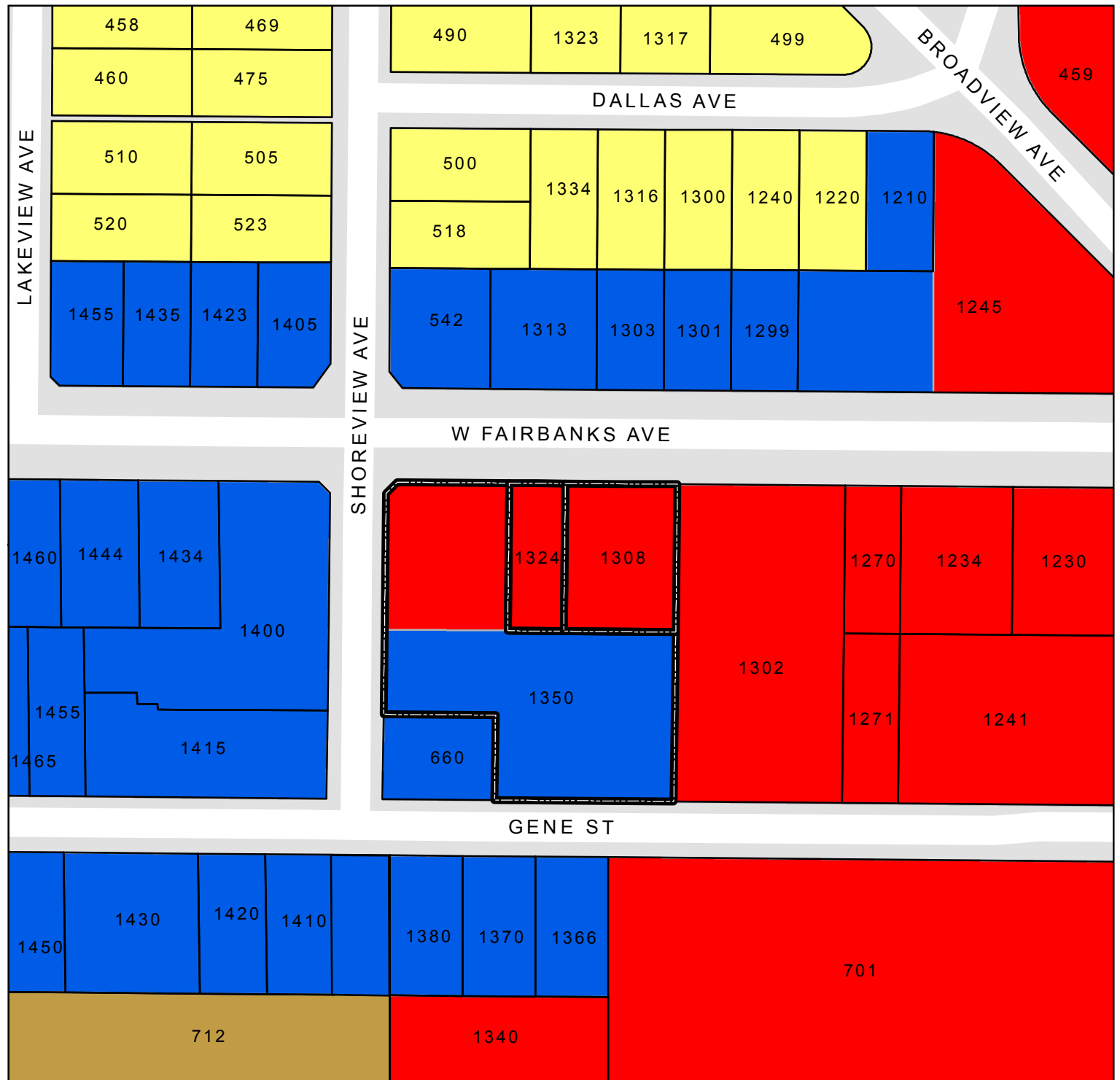
FUTURE LAND USE

**1350/1324/1308
W FAIRBANKS AVENUE**

City of Winter Park
Florida

Future Land Use

- Commerce
- Office Professional
- Medium Density Residential
- Single Family



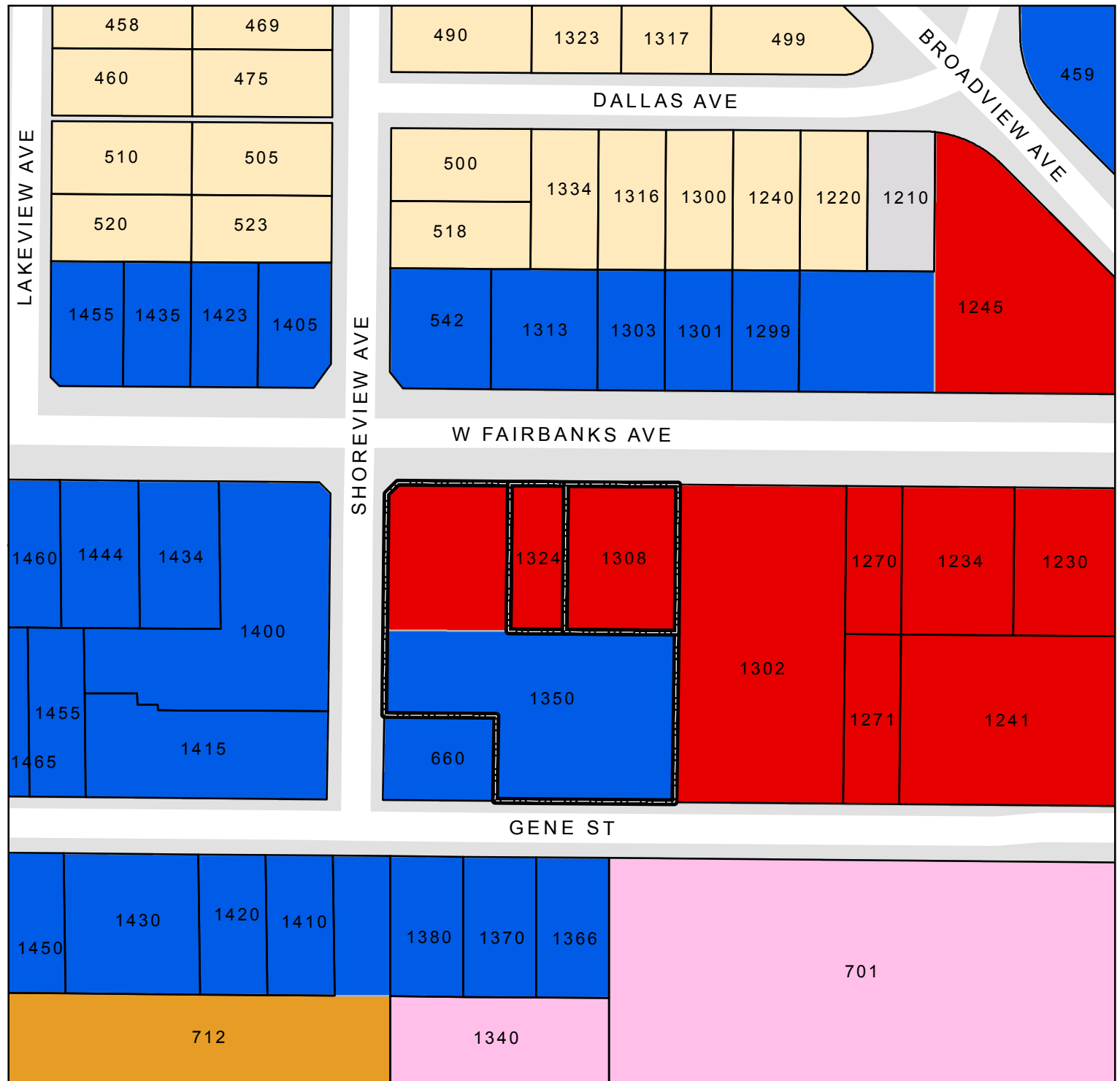
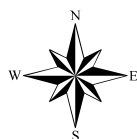


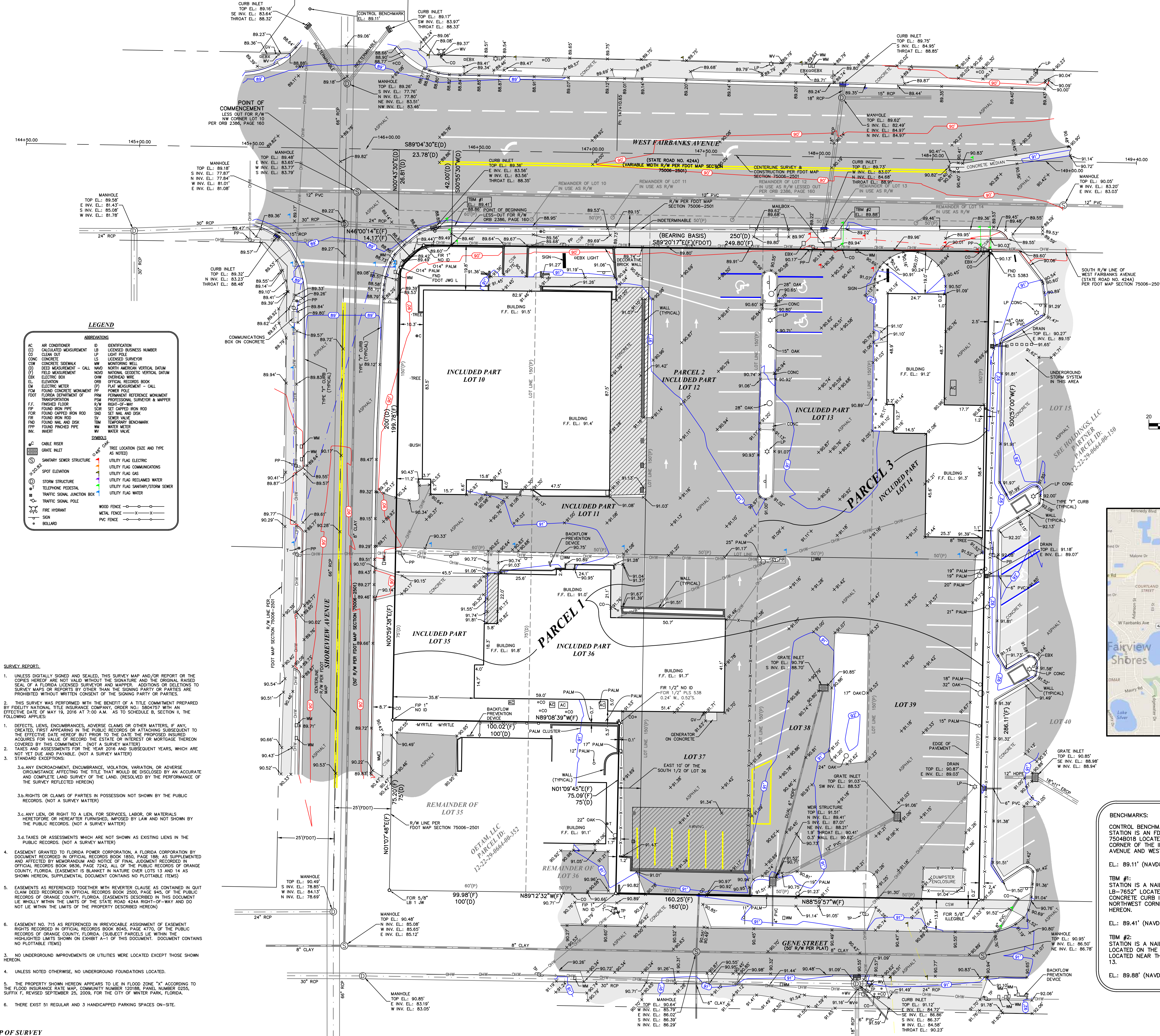
ZONING MAP **1350/1324/1308** **W FAIRBANKS AVENUE**

City of Winter Park
Florida

Zoning

- C-1
- C-3
- O-1
- PL
- R-1A
- R-3





LEGAL DESCRIPTION:

PARCEL 1:
LOTS 10 AND 11, THE NORTH HALF OF LOTS 35 AND 36, THE EAST 10 FEET OF THE SOUTH HALF OF LOT 36, AND ALL OF LOTS 37 THRU 39, BEVERLY PARK, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK K, PAGE 45, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LESS ANY PORTION THEREOF USED FOR RIGHT-OF-WAY PURPOSES.

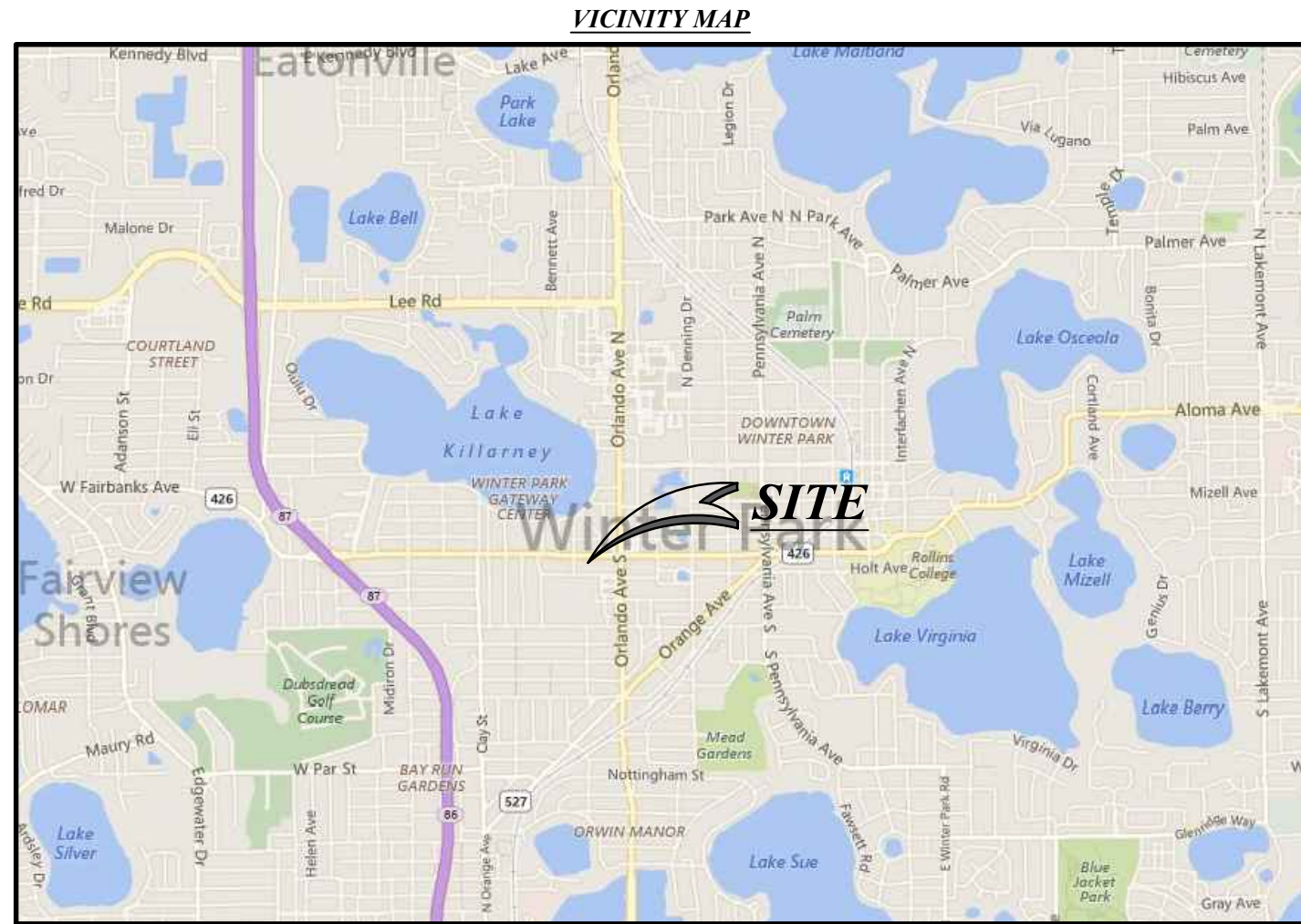
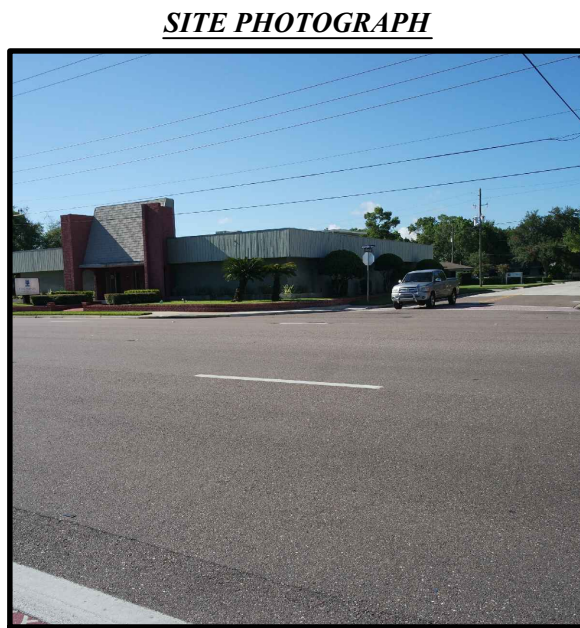
PARCEL 2:
LOT 12, BEVERLY PARK AS PER PLAT THEREOF AS RECORDED IN PLAT BOOK "K", PAGE 45, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE STATE OF FLORIDA RECORDED IN OFFICIAL RECORDS BOOK 2386, PAGE 160 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA BEING DESCRIBED AS FOLLOWS:

THAT PART OF:
LOT 12, BEVERLY PARK SUBDIVISION, ACCORDING TO PLAT RECORDED IN PLAT BOOK "K", PAGE 45, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LYING NORTH OF A LINE DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 10, BEVERLY PARK SUBDIVISION, THEN RUN N00°43'30"E, 26.81 FEET, THENCE RUN S89°04'30"E, A DISTANCE OF 23.78 FEET, THENCE RUN S00°55'30"W 42 FEET, FOR THE POINT OF BEGINNING, THENCE RUN S89°20'17"E 286.35 FEET FOR THE END OF THIS DESCRIBED LINE.

PARCEL 3:
LOTS 13 AND 14, BEVERLY PARK ACCORDING TO A PLAT THEREOF RECORDED IN BOOK "K", PAGE 45, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. LESS ANY PORTION THEREOF USED FOR RIGHT-OF-WAY PURPOSES.



BENCHMARKS:
CONTROL BENCHMARK:
STATION IS AN FOOT BENCHMARK NUMBER 75046018 LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF SHOREVIEW AVENUE AND WEST FAIRBANKS AVENUE.

EL: 89.11' (NAVD88)

TBM #1:
STATION IS A NAIL AND DISK STAMPED "EBI LB-7652" LOCATED ON THE TOP OF THE CONCRETE CURB INLET LOCATED NEAR THE NORTHWEST CORNER OF PARCEL 1 AS DESCRIBED HEREON.

EL: 89.41' (NAVD88)

TBM #2:
STATION IS A NAIL AND DISK STAMPED "LB-714" LOCATED ON THE CONCRETE CURB INLET LOCATED NEAR THE NORTHEAST CORNER OF LOT 13.

EL: 89.88' (NAVD88)

TO LEON CAPITAL GROUP, LLC; SQUIRE PATTON BOGGS (US) LLP; FIDELITY NATIONAL TITLE INSURANCE COMPANY, L.P. 221 S. ORANGE, LLC A TEXAS LIMITED LIABILITY COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A) (NONE PROVIDED), 7(A), 8, 9, 13, 16, AND 20 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON 07/26/2016.

AND

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECTION AND MEETS THE STANDARDS OF PRACTICE REQUIREMENTS OF CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE.

8/1/2016
HENRY A. KILBURN, PSM
SURVEYOR AND MAPPER NUMBER: LS-6661
DATE SIGNED

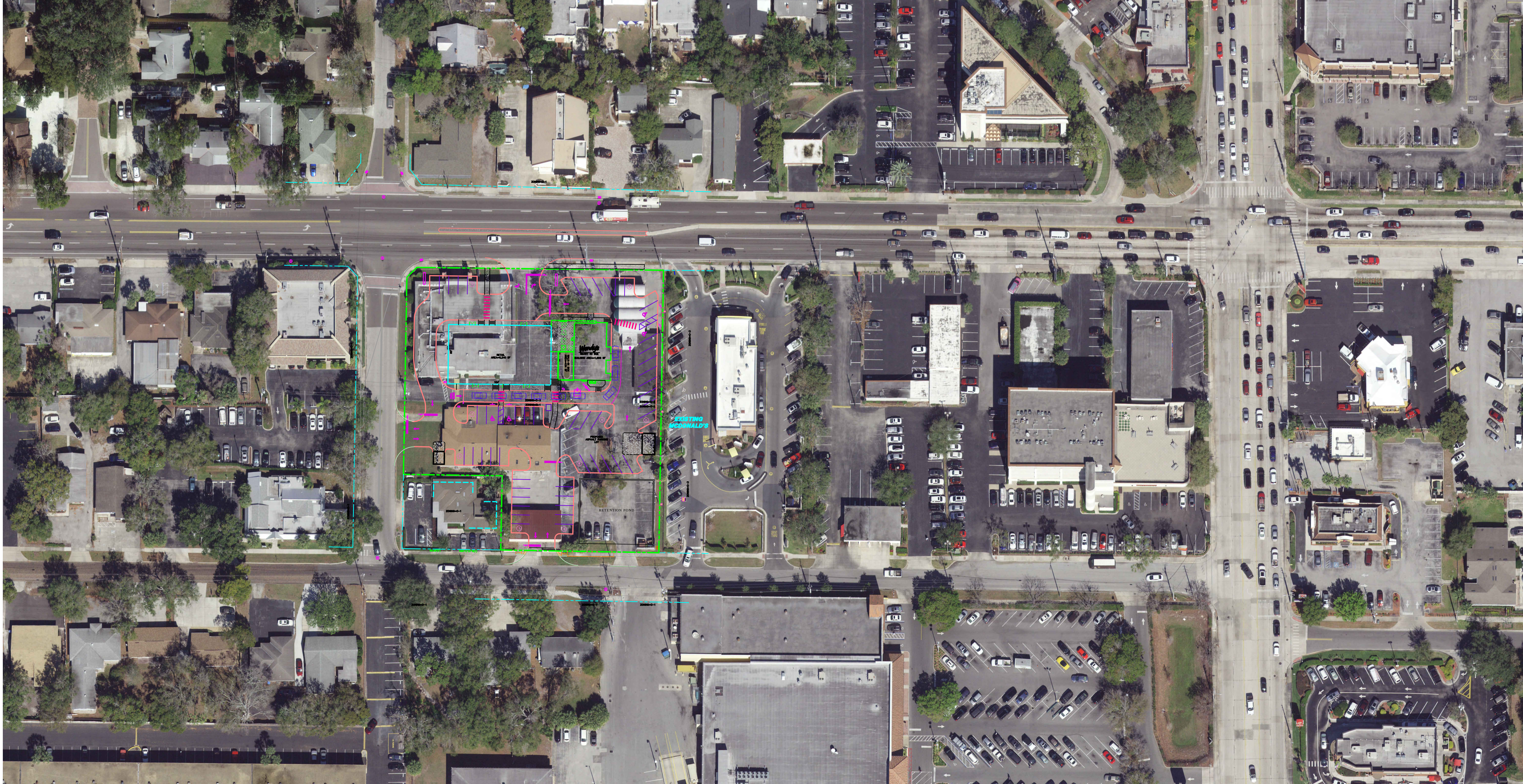
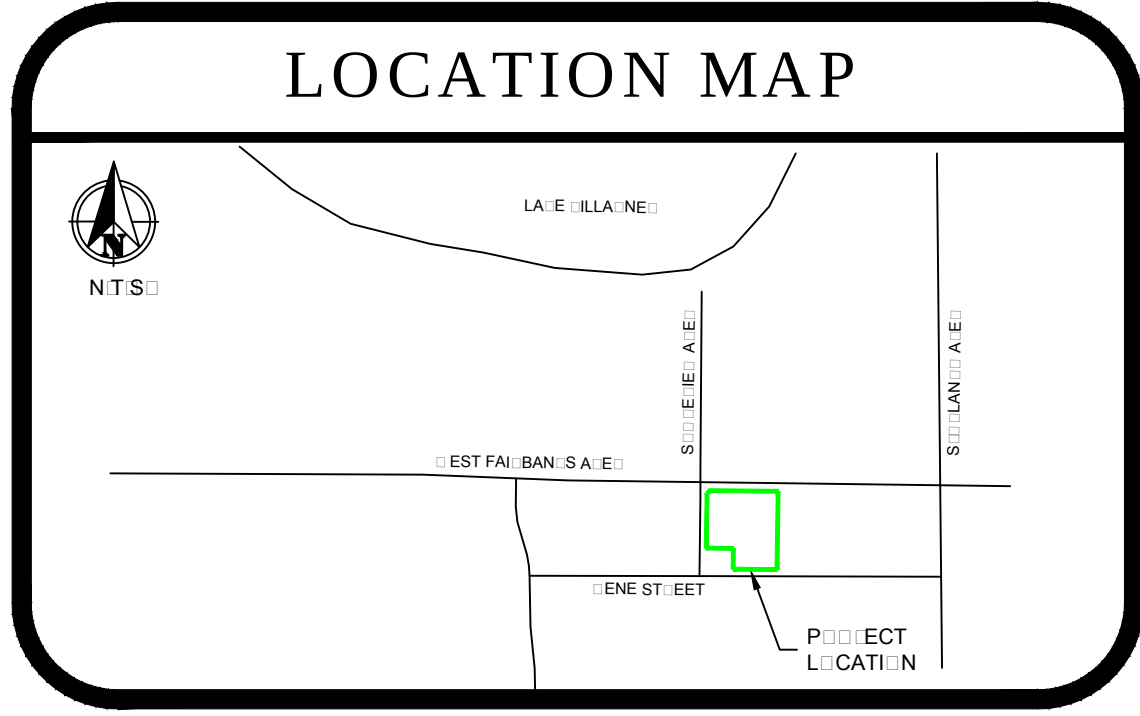
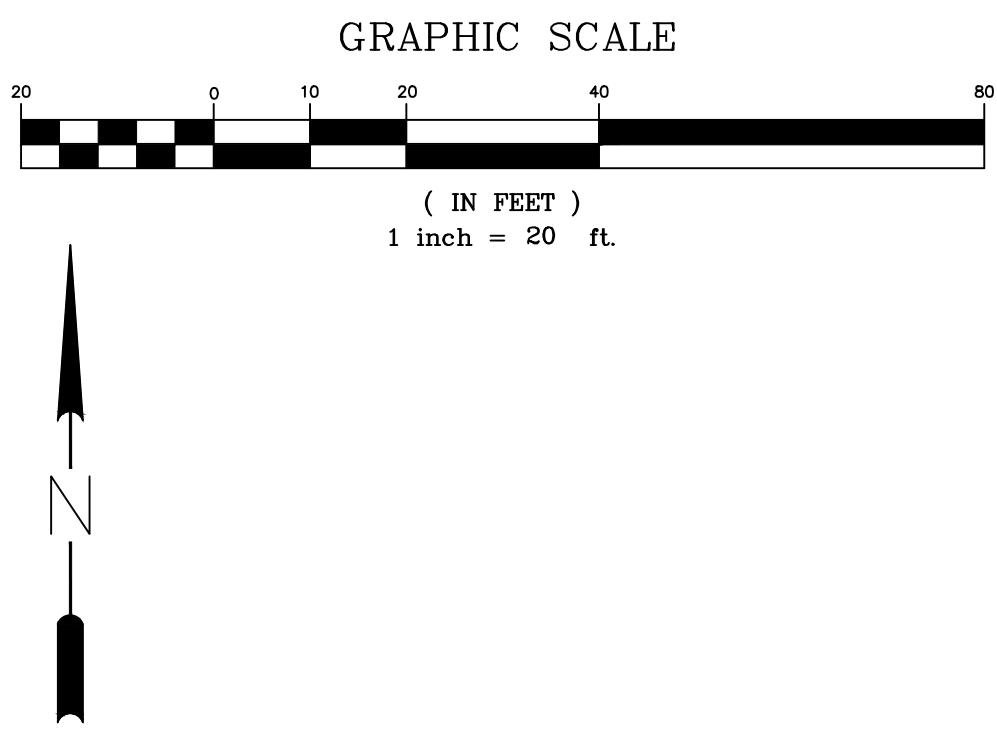
ALTA/NSPS LAND TITLE BOUNDARY AND TOPOGRAPHIC SURVEY
1308 WEST FAIRBANKS AVENUE
LOTS 37-39 AND PARTS OF LOTS 10-14, 35 AND 36
BEVERLY PARK
ORANGE COUNTY, FLORIDA

REVISIONS: APD.

DATE OF SURVEY: 07/26/2016
DRAWN: EWB
CHECKED: HAK
REVISION:
FILE: LC19ALTAX.dwg

PROJECT NUMBER: LCGR0019

SHEET NO.

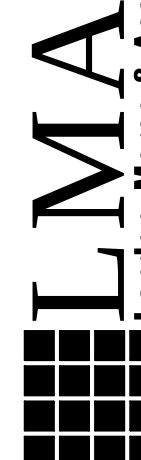


© 2018
Landon, Moree & Associates, Inc.
Anyone copying this document in any manner without the
expressed consent of LANDON, MOREE & ASSOCIATES, INC.
shall be prosecuted to the full extent of the law.
NOT TO BE USED FOR ANY OTHER PURPOSE

NOT TO BE USED FOR ANY OTHER PURPOSE

AERIAL EXHIBIT

EB 401.6

**LMA**
Landon, Moree & Associates, Inc.
Civil & Environmental Engineers - Planners - Surveyors
31622 U.S. 19 NORTH PALM HARBOR, FLORIDA 34684
Toll Free 1-800-262-7960, WWW.LMAENR.COM

WENDY'S & RETAIL

☐ INTEL PA

☐ INTEL PA

☐ INTEL PA

☐ INTEL PA

FAIRBANKS, LLC

3500 Maple Avenue, Suite 1600

ATLANTA, GA 30321

Scale: 1"=20'

Scale: 1"=20'

Scale: 1"=20'

Scale: 1"=20'

ELM

ELM

ELM

ELM

11-30-18

11-30-18

11-30-18

11-30-18

300-65

300-65

300-65

300-65

NOTICE TO CONTRACTOR/OWNER

CONTRACTOR/OWNER

CONTRACTOR/OWNER

CONTRACTOR/OWNER

NOTICE TO CONTRACTOR/OWNER

CONTRACTOR/OWNER

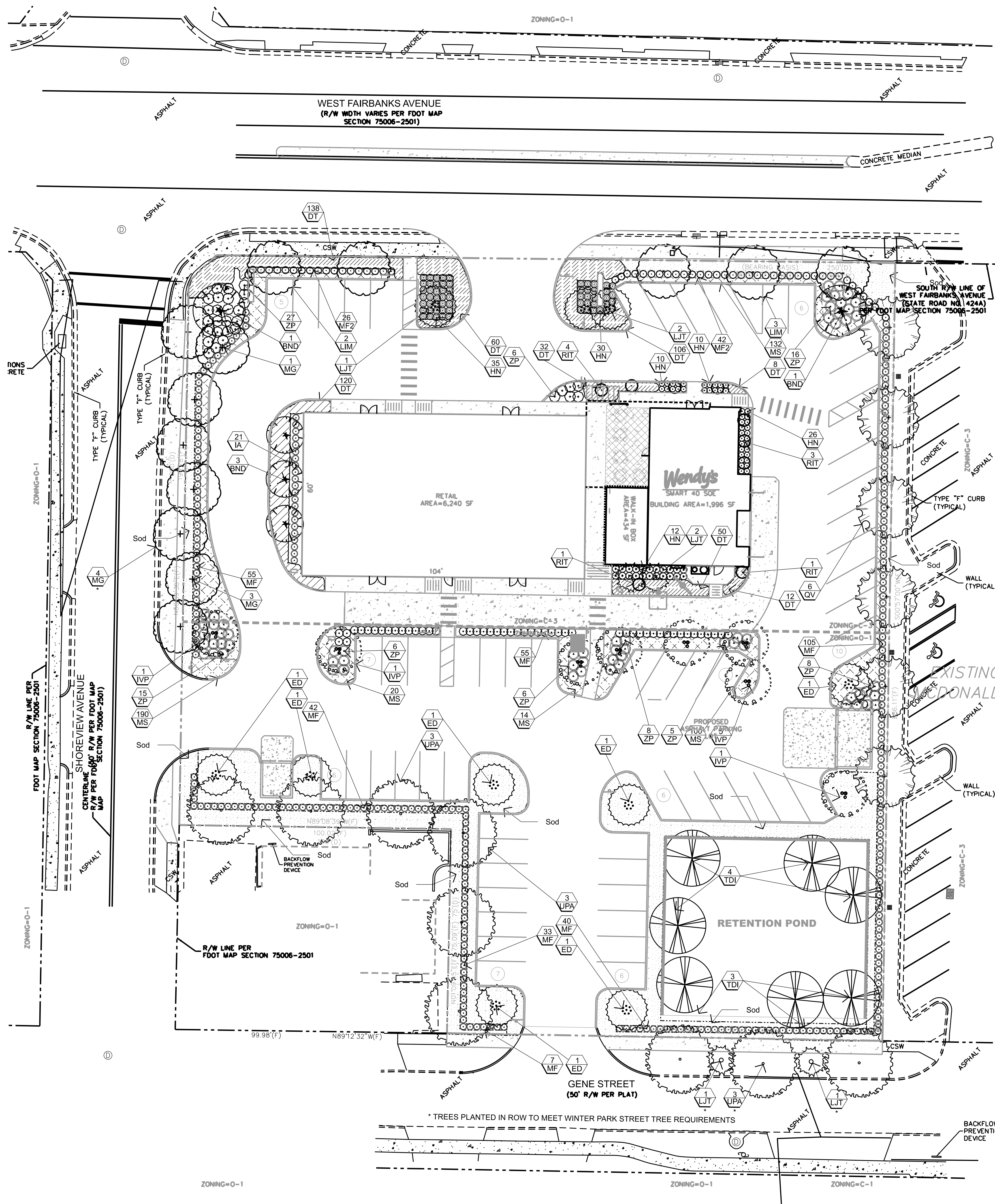
CONTRACTOR/OWNER

CONTRACTOR/OWNER

S

OF

1



WENDYS WINTER PARK

WINTER PARK, FLORIDA

Terra Tectonics design group international, inc.727-441-4504

rev 1-9-19

12/3/2018

Project No. 18-869

LANDSCAPE PLANT SCHEDULE

ALL PLANT MATERIALS SHALL BE GRADED AS "FLORIDA FANCY" UNDER THE FLORIDA NURSERY GRADES AND STANDARDS 2015 EDITION.

Quantity	Symbol	Common Name	Botanical Name	CONTAINER SIZE	MINIMUM ROOTBALL SIZE	MINIMUM CALIPER	MINIMUM SPECIFIC SIZE REQUIREMENTS
Trees							
5	LIM	MUSCOGEE Crepe Myrtle	LAGERSTORMEA indica 'Muscogee'	65 GALLON	36"	3"	12' HT X 48" CROWN SPREAD
7	TDI	Bald Cypress	TAXODIUM distichum	65 gallon	28"	3"	12' HT X 48" CROWN SPREAD
8	IVP	ILEX vomitoria 'pendula'	Weeping Ilex	100 gallon	36"	3"	12' HT X 48" CROWN SPREAD
5	BND	BETULA nigra 'Dura-Heat'	River-Birch-Dura-Heat	100 gallon	36"	3"	multi-trunk- 12' HT X 48" CROWN SPREAD
8	UPA	ULMUS parvifolia 'ALEE'	Alee Elm	100 gallon	36"	3"	12' HT X 48" CROWN SPREAD
6	QV	Live Oak 'Boardwalk'	QUERCUS virginiana 'Boardwalk'	65 GALLON	36"	3"	12' HT X 48" CROWN SPREAD
8	MG	DD Blandchard Magnolia	MAGNOLIA grandiflora 'DD Blandchard'	100 gallon	36"	3"	12' HT X 48" CROWN SPREAD
7	ED	Japanese Blueberry	ELAEOCARPUS decipiens	25 GALLON	28"	2"	7' crown x 36" spread, 48" ct
7	LJT	Ligustrum Tree	LIGUSTRUM japonica	25 GALLON	28"	2"	7' crown x 36" spread-multi-trunk
61	Total trees planted on-site			container:	on center spacing:	size specifications:	
Shrubs							
21	IA	Anise	ILLICIUM floridanum	3 GALLON	30"	16"	16" ht x 14" spr. full
9	RIT	India Hawthorn Standard	RHAPHIOCEPHE'S indica 'Standard'	15 gallon		42"	42" ht x 36" spread 24" standard
123	HN	Dwarf Hamelia	HAMELIA nodosa	3 GALLON	24"	12"	12" ht x 14" spr. full
337	MF	Simpson stopper	MYCANTHES fragrans	3 GALLON	30"	16"	16" ht x 14" spr. full
68	MF2	Simpson stopper	MYCANTHES fragrans	7-GALLON	30"	30"	30" ht x 16" spr. full
97	ZP	Coontie	ZAMIA pumila	7-GALLON	32"	16"	16" ht x 14" spr. full
Groundcover / Vines							
498	DT	Variegated Flax Lily		3 GALLON	24"	12"	12" ht. x 12" spr.
456	MS	Sunshine Mimosa		1 GALLON	14"	1	1 gallon pots 18" on center spacings 4" ht x 12" spread
SOD							
19500	SOD	Bahia	PASPALUM notatum	patch and repair as needed	(CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT QUANTITIES FOR COMPLETE INSTALLATION. ACTUAL AMOUNTS MAY VARY FROM AMOUNTS INDICATED.)		
0	SOD	EMPIRE ZOYSIA	ZOYSIA japonica "EMPIRE"		(CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT QUANTITIES FOR COMPLETE INSTALLATION. ACTUAL AMOUNTS MAY VARY FROM AMOUNTS INDICATED.)		
Total Site Irrigation:							
19500	SF +/-	Turf Irrigation					
9930	SF +/-	Shrub Irrigation					
250	LF +/-	Loop Main					
1	EA	1" EXISTING WATER METER - use for irrigation-contractor to include backflow device and shut off valve					
Miscellaneous Plant Materials And Site Work:							
88	CY	Pine Bark Mulch					
1	Bags	Pre-Emergent Herbicide	20 lbs for plant beds	EA			
4	Bags	Fertilizer: 6-6-6	for sod - do not fertilize in the first 30 days after installation	50 lb. bag			
1	Bags	Fertilizer: 16-4-8		50 lb. bag			

NOTES:

- LANDSCAPE MAINTENANCE SHALL BE BY PROPERTY OWNER AND WENDY'S
- IRRIGATION SHALL BE MAINTAINED BY PROPERTY OWNERS AND WENDY'S.



UTILITIES NOTE:
ALL UTILITIES TO REMAIN IN PLACE EXCEPT AS INDICATED ON THE DRAWINGS. CONTACT 811 AT LEAST 48 HOURS PRIOR TO EXCAVATION FOR VERIFICATION OF EXISTING UTILITY LOCATIONS. NOT ALL UTILITIES ARE MEMBERS OF THE "ONE CALL" SYSTEM; THEREFORE, DIRECT CONTACT WITH THE UTILITY COMPANY MAY BE REQUIRED.

MULCH NOTE:
A LAYER OF MULCH TO A MINIMUM DEPTH OF THREE (3) INCHES SHALL BE PROVIDED IN PLANT BEDS AND AROUND INDIVIDUAL TREES IN TURF/GRASS AREAS.

TREE PROTECTION NOTE:
1. PROTECTIVE BARRIERS AND THE USE OF OTHER MEASURES TO PREVENT TREE DAMAGE (PESTICIDE APPLICATIONS, ROOT PRUNING, INTENSIVE MULCHING, ETC. TO REDUCE SOIL COMPACTION) WILL BE REQUIRED AS NECESSARY.

2. SITE CLEARING AND TREE REMOVAL ARE NOT TO OCCUR PRIOR TO APPROVAL AND INSPECTION OF PROTECTIVE BARRICADES. OR BEFORE THE PROJECT'S BUILDING PERMITS HAVE BEEN ISSUED.

3. ALL UTILITIES SHALL BE ROUTED AROUND PROTECTED AREAS AND EXISTING TREE DRIPLINES. NO TRENCHES SHALL BE DUG UNDER DRIPLINES OR IN PROTECTED AREAS. PLANTING UNDER DRIPLINES SHALL BE HAND DUG AND ROUTED AROUND ROOTS GREATER THAN 1". DO NOT CUT ANY ROOTS GREATER THAN 1".

4. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE PRUNED BY AN ISA-CERTIFIED ARBORIST, IN ACCORDANCE WITH THE INTERNATIONAL ARBORIST ASSOCIATION (ISA) PRUNING STANDARDS, AND ANSI 300 PRUNING STANDARDS

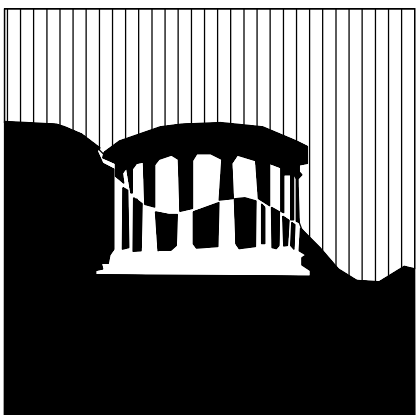
5. ALL EXOTIC INVASIVE SPECIES AS DETERMINED BY THE STATE OF FLORIDA, I.E., BRAZILIAN PEPPER (SHINTUS TERIBINTHIFOLIA), PUNK TREES (MALEUCA LUCADENDRON) AND CHINESE TALLOW (SAPIUM SEBIFERUM) MUST BE REMOVED AS A CONDITION OF SITE DEVELOPMENT.

WHERE NECESSARY DUE TO THEIR PROXIMITY TO PROTECTED PLANT MATERIAL, HAND REMOVAL WILL BE REQUIRED. SHOULD THIS REMOVAL BE TO A DEGREE THAT A POTENTIAL FOR EROSION IS CREATED, THE AREA MUST BE RESTABILIZED WITH SUITABLE MATERIAL AND SODDED.

FOR SUBDIVISION PROPERTIES, INVASIVE PLANT REMOVAL SHALL NOT BE REQUIRED ON A LOT UNLESS THE LOT DEVELOPMENT IS PROPOSED AS PART OF THE INFRASTRUCTURE DEVELOPMENT. SEE WETLAND RESTORATION PLAN.

6. NATIVE PINES UNDERGO STRESS DURING CONSTRUCTION. MAKING THEM SUCEPTABLE TO PINE BARK BEETLES. THE APPLICATION OF AN APPROVED INSECTICIDE SHALL BE APPLIED ONE WEEK PRIOR TO CONSTRUCTION ACTIVITY TO ALL PINE TREES TO REMAIN WITHIN 25 FEET OF CONSTRUCTION. CONTRACTOR TO EMPLOY SERVICES OF FLORIDA LICENSED, BONDED AND INSURED PESTICIDE APPLICATION COMPANY WHO WILL FOLLOW APPROVED AND ESTABLISHED TECHNIQUES AND METHODS IN ACCORDANCE WITH STATE AND LOCAL ORDINANCES.

7. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.



TERRA TECTONICS
design group international, inc.

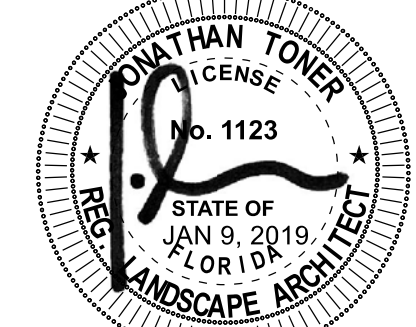
LANDSCAPE ARCHITECTS
LAND PLANNERS
URBAN DESIGNERS

1188 Kapp Drive
Clearwater, FL 33765
FL Reg. Lic. # 254
727-441-4504 ph.

LANDSCAPE CONSTRUCTION DOCUMENTS

WENDY'S WINTER PARK
WINTER PARK, FLORIDA

SEAL



JONATHAN H. TONER FL 0001123

Date: 12-1-2018
Scale: 1"=20'
Revision:
No. Date: Description:

1) 12-19-18 REV PER COMMENTS
2) 1-9-19 ADDED STREET TREES

Job No: 18-869

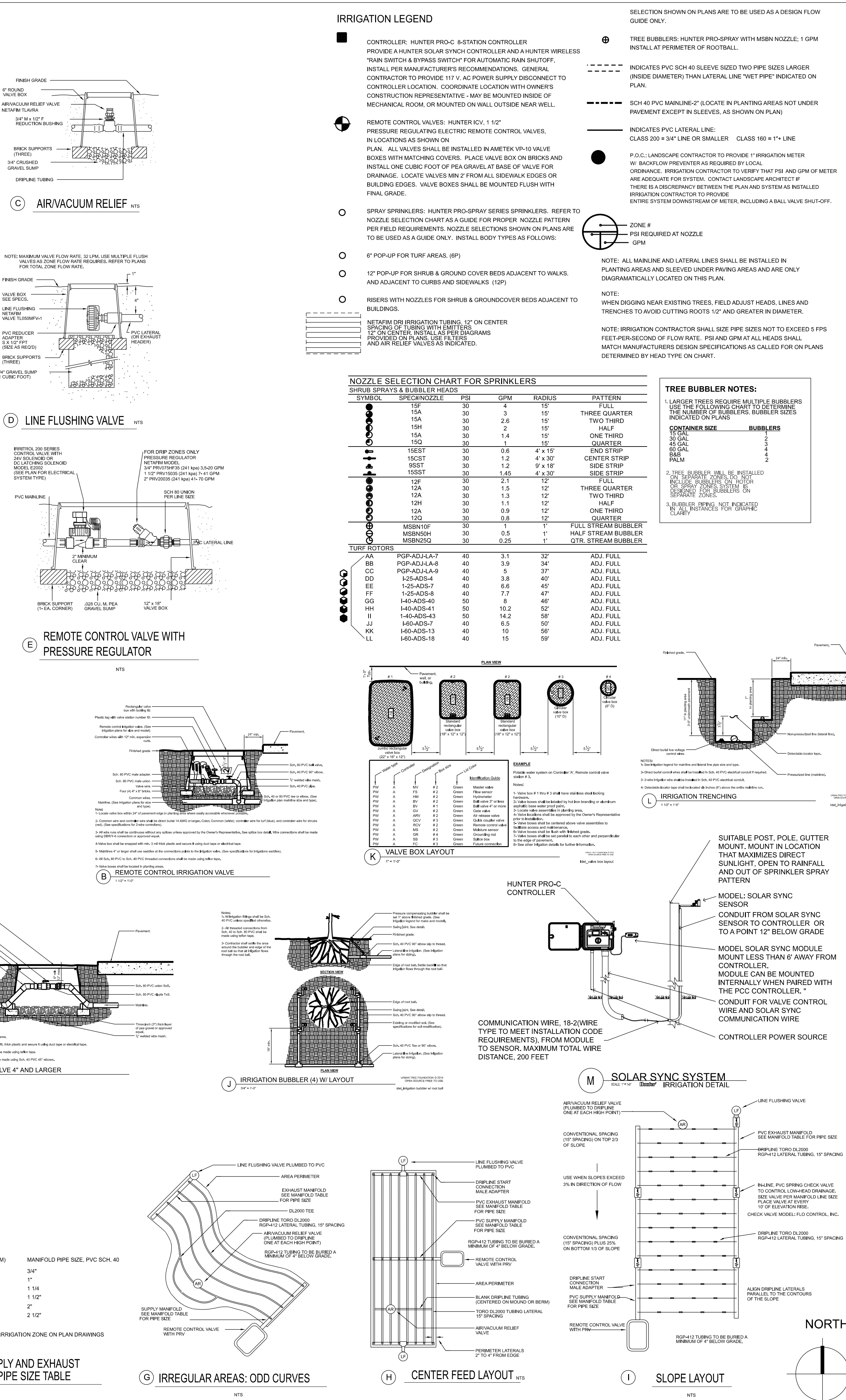
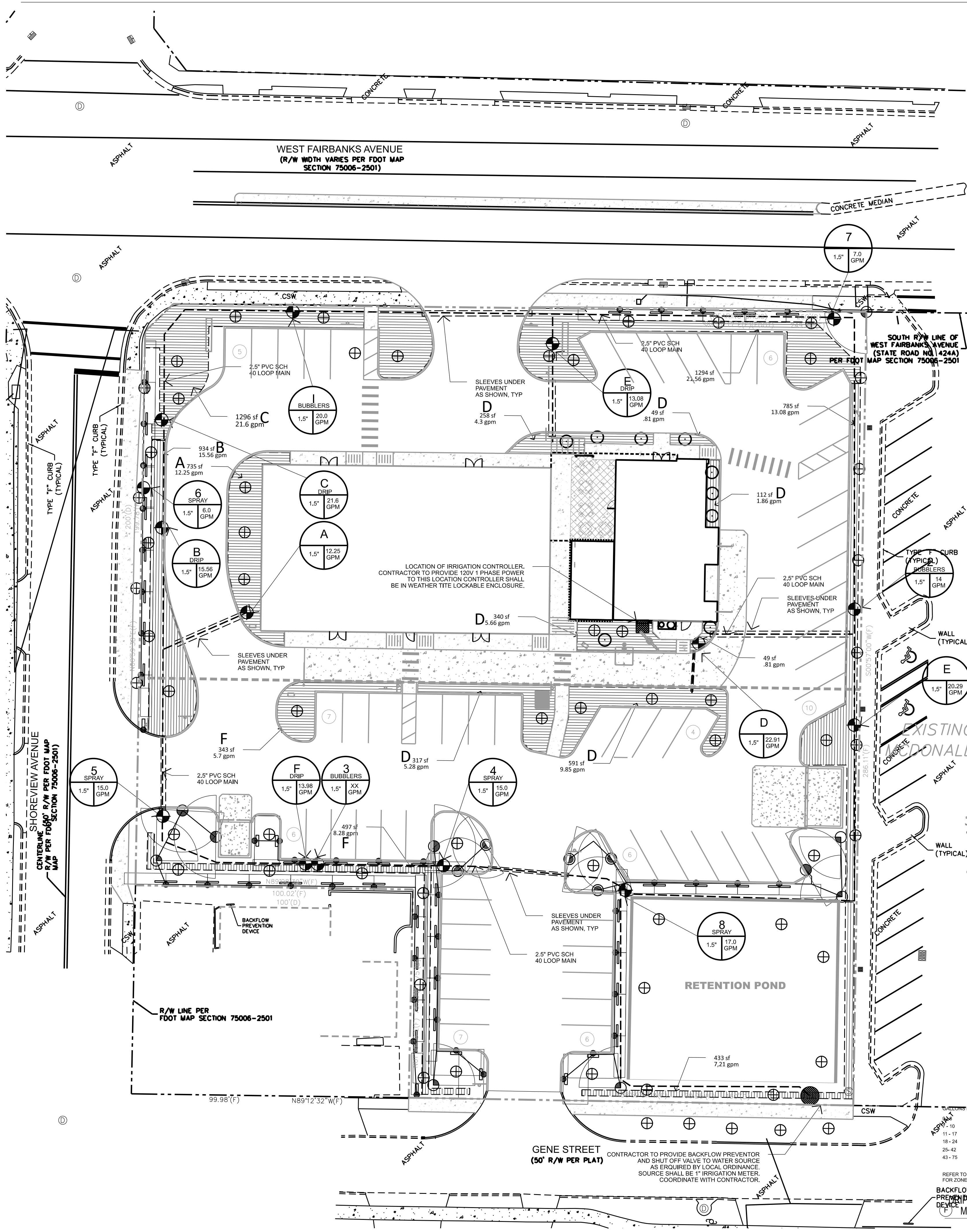
Drawn by: jt Checked by: JT

Sheet

L1

Of 3 Sheets

LANDSCAPE CONSTRUCTION DOCUMENTS



TERRA TECTONICS
design group International, Inc.

LANDSCAPE ARCHITECTS
LAND PLANNERS
URBAN DESIGNERS

1188 Kapp Drive
Clearwater, FL 33765
FL Reg. Lic. # 254
727-441-4504 ph.

IRRIGATION CONSTRUCTION DOCUMENTS

WENDY'S WINTER PARK
WINTER PARK, FLORIDA

SEAL

JONATHAN H. TONER
LICENSE No. 1123
STATE OF FLORIDA
LANDSCAPE ARCHITECT

JONATHAN H. TONER FL 0001123

Date: 12-1-2018
Scale: 1"=20'
Revision:
No. Date: Description:

1) 12-19-2018 REV PER COMMENTS
2) 1-9-19 ADDED STREET TREES

Job No: 18-869

Drawn by: JT Checked by: JT

Sheet **L2** Of 3 Sheets

GENERAL LANDSCAPE NOTES AND SPECIFICATIONS

- IMPLEMENTATION OF THIS PLAN AND SPECIFICATIONS SHALL CONFORM TO THE HIGHEST STANDARDS OF THE TRADE AND TO ALL PREVAILING ORDINANCES AND CODES. THE SPECIFICATIONS CONTAINED HEREIN SHALL SUPPLEMENT THE WRITTEN SPECIFICATIONS.
- PRIOR TO SUBMISSION OF BID, THE LANDSCAPE CONTRACTOR SHALL VISIT THE SITE AND FULLY INFORM HIMSELF OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE ACCEPTED.
- THE WORK INCLUDES SOIL PREPARATION, FINISH GRADING, SUPPLYING AND PLANTING OF TREES, SHRUBS, GROUNDCOVERS, AND SOD OF THE SPECIES, SIZES AND QUALITY AS SHOWN ON THE DRAWINGS AND/OR AS SPECIFIED HEREIN. FURTHER, THE WORK SHALL INCLUDE THE THIRTY DAY (30) DAY MAINTENANCE OF ALL LANDSCAPE AND SOD/SEED AREAS AFTER FINAL ACCEPTANCE BY THE PROJECT ARCHITECT AND OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A LUMP SUM BID PRICE FOR A FULLY AUTOMATIC, 100% OVERLAP COVERAGE, UNDERGROUND IRRIGATION SYSTEM. THE IRRIGATION SYSTEM DESIGN, SPECIFICATIONS AND INSTALLATION SHALL CONFORM TO THE STANDARDS OF THE "IRRIGATION ASSOCIATION", 1931 N. FORT MYERS DRIVE #1009, ARLINGTON, VA 22209, AND TO THE STANDARDS OF THE "FLORIDA IRRIGATION SOCIETY". IRRIGATION SOURCE SHALL BE SHOWN ON THE IRRIGATION PLANS. THE IRRIGATION CONTRACTOR SHALL PROVIDE AN RPZ BACKFLOW PREVENTION DEVICE PER LOCAL GOVERNING CODES AND ORDINANCES. SIZE ACCORDINGLY. SUBMIT PLAN PER WRITTEN SPECIFICATIONS TO ARCHITECT FOR APPROVAL.
- THE LANDSCAPE CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK, PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE ARCHITECT AND OWNER'S CONSTRUCTION REPRESENTATIVE IF REQUESTED.
- THE LANDSCAPE AND IRRIGATION CONTRACTOR SHALL BE PROPERLY LICENSED FOR STATE AND LOCAL REQUIREMENTS AND INSURED. CONTRACTOR SHALL SUPPLY OWNER OR GENERAL CONTRACTOR WITH COPIES OF THE SPECIFIC LICENCE AND INSURANCE AS NEEDED AND REQUESTED.
- ALL WORK IN THE RIGHT OF WAY AREAS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE LOCAL AND/OR STATE HIGHWAY JURISDICTION AS WELL AS GENERAL CONTRACTOR REQUIREMENTS.
- CONSTRUCTION EQUIPMENT IS NOT ALLOWED ON SITE UNTIL A HABITAT MANAGEMENT AND LANDSCAPE PERMIT IS IN HAND, (AS REQUIRED BY LOCAL ORDINANCES).
- THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS (EXISTING AND PROPOSED), RELATED PAVING, ELEVATIONS, WATER AND ELECTRICAL SUPPLY, ETC. PRIOR TO START OF WORK. NOTIFY THE GENERAL CONTRACTOR AND THE ARCHITECT/OWNER'S AGENT IN WRITING OF UNSATISFACTORY CONDITIONS PRIOR TO START OF WORK. START OF WORK WILL INDICATE ACCEPTANCE OF CONDITIONS AND FULL RESPONSIBILITY FOR COMPLETED WORK.
- VERIFY ALL UNDERGROUND AND ABOVE-GROUND UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IF UNDERGROUND CONSTRUCTION, UTILITIES OR OBSTRUCTIONS ARE ENCOUNTERED DURING THE EXCAVATION OF PLANTING MATERIALS OR PITS, IMMEDIATELY INFORM THE OWNER'S CONSTRUCTION REPRESENTATIVE. ALTERNATE LOCATIONS FOR THE PLANT MATERIALS WILL BE SELECTED BY THE ARCHITECT OR AGENT. SUCH CHANGES IN INSTALLATION SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL CONSENTATION.
- THE LANDSCAPE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ANY AND ALL DAMAGES THAT RESULT FROM HIS ACTIVITIES DUE TO IMPROPER VERIFICATION OF UTILITIES AND/OR OPERATOR ERROR DURING EXCAVATIONS. SEE RELATED CIVIL PLANS FOR ADDITIONAL INFORMATION AND COORDINATE ON-SITE WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO START OF WORK.
- ALL EXISTING TREES SHALL BE INSPECTED BY THE LANDSCAPE CONTRACTOR TO DETERMINE THE EXTENT OF TRIMMING AND PRUNING REQUIRED TO "SHAPE UP" TREES TO A MIN OF 8" DB. THIS WORK SHALL BE DEEMED PART OF THE LANDSCAPE CONTRACTORS PRUNING FOR SERVICES FOR THIS PROJECT SITE.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE LANDSCAPE CONTRACTOR WITH A FINISH GRADE OF (PLUS OR MINUS) ONE TENTH OF ONE FOOT. GRADE SHALL BE CLEAR OF CURBS AND WALKS ADJACENT TO PAVING SHALL BE TWO INCHES (2") BELOW TOP OF CURBS, WALKS OR PAVING IN ORDER TO CONTAIN SOD OR MULCH AS SPECIFIED.
- THE SITE CONTRACTOR SHALL EXCAVATE ANY LIMESTONE BASE MATERIAL OR OTHER MATERIALS NOT CONDUCTIVE TO PROPER PLANT GROWTH FROM ALL PLANTING AREAS. WHERE INDICATED, THE SITE CONTRACTOR SHALL PROVIDE BERM, MOUNDING OR CROWNS TO PARKING ISLANDS OF INADEQUATE SOIL COMPACTED TO TWENTY INCHES DEEP. CROWN PARKING ISLANDS TO BE A MAXIMUM OF 12" TO THE CENTER FOR DRAINAGE WITH A SLOPE NOT TO EXCEED 3:1. IF THE EXISTING GRADE WITHIN THE MOUNDING OF AN EXISTING TREE SHOWN TO REMAIN IS MODIFIED BY SIX INCHES (6") OR MORE, THEN THE SITE CONTRACTOR SHALL PROVIDE TREE WELLS OR RETAINING WALLS AS REQUIRED FOR THE PRESERVATION OF EXISTING TREES TO REMAIN. SEE ADDITIONAL SPECIFICATIONS AND DETAIL FOR TREE BARRICADES.
- NO GRADE CHANGE SHALL OCCUR WITHIN THE CANOPY DRIP LINE OF PINE TREES AND 2/3 THE CANOPY DRIP LINE OF HARDWOOD TREES TO BE SAVED. THE FOOTPRINT OF UTILITIES (I.E. STORM, SANITARY, POWER/LINES, WATER, SEWER, ETC.) AS WELL AS THE LIMITS OF TRENCHING OR FILL MATERIAL IS NOT PERMITTED TO ENCRUSH WITHIN THE ABOVE STATED LIMITS.
- REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION.
- ALL STORMWATER RUNOFF MUST BE DIRECTED TO THE RETENTION AREAS.
- PLANT MATERIAL SHALL BE GRADED FLORIDA NO. 1 OR BETTER AS OUTLINED UNDER THE "GRADES AND STANDARDS FOR NURSERY PLANTS", PARTS I AND II, STATE OF FLORIDA, 2015 DEPARTMENT OF AGRICULTURE AND SHALL CONFORM TO AAM STANDARDS FOR NURSERY STOCK (ANSI 260.1-1980).
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. PLANS SHALL BE BID BY ALL BIDDERS AS SHOWN. SUBMIT WRITTEN VERIFICATION OF ANY PLANT MATERIALS THAT MAY BE UNAVAILABLE AS SPECIFIED, TO THE LANDSCAPE ARCHITECT DURING BIDDING, OTHERWISE IT WILL BE EXPECTED FOR THE CONTRACTOR TO SUPPLY THE MATERIALS AS SHOWN ON PLAN.
- COORDINATE THE INSTALLATION OF TREES AND PLANTS SO AS TO NOT OBSCURE THE SITE VISIBILITY TRIANGLE AT INTERSECTIONS AND THE VISIBILITY OF DIRECTIONAL SIGNS OR LIGHTS. FIELD ADJUST TREE AND PALM LOCATIONS AS REQUIRED TO AVOID CONFLICT WITH LIGHT POLES, SIGNS AND OTHER TRAFFIC SAFETY DEVICES.
- THE OWNER SHALL PROPERLY MAINTAIN TREES AND PLANT MATERIALS AFTER FINAL ACCEPTANCE IN ORDER TO MAINTAIN UNOBSTRUCTED VISIBILITY FOR PEDESTRIANS AND VEHICLES FOR A PERIOD AS DETERMINED BY CONTRACT.
- IN THE EVENT OF A VIOLATION BETWEEN THE PLANT LIST AND THE ACTUAL NUMBER OF PLANTS SHOWN OR NOTED ON THE PLANS IN PLANT CALLOUTS, THE PLANT CALLOUTS SHALL CONTROL. LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY DURING BID PROCESS IN WRITING.
- PLANTS AND TREES SHALL BE SET PLUMB, AT THE SAME GRADE AT WHICH THEY HAVE BEEN GROWN, BEST SIDE FACING PRIME VISIBILITY AND THOROUGHLY WATERED IN TO ESTABLISH AIR ROOTS. IF SITE CONDITIONS ARE UNFAVORABLE TO VIGOROUS PLANT GROWTH, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.
- THE CONDITIONS ARE CONSIDERED ACCEPTED BY CONTRACTOR IF WRITTEN NOTIFICATION IS NOT RECEIVED BY OWNER OR LANDSCAPE ARCHITECT BEFORE COMMENCEMENT OF INSTALLATION OF THE MATERIALS.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER DRAINAGE FOR ALL TREES AND PLANT MATERIALS. TREES SET TOO HIGH OR LOW MAY BE REJECTED. TREES ACCORDING TO THE PLANT LIST SHALL BE SET TO THE CORRECT GRADE.
- SEE DETAILS FOR PLANTING, STAKING AND GUYING. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SECURING ALL TREES, PALMS AND LARGE SHRUBS IMMEDIATELY AFTER PLANTING. ALL GUY WIRES SHALL BE FLAGGED AND ALL STAKES SHALL BE DRIVEN TO STAKES.
- FLUSH WITH SURROUNDING GRADE FOR PUBLIC SAFETY. PLASTIC ARBOR-TIES WILL NOT BE CONSIDERED AS ACCEPTABLE FOR TIEING TREES TO STAKES.
- PLANTING SOIL FOR ALL TREES AND SHRUBS SHALL CONSIST OF 60% PEAT, 20% COMPOST, AND 20% WOOD PRODUCT FOR AERATION. PLANTING MIX SHALL HAVE A PH OF 6.0-6.5 / MIX 25% PLANTING SOIL WITH 75% ON-SITE SOIL FOR PLANTING SOIL BACKFILL. TEST SOIL OVER THE ENTIRE SITE AFTER FILL OPERATIONS FOR PROPER PH AND DRAINAGE. AMEND SOIL AS NECESSARY FOR PLANT MATERIAL REQUIREMENTS PER SOIL TEST RESULTS. BACKFILL ALL TREES AND SHRUBS AT THE FOLLOWING RATES:
 - TREES 3.5" CAL. AND GREATER +1 CUBIC YARD EACH
 - TREES 1" - 3" CAL./30 GAL. +1/2 CUBIC YARD EACH
 - GALLON CONTAINER SIZE = 1/4 CUBIC YARD EACH
 - GALLON CONTAINER SIZE = 35 PLANTS PER CUBIC YARD
 - GALLON CONTAINER SIZE = 65 PLANTS PER CUBIC YARD
 - ROOTED CUTTINGS/4" POTS = 6" DEPTH OF ANNUAL BED MIX
 - ROOTED CUTTINGS, 2" AND 4" POT MATERIALS ARE TO BE PLANTED IN A 6" DEPTH
- PREPARED BED CONTAINING AN "ANNUAL BED MIX" COMPOSED OF 1/3 PEAT, 1/3 COMPOSTED PINE BARK, 1/3 SAND AND DOLOMITE WITH A 6.0-6.5 pH. TREAT ROOT AREA WITH "ROOTS, INC." ROOT ENHANCER PER MANUFACTURER'S DIRECTIONS.
- FERTILIZE WITH SLOW RELEASE "OMNOCOTE" OR EQUAL, WITH A MINIMUM OF 75% SLOW RELEASE FORMULA AND 25% FAST RELEASE FORMULA BLEND. FERTILIZE AS PER MANUFACTURER'S DIRECTIONS.
- SHRUBS SHALL BE PLANTED IN CIRCULAR PLANT PITS WITH A DIAMETER OF 16" GREATER THAN THE ROOTBALL OR CONTAINER. TREES SHALL BE PLANTED IN CIRCULAR PITS WITH A DIAMETER OF 28" GREATER THAN ROOTBALL OR CONTAINER AND BACKFILLED WITH PLANTING SOIL MIX. REMOVE CONTAINER AND CUT ROOTS IN 3 PLACES FOR OPTIMUM GROWTH. REMOVE TOP 12" OF BURLAP OR GROW BAG CONTAINERS FROM TREES.
- FERTILIZE TREES, SHRUBS AND GROUNDCOVERS WITH 0-2-4-2 BY BROADCASTING EVENLY THROUGHOUT THE PLANTING AREA WITH A PROPERLY CALIBRATED SPREADER PER MANUFACTURER'S RECOMMENDED APPLICATION RATE. THOROUGHLY WATER PLANT MATERIALS AFTER FERTILIZING. CONTRACTOR TO SUBMIT FERTILIZER SPECIFICATIONS FOR APPROVAL AT TIME OF CONTRACT SIGNATURE.
- CONTRACTOR TO PROVIDE SUBMITTALS FOR APPROVAL FOR THE GRANULAR HERBICIDE FOR THE PLANT BED. CONTRACTOR UPON APPROVAL OF PRODUCT, SHALL APPLY GRANULAR HERBICIDE (CONTAINS SURFLIN) PER MANUFACTURER'S DIRECTIONS TO ALL PLANT BED AREAS PRIOR TO MULCHING. USE A PROPERLY CALIBRATED GRANULAR APPLICATOR AND DO NOT APPLY CHEMICAL DIRECTLY ONTO LEAVES OF PLANTS.
- ALL PLANT BEDS AND TREE RINGS SHALL BE MULCHED WITH A 3" DEPTH LAYER OF PINEBARK TYPE MULCH, UNLESS SPECIFIED DIFFERENTLY ON PLANS. DEPTH SHALL BE MEASURED AFTER COMPACTION. REMOVE ANY STRAY MULCH FROM CANOPIES AND LEAVES OF SHRUBS & GROUNDCOVERS AND PROPERLY "TUCK-IN" MULCH ALONG EDGES.
- BED LINES SHALL HAVE WELL DEFINED TRENCH EDGES TO CONTAIN MULCH. HEDGE LINES SHALL BE LAID OUT WITH STRINGLINE IN THE FIELD PER PLAN LAYOUT. TREES OR SHRUBS SHOWN IN A LINE ON THE PLAN SHOULD HAVE THE TRUNKS/CANOPIES IN PROPER ALIGNMENT UPON VISUAL INSPECTION AFTER INSTALLATION. GROUNDCOVER AND SHRUB BEDS SHALL BE PLANTED ON TRIANGULAR SPACING WITH PLANTS INSTALLED AND FACED FOR OPTIMUM GROWTH INTO THE BED.
- TREES, PALMS AND SHRUBS SHALL BE PLANTED SO AS TO MAINTAIN ADEQUATE CLEARANCE FROM THE EDGE OF WALKS AND ALONG BUILDING WALLS. CURVILINEAR BED LINES SHALL BE ACURATELY SCALED FROM PLANS AND LAID-OUT IN THE FIELD. IF FIELD CONDITIONS ARE DIFFERENT FROM PLANS, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OR ON-SITE REPRESENTATIVE FOR FIELD ADJUSTMENT OF MATERIALS.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO MAKE MINOR ADJUSTMENTS, IN THE FIELD, TO THE LOCATIONS OF TREES, PALMS, SHRUBS AND GROUNDCOVERS, WITHOUT CHARGE FROM THE LANDSCAPE CONTRACTOR. REVISIONS CAN BE MADE FOR AESTHETIC OR HEALTH, SAFETY WELFARE REASONS OR REQUEST FROM OWNER.
- SODDING IS REQUIRED IN ALL UNPAVED AREAS WITHIN THE SITE BOUNDARIES UNLESS OTHER WISE SHOWN OR NOTED. ALL SOD AREAS SHALL BE PLANTED WITH ST. AUGUSTINE "FLORATAY", SAND GROWN, SOD-SOD TYPE OR OF A TYPE AS SPECIFIED ON PLANS. SOD SHALL BE FREE FROM PESTS AND WEEDS, LAID IN STAGGERED ROWS WITH NO GAPS, ROLLED, FERTILIZED AND WATERED IMMEDIATELY AFTER INSTALLATION. SOD SHALL NOT BE LAID ON TOP OF WEEDS, STICKS, ROCKS ETC. PRIOR TO SODDING OR SEEDING. TREAT SOIL WITH "ROUND-UP" PLANT KILLER AT A RATE OF 2 OZ. PER GALLON OR AS PER MANUFACTURER'S INSTRUCTIONS. ALL DEBRIS SHALL BE REMOVED PRIOR TO LAYING SOD. SOD RETENTION SLOPES AND SODDINGS WITH ARGENTINE BAHIA SOD-SOD, PEGGING SOD ON SLOPES 3:1 AND GREATER. SOD ROLLS SHALL BE LAID HORIZONTAL TO PREVAILING SLOPE TO MINIMIZE EROSION.
- ANY AREAS SUBJECT TO EROSION (E.G. GRASS SWALES, RETENTION AREA (EMBANKMENTS)) MUST BE STABILIZED BY SOD-SOD.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE EROSION REPAIRS IF SITE IS FINAL-GRADED BY GENERAL CONTRACTOR FOR SODDING AND A DELAY OF SODDING ACTIVITY BY LANDSCAPE CONTRACTOR IS DETERMINED TO HAVE CAUSED EROSION DAMAGE TO FINAL GRADE.
- FERTILIZE TURF AREAS WITH 16-4-8 FERTILIZER AT THE RATE OF 10 LBS OF NITROGEN PER 1000 S.F. OF TURF AREA. WATER AFTER FERTILIZATION TO THOROUGHLY SATURATE THE SOIL.
- THE IRRIGATION SYSTEM SHALL BE FULLY OPERATING FOR A PERIOD OF TWENTY-FOUR HOURS PRIOR TO START OF PLANTING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY ADDITIONAL HAND-WATERING NECESSARY FOR ALL TREES, SHRUBS, GROUNDCOVERS AND TURF AREAS PRIOR TO FINAL ACCEPTANCE.
- THE JOB SITE SHALL BE KEPT ORDERLY AND REASONABLY CLEAN ON A DAILY BASIS DURING CONSTRUCTION OPERATIONS. UPON COMPLETION, THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL DEBRIS AND WASTE GENERATED BY HIS OPERATIONS ON-SITE, INCLUDING THE CLEANING OF WALKS AND PAVING AS NECESSARY.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY MEASURES TO PROTECT THE CONTRACTOR'S INSTALL AND/OR ON-SITE MATERIALS FROM THEFT PRIOR TO FINAL ACCEPTANCE BY OWNER.
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE. ALL TREES, PLANTS AND/OR GRASSING NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED WITHIN TEN (10) DAYS AFTER WRITTEN NOTICE. ALL PLANT REPLACEMENTS SHALL BE OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THE REPLACEMENTS SHALL BE FURNISHED, AND INSTALLED AS HEREIN SPECIFIED AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION SYSTEM SHALL BE GUARANTEED FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE FROM DEFECTS IN MATERIALS AND WORKMANSHIP. SEE WRITTEN SPECIFICATIONS.
- AN "AS-BUILT" OF THE LANDSCAPE AND IRRIGATION PLANS SHALL BE MADE BY THE LANDSCAPE AND IRRIGATION CONTRACTOR. THE "AS-BUILT" SHALL BE UP-DATED DAILY AND SHALL BE KEPT ON-SITE AT ALL TIMES DURING THE CONSTRUCTION PERIOD. ANY AND ALL

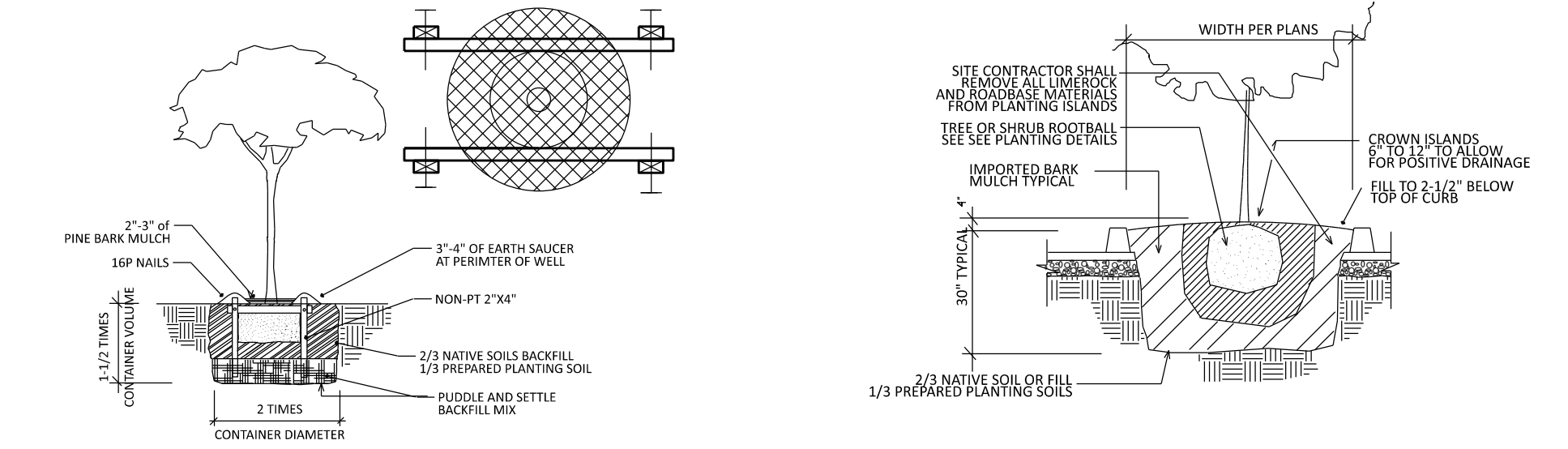
- DEVIATIONS FROM THE ORIGINAL CONSTRUCTION DOCUMENTS SHALL BE DAILY AND ACCURATELY RECORDED. A REPRODUCIBLE OF EACH "AS-BUILT" SHALL BE PROVIDED BY THE LANDSCAPE AND IRRIGATION CONTRACTOR TO THE OWNER'S CONSTRUCTION REPRESENTATIVE AND TO THE ARCHITECT PRIOR TO FINAL ACCEPTANCE AND PAYMENT OF RETAINAGE.
- AT THE TIME OF FINAL ACCEPTANCE, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER WITH A MAINTENANCE MANUAL CONTAINING INSTRUCTIONS FOR THE PROPER CARE OF ALL MATERIALS SPECIFIC TO THE JOB. INCLUDE IRRIGATION TIME/CLOCK OPERATING DIRECTIONS AND MANUFACTURER'S LITERATURE TO OWNER'S REPRESENTATIVE.
 - CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE HOW TO PROPERLY OPERATE THE TIME/CLOCK. THE OWNER SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE AND WATERING OF THE LANDSCAPING AND TURF THIRTY (30) DAYS AFTER ACCEPTANCE.
 - THE LANDSCAPE CONTRACTOR SHALL SUBMIT THE REQUIRED DOCUMENTS IN AN 8-1/2" X 11" FORMAT TO THE LANDSCAPE ARCHITECT OF RECORD PRIOR TO START OF WORK. THE SUBMITTAL SHALL INDICATE THE PROJECT NAME AND LOCATION SHALL BE LABELED ON THE FRONT OF EACH SUBMITTAL WITH THE CONTRACTOR'S NAME, ADDRESS AND PHONE NUMBER LISTED ON THE INSIDE FIRST PAGE WITH THE INDEX ALONG WITH PROJECT NAME AND GENERAL CONTRACTOR SUBMITTAL NUMBER IN FORMATION, INCLUDING THE FOLLOWING:
 - MANUFACTURER'S CUT-SHEETS FOR IRRIGATION COMPONENTS WITH ALL SHRINKER HOSES, PVC PIPE, VALVES, VALVE BOXES, PUMP, CONTROLLER, AND MISCELLANEOUS FITTINGS INCLUDED. INDICATE MATERIAL SPECIFICATION, TYPE, MODEL NUMBER AND MANUFACTURER.
 - NURSERY SUPPLIERS PHOTOGRAPHS AND SPECIFICATIONS FOR REPRESENTATIVE DESCRIPTIONS OF ALL THE PROPOSED LANDSCAPE MATERIALS.
 - SOIL SAMPLE TEST RESULTS. CONTRACTOR SHALL AMEND SOIL AS REQUIRED OR PROPOSED PLANTINGS.
 - ANY MATERIALS ASSOCIATED WITH HARDSCAPE THAT THE LANDSCAPE CONTRACTOR WILL BE SUPPLYING.
 - LANDSCAPE AND IRRIGATION SCHEDULE OF CONSTRUCTION EVENTS. SCHEDULE SHALL BE COMPREHENSIVE AND ALL-INCLUSIVE OF THE CONTRACTOR'S SCOPE OF WORK AND SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR'S SCHEDULE.
 - THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE, TURF AND IRRIGATION SYSTEM FOR A THIRTY DAY (30) ESTABLISHMENT PERIOD AFTER SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE. LANDSCAPE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS TO NECESSARY TO PROPERLY MAINTAIN THE SITE'S LANDSCAPE AND TURF AREAS BY MOWING, EDGING, WEEDING, WATERING, CONTROL OF PESTS, FERTILIZING, AND PRUNING AS NEEDED ON A WEEKLY BASIS. CLEAN UP ALL CLIPPINGS AND PAVED SURFACE AREAS AFTER DAILY MAINTENANCE. CHEMICAL SPRAYS SHALL NOT BE USED FOR WEEDING. USE HAND LABOR TO REMOVE ALL WEEDS. MONITOR THE IRRIGATION SYSTEM FOR PROPER APPLICATION OF WATER TO ALL LANDSCAPE AND TURF AREAS. SPRINKLER HEADS SHALL BE OPERATED, INSPECTED, AND ADJUSTED AS NEEDED FOR PROPER COVERAGE IMMEDIATELY AFTER EVERY MOWING OPERATION.
 - SUPPLEMENT IRRIGATION SYSTEM BY HAND WATERING OR TRUCK WATERING AS NECESSARY FOR PROPER ESTABLISHMENT OF INSTALLED PLANT MATERIALS.
 - ADJUST CONTROLLER TO APPLY ONE INCH OF WATER PER WEEK TO ALL LANDSCAPE AND TURF AREAS. CONTRACTOR'S PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO SAFEGUARD THE GENERAL PUBLIC FROM ALL ON-SITE MAINTENANCE ACTIVITIES. ALL AREAS SHALL BE POLICED FOR LITTER, TRASH, CLIPPINGS, OR OTHER DEBRIS DURING EACH VISIT.
 - A RECORD LOG OF ALL ON-SITE ACTIVITIES WILL BE MAINTAINED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT AT FINAL ACCEPTANCE.

- IRRIGATION NOTES
- IRRIGATION CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL CONDITIONS AND DIMENSIONS AS SHOWN ON THE PLANS PRIOR TO SUBMISSION OF BID. THE PLANS ARE SCHEMATIC, AND THE CONTRACTOR SHALL DETERMINE ANY AND ALL NECESSARY MATERIALS AND LABOR NEEDED TO MEET THE INTENT OF THE PROJECT DOCUMENTS & DRAWINGS.
 - IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND/OR COORDINATING PRIOR TO BEGINNING OF INSTALLATION OF IRRIGATION SYSTEM, WITH GENERAL CONTRACTOR, IN REGARD TO TYPE AND LOCATION OF WATER SOURCE.
 - IRRIGATION CONTRACTOR SHALL PROVIDE A FULLY OPERATIONAL IRRIGATION SYSTEM FOR 100% OVERLAP COVERAGE OF ALL LANDSCAPE AND TURF AREAS AS INDICATED ON THE LANDSCAPE AND IRRIGATION PLANS (SEE WRITTEN SPECIFICATIONS).
 - THE CONTRACTOR SHALL VERIFY EXISTING GP/SP/PS FROM THE PROPOSED WATER SOURCE AND IF NEEDED, THE CONTRACTOR SHALL ADJUST AND BALANCE THE PROPOSED ZONES AS NECESSARY TO MEET ACTUAL GRADIENT REQUIREMENTS. THE CONTRACTOR SHALL ALSO ADD HEADS AS NEEDED FOR FULL 100% COVERAGE IF SCHEMATIC PLAN LOCATIONS ARE INSUFFICIENT.
 - COORDINATE OPERATION OF THE TIME-CLOCK FOR PROPER ZONE SEQUENCING AND OPTIMUM WATERING TIME. VERIFY TIME-CLOCK LOCATION AND START/STOP TIMES OF OPERATION WITH OWNER. TIME-CLOCK SHALL BE LOCATED ON AN EXTERIOR WALK IN A LOCKING WALL MOUNTED UNIT PER THE FOLLOWING. THE GENERAL CONTRACTOR SHALL PROVIDE 320V, 20AMP POWER SUPPLY TO THE TIME-CLOCK. COORDINATE ELECTRICAL SUPPLY REQUIREMENTS WITH THE GENERAL CONTRACTOR.
 - PIPING ON PLANS IS DIAGRAMMATICALLY ROUTED FOR GRAPHIC CLARITY. ACTUAL PLACEMENT SHALL BE LOCATED WITHIN PROPERTY BOUNDARY AND IN "GREENSPACE" AREAS ADJACENT TO PAVING OR STRUCTURES AS PER INDUSTRY STANDARDS.
 - COORDINATE INSTALLATION WITH PLANTING PLAN SO CONFLICTS WITH PROPOSED
 - LOCATIONS OF TREES, PALMS AND SHRUBS WILL BE AVOIDED. PLACE PIPING IN TRENCHES ADJACENT TO CURBING OR EDGE OF PAVEMENT WHERE POSSIBLE.
 - CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLANS AND SPECIFICATIONS TO DETERMINE WHERE IRRIGATION HEADS SHALL BE INSTALLED ON RISERS. HEIGHTS OF ALL RISERS SHALL BE ADJUSTED AFTER LANDSCAPE INSTALLATION IS COMPLETE.
 - RISERS SHALL BE PAINTED BLACK WITH PROFESSIONAL QUALITY FLAT ENAMEL. SPRAY PAINT. RIGID SPRING ARC, RADII, AND "TRACETORY" AFTER LANDSCAPE INSTALLATION IS COMPLETED TO ASSURE 100% OVERLAP COVERAGE. ALL RISERS SHALL BE STAKED WITH A GALV. STAINLESS STEEL STAKE AND SECURED BY TWO STAINLESS STEEL CLAMPS. NO RISER SHALL BE INSTALLED ADJACENT TO ANY PEDESTRIAN WALKWAY. 12" POP-UP HEADS SHALL BE USED IN GROUNDCOVER BEDS ADJACENT TO WALKWAYS AND IN PARKING ISLANDS (TYP.).
 - CONTRACTOR SHALL DETERMINE LOCATIONS OF ALL UNDERGROUND UTILITIES AND IMPROVEMENTS PRIOR TO START OF WORK ON-SITE. COORDINATE WITH THE GENERAL CONTRACTOR AND SITE LIGHTING CONTRACTOR FOR INSTALLATION OF PROPOSED LIGHTING AND ELECTRICAL CONDUITS. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR OF ANY DAMAGE CAUSED BY HIS WORK. THE IRRIGATION CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ANY AND ALL DAMAGE THAT RESULTS FROM HIS ACTIVITIES DUE TO IMPROPER VERIFICATION OF UTILITIES AND/OR OPERATOR ERROR DURING EXCAVATIONS. SEE RELATED CIVIL PLANS FOR ADDITIONAL INFORMATION.
 - IRRIGATION CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY GOVERNING AGENCIES. SUBMIT COPIES OF PERMITS TO OWNER'S CONSTRUCTION REPRESENTATIVE.
 - IRRIGATION CONTRACTOR SHALL BE PROPERLY LICENSED AND INSURED AS REQUIRED BY STATE AND LOCAL ORDINANCE REQUIREMENTS. CONTRACTOR SHALL BE ABLE TO PROVIDE PROOF OF SUCH INFORMATION UPON REQUEST.
 - ADJUST SPRINKLER ARC, RADII, AND TRACETORY AFTER LANDSCAPE INSTALLATION IS COMPLETED TO INSURE 100% OVERLAP COVERAGE. SET TOO HIGH OR LOW MAY BE REJECTED. TREES ACCORDING TO THE PLANT LIST SHALL BE SET TO THE CORRECT GRADE.
 - WHERE MAINLINE OR LATERAL LINES ARE COVERED BY PAVING, A SCHEDULE 40 PVC SLEEVE SHALL BE INSTALLED WITH THE SPECIFIED LATERAL LINE AND STUBBED UP WITH END CAPS AS SHOWN IN DETAIL. SLEEVE SIZE SHALL BE TWO TIMES LARGER (I.D.) THAN THE SIZE OF THE LATERAL LINE "WET PIPE" SIZE INDICATED ON THE PLANS.
 - ALL MAINLINES SHALL BE BURIED A MINIMUM OF 36" BELOW FINISH GRADE. MAINLINE SHALL BE BURIED A MINIMUM OF 24" AT ROAD CROSSINGS. ALL LATERAL LINES SHALL BE BURIED A MINIMUM DEPTH OF 12" BELOW FINISH GRADE. INSTALL MAINLINE IN SAME TRENCH AS LATERAL LINES WHERE POSSIBLE.
 - ALL POP-UP SPRINKLER HEADS SHALL BE INSTALLED ON 1/2" OR 3/4" X 1/8" SPEARS FLEX PIPE CONNECTION. FLEX PIPE CEMENT SHALL BE USED ON ALL CONNECTIONS BETWEEN FLEXIBLE PVC AND RIGID PVC.
 - ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING RAINBIRD "SNAP-TITE" (OR EQUAL) WATERPROOF WIRE SPLICE KITS AND SEALANT.
 - 14 WIRE SHALL BE UF-600 VOLT DIRECT BURIAL 14 GAUGE WIRE INSTALLED DIRECTLY IN THE PIPE TRENCH, BUNDLED AND TAPED EVERY TEN FEET ALONG THE MAINLINE WITH EXPANSION LOOPS PROVIDED AT EACH VALVE. "WHITE" COLOR FOR COMMON AND "RED" COLOR FOR CONTROL WIRES. AT TIME OF INSPECTION, WIRE THAT DOES NOT CONFORM TO SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.
 - BEFORE SPRINKLER HEADS ARE SET, THE CONTRACTOR SHALL OPEN CONTROL VALVES AND FLUSH THE LINES THOROUGHLY WITH A FULL HEAD OF WATER TO BE SURE THERE IS NO FOREIGN MATTER IN THE LINES. THE CONTRACTOR SHALL TEST THE LINES FOR LEAKAGE BY MAINTAINING A FULL HEAD OF PRESSURE (300 PSI) FOR ONE HOUR WITH CAPPED ENDS AFTER LINES ARE COMPLETE.
 - AT ANY TIME DURING THE INSTALLATION OF THE IRRIGATION SYSTEM BY THE CONTRACTOR, THE OWNER, ARCHITECT AND/OR LANDSCAPE ARCHITECT MAY VISIT THE SITE TO MAKE OFFICIAL INSPECTIONS. UPON REQUEST, THE CONTRACTOR WILL BE REQUIRED TO UNCOVER SPECIFIED WORK AS DIRECTED BY THE INSPECTOR WITHOUT COMPENSATION. SHOULD THE MATERIAL, WORKMANSHIP OR METHOD OF INSTALLATION NOT MEET THE STANDARDS SPECIFIED HEREIN, THE CONTRACTOR SHALL IMMEDIATELY REPLACE THE WORK AT HIS OWN EXPENSE.
 - THE OWNER OR HIS DESIGNATED REPRESENTATIVE WILL RESPOND WITHIN 100 DAYS AFTER NOTIFICATION BY THE CONTRACTOR OF COMPLETION FOR THE PURPOSE OF MAKING A FINAL INSPECTION OF THE SYSTEM. IF FINAL ACCEPTANCE IS NOT GIVEN AT THIS INSPECTION, A "PUNCH-LIST" OF UNSATISFACTORY ITEMS WILL BE PREPARED FOR COMPLETION BY THE IRRIGATION CONTRACTOR. AT SUCH TIME AS ALL "PUNCH-LIST" ITEMS HAVE BEEN COMPLETED AND APPROVED BY THE OWNER OR HIS DESIGNATED REPRESENTATIVE, THE CONTRACTOR SHALL BE NOTIFIED IN WRITING OF FINAL ACCEPTANCE. FINAL ACCEPTANCE BY THE OWNER WILL NOT BE GIVEN UNTIL ALL REQUIRED SUBMITTALS AND "AS-BUILT" DRAWINGS HAVE BEEN TURNED OVER TO THE OWNER AND LANDSCAPE ARCHITECT.
 - THE IRRIGATION CONTRACTOR SHALL KEEP ONE RECORD SET OF THE RECORDS OF THE IRRIGATION SYSTEM AND MATIN "THIS COPY IN GOOD CONDITION AT THE SITE AND MARK ON THEM THE EXACT "RECORD". THE CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. PLANS SHALL INDICATE THE EXACT LOCATION OF CHECK VALVES, GATE VALVES, WIRE LOCATIONS, HEAD LAYOUT, AUTOMATIC VALVES/BOXES, FOR VALVE BOXES SHALL BE SHOWN BY THE TRIANGULAR SYSTEM OF MEASUREMENTS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDINGS, CURBS, WALKS, ETC.
 - DRAWINGS SHALL SHOW APPROVED SUBSTITUTIONS, IF ANY, OF MATERIALS INCLUDING MANUFACTURER'S NAME AND CATALOGUE NUMBER. UPON COMPLETION, ALL INFORMATION NOTED ON THE PRINTS SHALL BE "TRANSFERRED" TO A FINAL CLEAN PROJECT PDF BY THE CONTRACTOR.
 - RECORD DRAWING SHALL BE TO SCALE, AND ALL INFORMATION SHALL BE RECORDED IN AN ORDERLY AND LEGIBLE MANNER. ON OR BEFORE FINAL INSPECTION, THE IRRIGATION CONTRACTOR SHALL DELIVER ONE (1) DVD OF THE SCANNED AS-BUILT RECORD PLANS IN A PDF FORMAT. CONTRACTOR SHALL ALSO SUPPLY OWNER & LANDSCAPE ARCHITECT OF RECORD TWO (2) SETS OF PDF AS-BUILT OF THE "RECORD" DRAWINGS TO THE LANDSCAPE ARCHITECT AND OWNER'S AGENT. THE DELIVERY OF THE RECORD PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING REQUIRED INFORMATION THAT MAY HAVE BEEN OMITTED. RETAINAGE SHALL BE RELEASED TO THE CONTRACTOR AFTER THE "RECORD" DOCUMENTS HAVE BEEN SATISFACTORILY RECEIVED BY THE OWNER AND ALL OTHER ASPECTS OF HIS CONTRACT HAVE BEEN MET.

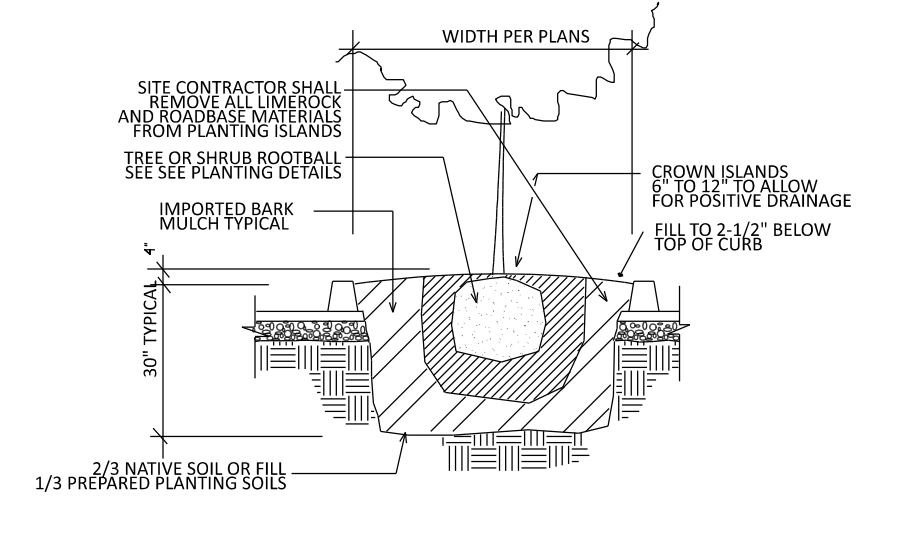
IRRIGATION NOTES

- END OF SPECIFICATIONS
- SPECIFICATIONS ARE COPYRIGHTED AND SHALL REMAIN THE PROPERTY OF TERRA TECTONICS DESIGN GROUP, INC. NO REPRODUCTIONS SHALL BE MADE WITHOUT EXPRESS PERMISSION OF TERRA TECTONICS DESIGN GROUP, INC.
1. ALL TREES SHOWN ARE REJECTABLE UNLESS THEY UNDERGO RECOMMENDED CORRECTION.
 2. FIRST STEP 1, THEN STEP 2. ROOTS AND SOIL MAY BE REMOVED DURING THE CORRECTION PROCESS; SUBSTRATE SHALL BE REPLACED AFTER CORRECTION HAS BEEN COMPLETED.
 3. ROOTS AND SOIL MAY BE REMOVED DURING THE CORRECTION PROCESS; SUBSTRATE SHALL BE REPLACED AFTER THE CORRECTION HAS BEEN COMPLETED.
 4. SMALL ROOTS (1/4" OR LESS) ON THE PERIPHERY OF THE ROOT BALL ARE CONSIDERED AS "DEFECTS" AND DO NOT NEED TO BE REPLACED AFTER THE CORRECTION HAS BEEN COMPLETED.
 5. TREES SHALL PASS POST-OBSERVATION DETAIL FOLLOWING CORRECTION.

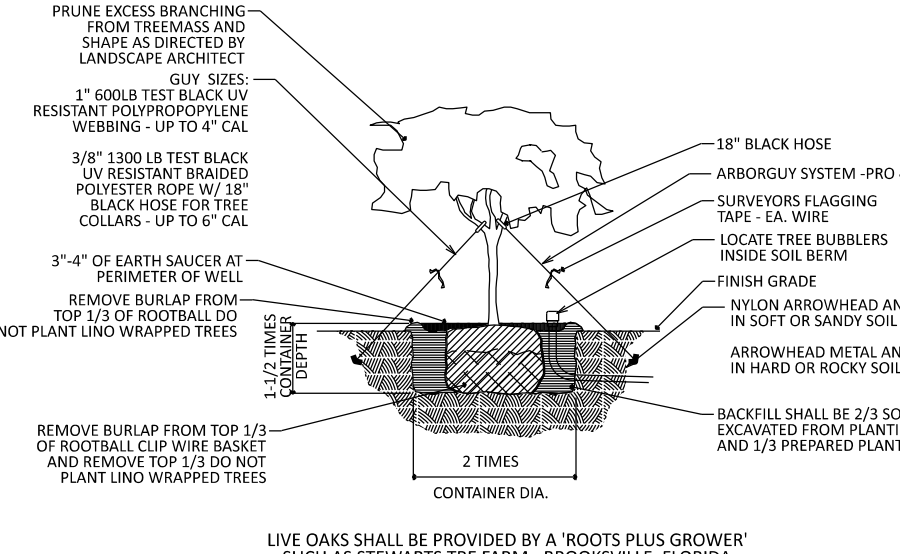
- ROOT CORRECTION DETAIL - CONTAINER
- 1 1/2" = 1'-0"
- ROOT CORRECTION DETAIL - BALLED AND BURLAPPED
- 1 1/2" = 1'-0"



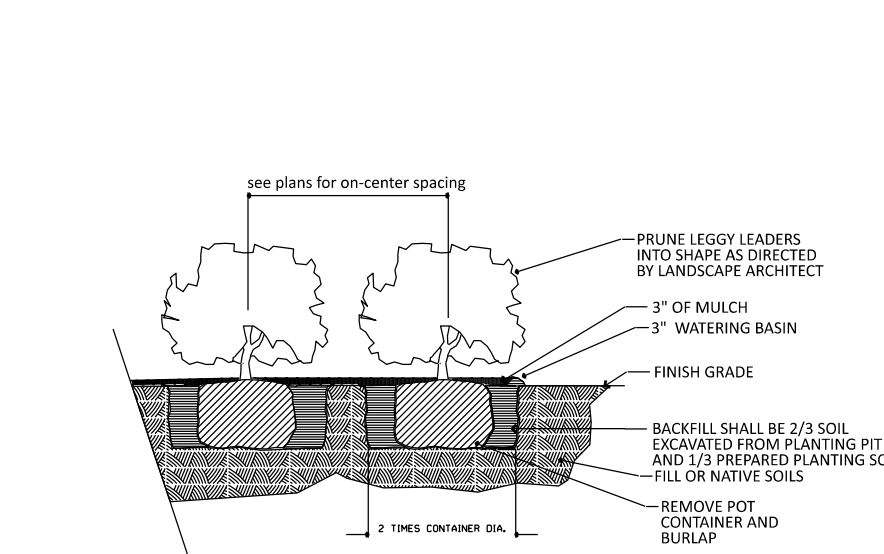
1 CONTAINER STAKING DETAIL



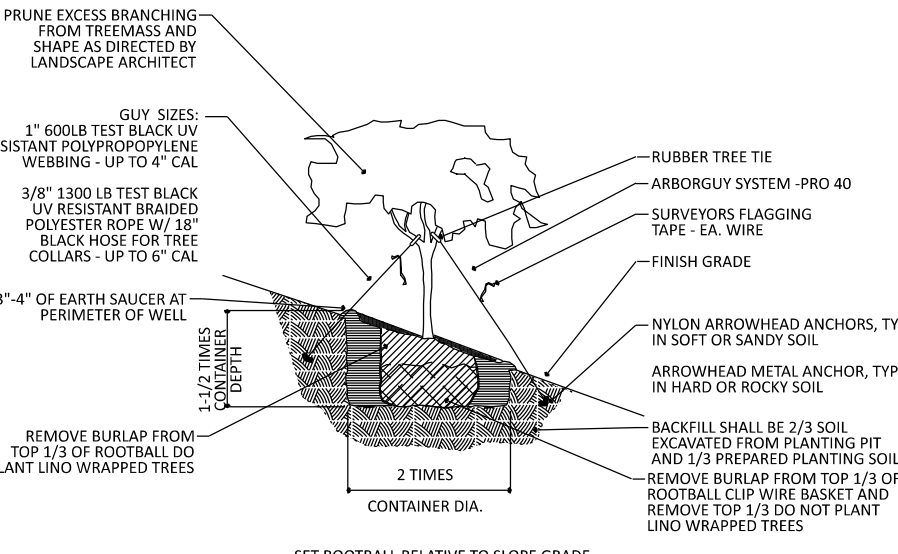
2 TYPICAL PLANTER ISLAND DETAIL



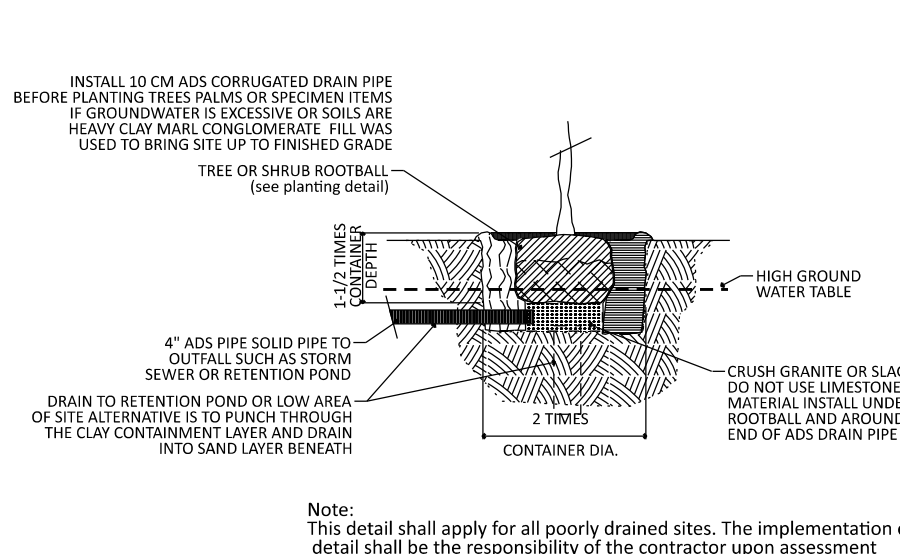
3 TREE GUYING DETAIL



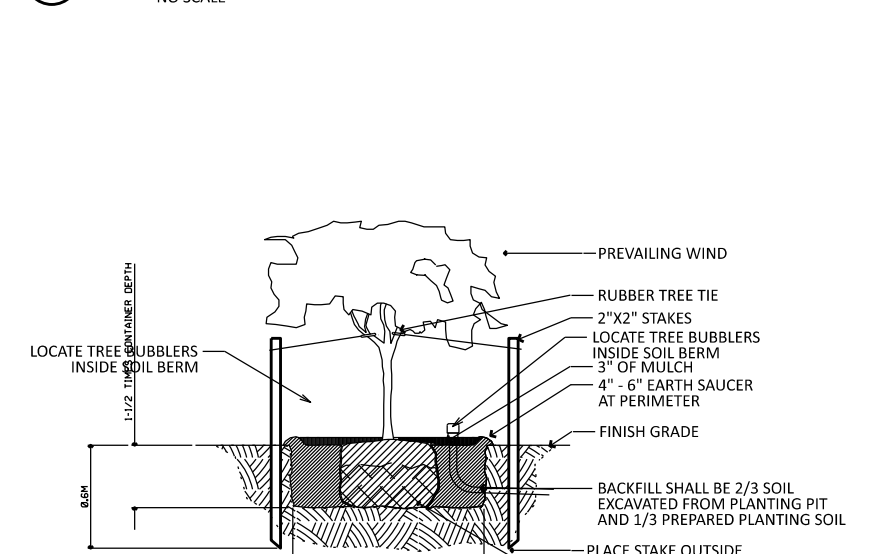
4 SHRUB BED PLANTING DETAIL



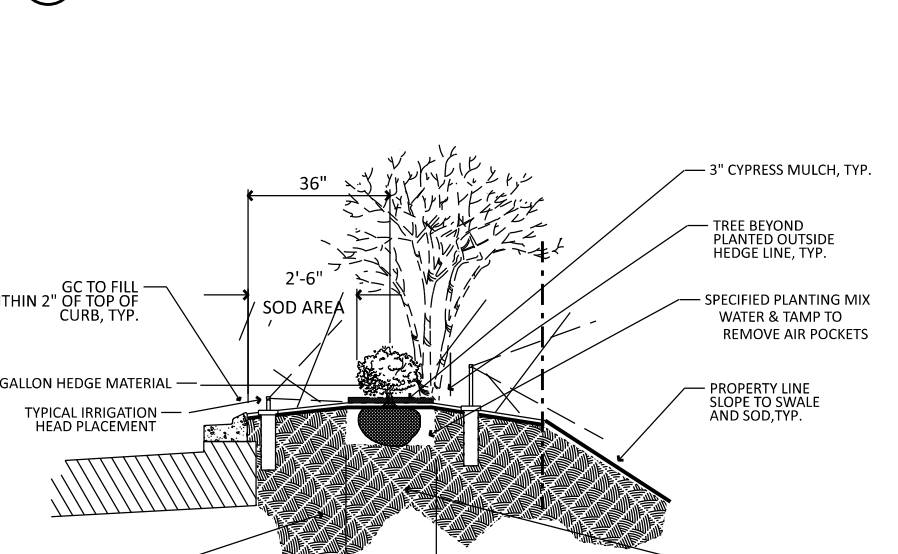
5 TYPICAL SLOPE PLANTING DETAIL



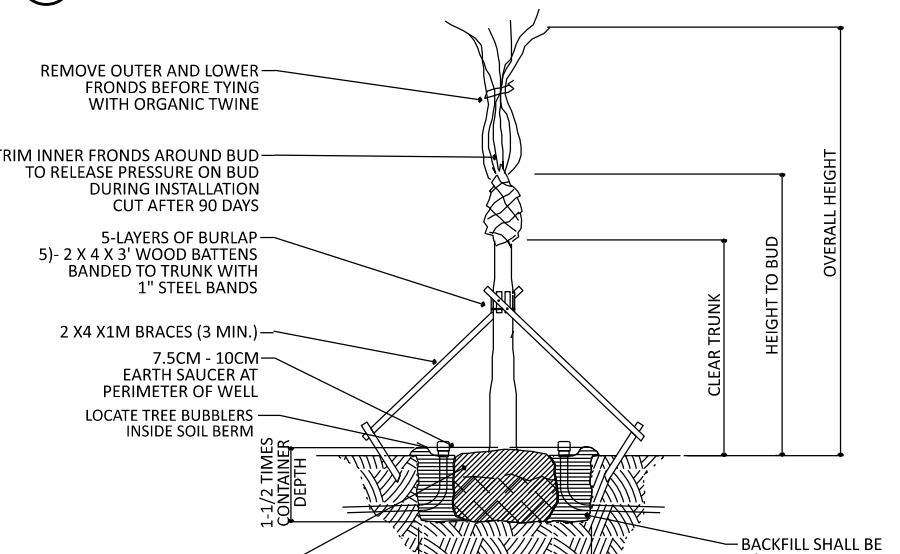
6 POORLY DRAINED SITE DETAIL



7 CONTAINER TREE STAKING DETAIL



8 TYPICAL HEDGE PLANTING DETAIL



9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

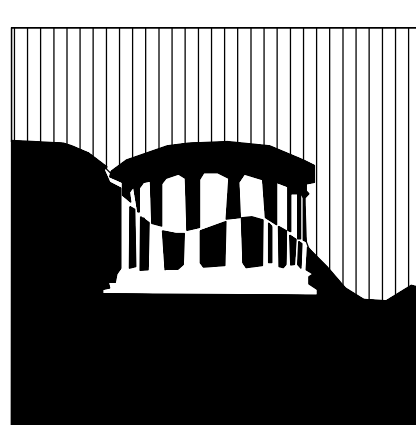
8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL

7 CONTAINER TREE STAKING DETAIL

8 TYPICAL HEDGE PLANTING DETAIL

9 PALM TREE PLANTING DETAIL



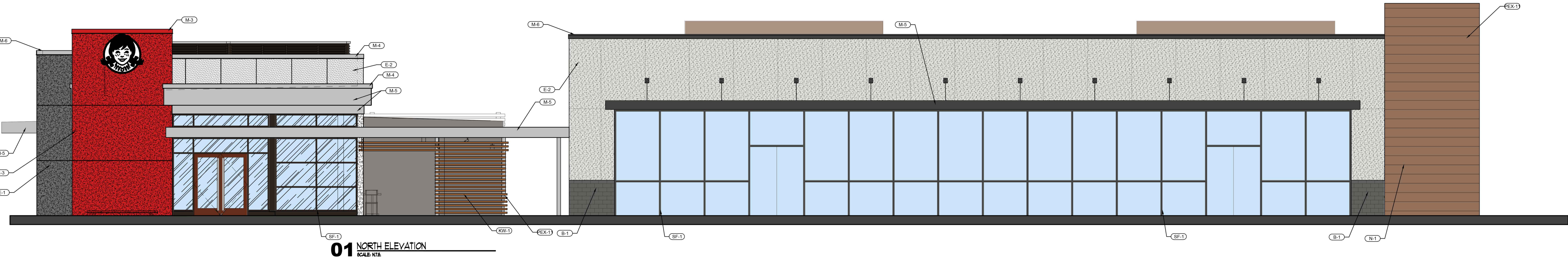
TERRA
TECTONICS
design group International, Inc.

LANDSCAPE ARCHITECTS
LAND PLANNERS
URBAN DESIGNERS

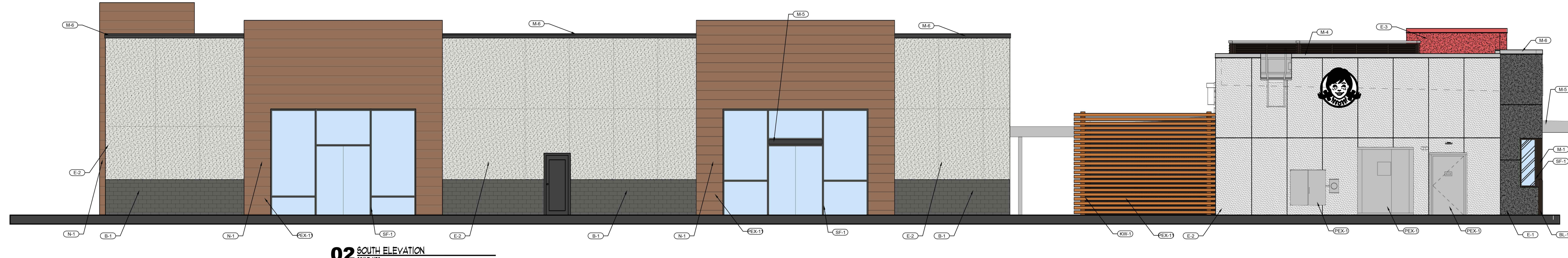
1188 Kapp Drive
Clearwater, FL 33765
FL, U.S.A. #254
727-441-4504 ph.



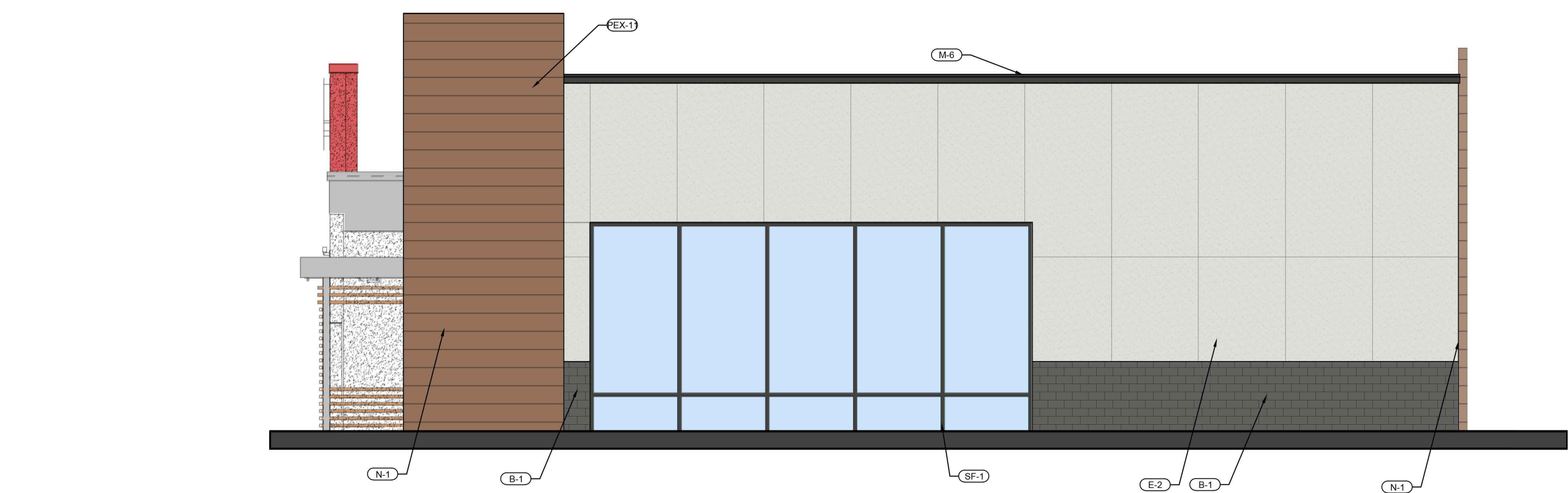
EXTERIOR FINISH SCHEDULE					
BL-1	BOLLARD SLEEVE - SAFETY YELLOW	M-1	BRAKE METAL TO MATCH STOREFRONT	PEX-1	PANT - TAN
E-1	E-1 - CEMENTIOUS FINISH - CHARCOAL GREY	M-3	PREFINISHED COPING-EXCEPTIONAL METALS BRIGHT RED	PEX-2	PANT - DARK GREY
E-2	E-2 - CEMENTIOUS FINISH - CHAMPAGNE	M-4	PREFINISHED COPING - EXCEPTIONAL METALS SILVER METALLIC	PEX-3	ALUMINUM STOREFRONT SYSTEM- FINISH: DARK BRONZE
E-3	E-3 - CEMENTIOUS FINISH - RED	M-5	BRAKE METAL - CLEAR ANODIZED	N-1	SYNTHETIC WOOD
KW-1	KNOTWOOD PRE-FINISHED ALUMINUM SIDING MATERIAL - LIGHT OAK	M-6	PREFINISHED COPING- EXCEPTIONAL METALS: CUSTOM COLOR TO MATCH PEX-3		
B-1	BRICK - CHARCOAL GREY	PEX-1	PANT - DARK BRONZE		



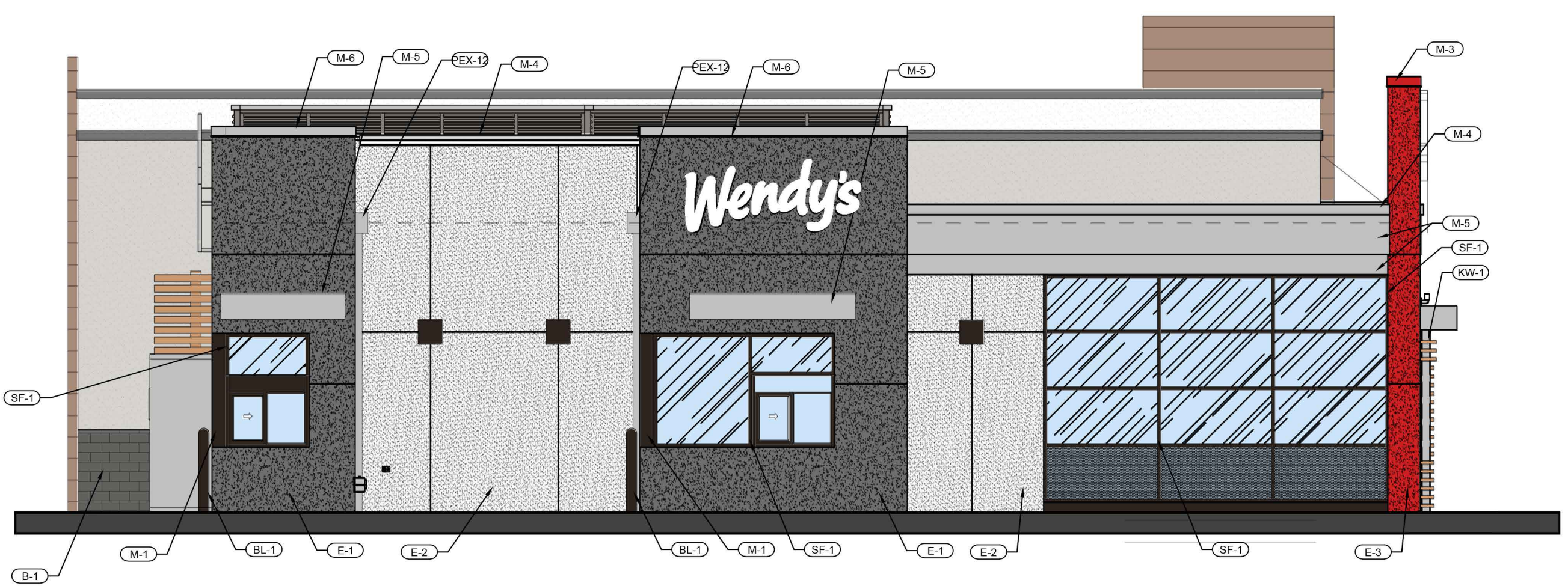
01 NORTH ELEVATION
SCALE: NTA



02 SOUTH ELEVATION
SCALE: NTA



03 WEST ELEVATION
SCALE: NTA



04 EAST ELEVATION
SCALE: NTA

SITE NUMBER:	U2017383
BASE MODEL:	SMART 40-SQUARE 2017
ASSET TYPE:	COMP.
CLASSIFICATION:	NEW
OWNER:	CORPORATE
BASE VERSION:	2017
UPGRADE CLASSIFICATION:	NEW BUILD
PROJECT YEAR:	2017
FURNITURE PACKAGE:	2016 V3
DRAWING RELEASE:	FALL 2017

Hartley + PurdyArchitecture, Inc.

1711 North Himes Avenue, Tampa, Florida 33607, Ph. 813/253-4003 Fax. 813/253-4430 Web Site: www.hartspurdy.com

PROJECT TYPE: SQUARE
SMART 40



REV.	DATE	DESCRIPTION
▲		
▲		
▲		
▲		

ISSUE DATE:	02.06.18
PROJECT NUMBER:	1701.11
DRAWN BY:	MW
CHECKED BY:	MM

SEAL

MICHAEL MUROFF
AR 92344

SHEET NAME
EXTERIOR ELEVATIONS

SHEET NUMBER

A2.1

AA-0003276
HARTLEY + PURDY ARCHITECTURE, INC.
ALL RIGHTS RESERVED 2018



Hartley + Purdy Architecture, Inc.

1711 North Himes Avenue, Tampa, Florida 33607, Ph 813/353-0035 Fax 813/353-4350 Web Site: www.hartleypurdy.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) Marlyn D Felsing, Signature Marlyn D. Felsing
Address: 1415 Gene Street, Winter Park, FL 32789
Phone 407-808-2731, Email marlyn@felsing.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) Carol Felsing, Signature Carol Felsing
Address: 1419 Gene St Winter Park, FL
Phone (407) 412-9299, Email cfelsing@felsingppa.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) Steven J. Smith, Signature Steven J. Smith
Address: 1455 Gene St, Winter Park, FL 32789
Phone 407-622-7200, Email Steve@cms6-pops.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

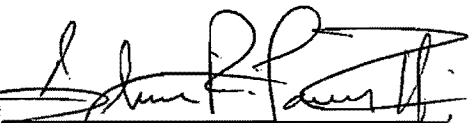
Name (printed) Julie Lamar, Signature Julie Lamar
Address: 1370 Gene Street Winter Park, AZ 86789
Phone 407-645-5262, Email Julie@Lamar-Design.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

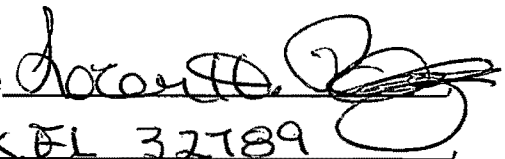
Name (printed) THOMAS R. LAMARCA Signature 
Address: 1370 GENE STREET, WINTER PARK, FL 32789
Phone 407-310-4049 Email TOM@LAMAR-DESIGN.COM

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) Loren H. Roby Signature 
Address: 1380 Gene St, Winter Park, FL 32789
Phone 407-895-1545 Email _____

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

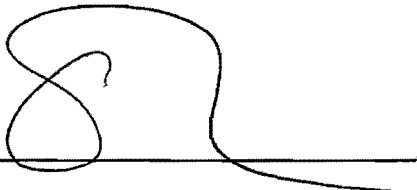
Name (printed) Peter Acks, Signature Peter Acks
Address: 1380 Gene St Winter Park, FL 32789
Phone 407 629 5960, Email Packs48@AOL.Com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) ALEXANDER KEITH Signature 
LYONS WEALTH MGT.
Address: 1470 GENE ST, WINTER PARK, FL 32789
Phone 407-951-8710, Email s.read@lyonswealth.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) JAIME MEMBRENO Signature 
Address: 660 Shoreview Ave, Winter Park FL 32789
Phone 407 931-1510 Email jhmembreno@hotmail.com

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) Charles F. Gano, Signature Charles F. Gano
Address: 1444 W. Fairbanks Ave.
Phone 407-629-2866, Email sunstate

Petition against LG Winter Park Fairbanks LLC proposal to:

- **Obtain conditional use approval to construct Wendy's restaurant and retail building space at 1350 W Fairbanks Avenue (Lots 37, 38 and 39)**

I am against the proposal for the following reasons:

1. It has been documented that a fast food store with a drive-in increases traffic much more than a development with retail stores, offices and salons. This would negatively impact the already problematic intersection of 17-92 and Fairbanks by:
 - a. Increasing traffic congestion at both the 17-92/Fairbanks intersection and the entrance to the fast-food restaurant, thus moving traffic over to Gene St and Shoreview Ave. to avoid the congestion. Both streets already have more traffic than they were originally intended for and are not in good condition.
 - b. Drive-through traffic would empty off onto Gene St or Shoreview, again resulting in more traffic than the roads are designed to carry.
 - c. Traffic on Fairbanks already routinely backs up beyond Shoreview Ave.
2. The proposal will not enhance the appearance of the Fairbanks Gateway corridor, a clear objective of the WP Comprehensive Plan.
3. Approximately 1 in 2 cars that visit the McDonalds next door exit onto Gene Street. Gene Street is already over capacity and in need of extensive repairs.
4. The Planning and Zoning staff have serious concerns about granting conditional approval for a fast-food with drive-through at this location and have recommended a vote against.

Name (printed) JIM VERGLE Signature 
Address: 1299-1301-1303-1313 West Fairbanks
Phone 4073765508 Email JVergle@aol.com Ave



FAIRBANKS RETAIL

Traffic Impact Analysis

July 2018

Kimley»Horn

TRAFFIC IMPACT ANALYSIS

Fairbanks Retail

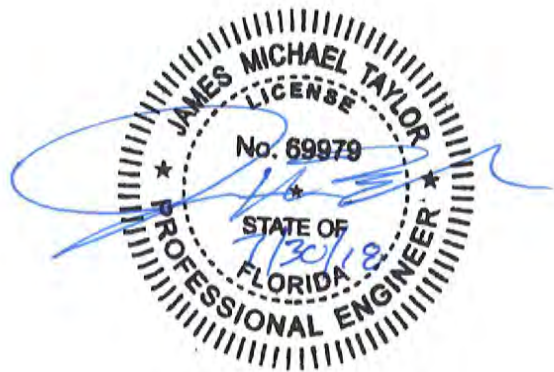
City of Winter Park, FL

Prepared for:

Leon Capital Group

Prepared by:

Kimley-Horn and Associates, Inc.



James M. Taylor, P.E.

PE #69979

July 2018

Table of Contents

1.0	INTRODUCTION.....	1
1.1	Study Area.....	1
2.0	EXISTING CONDITIONS ANALYSIS.....	3
2.1	Existing Traffic Counts.....	3
2.2	Existing Intersection Conditions	3
3.0	DEVELOPMENT TRAFFIC.....	6
3.1	Trip Generation.....	6
3.1.1	Net Daily and PM Peak Hour Impact	6
3.1.2	Midday Driveway Volume Forecast.....	8
3.2	Trip Distribution.....	8
3.3	Trip Assignment.....	11
4.0	BACKGROUND CONDITIONS ANALYSIS – YEAR 2019	12
4.1	Background Traffic.....	12
4.2	Background Intersection Analysis	12
5.0	BUILDOUT CONDITIONS ANALYSIS – YEAR 2019	15
5.1	Buildout Traffic.....	15
5.2	Buildout Intersection Analysis.....	15
6.0	QUEUE ANALYSIS ALONG SHOREVIEW AVE.....	19
7.0	CONCLUSION.....	20

Figures

Figure 1: Project Location and Study Area Intersections.....	2
Figure 2: Existing Intersection Volumes	5
Figure 3: Unadjusted Existing Midday Turning Movement Volumes.....	9
Figure 4: Existing McDonald's Distribution	10
Figure 5: Fairbanks Retail Distribution.....	10
Figure 6: Project Trip Assignment.....	11
Figure 7: Background Intersection Volumes.....	14
Figure 8: Buildout Intersection Volumes.....	18

Tables

Table 1: Existing Intersection Conditions (Midday Peak Hour)	3
Table 2: Existing Intersection Conditions (PM Peak Hour).....	4
Table 3: Trip Generation.....	7
Table 4: Midday Buildout Total Driveway Volumes	8
Table 5: Background Intersection Conditions (Midday Peak Hour)	12
Table 6: Background Intersection Conditions (PM Peak Hour)	13
Table 7: Buildout Intersection Conditions (Midday Peak Hour)	16
Table 8: Buildout Intersection Conditions (PM Peak Hour)	17

Appendices

Appendix A: Methodology Statement

Appendix B: Conceptual Site Plan

Appendix C: Turning Movement Counts

Appendix D: FDOT's Florida Traffic Information's (FTI) Data

Appendix E: Turning Movement Volume Worksheets

Appendix F: Synchro Outputs

1.0 INTRODUCTION

Kimley-Horn has been retained by Leon Capital Group to analyze and document the traffic impacts associated with the development of Fairbanks Retail, a proposed site redevelopment located in the southeast quadrant of the intersection of Shoreview Avenue and SR 426 (W Fairbanks Avenue) in the City of Winter Park, FL. The Methodology Statement developed with the City to guide this transportation analysis is provided in **Appendix A**.

Current zoning of the property is Commercial (C-3) and Office (O-1). Proposed zoning is C-3 on all parcels. The site is composed of three separate parcels (Parcel ID #12-22-29-0664-00-100, #12-22-29-0664-00-120, and #12-22-29-0664-00-130). The project location is shown in **Figure 1**.

Based on 2017 property records from the Orange County Property Appraiser, the site is currently occupied by 19,660 square feet of office space (consisting of a 16,772-square foot funeral home service and a 2,888-square foot vacant flower shop). The applicant is proposing to redevelop the site to consist of 6,240 square feet of retail space and a 2,430-square foot fast-food restaurant. The conceptual site plan is included as **Appendix B**. The total area of the site is 1.52 acres.

1.1 STUDY AREA

The study area will include three (3) existing project access points and the following offsite intersections as shown in **Figure 1**:

- SR 426 (W Fairbanks Avenue) & Shoreview Avenue
- Gene Street & Shoreview Avenue

Intersections were analyzed in accordance with the City of Winter Park's Land Development Code requirements for midday and PM peak hour conditions.

Figure 1: Project Location and Study Area Intersections



2.0 EXISTING CONDITIONS ANALYSIS

2.1 EXISTING TRAFFIC COUNTS

Turning movement counts (TMCs) were collected at the study intersections on Thursday, June 21, 2018 and provided in **Appendix C**. Data was collected during the midday (11:00AM to 1:00PM) and PM (4:00PM to 6:00PM) peak periods.

The counts were adjusted using the seasonal factor (SF) from FDOT's Florida Traffic Information (FTI) publication. SF data is included in **Appendix D**. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E**.

2.2 EXISTING INTERSECTION CONDITIONS

An intersection operational analysis was performed for existing conditions in the midday and PM peak hours using procedures outlined in the *Highway Capacity Manual 2010* with Synchro (v9) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the existing conditions are provided in **Tables 1 and 2**. Synchro outputs are provided in **Appendix F**.

Table 1: Existing Intersection Conditions (Midday Peak Hour)

Intersection	Control Type	Approach	Existing Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.06	EBL
		WB	B	0.05	WBL
		NB	D	0.23	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.23	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.00	EBL
		WB	-	-	-
		SB	A	0.09	SB
		Overall Intersection	-	0.09	SB

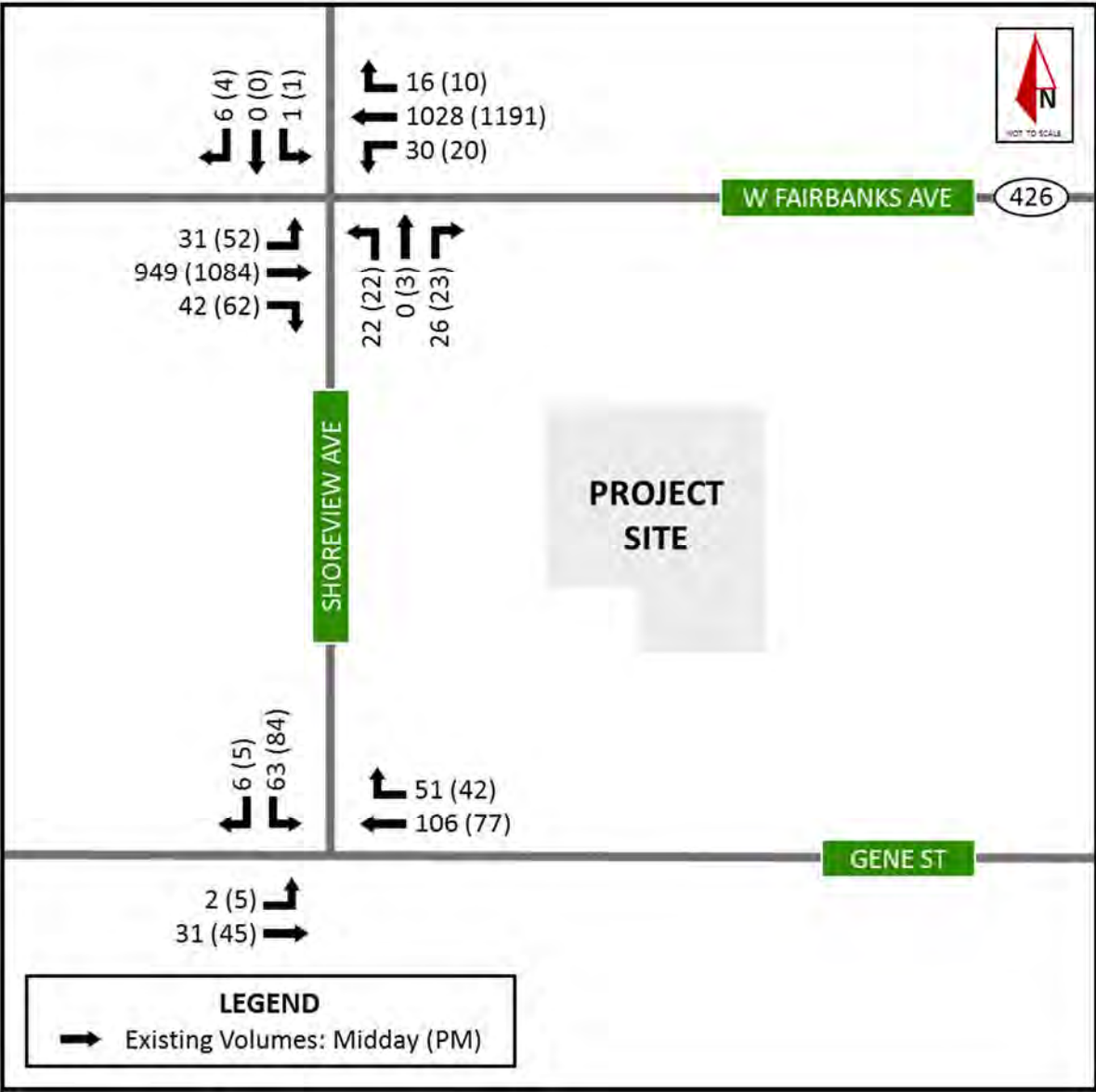
Table 2: Existing Intersection Conditions (PM Peak Hour)

Intersection	Control Type	Approach	Existing Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.11	EBL
		WB	B	0.04	WBL
		NB	E	0.33	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.33	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.00	EBL
		WB	-	-	-
		SB	A	0.12	SB
		Overall Intersection	-	0.12	SB

All study area intersections are shown to operate at an acceptable LOS with v/c less than 1.0 in the existing midday and PM peak hour conditions.

Figure 2 illustrates turning movement volumes for existing conditions at the study intersections.

Figure 2: Existing Intersection Volumes



3.0 DEVELOPMENT TRAFFIC

The proposed Fairbanks Retail consists of 6,240 square feet of retail space and a 2,430-square foot fast-food restaurant (Wendy's). Buildout of the project is anticipated in 2019. The latest industry standards were referenced to evaluate the amount of new external trips to be generated by the site at buildout. Existing traffic counts at an adjacent, similar-use site (McDonald's) were used to forecast the distribution of trips throughout the study area during the midday peak period.

3.1 TRIP GENERATION

3.1.1 NET DAILY AND PM PEAK HOUR IMPACT

Trip generation rates for the existing and proposed development scenarios were calculated using the 10th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Codes (LUCs) used for the existing and proposed development scenarios include:

Existing

- LUC 710 – Office

Proposed

- LUC 934 – Fast-Food Restaurant with Drive-Through Window
- LUC 820 – Shopping Center (Retail)

Per City code requirement, **Table 3** provides the Daily and PM peak hour trip generation summary for the existing and proposed development scenarios to show the additional vehicle trips anticipated to be added to the roadway network by the proposed redevelopment. ITE's *Trip Generation Handbook*, 3rd Edition was referenced to apply a pass-by reduction to account for future fast-food and retail traffic already on the roadway network today.

Table 3: Trip Generation

PROPOSED REDEVELOPMENT															
Land Use	ITE LUC	Size	Units	Daily ITE Trip Rate ¹	PM ITE Trip Rate ¹	Daily Trip Generation					PM Peak Hour Trip Generation				
						Total	In ¹		Out ¹		Total	In ¹		Out ¹	
Fast-Food Restaurant with Drive-Through Window	934	2.43	KSF	470.95	32.67	1,144	50%	572	50%	572	79	52%	41	48%	38
Commercial	820	6.24	KSF	37.75	3.81	236	50%	118	50%	118	24	48%	12	52%	12
Total Generated Trips						1,380	690		690		103	53		50	
LUC 934 Pass by Trips ² =	50.0%					572	286		286		40	21		19	
LUC 820 Pass by Trips ² =	34.0%					80	40		40		8	4		4	
New External Trips						728	364		364		55	28		27	
EXISTING DEVELOPMENT															
Land Use	ITE LUC	Size	Units	Daily ITE Trip Rate ¹	PM ITE Trip Rate ¹	Daily Trip Generation					PM Peak Hour Trip Generation				
						Total	In ¹		Out ¹		Total	In ¹		Out ¹	
Office	710	19.66	KSF	11.14	1.23	219	50%	110	50%	109	24	16%	4	84%	20
New External Trips						219	110		109		24	4		20	
ADDITIONAL NEW EXTERNAL TRIPS															
						Daily Trip Generation					PM Peak Hour Trip Generation				
						Total	In ¹		Out ¹		Total	In ¹		Out ¹	
New External Trips						509	254		255		31	24		7	

¹ Vehicle trip rates and directional splits per data and procedures outlined in ITE Trip Generation Manual, 10th Edition

² Pass-by trip rate for ITE LUC 820 and LUC 934 PM peak hour per ITE Trip Generation Handbook, 3rd Edition

As shown in **Table 3**, the proposed redevelopment of the site is anticipated to generate 509 additional daily trips external to the site and 31 additional PM peak hour trips (24 inbound and 7 outbound).

3.1.2 MIDDAY DRIVEWAY VOLUME FORECAST

In addition to the Daily and PM peak hour new external trip impact of the redevelopment, City staff has asked that the midday peak hour be included in the Buildout (2019) operational analysis. Forecasted midday driveway trips are not all new to the roadway network; some exist already from existing site uses and some are in background traffic that pass-by the site. To facilitate the future operational analysis at the driveways, a trip generation estimate for midday driveway volumes at buildout was developed.

Trip behavior at the adjacent McDonald's was referenced to determine an appropriate trip summary for the future Wendy's land use. Midday trips for the adjacent McDonald's were developed from ITE data for LUC 934 (Fast-Food Restaurant with Drive-Through Window) PM peak hour of generator, and were compared to peak hour midday driveway counts observed at the McDonald's between 11:00AM and 1:00PM. The following comparison shows that the McDonald's midday trip generation tracked well with ITE rates:

- Midday peak hour trips for McDonald's using ITE PM peak hour generator rates (51.36 vehicles per hour per 1,000 square feet with 52/48 directional split):
 - 248 midday peak hour vehicle trips (129 In, 119 Out)
- Midday peak hour trips for McDonald's observed between 11:00AM and 1:00PM on June 21, 2018 (traffic count data provided in **Appendix C**):
 - 252 midday peak hour vehicle trips (126 In, 126 Out)

For buildout midday peak hour, it is estimated that the Wendy's will have buildout driveway volumes comparable to the McDonald's driveway counts. For the retail portion, ITE PM peak hour of generator rates for LUC 820 (Shopping Center) were referenced for midday driveway volumes. **Table 4** provides the midday peak hour total driveway volume estimate at buildout (2019).

Table 4: Midday Buildout Total Driveway Volumes

Land Use	ITE LUC	Size	Units	Midday Trip Rate ¹	Midday Peak Hour Trip Generation				
					Total	In ¹		Out ¹	
Fast-Food Restaurant with Drive-Through Window	934	2.43	KSF	McDonald's Data	252	50%	126	50%	126
Commercial	820	6.24	KSF	4.21	26	50%	13	50%	13
Total Driveway Trips					278		139		139

¹ Future Fast-Food Use assumes McDonald's driveway count data, Commercial assumes PM peak generator hour data from ITE

3.2 TRIP DISTRIBUTION

Projected distribution of project trips on study area roadways were derived with use of the midday peak hour TMC data collected at the adjacent McDonald's site driveways and along Shoreview Avenue. **Figure 3** displays the unadjusted existing TMC data. The collected traffic data was referenced to determine distribution percentages at the existing McDonald's access points, as shown in **Figure 4**. The McDonald's distribution percentages were then used to assign anticipated project distribution to the proposed Fairbanks Retail site driveways and along Shoreview Avenue, as shown in **Figure 5**.

Figure 3: Unadjusted Existing MIDDAY Turning Movement Volumes

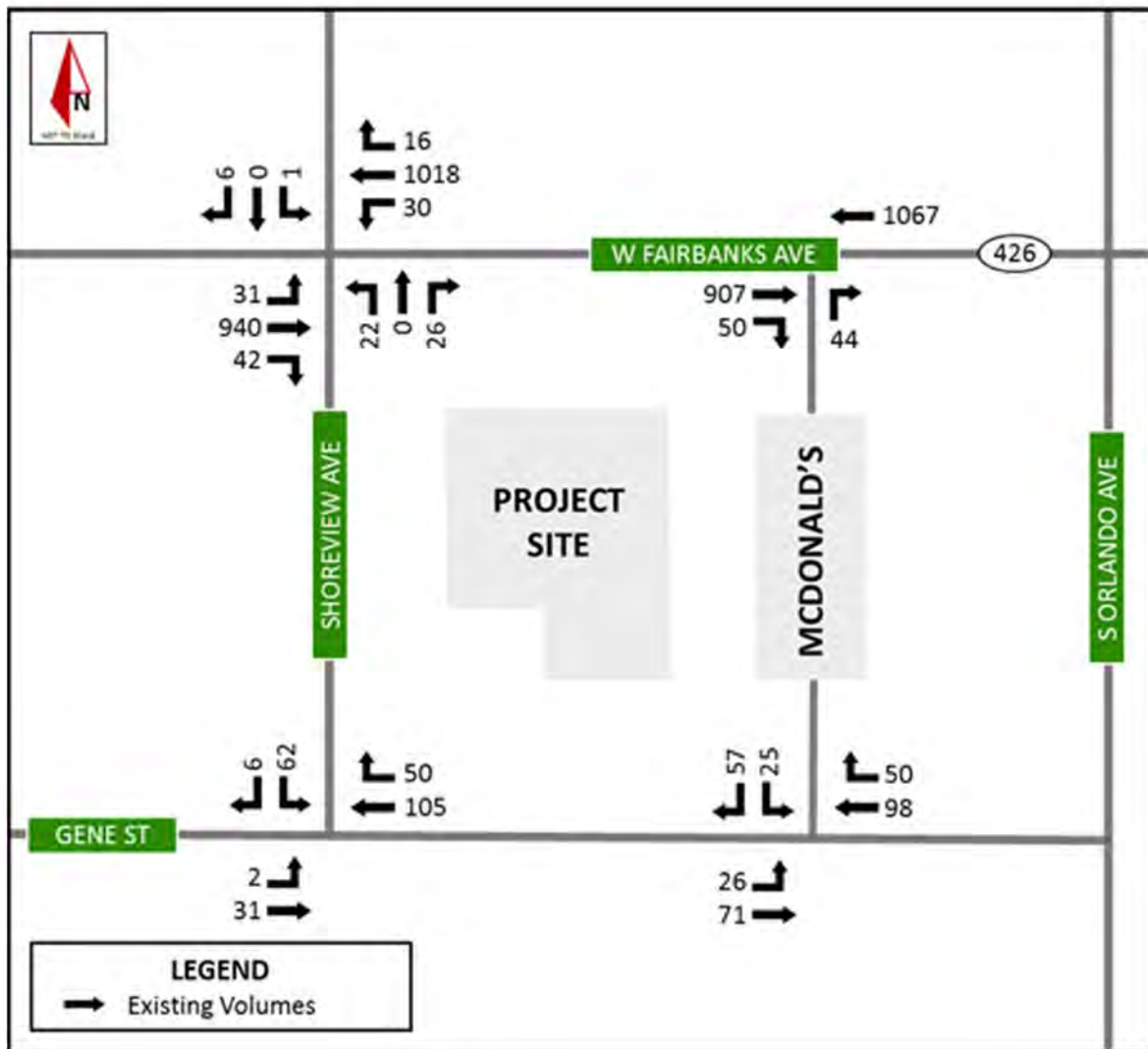


Figure 4: Existing McDonald's Distribution

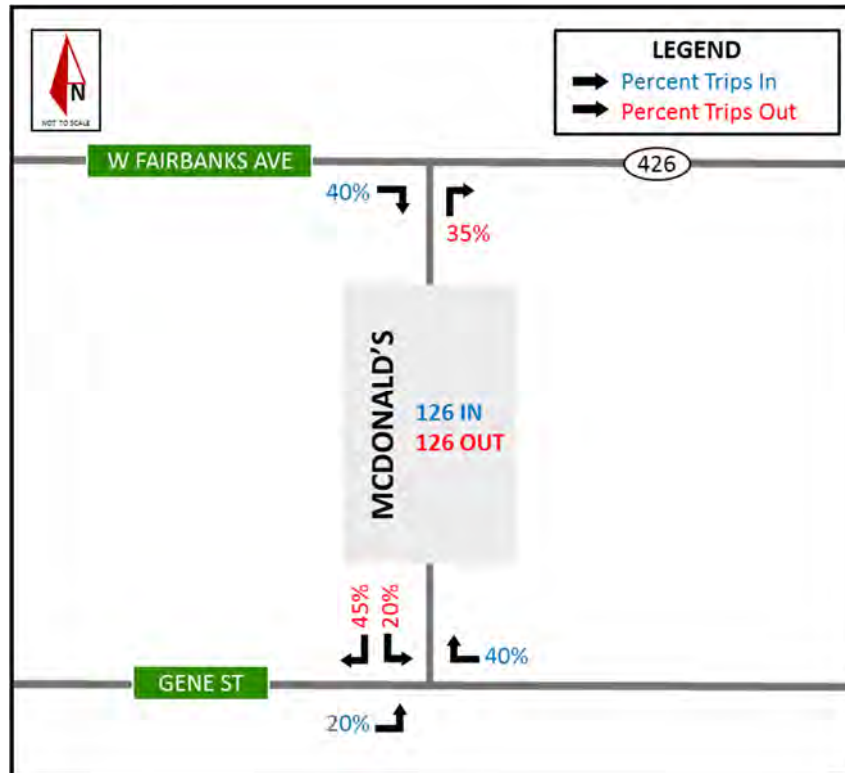
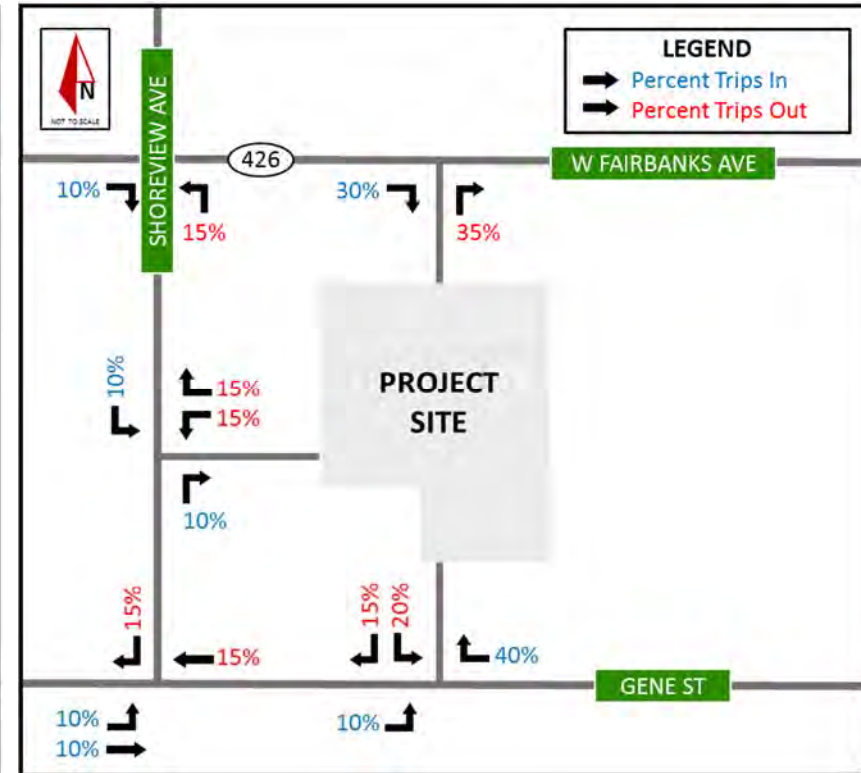


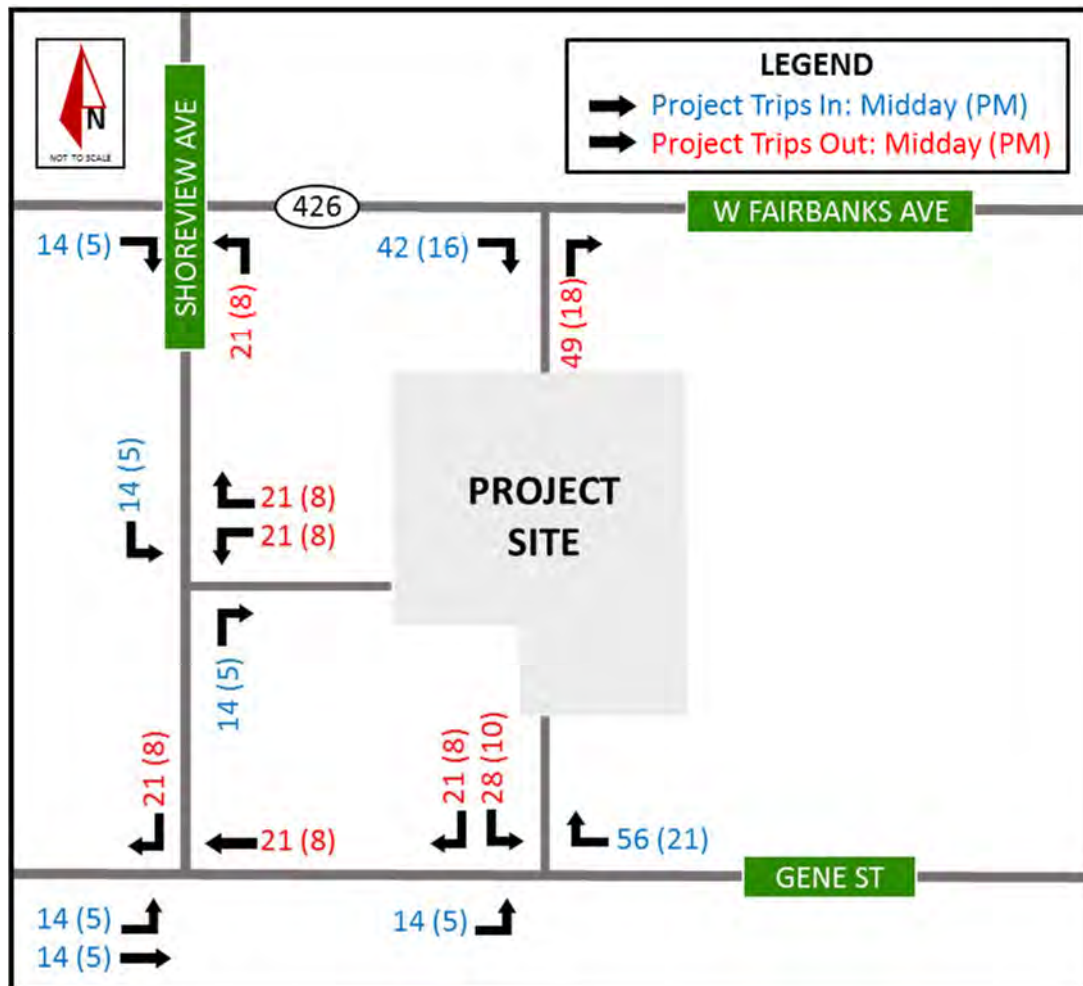
Figure 5: Fairbanks Retail Distribution



3.3 TRIP ASSIGNMENT

Site distribution percentages were used to assign anticipated project trips to the study area intersections and driveways. **Figure 6** shows the anticipated midday and PM peak hour project movements at study area intersections and driveways.

Figure 6: Project Trip Assignment



4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2019

4.1 BACKGROUND TRAFFIC

Traffic conditions were evaluated for year 2019 background conditions. Background volumes on study area intersections were derived by applying 2% annual growth to existing traffic counts. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E**.

4.2 BACKGROUND INTERSECTION ANALYSIS

Intersection operational analysis was performed for 2019 background conditions in the midday and PM peak hours using procedures outlined in the *Highway Capacity Manual 2010* with Synchro (v9) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the background conditions are provided in **Table 5 and 6**. Synchro outputs are provided in **Appendix F**.

Table 5: Background Intersection Conditions (Midday Peak Hour)

Intersection	Control Type	Approach	Background Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.06	EBL
		WB	B	0.05	WBL
		NB	D	0.24	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.24	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.00	EBL
		WB	-	-	-
		SB	A	0.09	SB
		Overall Intersection	-	0.09	SB

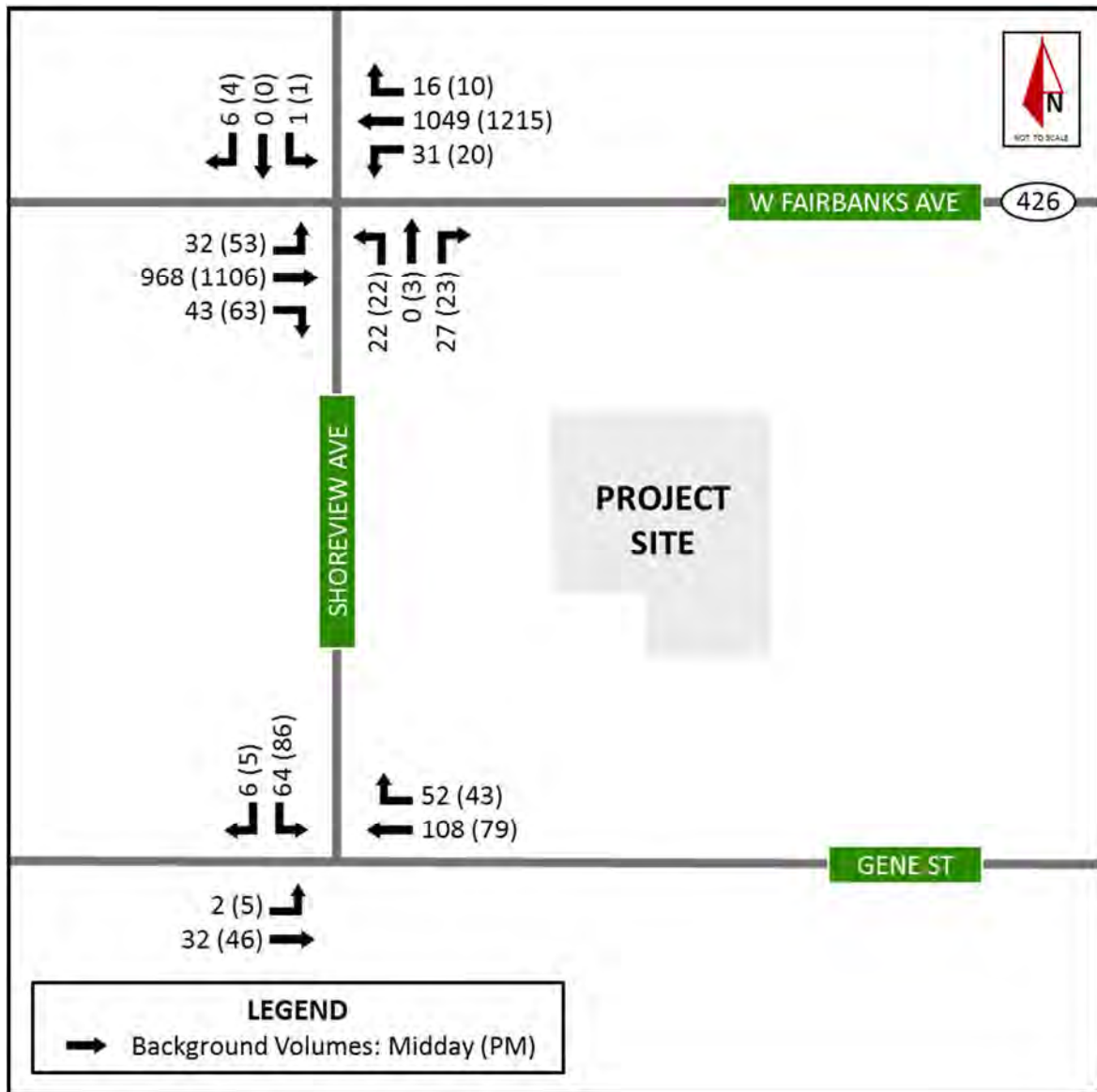
Table 6: Background Intersection Conditions (PM Peak Hour)

Intersection	Control Type	Approach	Background Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.11	EBL
		WB	B	0.04	WBL
		NB	E	0.34	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.34	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.00	EBL
		WB	-	-	-
		SB	B	0.12	SB
		Overall Intersection	-	0.12	SB

All study area intersections are shown to operate at an acceptable LOS with v/c less than 1.0 in the background midday and PM peak hour conditions.

Figure 7 illustrates turning movement volumes for background conditions at the study intersections.

Figure 7: Background Intersection Volumes



5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2019

5.1 BUILDOUT TRAFFIC

Future traffic conditions for the proposed development were evaluated for year 2019 conditions. Buildout volumes were developed by adding anticipated project trips to background volumes. A determination of the impact of project traffic on the roadway network was made, including LOS conditions for the intersections and roadway segments within the study area. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E**.

5.2 BUILDOUT INTERSECTION ANALYSIS

Intersection operational analysis was performed for 2019 buildout conditions in the midday and PM peak hours using procedures outlined in the *Highway Capacity Manual 2010* with Synchro (v9) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the buildout conditions are provided in **Table 7 and Table 8**. Synchro outputs are provided in **Appendix F**.

Table 7: Buildout Intersection Conditions (Midday Peak Hour)

Intersection	Control Type	Approach	Buildout Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.06	EBL
		WB	B	0.05	WBL
		NB	E	0.41	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.41	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.01	EBL
		WB	-	-	-
		SB	B	0.13	SB
		Overall Intersection	-	-	SB
Driveway & SR 426 (W Fairbanks Ave)	Unsignalized	EB(T)	-	-	-
		WB	-	-	-
		NB(R)	B	0.11	NBR
		Overall Intersection	-	0.11	NBR
Driveway & Gene St	Unsignalized	EB	A	0.01	EBL
		WB	-	-	-
		SB	B	0.07	SB
		Overall Intersection	-	0.07	SB
Driveway & Shoreview Ave	Unsignalized	WB	A	0.05	WB
		NB	-	-	-
		SB	A	0.01	SBL
		Overall Intersection	-	0.05	WB

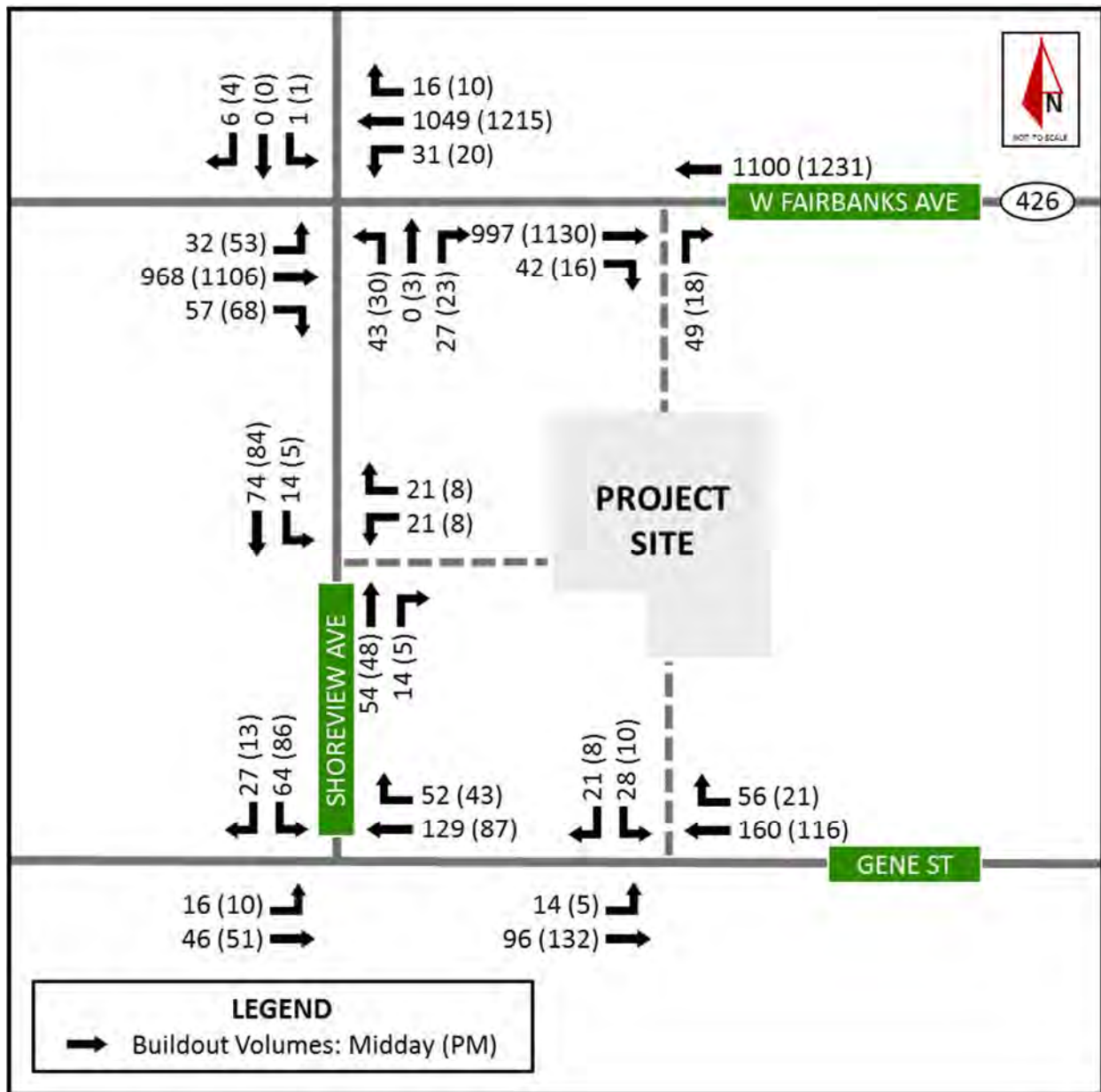
Table 8: Buildout Intersection Conditions (PM Peak Hour)

Intersection	Control Type	Approach	Buildout Conditions		
			Level of Service (overall delay)	Max V/C Ratio	Max V/C Movement
Shoreview Ave & SR 426 (W Fairbanks Ave)	Unsignalized	EB	B	0.11	EBL
		WB	B	0.04	WBL
		NB	E	0.43	NB
		SB	C	0.02	SB
		Overall Intersection	-	0.43	NB
Shoreview Ave & Gene St	Unsignalized	EB	A	0.01	EBL
		WB	-	-	-
		SB	B	0.13	SB
		Overall Intersection	-	0.13	SB
Driveway & SR 426 (W Fairbanks Ave)	Unsignalized	EB(T)	-	-	-
		WB	-	-	-
		NB(R)	B	0.05	NBR
		Overall Intersection	-	0.05	NBR
Driveway & Gene St	Unsignalized	EB	A	0.00	EBL
		WB	-	-	-
		SB	A	0.03	SB
		Overall Intersection	-	0.03	SB
Driveway & Shoreview Ave	Unsignalized	WB	A	0.02	WB
		NB	-	-	-
		SB	A	0.00	SBL
		Overall Intersection	-	0.02	WB

All study area intersections are shown to operate at an acceptable LOS with v/c less than 1.0 in the buildout midday and PM peak hour conditions.

Figure 8 illustrates turning movement volumes for buildout conditions at the study intersections.

Figure 8: Buildout Intersection Volumes



6.0 QUEUE ANALYSIS ALONG SHOREVIEW AVE

Per request from City staff, in-field observations were conducted at the intersection of W Fairbanks Avenue & Shoreview Avenue to ensure gaps are available to safely make westbound left turns onto Shoreview Avenue from W Fairbanks Avenue, and to safely make northbound left turns from Shoreview Avenue onto W Fairbanks Avenue. In addition, the queue length at the northbound approach was observed to see how far the vehicles back up and forecast if the queue length will have an adverse impact on local operations at project buildout.

Midday peak hour (11:00 AM to 1:00 PM) video footage was recorded at the intersection of SR 426 and Shoreview Avenue on Thursday, June 21, 2018. Westbound left turns were observed to have very little delay with most turning vehicles not needing to wait for a gap at all. The average vehicle delay at the northbound approach during the midday peak period was observed to be +/-22 seconds. This observation is consistent with Synchro delay output of 25 seconds. At buildout, Synchro output forecasts a average vehicle delay of 36.6 seconds which corresponds to an LOS of "E" at the approach.

Queue length for the westbound left turning vehicles was effectively zero during the midday peak hour (most vehicles did not need to stop at all before turning). The northbound approach queue length never exceeded 2 vehicles. This observation is consistent with Synchro 95th percentile queue length output of 0.8 vehicles for the midday peak hour. At buildout, Synchro output forecasts a 95th percentile queue length of 1.8 vehicles at the northbound approach. Therefore, no operational issues (driveway blocking, etc.) are anticipated in the buildout condition. Synchro outputs are provided in **Appendix F**.

7.0 CONCLUSION

This traffic impact analysis was performed to assess the transportation impacts of Fairbanks Retail, a proposed site redevelopment located in the southeast quadrant of the intersection of Shoreview Avenue and SR 426 (W Fairbanks Avenue) in the City of Winter Park, FL. The site is currently occupied by 19,660 square feet of office space. The redevelopment, proposed for buildout in 2019, will consist of 6,240 square feet of retail space and a 2,430-square foot fast-food restaurant. The proposed redevelopment of the site is anticipated to generate 509 additional daily trips external to the site and 31 additional PM peak hour trips (24 inbound and 7 outbound).

Access to the site will be provided via three existing driveways: one on the north side of the development on SR 426 (right-in, right-out), one on the south side of the development on Gene Street (full access), and one on the west side of the development on Shoreview Avenue (full access). Based on existing McDonald's driveway counts and ITE trip generation data and procedures, the project is expected to generate a cumulative of 278 vehicular trips in the midday peak hour and 103 trips in the PM peak hour at the driveways. These future project trips were assigned to driveways and adjacent intersections at Shoreview Avenue and Gene Street consistent with trip distribution observations at the adjacent McDonald's site.

An operational analysis was performed at driveways and adjacent intersections using existing traffic counts, forecasted growth, and anticipated project volumes per procedures in *Highway Capacity Manual* at local intersections. For existing and future conditions, all study area intersections and driveways are shown to operate at an acceptable LOS with v/c less than 1.0 at all intersection approaches in the midday and PM peak hour conditions.

In-field observations and Synchro analysis of future traffic at the intersection of W Fairbanks Avenue & Shoreview Avenue show gaps are available to safely make left turns at the intersection in existing and future conditions. Additionally, future northbound queue lengths at Shoreview Avenue are forecasted to be remain short (95th percentile queue less than 2 vehicles). Therefore, no operational issues (driveway blocking, etc.) are anticipated along Shoreview Avenue in the midday and PM peak periods.

Separately, the applicant will continue to work with City staff on a design solution to address the concern that westbound traffic from W Fairbanks Avenue will attempt illegal left turns at the existing right-in/right-out driveway at W Fairbanks Avenue.

APPENDIX A

Methodology Statement

MEMORANDUM

To: Jeffrey Briggs, City of Winter Park

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: July 02, 2018

Subject: Traffic Impact Analysis (TIA) Methodology
Fairbanks Retail – City of Winter Park, FL
Parcel ID #12-22-29-0664-00-100, #12-22-29-0664-00-120, &
#12-22-29-0664-00-130

Purpose

The following is a Traffic Impact Analysis (TIA) methodology outline for the above referenced project. The forthcoming TIA will generally conform to the methodology herein and the policies and guidelines of the City of Winter Park. A meeting was held on June 18, 2018 with City staff and Kimley-Horn staff representing the Applicant to further develop the TIA methodology. Minutes from the meeting are included in Attachment A.

Project Description

Fairbanks Retail is a proposed site redevelopment located in the southeast quadrant of the intersection of Shoreview Avenue and SR 426 (W Fairbanks Avenue) in the City of Winter Park, FL. Current zoning of the property is Commercial (C-3) and Office (O-1). Proposed zoning is C-3 on all parcels. The site is composed of three separate parcels (Parcel ID #12-22-29-0664-00-100, #12-22-29-0664-00-120, and #12-22-29-0664-00-130). The project location is shown in Figure 1.

Based on 2017 property records from the Orange County Property Appraiser, the site is currently occupied by 19,660 square feet of office space (consisting of a 16,772-square foot funeral home service and a 2,888-square foot vacant flower shop). The applicant is proposing to redevelop the site to consist of 6,240 square feet of retail space and a 2,430-square foot fast-food restaurant. The conceptual site plan is included as Attachment B. The total area of the site is 1.52 acres.

Study Area

The study area will include three (3) project access points and the following offsite intersections as shown in Figure 1:

- SR 426 (W Fairbanks Avenue) & Shoreview Avenue
- Gene Street & Shoreview Avenue

Figure 1: Project Location and Study Area Intersections



Background Conditions Analysis

Midday (11:00AM-1:00PM) and PM peak (4:00PM-6:00PM) turning movement count (TMC) data was collected for the study area intersections and is included in Attachment C. Traffic data will be grown by two percent (2%) per year to develop Year 2019 background traffic. Intersection capacity analyses will be performed for background (2019) conditions using the operational analysis procedures outlined in the Highway Capacity Manual 2010. Specifically, Synchro (v9) software will be used to evaluate background operational conditions at study area intersections by reporting volume to capacity (v/c) ratios, delay, and queue length demands.



Trip Generation – Net Daily and PM Peak Hour Impact

Trip generation rates for the existing and proposed development scenarios were calculated using the 10th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Codes (LUCs) used for the existing and proposed development scenarios include:

Existing

- LUC 710 – Office

Proposed

- LUC 934 – Fast-Food Restaurant with Drive-Through Window
- LUC 820 – Shopping Center (Retail)

Per City code requirement, Table 1 provides the Daily and PM peak hour trip generation summary for the existing and proposed development scenarios to show the additional vehicle trips anticipated to be added to the roadway network by the proposed redevelopment. ITE's *Trip Generation Handbook*, 3rd Edition was referenced to apply a pass-by reduction to account for future fast-food and retail traffic already on the roadway network today. Excerpts from the ITE publications referenced in this methodology are provided in Attachment D.



Table 1: Trip Generation Summary

PROPOSED REDEVELOPMENT															
Land Use	ITE LUC	Size	Units	Daily ITE Trip Rate ¹	PM ITE Trip Rate ¹	Daily Trip Generation					PM Peak Hour Trip Generation				
						Total		In ¹		Out ¹		Total		In ¹	
Fast-Food Restaurant with Drive-Through Window	934	2.43	KSF	470.95	32.67	1,144	50%	572	50%	572	79	52%	41	48%	38
Commercial	820	6.24	KSF	37.75	3.81	236	50%	118	50%	118	24	48%	12	52%	12
Total Generated Trips						1,380	690		690		103	53		50	
LUC 934 Pass by Trips ² =	50.0%					572	286		286		40	21		19	
LUC 820 Pass by Trips ² =	34.0%					80	40		40		8	4		4	
New External Trips						728	364		364		55	28		27	
EXISTING DEVELOPMENT															
Land Use	ITE LUC	Size	Units	Daily ITE Trip Rate ¹	PM ITE Trip Rate ¹	Daily Trip Generation					PM Peak Hour Trip Generation				
						Total		In ¹		Out ¹		Total		In ¹	
Office	710	19.66	KSF	11.14	1.23	219	50%	110	50%	109	24	16%	4	84%	20
New External Trips						219	110		109		24	4		20	
ADDITIONAL NEW EXTERNAL TRIPS															
						Daily Trip Generation					PM Peak Hour Trip Generation				
						Total		In ¹		Out ¹		Total		In ¹	
New External Trips						509	254		255		31	24		7	

¹ Vehicle trip rates and directional splits per data and procedures outlined in ITE Trip Generation Manual, 10th Edition² Pass-by trip rate for ITE LUC 820 and LUC 934 PM peak hour per ITE Trip Generation Handbook, 3rd Edition

As shown in Table 1, the proposed redevelopment of the site is anticipated to generate 509 additional daily trips external to the site and 31 additional PM peak hour trips (24 inbound and 7 outbound).



Trip Generation – Midday Driveway Volume Forecast

In addition to the Daily and PM peak hour new external trip impact of the redevelopment, City staff has asked that the midday (lunch) peak hour be included in the Buildout (2019) operational analysis. Forecasted midday driveway trips are not all new to the roadway network; some exist already from existing site uses and some are in background traffic that pass-by the site. To facilitate the future operational analysis at the driveways, a trip generation estimate for midday driveway volumes at buildout was developed.

Trip behavior at the adjacent McDonald's was referenced to determine an appropriate trip summary for the future Wendy's land use. Midday trips for the adjacent McDonald's were developed from ITE data for LUC 934 (Fast-Food Restaurant with Drive-Through Window) PM peak hour of generator, and were compared to peak hour midday driveway counts observed at the McDonald's between 11:00AM-1:00PM. The following comparison shows that the McDonald's midday trip generation tracked well with ITE rates:

- Midday peak hour trips for McDonald's using ITE PM peak hour generator rates (51.36 vehicles per hour per 1,000 square feet with 52/48 directional split):
 - o 248 midday peak hour vehicle trips (129 In, 119 Out)
- Midday peak hour trips for McDonald's observed between 11:00AM-1:00PM on June 21, 2018 (traffic count data provided in Attachment C):
 - o 252 midday peak hour vehicle trips (126 In, 126 Out)

For buildout midday (lunch) peak hour, it is estimated that the Wendy's will have buildout driveway volumes comparable to the McDonald's driveway counts. For the retail portion, ITE PM peak hour of generator rates for LUC 820 (Shopping Center) were referenced for midday driveway volumes. Table 2 provides the midday (lunch) peak hour total driveway volume estimate at buildout (2019).

Table 2: Midday Buildout Total Driveway Volumes

Land Use	ITE LUC	Size	Units	Midday Trip Rate ¹	Midday Peak Hour Trip Generation				
					Total	In ¹		Out ¹	
Fast-Food Restaurant with Drive-Through Window	934	2.43	KSF	McDonald's Data	252	50%	126	50%	126
Commercial	820	6.24	KSF	4.21	26	50%	13	50%	13
Total Driveway Trips					278		139		139

¹ Future Fast-Food Use assumes McDonald's driveway count data, Commercial assumes PM peak generator hour data from ITE



Trip Distribution and Trip Assignment

Projected distribution of project trips on study area roadways were derived with use of the midday peak hour TMC data collected at the adjacent McDonald's site driveways and along Shoreview Avenue. Figure 2 displays the existing TMC data. The collected traffic data was referenced to assign distribution percentages at the existing McDonald's access points, as shown in Figure 3. The McDonald's distribution percentages were then used to assign anticipated project distribution to the proposed Fairbanks Retail site driveways and along Shoreview Avenue, as shown in Figure 4. The proposed site distribution percentages will be used to assign project trips to the project study area intersections and driveways.

Figure 2: Existing Midday Turning Movement Volumes

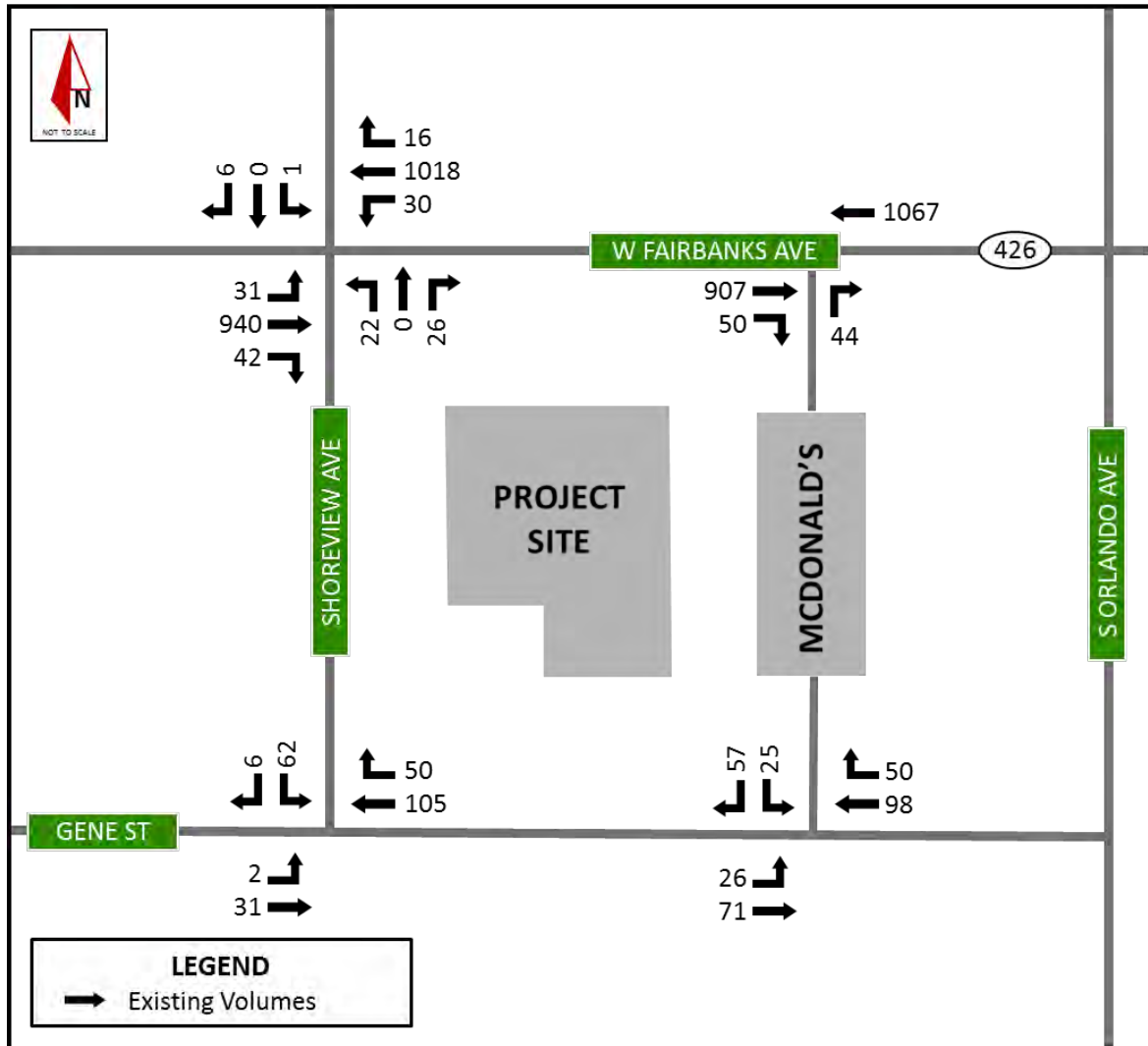


Figure 3: Existing McDonald's Distribution

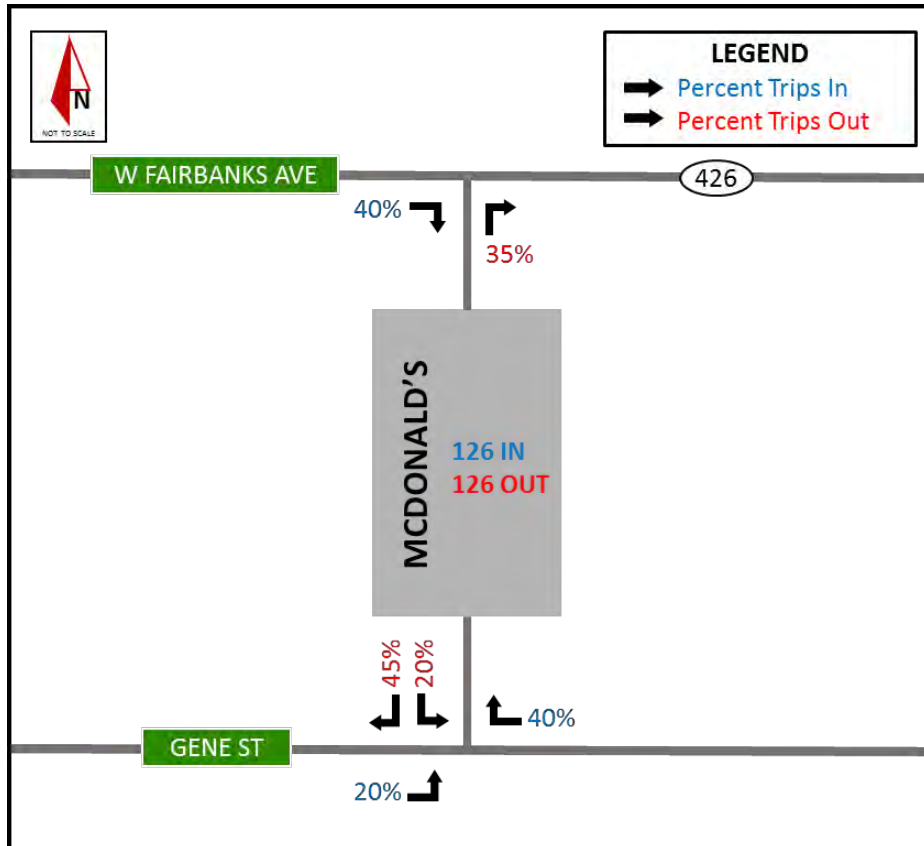
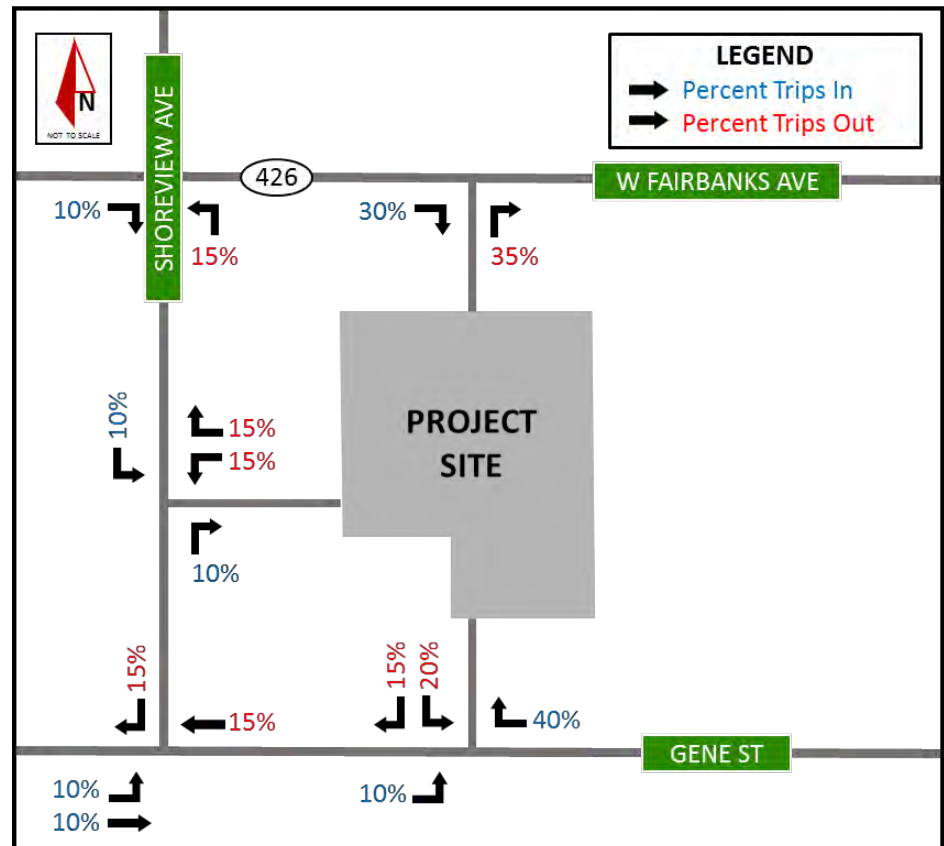


Figure 4: Proposed Fairbanks Retail Distribution





Buildout Conditions Analysis

Project trips will be assigned to the roadway network in accordance with the project trip distribution. Buildout traffic volumes will be determined by combining background volumes with project traffic volumes.

Intersection capacity analyses will be performed at project driveways and study area intersections for the Buildout (2019) midday (lunch) peak hour and PM peak hour using the operational analysis procedures outlined in the Highway Capacity Manual 2010. Specifically, Synchro (v9) software will be used to evaluate buildout operational conditions at study area intersections and project access points by reporting v/c ratios, delay, and queue length demands. If necessary, mitigating measures for any operational deficiencies identified due to project traffic impact will be recommended in the TIA.

Report

All analyses and findings will be documented in a report to be provided to the City of Winter Park for review.

ATTACHMENT A
Methodology Meeting Minutes – 06/18/2018

TIA Methodology Meeting Minutes

Fairbanks Retail (1308/1324/1350 W Fairbanks Ave)

MEETING DATE: June 18, 2018
MEETING TIME: 9:30 AM
LOCATION: Winter Park Public Works – 500 N Virginia Ave, Winter Park, FL 32789
ATTENDEES: Jeffrey Briggs, Winter Park
Don Marcotte, Winter Park
Troy Attaway, Winter Park
Keith Moore, Winter Park
Brooks Stickler, Kimley-Horn
James Taylor, Kimley-Horn
Amanda Black, Kimley-Horn

1. Purpose/Site Plan

- a) The purpose of the meeting is to introduce a revised site plan for 1308/1324/1350 W Fairbanks based on input from the previous submittal in 2017. Kimley-Horn wishes to establish a methodology for the forthcoming Traffic Impact Analysis (TIA) to address staff concerns.
- b) The site will include retail space and a fast-food restaurant with a drive-through (with Wendy's secured as the tenant). Kimley-Horn is representing the land owner for the site (not Wendy's).
- c) It was requested by the City previously that the site look like one building. The revised plan addresses this request.
- d) Access points to the site will remain at Fairbanks Ave (right-in/right-out only), Shoreview Ave, and Gene St.
- e) City staff noted that when the McDonald's next door was developed, the eastbound left turn lane and raised median on Fairbanks Ave was extended further west, in part, to discourage illegal left moves at the right-in/right-out driveway. The same concern applies to Wendy's.
 - i) There are potential operational concerns with further reduction of the westbound left turn lane length at Shoreview Ave caused by additional extension of the eastbound left turn lane. Kimley-Horn will research DOT standards on minimum taper length for deceleration and minimum length for queueing.
 - ii) Kimley-Horn's conversations with FDOT in 2017 indicated that extension of the eastbound turn lane was not necessary based on minimal traffic increase forecast. Kimley-Horn will continue the conversation with FDOT as the TIA develops.
 - iii) Kimley-Horn proposes to work with staff to address the concern for illegal left moves with a driveway design that includes a raised pork chop. Images of a similar design, including sidewalk and signs, will be provided. Reflectors would be placed along the pork chop and a "Right Turn Only" sign may be installed at the Fairbanks Ave right-out movement. Staff may prefer a "Do Not Enter" sign at the Fairbanks Ave left-in movement.

- f) There is currently a strip of grass on the property along Fairbanks Ave. Winter Park prefers to keep it as a visual barrier.
- g) The south lane of Fairbanks Ave will be torn up for a new transmission line in January 2019. It will be completed in segments from I-4 to 17/92.
- h) There are no longer bricks on Gene St from the project site to Shoreview Ave. The remaining bricks from Shoreview Ave to Nicolet Ave are planned to be eventually removed.
- i) Winter Park is looking at the possibility of adding a double-left turn on Fairbanks Ave at the Fairbanks Ave/Orlando Ave intersection.

2. TIA Methodology

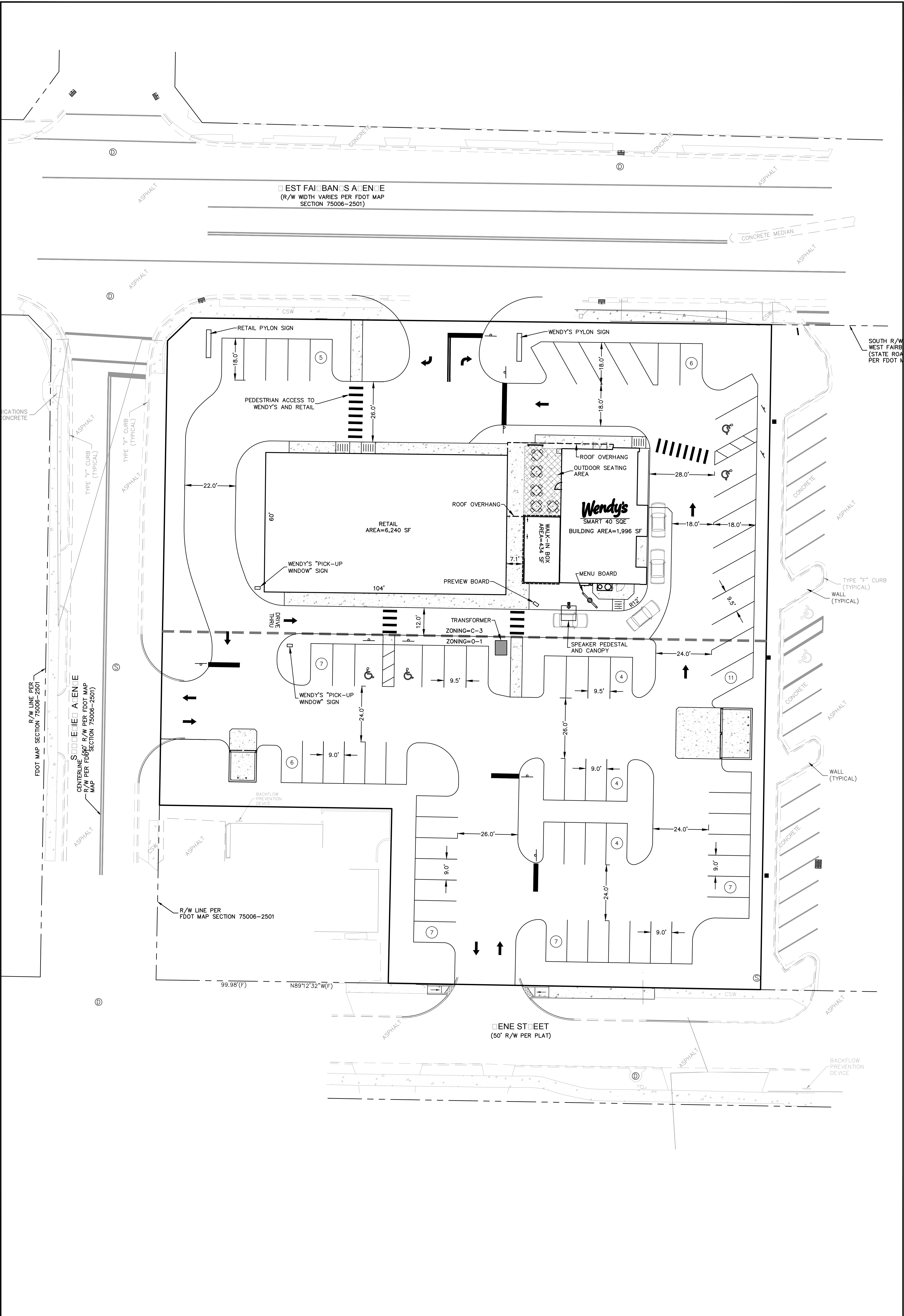
- a) A limited Traffic Impact Analysis (TIA) was submitted for last year's submittal (September 2017). Traffic counts were not collected. Based on previous concerns, the analysis will be expanded for this application.
- b) Per discussions with Dori last year, the September 2017 TIA assumed the existing use of the site to be "general office" for the trip generation summary. Staff agreed that Kimley-Horn should continue to use ITE's "general office" trip rates for the TIA. It was agreed that the trip generation summary for the proposed uses will utilize ITE's trip rates for "fast food restaurant with a drive-through" and "shopping center." The City wants daily numbers to be included in the TIA.
- c) It was agreed that project distribution for the Wendy's will be developed by observing midday traffic patterns at the neighboring McDonald's. There is concern that the Wendy's will significantly increase traffic on Gene Street.
- d) The TIA should include operational analyses at the project driveways and at the intersections of Fairbanks Ave & Shoreview Ave and Shoreview Ave & Gene St.
- e) Kimley-Horn will observe the northbound left turn at Shoreview Ave for evidence of the opportunity to safely make left turns (out of the project) at the intersection.

3. Next Steps

- a) Collect midday (lunchtime) peak hour traffic counts at McDonald's.
- b) Provide a revised TIA methodology to the City.
- c) Follow up with FDOT standards and what they will/will not require at the Fairbanks Ave turn lanes and project driveway.
- d) Prepare and submit the TIA to the City.
- e) Provide examples of the right-in/right-out driveway design at the Fairbanks Ave driveway to the City.

This meeting summary was prepared by Kimley-Horn. If you feel something should be added or revised, please contact James Taylor at james.taylor@kimley-horn.com or by telephone at 407-898-1511.

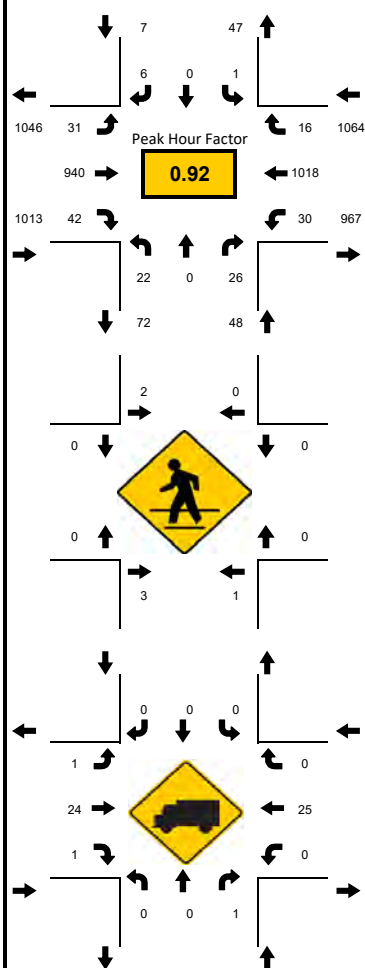
ATTACHMENT B
Conceptual Site Plan



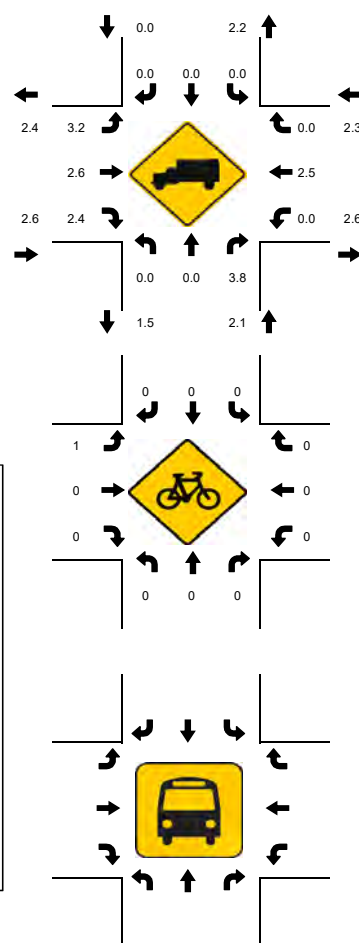
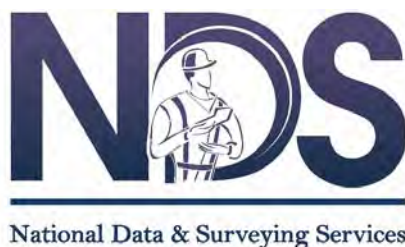
	☐ EN ☐ ☐ ☐ S C ☐ NCEPT - 68 PA ☐ ☐ ☐ IN ☐ SPACES		☐ EAL ☐ : ☐ 2017383	
			2- ☐ 18	
	☐ INTE ☐ PA ☐ ☐		LANDON, MOREE & ASSOCIATES, INC.	

ATTACHMENT C
Turning Movement Counts

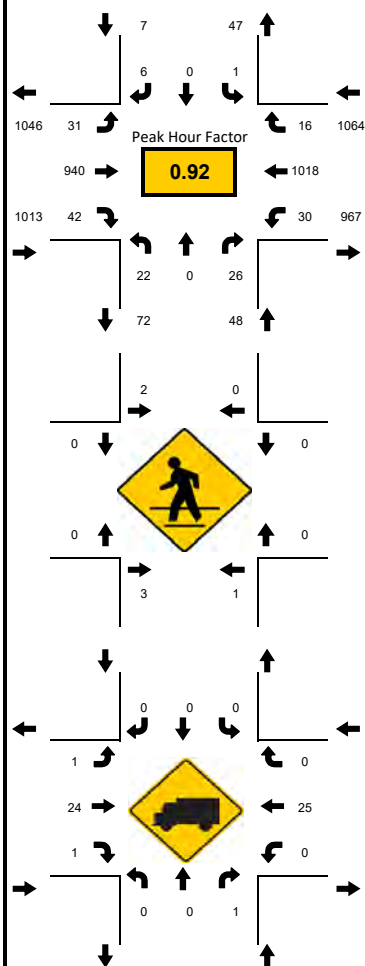
PROJECT ID: 18-03307-001
DATE: 06/21/2018



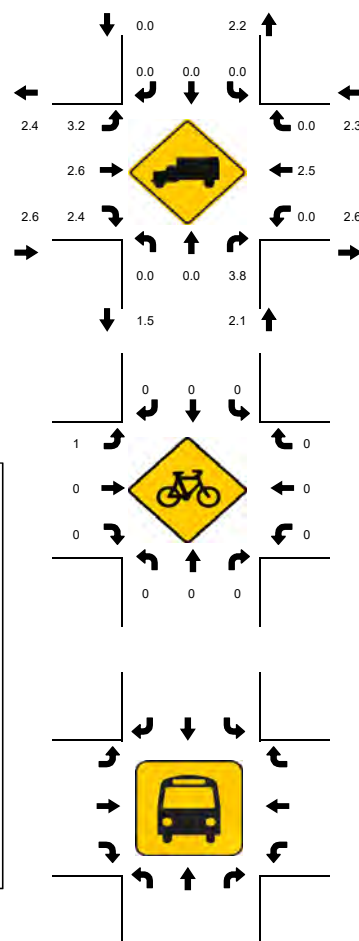
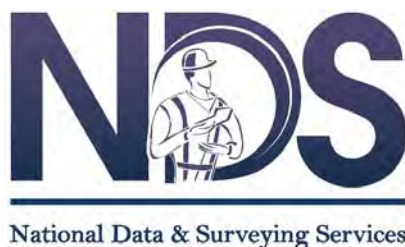
Peak-Hour: 11:30 AM - 12:30 PM
Peak 15-Minute: 11:45 AM - 12:00 PM

[illegible]

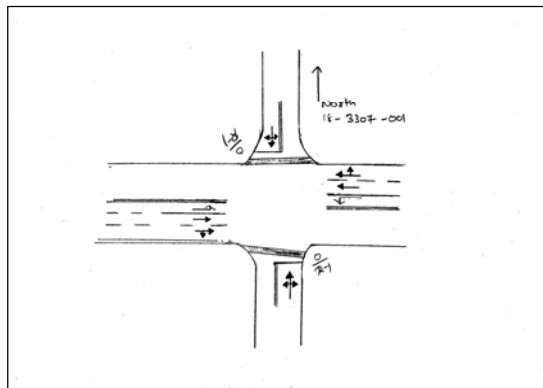
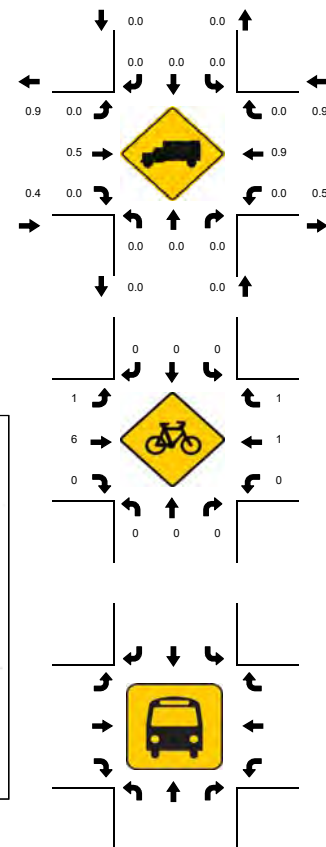
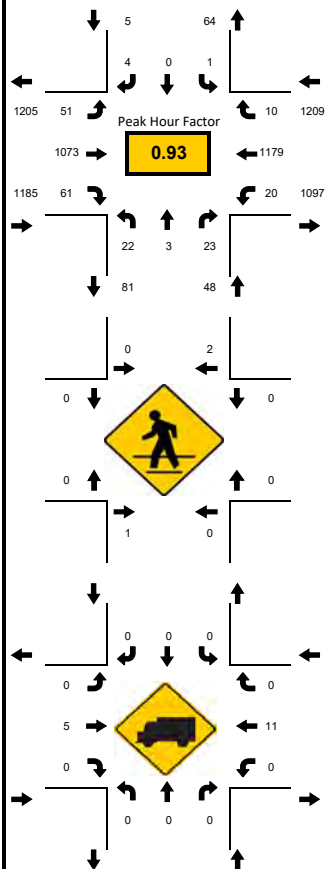
PROJECT ID: 18-03307-001
DATE: 06/21/2018



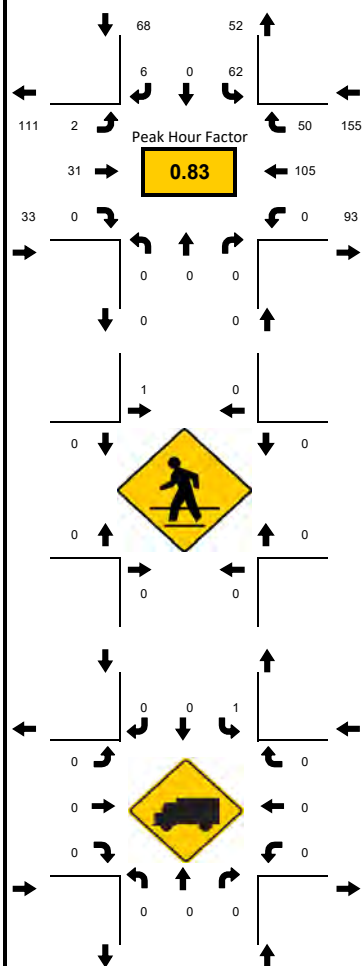
Peak-Hour: 11:30 AM - 12:30 PM
Peak 15-Minute: 11:45 AM - 12:00 PM

[illegible]

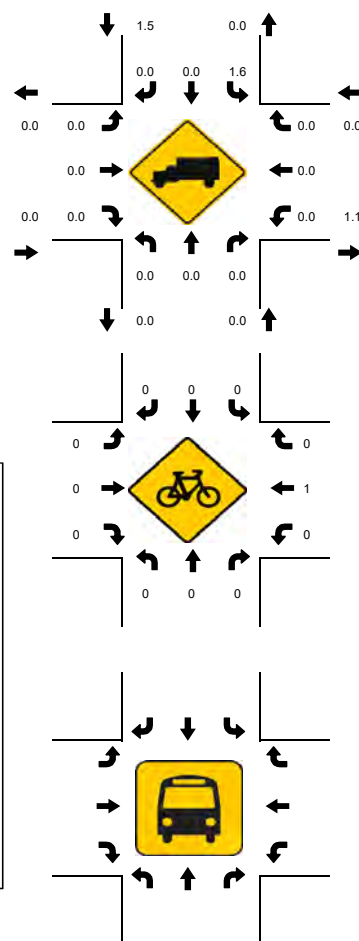
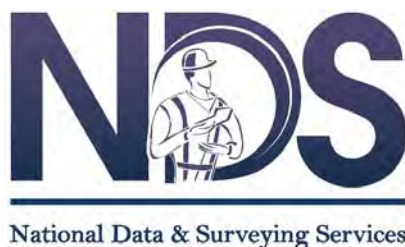
PROJECT ID: 18-03307-001
DATE: 06/21/2018

[illegible]

PROJECT ID: 18-03307-002
DATE: 06/21/2018

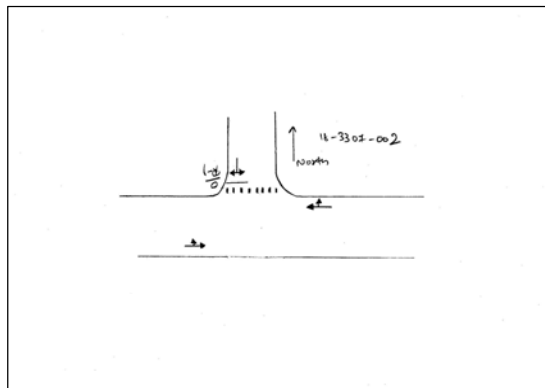
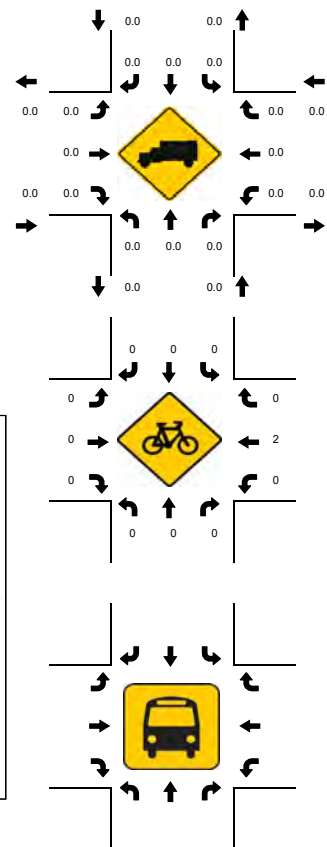
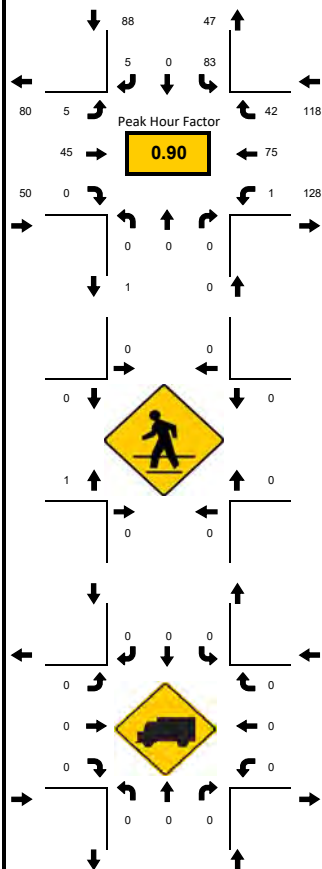


Peak-Hour: 12:00 PM - 01:00 PM
Peak 15-Minute: 12:45 PM - 01:00 PM

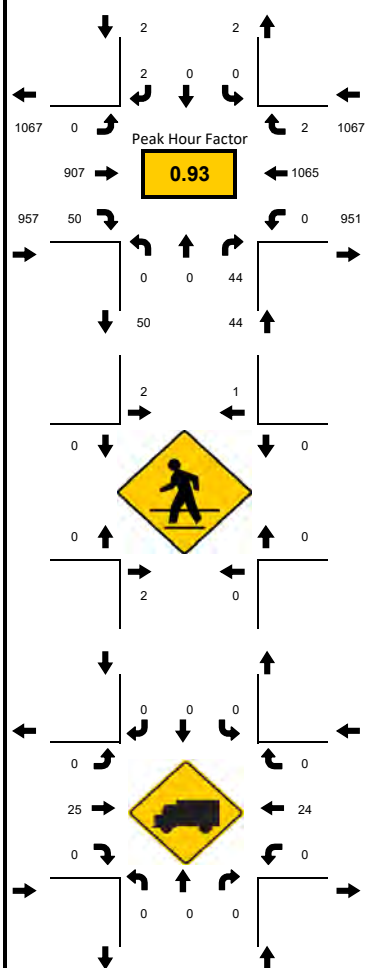


15-Min Count Period Beginning At	Shoreview Ave Northbound					Shoreview Ave Southbound					Gene St Eastbound					Gene St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
11:00 AM	0	0	0	0	0	9	0	0	0	0	0	4	0	0	0	0	10	8	0	0	31	163
11:15 AM	0	0	0	0	0	13	0	3	0	0	1	5	0	0	0	0	16	8	0	0	46	189
11:30 AM	0	0	0	0	0	15	0	5	0	0	4	3	0	0	0	0	14	7	0	0	48	199
11:45 AM	0	0	0	0	0	8	0	0	0	0	0	6	0	0	0	0	16	8	0	0	38	217
12:00 PM	0	0	0	0	0	16	0	1	0	0	2	5	0	0	0	0	23	10	0	0	57	256
12:15 PM	0	0	0	0	0	13	0	1	0	0	0	9	0	0	0	0	22	11	0	0	56	199
12:30 PM	0	0	0	0	0	19	0	4	0	0	0	8	0	0	0	0	22	13	0	0	66	143
12:45 PM	0	0	0	0	0	14	0	0	0	0	0	9	0	0	0	0	38	16	0	0	77	77
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	0	0	0	0	0	76	0	16	0	0	8	36	0	0	0	0	152	64	0	0	352	
Heavy Trucks	0	0	0			4	0	0			0	0	0			0	0	0			4	
Pedestrians		0						4				0					0				4	
Bicycles	0	0	0			0	0	0			0	0	0			0	4	0			4	
Railroad Stopped Buses																						

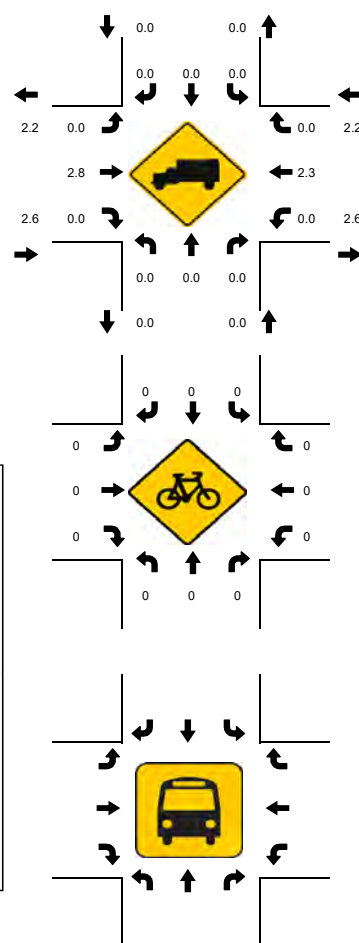
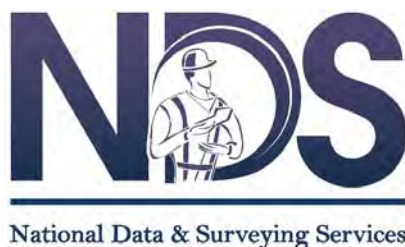
PROJECT ID: 18-03307-002
DATE: 06/21/2018

[illegible]

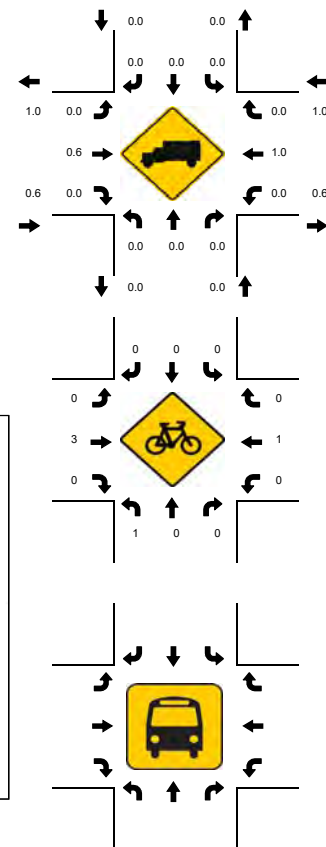
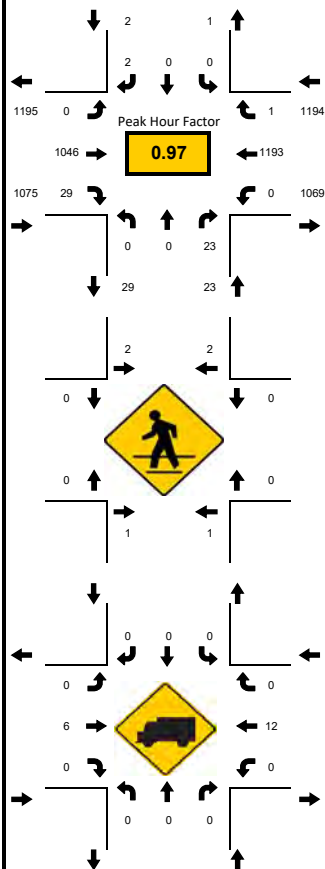
PROJECT ID: 18-03307-003
DATE: 06/21/2018



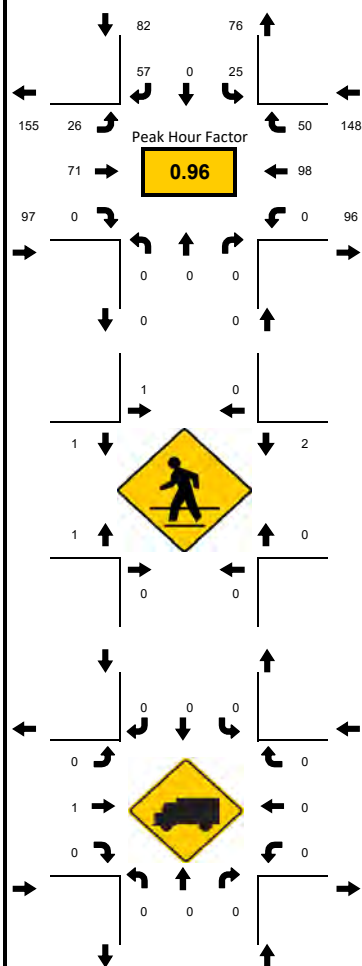
Peak-Hour: 11:30 AM - 12:30 PM
Peak 15-Minute: 11:45 AM - 12:00 PM

[illegible]

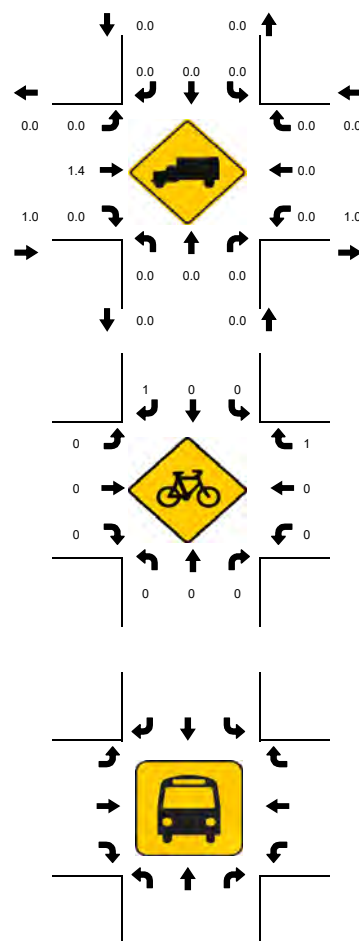
PROJECT ID: 18-03307-003
DATE: 06/21/2018

[illegible]

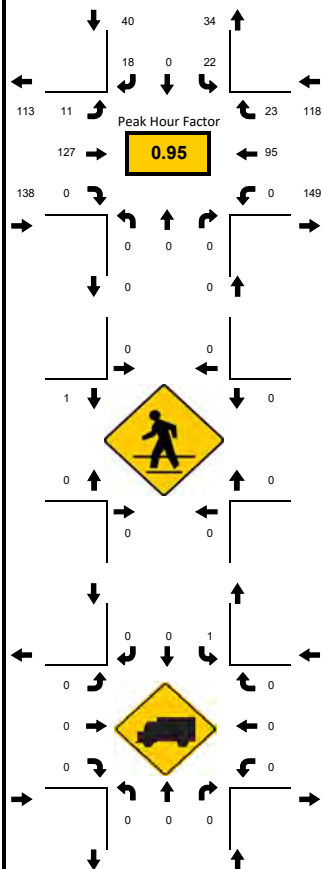
PROJECT ID: 18-03307-004
DATE: 06/21/2018



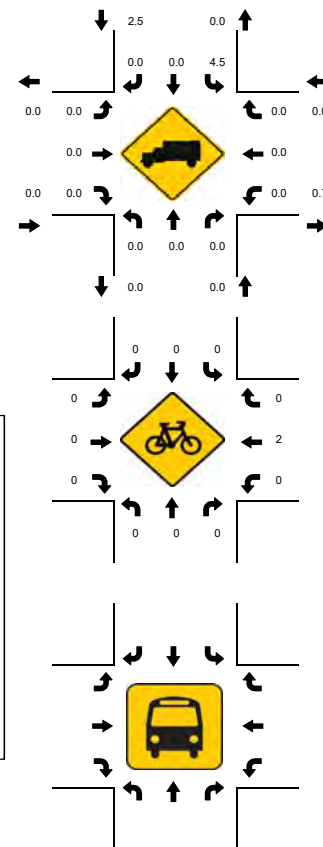
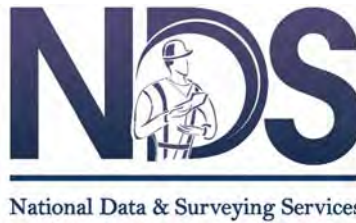
NDS
National Data & Surveying Services

[illegible]

PROJECT ID: 18-03307-004
DATE: 06/21/2018



Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:15 PM - 05:30 PM

[illegible]

ATTACHMENT D
Excerpts from ITE Publications

General Office Building (710)

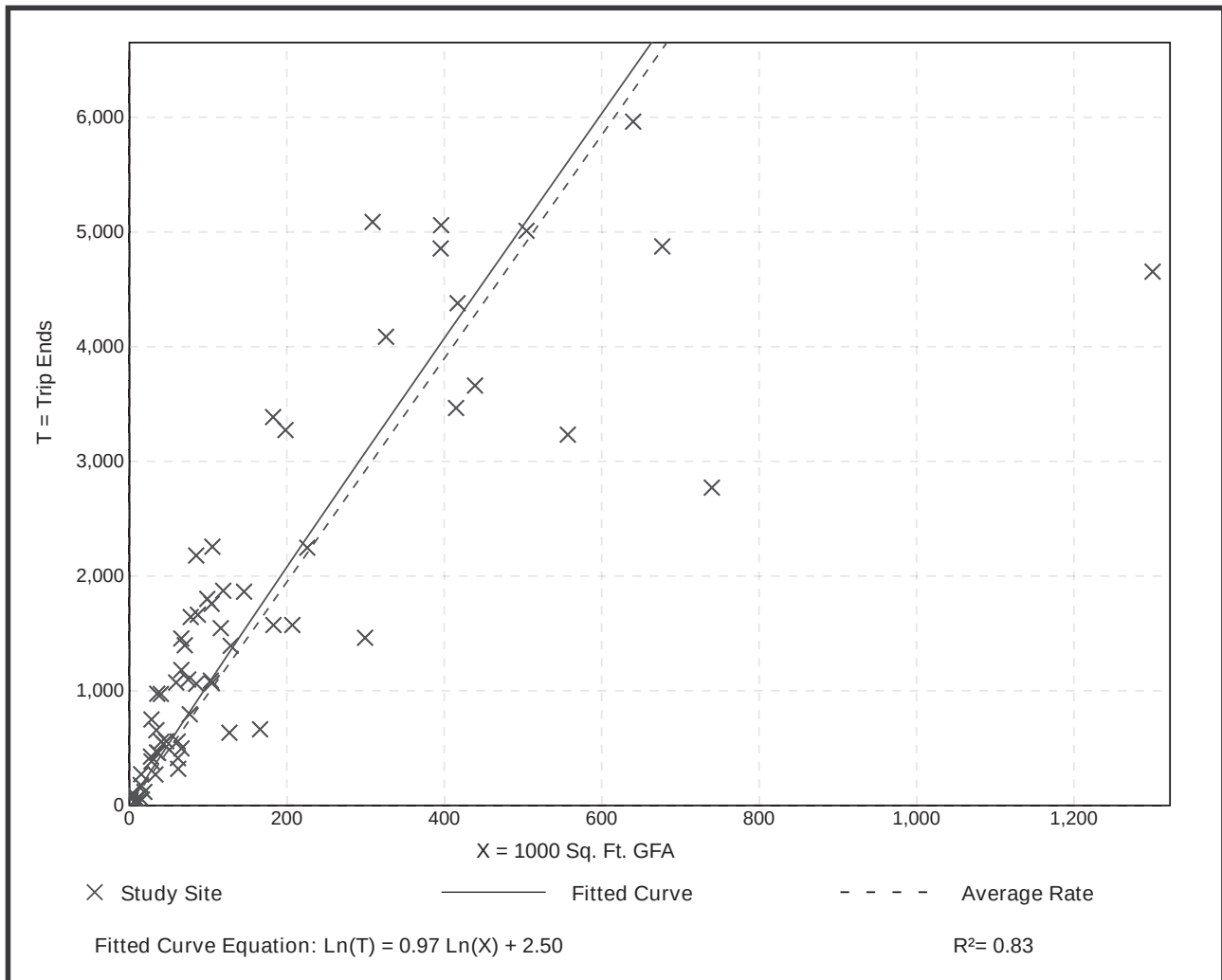
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 66
1000 Sq. Ft. GFA: 171
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.74	2.71 - 27.56	5.15

Data Plot and Equation



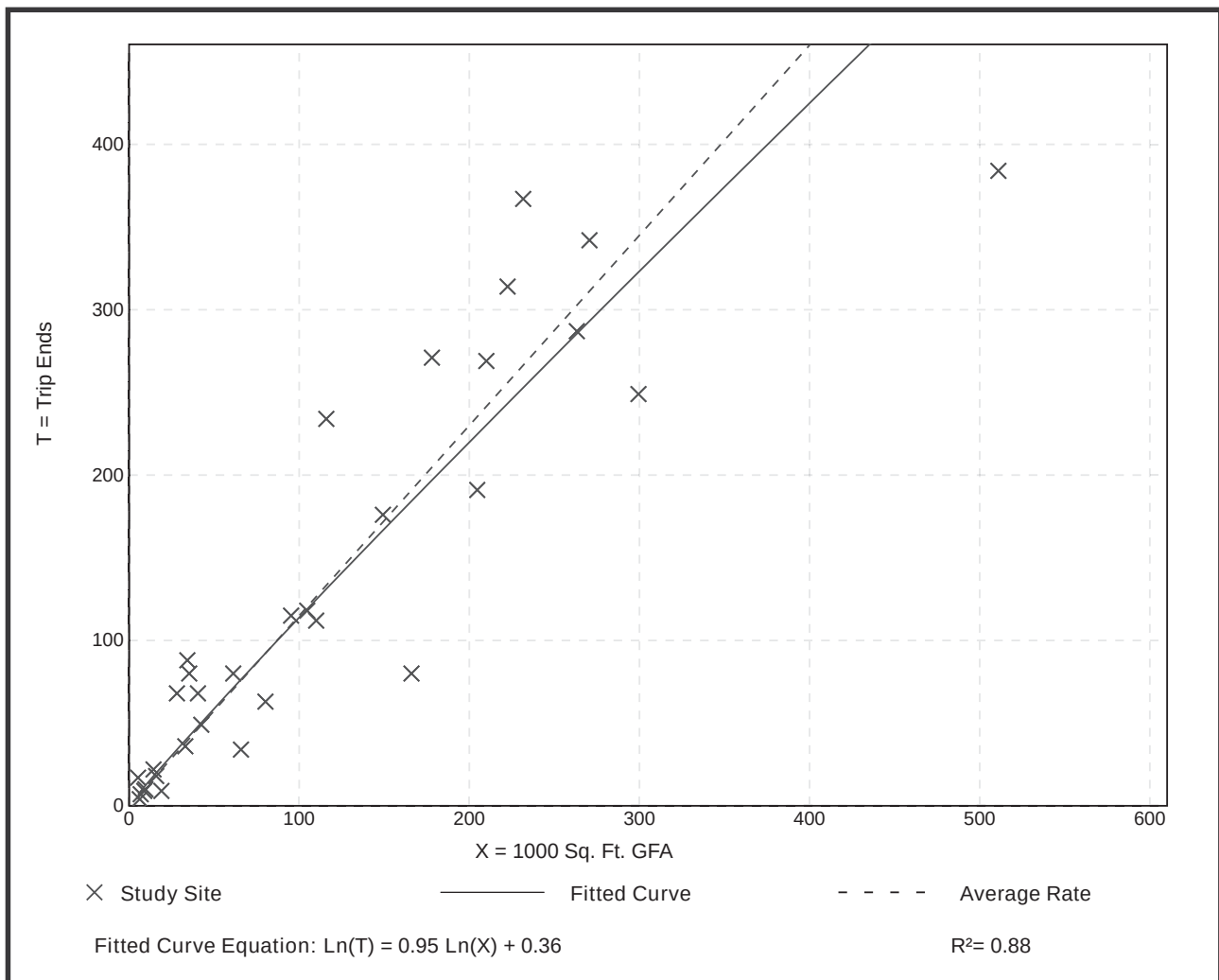
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 32
 1000 Sq. Ft. GFA: 114
 Directional Distribution: 16% entering, 84% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.15	0.47 - 3.23	0.42

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

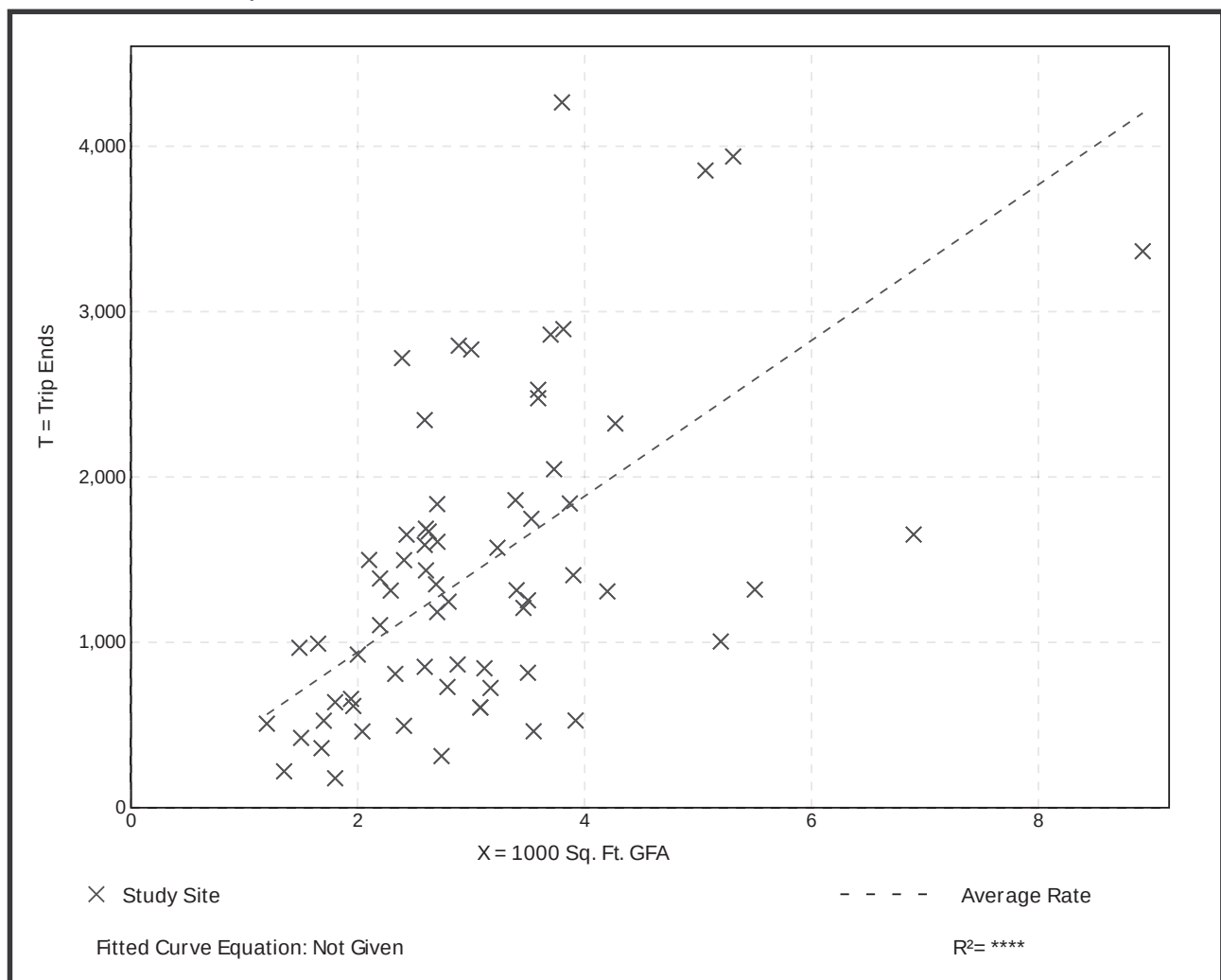
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 67
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
470.95	98.89 - 1137.66	244.44

Data Plot and Equation



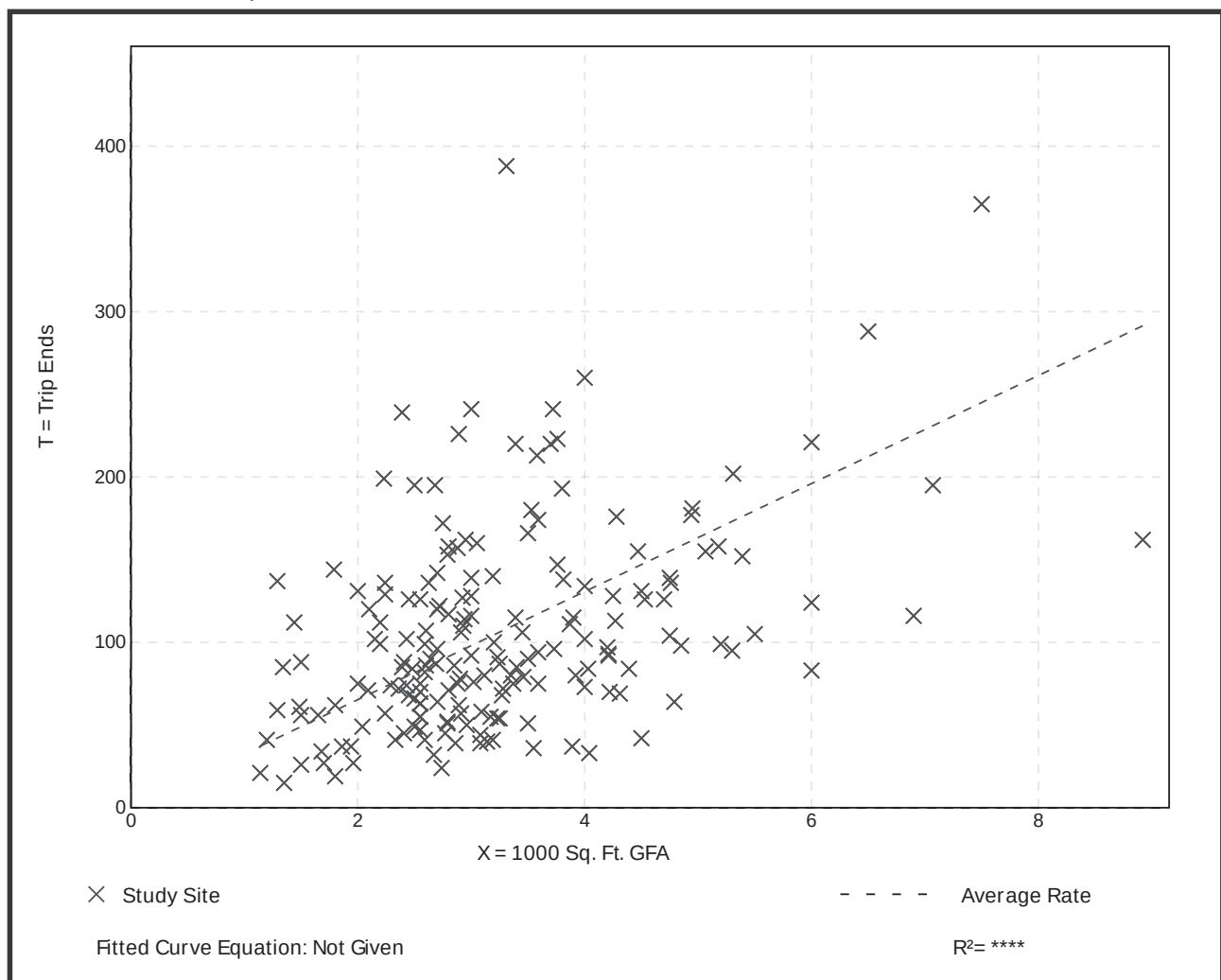
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 185
 1000 Sq. Ft. GFA: 3
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.67	8.17 - 117.22	17.87

Data Plot and Equation



**Table E.32 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 934—Fast-Food Restaurant with Drive-Through Window**

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS- BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	~2.6	Minn-St. Paul, MN	1987	50	3:00–7:00 p.m.	25	27	48	75	—	—
—	<5.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	38	—	—	62	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	55	—	—	45	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	159	3:00–6:00 p.m.	56	—	—	44	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	225	3:00–6:00 p.m.	48	—	—	52	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	88	3:00–6:00 p.m.	35	—	—	65	—	Kenig, O'Hara, Humes, Flock
—	<5.0	Chicago suburbs, IL	1987	84	3:00–6:00 p.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.3	Louisville area, KY	1993	—	4:00–6:00 p.m.	68	22	10	32	2,055	Barton- Aschman Assoc.
120	1.9	Louisville area, KY	1993	33	4:00–6:00 p.m.	67	24	9	33	2,447	Barton- Aschman Assoc.
87	4.2	New Albany, IN	1993	—	4:00–6:00 p.m.	56	25	19	44	1,632	Barton- Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	4:00–6:00 p.m.	31	31	38	69	4,250	Barton- Aschman Assoc.
—	3.1	Kissimmee, FL	1995	28	2:00–6:00 p.m.	71	—	—	29	—	TPD Inc.
—	3.1	Apopka, FL	1996	29	2:00–6:00 p.m.	38	—	—	62	—	TPD Inc.
—	2.8	Winter Springs, FL	1995	47	2:00–6:00 p.m.	66	—	—	34	—	TPD Inc.
—	4.3	Longwood, FL	1994	304	2:00–6:00 p.m.	62	—	—	38	—	TPD Inc.
—	3.2	Altamonte Springs, FL	1996	202	2:00–6:00 p.m.	40	39	21	60	—	TPD Inc.
—	2.9	Winter Park, FL	1996	271	2:00–6:00 p.m.	41	41	18	59	—	TPD Inc.
—	3.3*	several	1996	varies	4:00–6:00 p.m.	62	—	—	38	—	Oracle Engineering

*Average of several combined studies.

Average Pass-By Trip Percentage: 50

“—” means no data were provided

Shopping Center (820)

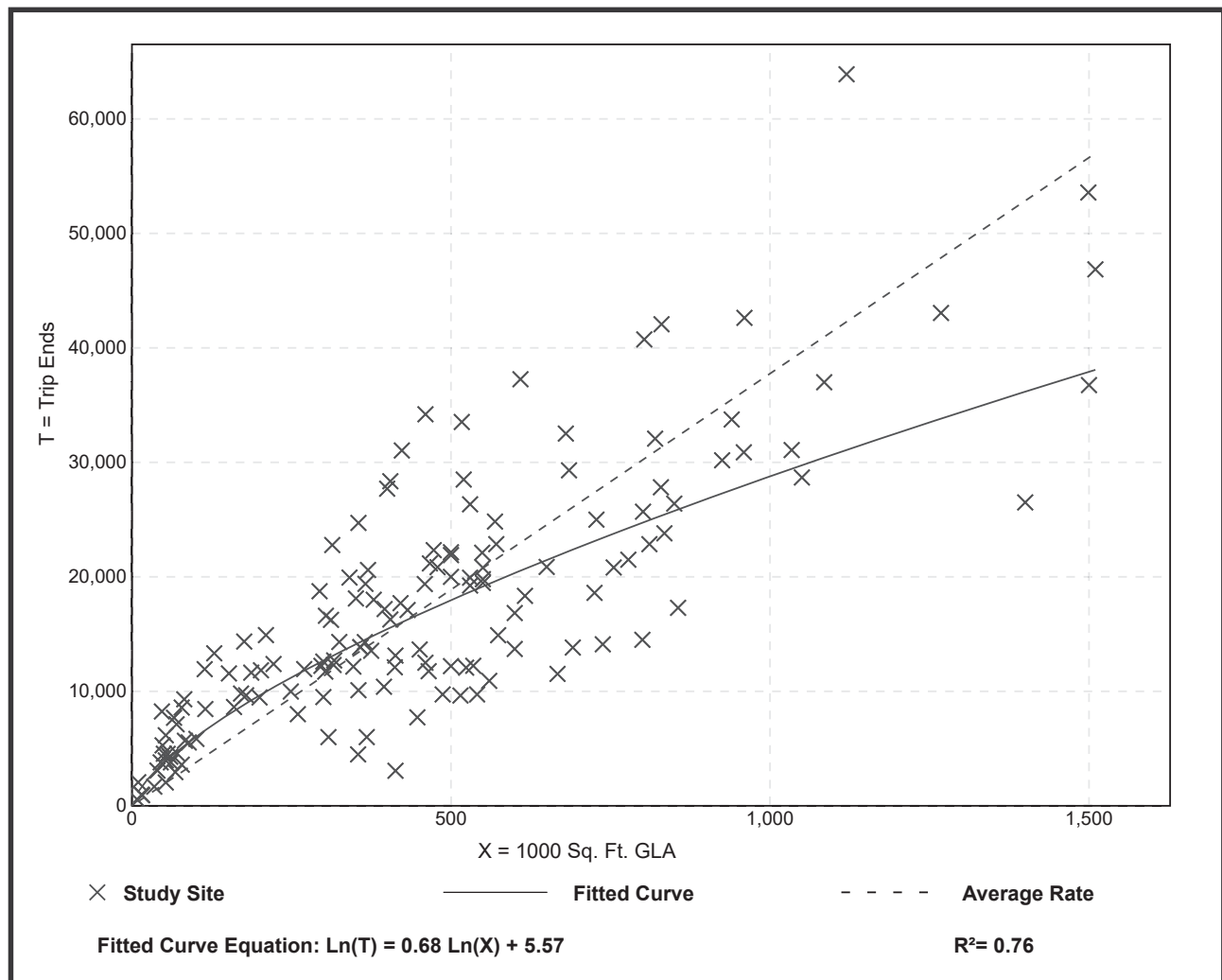
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



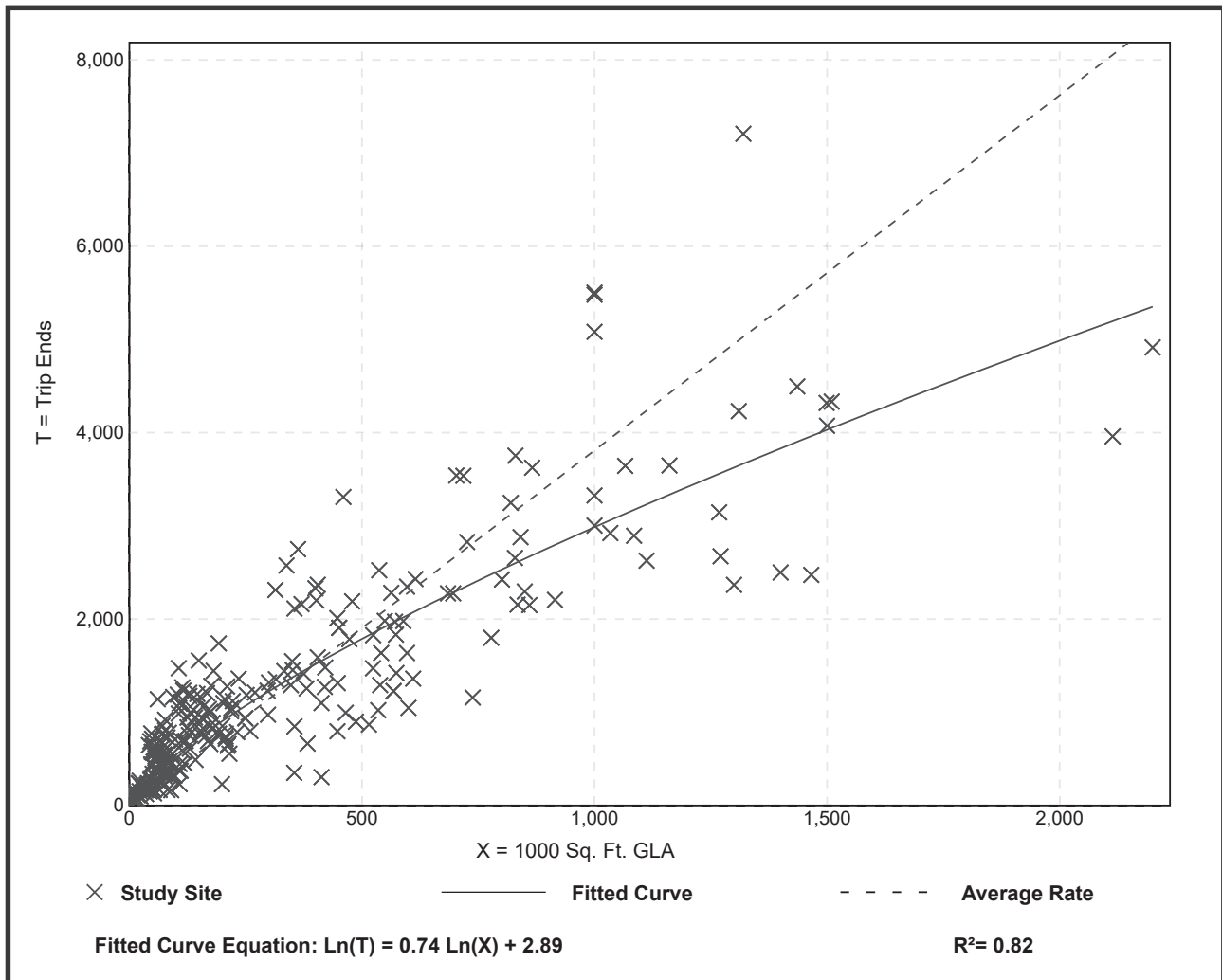
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 261
 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



**Table E.9 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
53	Port Orange, FL	1993	162	2:00–6:00 p.m.	59	—	—	41	—	—	TPD Inc.
9	Kissimmee, FL	1994	107	2:00–6:00 p.m.	66	20	14	34	—	—	TPD Inc.
77	Edgewater, FL	1992	365	2:00–6:00 p.m.	46	—	—	54	—	—	TPD Inc.
82	Deltona, FL	1992	336	2:00–6:00 p.m.	34	—	—	66	—	—	TPD Inc.
78	Orlando, FL	1991	702	2:00–6:00 p.m.	55	23	22	45	—	—	TPD Inc.
45	Orlando, FL	1992	844	2:00–6:00 p.m.	56	24	20	44	—	—	TPD Inc.
50	Orlando, FL	1992	555	2:00–6:00 p.m.	41	41	18	59	—	—	TPD Inc.
52	Orlando, FL	1995	665	2:00–6:00 p.m.	42	33	25	58	—	—	TPD Inc.
17	Orlando, FL	1994	196	2:00–6:00 p.m.	66	—	—	34	—	—	TPD Inc.
60	Orlando, FL	1995	1,583	3:00–7:00 p.m.	40	38	22	60	—	—	TPD Inc.
158	Crestwood, KY	June 1993	129	4:00–6:00 p.m.	36	39	25	64	759	—	Barton- Aschman Assoc.
118	Louisville area, KY	June 1993	133	4:00–6:00 p.m.	22	51	27	78	3,555	—	Barton- Aschman Assoc.
74	Louisville, KY	June 1993	187	4:00–6:00 p.m.	30	43	27	70	922	—	Barton- Aschman Assoc.
59	Louisville area, KY	June 1993	247	4:00–6:00 p.m.	31	52	17	69	2,659	—	Barton- Aschman Assoc.
145	Louisville area, KY	June 1993	210	4:00–6:00 p.m.	53	30	17	47	2,636	—	Barton- Aschman Assoc.
104	Louisville area, KY	June 1993	281	4:00–6:00 p.m.	28	50	22	72	2,111	—	Barton- Aschman Assoc.
235	Louisville, KY	June 1993	211	4:00–6:00 p.m.	35	29	36	65	2,593	—	Barton- Aschman Assoc.
71	Louisville, KY	June 1993	109	4:00–6:00 p.m.	25	42	33	75	1,559	—	Barton- Aschman Assoc.
350	Worcester, MA	Apr. 1994	224	4:00–6:00 p.m.	18	45	37	82	2,112	—	ICSC
738	East Brunswick, NJ	Apr. 1994	283	4:00–6:00 p.m.	14	79	7	86	8,059	—	ICSC
294	Philadelphia, PA	Apr. 1994	213	4:00–6:00 p.m.	25	51	24	75	4,055	—	ICSC
256	Hamden, CT	Apr. 1994	208	4:00–6:00 p.m.	27	51	22	73	3,422	—	ICSC
418	Glen Burnie, MD	Apr. 1994	281	4:00–6:00 p.m.	20	51	29	80	5,610	—	ICSC
560	Harrisonburg, VA	Apr. 1994	437	4:00–6:00 p.m.	19	49	32	81	3,051	—	ICSC

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday,
PM Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
361	Glen Allen, VA	Apr. 1994	315	4:00–6:00 p.m.	17	54	29	83	2,034	—	ICSC
375	Shelby, NC	May 1994	214	4:00–6:00 p.m.	30	48	22	70	3,053	—	ICSC
413	Texas City, TX	May 1994	228	4:00–6:00 p.m.	28	52	20	72	589	—	ICSC
488	Texas City, TX	May 1994	257	4:00–6:00 p.m.	12	75	13	88	1,094	—	ICSC
293	Berwyn, IL	May 1994	282	4:00–6:00 p.m.	24	70	6	76	4,606	—	ICSC
667	Bourbonais, IL	May 1994	200	4:00–6:00 p.m.	16	53	31	84	2,770	—	ICSC
225	Bellevue, IL	May 1994	264	4:00–6:00 p.m.	35	32	33	65	1,970	—	ICSC
255	Bettendorf, IA	May 1994	222	4:00–6:00 p.m.	24	37	39	76	3,706	—	ICSC
808	Laguna Hills, CA	June 1994	240	4:00–6:00 p.m.	13	73	14	87	4,035	—	ICSC
450	Hanford, CA	May 1994	321	4:00–6:00 p.m.	23	49	28	77	2,787	—	ICSC
800	San Jose, CA	May 1994	205	4:00–6:00 p.m.	21	51	28	79	7,474	—	ICSC
598	Greeley, CO	May 1994	205	4:00–6:00 p.m.	17	55	28	83	3,840	—	ICSC
581	Pueblo, CO	May 1994	296	4:00–6:00 p.m.	18	53	29	82	2,939	—	ICSC
476	Bellevue, WA	May 1994	234	4:00–6:00 p.m.	26	54	20	74	3,427	—	ICSC
720	Framingham, MA	Dec. 1982	92	3:30–7:00 p.m.	23	39	38	77	—	73,628	Raymond Keyes Assoc.
890	Newark, DE	July 1984	179	3:00–8:00 p.m.	12	49	39	88	—	—	Raymond Keyes Assoc.
402	Manassas, VA	June 1984	87	4:00–6:00 p.m.	48	25	27	52	—	—	Raymond Keyes Assoc.
462	Ross, PA	June 1980	175	5:30–7:00 p.m.	36	—	—	64	—	27,200	Raymond Keyes Assoc.
234	Huntington LI, NY	Nov. 1985	181	4:00–7:00 p.m.	46	21	33	54	—	34,630	Raymond Keyes Assoc.
658	Wayne, NJ	Sept. 1984	243	3:00–6:00 p.m.	27	61	12	73	—	85,600	Raymond Keyes Assoc.
1,200	Washington, DC	1980	364	4:00–6:00 p.m.	25	35	40	75	—	—	Gorove-Slade
800	Southern CA	—	1,000	4:00–6:00 p.m.	12	45	43	88	—	—	Frischer
451	Portland, OR	—	—	5:00–6:00 p.m.	25	—	—	75	—	—	Buttke
113	Portland, OR	—	—	5:00–6:00 p.m.	17	—	—	83	—	—	Buttke

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
622	Ramsey, MN	Nov. 1985	46	4:00–9:00 p.m.	44	26	30	56	—	36,370	Raymond Keyes Assoc.
736	Pensacola, FL	Oct. 1985	383	3:00–7:00 p.m.	26	35	39	74	—	—	Raymond Keyes Assoc.
84	Dover, DE	July 1985	218	3:30–7:00 p.m.	50	6	44	50	—	—	Raymond Keyes Assoc.
500	Meriden, CT	Apr. 1985	—	4:00–6:00 p.m.	8	—	—	92	—	—	Connecticut DOT
660	Enfield, CT	Apr. 1985	—	4:00–6:00 p.m.	22	—	—	78	—	—	Connecticut DOT
845	Waterford, CT	Apr. 1985	—	4:00–6:00 p.m.	14	—	—	86	—	—	Connecticut DOT
1,060	West Hartford, CT	Apr. 1985	—	4:00–6:00 p.m.	17	—	—	83	—	—	Connecticut DOT
131	Pr. Georges Co., MD	1982/83	88	4:00–6:00 p.m.	74	—	—	26	—	—	JHK
181	Pr. Georges Co., MD	1982/83	105	4:00–6:00 p.m.	36	—	—	64	—	—	JHK
100	Pr. Georges Co., MD	1982/83	93	4:00–6:00 p.m.	36	—	—	64	—	—	JHK
475	Pr. Georges Co., MD	1982/83	130	4:00–6:00 p.m.	20	—	—	80	—	—	JHK
60	Pr. Georges Co., MD	1982/83	72	4:00–6:00 p.m.	72	—	—	28	—	—	JHK
90	Pr. Georges Co., MD	1982/83	91	4:00–6:00 p.m.	58	—	—	42	—	—	JHK
78	Pr. Georges Co., MD	1982/83	113	4:00–6:00 p.m.	59	—	—	41	—	—	JHK
44	Pr. Georges Co., MD	1982/83	97	4:00–6:00 p.m.	51	—	—	49	—	—	JHK
467	Pr. Georges Co., MD	1982/83	99	4:00–6:00 p.m.	56	—	—	44	—	—	JHK
352	W. Orange, NJ	Mar. 1986	149	4:00–6:00 p.m.	38	19	43	62	—	21,520	Raymond Keyes Assoc.
176	Tarpon Springs, FL	May 1986	124	3:00–7:00 p.m.	37	28	35	63	—	34,080	Raymond Keyes Assoc.
762	Orlando, FL	Fall 1985	182	4:00–6:00 p.m.	25	52	23	75	—	—	Kimley-Horn and Assoc. Inc.
166	Orlando, FL	Fall 1985	124	4:00–6:00 p.m.	27	48	25	73	—	—	Kimley-Horn and Assoc. Inc.
129	Orlando, FL	Fall 1985	116	4:00–6:00 p.m.	28	50	22	72	—	—	Kimley-Horn and Assoc. Inc.
71	Orlando, FL	Fall 1985	81	4:00–6:00 p.m.	50	44	6	50	—	—	Kimley-Horn and Assoc. Inc.

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
921	Albany, NY	July & Aug. 1985	196	4:00–6:00 p.m.	23	42	35	77	—	60,950	Raymond Keyes Assoc.
108	Overland Park, KS	July 1988	111	4:30–5:30 p.m.	26	61	13	74	—	34,000	—
118	Overland Park, KS	Aug. 1988	123	4:30–5:30 p.m.	25	55	20	75	—	—	—
256	Greece, NY	June 1988	120	4:00–6:00 p.m.	38	62	—	62	—	23,410	Sear Brown
160	Greece, NY	June 1988	78	4:00–6:00 p.m.	29	71	—	71	—	57,306	Sear Brown
550	Greece, NY	June 1988	117	4:00–6:00 p.m.	48	52	—	52	—	40,763	Sear Brown
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.
1,090	Ross Twp, PA	July 1988	411	2:00–8:00 p.m.	34	56	10	66	—	51,500	Wilbur Smith and Assoc.
97	Upper Dublin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	41	—	—	59	—	34,000	McMahon Associates
118	Tredyffrin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	24	—	—	76	—	10,000	Booz Allen & Hamilton
122	Lawnside, NJ	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	20,000	Pennoni Associates
126	Boca Raton, FL	Winter 1988/89	—	4:00–6:00 p.m.	43	—	—	57	—	40,000	McMahon Associates
150	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	39	—	—	61	—	26,000	Booz Allen & Hamilton
153	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	50	—	—	50	—	85,000	McMahon Associates
153	Arden, DE	Winter 1988/89	—	4:00–6:00 p.m.	30	—	—	70	—	26,000	Orth-Rodgers & Assoc. Inc.
154	Doylestown, PA	Winter 1988/89	—	4:00–6:00 p.m.	32	—	—	68	—	29,000	Orth-Rodgers & Assoc. Inc.
164	Middletown Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	25,000	Booz Allen & Hamilton
166	Haddon Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	20	—	—	80	—	6,000	Pennoni Associates
205	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	55	—	—	45	—	62,000	McMahon Associates

**Table E.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

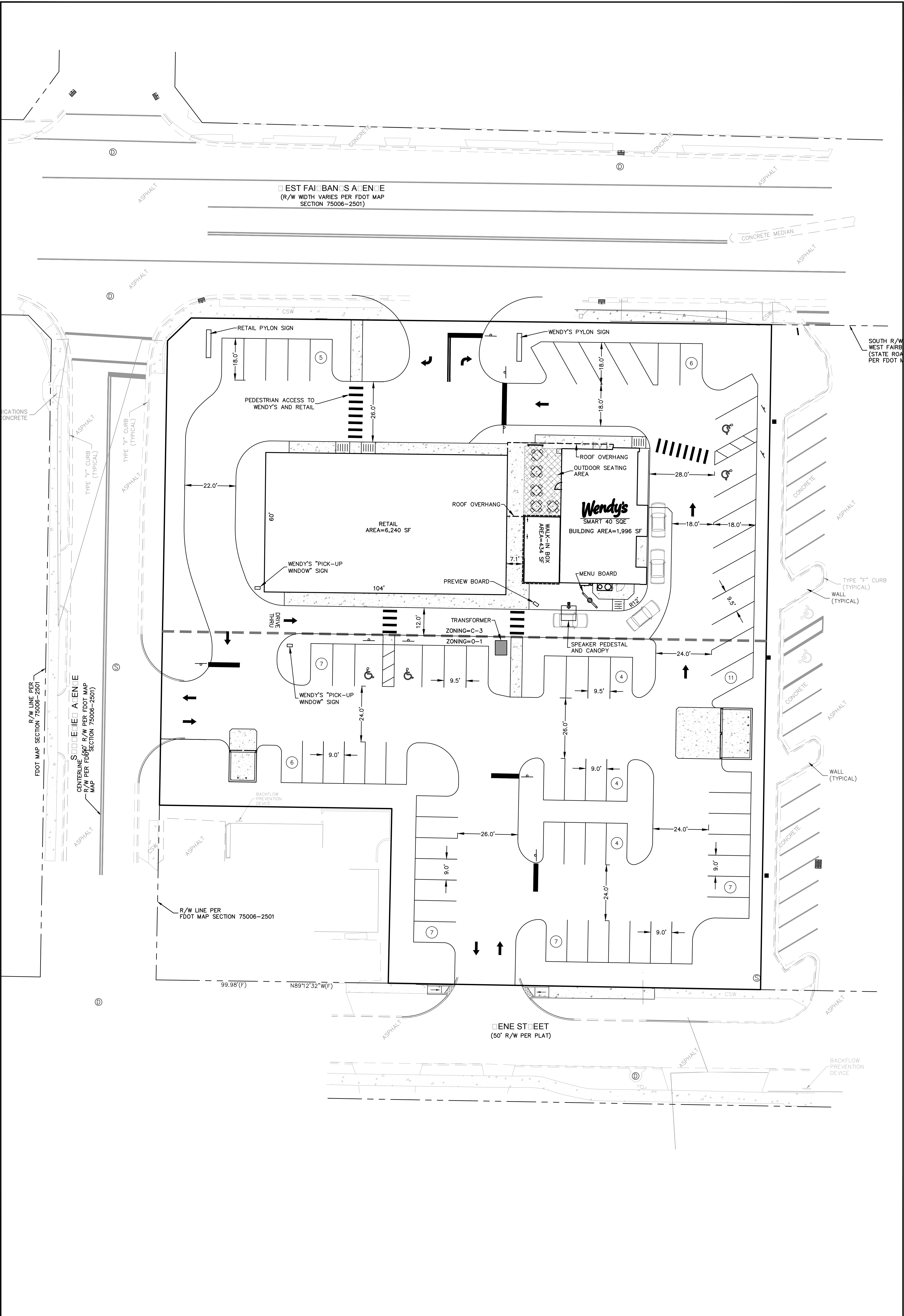
SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
237	W. Windsor Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	48	—	—	52	—	46,000	Booz Allen & Hamilton
242	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	26,000	McMahon Associates
297	Whitehall, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	26,000	Orth-Rodgers & Assoc. Inc.
360	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	44	—	—	56	—	73,000	McMahon Associates
370	Pittsburgh, PA	Winter 1988/89	—	4:00–6:00 p.m.	19	—	—	81	—	33,000	Wilbur Smith
150	Portland, OR	—	519	4:00–6:00 p.m.	68	6	26	32	—	25,000	Kittelson and Associates
150	Portland, OR	—	655	4:00–6:00 p.m.	65	7	28	35	—	30,000	Kittelson and Associates
760	Calgary, Alberta	Oct.-Dec. 1987	15,436	4:00–6:00 p.m.	20	39	41	80	—	—	City of Calgary DOT
178	Bordentown, NJ	Apr. 1989	154	2:00–6:00 p.m.	35	—	—	65	—	37,980	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	176	3:30–6:15 p.m.	32	44	24	68	—	69,347	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	4:45–5:45 p.m.	33	26	41	67	—	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 34

“—” means no data were provided

APPENDIX B

Conceptual Site Plan

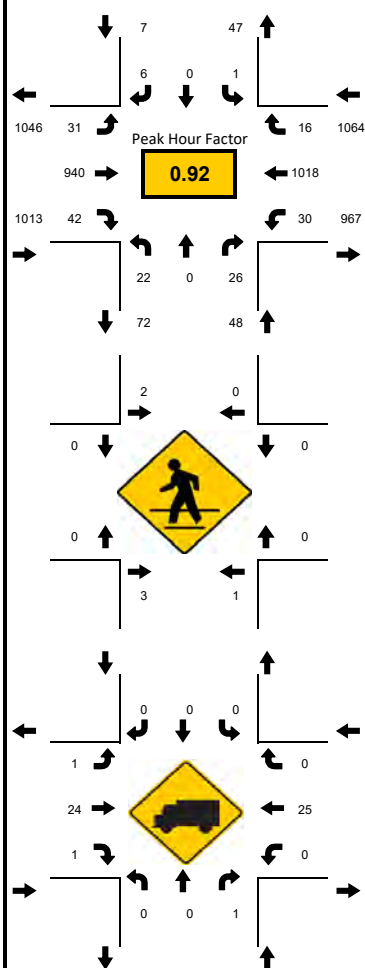


	ENGINEERING CONCEPT - 68 PARKING SPACES		REAL # 2017383		 NOTES
			2-18		
	INTERPANEL			LANDON, MOREE & ASSOCIATES, INC.	

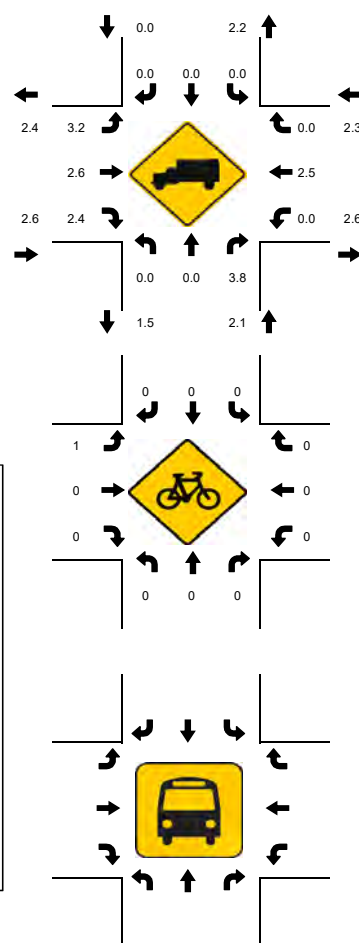
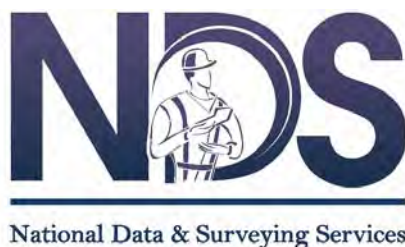
APPENDIX C

Turning Movement Counts

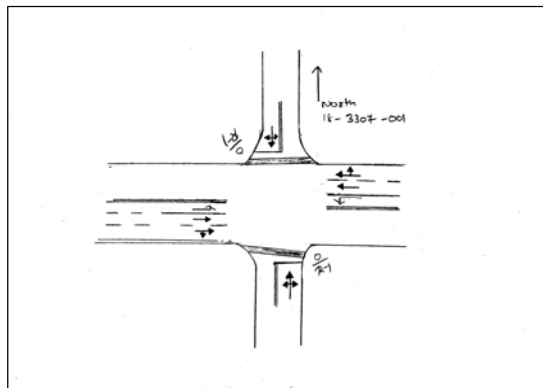
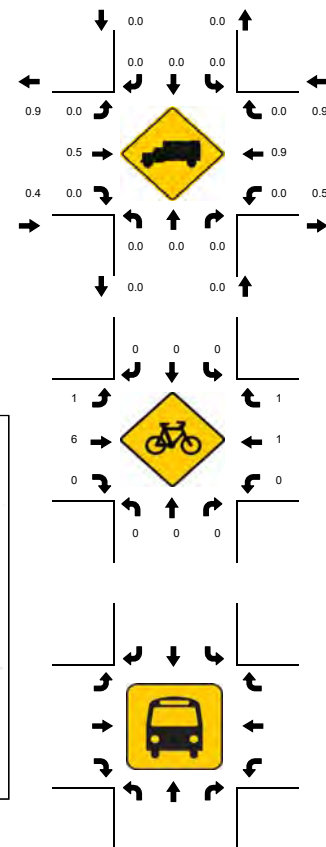
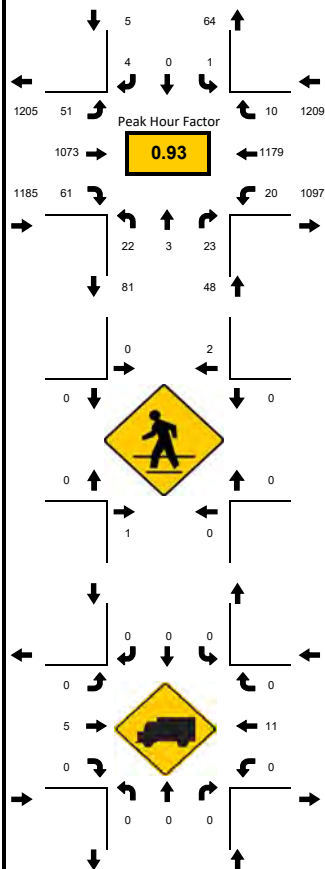
PROJECT ID: 18-03307-001
DATE: 06/21/2018



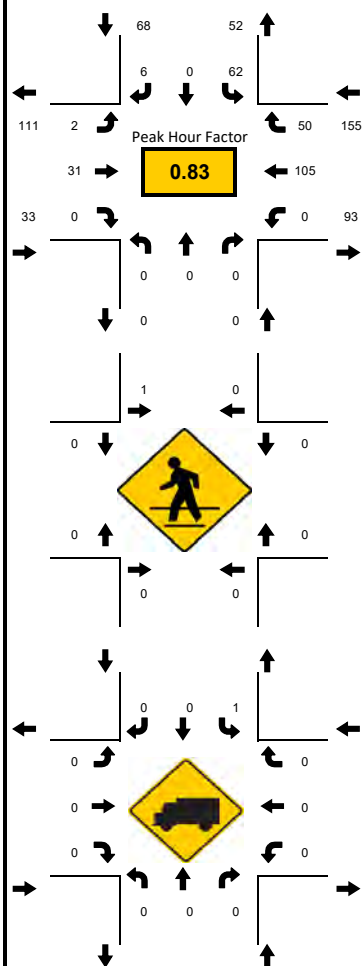
Peak-Hour: 11:30 AM - 12:30 PM
Peak 15-Minute: 11:45 AM - 12:00 PM

[illegible]

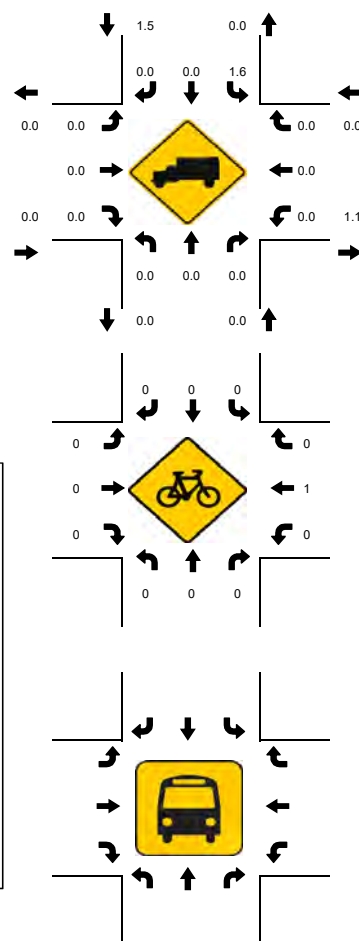
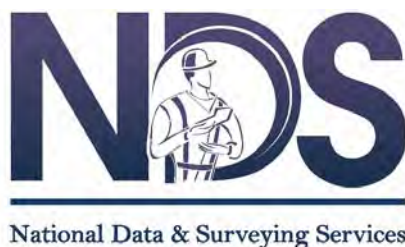
PROJECT ID: 18-03307-001
DATE: 06/21/2018

[illegible]

PROJECT ID: 18-03307-002
DATE: 06/21/2018

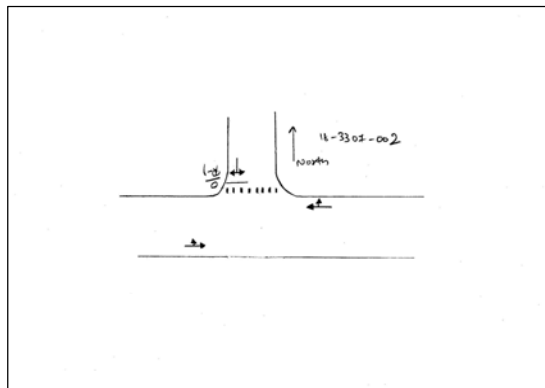
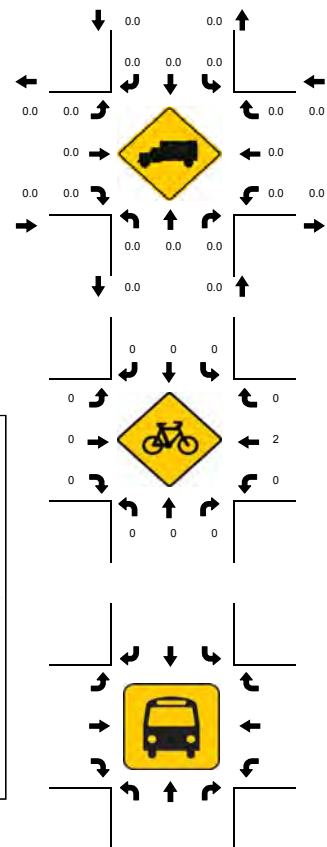
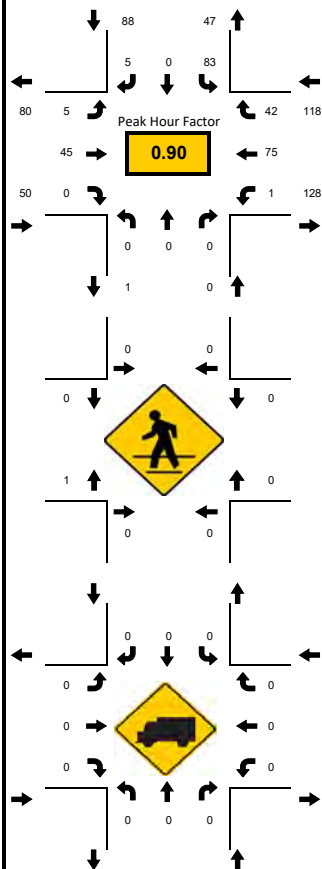


Peak-Hour: 12:00 PM - 01:00 PM
Peak 15-Minute: 12:45 PM - 01:00 PM

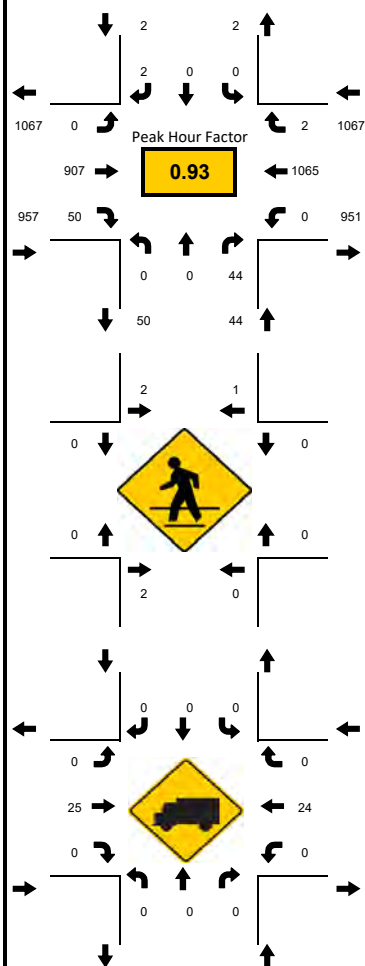


15-Min Count Period Beginning At	Shoreview Ave Northbound					Shoreview Ave Southbound					Gene St Eastbound					Gene St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
11:00 AM	0	0	0	0	0	9	0	0	0	0	0	4	0	0	0	0	10	8	0	0	31	163
11:15 AM	0	0	0	0	0	13	0	3	0	0	1	5	0	0	0	0	16	8	0	0	46	189
11:30 AM	0	0	0	0	0	15	0	5	0	0	4	3	0	0	0	0	14	7	0	0	48	199
11:45 AM	0	0	0	0	0	8	0	0	0	0	0	6	0	0	0	0	16	8	0	0	38	217
12:00 PM	0	0	0	0	0	16	0	1	0	0	2	5	0	0	0	0	23	10	0	0	57	256
12:15 PM	0	0	0	0	0	13	0	1	0	0	0	9	0	0	0	0	22	11	0	0	56	199
12:30 PM	0	0	0	0	0	19	0	4	0	0	0	8	0	0	0	0	22	13	0	0	66	143
12:45 PM	0	0	0	0	0	14	0	0	0	0	0	9	0	0	0	0	38	16	0	0	77	77
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	0	0	0	0	0	76	0	16	0	0	8	36	0	0	0	0	152	64	0	0	352	
Heavy Trucks	0	0	0			4	0	0			0	0	0			0	0	0		4		
Pedestrians		0					4					0					0			4		
Bicycles	0	0	0			0	0	0			0	0	0			0	4	0		4		
Railroad Stopped Buses																						

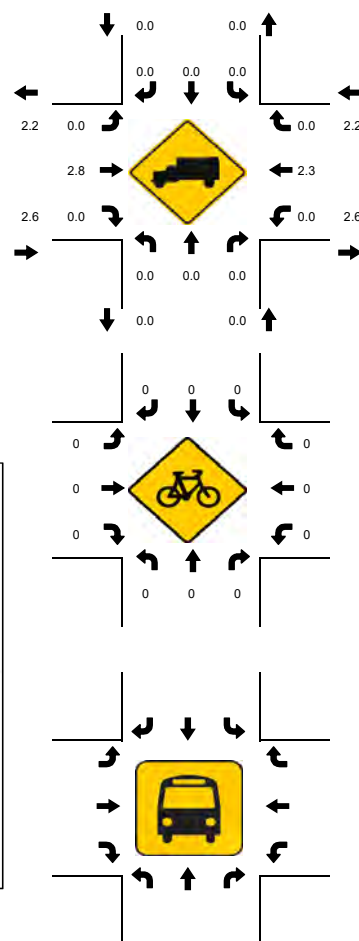
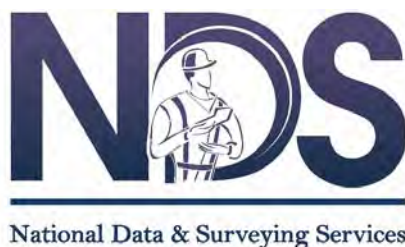
PROJECT ID: 18-03307-002
DATE: 06/21/2018

[illegible]

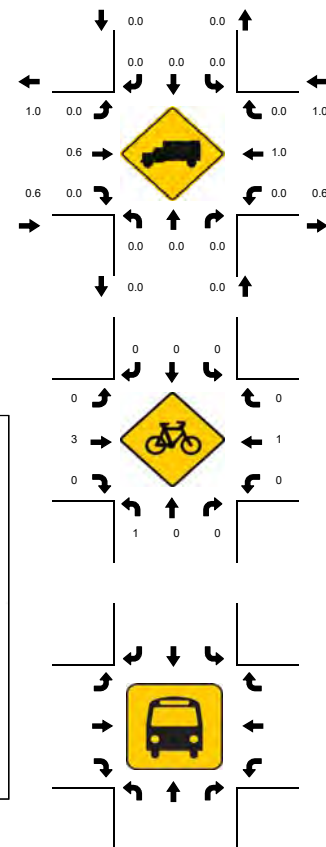
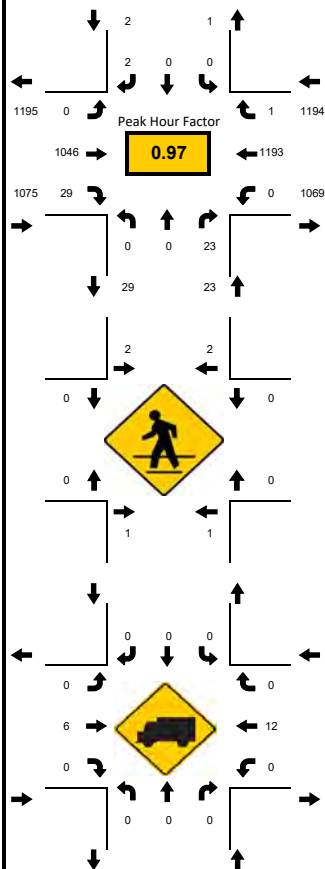
PROJECT ID: 18-03307-003
DATE: 06/21/2018



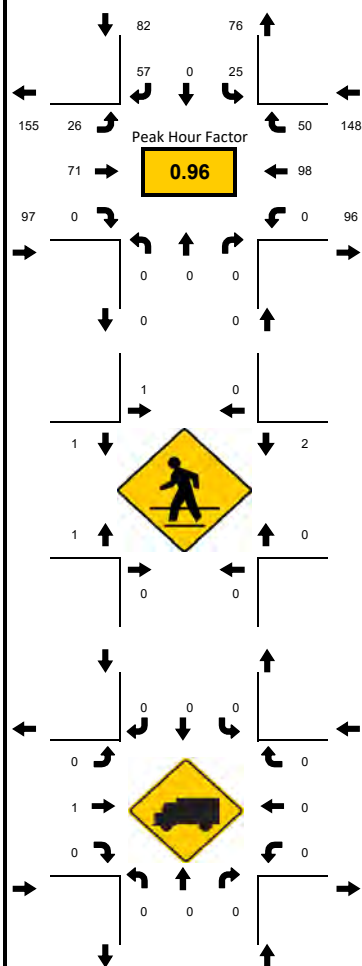
Peak-Hour: 11:30 AM - 12:30 PM
Peak 15-Minute: 11:45 AM - 12:00 PM

[illegible]

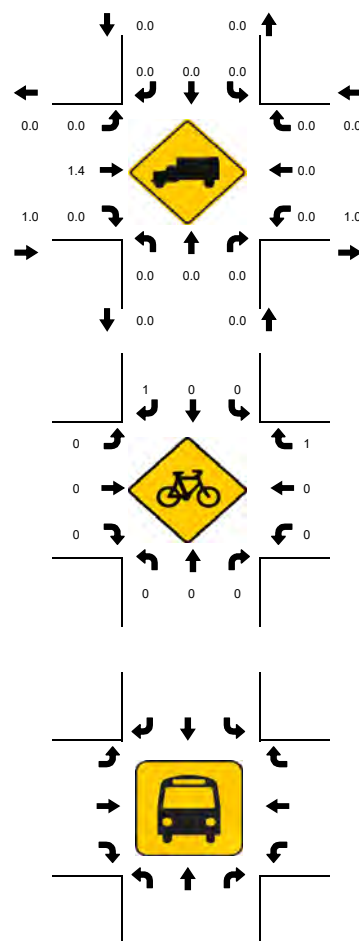
PROJECT ID: 18-03307-003
DATE: 06/21/2018

[illegible]

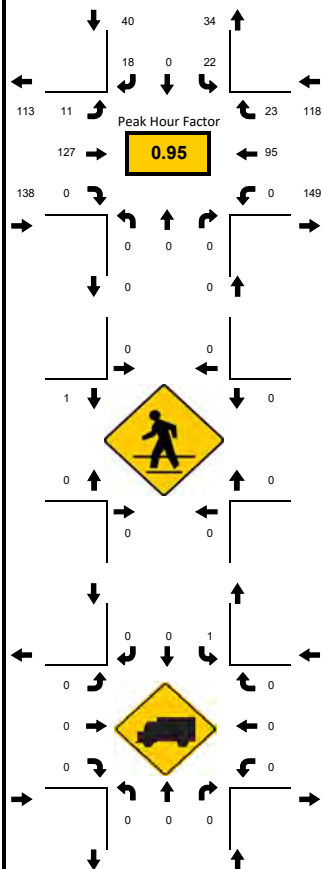
PROJECT ID: 18-03307-004
DATE: 06/21/2018



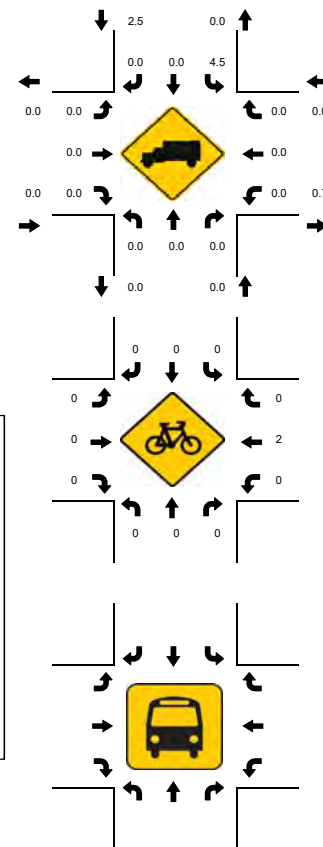
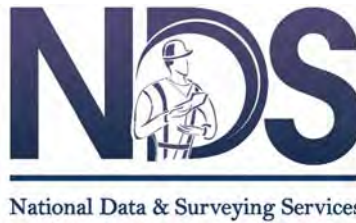
NDS
National Data & Surveying Services

[illegible]

PROJECT ID: 18-03307-004
DATE: 06/21/2018



Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:15 PM - 05:30 PM

[illegible]

APPENDIX D

FDOT's Florida Traffic Information's (FTI) Data

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7500 ORANGE COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2017 - 01/07/2017	1.01	1.03
2	01/08/2017 - 01/14/2017	1.03	1.05
3	01/15/2017 - 01/21/2017	1.04	1.06
4	01/22/2017 - 01/28/2017	1.03	1.05
5	01/29/2017 - 02/04/2017	1.02	1.04
6	02/05/2017 - 02/11/2017	1.00	1.02
7	02/12/2017 - 02/18/2017	0.99	1.01
8	02/19/2017 - 02/25/2017	0.99	1.01
* 9	02/26/2017 - 03/04/2017	0.98	1.00
*10	03/05/2017 - 03/11/2017	0.98	1.00
*11	03/12/2017 - 03/18/2017	0.97	0.99
*12	03/19/2017 - 03/25/2017	0.97	0.99
*13	03/26/2017 - 04/01/2017	0.97	0.99
*14	04/02/2017 - 04/08/2017	0.97	0.99
*15	04/09/2017 - 04/15/2017	0.97	0.99
*16	04/16/2017 - 04/22/2017	0.97	0.99
*17	04/23/2017 - 04/29/2017	0.97	0.99
*18	04/30/2017 - 05/06/2017	0.98	1.00
*19	05/07/2017 - 05/13/2017	0.98	1.00
*20	05/14/2017 - 05/20/2017	0.98	1.00
*21	05/21/2017 - 05/27/2017	0.99	1.01
22	05/28/2017 - 06/03/2017	1.00	1.02
23	06/04/2017 - 06/10/2017	1.00	1.02
24	06/11/2017 - 06/17/2017	1.01	1.03
25	06/18/2017 - 06/24/2017	1.01	1.03
26	06/25/2017 - 07/01/2017	1.01	1.03
27	07/02/2017 - 07/08/2017	1.01	1.03
28	07/09/2017 - 07/15/2017	1.02	1.04
29	07/16/2017 - 07/22/2017	1.01	1.03
30	07/23/2017 - 07/29/2017	1.00	1.02
31	07/30/2017 - 08/05/2017	1.00	1.02
32	08/06/2017 - 08/12/2017	0.99	1.01
33	08/13/2017 - 08/19/2017	0.99	1.01
34	08/20/2017 - 08/26/2017	1.01	1.03
35	08/27/2017 - 09/02/2017	1.04	1.06
36	09/03/2017 - 09/09/2017	1.06	1.08
37	09/10/2017 - 09/16/2017	1.09	1.11
38	09/17/2017 - 09/23/2017	1.07	1.09
39	09/24/2017 - 09/30/2017	1.05	1.07
40	10/01/2017 - 10/07/2017	1.03	1.05
41	10/08/2017 - 10/14/2017	1.01	1.03
42	10/15/2017 - 10/21/2017	0.99	1.01
43	10/22/2017 - 10/28/2017	0.99	1.01
44	10/29/2017 - 11/04/2017	0.99	1.01
45	11/05/2017 - 11/11/2017	1.00	1.02
46	11/12/2017 - 11/18/2017	1.00	1.02
47	11/19/2017 - 11/25/2017	1.00	1.02
48	11/26/2017 - 12/02/2017	1.01	1.03
49	12/03/2017 - 12/09/2017	1.01	1.03
50	12/10/2017 - 12/16/2017	1.01	1.03
51	12/17/2017 - 12/23/2017	1.02	1.04
52	12/24/2017 - 12/30/2017	1.03	1.05
53	12/31/2017 - 12/31/2017	1.04	1.06

* PEAK SEASON

02-MAR-2018 15:35:06

830UPD

5_7500_PKSEASON.TXT

APPENDIX E

Turning Movement Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

Shoreview Ave & SR 426 (W Fairbanks Ave)

WEEKDAY MIDDAY PEAK HOUR (11:30 AM to 12:30 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	22	0	26	1	0	6	31	940	42	30	1,018	16
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	22	0	26	1	0	6	31	949	42	30	1,028	16
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	1	0	0	0	1	19	1	1	21	0
Project Traffic % Assignment	15%								10%			
Project Traffic Direction	Out	N/A	N/A	N/A	N/A	N/A	N/A	N/A	In	N/A	N/A	N/A
Project Traffic	21								14			
2019 Background Traffic	22	0	27	1	0	6	32	968	43	31	1,049	16
2019 Total Traffic	43	0	27	1	0	6	32	968	57	31	1,049	16

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	22	3	23	1	0	4	51	1,073	61	20	1,179	10
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	22	3	23	1	0	4	52	1,084	62	20	1,191	10
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	0	0	0	1	22	1	0	24	0
Project Traffic % Assignment	15%								10%			
Project Traffic Direction	Out	N/A	N/A	N/A	N/A	N/A	N/A	N/A	In	N/A	N/A	N/A
Project Traffic	8								5			
2019 Background Traffic	22	3	23	1	0	4	53	1,106	63	20	1,215	10
2019 Total Traffic	30	3	23	1	0	4	53	1,106	68	20	1,215	10

INTERSECTION VOLUME DEVELOPMENT

Shoreview Ave & Gene St

WEEKDAY MIDDAY PEAK HOUR (12:00 PM to 1:00 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	62	0	6	2	31	0	0	105	50
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	63	0	6	2	31	0	0	106	51
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	1	0	0	0	1	0	0	2	1
Project Traffic % Assignment						15%	10%	10%			15%	
Project Traffic Direction	N/A	N/A	N/A	N/A	N/A	Out	In	In	N/A	N/A	Out	N/A
Project Traffic						21	14	14			21	
2019 Background Traffic	0	0	0	64	0	6	2	32	0	0	108	52
2019 Total Traffic	0	0	0	64	0	27	16	46	0	0	129	52

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	83	0	5	5	45	0	0	76	42
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	84	0	5	5	45	0	0	77	42
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	2	0	0	0	1	0	0	2	1
Project Traffic % Assignment						15%	10%	10%			15%	
Project Traffic Direction	N/A	N/A	N/A	N/A	N/A	Out	In	In	N/A	N/A	Out	N/A
Project Traffic						8	5	5			8	
2019 Background Traffic	0	0	0	86	0	5	5	46	0	0	79	43
2019 Total Traffic	0	0	0	86	0	13	10	51	0	0	87	43

INTERSECTION VOLUME DEVELOPMENT

Driveway & SR 426 (W Fairbanks Ave)

WEEKDAY MIDDAY PEAK HOUR (11:30 AM to 12:30 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	0	0	0	0	967	0	0	1,067	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	0	0	0	0	977	0	0	1,078	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	0	0	0	0	20	0	0	22	0
Project Traffic % Assignment			35%						30%			
Project Traffic Direction	N/A	N/A	Out	N/A	N/A	N/A	N/A	N/A	In	N/A	N/A	N/A
Project Traffic			49						42			
2019 Background Traffic	0	0	0	0	0	0	0	997	0	0	1,100	0
2019 Total Traffic	0	0	49	0	0	0	0	997	42	0	1,100	0

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	0	0	0	0	1,097	0	0	1,195	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	0	0	0	0	1,108	0	0	1,207	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	0	0	0	0	22	0	0	24	0
Project Traffic % Assignment			35%						30%			
Project Traffic Direction	N/A	N/A	Out	N/A	N/A	N/A	N/A	N/A	In	N/A	N/A	N/A
Project Traffic			18						16			
2019 Background Traffic	0	0	0	0	0	0	0	1,130	0	0	1,231	0
2019 Total Traffic	0	0	18	0	0	0	0	1,130	16	0	1,231	0

INTERSECTION VOLUME DEVELOPMENT

Driveway & Gene St

WEEKDAY MIDDAY PEAK HOUR (11:30 AM to 12:30 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	0	0	0	0	93	0	0	155	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	0	0	0	0	94	0	0	157	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	0	0	0	0	2	0	0	3	0
Project Traffic % Assignment				20%		15%	10%					40%
Project Traffic Direction	N/A	N/A	N/A	Out	N/A	Out	In	N/A	N/A	N/A	N/A	In
Project Traffic				28		21	14					56
2019 Background Traffic	0	0	0	0	0	0	0	96	0	0	160	0
2019 Total Traffic	0	0	0	28	0	21	14	96	0	0	160	56

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	0	0	0	0	0	0	128	0	0	113	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	0	0	0	0	0	0	129	0	0	114	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	0	0	0	0	0	0	3	0	0	2	0
Project Traffic % Assignment				20%		15%	10%					40%
Project Traffic Direction	N/A	N/A	N/A	Out	N/A	Out	In	N/A	N/A	N/A	N/A	In
Project Traffic				10		8	5					21
2019 Background Traffic	0	0	0	0	0	0	0	132	0	0	116	0
2019 Total Traffic	0	0	0	10	0	8	5	132	0	0	116	21

INTERSECTION VOLUME DEVELOPMENT

Driveway & Shoreview Ave

WEEKDAY MIDDAY PEAK HOUR (11:30 AM to 12:30 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	52	0	0	72	0	0	0	0	0	0	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	53	0	0	73	0	0	0	0	0	0	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	1	0	0	1	0	0	0	0	0	0	0
Project Traffic % Assignment			10%	10%						15%		15%
Project Traffic Direction	N/A	N/A	In	In	N/A	N/A	N/A	N/A	N/A	Out	N/A	Out
Project Traffic			14	14						21		21
2019 Background Traffic	0	54	0	0	74	0	0	0	0	0	0	0
2019 Total Traffic	0	54	14	14	74	0	0	0	0	21	0	21

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 6/21/2018	0	47	0	0	81	0	0	0	0	0	0	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Peak Season Volumes	0	47	0	0	82	0	0	0	0	0	0	0
Annual Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2019 Background Growth	0	1	0	0	2	0	0	0	0	0	0	0
Project Traffic % Assignment			10%	10%						15%		15%
Project Traffic Direction	N/A	N/A	In	In	N/A	N/A	N/A	N/A	N/A	Out	N/A	Out
Project Traffic			5	5						8		8
2019 Background Traffic	0	48	0	0	84	0	0	0	0	0	0	0
2019 Total Traffic	0	48	5	5	84	0	0	0	0	8	0	8

APPENDIX F

Synchro Outputs

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	949	42	30	1028	16	22	0	26	1	0	6
Future Vol, veh/h	31	949	42	30	1028	16	22	0	26	1	0	6
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	1032	46	33	1117	17	24	0	28	1	0	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1135	0	0	1077	0	0	1746	2322	539	1774	2336	567
Stage 1	-	-	-	-	-	-	1122	1122	-	1191	1191	-
Stage 2	-	-	-	-	-	-	624	1200	-	583	1145	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	611	-	-	643	-	-	55	37	487	52	36	467
Stage 1	-	-	-	-	-	-	219	279	-	199	259	-
Stage 2	-	-	-	-	-	-	440	256	-	465	272	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	611	-	-	643	-	-	50	33	487	45	32	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	121	-	133	122	-
Stage 1	-	-	-	-	-	-	207	263	-	188	246	-
Stage 2	-	-	-	-	-	-	412	243	-	414	257	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			25			15.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	232	611	-	-	643	-	-	344				
HCM Lane V/C Ratio	0.225	0.055	-	-	0.051	-	-	0.022				
HCM Control Delay (s)	25	11.2	-	-	10.9	-	-	15.7				
HCM Lane LOS	D	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0.2	-	-	0.1				

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	31	106	51	63	6
Future Vol, veh/h	2	31	106	51	63	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	2	34	115	55	68	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	171	0	-	0	181	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	38	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1406	-	-	-	808	905
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1406	-	-	-	807	905
Mov Cap-2 Maneuver	-	-	-	-	807	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	983	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1406	-	-	-	815	
HCM Lane V/C Ratio	0.002	-	-	-	0.092	
HCM Control Delay (s)	7.6	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	52	1084	62	20	1191	10	22	3	23	1	0	4
Future Vol, veh/h	52	1084	62	20	1191	10	22	3	23	1	0	4
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	1178	67	22	1295	11	24	3	25	1	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1305	0	0	1246	0	0	2016	2674	623	2047	2702	653
Stage 1	-	-	-	-	-	-	1325	1325	-	1343	1343	-
Stage 2	-	-	-	-	-	-	691	1349	-	704	1359	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	526	-	-	554	-	-	34	22	429	33	21	410
Stage 1	-	-	-	-	-	-	164	223	-	160	219	-
Stage 2	-	-	-	-	-	-	401	217	-	394	215	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	526	-	-	554	-	-	30	19	429	27	18	410
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	87	-	99	94	-
Stage 1	-	-	-	-	-	-	146	199	-	143	210	-
Stage 2	-	-	-	-	-	-	381	208	-	325	192	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	38.3	19.6
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	159	526	-	-	554	-	-	252
HCM Lane V/C Ratio	0.328	0.107	-	-	0.039	-	-	0.022
HCM Control Delay (s)	38.3	12.7	-	-	11.8	-	-	19.6
HCM Lane LOS	E	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.3	0.4	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	45	77	42	84	5
Future Vol, veh/h	5	45	77	42	84	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	5	49	84	46	91	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	129	0	-	0	167	107
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1457	-	-	-	823	947
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1457	-	-	-	820	947
Mov Cap-2 Maneuver	-	-	-	-	820	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	959	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1457	-	-	-	826	
HCM Lane V/C Ratio	0.004	-	-	-	0.117	
HCM Control Delay (s)	7.5	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	968	43	31	1049	16	22	0	27	1	0	6
Future Vol, veh/h	32	968	43	31	1049	16	22	0	27	1	0	6
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1052	47	34	1140	17	24	0	29	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1158	0	0	1099	0	0	1783	2370	549	1812	2384	579
Stage 1	-	-	-	-	-	-	1145	1145	-	1216	1216	-
Stage 2	-	-	-	-	-	-	638	1225	-	596	1168	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	599	-	-	631	-	-	52	34	480	49	34	458
Stage 1	-	-	-	-	-	-	212	272	-	192	252	-
Stage 2	-	-	-	-	-	-	431	249	-	457	266	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	599	-	-	631	-	-	47	30	480	42	30	458
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	116	-	127	117	-
Stage 1	-	-	-	-	-	-	200	256	-	181	238	-
Stage 2	-	-	-	-	-	-	402	236	-	404	250	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.3	25.8	16
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	599	-	-	631	-	-	334
HCM Lane V/C Ratio	0.236	0.058	-	-	0.053	-	-	0.023
HCM Control Delay (s)	25.8	11.4	-	-	11	-	-	16
HCM Lane LOS	D	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0.2	-	-	0.1

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	32	108	52	64	6
Future Vol, veh/h	2	32	108	52	64	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	2	35	117	57	70	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	174	0	-	0	185	146
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	39	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1403	-	-	-	804	901
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1403	-	-	-	803	901
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	982	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1403	-	-	-	811	
HCM Lane V/C Ratio	0.002	-	-	-	0.094	
HCM Control Delay (s)	7.6	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	1106	63	20	1215	10	22	3	23	1	0	4
Future Vol, veh/h	53	1106	63	20	1215	10	22	3	23	1	0	4
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	1202	68	22	1321	11	24	3	25	1	0	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1332	0	0	1271	0	0	2056	2727	635	2088	2756	666
Stage 1	-	-	-	-	-	-	1352	1352	-	1370	1370	-
Stage 2	-	-	-	-	-	-	704	1375	-	718	1386	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	514	-	-	542	-	-	32	20	421	30	19	402
Stage 1	-	-	-	-	-	-	158	217	-	154	212	-
Stage 2	-	-	-	-	-	-	394	211	-	386	209	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	514	-	-	542	-	-	28	17	421	24	16	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	83	-	95	90	-
Stage 1	-	-	-	-	-	-	140	193	-	137	203	-
Stage 2	-	-	-	-	-	-	374	202	-	317	185	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.2			40.2			20.1		
HCM LOS							E			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	153	514	-	-	542	-	-	244				
HCM Lane V/C Ratio	0.341	0.112	-	-	0.04	-	-	0.022				
HCM Control Delay (s)	40.2	12.9	-	-	11.9	-	-	20.1				
HCM Lane LOS	E	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	1.4	0.4	-	-	0.1	-	-	0.1				

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	46	79	43	86	5
Future Vol, veh/h	5	46	79	43	86	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	5	50	86	47	93	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	133	0	-	0	170	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1452	-	-	-	820	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1452	-	-	-	817	945
Mov Cap-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	958	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1452	-	-	-	823	
HCM Lane V/C Ratio	0.004	-	-	-	0.12	
HCM Control Delay (s)	7.5	0	-	-	10	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	968	57	31	1049	16	43	0	27	1	0	6
Future Vol, veh/h	32	968	57	31	1049	16	43	0	27	1	0	6
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1052	62	34	1140	17	47	0	29	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1158	0	0	1114	0	0	1791	2378	557	1812	2400	579
Stage 1	-	-	-	-	-	-	1153	1153	-	1216	1216	-
Stage 2	-	-	-	-	-	-	638	1225	-	596	1184	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	599	-	-	623	-	-	51	34	474	49	33	458
Stage 1	-	-	-	-	-	-	210	270	-	192	252	-
Stage 2	-	-	-	-	-	-	431	249	-	457	261	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	599	-	-	623	-	-	~ 46	30	474	42	29	458
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	116	-	127	116	-
Stage 1	-	-	-	-	-	-	198	254	-	181	238	-
Stage 2	-	-	-	-	-	-	402	235	-	404	246	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.3	36.6	16
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	188	599	-	-	623	-	-	334
HCM Lane V/C Ratio	0.405	0.058	-	-	0.054	-	-	0.023
HCM Control Delay (s)	36.6	11.4	-	-	11.1	-	-	16
HCM Lane LOS	E	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.8	0.2	-	-	0.2	-	-	0.1

Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	46	129	52	64	27
Future Vol, veh/h	16	46	129	52	64	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	17	50	140	57	70	29
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	197	0	-	0	253	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1376	-	-	-	736	876
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1376	-	-	-	726	876
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	926	-
Approach	EB	WB		SB		
HCM Control Delay, s	2	0		10.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1376	-	-	-	765	
HCM Lane V/C Ratio	0.013	-	-	-	0.129	
HCM Control Delay (s)	7.7	0	-	-	10.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑↑		↱
Traffic Vol, veh/h	997	42	0	1100	0	49
Future Vol, veh/h	997	42	0	1100	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	1084	46	0	1196	0	53
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	-	-	-	565
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	468
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	468
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		13.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	468	-	-	-		
HCM Lane V/C Ratio	0.114	-	-	-		
HCM Control Delay (s)	13.7	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.4	-	-	-		

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	96	160	56	28	21
Future Vol, veh/h	14	96	160	56	28	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	15	104	174	61	30	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	235	0	-	0	339	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	135	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1332	-	-	-	657	837
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1332	-	-	-	649	837
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	880	-
Approach	EB	WB		SB		
HCM Control Delay, s	1	0		10.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1332	-	-	-	718	
HCM Lane V/C Ratio	0.011	-	-	-	0.074	
HCM Control Delay (s)	7.7	0	-	-	10.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	21	54	14	14	74
Future Vol, veh/h	21	21	54	14	14	74
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, %	2	2	2	2	2	2
Mvmt Flow	23	23	59	15	15	80
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	177	66	0	0	74	0
Stage 1	66	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	813	998	-	-	1526	-
Stage 1	957	-	-	-	-	-
Stage 2	914	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	805	998	-	-	1526	-
Mov Cap-2 Maneuver	805	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.3	0	1.2			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	891	1526	-	
HCM Lane V/C Ratio	-	-	0.051	0.01	-	
HCM Control Delay (s)	-	-	9.3	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	1106	68	20	1215	10	30	3	23	1	0	4
Future Vol, veh/h	53	1106	68	20	1215	10	30	3	23	1	0	4
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	275	-	-	275	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	1202	74	22	1321	11	33	3	25	1	0	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1332	0	0	1276	0	0	2058	2729	638	2088	2761	666
Stage 1	-	-	-	-	-	-	1354	1354	-	1370	1370	-
Stage 2	-	-	-	-	-	-	704	1375	-	718	1391	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	514	-	-	540	-	-	~ 32	20	419	30	19	402
Stage 1	-	-	-	-	-	-	158	216	-	154	212	-
Stage 2	-	-	-	-	-	-	394	211	-	386	207	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	514	-	-	540	-	-	~ 28	17	419	24	16	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	83	-	95	89	-
Stage 1	-	-	-	-	-	-	140	192	-	137	203	-
Stage 2	-	-	-	-	-	-	374	202	-	317	184	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.2			48.1			20.1		
HCM LOS							E			C		
Minor Lane/Major Mvmt	NBLn1		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	142		514	-	-	540	-	-	244			
HCM Lane V/C Ratio	0.429		0.112	-	-	0.04	-	-	0.022			
HCM Control Delay (s)	48.1		12.9	-	-	11.9	-	-	20.1			
HCM Lane LOS	E		B	-	-	B	-	-	C			
HCM 95th %tile Q(veh)	1.9		0.4	-	-	0.1	-	-	0.1			
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	51	87	43	86	13
Future Vol, veh/h	10	51	87	43	86	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	11	55	95	47	93	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	141	0	-	0	195	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1442	-	-	-	794	934
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1442	-	-	-	788	934
Mov Cap-2 Maneuver	-	-	-	-	788	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	938	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.2	0		10.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1442	-	-	-	805	
HCM Lane V/C Ratio	0.008	-	-	-	0.134	
HCM Control Delay (s)	7.5	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1130	16	0	1231	0	18
Future Vol, veh/h	1130	16	0	1231	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	1228	17	0	1338	0	20
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	623
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	429
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	429
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	13.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	429	-	-	-		
HCM Lane V/C Ratio	0.046	-	-	-		
HCM Control Delay (s)	13.8	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	132	116	21	10	8
Future Vol, veh/h	5	132	116	21	10	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	5	143	126	23	11	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	149	0	-	0	292	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1432	-	-	-	699	910
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1432	-	-	-	696	910
Mov Cap-2 Maneuver	-	-	-	-	696	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	871	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9.8		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1432	-	-	-	777	
HCM Lane V/C Ratio	0.004	-	-	-	0.025	
HCM Control Delay (s)	7.5	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	8	48	5	5	84
Future Vol, veh/h	8	8	48	5	5	84
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, %	2	2	2	2	2	2
Mvmt Flow	9	9	52	5	5	91
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	157	55	0	0	58	0
Stage 1	55	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	834	1012	-	-	1546	-
Stage 1	968	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	831	1012	-	-	1546	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9	0	0.4			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	913	1546	-	
HCM Lane V/C Ratio	-	-	0.019	0.004	-	
HCM Control Delay (s)	-	-	9	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	