Lee County Board of County Commissioners
Agenda Item Summary **Blue Sheet No. 20040559**

1. REQUESTED MOTION:

ACTION REQUESTED: Approve LeeWay as an additional Party to the *Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement* (Reciprocity Agreement), dated March 8, 2002, and subsequent Amendment One by executing Amendment Two of the Agreement.

WHY ACTION IS NECESSARY: The Board of County Commissioners approve all Agreements.

WHAT ACTION ACCOMPLISHES: The Reciprocity Agreement would allow LeeWay, Sunpass and Epass to recognize each other's Electronic Toll Collection Programs. Provides operating business rules, technical specifications, reciprocity and allows for transfer of funds between agencies participating in the Reciprocity Agreement.

2. DEPARTMENTAL CATEGORY: COMMISSION DISTRICT # A9A	3. MEETING DATE: 05-18-2004

4. AGENDA:	5. REQUIREMENT/PURPOSE: (Specify)	6. REQUESTOR OF INFORMATION:
CONSENT	STATUTE	A. COMMISSIONER
✔ ADMINISTRATIVE	ORDINANCE	B. DEPARTMENT Transportation
APPEALS	ADMIN. CODE	C. DIVISION Tolls Facilities
PUBLIC	✔ OTHER	BY: Scott M. Gilbertson
WALK ON		
TIME REQUIRED:		

7. BACKGROUND:

Lee County Department of Transportation (DOT), Toll Facilities (LeeWay) has been actively meeting with The Florida Turnpike Enterprise and Orlando Orange County Expressway Authority (OOCEA). The directive of these meetings was to provide LeeWay customers the ability to travel through "express and dedicated toll lanes" in the State of Florida, and having their tolls deducted electronically from their LeeWay account. Lee County developed the LeeWay Electronic Toll Collection system, with the vision, in part, to become a part of this collection program. Lee County's participation would be an added benefit LeeWay account holders can utilize and enjoy when traveling through the State of Florida.

The current plan is for LeeWay to become interoperable with other agencies in the State of Florida enabling LeeWay customers access to travel on other agencies' toll facilities beginning June 1, 2004. In the future, the LeeWay system will be

Continued On Page 2

8. MANAGEMENT RECOMMENDATIONS: DOT staff recommends approval of the Agreement which will allow the citizens of Lee County the full advantage of the Electronic Toll Collection.

9. RECOMMENDED APPROVAL:

A Department Director	B Purchasing or Contracts	C Human Resources	D Other	E County Attorney	F Budget Services				G County Manager
					OA	OM	RISK	GC	
5/4/04		N/A	N/A	5/5/04	RK 5/5	5/5	5/5/04	5/4/04	5.4.04

10. COMMISSION ACTION:

_____ APPROVED
_____ DENIED
_____ DEFERRED
_____ OTHER

Rec. by CoAtty
Date: 5/4/04
Time: 3:25 pm
Forwarded To: Admin 5/5/04 10:00

RECEIVED BY COUNTY ADMIN
5/5/04
10:10 am SCT
COUNTY ADMIN FORWARDED TO:
5-5-04
4pm.

7. BACKGROUND: (Continued)

interoperable enabling the customers of other agencies the ability to use their transponders while traveling on the LeeWay toll facilities.

By participating as a Party to this Agreement, each agency will be compensated accordingly for trips through their Toll Facility.

Future Amendments adding Parties to the Reciprocity Agreement will be brought to the Board as other state and local government agencies participate.

ATTACHMENTS:

- State of Florida Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement, dated March 8, 2002 and Appendix, dated April 30, 2004
- First Amendment to Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement.
- Second Amendment to Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement, dated May, 2004.

State of Florida

Interoperability Interface Specifications

Appendix to

Interagency Electronic Toll Collection

Interoperability and Reciprocity

Agreement

April 30, 2004

Changes

Revision	Date	Comment

Document Overview

The following documents comprise the technical Interoperability agreement between agencies exchanging electronic toll collection information.

Exhibit A - Records and Files Interface Specification
Details the file formats, naming conventions, and the frequency of toll information exchange.

Exhibit B - Accounting Business Rules
Details the method and timing for the exchange of toll related funds between Agencies.

Exhibit C - FDOT / Lee County DOT Technical Business Rules for the SunPass / LeeWay Electronic Toll Collection Systems
Details the business rules for acceptance of toll related transactions exchanged between FDOT and Lee County DOT

Exhibit D - FDOT / OOCEA Technical Business Rules for the SunPass / E-PASS Electronic Toll Collection Systems
Details the business rules for acceptance of toll related transactions exchanged between FDOT and OOCEA

Exhibit E - OOCEA / Lee County DOT Technical Business Rules for the E-PASS / LeeWay Electronic Toll Collection Systems
Details the business rules for acceptance of toll related transactions exchanged between OOCEA and Lee County DOT

Acronyms and Terminology

Term	Meaning
Accounting Business Rules	An agreement defining the rules governing toll reimbursement, reconciliation and wire transfers between participating interoperable Florida toll agencies
Agency	A signatory to this agreement
E-PASS	OOCEA's pre-paid payment program that allows users to pay for toll transactions using an onboard transponder, and for purposes of this Document, includes O-PASS.
FDOT	Florida Department of Transportation
LeeWay	Lee County DOT's pre-paid payment program that allows users to pay for toll transactions using an onboard transponder.
OOCEA	Orlando-Orange County Expressway Authority
O-PASS	Osceola County's pre-paid payment program; processed the same as E-PASS.
Positive List	A file created and maintained by an Agency, also known as an active transponder list, a transponder positive list or a transponder file.
Records and Files Interface Specifications	The technical specification that details the message and file formats, file transfer times and frequencies, report formats and other information that is common to agencies within the State of Florida that participate in the Florida Electronic Toll Collection Interoperability program
SunPass	FDOT's pre-paid payment program that allows users to pay for toll transactions using an onboard transponder.
Technical Business Rules	An agreement defining the rules for (1) acceptance of one interoperable Florida toll agency's transponders on another interoperable Florida toll agency's toll facilities; (2) the transfer of related interoperability files and reports; and (3) exception processing and conflict resolution..

Term	Meaning
Transponder	Radio Frequency (RF) device on vehicle windshield used to identify an E-PASS, SunPass or LeeWay customer and to communicate with a Portable Roadside Reader

1

Approved as to Form and
Legal Sufficiency by:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
FLORIDA'S TURNPIKE ENTERPRISE

_____
Office of the
Turnpike General Counsel

By: _____
James L. Ely, D.P.A
Executive Director and
Chief Executive Officer
Or his authorized delegate

Date signed: _____

Mailing address:
Florida's Turnpike Enterprise
Turnpike Headquarters
Post Office Box 613069
Ocoee, Florida 34761

STATE OF FLORIDA
COUNTY OF ORANGE

I HEREBY CERTIFY that on this day before me, an officer duly authorized in the State and County aforesaid to take acknowledgements, personally appeared _____, who is well known to me or who provided a current Florida's driver's license as identification, and who was by me duly sworn and placed under oath, and who did thereafter acknowledge before me that he/she executed the foregoing instrument for the purposes therein expressed.

Witness my hand and official seal in the County and State aforesaid on this ___ day of _____, 2004.

_____
Signature of Notary Public

_____
Name of Notary printed or typed

My commission expires:

Florida Department of Transportation
Florida's Turnpike Enterprise

By:_____
James L. Ely, DPA
Executive Director
and Chief Executive Officer

Date signed: _____

Attest:_____
Secretary

Legal Review

_____

Orlando Orange County

Expressway Authority

By:_____
Michael Snyder, P.E.
Executive Director

Date signed: _____

Attest:_____
Secretary

Legal Review

_____

Lee County DOT

By: _____
John Albion, Chairman
Board of County Commissioners

Attest:_____
Clerk of the Board of
County Commissioners

Date signed:_____

Legal Review

_____

Orlando Orange County

Expressway Authority

By:_____
Michael Snyder, P.E.
Executive Director

Date signed: _____

Attest:_____
Secretary

Legal Review

_____

Table of Contents

Interoperability Interface Specifications

Exhibit A: Records and Files Interface Specification

Version 2.0

April 30, 2004

Document Changes

Revision	Date	Change

Table of Contents

1.0 Introduction

This document, Exhibit A to the Interoperability Interface Specifications, provides the codes, descriptions, and transaction record formats used in the exchange of toll related financial information between Florida interoperable Agencies. The document is organized into the following sections:

1.0 - Introduction
2.0 - Transponder Page Layouts
3.0 - Transponder Field Definitions
4.0 - File Standards
5.0 - 9001/9010 File Record Formats
6.0 - Rebate File Record Formats
7.0 - Plaza File Record Formats
8.0 - Transponder Positive List File Formats
9.0 - Vehicle License File Record Formats
10.0 - File Naming Conventions
11.0 - Connectivity
12.0 - File Transfer Timeline

Attachment A: FDOT Rejected Transaction Error Codes
Attachment B: OOCEA/Lee County DOT Transaction Injector Error Codes
Attachment C: License Plate Type Codes

The following associated documents further define and control interoperability between Agencies:

- State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – dated March 2002, details the contractual agreements between the participating toll agencies.

- Second Amendment to State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – dated May 2004, modifies the Interoperability Agreement.

- Exhibit B: Interoperability Interface Specifications, Accounting Business Rules – dated April 30, 2004, defines the agreement between the participating toll agencies for the transfer of amounts due.

2.0 Transponder Page Layouts

The transponders used by the interoperable Florida toll agencies utilize three pages of information on the transponders. These pages of data will be referred to throughout this document according to the following.

2.1 Read-Only Page 0

This is physical Page 7 on the TransCore transponder and is designated as read only. This page contains information that does not change on the transponder such as the Transponder Number, Vehicle Class code, and Revenue Type code.

Read Only 0 (physical page 7)	Programmable by	Number of Bits	ASCII Format	Value Range
Transponder Number	Factory	24	NNNNNNNN	1 to 16,777,216
Agency/Group code	Factory	8	NNN	001 to 255
State/Region code	Factory	8	NNN	001 to 255
Vehicle Class code	Issuing Agency	4	NN	02 to 15
Vehicle Type code	Issuing Agency	4	NN	00 to 15
Revenue Type code	Issuing Agency	4	NN	01 to 07, 08 to 15 not used
Transponder Features	Issuing Agency	16	N	Binary 0 or 1 for each feature
Password (Not used)	Issuing Agency	18	Not used	Not used

2.2 Read-Write Page 0

This is physical Page 9 on the TransCore transponders and is both read and written to. When discussing this page it is often referred to as Read-Write Page 0.

Read-Write Page 0 (physical page 9)	Programmable by	Number of Bits	ASCII Format	Value Range
Current Balance	Lane controller	17	NNN.NN	+655.36 to -655.35
Credit Update Serial Num	Lane controller	8	NNN	0 to 255
VEHICLE ENTRY INFORMATION:*				
Transaction Number	Lane controller	14	NNNN	0 to 9,999
Plaza Number	Lane controller	17	NNNNNN	001000 to 131,999
Lane Number	Lane controller	7	NNN	01 to 127
Lane Type	Lane controller	4	NN	01 to 15
Date	Lane controller	15	YYMMDD	Encoded
Time	Lane controller	17	HRMISS	Encoded
Ticket Entry Flag	Lane controller	2	N	Not used
Transponder Status code	Lane controller	3	N	0 to 7
Anti-passback Flag	Lane controller	4	NN	Binary 00 to 10
Pass Payment Flags	Lane controller	3	Not used	Not used

* The Entry information is read from page 9 as the transponder enters the lane's RF zone and is moved to the corresponding EXIT fields on page 10. The current plaza/transaction information is then placed in the Entry fields on page 9. Both pages are written to the transponder before the vehicle leaves the lane's RF zone.

2.3 Read-Write Page 1

This is physical Page 10 on the TransCore transponder and is written to. This page is readable with the transponder programmer or the Portable Roadside Reader.

Read-Write Page 1 (physical page 10)	Programmable by	Number of Bits	ASCII Format	Value Range
Current Balance	Lane controller	17	NNN.NN	+655.36 to –655.35
Last Toll Amount	Lane controller	13	NN.NN	0 to 81.92
Vehicle Exit Information:*				
Transaction Number	Lane controller	14	NNNN	0 to 9,999
Plaza Number	Lane controller	17	NNNNNN	001000 to 131,999
Lane Number	Lane controller	7	NNN	01 to 127
Lane Type	Lane controller	4	NN	01 to 15
Date	Lane controller	15	YYMMDD	Encoded
Time	Lane controller	17	HRMISS	Encoded
Message Flags:				
Low Battery	Lane controller	1	N	0 or 1
Insufficient Funds	Lane controller	1	N	0 or 1
Low Balance	Lane controller	1	N	0 or 1
Invalid Transponder	Lane controller	1	N	0 or 1
Pass Used	Lane controller	1	N	0 or 1

* The Entry information is read from page 9 as the transponder enters the lane's RF zone and is moved to the corresponding EXIT fields on page 10. The current plaza/transaction information is then placed in the Entry fields on page 9. Both pages are written to the transponder before the vehicle leaves the lane's RF zone.

3.0 Transponder Field Definitions

During the course of Electronic Toll Collection (ETC), the following rules are currently used for populating the various fields on the transponder on the write-back sequence. Each field is discussed separately.

3.1 Read Only Page 0

The following fields are present on the read only page of the transponder (physical page 7). This page is programmed prior to release of the transponder to the commuter and values on this page may only be changed by the transponder's issuing host agency.

3.1.1 Transponder Number

The transponder number uniquely identifies the device within the state/region code and agency/group number. The transponder number is programmed at the manufacturing facility and assigned within the below number ranges:

Transponder Type	FDOT Number Range	OOCEA /Osceola Number Range	LeeWay Number Range
Type II	00000001 - 00999999		00000001 - 00080000
Type III	01000000 - 01999999		
Type IIb	02000000 - 02999999	00000001 - 14999999	00100000 - 14999999
Type IIe	03000000 - 14999999		
Type II external	15000000 - 15999999	15000000 - 15999999	00080001 - 00099999
Test	16000000 - 16777216	16000000 - 16777216	

3.1.2 Agency/Group Code

A code identifying the Agency or Group that issued the transponder. Utilized in conjunction with the State/Region code to determine eligibility of use at a particular location. FDOT is the coordinating agency for assignment of Agency/Group codes within Florida. The following lists Agency/Group codes accepted by the interoperable Florida toll agencies.

A/G Code	Issuing Agency/Group
01	Florida Department of Transportation – SunPass
02	Reserved for Florida Department of Transportation
03	Lee County DOT - LeeWay Pass
04	Reserved for Lee County DOT
05	Orlando Orange County Expressway Authority (OOCEA) – E-PASS
06	Osceola County – O-PASS
07-09	Reserved for Orlando Orange County Expressway Authority (OOCEA)

3.1.3 State/Region Code

A code value identifying the State of the transponder's issuing agency. The State/Region Code for Florida is '10'. The interoperable Florida toll agencies will only process transponders with a State/Region Code value of '10'.

3.1.4 Vehicle Class Code

Vehicle class equates to the number of axles within the toll structure. A default value is written during transponder programming prior to shipment. The default value is used by the interoperable Florida toll agencies to determine toll amount collected if the lane's classification capability fails.

3.1.5 Vehicle Type Code

Vehicle Type identifies the characteristics and/or occupancy of the vehicle. This field is not used by the interoperable Florida toll agencies. The following lists the values for this field:

Value	Description
0	Unknown
1	POV (Privately operated vehicle)
2	HOV-2 (High occupancy vehicle – 2 persons)
3	HOV-3 (High occupancy vehicle – 3 persons)
4	HOV-4 (High occupancy vehicle – 4 persons)
5	Truck – private
6	Truck – public agency
7	Tractor – private
8	Tractor – public agency
9	Bus – private
10	Bus – public agency
11	Police
12	Ambulance
13	Fire/Emergency
14-15	Unassigned

The value in this field may be changed by the issuing agency, but is currently left as the defaulted value of '0' or '1'.

3.1.6 Revenue Type Code

A Revenue Type code is encoded in each transponder accepted in an interoperable Florida toll agency lane according to the type of account established for the commuter. The following table summarizes these Revenue Types.

Revenue Type Code	FDOT Type Description	FDOT Comments	LeeWay/ OOCEA Type Description	Lee County DOT/OOCEA Comments
00	Unknown	Transponder not programmed or bad data.	N/A	Transponder not inserted in database
01	Standard Patron	Patron transponder. Balance is kept on transponder.	PRI-S	Revenue
02	Commercial	Commercial transponder. No balance kept on the transponder.	PRI-S	Revenue
03	Non-Revenue (Restricted)	Non-revenue transponder. No balance kept on the transponder.	STDNR	Non-revenue if transponder is not in the AVI_NON_REV_REJECT table; otherwise transponder is not inserted in the database
04	Non-Revenue (Unrestricted)	Non-revenue transponder. No balance kept on the transponder.	STDNR	Non-revenue if transponder is not in the AVI_NON_REV_REJECT table; otherwise transponder is not inserted in the database
05	Eligible Bayway 1 Pass	Issued for use at Bayway Isle plaza. Not accepted at any other plaza.	N/A	Transponder not inserted in database
06	Eligible Bayway 2 Pass	Issued for use at Bayway commuter plazas. Not accepted at any other plaza.	N/A	Transponder not inserted in database
07	Eligible Navarre Pass	Issued for use at Navarre Bridge. Not accepted at any other plaza.	N/A	Transponder not inserted in database
08-15	Undefined	For future use.	N/A	For future use.

3.1.7 Transponder Features Code

The transponder features code uniquely identifies the transponder's display capabilities and characteristics. This field is set to a default value at the factory, but can be changed by the issuing agency. The features code is a 16 bit field. Each bit is decoded as described in the table below.

Bit	Description
0	Unknown
1	Transponder fixed (Bumper mount)
2	Transponder has display
3	Transponder has beeper
4	Transponder has indicator lights
5	Information may not be displayed on Patron Toll Display (PDT)
6	Type IIb Transponder
7	Type IIe Transponder
8-13	Unassigned
14	Transponder's Read Only page 0 (page 7) altered by in-lane equipment
15	Transponder's Read Only page 0 (page 7) programmed by factory

Examples:

1. 1000000001011000 - indicates a Type IIb transponder with beeper and indicator lights where the Read Only page 0 (physical page 7) was programmed at the factory.

2. 0100000000000000 - indicates a Type II transponder (no display, beeper or indicator lights) where the Read Only page 0 (physical page 7) was altered by in-lane equipment.

3. 0000000001011000 - indicates a Type IIb transponder with beeper and indicator lights where the Read Only page 0 (physical page 7) was programmed by the issuing Authority using a Programmer device.

4. 1000000010011000 - indicates a Type IIe transponder with beeper and indicator lights where the Read Only page 0 (physical page 7) was programmed at the factory.

3.1.8 Password

The password field is **not** used in the interoperable Florida toll agency systems and is set to the value zero.

3.2 Read-Write Page 0 Fields

The following fields are present in the first page of data written back to the transponder (physical page 9).

3.2.1 Current Balance

The Current Balance field is defined as the actual balance on the transponder. The value in this field is duplicated for display purposes in the Current Balance field in Read-Write Page 1 (physical page 10). The following rules dictate how interoperable Florida toll agencies populate this field in an ETC transaction.

3.2.1.1 Patron Transponders (Revenue Type 1)

For a Revenue Type '01' transponder with a transponder status as found in the Transponder Positive list as Active (1), the Current Balance is computed according to the following formula:

Current Balance as read from the transponder + Credit Update Amount from the Transponder Positive List – Toll Amount Collected

It is important to note that if a Credit Update Amount is to be applied, it is applied first. Then, the decision is made based on the updated balance amount as to how to apply the Toll Amount Collected.

For example, if the amount to collect is $0.67 and the original balance was $0.10 and a Credit Update Amount is $25.00, then the Current Balance will be computed by adding $0.10 + $25.00 to get a new balance of $25.10. Then, the amount collected of $0.67 is subtracted from that balance to arrive at a final balance of $24.43. The $24.43 figure will be written to the Current Balance field of pages 9 and 10.

If the Original Balance is less than the amount to collect and no Credit Update Amount applies, then the transaction is treated as an Insufficient Funds transaction and the Current Balance is set to $0.00. Additionally, the Toll Amount Collected is set to the original Current Balance amount, even if the original Current Balance was $0.00

If there is a negative Credit Update Amount pending for a transponder (SunPass host adjustment) and that negative amount when added to the original Current Balance would cause the modified balance to be less than $0.00, then the toll system allows this to occur. In this event, the Toll Amount Collected will be set to $0.00 and the transaction treated as an Insufficient Funds transaction. The resultant negative balance will be written to the transponder's Current Balance field on pages 9 and 10.

3.2.1.2 All Other Transponders

Whatever is read from the transponder is written back to the transponder. The following description is specific to how FDOT populates the fields. However, all agencies are expected to complete the full read/write cycle when interacting with a transponder that is on the Transponder Positive List.

3.2.2 Credit Update Serial Number

The following discussion relates only to Patron Revenue Transponders (Revenue Type '01'). For all other transponders, this field is populated with whatever was read from the transponder.

If the Credit Update Serial Number in the Transponder Positive List is the same as the number read from the transponder, then the same number is written back to the transponder. If the Credit Update Serial Number in the Transponder Positive List is different from the number read from the transponder, then the following scenario is used.

If the Credit Update Serial Number in the Transponder Positive List is zero (0), then nothing occurs and the number read from the transponder is written back to the transponder.

If the Credit Update Serial Number in the Transponder Positive List is any non-zero number and the Serial Number in the transponder is zero (0), then credit update processing will occur and the number found in the Transponder Positive List will be written to the transponder.

If the Credit Update Serial Number from the Transponder Positive List is greater than the Credit Update Serial Number read from the transponder AND the difference between the Transponder Positive List number and the Credit Update Serial Number read from the transponder is less than or equal to 25, then credit update processing will occur and the number found in the Transponder Positive List will be written to the transponder.

If the Credit Update Serial Number from the Transponder Positive List is less than the Serial Number read from the transponder AND the difference between the Credit Update Serial Number read from the transponder the Transponder Positive List is greater than 25 then credit update processing will occur and the number found in the Transponder Positive List will be written to the transponder.

In all other cases, no credit update processing will occur and the Credit Update Serial Number read from the transponder will be written back to the transponder. The following table summarizes these processing rules with several examples.

Transponder Read Credit Serial #	Transponder List Credit Serial #	Transponder Write Credit Serial #	Credit Update?	Comments
0	0	0	No	TRANSPONDER LIST SER # = 0
0	1	1	Yes	Transponder List Serial # > Transponder Read Serial #
0	125	0	No	Transponder List Serial # > Transponder Read Serial # + 25
12	0	12	No	Transponder List Serial # = 0

Transponder Read Credit Serial #	Transponder List Credit Serial #	Transponder Write Credit Serial #	Credit Update?	Comments
12	12	12	No	Transponder List Ser # = Transponder Read Ser #
12	13	13	Yes	Transponder List Serial # > Transponder Read Serial #
12	97	12	No	Transponder List Serial # > Transponder Read Serial # + 25
254	1	1	Yes	Transponder List Serial # < Transponder Read Serial # - 25
254	0	254	No	Transponder List Serial # = 0
254	244	254	No	Transponder List Serial # > Transponder Read Serial # - 25

3.2.3 Current Transaction Number (Entry Transaction Number)

This field is valid for all transponders regardless of Revenue Type.

3.2.4 Current Plaza Number (Entry Plaza Number)

This field is valid for all transponders regardless of Revenue Type. The Plaza Number for the Plaza in which this transaction occurred is loaded into this field.

3.2.5 Current Lane Number (Entry Lane Number)

This field is valid for all transponders regardless of Revenue Type. The Lane Number for the lane in which the transaction occurred is loaded into this field.

3.2.6 Current Lane Type (Entry Lane Type)

This field is valid for all transponders regardless of Revenue Type. The below table shows, by lane type, the assigned code and the value written to the transponder when the transponder passes through an AVI equipped lane on the FDOT toll system.

Description Designator	Lane Name	Lane Type Code	Value Written to Transponder
BA	Manual Barrier AVI Lane	B	1
CA	Automatic Coin Machine	C	2
DED	Barrier Dedicated AVI Lane	D	3
EXP	Barrier Express AVI Lane	S	4
ME	Ticket Manual Entry AVI Lane	N	5
AE	Ticket Automatic Entry AVI Lane	E	6
MX	Ticket Manual Exit AVI Lane	X	7
DED-E	Ticket Dedicated Entry AVI Lane	Y	8
DED-X	Ticket Dedicated Exit AVI Lane	Z	9
EXP-E	Ticket Express Entry Lane	J	10
EXP-X	Ticket Express Exit Lane	K	11
SR	SunPass Only AVI Ramp	R	12
HO	Open Road Tolling Lane	H	13

3.2.7 Current Date (Entry Date)

This field is valid for all transponders regardless of Revenue Type. This field is populated with the date on which this transaction occurred.

The Current Date is an encoded value on the transponder.

Field	Value Range	Number Of Bits
Day	1 to 31	5
Month	1 to 12	4
Year	0 to 63*	6

* The Year value is computed by subtracting the base year 1995 from the current calendar year.

3.2.8 Current Time (Entry Time)

This field is valid for all transponders regardless of Revenue Type.

3.2.9 Ticket Entry Flag

This field is valid for all transponders regardless of Revenue Type. The interoperable Florida toll agency shall write back the same value to this field that it found when reading the transponder field.

3.2.10 Transponder Status

This field is populated with the Transponder Status code value found in the Transponder Positive List provided by FDOT. For transponders read and not found in the Transponder Positive List lookup, the transponder will not be written back to. The following list summarizes the values written to this field and the conditions under which each value might occur.

'1' = Valid Transponder
'2' = Transponder Lost/Stolen
'3' = Transponder Returned
'4' = Transponder Terminated
'5' = Transponder Suspended (No longer used by FDOT)
'6' = Transponder Issued but not yet Activated

3.2.11 Anti-Passback Code

The interoperable Florida toll agency system writes the decimal value '2' to this field for all write transactions to read/write page 0. The value '2' indicates "Ticket Exit or Barrier System Passage". The value initially read from this field as the transponder enters the lane RF field is the value used in populating the 9010 record. .

3.2.12 Payment Flag 1

Always set to 0 for all transponders.

3.2.13 Payment Flag 2

Always set to 0 for all transponders.

3.2.14 Payment Flag 3

Always set to 0 for all transponders.

3.3 Read-Write Page 1 Fields

The following fields found on Read-Write page 1 (physical transponder page 10) are written to the transponder.

3.3.1 Display Current Balance

This field is valid for all transponders regardless of Revenue Type. Always set to the same value as the updated Current Balance field written to Read-Write page 0.

3.3.2 Last Toll Amount

This field is valid for all transponders regardless of Revenue Type. For Patron transponders (Revenue Type '01') found in the Transponder Positive list with a status of '1' (Active), this value will be the amount actually charged to the transponder for the current transaction. For all other Revenue Types, this value will be set to zero.

3.3.3 Previous Transaction Number (Exit Transaction Number

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Transaction Number read from Read-Write Page 0 as the transponder entered the lane.

3.3.4 Previous Plaza Number (Exit Plaza Number)

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Plaza Number read from Read-Write Page 0 as the transponder entered the lane.

3.3.5 Previous Lane Number (Exit Lane Number)

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Lane Number read from Read-Write Page 0 as the transponder entered the lane.

3.3.6 Previous Lane Type (Exit Lane Type)

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Lane Type read from Read-Write Page 0 as the transponder entered the lane.

3.3.7 Previous Date (Exit Date)

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Date read from Read-Write Page 0 as the transponder entered the lane.

3.3.8 Previous Time (Exit Time)

This field is valid for all transponders regardless of Revenue Type. This field contains the value found in the Entry Time read from Read-Write Page 0 as the transponder entered the lane.

3.3.9 Low Battery Flag

This field is valid for all transponders regardless of Revenue Type. When the transponder is awakened during the polling process it goes through a self-diagnosis. When a transaction read occurs, the low battery flag on the transponder is checked. The resultant value is placed here on write-back to the transponder. Valid values are zero (0) if the battery is not detected as low or one (1) if the battery was detected as low.

3.3.10 Insufficient Funds Flag

Set to 1 on any Patron transponder (Revenue Type '01') where the updated current balance is insufficient to cover the toll amount collected for vehicle passage. Refer to 3.2.1 for Current Balance Update rules. This applies where the Transponder Status on the Transponder Positive List is '1' (Active). Set to zero for all other transponders.

3.3.11 Low Balance Flag

Set to 1 on any Patron transponder (Revenue Type '01') that has an updated Current Balance less than $10.00 (refer to section 3.2.1 for the business rules for update of the Current Balance field). Set to 0 when the updated Current Balance is equal to or greater then $10.00 and for all Revenue Type values greater then '01'. Note that the toll system will not set both the Insufficient Funds and Low Balance flags in the same transaction.

3.3.12 Invalid Transponder Flag

This field is valid for all transponders regardless of Revenue Type. Set to 1 if the Transponder Status code obtained from the Transponder Positive List lookup is greater then '1' (Active), otherwise set to '0'.

3.3.13 Pass Used Flag

This field is valid for all transponders regardless of Revenue Type. The toll system sets this flag to '0' for all FDOT transponder transactions.

4.0 File Standards

All data files are composed of ASCII fields. The record formats described in the following sections describe the data characteristics of the data when converted from its text format. All field sizes are in bytes. Left justification blank padding rules for alphabetic/alphanumeric fields as well as right justification, 0 left-filled for numeric (digit) fields are applied unless otherwise stated.

FDOT will produce files in VMS Variable Record format. Lee County DOT and OOCEA will produce files in VMS Stream_LF format. Files may be converted before processing by the receiving agency.

In cases where multiple Florida agencies use a common Customer Service Center (e.g., MDX and FDOT; and Osceola and OOCEA), the host agency will send a single set of files containing combined data to the other interoperable Florida agencies.

5.0 9001/9010 Record Formats

A 9001 is generated by the FDOT toll system for every vehicle passage through the ticket system where a transponder is present and the transponder is on the Transponder Positive List. 9010 message record is generated by interoperable Florida toll agency systems for every vehicle passage through their barrier toll systems where a transponder is present and the transponder is on the Transponder Positive List.

Each 9001 or 9010 record is preceded by a message header. The message header uniquely identifies the record.

9001 and 9010 records are each grouped into files. 9001 Records are sent as part of a TICK file, while 9010 records are grouped into a TRAN file. Each file is ended with a file summary record. No specific sort order is required for TICK or TRAN files. A file header record, preceding the first record in the file, will be considered in the future.

5.1 Message Prefix Format

Messages exchanged use a standard message prefix. The table shows fields that are present in the message prefix. The table is followed by field definitions.

Field Name	Field Length in bytes	Format	Value Range
Message ID	4	NNNN	'9001 ' or '9010'
Message Sequence Number	4	NNNN	0000 - 9999
Plaza Code	6	NNNNNN	Must be in Plaza Code Table
Lane Number	2	NN	
Lane Type Code	1	N	
Collector/Supervisor ID	4	NNNN	
Year, Day of Year, Time	13	YYYYDDDHHMISS	

5.1.1 Message ID

A four (4) character value which identifies the message type. This is a fixed value of "9010" for a message on the barrier system and a fixed value of "9001" for a message on the ticket system.

5.1.2 Message Sequence Number

This is a four character field that contains a sequence number generated by the lane controller identifies the transaction for the vehicle transit passage through the lane. The sequence number that is written to the Entry Transaction Number field on the transponder's Read-Write page 0 and recorded in the 9001/9010 records. This field is populated with leading zeroes when necessary (i.e. "0000" to "0999").

5.1.3 Plaza Code

The six character number identifying the Plaza in which this transaction occurred is loaded into this field. The Plaza code is written to the Plaza field on the transponder's Read-Write page 0 (physical page 9) and recorded in the 9001/9010 records. A Plaza Number may **not** be added or may **not** be changed without being added to the Plaza Information file exchanged between interoperable Florida toll agencies. Refer to Section 8.0 for plaza file format.

5.1.4 Lane Number

This is a two character numeric field that identifies the lane in which this transaction occurred. The Lane Number is written to the Lane field on the transponder's Read-Write page 0 (physical page 9) and recorded in the 9001/9010 records. The lane number is padded with leading zeroes, as necessary (i.e. "00" to "09").

5.1.5 Lane Type Code

A one (1) character alphabetic field which identifies the lane type. The Lane Type code is written to the Lane Type field on the transponder's Read-Write page 0 (physical page 9) and recorded in the 9001/9010 records. Refer to section 3.2.6 for the assigned code value and the value written to the transponder when the transponder passes through an AVI equipped lane.

5.1.6 Collector/Supervisor ID

This is a four character field to hold the identification number of the collector in the lane, or the identification number of the supervisor that opened the lane for processing traffic, or '0000' if the lane was closed. An interoperable Florida toll agency populates this field with the last four digits of the appropriate operational personnel identification number. This field will be padded with leading zeroes to create a four digit number, or by truncating longer identification fields to the low order four characters, as necessary.

5.1.7 Year, Day of Year, Time

This is the Julian date and time of the vehicle passage through the lane. The date is formatted as YYYYDDDHHMISS, where YYYY is the four digit year, DDD is the day of the year, HH is the hour, MI is the minutes and SS is the seconds. This date/time is also written to the Date/Time field on the transponder's Read-Write page zero (physical page 9).

5.2 9001 Message Body Format

The Message Body contains the following fields for each 9001 record:

Field Name	Field Length in bytes	Format	Value Range
Transaction Entry Number	4	NNNN	0000 - 9999
Entry Plaza ID	6	NNNNNN	Must be in Plaza Code Table
Entry Lane Number	2	NNNNNN	
Entry Lane Type	1	N	
Entry Date	7	YYYYDDD	
Entry Time	6	HHMISS	
Ticket Serial Number	4	NNNN	0000
Transponder Identification Number	8	NNNNNNNN	
Agency/Group Code	2	NN	'01' - '09'
State/Region Code	2	NN	'10'
Manual Entry Indicator	1	N	'0'
Manual Ticket Entry Indicator	1	N	'0'
Balance on Transponder	6	SNNNNN	+0 to
Method of Payment	1	N	'2'
Revenue Type	1	N	'1' – "7'
Toll Amount Full	5	NNNNN	
Toll Amount Charged	5	NNNNN	
Toll Amount Collected	5	NNNNN	
Closed Lane Flag	1	N	'0' – '1'
Class Mismatch Flag	1	N	'0' – '1'
AVI Read Failure Flag	1	N	'0' – '1'
AVI Write Failure Flag	1	N	'0' – '1'
Vehicle in Lane Flag	1	N	'0' – '1'
Invalid Transponder Flag	1	N	'0' – '1'
Transponder Status	1	N	'1' – '6'
Low Transponder Battery Flag	1	N	'0' – '1'
Low Balance Flag	1	N	'0' – '1'
Insufficient Funds Flag	1	N	'0' – '1'
Credit List Number	3	NNN	'000' – '255'
Credit Update Flag	1	N	'0' – '1'
Anti-Pass Code	2	NN	'00' – '02'
AVC Class	2	NN	'02' – '15'
Registered Axles	2	NN	'02' – '15'
Forward Treadle Count	2	NN	
Reverse Treadle Count	2	NN	
Ticket Type Code	1	N	'4'
Unusual Occurrence Code	2	NN	
Reader Confirmation Code	2	NN	
Pass Used Flag	1	N	'0' – '1'
Internal Serial Number (Future)	8	HHHHHHHH	
Speed (Future)	2	NN	
AVC Health Status Flag (Future)	1	N	'0' - '2'

5.2.1 Transaction Entry Number
The four digit Message Sequence Number read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane.

5.2.2 Entry Plaza ID
The six digit Plaza Number read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane.

5.2.3 Entry Lane Number
The two digit Lane Number read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane.

5.2.4 Entry Lane Type
The one character alphabetic Lane Type code obtained by converting the numeric value read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane. Refer to section 3.2.6 for alphabetic code values.

5.2.5 Entry Date
The seven digit Julian date (YYYYDDD) obtained by converting the numeric value read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane.

5.2.6 Entry Time
The six digit time (HHMISS) read from Read/Write page zero (physical page 9) as the transponder enters the RF field of the ticket exit lane.

5.2.7 Ticket Serial Number
The four digit entry ticket serial number. The value in this field will be zeros.

5.2.8 Transponder Identification Number
The Transponder number read from the Transponder. Formatted to eight digits, with leading zeroes to fill the field. Refer to section 3.1.1.

5.2.9 Agency/Group Code
The Agency/Group Code read from the Transponder (issuing agency/group). Formatted to two digits, with leading zeroes to fill the field. Refer to section 3.1.2.

5.2.10 State/Region Code
The State/Region Code read from the Transponder (issuing state/region). Formatted to two characters, with leading zeroes to fill the field. Refer to section 3.1.3.

5.2.11 Manual Entry Indicator
A one digit value indicating if a manual entry of prepaid or non-revenue indication was made in a cash lane.

0 = No, card swiped through slot reader
1 = Yes, card manually entered

The value will be zero for information exchanged.

5.2.12 Manual Ticket Entry Indicator
A one digit value indicating if ticket information was manually entered.

0 = Data read by ticket transport
1 = Data manually entered

The value will be zero for information exchanged.

5.2.13 Balance on Transponder
This field contains the Current Balance as written to the transponder's Read-Write pages 0 and 1 before the transponder leaves the AVI RF zone in the lane.

The field in the 9001 is formatted as six characters, the first character is a + or – sign. The remaining five characters represent the balance with an implied decimal between the third and fourth character. If the

amount is zero, the first character in the field is forced to a + sign. Examples: $0.00 is +00000, $12.38 is +01238, and -$0.55 is –00055.

5.2.14 Method of Payment

A one digit number indicating method of payment for the vehicle. For transactions exchanged with interoperable Florida toll agencies the value in this field will be '2' indicating "AVI".

5.2.15 Revenue Type

The Revenue Type value read from the transponder's Read Only page 0. Formatted as two digits with leading zeroes. Refer to section 3.1.6 for revenue Type code values.

5.2.16 Toll Amount Full

The toll without any applicable discounts applied, based on the classification in effect . The Toll Amount Full is populated for all transponders. Formatted as five characters, with an implied decimal point between the second and third characters from the right. When calculating the summary total of Toll Amount Full only 9001 records where the Revenue Type is '01' or '02' and the Transponder Status is '1' are included.

5.2.17 Toll Amount Charged

This is a five character field containing the toll after any applicable discount has been applied, based on the classification in effect. The Toll Amount Charged field is populated for all transponders. Formatted as five characters, with an implied decimal point between the second and third characters from the right. When calculating the summary total of Toll Amount Charged, for Authority revenue distribution, only 9001 records where the Revenue Type is '01' or '02' and the Transponder Status is '1' are included.

5.2.18 Toll Amount Collected

This is a five character field containing the Toll Amount Collected from the transponder. If the Revenue Type is greater then '02', or if there was a write-back failure code of 12 or 13, then this amount is set to 0. (Refer to section 3.2.1.1 governing insufficient balance transaction). Formatted as five characters, with an implied decimal point between the second and third characters from the right. Examples: $0.67 is 00067, $2.35 is 00235.

For Revenue Type '01' (Patron) transponders with a Transponder Status of '1' (Active), this value matches what was debited from the transponder's Current Balance. For a Revenue Type '02' (Commercial) transponder the Toll Amount Collected is the same as Toll Amount Charged. For Revenue Type greater then '02', Toll Amount Collected is always $0.00 (formatted as 00000).

5.2.19 Closed Lane Flag

A one digit value indicating the status of the lane at the time of vehicle passage.

0 = Lane open
1 = Lane closed

5.2.20 Class Mismatch Flag

A one digit value indicating a difference between the lane controller derived AVC axle count and the Vehicle Class read from Read Only page 0 (physical page 7) on the transponder.

0 = No
1 = Yes

5.2.21 AVI Read Failure Flag

A one digit value indicating that a failure occurred during a transponder read. The associated Reader Confirmation Code (RCC) value will be either '01' – Physical page 7 read failure or '02' – Physical Page 9 read failure if the value in this field is '1'.

0 = No
1 = Yes

5.2.22 AVI Write Failure Flag

A one digit value indicating that a failure occurred during a transponder write. The associated Reader Confirmation Code (RCC) value will be either '12' – Physical page 9 write failure or '13' – Physical Page 10 write failure if the value in this field is '1'.

0 = No
1 = Yes

5.2.23 Vehicle in Lane Flag

A one digit value indicating that a vehicle was detected in the lane during the transponder write.

0 = No
1 = Yes

5.2.24 Invalid Transponder Flag

A one digit value indicating that the transponder is invalid. When the value in this field is set '1' the transponder is on the Transponder Positive List but the Transponder Status read from the Transponder Positive List is '2' – Lost/Stolen. '3' – Returned. Or '4' – Terminated. This field reflects the actual value written to the transponder.

0 = OK
1 = Invalid

5.2.25 Transponder Status

A one digit value indicating the status of the transponder as it transited the lane.

1 = Active transponder
2 = Transponder reported lost/stolen
3 = Returned transponder
4 = Terminated transponder
5 = Suspended transponder (No longer used by FDOT)
6 = Transponder issued, but not activated

5.2.26 Low Transponder Battery Flag

A one digit value indicating the status of the transponder's battery. This field reflects the actual value written to the transponder.

0 = OK
1 = Low

5.2.27 Low Balance Flag

A one digit value indicating the status of the transponder's balance. This flag applies only to transponders coded as Revenue Type '01'. This field reflects the actual value written to the transponder.

0 = OK
1 = Low Balance

5.2.28 Insufficient Funds Flag

A one digit value indicating if the sufficient funds were available in its balance as it transited the lane for the current toll. This field reflects the actual value written to the transponder.

0 = OK
1 = Insufficient funds

5.2.29 Credit List Number

A three digit value representing the credit list number from the Transponder Positive List used to update the transponder's Current Balance with a replenishment amount.

5.2.30 Credit Update Flag

A one digit value indicating that the transponder's current balance was updated during this transit.

0 = no update
1 = update

5.2.31 Anti-Pass Code

A two digit value which indicates if the transponder properly entered the FDOT ticket toll system. The value is read from the transponder's Read/Write page 0 (physical page 9) as it enters the RF zone of a ticket exit lane. The expected value is '01' showing that the last passage was through a ticket entrance lane.

00 = New transponder, first use
01 = Ticket entrance

02 = Ticket exit or Barrier system passage
03 = (NOT USED)

5.2.32 AVC Class

A two digit value indicating the AVC derived axle count for the vehicle.

5.2.33 Registered Axles

A two digit value indicating the vehicle class read from the transponder's Read Only page 0 (physical page 7).

5.2.34 Forward Treadle Count

A two digit value indicating the number of forward treadles detected during the vehicle's passage.

5.2.35 Reverse Treadle Count

A two digit value indicating the number of reverse treadles detected during the vehicle's passage.

5.2.36 Ticket Type Code

A one digit code which indicates the mechanism or type of ticket used. For transactions forwarded by FDOT to other interoperable Florida toll agencies the value in this field will be '4' – "AVI".

0 = Ticket Transport
1 = ATIM
2 = Pre-encoded Ticket
3 = Maintenance Ticket
4 = AVI

5.2.37 Unusual Occurrence Code

A two digit value describing any unusual occurrence detected by the lane controller during vehicle passage. The code values which might be seen in a ticket lane are:

UNUSUAL OCCURRENCE	MX	DED-X
00 = No unusual occurrence	□	□
12 = Greater than 16 hours on Turnpike	□	□
13 = No entry or invalid transaction on transponder	□	□
15 = Exit with conversion on Ticket at Entry	□	□
25 = Class exception (AVI only)		□
32 = Service plaza U-turn	□	□
45 = SunPass vehicle at Exit, equipment malfunction	□	□
51 = Insufficient payment	□	□
55 = Good transaction follows a RCC-12	□	□
82 = Transaction in closed lane	□	□
83 = Zero-fare over-ride transaction	□	□
84 = AVC outside normal valid range	□	
85 = No AVC or Treadle count	□	
86 = Revenue calculated to Raw Treadle	□	

UNUSUAL OCCURRENCE	M X	DED-X
87 = Transaction has a Negative Treadle	□	
88 = Transaction time out	□	
90 = Registered Class greater than the AVC	□	

5.2.38 Reader Confirmation Code

A two digit value provided by the AVI Reader to indicate the status of a read or write action from/to the transponder.

00 = Transaction successful
01 = Unable to read first page (R0 page 0)
02 = Unable to read second page (R/W page 0)
12 = Unable to write second page (R/W page 0)
13 = Unable to write third page (R/W page 1)
15 = Unable to write second page/Internal State Error (R/W page 0)
16 = Unable to write third page/Internal State Error (R/W page 1)
22 = Unable to write second page (R/W page 0) due to wrong password
99 = Unable to send General Acknowledgment

5.2.39 Pass Used Flag

A one digit value indicating if the vehicle transit was paid using one of three passes. No passes are used on the FDOT ticket system and all 9001 transactions provided will have the value '0' in this field.

0 = not used
1 = Pass One – Bayway Isle
2 = Pass Two – Bayway Commuter
3 = Pass Three – Navarre Bridge

5.2.40 Future Considerations

The following fields will be considered for future implementation.

5.2.40.1 Internal Serial Number

An eight character hexadecimal alpha/numeric value representing the thirty two bit TransCore Transponder Serial number found on the transponder's physical page 0. This value is read from the transponder and is found in the TAGDATASTRUCT structure as a 32 bit unsigned long integer. The thirty two bit encoding is as follows:

Field Name	Bit Numbers	Number of Bits	Combinations
Year	0 to 6	7	128 (0 to 99 used)
Week	7 to 12	6	64 (1 to 52 used)
Line number	13 to 16	4	16 (0 to F)
Offset	17 to 31	15	32K (0 to 32767)

5.2.40.2 Speed

A two digit value representing the speed of the vehicle as it passes through the lane. (Note that if speed exceeds 99mph this field will contain two nines "99").

5.2.40.3 AVC Health Status Flag

A one digit value indicating the health status of the AVC (treadles and delineators).

0 = AVC normal
1 = AVC failure
2 = No AVC

5.2.40.4 More to Come

It is anticipated that additional fields will be appended to the 9001 record in the future. These fields might include vehicle lane position, camera identification and framing rule.

5.3 9010 Message Body Format

The Message Body contains the following fields for each 9010 record:

Field Name	Field Length in bytes	Format	Value Range
Transponder ID	8	NNNNNNNN	
Agency/Group Code	2	NN	'01 '- '09'
State/Region Code	2	NN	'10'
Balance on Transponder	6	SNNNNN	+0 to
Toll Amount Collected	4	NNNNN	
Toll Amount Charged	4	NNNNN	
Toll Amount Full	4	NNNNN	
Low Battery Flag	1	N	'0' – '1'
Transponder Status	1	N	'1' – '6'
Low Balance Flag	1	N	'0' – '1'
Insufficient Funds Flag	1	N	'0' – '1'
Credit List Number	3	NNN	'000' – '255'
Update of Credit Flag	1	N	'0' – '1'
Anti-Pass Code	2	NN	'00' – '02'
AVC Class	2	NN	'02' – '15'
Transponder Class	2	NN	'02' – '15'
Revenue Type	2	NN	'01' - '07'
Violation Code	2	NN	'4'
Reader Confirmation Code	2	NN	
Pass Used Flag	1	N	'0' – '1'
Vault ID	6	NNNNNN	'000000'
Internal Serial Number (Future)	8	HHHHHHHH	
Speed (Future)	2	NN	'00' – '99'
AVC Health Status Flag (Future)	1	N	'0' - '2'

5.3.1 Transponder ID

The Transponder number read from the Transponder. Formatted to eight characters, with leading zeroes to fill the field.

5.3.2 Agency/Group Code

The Agency/Group Code read from the Transponder (issuing agency/group). Formatted to two characters, with leading zeroes to fill the field.

5.3.3 State/Region Code

The State/Region Code read from the Transponder (issuing state/region). Formatted to two characters, with leading zeroes to fill the field.

5.3.4 Balance on Transponder

This field contains the Current Balance as written to the transponder's Read-Write pages 0 and 1 before the transponder leaves the AVI RF zone in the lane.

The field in the 9010 is formatted as six characters, the first character is a + or – sign. The remaining five characters represent the balance with an implied decimal between the third and fourth character. If the amount is zero, the first character in the field is forced to a + sign. Examples: $0.00 is +00000, $12.38 is +01238, and -$0.55 is –00055.

5.3.5 Toll Amount Collected

This is a four character field containing the Toll Amount Collected from the transponder. If the Revenue Type is greater then '02', or if there was a writeback failure code of 12 or 13, then this amount is set to 0. (Refer to section 3.2.1 for the business rules governing insufficient balance transaction). Formatted as

four characters, with an implied decimal point between the second and third characters. Examples: $0.67 is 0067, $2.35 is 0235.

For Revenue Type '01' (Patron) transponders with a Transponder Status of '1' (Active), this value matches what was debited from the transponder's Current Balance. For a Revenue Type '02' (Commercial) transponder the Toll Amount Collected is the same as Toll Amount Charged. For Revenue Type greater then '02', Toll Amount Collected is always $0.00 (formatted as 0000).

5.3.6 Toll Amount Charged

This is a four character field containing the toll after any applicable discount has been applied, based on the classification in effect (see section 5.0 on classification rules). The Toll Amount Charged field is populated for all transponders. Formatted as four characters, with an implied decimal point between the second and third characters. When calculating the summary total of Toll Amount Charged, for Authority revenue distribution, only 9010 records where the Revenue Type is '01' or '02' and the Transponder Status is '1' or '5' are included.

5.3.7 Toll Amount Full

The toll without any applicable discounts applied, based on the classification in effect (see section 5.0 on classification rules). The Toll Amount Full is populated for all transponders. Formatted as four characters, with an implied decimal point between the second and third characters. When calculating the summary total of Toll Amount Full only 9010 records where the Revenue Type is '01' or '02' and the Transponder Status is '1' are included.

5.3.8 Low Battery Flag

Set to '1' if a low battery was detected on the transponder and the flag was written to the transponder, or '0' if not. This field reflects the actual value written to the transponder.

5.3.9 Transponder Status

The Transponder Status Flag found on the Transponder Positive List and written to the transponder. This value should range from '1' to '6', according to the following table. This field is formatted as a single character value.

'1' – Active (Valid) Transponder
'2' – Transponder Lost/Stolen
'3' – Transponder Returned
'4' – Transponder Terminated
'5' – Transponder Suspended (No longer used by FDOT)
'6' – Transponder Issued but not Activated

5.3.10 Low Balance Flag

This field reflects the actual value written to the Low Balance flag on the transponder's Read-Write page 1. Set to '1' if the updated Current Balance on the transponder was less than $10.00 after applying any Credit Updates and taking the appropriate toll amount from the transponder's Current Balance. Only applies to Revenue Type '1' (Patron) transponders with a Transponder Status of '1' (Active). This field is formatted as a single character with valid values of '0' or '1'.

5.3.11 Insufficient Funds Flag

This field reflects the actual value written to the Insufficient Balance flag on the transponder's Read-Write page 1. Set to '1' if there was not a sufficient Current Balance to cover the amount of the toll based on the discounted fare. This applies only to Revenue Type '01' (Patron) transponders with a Transponder Status of '1' (Active) – all other transponders have this flag set to '0'. If this flag is set, the Low Balance Flag will not be set. This field is formatted as a single character with valid values of '0' or '1'.

5.3.12 Credit List Serial Number

This field reflects the actual value written to the Credit Update Serial Number on the transponder's Read-Write page 0. The credit list serial number read from the transponder unless a Credit Update is applied to the transponder. In the latter case, the credit list serial number from the Transponder Positive List will be used. Applies only to Revenue Type '01' (Patron) transponder. For all other Revenue Type values, this field is set to zero. Formatted as a three character value with leading zeroes for filler. Valid values are 000 to 255.

5.3.13 Update of Credit List Flag

Set to '1' if a credit amount from the Transponder Positive List was applied to the transponder's Current Balance, '0' otherwise. Applies only to Revenue Type '01' (Patron) transponder. Formatted as a single character with valid values of '0' or '1'.

5.3.14 Anti-Passback Code

The value read from the Anti-passback field found on the transponder's Read-Write page 0 as the transponder enters the lane's RF zone. Note that an anti-passback decimal value '2' will be written to all transponders by the interoperable Florida toll agencies as the transponder leaves the lane's RF zone.

5.3.15 AVC Class

The toll system determined axle count for the vehicle. Formatted as two characters with leading zero for filler.

5.3.16 Transponder Class

The Vehicle Class value read from the transponder's Read Only page 0. Formatted as two characters with leading zeroes.

5.3.17 Revenue Type

The Revenue Type value read from the transponder's Read Only page 0. Formatted as two characters with leading zeroes.

5.3.18 Violation Code

A two character code value set according to the following table. If no code from the following table applies, then a code of "00" will be placed in this field. Codes are padded with leading zeroes, as necessary, to create a two character field. If two or more of the indicated violation conditions exist, only the code with the highest priority will be placed in this field. Violations are listed in order of decreasing priority.

Priority	Violation Code	Description	Comments
0	83	Zero fare over-ride condition (FARE_IS_ZERO)	Occurs when the lane is placed in Event mode and no money is transacted from the transponder, such as would be the case during hurricane evacuations.
1	07	Lost/Stolen Transponder (LOST_STOLEN_TRANSPONDER)	Set when the transponder is found in the Transponder Positive List with a Transponder Status of '2'.
2	07	Returned Transponder (RETURNED_TRANSPONDER)	Set when the transponder is found in the Transponder Positive List with a Transponder Status of '3'.
3	07	Terminated Transponder (TERMINATED_TRANSPONDER)	Set when the transponder is found in the Transponder Positive List with a Transponder Status of '4'.
4	07	Issued but not Yet Activated Transponder	Set when the transponder is found in the Transponder Positive List with a Transponder Status of '6'.
5	21	Pass Invalid (PASS_INVALID)	Set when the transponder is of Revenue Type '5', '6' or '7'.
6	07	Suspended Transponder (SUSPENDED_TRANSPONDER) (No longer used by FDOT)	Set when the transponder is found in the Transponder Positive List with a Transponder Status of '5'.
7	20	Pass Not Paid (PASS_NOT_PAID)	Applies to Pass Only systems.
8	08	Bad Data on Transponder (BAD_DATA_ON_TRANSPONDER)	Set when bad data is detected on the transponder that prevents it from being processed properly.
9	54	Transponder Read with no Vehicle in Lane (AVI_WITHOUT_VEHICLE)	Set when a transponder is read and no vehicle was detected by the in-lane equipment.
10	03	Class Mismatch (CLASS_MISMATCH)	Set when the transponder vehicle classification is less than the AVC, and the lane's pre-classification system is not operational.
11	05	Read Failure (READ_FAILURE)	Set when a failure occurs reading the transponder (would have to be second page read).
12	06	Write Failure (WRITE_FAILURE)	Set when a write failure occurs writing data to the transponder (RCC 12 or 13).

Priority	Violation Code	Description	Comments
13	04	Lane Closed (LANE_CLOSED)	Set when a transponder is read when the lane is closed.
14	02	Insufficient Balance (INSUFFICIENT_BALANCE)	Set when a Patron transponder balance was not sufficient for the toll charged.

5.3.19 Reader Confirmation Code

A two character field containing a value from the following table indicating if the transponder read or write has been successful.

'00' – Transaction successful
'01' – Unable to read first page (Read-Only Page 0)
'02' – Unable to read second page (Read-Write Page 0)
'12' – Unable to write second page (Write Page 0)
'13' – Unable to write third page (Write Page 1)
'15' – Unable to write second page, Internal state error (Write Page 0)
'16' – Unable to write third page, Internal state error (Write Page 1)
'99' – Unable to send General Acknowledgement (GenAck)

5.3.20 Pass Used Flag

Set to zero '0' in all cases. Interoperable Florida toll agencies, other than FDOT facilities, do not support this feature. Pass Used transponders (Revenue Type '05', '06', or '07') are not valid for use on other Florida interoperable toll agency facilities. Formatted as a single digit.

5.3.21 Vault ID

'000000' is always written to this field.

5.3.22 Future Considerations

The following fields will be considered for future implementation.

5.3.22.1 Internal Serial Number

This is an eight character alpha/numeric field containing the hexadecimal representation of the thirty-two bit TransCore Transponder Serial number. This value is read from the transponder and is found in the TAGDATASTRUCT structure as a 32 bit unsigned long integer. The thirty two bit encoding is as follows:

Field Name	Bit Numbers	Number of Bits	Combinations
Year	0 to 6	7	128 (0 to 99 used)
Week	7 to 12	6	64 (1 to 52 used)
Line number	13 to 16	4	16 (0 to F)
Offset	17 to 31	15	32K (0 to 32767)

5.3.22.2 Speed

This is a two character field containing the speed of the vehicle as it passes through an AVI equipped lane capable of calculating speed. Note that if the speed exceeds 99 mph this field will contain the value '99'.

5.3.22.3 AVC Health Status Flag

A one digit value indicating the health status of the AVC (treadles and delineators).

0 = AVC normal
1 = AVC failure
2 = No AVC

5.3.22.4 More to Come

It is anticipated that additional fields will be appended to the 9010 record in the future. These fields might include vehicle lane position, camera identification and framing rule.

5.4 9001/9010 File Header Record Format

Currently the files being transferred do not include a header record. A header record is being considered as a future enhancement with the following fields being considered.

Field Name	Field Length in bytes	Format	Value Range
Record Identifier	4	AAAA	'HDR '
File Name	22	XX...X	
File Generation Date	13	YYYYDDDDHHMISS	
From Date	13	YYYYDDDDHHMISS	
To Date	13	YYYYDDDDHHMISS	
File Sequence Number	11	NNNNNNNNNNN	'
Padding	To length of detail record	(0x20)	Blank

5.4.1 Record Identifier

A four (4) character value which Identifies this record as a file header record. Always contains the value "HDR ".

5.4.2 File Name

A twenty two (22) character value which uniquely identifies the file. Refer to Section 9.0 for file naming conventions. Inclusion of the Agency identification in the file name is being considered.

5.4.3 File Generation Date

Thirteen (13) digits. This is the date and time when this file of records was generated. It is formatted as YYYYDDDHHMISS, where YYYY is the four (4) digit year, DDD is the Julian day of the year, HH is the hour, MI is the minutes and SS is the seconds.

5.4.4 From Date

Thirteen (13) digits. The beginning date for the records in the file formatted as above.

5.4.5 To Date

Thirteen (13) digits. The ending date for the records in the file formatted as above.

5.4.6 File Sequence Number

Eleven (11) digits. A batch identification number – zero padded to the left.

5.5 9001/9010 File Trailer Summary Record

The following fields are contained in the Trailer Summary Record appended to the end of each file containing one or more 9001 records in an associated TICK file and containing one or more 9010 records in an associated TRAN file. There is one and only one Trailer Summary Record for each file, regardless of the number of individual records included in the file. The Trailer Summary record is blank padded (0x20) to the full width of the data records (9001 / 9010) it follows. If the summary record values do not match actual detail totals, the entire file is rejected.

Field Name	Field Length in bytes	Format	Value Range
Record Identifier	4	AAAA	'SUMM'
File Generation Date	13	YYYYDDDDHHMISS	
Total Number of Transactions	10	NNNNNNNNN	
Total Toll Amount Collected	10	NNNNNNNNN	
Total Toll Amount Charged	10	NNNNNNNNNN	'
Total Toll Amount Full	10	NNNNNNNNNN	
File Posting Date Start Time	13	YYYYDDDDHHMISS	
File Posting Date End Time	13	YYYYDDDDHHMISS	
Padding	To length of detail record	XXX.X	Blank

5.5.1 Record Identifier

Four (4) character field that identifies this record as a summary record. Always contains the value 'SUMM'.

5.5.2 File Generation Date

Thirteen (13) digit date and time when this file of records was generated. It is formatted as YYYYDDDHHMISS, where YYYY is the four digit year, DDD is the Julian day of the year, HH is the hour, MI is the minutes and SS is the seconds.

5.5.3 Total Number of Transactions

This is a ten (10) character field containing the number of 9001/9010 records contained within the file and is a positive integer number. The field is padded with leading zeroes, as necessary, to create a ten character field (i.e. "0000000000" to "9999999999").

5.5.4 Total Toll Amount Collected

Sum of the Toll Amount Collected field in the 9001/9010 records in this file. This is a ten (10) character field that indicates the total Toll Amount Collected with an implied decimal point between the eighth and ninth characters. Padded with leading zeroes, as necessary. Example: $1,593.44 is encoded as "0000159344".

5.5.5 Total Toll Amount Charged

Sum of the Toll Amount Charged fields in the 9001/9010 records in this file. This is a ten (10) character field that indicates the total Toll Amount Charged with an implied decimal point between the eighth and ninth characters. Padded with leading zeroes, as necessary. Example: $1,593.44 is encoded as "0000159344".

5.5.6 Total Toll Amount Full

Sum of the Toll Amount Full fields in the 9001/9010 records in this file. This is a ten (10) character field that indicates the total Toll Amount Full with an implied decimal point between the eighth and ninth characters. Padded with leading zeroes, as necessary. Example: $1,593.44 is encoded as "0000159344".

5.5.7 File Posting Date Start Time

Thirteen (13) digit exit date and time of the earliest transaction in this file. It is formatted as YYYYDDDHHMISS, where YYYY is the four digit year, DDD is the Julian day of the year, HH is the hour, MI is the minutes and SS is the seconds.

5.5.8 File Posting Date End Time

Thirteen (13) digit exit date and time of the latest transaction in this file. It is formatted as YYYYDDDHHMISS, where YYYY is the four digit year, DDD is the Julian day of the year, HH is the hour, MI is the minutes and SS is the seconds.

5.6 9001/9010 Reject File Record Format

9001 or 9010 transactions which are rejected by the Agency will be returned to the originating Agency. The complete record will be returned with a three character field appended to the end containing the reason for non-acceptance. See Attachments A and B for a list of the Reject codes.

As a future consideration, the reject file detail records will be preceded by a file header record and a file summary record will follow the detail records.

6.0 Rebate File Record Formats

The term "rebate" is interchangeable with OOCEA's "monthly volume discount" program.

Each rebate file will contain a record for each transponder eligible for a rebate and rebate information pertaining to those transponders. There will be a header record at the beginning of the file, and a summary record at the end. A record will be present in the Discount File for each rebate program that a transponder has qualified for (this means there could be more than one record per transponder, although no duplicate records are allowed). Each record will contain the transponder number, the total number of inter-agency transactions which posted during the previous month, the total toll amount charged for those transactions, and the corresponding rebate due the transponder. Records are terminated with the 0x80 character.

All numeric fields within the Rebate Files are right justified and leading zero padded to fill the complete width of the field. All character fields are left justified and blank padded to fill the complete width of the field.

An agency with no active rebate programs is not required to produce a Rebate File.

6.1 Rebate Header Record

The Rebate Header record must exist as the first record of a Rebate file. Although the header record contains only 10 data characters, it is padded with 49 filler "*" (0x2a) characters.

Field Name	Field Length In bytes	Format	Value Range
Record Identifier	4	AAAA	'DHDR'
Applicable Rebate	6	NNNNNN	
Padding	49	(0x2a)	"*"

6.1.1 Record Identifier

Four (4) characters – "DHDR" for rebate header record.

6.1.2 Applicable Rebate

Rebate period for which the toll transactions were originally posted; six (6) digits.

6.2 Rebate Data Record

Field Name	Field Length In bytes	Format	Value Range
Record Identifier	4	AAAA	'DISC'
Transaction Date	13	YYYYDDDDHHMISS	
Transponder Identification Number	8	NNNNNNNN	
Agency Code	2	NN	
State/Region Code	2	NN	
Number of Inter-agency Transactions	8	NNNNNNNN	
Total Toll Amount Charged	10	NNNNNNNNNN	
Rebate due the transponder	10	NNNNNNNNNN	
Rebate Code	2	NN	

6.2.1 Record Identifier

Four (4) characters – "DISC" for rebate data records.

6.2.2 Transaction Date

Date for the rebate; thirteen (13) digits, formatted as YYYYDDDHHMISS.

6.2.3 Transponder Identification Number

Eight (8) unsigned digits.

6.2.4 Agency Code

Two (2) unsigned digits. The agencies with rebate programs as:

01 - FDOT
05 - OOCEA
06 - Osceola

6.2.5 State/Region Code

Two (2) unsigned digits – "10" for Florida.

6.2.6 Number of Inter-agency Transactions

Eight (8) unsigned digits.

6.2.7 Total Toll Amount Charged

Ten (10) unsigned digits. Example : $10.75 is "0000001075".

6.2.8 Rebate due the transponder

Ten (10) unsigned digits. Formatted as shown in 6.2.7.

6.2.9 Rebate Code

Two (2) character field. The rebate code values are:

Agency	Rebate Code	Value
FDOT	02	10% with 40 trips
FDOT	07	50% with 30 trips for 2 axle vehicles.
OOCEA/ Osceola	02	5% with 40 trips 10% with 80 trips

The FDOT rebate programs are:

Trips through the following plazas count toward the 10% rebate if usage is 40 or more trips:

Plaza	Plaza Name	Rebate Qualification
101300	Pinellas Bayway Main	If pass not used,
101310	Pinellas Bayway II	If pass not used,
101320	Pinellas Bayway IV	If pass not used,
101400	Sunshine Skyway North	Vehicles with 3+ axles.
101500	Sunshine Skyway South	Vehicles with 3+ axles.
101600	Navarre Bridge	If pass not used,
106100	Everglades Pkwy - East	
106200	Everglades Pkwy - West	

Trips through the following plaza count toward a 50% rebate if usage is 30 or more trips:

101900	Garcon Point Bridge	Two axle vehicles only

6.3 Rebate Summary Record

The Rebate Summary record must appear as the last row in a Rebate file. The Rebate Summary record is padded with 2 filler "*" (0x2a) characters after the last data field.

Field Name	Field Length In bytes	Format	Value Range
Record Identifier	4	AAAA	'SUMM'
File Generation Date for Rebates	13	YYYYDDDDHHMISS	
Number of Transactions Eligible for Rebates	10	NNNNNNNNN	
Number of Inter-agency Transactions for all Eligible Transponders	10	NNNNNNNNN	
Total Toll Amount for all Transponders	10	NNNNNNNNN	
Total Rebate Amount for all Transponders	10	NNNNNNNNN	
Padding	2	(0x2a)	"*"

6.3.1 Record Identifier

Four (4) characters – "SUMM" for summary records.

6.3.2 File Generation Date for the Rebates

Thirteen (13) unsigned digits, formatted as YYYYDDDHHMISS.

6.3.3 Total Number of Transponders Eligible for Rebates

Ten (10) unsigned digits.

6.3.4 Number of Inter-agency Transactions for all Eligible Transponders

Ten (10) unsigned digits.

6.3.5 Total Toll Amount for all Transponders

Ten (10) unsigned digits. Total Toll Amount is this value divided by 100.

6.3.6 Total Rebate Amount for all Transponders

Ten (10) unsigned digits. Total Rebate amount is this value divided by 100.

6.4 Rebate Reject Header Record

Rebate transactions which are rejected by the Agency will be returned to the originating Agency. The complete record will be returned with a three character field appended to the end containing the reason for non-acceptance. See Appendices A and B for a list of the Reject codes.

The rebate file records that have been rejected are in the same format as defined in 6.2 and 6.3.

7.0 Plaza Information File Record Format

The Plaza Information File serves to identify changes in plaza and lane configurations at each interoperable agency. The Plaza Information file will contain one or more records for each active lane on an agency's system. The only field differing between two duplicated records should be the type code of the Lane ID field. There is no specific sort order required for this file. A trailer record must exist as the last record of the file.

Each interoperable agency is required to produce a Plaza Information file.

7.1 Plaza Information Field Definitions

Records received by FDOT from other Agencies are comma delimited. That is separated by ' , ' (space comma space).

7.1.1 Plaza ID

Six (6) unsigned digits, integer format. The local plaza number of an interoperable toll plaza.

7.1.2 Plaza Name

Thirty (30) characters. The complete local name of the toll plaza. Field size varies between file formats. Refer to sections 7.2 or 7.3 as appropriate.

7.1.3 Lane ID (Lane Number and Lane Type)

Three (3) characters. Local lane number and lane type code of an interoperable toll lane. Refer 3.2.5 and 3.2.6.

7.1.4 Plaza Abbreviation

Six (6) characters. Shortened form of the toll plaza name.

7.1.5 Lane Direction

Four (4) characters. The lane's direction of travel: NORT, SOUT, EAST, WEST or blank.

7.2 FDOT to Other Florida Interoperable Agency Plaza Information List Record

The format of the Plaza Information file going from FDOT to interoperable agencies is as follows:

Field	Size	Type	Details
Plaza ID	6	NUM	Positive integer. Zero pad.
	1	CHAR	Space. (0x20).
Plaza Name	32	CHAR	Left justified, Space pad on right. Upper case.
	1	CHAR	Space.
Lane Number	2	NUM	Positive integer. Zero pad.
Lane Type	1	CHAR	Upper case.
	1	CHAR	Space.
Plaza Abbreviation	6	CHAR	Left justified, Space pad on right. Upper case.
	1	CHAR	Space.
Lane Direction	4	CHAR	NORT, SOUT, EAST, WEST.
	3	CHAR	Space.

Sample

```
001100 OAK HAMMOCK - SUNCOAST PKWY      08B OAKHAM NORT
001100 OAK HAMMOCK - SUNCOAST PKWY      09S OAKHAM NORT
001100 OAK HAMMOCK - SUNCOAST PKWY      22S OAKHAM SOUT
<removed>
SUMM0000000860
```

7.3 Other Florida Interoperable Agency to FDOT Plaza Information List Record

Field	Size	Type	Details
Plaza ID	6	NUM	Positive integer. Zero pad.
	3	CHAR	Space, Comma, Space. (0x20, 0x2c, 0x20).
Plaza Name	30	CHAR	Left justified, blank pad on right. Upper case.
	3	CHAR	Space, Comma, Space.
Lane Number	2	NUM	Positive integer. Zero pad.
Lane Type	1	CHAR	Upper case.
	3	CHAR	Space, Comma, Space.
Plaza Abbreviation	6	CHAR	Left justified, blank pad on right. Upper case.
	3	CHAR	Space, Comma, Space.
Lane Direction	4	CHAR	NORT, SOUT, EAST, WEST.
LF	1		Linefeed (0x0a).

Sample

```
000001 , UNIVERSITY (M)                    , 08D , UNIV-M , NORT
000001 , UNIVERSITY (M)                    , 09B , UNIV-M , SOUT
000001 , UNIVERSITY (M)                    , 10C , UNIV-M , SOUT
<removed>
SUMM0000000236
```

7.4 OOCEA/Lee County DOT Plaza Information List Records

7.4.1 OOCEA/Lee County DOT Plaza Information List Detail Record

This format is referred to as Plaza Information File format 2.

Field	Size	Type	Details
Plaza ID	6	NUM	Zero pad.
Plaza Name	30	CHAR	Left justified, blank pad on right. Upper case.
Lane Number	2	NUM	Zero pad.
Lane Type	1	CHAR	Upper case..
Plaza Abbreviation	10	CHAR	Left justified, blank pad on right. Upper case.
Lane Direction	1	CHAR	N, S, E, W
LF	1		Linefeed (0x0a).

1. A Plaza Information File Header record must appear as the first record of the file.
2. A Plaza Information File Trailer record must appear as the last record of the file.

Sample

```
PLAZ03002
000002CAPE CORAL                       01BCP-CORAL  W
000002CAPE CORAL                       02BCP-CORAL  W
000002CAPE CORAL                       03CCP-CORAL  W
<removed>
SUMM0000000031
```

7.4.2 OOCEA/Lee County DOT Plaza Information List Header Record

Field	Size	Type	Details
Header Prefix	4	CHAR	PLAZ
Origin Agency	2	NUM	Integer. Zero pad.
File Format	3	NUM	Integer. Zero pad. (2)
LF	1		Linefeed character (0x0a).

7.5 Plaza Information File Trailer Record

Field	Size	Type	Details
Summary Prefix	4	CHAR	SUMM
Count of Records	10	NUM	Non-negative integer. Zero pad.
LF	1		Linefeed character (0x0a). (Lee County DOT or OOCEA produced file only).

7.5.1 Summary Prefix

The Plaza Information List Trailer record is identified by the characters "SUMM".

7.5.2 Count of Records

Number of plaza data records in this file (excluding the trailer record); ten (10) digits, non-negative integer format.

8.0 Transponder Positive List File Format

The Transponder Positive List files will contain one record per transponder and must be in numerical sort order by unique transponder (State Code, Issuing Agency, Transponder Identification number). It will also contain a trailer record, which has a count of the number of transponders included in the Transponder Positive List File. Each transponder in the Transponder Positive List must be unique.

Currently, due to its large size, the FDOT Transponder Positive List File is exchanged in a ZIP file. The ZIP file will have the same name as the Transponder Positive List compressed within it. The other Florida interoperable agencies do not send their files in zipped format.

Each interoperable agency is required to produce a Transponder Positive List file.

Each agency needs to be aware of the gap limitation within their Transponder Positive List.

8.1 Transponder Positive List Record Fields

The following fields are appear in one or more of the Transponder Positive List File formats that are currently in use.

8.1.1 Transponder ID

The transponder number uniquely identifies the device within the state/region and agency/group number. Eight (8) digits, positive integer format.

8.1.2 Issuing Authority

A code identifying the authority that issued the transponder. Two (2) digits, positive integer format.

8.1.3 State Code

A code value identifying the State of the transponder's issuing agency. Two (2) digits, positive integer format. The State/Region Code for Florida is '10'.

8.1.4 Credit List ID

A whole number value representing the credit list number that is used to update the transponder's Current Balance with a replenishment amount. Non-negative integer format. Field size varies between file formats.

8.1.5 Credit Amount

Cash amount to add or remove from a transponder's Current Balance. Fixed point format ±0.00. Field size varies between file formats.

8.1.6 Bayway 1 Flag

One (1) character, character format, (Y/N).

8.1.7 Bayway 2 Flag

One (1) character, character format, (Y/N).

8.1.8 Navarre Flag

One (1) character, character format, (Y/N).

8.1.9 Transponder Status Code

The status of the transponder at the time the Transponder Positive List file was produced. Two (2) digit, positive integer format (01-06).

8.1.10 Vehicle Class

Vehicle classification. Two (2) digit, positive integer format (02-15).

8.1.11 Revenue Type

A Revenue Type code is encoded in each transponder accepted by a lane according to the type of account established for the commuter. Two (2) digit, positive integer format (01-04).

8.2 FDOT to Other Florida Interoperable Agency Transponder Positive List Record

The format of the Transponder Positive List file sent from FDOT to another interoperable Florida toll agency is defined in the following table. This is referred to as the Transponder Positive List Format 0.

Field	Size	Type	Details
Transponder ID	8	NUM	Positive integer. Right justify. Zero pad.
	3	CHAR	Space, Comma, Space. (0x20, 0x2c, 0x20).
Issuing Agency	2	NUM	Positive integer. Right justify. Zero pad.
	3	CHAR	Space, Comma, Space.
State Code	2	NUM	Positive integer. Right justify. Zero pad. (FL = 10).
	3	CHAR	Space, Comma, Space.
Credit List Serial No	4	NUM	Non-negative integer. Space Pad on left. " 0"
	3	CHAR	Space, Comma, Space.
Credit Amount	9	NUM	9.2 formatted, signed.
	3	CHAR	Space, Comma, Space.
Bayway 1 Flag	1	CHAR	Y, N
	3	CHAR	Space, Comma, Space.
Bayway 2 Flag	1	CHAR	Y, N
	3	CHAR	Space, Comma, Space.
Navarre Flag	1	CHAR	Y, N
	3	CHAR	Space, Comma, Space.
Tag Status Code	2	NUM	Positive Integer. Right justify. Zero pad. (01-06).
	3	CHAR	Space, Comma, Space.
Vehicle Class	2	NUM	Positive integer. Right justify. Zero pad. (02-15).
	3	CHAR	Space, Comma, Space.
Revenue Type	2	NUM	Positive integer. Right justify. Zero pad. (01-04).

Sample

```
00000007 , 01 , 10 ,    0 ,      0.00 , N , N , N , 01 , 02 , 02
00000008 , 01 , 10 ,    0 ,      0.00 , N , N , N , 01 , 02 , 02
00000009 , 01 , 10 ,    0 ,      0.00 , N , N , N , 01 , 02 , 02
<removed>
SUMM0001132485
```

8.2.1 Transponder Status Code Mapping

The Status Code from FDOT's SunPass is mapped to other Florida interoperable toll agency systems as follows:

FDOT Value	Status	LeeWAY or OOCEA Value	LeeWay or OOCEA Status
1	Active	A	Active
2	Lost/Stolen	S	Stolen/lost
3	Returned	I	Inactive
4	Terminated	I	Inactive
5	Suspended (No longer used by FDOT)	I	Inactive
6	Issued but not activated	I	Inactive

8.2.2 Vehicle Classification Mapping

The Vehicle Class from FDOT's SunPass is mapped to other Florida interoperable toll agency systems as follows:

FDOT Class	LeeWay or OOCEA Class
2	1 (LeeWay only)
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	9
11	9
12	9
13	9
14	9
15	9

8.2.3 Revenue Type Mapping

For the Revenue Type mapping between FDOT's SunPass to other Florida interoperable toll agency systems, see Section 3.1.6.

8.3 Other Florida Interoperable Agency to FDOT Transponder Positive List Record

The format of the Transponder Positive List file expected by FDOT from another interoperable Florida toll agency is defined in the following table. This is referred to as the Transponder Positive List Format 1.

Field	Size	Type	Details
Transponder ID	8	NUM	Positive integer. Right justify. Zero pad.
	3	CHAR	Space, Comma, Space. (0x20, 0x2c, 0x20).
Issuing Agency	2	NUM	Positive integer. Right justify. Zero pad.
	3	CHAR	Space, Comma, Space.
State Code	2	NUM	Positive integer. Right justify. Zero pad. (FL = 10).
	3	CHAR	Space, Comma, Space.
Credit List Serial No	3	NUM	Non-negative integer. Right justify. Zero pad. "000"
	3	CHAR	Space, Comma, Space.
Credit Amount	8	NUM	8.2 formatted. " 0.00", signed.
	3	CHAR	Space, Comma, Space.
Bayway 1 Flag	1	CHAR	N
	3	CHAR	Space, Comma, Space.
Bayway 2 Flag	1	CHAR	N
	3	CHAR	Space, Comma, Space.
Navarre Flag	1	CHAR	N
	3	CHAR	Space, Comma, Space.
Tag Status Code	2	NUM	Positive integer. Right justify. Zero pad. (01, 02, 04)
LF	1		Linefeed character (0x0a)

Sample

```
00360006 , 05 , 10 , 000 ,     0.00 , N , N , N , 01
00360007 , 05 , 10 , 000 ,     0.00 , N , N , N , 01
00360008 , 05 , 10 , 000 ,     0.00 , N , N , N , 01
<removed>
SUMM0000465546
```

8.3.1 Transponder Status Code Mapping

The Status Code from Lee County DOT or OOCEA is mapped to FDOT's SunPass system as follows:

LeeWay or OOCEA Value	LeeWay or OOCEA Status	FDOT Value	FDOT Status
A	Active	1	Active
V	Verify	1	Active
I	Inactive	4	Terminated
S	Stolen/lost	2	Lost

8.4 OOCEA/Lee County DOT Transponder Positive List Records

The following defines the Transponder Positive List file that is exchanged between OOCEA and Lee county DOT.

8.4.1 OOCEA/Lee County DOT Transponder Positive List Detail Record

This format is referred to as the Transponder Positive List Format 2.

Field	Size	Type	Details
Transponder ID	8	NUM	Integer. Right justify. Zero pad.
Issuing Agency	2	NUM	Integer. Right justify. Zero pad.
Credit List Serial No	3	NUM	Integer. Right justify. Zero pad.
Credit Amount	8	NUM	8.2 formatted. " 0.00", signed.
Tag Status Code	2	NUM	Integer. Right justify. Zero pad. (See section 0).
Vehicle Class	2	NUM	Integer. Right justify. Zero pad. (02-15)
Revenue Type	2	NUM	Integer. Right justify. Zero pad. (See section 0).
LF	1		Linefeed character (0x0a).

1. A Positive List Header record must appear as the first record of the file.
2. A Positive List Trailer record must appear as the last record of the file.

Sample

```
POSI03002
0000000403000     0.00010201
0000000503000     0.00010201
0000000603000     0.00010201
<removed>
SUMM0000009248
```

8.4.2 OOCEA/Lee County DOT Transponder Positive List Header Record

Field	Size	Type	Details
Header Prefix	4	CHAR	POSI
Origin Agency	2	NUM	Integer. Zero pad.
File Format	3	NUM	Integer. Zero pad. (2)
LF	1		Linefeed character (0x0a).

8.5 Transponder Positive List Trailer Record

The Transponder Positive List trailer record must appear as the last record in the Transponder Positive List file.

Field	Size	Type	Details
Summary Prefix	4	CHAR	SUMM
Count of Records	10	NUM	Non-negative integer. Zero pad.
LF	1		Linefeed character (0x0a). (Not present for FDOT file)

8.5.1 Summary Prefix

The Transponder Positive List Trailer record is identified by the characters "SUMM".

8.5.2 Count of Records

Total number of transponder data records in this file (excludes any trailer record or header record). Ten (10) digits, non-negative integer format.

9.0 Vehicle License File Record Formats

Refer to Attachment C for a list of license plate types.

10.0 File Naming Conventions

All file names used by interoperable Florida toll agencies follow the same format. A four-character prefix identifies the content of the file. Following the prefix are the file's generation date and time using YYYYMMDD_HHMI format. A file extension identifies the agency number of the file's creator, and the number of times that the file has been created during day. As an example,

TRAN_YYYYMMDD_HHMI.AAn AA is the Agency code and n is the sequence number beginning with zero. The Agency codes that are recognized currently are:

'01' – FDOT
'03' – Lee County DOT
'05' – OOCEA

10.1 Outgoing Directory Naming Structure: agencyname_OUTGOING Directories

File Description	File Name
a) 9010 Transactions	TRAN_YYYYMMDD_HHMI.AAn
- if records rejected	TRAN_YYYYMMDD_HHMI.AAn_ERR
b) 9001 Transactions	TICK_YYYYMMDD_HHMI.AAn
- if records rejected	TICK_YYYYMMDD_HHMI.AAn_ERR
c) Transponder Positive List	POSI_YYYYMMDD_HHMI.AAn
- if records rejected	POSI_YYYYMMDD_HHMI.AAn_ERR
d) Rebates (monthly)	DISC_YYYYMMDD_HHMI.AAn
- if records rejected	DISC_YYYYMMDD_HHMI.AAn_ERR
e) Plaza/Lane	PLAZ_YYYYMMDD_HHMI.AAn
- if records rejected	PLAZ_YYYYMMDD_HHMI.AAn_ERR

Note: In all cases the string YYYYMMDD_HHMI is the 4-digit year, month, day, hour, and minute when the file was generated. AAn is the file extension as defined in section 10.0. age**ncyname** refers to FDOT, OOCEA or LeeWay.

10.2 Incoming Directory Naming Structure: agencyname_INCOMING Directories

File Description	File Name
a) 9010 Transactions	TRAN_YYYYMMDD_HHMI.AAn
- if records rejected	TRAN_YYYYMMDD_HHMI.AAn_ERR
b) Transponder Positive List	POSI_YYYYMMDD_HHMI.AAn
- if records rejected	POSI_YYYYMMDD_HHMI.AAn_ERR
c) Plaza/Lane	PLAZ_YYYYMMDD_HHMI.AAn
- if records rejected	PLAZ_YYYYMMDD_HHMI.AAn_ERR

Note: In all cases the string YYYYMMDD_HHMI is the 4-digit year, month, day, hour, and minute when the file was generated. AAn is the file extension as defined in section 10.0. **agencyname** refers to FDOT, OOCEA or LeeWay.

11.0 Connectivity

11.1 Connectivity and Access to Account(s)

Agencies will use frame relay connections for communication. If the frame relay connection is down, a dial-up connection will be used.

11.2 Protocol

The file transfer protocol is FTP.

11.3 Conventions

agencyname refers to FDOT, OOCEA or LeeWay.

11.3.1 Logicals

The following logicals will exist on the Host systems for the purpose of file transfers:

Logical	FDOT	Other Florida Agencies
agencyname _INCOMING_TRANSFER	*	*
agencyname _INCOMING_PROCESSED	*	*
agencyname _INCOMING_READY	*	
agencyname _INCOMING_ERROR	*	
agencyname _INCOMING_REPORTS	*	*
agencyname _OUTGOING_TRANSFER	*	
agencyname _OUTGOING_READY	*	
agencyname _OUTGOING_PROCESSED	*	
agencyname _OUTGOING_ERROR	*	
agencyname _OUTGOING_REPORTS	*	

OOCEA and Lee County DOT will pull and push all files with FDOT.
OOCEA and Lee County DOT will only push their files between one another.

Each interoperable Florida toll agency transfers its files into the agencyname_INCOMING_TRANSFER directory. When the sending agency has determined that the entire file has been delivered, they rename the file into the agencyname _INCOMING_READY directory. This way, a receiving agency's process can simply scan the agencyname_INCOMING_READY directory, and process any file there. For historical purposes, once a receiving agency has processed the file, the receiving agency will rename the file into the agencyname_INCOMING_PROCESSED directory. This should also help ensure that the receiving agency does not re-process a file. Errors from processing will be placed into the agencyname_INCOMING_ERROR directory - with _REJ added to the file extension for a rejected file and _ERR for a file containing specific rejected records.

The following paragraph applies only to FDOT. In the other direction, a similar scheme would apply. The sending agency will copy their outgoing files to the receiving agencyname_OUTGOING_TRANSFER directory. When the sending agency determines the entire file is present, they rename the file into the agencyname_OUTGOING_READY directory. This way, a receiving agency's process can scan the agencyname_OUTGOING_READY directory, and process any file there. Once a receiving agency has

successfully copied the file, the receiving agency will rename the file into the agencyname_OUTGOING_PROCESSED directory so they do not re-process the same file, and for historical purposes. Errors from processing will be placed into the agencyname_OUTGOING_ERROR directory - with _REJ added to the file extension for a rejected file and _ERR for a file containing specific rejected records.

Note: Only the receiving agency's generated files show up in the incoming directories and only the sending agency's generated files show up in the outgoing directories.

11.3.2 Transfer Completion

The following mechanism will ensure that the sender has transferred the entire file:

The sender will check the FTP status return code, and send an e-mail to the system administrator if an error status is reported.

11.3.3 Receive Completion

The following mechanism will allow the receiver to determine that they have received the entire POSI or PLAZ files:

-- all files will have a trailer record at the end which can be used to determine that the file transferred completely.

-- if these files are received late, the receiving agency will go with the previous file received from the sending agency with the option of incorporating the late file later in the day.

11.3.4 File Processing

The order of file processing used by OOCEA and Lee County DOT is as follows:

1. Generate PLAZ
2. Generate TRAN
3. Database Backup
4. Load PLAZ
5. Load DISC, if any
6. Load TICK
7. Load TRAN
8. Auto-replenish accounts
9. Generate POSI
10. Load POSI and update lanes.

12.0 File Transfer Timeline

The following is a schedule of when files will be transferred between the Agencies:

12.1 Daily

0100 (1:00 AM)

Florida interoperable toll agencies will generate and transmit 9001 and/or 9010 and plaza files as well as rebate and vehicle license files if they exist.

FDOT will have 9010, 9001 and plaza files ready for pickup by other interoperable Florida agencies.

0530 (5:30 AM)

Interoperable Florida toll agencies will generate and transmit their Transponder Positive List file. The sending agency will have ready for pickup by the receiving agency the Transponder Positive List file.

12.2 Monthly

Rebate files are transmitted between interoperable Florida toll agencies on the tenth day of the month. There is no time commitment set for this transfer. The FDOT and OOCEA rebate files are picked up by the other interoperable Florida toll agencies together with the transaction and plaza files during the 1 AM processing. OOCEA's rebate file is usually sent on the 1st of the month. FDOT typically sends its rebate file by the 10th of the month.

12.3 Reports

Daily reports are sent daily. Weekly reports begin generating on Thursday and should complete within 24 hours. Monthly reports begin generating on the 1st and should complete within 24 hours.

12.4 Reconciliation Files

Daily, weekly and monthly reconciliation files are manually transferred between interoperable Florida toll agencies. An automated process is planned for the future.

Attachment A: FDOT Rejected Transaction Error Codes

Rejected financial records from financial transaction files will be written to a transaction reject file and returned to the originating Agency. The transaction reject file will contain entire financial transaction with a rejection code appended to the end of the record. The defined rejection code values are:

10 - Unknown Plaza
The plaza id in the transaction record could not be cross-referenced to a plaza id. A generic agency plaza id was assigned its place. Warning

11 - Unknown Lane
The lane in the transaction record could not be found in the FDOT lane table. The generic FDOT lane (0) was assigned its place. Warning

12 - Transponder Not Found in Data Base
The transponder number in the transaction file was not found in the FDOT database. Rejected

13 - Transponder Inactive
The transponder has an inactive status in the FDOT database, but the transaction was still processed. Warning

14 - Transponder Lost/Stolen
The transponder has a lost/stolen status in the FDOT database. Rejected

15 - Date Format Invalid
The transaction date in the transaction record is an invalid date. Rejected

16 - Transponder Status Invalid
The transponder status on the transaction record is not a valid type according to the interoperability business rules. Rejected

17 - Invalid Violation Code
The violation code on the transaction record has an invalid value according to the business rules. Rejected

18 - Rebate: Non-Revenue Transponder
Rebate: The transponder for this rebate transaction record belongs to non-revenue account. Non-revenue accounts cannot receive rebates. Rejected

19 - Authority Invalid
The issuing authority on the transaction record is not a supported authority. Rejected

20 - Future Date Invalid
The transaction date on the transaction record cannot be in the future. Rejected

21 -Transaction Too Old
The transaction date on the transaction record occurred too far in the past based on the business rules. Rejected

22 - Revenue Transponder but No Toll Charged
The revenue type on the transaction record requires nonzero toll amount according to the business rules. Rejected

23 - Non-Revenue Transponder but Toll Charged
The revenue type on the transaction record requires zeros in toll amount according to the business rules. Rejected

24 - Revenue Type Invalid
The revenue type on the transaction record is not supported according to the business rules. Rejected

25 - Database Error
This is an unexpected database error. The FDOT logs will have details. Rejected

26 - Status 7 and Class 0
The transponder in the transaction record has a status of (7) and a class-id of (0). The transponder may need to be reprogrammed. Warning

27 - Transponder Error
The violation code on the record indicates possible problems in the programming of the transponder. The transaction is to be processed as a valid transaction. The transponder may need to be reprogrammed. Warning

28 - Discount: Discount Type Invalid
The discount type (rebate code) cross-reference could not be found in the FDOT table. The discount cannot be applied. Rejected

29 - Discount: Zero Discount Amount
Discount: The discount amount in the transaction record cannot be zero. Rejected

30 - Discount: Transponder changed accounts
Discount: The transponder for this discount transaction has changed accounts in the discount period or between the discount period and now. Manual intervention will be needed to determine the correct account for the discount. Rejected

50 - Invalid AVC Class
Invalid AVC Class, the valid range is 02-15, or Violation Code equal '54' with AVC not equal to '00'. Rejected

51 - Revenue Account has bad Violation Flags
Revenue accounts cannot have these violation flags according to the business rules. Rejected

52 - Non-Revenue Account has bad Violation Flags
Non-Revenue accounts cannot have these violation flags according to the business rules. Rejected

53 - Not a 9010 Record
This transaction record is not a 9010 record. Warning

54 - Exact Duplicate
This transaction record is an exact duplicate to a previous record. Rejected

55 - In-Lane Duplicate
This transaction record meets the requirements for in-lane duplicates - according to the business rules. Rejected

56 - Cross-Lane Duplicate
This transaction record meets the requirements for cross-lane duplicates - according to the business rules. Rejected

61 - Write Failure, VC-06
This transaction record has a write failure - violation code of 06. Rejected

62 - Write Failure, RCC-12
This transaction record has a write failure - RCC of 12. Rejected

66 - Invalid message sequence number. Rejected

67 - Invalid lane. Rejected

68 - Invalid collector/supervisor identification. Rejected

69 - Invalid group/agency code. Rejected

70 - Invalid balance on transponder. Rejected

71 - Invalid toll amount collected. Rejected

72 - Invalid toll amount charged. Rejected

73 - Invalid toll amount full. Rejected

74 - Invalid low battery flag. Rejected

75 - Invalid low balance flag. Rejected

76 - Invalid insufficient funds flag. Rejected

77 - Invalid credit list number. Rejected

78 - Invalid credit list flag. Rejected

79 - Invalid anti-passback code value. Rejected

80 - Invalid transponder class value. Rejected

81 - Invalid reader confirmation code. Rejected

82 - Invalid pass only transponder used flag. Rejected

83 - Invalid vault identification number. Rejected

84 - Invalid speed. Rejected

85 - 'Revenue Type=1(Patron) & Balance=0 & Insufficient Funds=0 & Transponder Status = 1 or 5. 'Rejected'

87 - Invalid Amtech internal identification number. Rejected

89 - Duplicate transaction found via INSERT trigger. Rejected

91 - Write Failure, PATRON/VIO CODE=0/COLL<CHAR
This transaction record has a write failure - PATRON/VIO CODE=0/COLL<CHAR. Rejected

92 - Invalid State Code. This transaction record has an Invalid State Code. Rejected

Attachment B: OOCEA / Lee County DOT Transaction Injector Error Codes

Rejected financial records from financial transaction files will be written to a transaction reject file and returned to the originating Agency. The transaction reject file will contain entire financial transaction with a rejection code appended to the end of the record. The defined rejection code values are:

Msg Id	Message Text	Meaning	Type of Msg
Z10	Unknown FDOT Plaza	The FDOT Plaza Id in the transaction record could not be cross-referenced to an ARCS plaza id in the database. The generic FDOT Plaza Id was assigned in its place.	Warning
Z11	Unknown FDOT Lane	The FDOT Lane in the transaction record could not be found in the ARCS lane table. The generic FDOT Lane (0) was assigned.	Warning
Z12	Transponder Not Found in DB	The Transponder number in the transaction file was not found in ARCS.	Rejected
Z13	Transponder Inactive	The Transponder has an inactive status in ARCS, but the transaction was still processed.	Warning
Z14	Transponder Lost/Stolen	The Transponder has a lost/stolen status in ARCS.	Rejected
Z15	Date Format Invalid	The transaction date in the transaction record is an invalid date.	Rejected
Z16	Transponder Status Invalid	The transponder status on the transaction record is not a valid status type according to the OOCEA business rules.	Rejected
Z17	Invalid Violation Code	The violation code on the transaction record has an invalid value n according to the OOCEA business rules	Rejected
Z18	Non-Revenue Transponder	The transponder for this discount transaction record belongs to a non-revenue account. Non-revenue accounts cannot receive discounts.	Rejected
Z19	Authority Invalid	The issuing authority on the transaction record is not a supported authority.	Rejected
Z20	Future Date Invalid	The transaction date on the transaction record cannot be in the future.	Rejected
Z21	Transaction Too Old	The transaction date on the transaction record occurred too far in the past based on the business rules. The "aging" parameter is stored in the general purpose parameters in the ARCS database. (Currently 720 hours)	Rejected
Z22	Rev Transponder No Toll Charged	The Revenue Type on the transaction record requires nonzero toll amount according to the business rules.	Rejected
Z23	Non-Revenue Nonzero Toll	The Revenue Type on the transaction record requires zeros in toll amount according to the business rules.	Rejected
Z24	Revenue Type Invalid	The Revenue Type on the transaction record is not supported according to the business rules.	Rejected
Z25	Database Error	This is an unexpected database error. TransCore should be called to determine the cause of the problem. The ARCS logs will have details.	Rejected
Z26	Status 7 and Class 0	The Transponder in the transaction record has a 7 status and 0 class-id. A class-id of 0 is not allowed in the FDOT lanes. A 7 status will override the transaction status in the Transponder Positive List. The transaction is to be processed as valid transaction and the Service Center needs to recall the transponder to have the class-id reprogrammed to a valid FDOT class id	Warning

Msg Id	Message Text	Meaning	Type of Msg
Z27	Transponder Error	The violation code on the record indicates possible problems in the programming of the transponder. The transaction is to be processed as a valid transaction and the Service Center needs to recall the transponder to have it reprogrammed.	Warning
Z28	Discount Type Invalid	The discount type (rebate code) cross-reference could not be found in the ARCS Transaction Type table. The discount cannot be applied.	Rejected
Z29	Zero Discount Amount	The discount amount in the transaction record cannot be 0.	Rejected
Z30	Transponder changed accounts	The transponder for this discount transaction has changed accounts in the discount period or between the discount period and now. The account number will be determined by the tag history (the last account the tag was assigned to)	Warning
Z31	Low Battery Invalid	The value in the low battery field is not a valid value (0 or 1)	Warning
Z32	Entry Date Format Invalid	The entry date on a ticket transaction is not a valid calendar date	Reject
Z33	Future Entry Date Invalid	The entry date on a ticket transaction is greater than today's date	Reject
Z34	Entry Date Too Old	The entry date on a ticket transaction is older than the limit established for the age of transactions.	Reject
Z35	Exit Date Format Invalid	The exit date on a ticket transaction is not a valid calendar date	Reject
Z36	Future Exit Date Invalid	The exit date on a ticket transaction is greater than today's date	Reject
Z37	Exit Date Too Old	The exit date on a ticket transaction is older than the limit established for the age of transactions.	Reject
Z38	Payment Method Invalid	The value in the Payment Method field is not an acceptable value	Reject
Z39	Invalid Transponder Invalid	The value in the Transponder Invalid field is not an acceptable value	Reject
Z40	Ticket Type Invalid	The value in the Ticket Type field is not an acceptable value	Reject
Z41	Entry Plaza Missing	The value of the entry plaza is 0. A generic entry plaza id will be assigned	Warning
Z42	Entry Lane Missing	The value of the entry lane is 0.	Warning
Z43	Exit Plaza Missing	The value of the exit plaza is 0.	Reject
Z44	Exit Lane Missing	The value of the exit lane is 0	Reject
Z45	Unknown Entry Plaza	The Entry Plaza is non-zero, but not in the ARCS database. The FDOT unknown plaza (not the same as entry plaza above) will be assigned	Warning
Z46	Unknown Entry Lane	The entry lane is non-zero, but not in the ARCS database. The lane will be stored as 0.	Warning
Z47	Unknown Exit Plaza	The Exit Plaza is non-zero, but not in the ARCS database. The FDOT unknown plaza (not the same as entry plaza above) will be assigned	Warning
Z48	Unknown Exit Lane	The exit lane is non-zero, but not in the ARCS database. The lane will be stored as 0.	Warning
Z49	Entry Date > Exit Date	The entry date occurred after the exit date	Reject
Z50	Entry Date too old for Exit Date	The gap between the entry date and exit date is too large to fall within the defined parameters.	Reject

Msg Id	Message Text	Meaning	Type of Msg
Z51	Deleted Transponder, use previous acct	The transponder has been deleted before the discount could be applied. The discount is being applied to the previous account	Warning
Z52	Closed Account	The transponder for this discount was on an account that has been closed.	Rejected

1
2

Attachment C: License Plate Type Codes

ACR	DEPT OF AG AND CONS SERVICES
AFA	AIR FORCE (AR)
AFP	AIR FORCE (P)
AFR	AIR FORCE
AGA	AGRICULTURE (AR)
AGP	AGRICULTURE (P)
AGR	AGRICULTURE
AHA	POLICE ATHLETIC LEAGUE (AR)
AHP	POLICE ATHLETIC LEAGUE (P)
AHR	POLICE ATHLETIC LEAGUE
AQR	ANTIQUE LICENSE PLATE
ARA	FLORIDA ARTS (AR)
ARP	FLORIDA ARTS (P)
ARR	FLORIDA ARTS
ATR	INDEFINITE
AUP	AUTHENTICATED
AWR	AGY FOR WORKFORCE INNOVATION
AYA	ARMY (AR)
AYP	ARMY (P)
AYR	ARMY
BBA	TAMPA BAY BUCCANEERS (AR)
BBP	TAMPA BAY BUCCANEERS (P)
BBR	TAMPA BAY BUCCANEERS
BCA	BETHUNE COOKMAN (AR)
BCP	BETHUNE COOKMAN (P)
BCR	BETHUNE COOKMAN
BSA	TAMPA BAY STORM (AR)
BSP	TAMPA BAY STORM (P)
BSR	TAMPA BAY STORM
BYA	BARRY UNIVERSITY (AR)
BYP	BARRY UNIVERSITY (P)
BYR	BARRY UNIVERSITY
CAA	STOP CHILD ABUSE (AR)
CAP	STOP CHILD ABUSE (P)
CAR	STOP CHILD ABUSE
CCA	CLEARWATER CHRISTIAN COLL (AR)
CCP	CLEARWATER CHRISTIAN COLL (P)
CCR	CLEARWATER CHRISTIAN COLL
CDR	CIVIL DEFENSE
CGR	COLLEGE
CHA	SAVE THE CHILDREN (AR)
CHP	SAVE THE CHILDREN (P)
CHR	SAVE THE CHILDREN
CLA	CHALLENGER/COLUMBIA (AR)
CLP	CHALLENGER/COLUMBIA (P)
CLR	CHALLENGER/COLUMBIA
CMR	CITY MOTOR-CYCLES
COR	COLLECTABLE LICENSE PLATE
CRA	END BREAST CANCER (AR)
CRP	END BREAST CANCER (P)
CRR	END BREAST CANCER
CSA	CHOOSE LIFE (AR)
CSP	CHOOSE LIFE (P)

1	CSR	CHOOSE LIFE
2	CVR	CITY VEHICLES
3	CWA	CONSERVE WILDLIFE (AR)
4	CWP	CONSERVE WILDLIFE (P)
5	CWR	CONSERVE WILDLIFE
6	DCR	DEALER MOTOR-CYCLE
7	DDR	DIV. OF DRIVER LICENSE
8	DLR	DEALER LICENSE PLATE
9	DMP	DISABLED VETERAN MC (P)
10	DMR	DISABLED VETERAN MC
11	DRA	DEVIL RAY (AR)
12	DRP	DEVIL RAY (P)
13	DRR	DEVIL RAY
14	DVP	DISABLED VETERN (P)
15	DVR	DISABLED VETERAN
16	DWP	DISABLED VET WHEELCHAIR (P)
17	DWR	DISABLED VET WHEELCHAIR
18	EAA	EMBRY-RIDDLE AERO UNIV (AR)
19	EAP	EMBRY-RIDDLE AERO UNIV (P)
20	EAR	EMBRY-RIDDLE AERO UNIV
21	ECA	ECKERD COLLEGE (AR)
22	ECP	ECKERD COLLEGE (P)
23	ECR	ECKERD COLLEGE
24	EDA	FLORIDA EDUCATIONAL (AR)
25	EDP	FLORIDA EDUCATIONAL (P)
26	EDR	FLORIDA EDUCATIONAL
27	EMS	EMERGENCY MEDICAL
28	EPR	DEPT ENVIRONMENTAL PROTECTION
29	ERA	EVERGLADES RIVER OF GRASS (AR)
30	ERP	EVERGLADES RIVER OF GRASS (P)
31	ERR	EVERGLADES RIVER OF GRASS
32	EWA	EDWARD WATERS COLLEGE (AR)
33	EWP	EDWARD WATERS COLLEGE (P)
34	EWR	EDWARD WATERS COLLEGE
35	EXP	EX-POW (P)
36	EXR	EX-POW
37	FAA	FLORIDA ATLANTIC U (AR)
38	FAP	FLORIDA ATLANTIC U (P)
39	FAR	FLORIDA ATLANTIC U
40	FCR	GAME AND FISH COMMISSION
41	FDR	FLA DEPT. OF VETERANS AFFAIRS
42	FEA	FLORIDA MEMORIAL COLLEGE (AR)
43	FEP	FLORIDA MEMORIAL COLLEGE (P)
44	FER	FLORIDA MEMORIAL COLLEGE
45	FFA	FLORIDA WILDFLOWER (AR)
46	FFP	FLORIDA WILDFLOWER (P)
47	FFR	FLORIDA WILDFLOWER
48	FGA	FLA GULF COAST U (AR)
49	FGP	FLA GULF COAST U (P)
50	FGR	FLA GULF COAST U
51	FHA	FLA HOSPITAL COLL H & S (AR)
52	FHP	FLA HOSPITAL COLL H & S (P)
53	FHR	FLA HOSPITAL COLL H & S
54	FIA	FLORIDA INTERNATIONAL U (AR)
55	FIP	FLORIDA INTERNATIONAL U (P)
56	FIR	FLORIDA INTERNATIONAL U
57	FLR	FLEET LICENSE PLATES

1	FMA	FLORIDA A&M U (AR)
2	FMP	FLORIDA A&M U (P)
3	FMR	FLORIDA A&M U
4	FNR	FLORIDA NATIONAL GUARD
5	FOR	FOREIGN ORG
6	FRA	FLORIDA COLLEGE (AR)
7	FRE	FIREFIGHTER
8	FRP	FLORIDA COLLEGE (P)
9	FRR	FLORIDA COLLEGE
10	FSA	FLORIDA STATE U (AR)
11	FSP	FLORIDA STATE U (P)
12	FSR	FLORIDA STATE U
13	FTA	FLORIDA INSTITUTE OF TECH (AR)
14	FTP	FLORIDA INSTITUTE OF TECH (P)
15	FTR	FLORIDA INSTITUTE OF TECH
16	FVA	FISH FLORIDA (AR)
17	FVP	FISH FLORIDA (P)
18	FVR	FISH FLORIDA
19	FWR	FISH AND WILDLIFE COMMISSION
20	FXA	FLAGLER COLLEGE (AR)
21	FXP	FLAGLER COLLEGE (P)
22	FXR	FLAGLER COLLEGE
23	FYA	FL SHERIFFS YOUTH RANCH (AR)
24	FYP	FL SHERIFFS YOUTH RANCH (P)
25	FYR	FL SHERIFFS YOUTH RANCH
26	FZA	FLORIDA SOUTHERN COLLEGE (AR)
27	FZP	FLORIDA SOUTHERN COLLEGE (P)
28	FZR	FLORIDA SOUTHERN COLLEGE
29	GOA	GOLF CAPITAL OF THE WORLD (AR)
30	GOP	GOLF CAPITAL OF THE WORLD (P)
31	GOR	GOLF CAPITAL OF THE WORLD
32	GSA	GIRL SCOUTS (AR)
33	GSP	GIRL SCOUTS (P)
34	GSR	GIRL SCOUTS
35	GUA	COAST GUARD (AR)
36	GUP	COAST GUARD (P)
37	GUR	COAST GUARD
38	HCR	HORSELESS CARRIAGE
39	HMR	HORSELESS CARRIAGE MOTORCYCLE
40	HNP	HONORARY CONSUL (P)
41	HNR	HONORARY CONSUL
42	HOA	HOSPICE EVERYDAY IS A GIFT (AR)
43	HOP	HOSPICE EVERYDAY IS A GIFT (P)
44	HOR	HOSPICE EVERYDAY IS A GIFT
45	HPR	FLORIDA HIGHWAY PATROL
46	IBR	IRP BUS
47	ILR	IRP TRUCK < 26,001 GVW
48	INA	INDIAN RIVER LAGOON (AR)
49	INP	INDIAN RIVER LAGOON (P)
50	INR	INDIAN RIVER LAGOON
51	IOR	IRP DOUBLE TRUCKS
52	IRR	IRP TRAILER
53	ITR	IRP TRUCK TRACTOR TAGS
54	JJA	JACKSONVILLE JAGUARS (AR)
55	JJP	JACKSONVILLE JAGUARS (P)
56	JJR	JACKSONVILLE JAGUARS
57	JUA	JACKSONVILLE UNIVERSITY (AR)

1	JUP	JACKSONVILLE UNIVERSITY (P)
2	JUR	JACKSONVILLE UNIVERSITY
3	KKA	KEEP KIDS DRUG FREE (AR)
4	KKP	KEEP KIDS DRUG FREE (P)
5	KKR	KEEP KIDS DRUG FREE
6	LBA	LARGEMOUTH BASS (AR)
7	LBP	LARGEMOUTH BASS (P)
8	LBR	LARGEMOUTH BASS
9	LER	DEPT. OF LABOR AND EMPL SEC
10	LSR	PUBLIC SERVICE COMMISSION
11	LUA	LYNN UNIVERSITY (AR)
12	LUP	LYNN UNIVERSITY (P)
13	LUR	LYNN UNIVERSITY
14	MAA	FL MARLINS (AR)
15	MAP	FL MARLINS (P)
16	MAR	FL MARLINS
17	MBP	MOTORIZED BICYCLES (P)
18	MBR	MOTORIZED BICYCLES
19	MCP	MOTOR-CYCLE (PRIVATE) PRESTIGE
20	MCR	MOTOR CYCLE (PRIVATE) REGULAR
21	MDA	MIAMI DOLPHINS (AR)
22	MDP	MIAMI DOLPHINS (P)
23	MDR	MIAMI DOLPHINS
24	MEP	MEDAL OF HONOR (P)
25	MER	MEDAL OF HONOR
26	MFR	FHP MOTORCYCLE
27	MHA	MIAMI HEAT (AR)
28	MHP	MIAMI HEAT (P)
29	MHR	MIAMI HEAT
30	MIR	MICCOSUKEE INDIAN
31	MKR	MICCOSUKEE TWO PLATES
32	MLR	MANUFACTURER LICENSE PLATE
33	MMR	MANUFACTURER MOTORCYCLE
34	MOA	MIAMI HOOTERS (AR)
35	MOP	MIAMI HOOTERS (P)
36	MOR	MIAMI HOOTERS
37	MPR	FLORIDA MARINE PATROL
38	MQR	ANTIQUE MOTORCYCLE
39	MTA	SAVE THE MANATEE (AR)
40	MTP	SAVE THE MANATEE (P)
41	MTR	SAVE THE MANATEE
42	MVR	DIV. OF MOTOR VEHICLES
43	MWP	MOTORCYCLE WHEELCHAIR (P)
44	MWR	MOTORCYCLE WHEELCHAIR
45	MYP	MOTORCYCLE SPECIALTY (P)
46	MYR	MOTORCYCLE SPECIALTY
47	NAA	NAVY (AR)
48	NAP	NAVY (P)
49	NAR	NAVY
50	NBR	N. BROWARD HOSPITAL DISTRICT
51	NCR	COUNTY MOTOR-CYCLES
52	NGP	NATIONAL GUARD (P)
53	NGR	NATIONAL GUARD
54	NRR	DEPT. OF NATURAL RESOURCES
55	NSA	NOVA SOUTHEASTERN UNIV. (AR)
56	NSP	NOVA SOUTHEASTERN UNIV. (P)
57	NSR	NOVA SOUTHEASTERN UNIV.

1	NVR	COUNTY VEHICLES
2	NWA	NEW COLLEGE (AR)
3	NWP	NEW COLLEGE (P)
4	NWR	NEW COLLEGE
5	OMA	ORLANDO MAGIC (AR)
6	OMP	ORLANDO MAGIC (P)
7	OMR	ORLANDO MAGIC
8	OPA	ORLANDO PREDATORS (AR)
9	OPP	ORLANDO PREDATORS (P)
10	OPR	ORLANDO PREDATORS
11	OTR	DEPT. OF TRANSPORTATION
12	PAA	PANTHER (AR)
13	PAP	PANTHER (P)
14	PAR	PANTHER
15	PBA	SUPPORT LAW ENFORCEMENT (AR)
16	PBP	SUPPORT LAW ENFORCEMENT (P)
17	PBR	SUPPORT LAW ENFORCEMENT
18	PCR	DEPT. OF CORRECTION
19	PEP	PEARL HARBOR SURVIVOR (P)
20	PER	PEARL HARBOR SURVIVOR
21	PHP	PURPLE HEART MEDAL - PRESTIGE
22	PHR	PURPLE HEART MEDAL
23	POA	PROTECT OUR REEFS (AR)
24	POP	PROTECT OUR REEFS (P)
25	POR	PROTECT OUR REEFS
26	PRO	LAW ENFORCEMENT OFFICER
27	PRR	PRIDE
28	PSR	PERMANENT SEMITRAILERS
29	PTA	FL PANTHERS (AR)
30	PTP	FL PANTHERS (P)
31	PTR	FL PANTHERS
32	PUA	PALM BEACH ATLANTIC UNIV. (AR)
33	PUP	PALM BEACH ATLANTIC UNIV. (P)
34	PUR	PALM BEACH ATLANTIC UNIV.
35	PVP	PARALYZED VETS OF AMER (P)
36	PVR	PARALYZED VETS OF AMER
37	PWA	PROTECT WILD DOLPHINS (AR)
38	PWP	PROTECT WILD DOLPHINS (P)
39	PWR	PROTECT WILD DOLPHINS
40	QUA	QUINCENTENIAL (AR)
41	QUP	QUINCENTENIAL (P)
42	QUR	QUINCENTENIAL
43	RAA	RINGLING SCHOOL ART & DESG (AR)
44	RAP	RINGLING SCHOOL ART & DESG (P)
45	RAR	RINGLING SCHOOL ART & DESG
46	RCR	REGIS ONLY - MC SIZE PLATES
47	RGA	CAR AND PICKUP TAGS AMATEUR
48	RGP	CAR & PICKUP PERSONALIZED TAGS
49	RGR	CAR AND PICKUP TAGS
50	RGS	SUNSHINE LICENSE PLATES
51	RLA	ROLLINS COLLEGE (AR)
52	RLP	ROLLINS COLLEGE (P)
53	RLR	ROLLINS COLLEGE
54	ROR	REGISTRATION ONLY
55	RSR	RESTRICTED
56	RTR	REGULAR WRECKER
57	RUR	GVW WRECKER

1	RXA	AMERICAN RED CROSS (AR)
2	RXP	AMERICAN RED CROSS (P)
3	RXR	AMERICAN RED CROSS
4	SAA	SHARE THE ROAD (AR)
5	SAP	SHARE THE ROAD (P)
6	SAR	SHARE THE ROAD
7	SBA	SUPER BOWL AMATUER
8	SBP	SUPER BOWL (P)
9	SBR	SUPER BOWL
10	SCA	BOY SCOUTS (AR)
11	SCP	BOY SCOUTS (P)
12	SCR	BOY SCOUTS
13	SDA	STOP HEART DISEASE (AR)
14	SDP	STOP HEART DISEASE (P)
15	SDR	STOP HEART DISEASE
16	SEA	SOUTHEASTERN COLLEGE (AR)
17	SEP	SOUTHEASTERN COLLEGE (P)
18	SER	SOUTHEASTERN COLLEGE
19	SFA	SALUTES FIREFIGHTERS (AR)
20	SFP	SALUTES FIREFIGHTERS (P)
21	SFR	SALUTES FIREFIGHTERS
22	SHR	COUNTY SHERIFFS
23	SIR	SEMINOLE INDIAN
24	SLA	ST. LEO UNIVERSITY (AR)
25	SLP	ST. LEO UNIVERSITY (P)
26	SLR	ST. LEO UNIVERSITY
27	SMR	STATE MOTORCYCLE
28	SOA	U.S. OLYMPIC (AR)
29	SOP	U.S. OLYMPIC (P)
30	SOR	U.S. OLYMPIC
31	SPA	SPECIAL OLYMPIC (AR)
32	SPP	SPECIAL OLYMPIC (P)
33	SPR	SPECIAL OLYMPIC
34	SRP	STREET ROD (P)
35	SRR	STREET ROD
36	SSR	SEMINOLE TWO PLATES
37	STA	SEA TURTLE (AR)
38	STP	SEA TURTLE (P)
39	STR	SEA TURTLE
40	SUA	STETSON UNIVERSITY (AR)
41	SUP	STETSON UNIVERSITY (P)
42	SUR	STETSON UNIVERSITY
43	SVR	STATE VEHICLES
44	SXA	ST. THOMAS UNIVERSITY (AR)
45	SXP	ST. THOMAS UNIVERSITY (P)
46	SXR	ST. THOMAS UNIVERSITY
47	TAA	TAMPA BAY ESTUARY (AR)
48	TAP	TAMPA BAY ESTUARY (P)
49	TAR	TAMPA BAY ESTUARY
50	TBA	TAMPA BAY LIGHTNING (AR)
51	TBP	TAMPA BAY LIGHTNING (P)
52	TBR	TAMPA BAY LIGHTNING
53	TEM	TEMPORARY LICENSE PLATE
54	TEP	TEMPORARY EMPLOYED
55	TPR	TRANSPORTER LICENSE PLATES
56	TUR	TRUCKS WITH TWO PLATES
57	UAA	U.S. MARINES (AR)

1	UAP	U.S. MARINES (P)
2	UAR	U.S. MARINES
3	UCA	U OF CENTRAL FLORIDA (AR)
4	UCP	U OF CENTRAL FLORIDA (P)
5	UCR	U OF CENTRAL FLORIDA
6	UFA	U OF FLORIDA (AR)
7	UFP	U OF FLORIDA (P)
8	UFR	U OF FLORIDA
9	UMA	U OF MIAMI (AR)
10	UMP	U OF MIAMI (P)
11	UMR	U OF MIAMI
12	UNA	U OF NORTH FLORIDA (AR)
13	UNP	U OF NORTH FLORIDA (P)
14	UNR	U OF NORTH FLORIDA
15	UPA	US PARATROOPER (AR)
16	UPP	US PARATROOPER (P)
17	UPR	US PARATROOPER
18	USA	U OF SOUTH FLORIDA (AR)
19	USP	U OF SOUTH FLORIDA (P)
20	USR	U OF SOUTH FLORIDA
21	UTA	UNIVERSITY OF TAMPA (AR)
22	UTP	UNIVERSITY OF TAMPA (P)
23	UTR	UNIVERSITY OF TAMPA
24	UVP	US RESERVE (P)
25	UVR	US RESERVE
26	UWA	U OF WEST FLORIDA (AR)
27	UWP	U OF WEST FLORIDA (P)
28	UWR	U OF WEST FLORIDA
29	VFR	VOLUNTEER FIRE DEPARTMENT
30	VTA	SALUTES VETERANS (AR)
31	VTP	SALUTES VETERANS (P)
32	VTR	SALUTES VETERANS
33	WCP	WHEELCHAIR SUFFIX (P)
34	WCR	WHEELCHAIR SUFFIX
35	WEA	UNITED WE STAND (AR)
36	WEP	UNITED WE STAND (P)
37	WER	UNITED WE STAND
38	WHA	PROTECT FLORIDA WHALES (AR)
39	WHP	PROTECT FLORIDA WHALES (P)
40	WHR	PROTECT FLORIDA WHALES
41	WMR	WATER MANAGEMENT DISTRICT
42	WSA	WARNER SOUTHERN COLLEGE (AR)
43	WSP	WARNER SOUTHERN COLLEGE (P)
44	WSR	WARNER SOUTHERN COLLEGE
45	XSR	X - SERIES

Interoperability Interface Specifications

Exhibit B: Accounting Business Rules

Version 1.0

April 30, 2004

Document Changes

Version	Date	Change

Table of Contents

1.0 Banking

This document, Exhibit B to the Interoperability Interface Specifications, provides the accounting business rules used in the exchange of financial information between Agencies. The following associated documents further define and control interoperability between Agencies:

- State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – details the contractual agreements between the participating toll agencies.
- Second Amendment to State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – dated April 2004, modifies the Interoperability Agreement
- Exhibit A: Interoperability Interface Specifications, Records and Files Interface Specification – defines the record, file and directory structures, field definitions, report formats, schedule and frequency for file transfers, transmission methods and other specifics related to interoperability between Florida toll agencies who are parties to the agreement.

1.1 Banking Information

Banking information will be exchanged with the financial contact 30 days prior to interoperability and must consist of the following:

Bank name
Bank address
ABA (routing) number for ACH
ABA (routing) number for Wire Transfers
Bank account number
Bank account name
Receiving party contact name and number

1.2 Change in Agency's Financial Institution

In the event of a change in any Agency's financial institution, ABA Number, or bank account number this information will be exchanged with all financial contacts 30 days prior to implementation.

1.3 Alternative – Extreme Circumstances

In cases of extreme circumstances, fraud or possible revenue losses, all agencies will be contacted. Alternative arrangements will be made for the transfer of funds.

2.0 Fees

2.1 Credit Card Fee Deduction

Credit card fees of 2% will be deducted from the revenue collected prior to weekly transferring of funds as an estimate. At the end of each month, actual charges will be calculated and the last weekly wire credit card fees transfer of the month will be adjusted accordingly.

2.2 Credit Card Fee Established

Credit card fees' will be established from the prior year's average credit card fees' and will be mutually acceptable by all Agencies.

2.3 Credit Card Fee Re-negotiation

Credit card fees will be renegotiated and be mutually acceptable by all agencies 30 days prior to the anniversary date of the agreement for the upcoming agreement year.

2.4 Exceptions

In the event credit card rates increase or decrease by more than 2% during the agreement year, the Agency can request to renegotiate and adjust the credit card fees if all agencies mutually agree.

3.0 Weekly Reporting and Transferring of Funds

Interoperability Reports Generated by Florida Interoperable Toll Agencies.

The Florida Interoperable toll agencies generate reports to provide both detailed and summary data on (1) transactions sent to other agencies for reimbursement; and (2) transactions received from other agencies to be posted to the (receiving) agency's customer accounts. These reports - which are run daily, weekly and monthly - are described in tables 1 and 2 below.

Naming Conventions used:

- yyyymmdd - date of daily files and starting date for weekly and monthly files
- hhmi - time of daily files
- YYYYMMDD - ending date for weekly and monthly files
- AAn - agency code and file number

Report Name	Report ID	Purpose
	9010 Barrier Transaction Reports	
9010 TRAN BATCH SUMMARY RPT	**Daily:** TRAN_SUM_yyyymmdd_hhmi.AAn **Weekly/Monthly** TRAN_SUM_yyyymmdd_YYYYMMDD.AAn	Reports on loaded/rejected 9010 (non-ticket) transactions. Summarized by batch.
9010 TRAN REJECTION SUMMARY RPT	**Daily:** TRAN_REC_yyyymmdd_hhmi..AAn **Weekly/Monthly** TRAN_REC_yyyymmdd_YYYYMMDD.AAn	Reports on rejected 9010 (non-ticket) transactions. Summarized by batch and rejection type.
9010 TRAN PLAZA SUMMARY RPT	**Daily:** TRAN_PLZ_yyyymmdd_hhmi.AAn **Weekly/Monthly** TRAN_PLZ_yyyymmdd_YYYYMMDD.AAn	Reports on loaded/rejected 9010 (non-ticket) transactions. Summarized by plaza and by batch.
	9001 Ticket Transaction Reports (Currently for Transactions received from FDOT Only)	
9001 TICK BATCH SUMMARY RPT	**Daily:** TICK_SUM_yyyymmdd_hhmi.AAn **Weekly/Monthly** TICK_SUM_yyyymmddi_YYYYMMDD.AAn	Reports on loaded/rejected 9001 (ticket) transactions. Summarized by batch.
9001 TICK REJECTION SUMMARY RPT	**Daily:** TICK_REC_yyyymmdd_hhmi.AAn **Weekly/Monthly** TICK_REC_yyyymmdd_YYYYMMDD.AAn	Reports on rejected 9001 (ticket) transactions, summarized by batch and rejection type.
9001 TICK PLAZA SUMMARY RPT	**Daily:** TICK_PLZ_yyyymmdd_hhmi.AAn **Weekly/Monthly** TICK_PLZ_yyyymmdd_YYYYMMDD.AAn	Reports on loaded/rejected 9001 transactions by plaza.

Table 1: Reports Generated by a Receiving Agency that result from the loading of files received from a Sending Agency

Report Name	Report ID	Purpose
OUTGOING 9010 BATCH SUMMARY RPT	**Daily:** GEN_TRAN_SUM_yyyymmdd_hhmi.AAn **Weekly/Monthly** GEN_TRAN_SUM_yyyymmdd_YYYYMMDD.AAn	Reports on 9010 transaction records sent to a receiving agency for reimbursement. Summarized by batch.
OUTGOING 9010 PLAZA SUMMARY RPT	**Daily:** GEN_TRAN_PLZ_yyyymmdd_hhmi.AAn **Weekly/Monthly** GEN_TRAN_PLZ_yyyymmdd_YYYYMMDD.AAn	Reports on 9010 transaction records sent to a receiving agency for reimbursement. Summarized by plaza.
OUTGOING 9001 BATCH SUMMARY RPT	**Daily:** GEN_TICK_SUM_yyyymmdd_hhmi.AAn **Weekly/Monthly** GEN_TICK_SUM_yyyymmdd_YYYYMMDD.AAn	Reports on 9001 transaction records sent to a receiving agency for reimbursement. Summarized by batch.
OUTGOING 9001 PLAZA SUMMARY RPT	**Daily:** GEN_TICK_PLZ_yyyymmdd_hhmi.AAn **Weekly/Monthly** GEN_TICK_PLZ_yyyymmdd_YYYYMMDD.AAn	Reports on 9001 transaction records sent to a receiving agency for reimbursement. Summarized by plaza.

Table 2: Reports Generated by a Sending Agency Summarizing Transactions for which Reimbursement is expected

3.1 Weekly Reporting and Fund Transfers Definition

Weekly reporting and fund transfers are defined to include all toll usage adjustments and fees as all valid traffic transactions occurring Thursday 12:00:01AM through 11:59:59PM the following Wednesday.

3.2 Reports Detailing Gross Transactions

Friday following the ending Wednesday reports detailing gross transactions, toll usage adjustments and fees will be sent via e-mail or fax to the financial contact.

3.3 Adjustments

Adjustments fall into two broad categories: 1) Rejected lane transactions, and 2) Toll Credit Adjustments (TCA).

3.3.1 Rejected Lane Transactions

The business rules in effect between Agencies define the rules for acceptance and rejection of lane transactions exchanged at least daily between Agencies. Rejected lane transactions are returned to the originating agency in the same format as submitted with a rejection code appended to the record. The daily total amount for rejected transactions returned to the originating agency will be deducted from the daily gross transaction amount before fund transfers.

3.3.2 Toll Credit Adjustments

Toll credit adjustments are given to a commuter by the respective Service Centers when their transponder/account has been incorrectly debited in a lane. No toll adjustment will be given by an agency for a transit on another agency's toll system if the transaction date occurred 90 days prior to the adjustment date.

The financial staff will send a detail toll credit adjustment justification as requested.

3.4 Net Funds Availability

Net funds will be available in the receiving party's bank account on Monday for the previous week ending Wednesday.

3.5 Fund Availability Exceptions

3.5.1 Holiday and Uncontrollable circumstances

The funds and/or reports will be available on the first business day after a holiday.

3.5.2 Non-Transferred Amount Notification

If any or part of the weekly transaction cannot be transferred due to uncontrollable circumstances, notification will be provided to the financial contact. If possible, a partial transfer will be made. When the circumstance is resolved, notification will be sent to the financial contact and funds will be transferred on the following Monday.

4.0 Monthly Reporting, Rebates, Transferring, Closings

Refer to section 3.0 for a list of monthly reports.

4.1 Month End

Month end closeout will override the weekly timing.

4.2 Month Last Day

On each Monday, funds will be wired for transaction of the week ending the previous Wednesday. The week will be cut off early for the end of the month period. Any extra days will be added to next week's wire. For example: on February 2, 2004 monies for January 22-28 would be wired. On February 9, 2004 money for January 29-31 would be wired. On February 16, 2004, money for February 1-11 would be wired.

4.3 Customer Rebates

Customer rebates will automatically transfer and be posted monthly to the customer account. The posted rebate total will be adjusted from the month end transfer.

5.0 Toll Violations

All toll violations will be processed pursuant to the rules and regulation of the agency where the violation occurred. Any revenue associated with the violation will remain with that agency.

Interoperability Interface Specifications

Exhibit C: FDOT / Lee County DOT Technical Business Rules for the SunPass / LeeWay Electronic Toll Collection Systems

Version 2.0

April 30, 2004

Document Changes

Revision	Date	Change

Table of Contents

1.0 Introduction

This document defines the business rules governing the exchange of information between FDOT and Lee County electronic toll collection systems. The field descriptions, field code values, and transaction record formats are documented in Exhibit A – Records and Files Interface Specification.

Lee County has independently deployed its own toll collection equipment but wishes to be a participant in the Florida statewide SunPass electronic toll collection system. The LeeWay Toll System, Lee County's independent collection system, differs in many ways from the FDOT Toll System. However, Lee County DOT has incorporated SunPass hardware (reader and antennas) and will follow the SunPass standard for communicating with and updating transponders in the lane. In order to facilitate the exchange of information, Lee County DOT agrees to adopt the codes, descriptions, and transaction record formats as documented in Exhibit A – Records and Files Interface Specification.

Lee County DOT and FDOT shall implement these rules and adjust the language in this document if errors are detected. FDOT and Lee County DOT agree to monitor these business rules throughout the transition period and meet as often as necessary to correct whatever minor errors may exist in this document. Upon mutual consultation, FDOT and Lee County DOT will accommodate SunPass or LeeWay upgrades and revisions in future years.

1.1 Document Overview

The purpose of the this document is to specify the parameters by which FDOT and Lee County DOT customers will be allowed to use each Agency's toll facilities and to define the rules for the two agencies to exchange associated transactions. The document is organized as:

- Section 1.0 Introduction
- Section 2.0 Designation of Home Agency
- Section 3.0 Financial Transaction Acceptance
- Section 4.0 Rebate Record Interchange
- Section 5.0 Transponder Positive List Exchange
- Section 6.0 Adding New Plaza Locations
- Section 7.0 Frequency of File Transfers
- Section 8.0 Future Changes and Updates

1.2 Associated Documents

The following documents further define and control FDOT/Lee County DOT Interoperability:

- State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – details the contractual agreements between the participating toll agencies.

- Exhibit A: Interoperability Interface Specifications, Records and Files Interface Specification – defines the record, file and directory structures, field definitions, report formats, schedule and frequency for file transfers, transmission methods and other specifics related to interoperability between Florida toll agencies who are parties to the agreement.

- Exhibit B: Interoperability Interface Specifications, Accounting Business Rules – dated April 2004, defines the agreement between the participating toll agencies for the transfer of amounts due.

2.0 Designation of Home Agency

FDOT and Lee County DOT are both considered home agencies in that each maintains a customer service center, establishes and manages customer accounts, and issues transponders.

2.1 Home Agency Responsibilities

Each home agency has the following responsibilities.

2.1.1 Maintenance of Customer Accounts

FDOT will handle all commuter conflict resolution regarding FDOT transponders.

Lee County DOT will handle all commuter conflict resolution regarding LeeWay transponders.

2.1.2 Data Capture and Exchange

FDOT will be responsible for capturing transponder data from all vehicles with Lee County DOT issued transponders that use the FDOT Toll System. FDOT will accept the transponder as a form of payment for tolls provided:

- The Transponder Identification Number, Vehicle Class code, Revenue Type code, and Transponder Features bits are written to the transponder's Read Only page.
- The Transponder Identification Number and status has been provided to FDOT by Lee County DOT on the Transponder Positive List. Refer to this document, section 5.0 for the business rules pertaining to the Transponder Positive List exchange.
- The Transponder's Status code value is '1' (Active).
- The Revenue Type code value is '02' (Commercial), '03' (Non-Revenue Restricted), or '04' (Non-Revenue Unrestricted).
- The Vehicle Class code value is within the range '02' – '15'.

FDOT will provide a 9001 message record if the Lee County DOT transponder transited the FDOT Ticket system or a 9010 message record will be provided if the transponder passed through a FDOT plaza on the Barrier system.

Lee County DOT will be responsible for reading transponder data and writing updated data for all vehicles with FDOT issued SunPass transponders that use the Lee County DOT Toll System. Lee County DOT will accept the transponder as a form of payment for tolls provided:

- The Transponder Identification Number, Vehicle Class code, Revenue Type code, and Transponder Features bits are written to the transponder's Read Only page.
- The Transponder Identification Number and status has been provided to Lee County DOT by FDOT on the Transponder Positive List. Refer to this document, Section 5.0 for the business rules pertaining to the Transponder Positive List exchange.
- The Transponder's Status code value is '1' (Active).
- The Revenue Type code value is '01' (Patron), '02' (Commercial), '03' (Non-Revenue Restricted), or '04' (Non-Revenue Unrestricted).
- The Vehicle Class code value is within the range '02' – '15'.

Lee County DOT will provide a 9010 record to report a vehicle passage with an FDOT transponder.

2.2 Non-Revenue Transponder Use

Lee County DOT non-revenue transponders are acceptable for use on FDOT facilities. FDOT non-revenue transponders on government owned vehicles are acceptable for use on Lee County DOT facilities. FDOT and Lee County DOT reserve the right to exclude a non-revenue transponder based on user account. FDOT and Lee County DOT will provide access to their non-revenue transponder user list if required.

2.3 Violation processing

Violation processing will be handled by the FDOT toll system for vehicle passage violations through FDOT lanes.

Violation processing will be handled by the Lee County DOT toll system for vehicle passage violations through Lee County DOT lanes.

As a future consideration, the agencies may exchange vehicle passage violation information for possible I-toll processing.

Commuter violation conflict resolution between Agencies will be resolved through coordination between each Agency's violation processing help desk.

3.0 Financial Transaction Acceptance

The below defines the business rules used by FDOT and Lee County DOT for the acceptance of financial transactions exchanged by each agency.

3.1 Financial Transaction File Creation

The following defines the business rules governing the creation and exchange of toll lane generated financial transaction records.

3.1.1 FDOT Transaction File Creation

The FDOT toll system will consolidate all 9010 records into a single file and append a summary record as the last record in the file. The FDOT toll system will consolidate all 9001 records into a second single file and append a summary record as the last record in the file. These files will be sent to the Lee County DOT processing center on a daily basis, although the FDOT toll system could be configured to send these files on a more frequent basis.

3.1.2 Lee County DOT Transaction File Creation

The Lee County DOT toll system will consolidate all 9010 records into a single file and append a summary record as the last record in the file. This file will be sent to the Tolls Data Center (TDC) on a daily basis, although the FDOT toll system could be configured to receive the file on a more frequent basis.

3.2 FDOT Transaction Processing

This section describes the interoperability business rules that will be applied by FDOT when processing 9010 records received from the Lee County DOT toll system.

3.2.1 9010 Records Received from Lee County DOT for Valid Revenue Transactions

A 9010 message received from Lee County DOT will be processed as a **valid Payable revenue transaction** if all of the following conditions are true:

- The Transponder Identification number (the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state) exists on the Transponder Positive List at the time of the transaction.
- The Revenue Type is '01' *(patron)* or '02' *(commercial)*.
- The Transponder Status is '1' (Active) and the RCC value is **not** '12' (Miswrite to Read-Write

page 0 – physical page 9) where the Revenue Type is '01'.
The exit date/time stamp is valid *(within the agreed upon valid date range).*
- The Violation Code is '00' *(no violation),* or '02' *(insufficient funds),* or '03' *(classification mismatch), or '04' (lane closed), or '08' (incorrect tag setting), or'"54' (transponder read, no vehicle in lane).*
- The AVC class range is 02 - 15 (*for 02 - 15 axles*).
- The Toll Amount Full, Charged, and Collected fields are populated.

3.2.2 9010 Received from Lee County DOT for Valid Non-Revenue Transactions

A 9010 message received from Lee County DOT will be processed as a **valid non-revenue transaction** if **all** of the following conditions are true:

- The transponder identification number (the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state) exists on the positive list at the time of the transaction.
- The Revenue Type is '03' (non-revenue restricted) or '04' (non-revenue unrestricted).
- The Transponder Status is '1' (active).
- The Toll Amount Collected is zero.
- The exit date/time stamp is valid (within the agreed upon valid date range).
- The Violation Code is '00' (no violation), or '03' (classification mismatch), or '54' transponder read, no vehicle in lane).
- The AVC class range is 02 - 15 (for 02 - 15 axles).

3.2.3 FDOT Reimbursement to Lee County DOT for Valid 9010 Revenue Transactions

FDOT will reimburse Lee County DOT for all valid revenue transactions based on the Toll Amount Full which is set to Toll Amount Full.

3.2.4 Old Transactions and Non-Reimbursement

If FDOT receives a transaction file from Lee County DOT containing transaction message(s) that meet either of the following conditions, FDOT will not reimburse Lee County DOT for the associated transaction(s):

- Transactions(s) received more than thirty days after the transaction exit date/time; or
- Transaction(s) received more than seventy-two hours after the transaction exit date/time (but within the thirty day window) if FDOT has problems processing the transaction(s) due to status change(s) that occurred after the transaction exit date/time (i.e. stolen/lost, returned or terminated transponder).

3.2.5 Rejected Transaction Records

Any financial transaction not accepted during transaction file processing will be returned to Lee County DOT with a rejection error code appended to the financial transaction.

3.3 Lee County DOT Transaction Processing

This section describes the interoperability business rules that will be applied by Lee County DOT when processing 9001/9010 records received from the FDOT toll system.

3.3.1 9001/9010 Received from FDOT for Valid Revenue Transactions

A 9010 message received from FDOT will be processed as a **valid Payable revenue transaction** if all of the following conditions are true:

- The Transponder Identification number (the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state) exists on the Transponder Positive List at the time of the transaction.
- The Agency code value is '03'.
- The Revenue Type is '02' *(commercial).*
- The Transponder Status is '1' (Active).
- The exit date/time stamp is valid *(within the agreed upon valid date range).*
- The AVC class range is 02 - 15 (*for 02 - 15 axles*).
- The Toll Amount Full must be greater than zero.

3.3.2 9010 Received from FDOT for Valid Non-Revenue Transactions

A 9010 message received from Lee County DOT will be processed as a **valid non-revenue transaction** if **all** of the following conditions are true:

- The transponder identification number (the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state) exists on the Transponder Positive List at the time of the transaction.
- The Agency code value is '03.
- The Revenue Type is '03' (non-revenue restricted) or '04' (non-revenue unrestricted).
- The Transponder Status is '1' (active).
- The Toll Amount Full, Charged and Collected fields are zero.
- The exit date/time stamp is valid (within the agreed upon valid date range. Refer to section 3.3.4.).
- The AVC class range is 02 - 15 (for 02 - 15 axles).

3.3.3 Lee County DOT Reimbursement to FDOT for Valid 9001/9010 Revenue Transactions

Lee County DOT will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full.

3.3.4 Old Transactions and Non-Reimbursement

Lee County DOT will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full in the 9010 message record provided to Lee County DOT. The Toll Amount Charged will be placed in the Toll Amount Full field.

If Lee County DOT receives a transaction file from FDOT containing transaction message(s) that meet either of the following conditions, Lee County DOT will not reimburse FDOT for the associated transaction(s):

- Transactions(s) received more than thirty days after the transaction exit date/time; or
- Transaction(s) received more than seventy-two hours after the transaction exit date/time (but within the thirty day window) if Lee County DOT has problems processing the transaction(s) due to status change(s) that occurred after the transaction exit date/time (i.e. stolen/lost, returned or terminated transponder).

3.3.5 Rejected Transaction Records

Any financial transaction not accepted during transaction file processing will be returned to FDOT with a rejection error code appended to the transaction.

4.0 Rebate Record Interchange

The rebate program offered by the Florida Turnpike has been discontinued as of February 29, 2004. However, the rebate programs associated with other facilities continue.

4.1 FDOT Processing of Rebate Records Received from LeeWay

The Lee County DOT toll system applies an in-lane discount for vehicle passage through plazas in its system. The applied in-lane discount is reflected in the Toll Amount Full and Charged fields of the 9010 message. Lee County DOT will not produce a monthly rebate file.

4.2 Lee County DOT Processing of Rebate Records Received from FDOT

The rebate programs which continue after 29 February 2004 are:

Trips through the following plazas count toward the 10% discount if usage is 40 or more trips:

Plaza	Plaza Name	Rebate Qualification
101300	Pinellas Bayway Main	If pass not used,
101310	Pinellas Bayway II	If pass not used,
101320	Pinellas Bayway IV	If pass not used,

101400	Sunshine Skyway North	Vehicles with 3+ axles.
101500	Sunshine Skyway South	Vehicles with 3+ axles.
101600	Navarre Bridge	If pass not used,
106100	Everglades Pkwy - East	
106200	Everglades Pkwy - West	

Trips through the following plaza count toward a 50% discount if usage is 30 or more trips:

101900	Garcon Point Bridge	Two axle vehicles only

4.2.1 Frequency of Rebate File Generation

FDOT processes lane transactions for monthly rebates by the 10th of the succeeding month. FDOT will send Lee County DOT once per month a file of rebate records to be applied to Lee County DOT accounts.

4.2.2 Lee County DOT Rebate Processing

A rebate record received from FDOT for a Lee County DOT transponder will be processed as a rebate adjustment transaction if all of the following conditions are true:

- The Lee County DOT Transponder Identification number exists in the Lee County DOT database.
- The date/time stamp in the discount record is valid.
- The account type is neither "STDNR" nor "EMERG".
- The transaction amount is greater than "0".

4.3 Lee County DOT Rejected Rebate Records Returned to FDOT

A rebate record received from FDOT that is rejected by Lee County DOT will be returned to FDOT with a code for the reason appended to the record. The money associated with the rejected rebate record will also be returned to FDOT.

5.0 Transponder Positive List Exchange

The Transponder Identification number, read from the transponder's Read Only page 0 (physical page 7), is used in a lookup search in the Transponder Positive List. Transponder Identification numbers exchanged between agencies will be in numerical sequence and devoid of duplicate entries.

Only FDOT transponders found in the Transponder Positive List provided to Lee County DOT may be written to. FDOT will interact only with Lee County DOT transponders provided on the Lee County DOT Transponder Positive list.

FDOT will be responsible for providing Lee County DOT with a timely, up to date Transponder Positive List of FDOT issued SunPass transponders. Currently this list is available at least once a day. It is anticipated that the frequency will increase to every four hours in the near future with the goal of providing availability every hour. FDOT will incorporate the Lee County DOT provided Transponder Positive List into its Transponder Positive List before sending the list to every lane in the FDOT system.

Lee County DOT will be responsible for providing FDOT with a timely, up to date transponder list of Lee County DOT transponders, which may be used on the FDOT toll system, at least once a day.

6.0 Adding New Plaza Locations on Lee County DOT or FDOT Systems

It is anticipated that, in future years, additional toll collection locations will be added by the Lee County DOT or FDOT systems. Lee County DOT agrees to coordinate with FDOT when they establish new plazas or lanes equipped with AVI, and FDOT will coordinate with Lee County DOT when adding new plazas or lanes.

7.0 Frequency of File Transfers

Lee County DOT will provide a daily file of 9010 messages. FDOT will process the data upon receipt. FDOT will provide two daily message files. The first is a file containing 9001 messages and the second is a file containing 9010 messages .

8.0 Future Changes and Updates

Lee County DOT and FDOT expect to expand their customer bases and to accommodate additional agencies. Codes, transaction record formats or content, or method of daily file exchange may require change over future years. FDOT and Lee County DOT agree to communicate and work together to facilitate any future upgrades or changes to the SunPass or LeeWay systems.

Interoperability Interface Specifications

Exhibit D: FDOT / OOCEA Technical Business Rules for the SunPass / E-PASS Electronic Toll Collection Systems

Version 2.0

April 30, 2004

Document Changes

Revision	Date	Change

Table of Contents

1.0 OOCEA Processing

This section describes the interoperability business rules that will be applied by OOCEA when processing FDOT-issued SunPass transponders in OOCEA toll lanes.

The following documents further define and control FDOT / OOCEA Interoperability:

- State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – details the contractual agreements between the participating toll agencies.
- Exhibit A: Interoperability Interface Specifications, Records and Files Interface Specification – defines the record, file and directory structures, field definitions, report formats, schedule and frequency for file transfers, transmission methods and other specifics related to interoperability between Florida toll agencies who are parties to the agreement.
- Exhibit B: Interoperability Interface Specifications, Accounting Business Rules – dated April 2004, defines the agreement between the participating toll agencies for the transfer of amounts due.

1.1 OOCEA In-Lane Processing of SunPass Transponders

1.1.1 FDOT SunPass commercial revenue accounts

For FDOT SunPass commercial accounts, OOCEA will process an FDOT SunPass transponder as a valid revenue transaction in OOCEA lanes and send the 9010 transaction message to FDOT for revenue reimbursement if the SunPass transponder number is found on the OOCEA Transponder Positive List at the lane controller, the revenue type on the OOCEA Transponder Positive List is "02" and the transponder status on the OOCEA Transponder Positive List is "Active". The transponder status of "7" or "Undefined" will be treated the same as "Active" throughout this document for payment purposes. This status results when the vehicle class as read from the transponder is "00".

1.1.2 FDOT SunPass patron revenue accounts

For FDOT SunPass patron accounts (where the revenue type on the Transponder Positive List is "01" and the transponder status on the OOCEA Transponder Positive List is "Active") OOCEA will process an FDOT SunPass transponder according to the following table:

Scenario	Priority	OOCEA Violation	9010 Msg
No funds	1	Yes	Currently: None; Future: Violation = 02; Insufficient funds = "1"; toll_amt_collected = zero; toll_amt_full = toll_amt_collected (FDOT reimburses OOCEA based on Toll amount full)
Transponder balance >0 but < full toll amt.	2	Yes	Violation = 02; Insufficient funds = "1"; toll_amt_collected = bal_on_transp; toll_amt_full = toll_amt_collected (FDOT reimburses OOCEA based on Toll amount full)
Class mismatch Transponder class < AVC class	3	No	Violation = 03; Insufficient funds = "1"; Toll_amt_collected = toll based on transponder class Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)
Class mismatch Transponder class > AVC class	3	No	Violation = 00; Insufficient funds = "0"; Toll_amt_collected = toll based on transponder class Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)
Valid Transaction	4	No	Violation = 00; Insufficient funds = "0"; Toll_amt_collected = toll based on transponder class

Scenario	Priority	OOCEA Violation	9010 Msg
			Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)

1.1.3 FDOT SunPass Patron Non-revenue Accounts

OOCEA will filter the Transponder Positive List it receives from FDOT; Only those non-revenue transponders that are authorized by OOCEA will have a status of "active"; all other non-revenue transponders received from FDOT will have the status changed to "inactive".

OOCEA will process an FDOT SunPass transponder as a valid non-revenue transaction and send the 9010 message to FDOT if the following conditions are true:

- The SunPass transponder number is found on the OOCEA Transponder Positive List at the lane controller, the revenue type on the OOCEA Transponder Positive List is "03" or "04" and the transponder status on the OOCEA Transponder Positive List is "Active".

1.2 Revenue Reimbursement

OOCEA will expect revenue reimbursement from FDOT based on the Toll Amount Full for all valid revenue transactions processed in OOCEA lanes.

NOTE: According to the Reciprocity Rules, FDOT will reimburse OOCEA "up to $100,000 per year for transaction messages received for SunPass transponders where a successful write-back Reader Confirmation Code value is not included within the 9010 message for a transaction occurring in an OOCEA E-PASS lane."

1.3 OOCEA Processing of 9010 Records Received from FDOT

A 9010 message received from FDOT for an E-PASS transponder will be processed as a valid revenue transaction if all of the following conditions are true:

- The transponder status in the 9010 message is "Active" as obtained from the OOCEA Transponder Positive List
- The date/time stamp in the 9010 message must be in valid format
- The agency code in the 9010 message is "05" through "08"
- The violation flag in the 9010 message is "00","03", "04", "06", "08" or "54"
- The revenue type in the 9010 message is "02".
- The toll amount full must be greater than zero.

A 9010 message received from FDOT for an E-PASS transponder will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The transponder status in the 9010 message is "Active" as obtained from the OOCEA Transponder Positive List
- The date/time stamp in the 9010 message is valid
- The revenue type in the 9010 message is "03" or "04"
- The agency code in the 9010 message is "05" through "08"
- The violation flag in the 9010 message is "00","03", "04", "06", "08" or "54"
- The toll amount charged in the 9010 message is "0"
- The toll amount collected in the 9010 message is "0"
- The toll amount full in the 9010 message is "0".

OOCEA will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full.

FDOT has provided OOCEA a data base link to access their non-revenue accounts. OOCEA will send notification to all FDOT non-revenue account holders who do not qualify for non-revenue status on

OOCEA lanes. It is possible that a non-revenue account, which does not qualify, may be using their associated transponder for a period of time before notification letters are generated.

1.4 OOCEA Processing of 9001 Records Received from FDOT

A 9001 message received from FDOT for an E-PASS transponder will be processed as a valid revenue transaction if all of the following conditions are true:

- The transponder status in the 9001 message is "Active" as obtained from the OOCEA Transponder Positive List
- The date/time stamp in the 9001 message is valid
- The agency code in the 9001 message is "05" through "06"
- The method of payment in the 9001 message is "2"
- The Invalid Transponder flag in the 9001 message is "0"
- The Ticket type in the 9001 message is "4"
- The revenue type in the 9001 message is "02".

A 9001 message received from FDOT for an E-PASS transponder will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The transponder status in the 9001 message is "Active" as obtained from the OOCEA Transponder Positive List
- The date/time stamp in the 9001 message is valid
- The revenue type in the 9001 message is "03" or "04"
- The agency code in the 9001 message is "05" through "06"
- The method of payment in the 9001 message is "2"
- The Invalid Transponder flag in the 9001 message is "0"
- The Ticket type in the 9001 message is "4"
- The toll amount charged in the 9001 message is "0"
- The toll amount collected in the 9001 message is "0"
- The toll amount full in the 9001 message is "0".

OOCEA will create two transaction messages from each valid 9001 message received from FDOT for E-PASS transponders:

- An entry transaction will be created for the E-PASS transponder containing the transponder ID number, a toll amount of $0.00, Entry Plaza ID, Entry Lane ID and the Exit Transaction Lane Controller Time Stamp from the 9001 transaction.
- An exit transaction will be created that contains the Transponder ID, Toll Amount Collected, Exit Plaza ID, Exit Lane ID and the Exit transaction Lane Controller Time Stamp.

OOCEA will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full.

1.5 OOCEA Processing of Rebate Records Received from FDOT

A rebate record received from FDOT for an E-PASS transponder will be processed as a rebate adjustment transaction if all of the following conditions are true:

- The E-PASS transponder number exists in the E-PASS database (transponder number and Authority combination)
- The date/time stamp in the discount record is valid
- The account type is neither "STDNR" nor "EMERG"
- The transaction amount is greater than "0".

A rebate record received from FDOT that is rejected as part of the processing described earlier in this section will be returned to FDOT. The money associated with the rejected rebate record will also be returned to FDOT.

OOCEA will send FDOT a monthly file of rebate records to be applied to SunPass accounts. This file will be generated and sent only once per month – after the month is closed out.

1.6 OOCEA Exception Handling

1.6.1 Conflict Resolution

All conflict resolution between E-PASS and SunPass and their customers regarding transactions on OOCEA, Osceola and FDOT toll lanes will be handled by the transponder-issuing agency.

If OOCEA receives a transaction file from FDOT containing transaction message(s) that meet either of the following conditions, OOCEA will not reimburse FDOT for the associated transaction(s):

- Transactions(s) received more than thirty days after the transaction exit date/time; or
- Transaction(s) received more than seventy-two hours after the transaction exit date/time (but within the thirty day window) if OOCEA has problems processing the transaction(s) due to status change(s) that occurred after the transaction exit date/time (i.e. stolen/lost, returned or terminated transponder).

In addition if OOCEA receives multiple transactions from FDOT for transactions involving the same transponder number and plaza ID within 35 seconds of one another, OOCEA will reject all but the first transaction record. If OOCEA receives multiple transactions from FDOT for transactions involving the same transponder number, plaza ID and lane within 180 seconds of one another, OOCEA will reject all but the first transaction record.

1.6.2 Violation processing

OOCEA will process an FDOT SunPass transponder as a violation and no 9010 message will be sent to FDOT if any of the following conditions is true:

- The SunPass transponder status on the OOCEA Transponder Positive List at the lane controller is not "Active"
- The SunPass transponder number is not found on the OOCEA Transponder Positive List at the lane controller.

Violation processing will be handled by the agency that issued the violation notice - warning or Uniform Traffic Citation (UTC).

1.6.3 Rejected Records

Rejected records from 9010 and 9001 files will be written to a transaction reject file and forwarded to the agency that sent the original file.

Rebate reject records will be written to a transaction rebate reject file and forwarded to the agency that sent the original file.

1.6.4 Toll Credit Adjustments

Credit adjustments for customer complaints will be handled directly by each issuing agency.

2.0 FDOT Processing

2.1 FDOT In-Lane Processing of E-PASS Transponders

This section describes the interoperability business rules that will be applied by FDOT when processing OOCEA-issued E-PASS transponders in FDOT toll lanes.

2.1.1 FDOT Processing an OOCEA E-PASS Transponder as a Valid Revenue Transaction

FDOT will process an OOCEA E-PASS transponder as a **valid revenue transaction** in FDOT lanes and send the transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* to OOCEA for revenue reimbursement if **all** of the following conditions are true:

- The E-PASS transponder number is found on the Transponder Positive List at the lane controller.
- The agency code on the Transponder Positive List is "05" thru "08".
  Note that agency codes "05" and "06" are already in use. "07" and "08" are also set aside for OOCEA toll use. "09" is set aside for OOCEA non-toll use. Note that the use of the "09" code must first be approved by both agencies before any implementation occurs for the "09" non-toll agency code.
- The revenue type on the transponder is "02" *(commercial)*.
- The status on the Transponder Positive List is "1" *(active)*.

FDOT will send a 9010 record according to the following table:

Scenario	Priority	FDOT Violation	9010 Message
Class mismatch Transponder class < AVC class	1	No	Violation = "03"; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the transponder class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on toll_amount_full)
Class mismatch Transponder class > AVC class	2	No	Violation = "00"; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the transponder class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on toll_amount_full)
Valid Transaction	3	No	Violation = 00; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the transponder class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on Toll_amount_full)

2.1.2 FDOT Processing an OOCEA E-PASS Transponder as a Valid Non-Revenue Transaction

FDOT will process an OOCEA E-PASS transponder as a **valid non-revenue transaction** in FDOT lanes and send the transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* to OOCEA if **all** of the following conditions are true:

- The E-PASS transponder number is found on the Transponder Positive List at the lane controller.
- The agency code on the Transponder Positive List is "05" through "08".
  Note that agency codes "05" and "06" are already in use. "07" and "08" are also set aside for OOCEA toll use. "09" is set aside for OOCEA non-toll use. Note that the use of the "09" code

must first be approved by both agencies before any implementation occurs for the "09" non-toll agency code.
- The revenue type on the transponder is "03" *(non-revenue restricted)* or "04" *(non-revenue unrestricted).*

2.1.3 FDOT Processing an OOCEA E-PASS Transponder as a Violation

FDOT will process an OOCEA E-PASS transponder as a Violation and **no** transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* will be sent to OOCEA if the following is true:

- Any transponder that is **not** on the Transponder Positive List is a violator.

2.1.4 FDOT Expectation of Revenue Reimbursement from OOCEA

FDOT will expect revenue reimbursement from OOCEA based on the **Toll Amount Full** *(AVC class by the AVC, net of any in lane discount amount)* for **all** valid revenue transactions processed in FDOT lanes.

2.2 FDOT Processing of 9010 Records Received from OOCEA

2.2.1 A 9010 received from OOCEA for a SunPass Transponder - Valid Revenue Transactions

A 9010 message received from OOCEA for a SunPass transponder will be processed as a **valid revenue transaction** if **all** of the following conditions are true:

- The SunPass transponder identification number *(the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state)* exists on the Transponder Positive List at the time of the transaction.
- The transponder status is "1" *(active).*
- The exit date/time stamp is valid *(within the agreed upon valid range).*
- The violation code is "00" *(no violation),* or "02" *(insufficient funds),* or "03" *(classification mismatch), or "04" (lane closed), or "06" (write failure), or "08" (incorrect transponder setting), or "54" (transponder read, no vehicle in lane).*
- The revenue type is "01" *(patron)* or "02" *(commercial).*
- The AVC class range is 02 - 15 *(for 02 - 15 axles).*

2.2.2 A 9010 Received from OOCEA for SunPass Transponder - Valid Non-Revenue Transactions

A 9010 message received from OOCEA for a SunPass transponder will be processed as a **valid non-revenue transaction** if **all** of the following conditions are true:

- The SunPass transponder identification number *(the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state)* exists on the Transponder Positive List at the time of the transaction.
- The transponder status is "1" *(active).*
- The exit date/time stamp is valid *(within the agreed upon valid range).*
- The violation code is "00" *(no violation)* or "03" *(classification mismatch)* or *"08" (incorrect transponder setting) mismatch), or "04" (lane closed), or "06" (write failure), or "08" (incorrect transponder setting), or "54" (transponder read, no vehicle in lane).*
- The revenue type is "03" *(non-revenue restricted)* or "04" *(non-revenue unrestricted).*
- The AVC class range is 02 - 15 *(for 02 - 15 axles).*
- The Toll Amounts (Collected, Charged, Full) are zeros.

2.2.3 FDOT Reimbursement to OOCEA for Valid 9010 Revenue Transactions

FDOT will reimburse OOCEA for all valid revenue transactions based on the Toll Amount Full.

2.2.4 FDOT Receiving a List of Non-Revenue Transponders

OOCEA will send a list of non-revenue transponders to FDOT on request.

2.3 FDOT Processing of Rebate Records Received from OOCEA

2.3.1 Conditions to Accept a Rebate Transaction from OOCEA

A rebate record received from OOCEA for a SunPass transponder will be processed as a toll rebate if **all** of the following conditions are true:

- The SunPass transponder identification number *(the transponder number, agency code and state code)* exists in the SunPass database.
- The transaction amount is greater than zero.

2.3.2 Conditions to Reject a Rebate Record Received from OOCEA

A rebate record from OOCEA will be rejected if the transponder identification number is not in the SunPass database.

A rebate record from OOCEA that is rejected as part of the processing will be returned to OOCEA. The money associated with the rejected rebate records will be returned to OOCEA.

2.4 FDOT Transmission of Rebate Records to OOCEA

FDOT will send OOCEA a monthly file of rebate records to be applied to E-PASS accounts. This file will be generated and sent only once per month. FDOT bases rebates on lane transaction exit date. Normally, rebate records will be forwarded to OOCEA by the 15th of the succeeding month to assure that all lane-generated transactions have been received from the plazas and processed by the SunPass host computer. If rebate records are not received by the 15th, then OOCEA should contact FDOT for the new forwarding date of rebate records.

Only paid transactions will be counted as part of the total transaction count for rebate processing purposes in determining eligibility for the monthly rebate program. The rebate amount will be based on the total dollar amount used by the customer during the calendar month.

2.5 FDOT Exception Handling

2.5.1 Customer Conflict Resolution

All conflict resolution between E-PASS and SunPass and their customers regarding transactions on OOCEA, Osceola and FDOT toll lanes will be handled directly by the agency that issued the transponder.

Toll credit adjustments resulting from customer complaints will be reimbursed based on the business rules discussed in Exhibit B.

2.5.2 Old Transactions and Non-reimbursement

All conflict resolution between SunPass and E-PASS and their customers regarding transactions on OOCEA, Osceola and FDOT toll lanes will be handled by the transponder-issuing agency.

If FDOT receives a transaction file from OOCEA containing transaction message(s) that meet either of the following conditions, FDOT will not reimburse OOCEA for the associated transaction(s):

- Transactions(s) received more than thirty days after the transaction exit date/time; or
- Transaction(s) received more than seventy-two hours after the transaction exit date/time (but within the thirty day window) if FDOT has problems processing the transaction(s) due to status change(s) that occurred after the transaction exit date/time (i.e. stolen/lost, returned or terminated transponder).

2.6 Violation processing

2.6.1 Handling of Violations by the Issuing Agency

Violation processing will be handled by the agency that issued the violation notice.

2.7 Reject Files

2.7.1 Rejected Records from 9010 and 9001 Files

Rejected records from 9010 and 9001 files will be written to a transaction reject file and forwarded to the agency that sent the original file. Refer to Exhibit A for rejected transaction file format.

2.7.2 Rebate Reject Records

Rebate reject records will be written to a transaction rebate reject file and forwarded to the agency that sent the original file. Refer to Exhibit A for rebate reject file format.

2.7.3 Credit Adjustments for Customer Complaints

Credit adjustments for customer complaints will handled directly by each issuing agency.

Interoperability Interface Specifications

Exhibit E: OOCEA / Lee County DOT Technical Business Rules for the E-PASS / LeeWay Electronic Toll Collection Systems

Version 2.0

April 30, 2004

Revision Log

Revision	Date	Change

TABLE OF CONTENTS

1.0 Introduction

This document defines the business rules governing the interoperability between the Orlando-Orange County Expressway Authority (OOCEA)'s E-PASS and Lee County DOT's LeeWay electronic toll collection systems. Codes, descriptions, and transaction record formats (e.g., 9010 messages) are documented in Exhibit A: Record and Files Interface Specification.

1.1 Designation of Agencies

For the purposes of this document, OOCEA and Lee County DOT are both considered as home agencies. Because OOCEA has entered into an inter-local agreement with Osceola County, which operates a system of electronic toll collection known as O-PASS, and OOCEA manages O-PASS transactions for Osceola County, O-PASS transactions will be treated the same as E-PASS transactions with respect to interoperability with Lee County DOT.

1.2 Document Overview

The purpose of the Interoperability Business Rules document is to specify the parameters by which E-PASS and LeeWay customers will be allowed to use OOCEA and Lee County DOT toll facilities using their E-PASS or LeeWay transponders and to define the rules by which the two agencies will process the associated transactions and reconcile the associated revenues. The document is organized as:

Section 1.0 Introduction
Section 2.0 OOCEA Processing
Section 3.0 Lee County DOT Processing
Section 4.0 Transponder Positive List Exchange
Section 5.0 Revenue Reimbursement and Reporting
Section 6.0 Exception Processing
Section 7.0 Conflict Resolution
Section 8.0 Acronyms and Terminology

1.3 Associated Documents

The following documents further define and control OOCEA/Lee County DOT Interoperability:

- State of Florida, Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement – details the contractual agreements between the participating toll agencies.
- Exhibit A: Interoperability Interface Specifications, Records and Files Interface Specification – defines the record, file and directory structures, field definitions, report formats, schedule and frequency for file transfers, transmission methods and other specifics related to interoperability between Florida toll agencies who are parties to the agreement.
- Exhibit B: Interoperability Interface Specifications, Accounting Business Rules – dated April 2004, defines the agreement between the participating toll agencies for the transfer of amounts due.

2.0 OOCEA Processing

This section describes the interoperability business rules that will be applied by OOCEA when processing LeeWay transponders in E-PASS lanes and when processing 9010 records received from Lee County DOT.

2.1 OOCEA In-Lane Processing of LeeWay Transponders

OOCEA will process revenue and non-revenue LeeWay transponders according to the rules defined in the following subsections.

2.1.1 Lee County DOT LeeWay Revenue Transponders

OOCEA will process a Lee County DOT LeeWay revenue transponder as a valid revenue transaction in OOCEA lanes and send the 9010 transaction message to Lee County DOT for revenue reimbursement if all the following conditions are true:

- The LeeWay Transponder ID has an "Active" status at the LeeWay lane controller;
- The Agency/Group Code value is "03";
- The Revenue Type is "02";
- The Date/Time Stamp is valid (within the agreed upon valid date range);
- The AVC Class is within the range of "02" – "09"; and
- The Toll Amount Full, Charged and Collected fields are greater than zero.

2.1.2 Lee County DOT LeeWay Non-revenue Transponders

Lee County DOT will send OOCEA a list of non-revenue accounts and associated Transponder IDs before the deployment of interoperability processing and at regular intervals after interoperability between the two agencies commences. OOCEA will send notification to Lee County DOT if any of the LeeWay non-revenue account holders do not qualify for non-revenue status on OOCEA lanes. Transponder numbers associated with LeeWay account holders who do not qualify for non-revenue status on OOCEA toll facilities will not be sent to OOCEA as part of the daily Transponder Positive List exchange.

OOCEA will process a Lee County DOT LeeWay transponder as a valid non-revenue transaction and send the 9010 message to Lee County DOT if the following conditions are true:

- The LeeWay Transponder ID is found on the Transponder Positive List at the OOCEA lane controller at the time of the transaction, and the Transponder Status for the LeeWay transponder is "Active";
- The Agency/Group Code value is "03" or "04";
- The Revenue Type is "04";
- The Date/Time Stamp is valid (within the agreed upon valid date range);
- The AVC class is within the range of "02" – "09"; and
- The Toll Amount Full, Charged and Collected Fields are zero.

2.2 OOCEA Processing of 9010 Records Received from Lee County DOT

OOCEA will process 9010 records received from Lee County DOT in accordance with the business rules for revenue and non-revenue transponders as described in the following subsections.

2.2.1 E-PASS Revenue Transactions

A 9010 message received from Lee County DOT for an E-PASS transponder will be processed as a valid revenue transaction if all of the following conditions are true:

- The Transponder Status in the 9010 message is "Active";
- The Agency/Group Code in the 9010 message is "05" or "06"

- The Date/Time Stamp in the 9010 message is valid;
- The Violation Code in the 9010 message is one of the following:
  - 00=No violation
  - 03=Classification mismatch
  - 04=Lane closed
  - 06=Write failure
  - 08=Transponder Class 00
  - 54=Transponder read, no vehicle in lane;
- The AVC Class is within the range of "02" – "09";
- The Revenue Type in the 9010 message is "02"; and
- The Toll Amount Full, Charged and Collected fields in the 9010 message are greater than zero.

2.2.2 E-PASS Non-Revenue Transactions

A 9010 message received from Lee County DOT for an E-PASS transponder will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The Transponder Status in the 9010 message is "Active";
- The Agency/Group Code in the 9010 message is "05" or "06";
- The Date/Time Stamp in the 9010 message is valid;
- The Violation Code in the 9010 message is one of the following:
  - 00=No violation
  - 03=Classification mismatch
  - 04=Lane closed
  - 06=Write failure
  - 08=Transponder Class 00
  - 54=Transponder read, no vehicle in lane
- The AVC Class is within the range of "02" – "09";
- The Revenue Type in the 9010 message is "04"; and
- The Toll Amount Charged, Collected and Full fields in the 9010 message are zero.

2.3 OOCEA Violation Processing

OOCEA will process a Lee County DOT LeeWay transponder as a violation and no 9010 message will be sent to Lee County DOT if either of the following conditions is true:

- The LeeWay transponder status at the OOCEA lane controller is not "Active"; or
- The LeeWay Transponder ID is not valid at the OOCEA lane controller.

Violation processing including warning letter(s) or Uniform Traffic Citations (UTC) will be handled by OOCEA according to their violation processing business rules.

3.0 Lee County DOT Processing

This section describes the interoperability business rules that will be applied by Lee County DOT when processing OOCEA-issued E-PASS transponders in LeeWay toll lanes.

3.1 Lee County DOT In-Lane Processing of E-PASS Transponders

Lee County DOT will process revenue and non-revenue E-PASS transponders as described in the following subsections.

3.1.1 OOCEA E-PASS Revenue Transponders

Lee County DOT will process an OOCEA E-PASS transponder as a valid revenue transaction in Lee County DOT lanes and send a 9010 transaction record to OOCEA for revenue reimbursement if all of the following conditions are true:

- The LeeWay Transponder ID has an "Active" status at the LeeWay lane controller;
- The Agency/Group Code value is "05" or "06";
- The Date/Time Stamp in the 9010 message is valid;
- The Violation Code in the 9010 message is one of the following:
  - 00=No violation
  - 03=Classification mismatch
  - 04=Lane closed
  - 06=Write failure
  - 08=Transponder Class 00
  - 54=Transponder read, no vehicle in lane;
- The AVC Class is within the range of "02" – "09";
- The Revenue Type in the 9010 message is "02"; and
- The Toll Amount Full, Charged and Collected fields in the 9010 message are greater than zero.

3.1.2 OOCEA E-PASS Non-revenue Transponders

OOCEA will send Lee County DOT a list of non-revenue accounts and associated Transponder IDs before the deployment of interoperability processing and at regular intervals after interoperability between the two agencies commences. Lee County DOT will send notification to OOCEA if any of the E-PASS non-revenue account holders do not qualify for non-revenue status on Lee County DOT lanes. Transponder numbers associated with E-PASS account holders who do not qualify for non-revenue status on Lee County DOT toll facilities will not be sent to Lee County DOT as part of the daily Transponder Positive List exchange.

Lee County DOT will process an OOCEA E-PASS transponder as a valid non-revenue transaction in Lee County DOT lanes and send a 9010 transaction record to OOCEA if all the following conditions are true:

- The LeeWay Transponder ID has an "Active" status at the LeeWay lane controller;
- The Agency/Group Code value is "05" or "06";
- The Revenue Type is "04";
- The Date/Time Stamp is valid (within the agreed upon valid date range);
- The AVC class is within the range of "02" – "09"; and
- The Toll Amount Full, Charged and Collected Fields are zero.

3.2 Lee County DOT Processing of 9010 Records Received from OOCEA

Lee County DOT will process 9010 records received from OOCEA in accordance with the business rules for revenue and non-revenue transponders as described in the following subsections.

3.2.1 LeeWay Revenue Transactions

A 9010 message received from OOCEA for a LeeWay transponder will be processed as a valid revenue transaction if all of the following conditions are true:

- The Transponder Status in the 9010 message is "Active";
- The Agency/Group Code in the 9010 message is "03;
- The Date/Time Stamp in the 9010 message is valid;
- The Violation Code in the 9010 message is one of the following:
  - 00=No violation
  - 03=Classification mismatch
  - 04=Lane closed

- 06=Write failure
- 08=Transponder Class 00
- 54=Transponder read, no vehicle in lane;

- The AVC Class is within the range of "02" – "09";
- The Revenue Type in the 9010 message is "02"; and
- The Toll Amount Full, Charged and Collected fields in the 9010 message are greater than zero.

3.2.2 LeeWay Non-Revenue Transactions

A 9010 message received from OOCEA for a LeeWay transponder will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The transponder status in the 9010 message is "Active";
- The Agency/Group Code in the 9010 message is "03";
- The Date/Time Stamp in the 9010 message is valid;
- The Violation Code in the 9010 message is one of the following:
  - 00=No violation
  - 03=Classification mismatch
  - 04=Lane closed
  - 06=Write failure
  - 08=Transponder Class 00
  - 54=Transponder read, no vehicle in lane;
- The AVC Class is within the range of "02" – "09";
- The Revenue Type in the 9010 message is "04"; and
- The Toll Amount Charged, Collected and Full fields in the 9010 message are zero.

3.3 Lee County DOT Processing of Rebate Records Received from OOCEA

Once per month (as defined in the Interface document) OOCEA will send Lee County DOT a file containing rebate records to be applied to LeeWay accounts. An OOCEA rebate record for a LeeWay transponder will be processed as a toll rebate if all of the following conditions are true:

- The LeeWay transponder identification number *(the Transponder ID, agency code and state code)* exists in the LeeWay database;
- The Date/Time Stamp in the rebate record is valid; and
- The (rebate) transaction amount is greater than "0".

A rebate record from OOCEA that is rejected by Lee County DOT will be returned to OOCEA. The money associated with the rejected rebate records will be returned to OOCEA.

3.4 Lee County DOT Violation Processing

Lee County DOT will process an OOCEA E-PASS transponder as a violation and no 9010 message will be sent to OCOEA if either of the following conditions is true:

- The E-PASS transponder status at the Lee County DOT lane controller is not "Active"; or
- The E-PASS Transponder ID is not valid at the Lee County DOT lane controller.

Violation processing including warning letter(s) or Uniform Traffic Citations (UTC) will be handled by Lee County DOT according to their violation processing business rules.

4.0 Transponder Positive List Exchange

Each sending agency (OOCEA or Lee County DOT) will be responsible for providing the receiving agency (OOCEA or Lee County DOT) with a timely, up to date Positive List according to the mutually agreed schedule as defined in Exhibit A.

If a Transponder Positive List is not received at the agreed upon time, the receiving agency will use the most recent Transponder Positive List sent by the sending agency, while continuing to monitor the incoming transfer directory for a more current version of the file. Processing of a late-arriving Transponder Positive List will be handled according to the receiving agency's internal schedule.

5.0 Revenue Reimbursement and Reporting

Lee County DOT will expect revenue reimbursement from OOCEA based on the Toll Amount Full for all valid revenue transactions processed in LeeWay lanes.

OOCEA will expect revenue reimbursement from Lee County DOT based on the Toll Amount Full for all valid revenue transactions processed in OOCEA lanes.

Reports to be sent from Lee County DOT to OOCEA and from OOCEA to Lee County DOT when revenue reimbursement is sent are described in Exhibit B.

6.0 Exception Processing

The receiving agency (OOCEA or Lee County DOT) will reject files and records and deny payment for toll transactions based on the exception processing rules described in Sections 6.1 and 6.2.

6.1 Rejected Files and Records

If a receiving agency (Lee County DOT or OOCEA) receives multiple transactions from the sending agency (Lee County DOT or OOCEA) for transactions involving the same Transponder ID and plaza ID within 35 seconds of one another, the receiving agency will reject all but the first transaction record. If either receiving agency receives multiple transactions from the sending agency for transactions involving the same Transponder ID, plaza ID and lane within 180 seconds of one another, the receiving agency will reject all but the first transaction record.

Rejected records from 9010 files will be written to a transaction reject file and forwarded to the agency that sent the original file as defined in the Interoperability Interface document.

6.2 Old Transactions and Non-reimbursement

If a receiving agency (Lee County DOT or OOCEA) receives a transaction file from the sending agency (Lee County DOT or OOCEA) containing transaction message(s) that meet either of the following conditions, the receiving agency will not reimburse the sending agency for the associated toll transaction(s):

- Transaction(s) received more than 30 days after the transaction date/time; or
- Transaction(s) received more than 72 hours after the transaction date/time (but within the 30-day window) if the receiving agency has problems processing the transaction(s) due to status change(s) that occurred after the transaction date/time (i.e. closed account, stolen transponder, replaced transponder, etc.).

7.0 Conflict Resolution

All conflict resolution between E-PASS and LeeWay and their customers regarding transactions on OOCEA, Osceola and Lee County DOT toll lanes or bridges will be handled by the transponder-issuing agency.

STATE OF FLORIDA

INTERAGENCY ELECTRONIC TOLL COLLECTION INTEROPERABILITY AND RECIPROCITY AGREEMENT

March 8, 2002

This Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement (Agreement) is entered into this 8th day of March, 2002, among the Orlando Orange County Expressway Authority (OOCEA), the Florida Department of Transportation (FDOT), and Osceola County. Each party to this Agreement shall be referred to as an Agency in this Agreement. This Agreement may be amended to include other agencies as parties to this Agreement.

WHEREAS, the Agencies who initiated this Agreement operate electronic toll collection within the State of Florida; and

WHEREAS, FDOT operates a system of electronic toll collection known as SunPass; and

WHEREAS, OOCEA operates a system of electronic toll collection known as E-PASS; and

WHEREAS, Osceola County operates a system of electronic toll collection known as O-PASS with OOCEA as its designated Home Agency; and

WHEREAS, in order to implement an interoperable statewide electronic toll collection system, the Agencies recognize the practical necessity of joint and cooperative efforts; and

WHEREAS, the Agencies acknowledge the goal of the Agreement is to offer interoperability to their respective customers to the fullest extent, including the ability to provide a single account statement to each customer setting forth transaction activities on all participating Agency roadways.

NOW, THEREFORE, in consideration of the covenants herein contained, the Agencies agree as follows:

I. DEFINITIONS

Agency	A signatory to this Agreement.
Home Agency	The Agency that established and maintains a customer's account and issues a transponder(s).
Pre-Paid Accounts	A customer account that requires money be on deposit to pay for transponder transactions that occur in the future.
Reconciliation	The process whereby Agencies resolve any discrepancies in net toll revenue to be transferred.
Settlement	The transfer of net toll revenues in U.S. dollars by a Home Agency to another Agency, or the other Agency's designated Home Agency, for Valid Transponder transactions that occurred at the other Agency's facilities.
Transponder Validation File	A file created and maintained by an Agency, also known as a positive list or a transponder list, which lists all transponders issued by that Agency and denotes the status of each transponder issued as having one of three values (valid, invalid, or lost/stolen), as further described in the Interoperability Interface Specifications.

Valid Transponder	A transponder having a status of valid in the Transponder Validation File at the time of a toll transaction, as further described in the Interoperability Interface Specifications.

II. CUSTOMER INFORMATION

(1) No Agency shall disclose or be required to disclose customer account information to any person or entity for any purpose other than collecting tolls, the enforcement of toll policies, or as otherwise required by law.

(2) Under no circumstances shall any Agency release, transmit, or otherwise distribute to any person or entity a Transponder Validation File belonging to another Agency without the prior written authorization of the Agency that created or maintains the file.

(3) In accordance with Section 338.155(6), Florida Statutes, personal identifying information provided to, acquired by, or in the possession of FDOT, a county, or an expressway authority for the purpose of using a credit card, charge card, or check for the prepayment of electronic toll facilities charges to FDOT, a county, or an expressway authority is exempt from Section 119.07(1), Florida Statutes, and Section 24(a), Article I of the Florida Constitution.

III. NOTICES

Any notice required pursuant to the provisions of this Agreement shall be sent by first class mail or by overnight delivery service addressed to the appropriate representative of each Agency.

The Agencies agree to notify all other agencies prior to implementation of program, system, or operational changes which may affect any part of this Agreement.

IV. MODIFICATION

This Agreement shall not be subject to oral modification. Any modification of this Agreement shall be in writing and signed by all Agencies. The forgiveness by any party of any term or condition hereof shall not constitute a waiver thereof.

V. TERM

This Agreement shall remain in force and effect for an initial term of twenty-five (25) years, and shall automatically renew for four (4) additional twenty-five-year (25-year) terms, unless otherwise terminated as provided herein.

VI. RIGHTS AND BENEFITS

This Agreement is solely for the benefit of the Agencies and is not intended to, nor should it be construed to, create any rights in any person or entity not a party to this Agreement. An Agency may not assign any portion of this Agreement without written consent of all Agencies.

VII. ENTIRE AGREEMENT

This Agreement sets forth the entire agreement of the Agencies as to matters contained herein. This Agreement supersedes all previous communication, representations, or agreements, either oral or written, among and between the Agencies.

VIII. CHOICE OF LAW AND SEVERABILITY

It is the desire and intention of the parties that the provisions of this Agreement shall be governed and enforced to the fullest extent permissible under the laws and public policies of the State of Florida. Accordingly, if any particular provisions of this Agreement shall be adjudicated to be invalid or unenforceable, the remaining provisions shall remain in full force and effect.

IX. INTEROPERABILITY INTERFACE SPECIFICATIONS

Attached Exhibit A, the "Interoperability Interface Specifications," is incorporated into this Agreement. The Interoperability Interface Specifications provide technical specifications and operating rules that must be adhered to by all Agencies in order to establish interoperability between the various electronic toll collection systems. The Interoperability Interface Specifications may be amended from time to time without requiring a new Agreement, but will require the written consent of all Agencies.

X. ACCOUNT SETTLEMENT PROCESS

(1) Each Home Agency will transfer the net toll amount due for Valid Transponder transactions to the Agency that owns or operates the facility where the transactions occurred, or to the designated Home Agency of the Agency that owns or operates the facility. All transfers will be calculated on a net basis with the Home Agency deducting credit card fees, duplicate transactions, and adjustments from the gross amount prior to transfer. The gross amount of toll revenues, as well as all amounts netted against gross toll revenues, shall be disclosed. Documentation supporting the amount of both the

gross toll revenues and the deductions shall be available upon request for audit for a period of three (3) years. The Agencies agree that credit card fees shall be deducted from the revenue collected prior to settlement. The Agencies will on an annual basis, on the anniversary date of this Agreement, establish mutually acceptable credit card fees as determined by the credit card fees being charged the Agencies by their credit card companies. The Agencies will notify each other in writing of the applicable credit card rates commencing with the execution of this Agreement. In the event of a change in rate, the Agency shall notify the other Agencies in writing at least fourteen (14) days prior to the effective date of the new rates.

(2) Each Home Agency will settle and reconcile its accounts and distribute revenue at least weekly in a manner and frequency as determined by the Interoperability Interface Specifications. Settlement will be based on Valid Transponder transactions consistent with the Interoperability Interface Specifications.

(3) Valid Transponder transactions obligate the Home Agency to transfer the correct toll to the Agency that owns or operates the facility where the transactions occurred, or that Agency's designated Home Agency, so long as the status of the transponder meets the criteria as set forth in the Interoperability Interface Specifications. In the case of invalid or lost/stolen transponders, the Home Agency is not obligated for those transactions that meet the criteria specified in the Interoperability Interface Specifications.

(4) Pursuant to Section 338.155, Florida Statutes, certain categories of persons on official business are exempt from the payment of tolls. If a Home Agency, pursuant to Section 338.155, Florida Statutes, creates additional categories of non-revenue transponders, or limits the applicability of an exempt category, other Home Agencies must be notified within fourteen (14) days. If a Home Agency decides not to accept additional categories of non-revenue transponders of another Home Agency, the non-accepting Home Agency shall provide at least fourteen (14) days written notice to the originating Home Agency. The Agencies recognize that their policies regarding the handling of such non-revenue transponders and transactions may differ and that such policies are not transferable.

XI. TOLL VIOLATIONS

(1) All toll violations will be processed pursuant to the rules and regulations of the Agency owning or operating the facility where the violation occurred, or that Agency's designated violations processor.

(2) Any revenue collected by an Agency for a violation shall remain with that Agency.

(3) The Agencies agree to facilitate the identification of violators by the sharing of appropriate information or files to the extent permitted by law.

(4) The Agencies will share customer account information only for the purpose of collecting tolls, the enforcement of toll policies, or as otherwise required by law.

XII. MARKETING

Each Agency will provide quarterly written summaries of marketing activities relating to its electronic toll collection system to the Public Information or Marketing Officer, or designated individual, of other Agencies whose roadways lie within the geographical boundaries of the planned marketing efforts.

XIII. SYSTEM CONFORMANCE TESTING

(1) Each Agency shall agree to allow yearly random testing of its electronic toll collection system by an independent testing or engineering firm to confirm that each system conforms to interoperability standards as set forth in the Interoperability Interface Specifications. At a minimum, testing shall confirm the ability of each system to: (i) properly read and write to transponders belonging to each Agency; (ii) deduct the correct toll amount from transponder accounts belonging to each Agency; and (iii) create transaction records in a correct format as established in the Interoperability Interface Specifications.

(2) An Interoperability Testing Committee, comprised of one voting member from each Agency, shall select and approve an independent testing or engineering firm at the beginning of each calendar year to perform testing of all systems. The cost of all yearly random testing shall be shared equally by all Agencies.

(3) Any Agency intending to join this Agreement, after the original date of execution, must agree to have its system tested, as described in XIII(1) above, prior to acceptance into

this Agreement. Testing shall be performed by an independent testing or engineering firm approved by the Interoperability Testing Committee. The cost of such testing shall be paid by the Agency that is requesting to become a party to this Agreement.

XIV. MISCELLANEOUS

(1) Any Agency posting an electronic toll collection sign will accept all valid electronic toll collection transponders issued by all other Agencies unless specifically excluded under the provisions of X(4) above.

(2) Each Agency agrees to proactively resolve issues arising out of this Agreement in a timely manner. If a conflict is not resolved within sixty (60) days or such time as otherwise agreed by the Agencies, the Agencies agree to resolution by a qualified neutral mediator selected from a list of circuit court mediators who have met the training and educational requirements established by the Florida Supreme Court. If the Agencies fail to agree on the selection of a neutral mediator, then the Agencies agree that a mediator shall be selected by the Florida Conflict Resolution Consortium (FCRC), Florida State University, Tallahassee, Florida. The mediator selected shall assist the parties in identifying the issues, fostering joint problem solving, and exploring settlement alternatives. If the Agencies involved in the dispute are unable to arrive at a joint resolution, the mediator shall render a decision which shall be binding on those Agencies. Compensation to be paid to the mediator selected shall be borne equally by the Agencies party to the dispute.

(3) Agencies shall not allow or permit the use of transponders issued by other Agencies in non-toll transactions without their prior written consent.

XV. DEFAULT

Any Agency shall be deemed to be in default if it: (i) fails to make full payment when due; (ii) breaches any term, covenant, or obligation of this Agreement, and such breach is not remedied within sixty (60) days of receipt of a written notice from any other Agency specifying the nature of the breach; or (iii) fails to abide by the resolution of issues as set forth in XIV(2) above. The Agency in default shall pay affected Agencies, upon request, reasonable costs incurred by affected Agencies to prevent or cure the default, and all arrearage in payments due including interest at the rate established pursuant to Section 55.03(1), Florida Statutes.

XVI. TERMINATION

This Agreement may be terminated at any time by written agreement of all Agencies. Any Agency may terminate its participation under this Agreement upon one hundred and eighty (180) days written notice to all other Agencies provided that any amounts due and payable to the other Agencies and all amounts due and payable to the terminating agency are paid. This Agreement may also be terminated against any Agency or Agencies for failure to remedy a default within sixty (60) days.

The provisions of this Agreement, which by their nature are intended to survive termination of any or all Agencies, shall continue as valid and enforceable notwithstanding any termination.

XVII. NO PARTNERSHIP OR JOINT VENTURE

No Agency hereto shall by virtue of this Agreement, in any way or for any purpose, be deemed to be a partner, a joint venture partner, or a member of a joint enterprise with any other Agency or Agencies in the conduct of business described herein. No Agency shall be bound by any acts or conduct of any other Agency. Any and all claims that may arise from customers, employees, and or agents of one Agency shall remain with that Agency and be the sole obligation and responsibility of that Agency.

XVIII. APPENDIX

This Agreement incorporates an Appendix consisting of one or more written agreements between Agencies relating to the performance of this Agreement. Any such agreement may be added or amended by the affected Agencies, and must state that it is to be attached to and made a part of this Agreement and that it constitutes a new addition to this Agreement or replaces an existing agreement. All Agencies shall be notified in writing of any change to the Appendix and only those Agencies executing an agreement which shall become a part of the Appendix hereto are bound by the terms thereof. Any change to the Appendix will not be deemed a modification of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in several originals by their respective officials duly authorized to do so.

Florida Department of Transportation

BY: _____
Authorized Signature

TITLE: SECRETARY
DEPT. OF TRANSPORTATION

ATTEST: _____
Secretary

Orlando Orange County Expressway Authority

BY: _____
Authorized Signature

TITLE: Chairman

ATTEST: _____
Asst. Secretary

Osceola County

BY: _____
Authorized Signature

TITLE: Chairman

ATTEST: _____
Clerk of the Board

Board Appr. 5/20/02

Exhibit A – Interoperability Interface Specifications

Version 1.0

March 8, 2002

TABLE OF CONTENTS

Section I – FDOT/OOCEA/Ocseola County

1.0 OOCEA Processing

This section describes the interoperability business rules that will be applied by OOCEA when processing FDOT-Issued SunPass transponders in OOCEA toll lanes.

1.1 OOCEA In-Lane Processing of SunPass Tags

1.1.1 FDOT SunPass commercial revenue accounts

For FDOT SunPass commercial accounts, OOCEA will process an FDOT SunPass tag as a valid revenue transaction in OOCEA lanes and send the 9010 transaction message to FDOT for revenue reimbursement if the SunPass tag number is found on the OOCEA positive list at the lane controller, the revenue type on the OOCEA positive list is "02" and the tag status on the OOCEA positive list is "Active".[1]

1.1.2 FDOT SunPass patron revenue accounts

For FDOT SunPass patron accounts (where the revenue type on the positive list is "01" and the tag status on the OOCEA positive list is "Active") OOCEA will process an FDOT SunPass tag according to the following table:

Scenario	Priority	OOCEA Violation	9010 Msg
No funds	1	Yes	None;
Transponder balance >0 but < full toll amt.	2	Yes	Violation = 02; Insufficient funds = "1"; toll_amt_collected = bal_on_transp; toll_amt_full = toll_amt_collected (FDOT reimburses OOCEA based on Toll amount full)
Class mismatch Tag class < AVC class	3	No	Violation = 03; Insufficient funds = "1"; Toll_amt_collected = toll based on tag class Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)
Class mismatch Tag class > AVC class	3	No	Violation = 00; Insufficient funds = "0"; Toll_amt_collected = toll based on tag class Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)
Valid Transaction	4	No	Violation = 00; Insufficient funds = "0"; Toll_amt_collected = toll based on tag class Toll_amt_full = toll based on AVC class (FDOT reimburses OOCEA based on Toll amount full)

[1] The tag status of "7" or "Undefined" will be treated the same as "Active" throughout this document for payment purposes. This status results when the tag class is "00".

1.1.3 FDOT SunPass patron non-revenue accounts [2]

OOCEA will process an FDOT SunPass tag as a valid non-revenue transaction and send the 9010 message to FDOT if the following conditions are true:

- The SunPass tag number is found on the OOCEA positive list at the lane controller, the revenue type on the OOCEA positive list is "03" or "04" and the tag status on the OOCEA positive list is "Active".

1.2 Revenue Reimbursement

OOCEA will expect revenue reimbursement from FDOT based on the Toll Amount Full for all valid revenue transactions processed in OOCEA lanes NOTE: According to the Reciprocity Rules, FDOT will reimburse OOCEA "up to $100,000 per year for transactions messages received for a SunPass tag where a successful write-back and/or confirmation message in not included within the 9010 message for a transaction occurring in an OOCEA E-PASS lane."

1.3 OOCEA Processing of 9010 Records Received from FDOT

A 9010 message received from FDOT for an E-PASS tag will be processed as a valid revenue transaction if all of the following conditions are true:

- The tag status in the 9010 message is "Active" as obtained from the OOCEA positive list [3]
- The date/time stamp in the 9010 message must be in valid format[4]
- The agency code in the 9010 message is "05" through "08" [5]
- The violation flag in the 9010 message is "00","03", "04", "06", "08" or "54"
- The revenue type in the 9010 message is "2".

A 9010 message received from FDOT for an E-PASS tag will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The tag status in the 9010 message is "Active" as obtained from the OOCEA positive list [6]
- The date/time stamp in the 9010 message is valid [7]
- The revenue type in the 9010 message is "3" or "4"
- The agency code in the 9010 message is "05" through "08" [8]
- The violation flag in the 9010 message is "00","03", "04", "06", "08" or "54"
- The toll amount charged in the 9010 message is "0"
- The toll amount collected in the 9010 message is "0"
- The toll amount full in the 9010 message is "0".

OOCEA will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full. [9]

FDOT will send a list of non-revenue accounts and associated transponder numbers to OOCEA at least once per month. OOCEA will send notification to all FDOT non-revenue account holders who do not qualify for non-revenue status on OOCEA lanes. It is intended that a non-revenue account, which does not

---

[2] OOCEA plans to filter the positive list it receives from FDOT; Only those non-revenue tags that are authorized by OOCEA will have a status of "active"; all other non-revenue tags received from FDOT will have the status changed to "inactive".

[3] See 6.2 for definition of time constraints

[4] Date/time stamp must be in valid format and cannot be older than 30 days for open accounts and cannot be older than 72 hours for closed accounts

[5] Agency code "09" is reserved by OOCEA for non-toll transactions

[6] See footnote 3

[7] See footnote 4

[8] See footnote 5

[9] See footnote 3

qualify, may be using their associated transponder for a period of time before notification letters are generated.

1.4 OOCEA Processing of 9001 Records Received from FDOT

A 9001 message received from FDOT for an E-PASS tag will be processed as a valid revenue transaction if all of the following conditions are true:

- The tag status in the 9001 message is "Active" as obtained from the OOCEA positive list [10]
- The date/time stamp in the 9001 message is valid [11]
- The agency code in the 9001 message is "05" through "08" [12]
- The method of payment in the 9001 message is "2"
- The Invalid Transponder flag in the 9001 message is "0"
- The Ticket type in the 9001 message is "4"
- The revenue type in the 9001 message is "2".

A 9001 message received from FDOT for an E-PASS tag will be processed as a valid non- revenue transaction if all of the following conditions are true:

- The tag status in the 9001 message is "Active" as obtained from the OOCEA positive list [13]
- The date/time stamp in the 9001 message is valid [14]
- The revenue type in the 9001 message is "3" or "4"
- The agency code in the 9001 message is "05" through "08" [15]
- The method of payment in the 9001 message is "2"
- The Invalid Transponder flag in the 9001 message is "0"
- The Ticket type in the 9001 message is "4"
- The toll amount charged in the 9001 message is "0"
- The toll amount collected in the 9001 message is "0"
- The toll amount full in the 9001 message is "0".

OOCEA will create two transaction messages from each valid 9001 message received from FDOT for E-PASS tags: [16]

- An entry transaction will be created for the E-PASS transponder containing the transponder ID number, a toll amount of $0.00, Entry Plaza ID, Entry Lane ID and the Exit Transaction Lane Controller Time Stamp from the 9001 transaction.
- An exit transaction will be created that contains the Transponder ID, Toll Amount Collected, Exit Plaza ID, Exit Lane ID and the Exit transaction Lane Controller Time Stamp.

OOCEA will reimburse FDOT for all valid revenue transactions based on the Toll Amount Full. [17]

1.5 OOCEA Processing of Rebate Records Received from FDOT

A rebate record received from FDOT for an E-PASS tag will be processed as a rebate adjustment transaction [18] if all of the following conditions are true:

- The E-PASS tag number exists in the E-PASS database (tag number and Authority combination) [19]

[10] See footnote 3
[11] See footnote 4
[12] See footnote 5
[13] See footnote 3
[14] See footnote 4
[15] See footnote 5
[16] See footnote 3
[17] See footnote 3
[18] OOCEA's term "discount record" is synonymous with FDOT's term "rebate record".
[19] See footnote 3

- The date/time stamp in the discount record is valid
- The account type is neither "STDNR" nor "EMERG".
- The transaction amount is greater than "0".

A rebate record received from FDOT that is rejected as part of the processing described earlier in this section will be returned to FDOT. The money associated with the rejected rebate record will also be returned to FDOT.

OOCEA will send FDOT a monthly file of rebate records to be applied to SunPass accounts. This file will be generated and sent only once per month – after the month is closed out.

1.6 OOCEA Exception Handling

1.6.1 Conflict Resolution

All conflict resolution between E-PASS and SunPass and their customers regarding transactions on OOCEA, Osceola and FDOT toll lanes will be handled by the transponder-issuing agency.

If a receiving agency (FDOT or OOCEA) receives a transaction file from the sending agency (FDOT or OOCEA) that contains transaction messages that are older than 72 hours for closed accounts or for transponders in "lost/stolen" status or not found on the positive list; or are older than 30 days for other open accounts, and the receiving agency has problems processing the transaction messages due to status changes since the file was created (i.e. closed account, stolen transponder, etc.), then the sending agency will not be reimbursed for the associated transaction.

In addition if OOCEA receives multiple transactions from FDOT for transactions involving the same tag number and plaza ID within 35 seconds of one another, OOCEA will reject all but the first transaction record. If OOCEA receives multiple transactions from FDOT for transactions involving the same tag number, plaza ID and lane within 180 seconds of one another, OOCEA will reject all but the first transaction record.

1.6.2 Violation processing

OOCEA will process an FDOT SunPass tag as a violation and no 9010 message will be sent to FDOT if any of the following conditions is true:

- The SunPass tag status on the OOCEA positive list at the lane controller is not "Active"
- The SunPass tag number is not found on the OOCEA positive list at the lane controller.

Violation processing will be handled by the agency that issued the violation notice - warning or Uniform Traffic Citation (UTC).

1.6.3 Rejected Records

Rejected records from 9010 and 9001 files will be written to a transaction reject file and forwarded to the agency that sent the original file. FDOT will provide a file format for this file. The transaction reject file should contain transponder number, exit date/time, amount and lane and plaza number.

For discount reject records FDOT needs the transponder number, program code and month of discount for each rejected record. The format of the reject file and the interface requirements will be determined by the technical review group.

FDOT will provide details on the format of information they require to process adjustments resulting from customer complaints.

2.0 FDOT Processing

2.1 FDOT In-Lane Processing of E-PASS Tags

This section describes the interoperability business rules that will be applied by FDOT when processing OOCEA-issued E-PASS transponders in FDOT toll lanes.

2.1.1 FDOT Processing an OOCEA E-PASS Tag as a Valid Revenue Transaction

FDOT will process an OOCEA E-PASS transponder as a valid revenue transaction in FDOT lanes and send the transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* to OOCEA for revenue reimbursement if all of the following conditions are true:

- The E-PASS transponder number is found on the positive list at the lane controller.
- The agency code on the positive list is "05" thru "08".

  Note that agency codes "05" and "06" are already in use. "07" and "08" are also set aside for OOCEA toll use. "09" is set aside for OOCEA non-toll use. Note that the use of the "09" code must first be approved by both agencies before any implementation occurs for the "09" non-toll agency code.
- The revenue type on the transponder is "02" *(commercial)*.
- The status on the positive list is "1" *(active)*.

FDOT will process an OOCEA E-Pass tag according to the following table:

Scenario	Priority	FDOT Violation	9010 Msg
No funds	1	Yes	None;
Transponder balance >0 but < Toll amount full.	N/A	No	Does not apply. There is not a balance on the tag.
Class mismatch Tag class < AVC class	3	No	Violation = "03"; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the tag class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on toll_amount_full)
Class mismatch Tag class > AVC class	3	No	Violation = "00"; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the tag class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on toll_amount_full)
Valid Transaction	4	No	Violation = 00; Toll_amount_collected = toll based on AVC. In lanes with no AVC or AVC not working, then uses the tag class. Toll_amount_full = toll based on AVC class (OOCEA reimburses FDOT based on Toll_amount_full)

2.1.2 FDOT Processing an OOCEA E-PASS Tag as a Valid Non-Revenue Transaction

FDOT will process an OOCEA E-PASS transponder as a valid non-revenue transaction in FDOT lanes and send the transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* to OOCEA if all of the following conditions are true:

- The E-PASS transponder number is found on the positive list at the lane controller.
- The agency code on the positive list is "05" thru "08".

  Note that agency codes "05" and "06" are already in use. "07" and "08" are also set aside for OOCEA toll use. "09" is set aside for OOCEA non-toll use. Note that the use of the "09" code must first be approved by both agencies before any implementation occurs for the "09" non-toll agency code.
- The revenue type on the transponder is "03" *(non-revenue restricted)* or "04" *(non-revenue unrestricted)*.

2.1.3 FDOT processing an OOCEA E-PASS tag as a violation

FDOT will process an OOCEA E-PASS transponder as a Violation and no transaction records *(9010 for Barrier plazas, 9001 for Ticket plazas)* will be sent to OOCEA if the following is true:

- Any transponder that is not on the positive list is a violator.

2.1.4 FDOT expectation of revenue reimbursement from OOCEA

FDOT will expect revenue reimbursement from OOCEA based on the Toll Amount Full *(AVC class by the AVC, net if any in lane discount amount)* for all valid revenue transactions processed in FDOT lanes.

2.2 FDOT Processing of 9010 Records Received from OOCEA

2.2.1 A 9010 received from OOCEA for a SunPass tag - valid revenue transactions

A 9010 message received from OOCEA for a SunPass transponder will be processed as a valid revenue transaction if all of the following conditions are true:

- The SunPass transponder identification number *(the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state)* exists on the positive list at the time of the transaction.
- The transponder status is "1" *(active)* or "5" *(suspended)*.
- The exit date/time stamp is valid *(within the agreed upon valid range)*.
- The violation code is "00" *(no violation)*, or "02" *(insufficient funds)*, or "03" *(classification mismatch)*, or "04" *(lane closed)*, or "06" *(write failure)* [20], or "08" *(incorrect tag setting)*, or "54" *(transponder read, no vehicle in lane)*.
- The revenue type is "01" *(patron)* or "02" *(commercial)*.
- The AVC class range is 02 - 15 *(for 02 - 15 axles)*.

2.2.2 A 9010 Received from OOCEA for SunPass Tag - Valid Non-Revenue Transactions

[20] See Section 1.2 for details on reimbursement limitations

A 9010 message received from OOCEA for a SunPass transponder will be processed as a valid non-revenue transaction if all of the following conditions are true:

- The SunPass transponder identification number *(the full transponder number: 8 characters for the transponder, 2 characters for the agency, and 2 characters for the state)* exists on the positive list at the time of the transaction.
  - The transponder status is "1" *(active)*.
  - The exit date/time stamp is valid *(within the agreed upon valid range)*.
- - The violation code is "00" *(no violation)* or "03" *(classification mismatch)* or *"08" (incorrect tag setting) mismatch), or "04" (lane closed), or "06" (write failure)* [21], *or "08" (incorrect tag setting), or "54" (transponder read, no vehicle in lane)*.
  - The revenue type is "03" *(non-revenue restricted)* or "04" *(non-revenue unrestricted)*.
  - The AVC class range is 02 - 15 *(for 02 - 15 axles)*.
  - The Toll Amounts (Collected, Charged, Full) are zeros.

2.2.3 FDOT Reimbursement to OOCEA for Valid 9010 Revenue Transactions

FDOT will reimburse OOCEA for all valid revenue transactions based on the Toll Amount Full.

> Note that OOCEA needs to deliver the 9010 record to FDOT (within 30 days for open accounts) and (within 72 hours for closed accounts) from the exit date/time stamp in order to be reimbursed.

2.2.4 FDOT Receiving a List of Non-Revenue Transponders

OOCEA will send a list of non-revenue transponders to FDOT on request.

2.3 FDOT Processing of Discount Records Received from OOCEA

2.3.1 Conditions to accept a discount transaction from OOCEA

A discount record received from OOCEA for a SunPass transponder will be processed as a toll rebate if all of the following conditions are true:

- The SunPass transponder identification number *(the transponder number, agency code and state code)* exists in the SunPass database.
- The transaction amount is greater than zero.

2.3.2 Conditions to Reject a Discount Record Received from OOCEA

A discount record from OOCEA will be rejected if the transponder identification number is not in the SunPass database.

A discount record from OOCEA that is rejected as part of the processing described in item 2.4.1 will be returned to OOCEA. The money associated with the rejected discount records will be returned to OOCEA.

[21] See Section 1.2 for details on reimbursement limitations

2.4 FDOT Transmission of Rebate Records to OOCEA

FDOT will send OOCEA a monthly file of rebate records to be applied to E-PASS accounts. This file will be generated and sent only once per month. FDOT bases rebates on lane transaction exit date. Normally, rebate records will be forwarded to OOCEA by the 15th of the succeeding month to assure that all lane-generated transactions have been received from the plazas and processed by the SunPass host computer. If rebate records are not received by the 15th, then OOCEA should contact FDOT for the new forwarding date of rebate records.

Only paid transactions will be counted as part of the total transaction count for rebate processing purposes in determining eligibility for the monthly rebate program. The rebate amount will be based on the total dollar amount used by the customer during the calendar month less any discount credits associated with the Toll Rebate Incentive Program (TRIP) formerly known as the Per Mile Tolling Pilot Project.

Adjustments or credits may also be sent daily as necessary.

2.4.1 *FDOT Transmission of TRIP Discount Records to OOCEA*

FDOT will send OOCEA a daily file of TRIP discount records to be applied to E-PASS accounts for valid movements at select locations. FDOT bases discounts on lane transaction exit date. Discount records will be transmitted to OOCEA by 5:00 p.m. If discount records are not received by 5:30pm, OOCEA should contact FDOT. Record formats for the discount file shall be the same as used in the rebate file.

Valid TRIP Program movements are as follows:

A customer who enters at Lakeland Highlands Westbound (001723), pays the required toll at Polk Western (001800), and exits at South Florida Avenue from Westbound Polk Pkwy (001822) within 1800 seconds is entitled to a 0.75 credit.

A customer who enters at South Florida Avenue to Eastbound Polk Pkwy (001823), pays the required toll at Polk Western (001800), and exits at Lakeland Highlands from Eastbound Polk Pkwy (001722) within 1800 seconds is entitled to a 0.75 credit.

A customer who pays the required toll at SR 434 (008111) and exits at Red Bug Road (008122) within 1800 seconds is entitled to a 0.44 credit.

A customer who enters at Red Bug (008123) and pays the required toll at SR 434 (008111) within 1800 seconds is entitled to a 0.44 credit.

2.5 FDOT Exception Handling

2.5.1 Customer conflict resolution

All conflict resolution between E-PASS and SunPass and their customers regarding transactions on OOCEA, Osceola and FDOT toll lanes will be handled directly by the agency that issued the transponder.

2.5.2 Old transactions and non-reimbursement

If a receiving agency (FDOT or OOCEA) receives a transaction file from the sending agency (FDOT or OOCEA) that contains transaction messages that are older than 72 hours for closed accounts or for transponders in "lost/stolen" status or not found on the positive list; or are older than 30 days for other open accounts, and the receiving agency has problems processing the transaction messages due to status changes since the file was created (i.e. closed account, stolen transponder, etc.), then the sending agency will not be reimbursed for the associated transaction.

2.6 Violation processing

2.6.1 Handling of violations by the issuing agency

Violation processing will be handled by the agency that issued the violation notice.

2.7 Reject Files

2.7.1 Rejected records from 9010 and 9001 files

Rejected records from 9010 and 9001 files will be written to a transaction reject file and forwarded to the agency that sent the original file. The transaction reject file should contain transponder number, exit date/time, amount and lane and plaza number.

2.7.2 Discount Reject Records

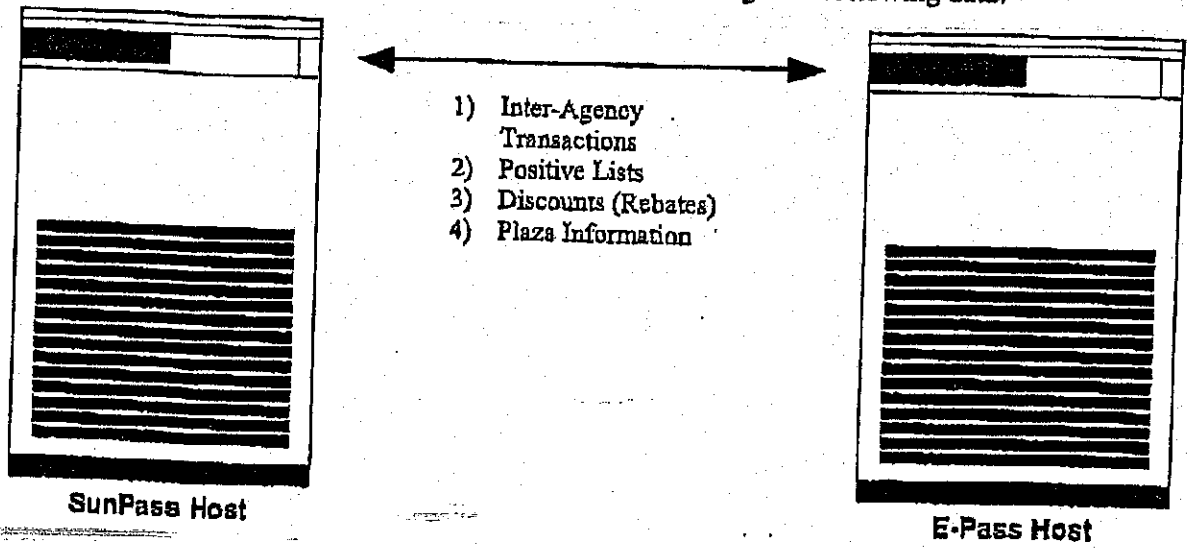
For discount reject records, FDOT needs the transponder number, program code and month of discount for each rejected record. The format of the reject file and the interface requirements will be determined at a later date by the technical review group.

2.7.3 Credit Adjustments for Customer Complaints

Credit adjustments for customer complaints will be funded and handled directly by each issuing agency. This process will be monitored to determine if reimbursement for credit adjustments is necessary between the agencies. If necessary, an automated process may be added in the future to facilitate the transfer of funds.

3.0 System Communications

The FDOT and OOCEA host computers will need to exchange the following data:



3.1 Inter-Agency Transaction Record

These are AVI transactions that are posted on an agency's facility with a foreign-agency transponder (i.e. – An FDOT transponder on an OOCEA toll facility or an OOCEA transponder on an FDOT toll facility). The record format for exchanging these transactions will be the "9010" format (see Attachment 1). A

record for each transaction posted in a given day will be written in a file. For OOCEA generated files, this file will contain a "9010" transaction only where the transponder number is on the positive list and the status is active. FDOT generated files will contain 9010 records for all vehicle exit events of OOCEA transponders. This file will also have a trailer record as the last record showing the total number of transactions, total toll amount, total toll charged, total toll collected, and file generation date (see item 3, below). The transaction files will be exchanged between agencies on a daily basis.

3.2 Positive List Record

This is a file of an agency's transponder numbers, along with the status of each transponder as well as any replenishment or adjustment amount to be applied to the transponder's current balance. This file will be exchanged between agencies so that each agency will know the status of the other agency's transponders and the amount to be applied to the transponder's balance in the lane. The positive list will be exchanged in the FDOT Positive List format (see Attachment 6) on a daily basis. The file generated by OOCEA will contain only transponders associated with valid accounts. The file generated by FDOT will contain all transponder numbers ever used in the FDOT database.

Because OOCEA is not necessarily accepting all of FDOT's non-revenue transponders, OOCEA will filter out the non-revenue transponders that will not be honored on OOCEA roadways from the complete positive list sent by FDOT. To support this filtering effort, FDOT will send OOCEA information about any new non-revenue accounts on a monthly basis, so OOCEA will know which transponders to filter.

FDOT is accepting all of OOCEA's non revenue transponders, so no positive list filtering is required on FDOT's side.

3.3 Transaction Summarization Record

Each agency will send the other a summarization of transactions and the resultant toll funds owed. This summarization will contain the total number of transactions and the total toll amount due the agency for the summarized period, based on a 24 hour posting/processing period (see Attachment 4). Note that these totals should match those sent in the transaction records (Item 1 above) for each posting/processing period. This will serve as an accounting check of the funds. If the fund summarization does not match the transaction records sent for a specific period, transaction records for a processing date can be re-sent. The funds summarization information will be used by each agency to reimburse the other agency for the tolls owed. Note the actual fund transfer will not necessarily be done by each agency's Host machine.

3.4 Discount (Rebate) Record

Discount processing will work as follows:

3.4.1

On the 1st (first) day of each month, OOCEA reviews AVI transactions posted during the previous month. Any transponder which has 40 or more transactions in OOCEA plazas is eligible for a 5% discount of the total toll amount of all of that transponder's transactions for the month. Any transponder which has 80 or more transactions in OOCEA plazas is eligible for an additional 5% discount of the total toll amount of all of that transponder's transactions for the month (bringing the total discount to 10%). This will be done for all E-Pass and SunPass transponders.

3.4.1.1

If it is an E-Pass transponder, OOCEA will credit the discount amount to the account to which the transponder belongs, as is currently being done. Because E-Pass balances are maintained at an account level, there is no need for OOCEA to send discount information for E-Pass transponders to FDOT.

3.4.1.2

If it is a SunPass transponder, OOCEA will calculate the discount amount for the transponder, and write a record to a "Discount File" (see attachment 7). This record will contain the transponder number, the total number of OOCEA transactions for the transponder which were posted during the previous month, the total toll amount charged for those transactions, and the corresponding discount due the transponder. A record will be added to the Discount File for each SunPass transponder which is eligible for a discount. There will also be a trailer record added to the file indicating the total number of transponders eligible for discounts, and the total discount amount for all transponders. This file will be transmitted to the FDOT host for processing. Funds equal to the total discount amount will be transferred from OOCEA to FDOT. FDOT will apply the indicated discounts to the transponders, and the resulting discount amount will appear on a subsequent Positive List to be applied to the transponder's balance in the lane.

3.4.2

On the 10th (tenth) day of each month, FDOT reviews AVI transactions with an exit date of the previous month. Discount (Rebate) eligibility is determined based on the rules established for the various discount programs administered by FDOT. Rebate processing will be done for all SunPass and E-Pass transponders.

3.4.2.1

If it is a SunPass transponder, FDOT will credit the discount amount to the transponder, as is currently being done. Because SunPass balances are maintained at the transponder level, FDOT will include the discount amount on the following day's Positive List for FDOT transponders, so that OOCEA will be able to apply the discount amount to the transponder in the lane. As far as OOCEA is concerned, this balance adjustment will be handled just like any other balance adjustment indicated in the Positive List.

3.4.2.2

If it is an E-Pass transponder, FDOT will calculate the discount amount for the transponder, and write a record to a "Discount File" (see Attachment 7). This record will contain the transponder number, the total number of FDOT transactions for the transponder which occurred the previous month, the total toll amount charged for those transactions, and the corresponding discount due the transponder. For each discount program a transponder is eligible, a record will be added to

the Discount File for each E-Pass transponder which is eligible for a discount. There will also be a trailer record added to the file indicating the total number of transponders eligible for discounts, and the total discount amount for all transponders. This file will be transmitted to the OOCEA host for processing. Funds equal to the total discount amount will be transferred from FDOT to OOCEA. OOCEA will apply the indicated discounts to the accounts to which the transponders belong.

3.5 Transaction Adjustment Record

The following scenario can cause an adjustment to a transaction: A two-axle 'Patron' SunPass transponder is installed in a vehicle. That vehicle is pulling a trailer and therefore falls into the three-axle class. The vehicle goes through an AVI lane where the transponder is read. Because it is a two-axle transponder, the toll for a two-axle vehicle is deducted from the balance on the transponder and it is written back to the transponder, before all of the axles have passed over the treadle. The vehicle leaves the lane and the lane equipment records the AVC class as three axles. Each Agency will handle adjustments this way:

3.5.1

When a SunPass 'Patron' transponder (only 'Patron' transponders have the balance kept on the transponder) passes through an OOCEA facility, and an adjustment results from the transaction, OOCEA will send the transaction record with unequal 'Toll Amount Collected' and 'Toll Amount Full' fields (the 'Toll Amount Collected' will reflect the toll based on the number of axles indicated on the transponder, the 'Toll Amount Full' will reflect the toll amount based on the actual number of axles detected in the lane). The SunPass system will track the adjustments for each Patron transponder in a "Suspense" file. When the SunPass patron replenishes, any transaction amounts in the Suspense file are deducted from the amount of their replenishment. This net replenishment amount will be sent to the E-Pass system in the Positive List, in the same manner the SunPass system would send the Positive List to one of its own lane controllers.

3.5.2

All OOCEA transponders will be coded as "Commercial" ("02") or non-revenue ("03", "04") on the read-only page 0. Therefore, any balance information on the E-Pass transponder is not relevant. Because of this, no adjustments will need to be done for E-PASS transponders (or any other Commercial transponders) on either system.

3.5.3

Each Agency will consider the 'Toll Amount Full' the toll owed them, rather than the 'Toll Amount Collected' or 'Toll Amount Charged'.

3.6 Ticket System Record

FDOT will have SunPass available on their ticket system which means OOCEA will need to be able to properly handle transaction information from the ticket system portion of SunPass. FDOT will send to OOCEA one transaction for each trip an E-PASS customer makes on the ticket

system. The record generated will include entry and exit information. OOCEA will extract the appropriate pieces of the record to result in 2 transactions for processing in the OOCEA system: an entry transaction with a $0.00 amount and an exit transaction which will include the toll to be collected from the customer. The format for these transactions will be the standard 9001 format (see Attachment 2).

3.7 Plaza Information Record

To ensure each agency has a correct listing of the peer agency's plaza numbering and naming information, a file containing a complete listing of plaza names and numbers will be transferred on a daily basis (see Attachment 8).

Data Communications

See Attachment 10.

Attachment 1 - 9010 Record Format

From Kelly Development Group, Inc "Addendum to the Interface Specification – Revision F", dated February 15, 1999:

Message format:

<MSG_HEDR>TTTTTTTTaaSSbbbbbbCCCCccccFFFFyPwInnnUppAAxxRRooEEuVVVVVV

<MSG_HEDR>
Standard message header

TTTTTTTT
Transponder ID; eight (8) digits.

aa
Agency/Group; two (2) digits.

SS
State/Region; two (2) digits.

bbbbbb *"exit balance"*
Balance on transponder; size (6) digits signed field; first character is sign ('+' or '-'), remaining five (5) characters are digits. Example : $10.75 balance is "+01075".

CCCC
Toll amount collected (amount deducted from transponder); four (4) digits unsigned field. This value will always be zero for non-revenue transactions.

cccc
Toll amount charged (toll amount full, less any applicable discounts); four (4) digits unsigned field. This value will always be zero for non-revenue transactions.

FFFF
Toll amount full; four (4) digits unsigned field. For non-commercial patrons, this amount is transponder class by the (nondiscounted) fare table. For commercial patrons, this amount is AVC class by the (nondiscounted) fare table. This value will always be zero for non-revenue transactions.

y
Low battery; two (2) one digit messages:
0=OK
1=Low

P

Transponder Status; eight (8) one digit messages:
0=Unissued transponder
1=Active transponder
2=Transponder reported lost/stolen
3=Transponder returned
4=Terminated transponder
5=Suspended transponder
6=Transponder issued, but not activated
7=undefined

W

Low Balance; two (2) one digit messages:
0= OK
1= Low Bal

I

Insufficient Funds; two (2) one digit messages:
0=OK
1= Insufficient funds

nnn

Credit list number (from transponder list used for transaction); three (3) digits:

U

Update of Credit List Flag; two (2) one digit messages:
0= no update
1= update

pp

Anti-passback code; two (2) digits:
00=Null/Transponder not written to
01=Entry transaction
10=Exit transaction
11=Conversion to Ticket at Entry

AA

AVC class; two (2) digits:

xx

Transponder class; two (2) digits:

RR

Revenue type; two (2) digits (range 00 to 15).
0=Unknown
1=Standard patron
2=Commercial
3=Non-revenue (restricted)
4=Non-revenue (unrestricted)
5=Eligible Bayway 1(pass one)
6=Eligible Bayway2 (pass two)
7=Eligible Navarre (pass three)
8-15 = Undefined

oo

Violation code; two (2) digits:
00=No violation
02=Insufficient balance
03=Classification mismatch
04=Lane closed
05=Read failure
06=Write failure
07=Invalid transponder
54=Transponder read, no vehicle in lane

EE

Reader confirmation; two (2) digits.
00=Transaction successful
01=Unable to read first page (R0 page 0)
02=Unable to read second page (R/W page 0)
03=Unable to read third page (R/W page 1)
12=Unable to write second page (R/W page 0)
13=Unable to write third page (R/W page 1)
14=Unable to write LCD page
15=Unable to write second page/Internal State Error (R/W page 0)
16=Unable to write third page/Internal State Error (R/W page 1)
22=Unable to write second page (R/W page 0) due to wrong password
32=Unable to update second page's write password (R/W page 0)
99=Unable to send General Acknowledgment

u

Pass-Used; four (4) one digit messages:
0= not used
1= Pass One
2= Pass Two
3= Pass Three

VVVVVV

Vault ID; two (2) characters followed by four (4) digits that uniquely identify the vault (set to "000000" for DED and MB-AVI lanes).

Attachment 2 - 9001 Record Format

From the KDG document "Addendum to the Interface Specification - Revision G, July 25, 2000"

9001 - MX Ticket Exit

This message is used by the MX or DED-X lane controllers to inform the PCS that a ticket transaction has taken place.

Source: MX and DED-X Lane Controllers
Destination: PCS and CCTV
Transaction

Message format:

<MSG_HEDR>NNNNeeeeeeLLLtttttttttttssssTTTTTTTTAASS000mMbbbbbbbPRRfffff
CCCCCccccccXmFwVtPywInnnUppAAxxFFrrYUUEEn

<MSG_HEDR>
Standard message header

NNNN
Transaction entry number; four (4) characters.

eeeeee
Entry plaza ID; six (6) characters.

LLL
Entry lane ID; three (3) characters.

tttttttttttt
Creation time stamp for batch, manual, or ATIM tickets, and SunPass transactions, in the format YYYYDDDHHMISS; thirteen (13) digits numeric.

ssss
Entry ticket serial number; four (4) digits numeric.

<Card_Code>
Account ID; This is the account ID for prepaid, non-revenue, AVI usage or handicapped permit number. It is all zeros if it is a cash transaction. For AVI transactions, the transponder ID (12 digits) is used in this 15 character field. The transponder ID is (left justified/zero filled, and the format is as follows:

TTTTTTTTAASS000

Where: TTTTTTTT - Transponder Number
AA - Agency/Group code
SS - State/Region code
000 - Zero filled

m
Manual entry of prepaid or non-revenue indication; two (2) one digit messages:
0=No, card swiped through slot reader
1=Yes, card manually entered

M
Manually entered ticket information indication; two (2) one character messages:
0=Data read by ticket transport
1=Data manually entered

bbbbbb
Balance on transponder (AVI only); six (6) digits signed field.

P
Method of payment; three (3) one character messages:
0=Cash
1=Card
2=AVI/SunPass
3=UO

RR
Revenue type; two (2) digits (range 00 to 15).
0=Unknown
1=Standard patron
2=Commercial (prepaid)
3=Non-revenue (restricted)
4=Non-revenue (unrestricted)
5=Eligible Bayway 1(pass one)
6=Eligible Bayway2 (pass two)
7=Eligible Navarre (pass three)
8-15=Undefined

fffff
Toll amount full(AVC revenue); five (5) digits unsigned field. Computed as follows:

For Cash or Card method of payment:
Amount is computed based upon AVC classification by the toll rate table.
For AVI/Commercial method of payment:
Amount is AVC class by the toll rate table.
For AVI/Non-Commercial method of payment:
Amount is transponder class by the toll rate table.

CCCCC
Toll amount charged; five (5) digits unsigned field. This amount is toll amount full less any applicable discounts.

ccccc
Toll amount collected (registered cash); five (5) digits unsigned field. This amount is computed as follows:

For Cash method of payment: actual cash collected.
For Card/Non-Revenue: zero.
For Card/Commercial (prepaid): same as toll amount charged.
For AVI/Commercial: same as toll amount charged.
For AVI/Patron: amount deducted from transponder.

X
Transaction in closed lane; two (2) one character messages:
0=Lane open
1=Lane closed

m
Class mismatch (AVI only); two (2) one digit messages:
0=No
1=Yes

F
AVI Reader failure; two (2) one digit messages:
0=No
1=Yes

w
AVI Write failure; two (2) one digit messages:
0=No
1=Yes

V
Vehicle in lane (AVI only); two (2) one digit messages:
0=No
1=Yes

I
Invalid transponder (AVI only); two (2) one digit messages:
0=OK
1=Invalid

P
Transponder Status (AVI only); eight (8) one digit messages:
0=Unissued transponder
1=Active transponder
2=Transponder reported lost/stolen
3=Transponder returned
4=Terminated transponder
5=Suspended transponder
6=Transponder issued, but not activated
7=Undefined

y
Low transponder battery (AVI only); two (2) one digit messages:
0=OK
1=Low

w
Low transponder balance (AVI only); two (2) one digit messages:
0= OK
1= Low Bal

I
Insufficient Funds; two (2) one digit messages:
0=OK
1= Insufficient funds

nnn
Credit list number from transponder list used for transaction (AVI only); three (3) digits.

U
Update of Credit List Flag (AVI only); two (2) one digit messages:
0= no update
1= update

pp
Anti-passback code; four (4) two digits:
00=Null/Transponder not written to
01=Entry transaction
10=Exit transaction
11=Conversion to Ticket at Entry

AA
AVC class; two (2) digits numeric (range 00 through 15).

xx
Registered axles by the toll collector or transponder class; two (2) digits.

FF
Raw forward treadles; two (2) digits numeric.

rr
Raw reverse treadles; two (2) digits numeric.

Y
Ticket type; five (5) one character messages:
0=Ticket Transport
1=ATIM
2=Pre-encoded Ticket
3=Maintenance Ticket
4=AVI

UU
Code for unusual occurrences (UOs) associated with a MX toll transaction; two (2) character messages (reference Section 1.4.3).

EE
Reader confirmation (AVI only); two (2) digits.
00=Transaction successful
01=Unable to read first page (R0 page 0)
02=Unable to read second page (R/W page 0)
03=Unable to read third page (R/W page 1)
12=Unable to write second page (R/W page 0)
13=Unable to write third page (R/W page 1)
14=Unable to write LCD page
15=Unable to write second page/Internal State Error (R/W page 0)
16=Unable to write third page/Internal State Error (R/W page 1)
22=Unable to write second page (R/W page 0) due to wrong password
32=Unable to update second page's write password (R/W page 0)
99=Unable to send General Acknowledgment

u

Pass-Used (AVI only); four (4) one digit messages:
0= not used
1= Pass One
2= Pass Two
3= Pass Three

Attachment 3 - 9010 and 9001 Header Message Format

All "9010" and "9001" records have a message header. In the individual message descriptions, the presence of a message header is indicated by A<MSG_HEDR>.

MMMMNNNNPPPPPPnnACCCCYYYYDDDHHMISS

Where:

MMMM

Message ID - A four (4) digit hexadecimal number which identifies the message.

NNNN

Message Sequence number - A four (4) digit decimal number which, along with the message ID, uniquely identifies the message to its originator. This field will always be "0000" in OOCEA-prepared files.

PPPPPP

Plaza Code - The six (6) character code which identifies the plaza which originated the message. This will be the existing OOCEA plaza IDs in OOCEA-prepared files.

nnA

Lane number - If from a lane, the number which identifies the lane originating the message. Otherwise, the code assigned to the originator is zero. Lane format is nnA where

nn = lane number	OOCEA lane codes
A = A for AC lane	
= E for AE lane	
= M for MB lane	
= D for Dedicated	= A
= C for AC-AVI	= CA, MCA
= B for MB-AVI	= MA
= N for ME lane	
= X for MX lane	
= F for free lane	
= Y for Dedicated Entry	
= Z for Dedicated Exit	

CCCC

Collector/Supervisor ID - If from an open manned lane, the ID of the collector on duty; if from an open unmanned lane, the ID of the supervisor who opened the lane or who took a specified action. If the message is a report of an action taken or a command to take specified action, the ID of the collector or supervisor who took or commanded the action. Where this field has no significance, it is set to 0000

YYYYDDDHHMISS

Year, day of year, time - A thirteen (13) digit time stamp, YYYYDDDHHMISS, containing YYYY, the year; DDD, the day of year; and HHMISS, time in hours (0 to 23), minutes and

seconds. The time stamp indicates the time at which the originator transmitted the message. All time stamps will be in local date and time.

Attachment 4 - 9001 and 9010 Trailer Record Format

In each Inter-Agency Transaction file (9001 and 9010 files), the last record (after the transaction records) will be a summary record indicating the total number of transactions included in the file, the total toll amount (non-discounted total amount of tolls charged), total toll charged (discounted total amount of tolls charged), and total toll collected (total amount of tolls collected from customers' transponders). This record will have the following format:

ddddYYYYDDDHHMISSNNNNNNNNNNCCCCCCCCCCccccccccccFFFFFFFFFFYYYYDDDHHMISSYYYYDDDHHMISS

dddd

Record identifier – "SUMM" for summary records

YYYYDDDHHMISS

File generation date for the records.

NNNNNNNNNN

Total number of transactions; ten (10) unsigned digits.

CCCCCCCCCC

Total toll amount collected; ten (10) unsigned digits.

cccccccccc

Total toll amount charged; ten (10) unsigned digits.

FFFFFFFFFF

Total toll amount full; ten (10) unsigned digits.
Example : $10.75 is "0000001075".

YYYYDDDHHMISS

File posting date start time.

YYYYDDDHHMISS

File posting date end time.

Attachment 5 - 9001 and 9010 Reject File Format

Each agency will build a file containing a record for each "rejected" 9001 or 9010 transaction. "Rejected" transactions are those that were not posted by the receiver of the transaction for any reason. This file will also have a summary record.

The format for the "Reject" Transaction Record follows:

TTTTTTTTaaSSPPPPPPnnAYYYYDDDHHMISSYYYYDDDHHMISSFFFFRR

TTTTTTTT
Transponder ID; eight (8) digits.

aa
Agency/Group; two (2) digits.

SS
State/Region; two (2) digits.

PPPPPP
Plaza Code; six (6) character code which identifies the plaza which originated the message. This will be the existing OOCEA plaza IDs.

nnA
Lane number; if from a lane, the number which identifies the lane originating the message. Otherwise, the code assigned to the originator is zero. Field values:

nn = lane number A = A for AC lane = E for AE lane = M for MB lane = D for Dedicated = C for AC-AVI = B for MB-AVI = N for ME lane = X for MX lane = F for free lane = Y for Dedicated Entry = Z for Dedicated Exit	OOCEA lane codes = A = CA, MCA = MA

YYYYDDDHHMISS
Date of the file in which this transaction was originally contained.

YYYYDDDHHMISS
Origination (lane) date for the transaction.

FFFF
Toll amount full; four (4) digits unsigned field. For non-commercial patrons, this amount is transponder class by the (nondiscounted) fare table. For commercial patrons, this amount is AVC

class by the (nondiscounted) fare table. This value will always be zero for non-revenue transactions.

RR

Reject Code. Possible values:

Code	Description
10	Plaza Id is unknown, generic Plaza Id was assigned.
11	Lane is unknown, generic Lane was assigned.
12	Transponder was not found in database, rejected.
13	Transponder has an inactive status, but was still processed.
14	Transponder has a lost/stolen status, rejected.
15	Invalid transaction date, rejected.
16	Invalid transponder status from transaction, rejected.
17	Transaction has an invalid violation code, rejected.
18	Invalid Revenue Type for account, rejected.
19	Issuing Authority for this transaction is not supported, rejected.
20	Transaction date cannot be in the future, rejected.
21	Transaction date is too far in the past, rejected.
22	Revenue Type requires nonzero toll amount, rejected.
23	Revenue Type requires zeros toll amount, rejected.
24	Revenue Type for this transaction is not supported, rejected.
25	Unexpected database error.

The format for the Reject File Trailer Record Format follows:

SUMMYYYYDDDHHMISSNNNNNNNNNNFFFFFFFFFF

YYYYDDDHHMISS

File generation date for the records.

NNNNNNNNNN

Total number of transactions; ten (10) unsigned digits.

FFFFFFFFFF

Total toll amount full; ten (10) unsigned digits.
Example : $10.75 is "0000001075".

Attachment 6 - Positive List File Format

The Positive List files will contain one record per transponder. It will also contain a trailer record which indicates a count of the transponders included in the Positive List File.

FDOT to OOCEA Positive List Record

The format of the Positive List file going from FDOT to OOCEA is as follows:

Description	Size	Format	Manipulations
Transponder ID	8	Integer	None
Issuing Agency	2	Integer	Must be "01" (FDOT) to be inserted in database.
State Code	2	Integer	Must be "10" (Florida) to be inserted in database.
Credit List Serial Number	3	Integer	None
Credit Amount	8	Floating Point (f8.2)	None
Bayway 1 Flag	1	Character	Not used
Bayway 2 Flag	1	Character	Not used
Navarre Flag	1	Character	Not used
Status Code	3	Integer	Map from SunPass to E-Pass
Vehicle Class	2	Integer	Map from SunPass to E-Pass
Revenue Type	2	Integer	Map from SunPass to E-Pass

The Status Code from FDOT's SunPass is mapped to OOCEA's E-Pass system as follows:

FDOT Value	FDOT Status	OOCEA Value	OOCEA Status
0	Unissued	I	Inactive
1	Active	A	Active
2	Lost/Stolen	S	Stolen/lost
3	Returned	I	Inactive
4	Terminated	I	Inactive
5	Suspended	I	Inactive
6	Issued but not activated	I	Inactive
7	Undefined	I	Inactive

The Vehicle Class from FDOT's SunPass is mapped to OOCEA's E-Pass system as follows:

FDOT Class	OOCEA Class
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	9
11	9
12	9
13	9
14	9
15	9

The Revenue Type from FDOT's SunPass is mapped to OOCEA's E-Pass system as follows:

FDOT Revenue Type	Meaning	OOCEA Revenue Type	Meaning
00	Unknown	Not applicable.	Transponder not inserted in database.
01	Standard Patron	PRI-S	Revenue
02	Commercial	PRI-S	Revenue
03	Non-revenue (restricted)	STDNR	Non-revenue if tag is not in the AVI_NON_REV_REJECT table; otherwise tag is not inserted in the database.
04	Non-revenue (unrestricted)	STDNR	Non-revenue if tag is not in the AVI_NON_REV_REJECT table; otherwise tag is not inserted in database.
05	Eligible Bayway 1	Not applicable.	Transponder not inserted in database.
06	Eligible Bayway 2	Not applicable.	Transponder not inserted in database.
07	Eligible Navarre	Not applicable.	Transponder not inserted in database.
08-15	Undefined	Not applicable.	Transponder not inserted in database.

OOCEA to FDOT Positive List Record

TTTTTTTTaaSSdddCCCCCCCCbWnT

Where:

TTTTTTTT
Transponder ID; eight (8) digits, integer format.

aa
Issuing Authority; two (2) digits, integer format.

SS
State Code; two (2) digits, integer format, (always = 10).

ddd

Credit List ID; three (3) digits, integer format, (always = 0).

CCCCCCCC
Credit Amount; eight (8) digits, floating point format (f8.2), (always = 00000000).

b
Bayway 1 Flag; one (1) character, character format, (always = 'N').

W
Bayway 2 Flag; one (1) character, character format, (always = 'N').

n
Navarre Flag; one (1) character, character format, (always = 'N').

T
Status Code; one (1) digit, integer format, map from E-Pass to SunPass.

The Status Code from OOCEA's E-Pass is mapped to FDOT's SunPass system as follows:

OOCEA Value	OOCEA Status	FDOT Value	FDOT Status
A	Active	1	Active
V	Verify	1	Active
I	Inactive	4	Terminated
S	Stolen/lost	2	Lost

Positive List Trailer Record

SUMMCCCCCCCCCC

Where:

CCCCCCCCCC
Count of records in this file (excluding the trailer record); ten (10) digits, integer format.

Attachment 7 Discount File Format

Each discount file will contain a record for each transponder eligible for a discount and discount information pertaining to those transponders. There will be a header record at the beginning of the file, and a summary record at the end. This file will be exchanged between agencies once a month. A record will be added to the Discount File for each discount program which a transponder is eligible (this means there could be more than one record per transponder). This record will contain the transponder number, the total number of inter-agency transactions which posted during the previous month, the total toll amount charged for those transactions, and the corresponding discount due the transponder. These records will have the following fields:

Header record:

ddddYYYYMM

dddd

Record identifier – "DHDR" for discount header record.

YYYYMM

Applicable discount (rebate) period for which the toll transactions were originally posted.

Discount data record:

ddddYYYYDDDHHMISSTTTTTTTTaaS SttttttttCCCCCCCCCCDDDDDDDDDDRR

dddd

Record identifier – "DISC" for discount data records.

YYYYDDDHHMISS

Transaction date for the discount.

TTTTTTTT

Transponder ID; eight (8) unsigned digits.

aa

Agency code to separate Agency 05 & 06 & 01 transponders and discounts

SS

State/Region code – "10" for Florida.

ttttttt

Number of inter-agency transactions; eight (8) unsigned digits.

CCCCCCCCCC

Total toll amount charged; ten (10) unsigned digits.
Example : $10.75 is "0000001075".

DDDDDDDDDD

Discount due the transponder; ten (10) unsigned digits.

RR

Rebate Code, two (2) character field.

Discount summary record:

ddddYYYYDDDHHMISSNNNNNNNNNNttttttttCCCCCCCCCCDDDDDDDDDD

dddd

Record identifier – "SUMM" for summary records

YYYYDDDHHMISS

File generation date for the discounts.

NNNNNNNNN

Total number of transponders eligible for discounts; ten (10) unsigned digits.

tttttttt

Number of inter-agency transactions for all eligible transponders; ten (10) unsigned digits.

CCCCCCCCCC

Total toll amount for all transponders; ten (10) unsigned digits

DDDDDDDDDD

Total discount amount for all transponders; ten (10) unsigned digits.

Attachment 8 - Plaza Information File Format

Each Plaza Information file will contain a record for each active lane on an agency's system. There will be a summary record at the end of the file.

Plaza Information Record

PPPPPPNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNLLLaaaaaaDDDD

PPPPPP

Plaza ID; six (6) digits, integer format, becomes foreign plaza ID in OOCEA database.

NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN

Plaza name; thirty (30) characters, character format, not used in OOCEA database.

LLL

Lane ID; three (3) characters, character format, convert FDOT lane IDs to OOCEA lane numbers and flags.

aaaaaa

Plaza Abbreviation; six (6) characters, character format. This will be stored as the plaza name in the OOCEA database.

DDDD

Lane Direction; four (4) characters, character format, OOCEA only stores first character.

The first two digits of the FDOT lane ID will be used directly as the OOCEA lane number. The appropriate database flags in OOCEA's LANE table will be set based upon the third character of the FDOT lane ID, the lane type, as follows:

FDOT Lane Type	AVI	ACM	Manual
C	Yes	Yes	No
B	Yes	No	Yes
D	Yes	No	No
A	No	Yes	No
M	No	No	Yes

The two-digit E-Pass lane number will be used directly as the two-digit portion of the FDOT lane ID. The database flags in OOCEA's LANE table associated with the E-Pass lanes will be interpreted to produce the third character of an FDOT lane ID, the lane type, as follows:

AVI	ACM	Manual	FDOT Lane Type
Yes	Yes	No	C
Yes	Yes	Yes	C
Yes	No	Yes	B
Yes	No	No	D

Plaza Information Trailer Record

SUMMCCCCCCCCCC

Where:

CCCCCCCCCC

Count of records in this file (excluding the trailer record); ten (10) digits, integer format.

Attachment 9 - File Transfer Timeline

The following is a schedule of when files will be transferred between the Agencies:

Daily

2230 (10:30 PM)

- OOCEA will generate and transmit OOCEA 9010 & plaza files
- OOCEA will pickup and process FDOT 9010, 9001 & plaza files

0500 (5:00 AM)

- OOCEA will generate and transmit OOCEA positive list file
- OOCEA will pickup and process FDOT positive list file

Weekly

None at this time.

Monthly

OOCEA discounts
FDOT discounts
FDOT non-revenue customer information

Attachment 10 - Connectivity

1) Connectivity & access account(s)

OOCEA will use the 256Kbps frame relay connection between OOCEA and FDOT and connect to SUNNY using the OOCEA account.

If the frame relay connection is down, OOCEA will dial into the FDOT RAS server via (561) 487-6924, establish a PPP connection, and connect to SUNNY using the OOCEA account.

2) Timing & Sequencing

*****Note: Both FDOT & OOCEA should identify a time line of what time they will generate a given file needed by the other system, and what time they need a given file that is being generated by the other system.*****

OOCEA will:

- generate and transmit OOCEA 9010 & plaza files before 22:30 each day
- pickup and process FDOT 9010, 9001 & plaza files at 22:30 each day
- generate and transmit OOCEA positive list file before 5:00 each day
- pickup and process FDOT positive list file at 5:00 each day

*****DISCOUNT file*****

3) Protocol

The file transfer protocol is FTP.

4) Conventions

i) The following logicals will exist on the SUNNY machine and be tested on the KDGDEV machine for the purpose of file transfers:

OOCEA_INCOMING_TRANSFER
OOCEA_INCOMING_READY
OOCEA_INCOMING_PROCESSED
OOCEA_INCOMING_ERROR

OOCEA_OUTGOING_TRANSFER
OOCEA_OUTGOING_READY
OOCEA_OUTGOING_PROCESSED
OOCEA_OUTGOING_ERROR

OOCEA transfers their files into the OOCEA_INCOMING_TRANSFER directory. When OOCEA has determined that the entire file has been delivered, they rename the file into the OOCEA_INCOMING_READY directory. This way, an FDOT process can simply scan the OOCEA_INCOMING_READY directory, and process any file there. For historical purposes, once

FDOT has processed the file, FDOT will rename the file into the OOCEA_INCOMING_PROCESSED directory. This should also help ensure that FDOT does not re-process a file. Errors from processing will be placed into the OOCEA_INCOMING_ERROR directory - with _REJ added to the file extension for a rejected file and _ERR for a file containing specific rejected records.

In the other direction, a similar scheme would apply. FDOT will copy their outgoing files to the OOCEA_OUTGOING_TRANSFER directory. When FDOT determines the entire file is present, they rename the file into the OOCEA_OUTGOING_READY directory. This way, an OOCEA process can scan the OOCEA_OUTGOING_READY directory, and process any file there. Once OOCEA has successfully copied the file, OOCEA will rename the file into the OOCEA_OUTGOING_PROCESSED directory so they do not re-process the same file, and for historical purposes. Errors from processing will be placed into the OOCEA_OUTGOING_ERROR directory - with _REJ added to the file extension for a rejected file and _ERR for a file containing specific rejected records.

– only OOCEA generated files show up in the incoming directories and only FDOT generated files show up in the outgoing directories.

ii) The following mechanism will ensure that the sender has transferred the entire file:

The sender will check the FTP status return code, and send an e-mail to the system administrator if an error status is reported.

iii) The following mechanism will allow the receiver to determine that they have received the entire file:

– the TRAN/POSI/DISC/PLAZ/TICK files will have a SUMM summary record at the end which can be used to determine that the file was transferred complete.

Attachment 11 - File Naming Conventions

1. **Files transferred from FDOT to OOCEA: OOCEA_OUTGOING directories**

File Description	File Name
a) 9010 Transactions	TRAN_YYYYMMDD_HHMI.000
- if file rejected	TRAN_YYYYMMDD_HHMI.000_REJ
- if records rejected	TRAN_YYYYMMDD_HHMI.000_ERR
b) 9001 Transactions	TICK_YYYYMMDD_HHMI.000
- if file rejected	TICK_YYYYMMDD_HHMI.000_REJ
- if records rejected	TICK_YYYYMMDD_HHMI.000_ERR
c) Positive List	POSI_YYYYMMDD_HHMI.000
- if file rejected	POSI_YYYYMMDD_HHMI.000_REJ
- if records rejected	POSI_YYYYMMDD_HHMI.000_ERR
d) Discounts	DISC_YYYYMMDD_HHMI.000
- if file rejected	DISC_YYYYMMDD_HHMI.000_REJ
- if records rejected	DISC_YYYYMMDD_HHMI.000_ERR
e) Plaza/Lane	PLAZ_YYYYMMDD_HHMI.000
- if file rejected	PLAZ_YYYYMMDD_HHMI.000_REJ
- if records rejected	PLAZ_YYYYMMDD_HHMI.000_ERR
f) Non-Revenue Customer Information	N_RV_YYYYMMDD_HHMI.000

Note: In all cases the string YYYYMMDD_HHMI is the 4-digit year, month, day, hour, and minute when the file was generated.

2. **Files transferred from OOCEA to FDOT: OOCEA_INCOMING directories**

File Description	File Name
a) 9010 Transactions	TRAN_YYYYMMDD_HHMI.000
- if file rejected	TRAN_YYYYMMDD_HHMI.000_REJ
- if records rejected	TRAN_YYYYMMDD_HHMI.000_ERR
b) Positive List	POSI_YYYYMMDD_HHMI.000
- if file rejected	POSI_YYYYMMDD_HHMI.000_REJ
- if records rejected	POSI_YYYYMMDD_HHMI.000_ERR
c) Discounts	DISC_YYYYMMDD_HHMI.000
- if file rejected	DISC_YYYYMMDD_HHMI.000_REJ

- if records rejected	DISC_YYYYMMDD_HHMI.000_ERR
d) Plaza/Lane	PLAZ_YYYYMMDD_HHMI.000
- if file rejected	PLAZ_YYYYMMDD_HHMI.000_REJ
- if records rejected	PLAZ_YYYYMMDD_HHMI.000_ERR

Note: In all cases the string YYYYMMDD_HHMI is the 4-digit year, month, day, hour, and minute when the file was generated.

Attachment 12 - Non-Revenue Customer Information File

On a monthly basis, FDOT will prepare a file for OOCEA which contains account and transponder information for all of FDOT's non-revenue customers. This is required because OOCEA will determine which of the FDOT non-revenue accounts meet OOCEA's criteria of a valid non-revenue account. Any transponders associated with accounts not meeting OOCEA's non-revenue criteria will be filtered from the complete positive list of transponders prepared by FDOT. If a transponder does not exist on the positive list, it will not be considered a valid transponder in the lane and therefore would result in a violation if the customer does not manually pay the toll, There is no corresponding non-revenue customer information file prepared by OOCEA as FDOT is accepting all of OOCEA's non-revenue accounts as valid non-revenue accounts on the FDOT system at this time.

FIRST AMENDMENT TO

INTERAGENCY ELECTRONIC TOLL COLLECTION INTEROPERABILITY AND RECIPROCITY AGREEMENT DATED MARCH 8, 2002

Effective Date of First Amendment:

The ____ day of _____, 2003.

THIS FIRST AMENDMENT TO INTERAGENCY ELECTRONIC TOLL COLLECTION INTEROPERABILITY AND RECIPROCITY AGREEMENT (hereinafter "First Amendment") is made and entered this _____ day of _____, 2003, by and between the **Florida Department of Transportation** (FDOT) with principal place of business located at Turnpike Headquarters, Turkey Lake Service Plaza, Mile Post 263, Building 5315, Post Office Box 613069, Ocoee, Florida 34761, **Orlando Orange County Expressway Authority**, whose address is 525 South Magnolia Avenue, Orlando, Florida 32801 (OOCEA), and **Osceola County**, whose address is 1 Courthouse Square, Suite 4700, Kissimmee, Florida 34741, and **Miami-Dade County Expressway Authority** (MDX), whose address is 3790 N.W. 21st Street, Miami, Florida 33142. This First Amendment amends the Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement dated March 8, 2002, among FDOT, OOCEA, and Osceola County (Original Agreement). The Original Agreement, as supplemented by this First Amendment, is hereinafter referred to as the Agreement.

WHEREAS, Paragraph XIII (3) of the Original Agreement expressly contemplates that other agencies may join in the Original Agreement after the effective date thereof, subject to the condition precedent that they agree to, and in fact, have their electronic toll collection systems tested by independent testing or engineering firm, and that such testing demonstrates that their electronic toll collection system meets or exceeds the minimum standards set out in paragraph XIII (1) of the Original Agreement; and

WHEREAS, in furtherance of the goal of the Original Agreement to provide an interoperable statewide electronic toll collection system to the customers of each agency, and to provide a single account statement to each customer setting forth transaction activities on all participating agency roadways, the parties hereto desire to permit MDX to join in the Original Agreement and designate MDX as an Agency under the terms of the Original Agreement.

NOW, THEREFORE, in consideration of the mutual benefits to be had by each of the Agencies by permitting MDX to join in the Original Agreement, and in further consideration of the covenants and conditions contained herein, FDOT, OOCEA, and Osceola County, together with MDX, mutually agree as follows:

1. Definitions. All capitalized terms used in this First Amendment shall have the meanings ascribed to them as defined in paragraph I of the Original Agreement.

2. Ratification and Confirmation of Original Agreement: Each of the parties hereto, but specifically including MDX, hereby ratifies and confirms each and every term and condition of the Original Agreement, and the terms of this First Amendment, and agree to be bound thereby.

3. MDX is joined as an Agency: Each of the parties acknowledge that the MDX electronic toll collection system testing has been substantially completed as of the effective date of this First Amendment, and that the MDX electronic toll collection system meets or exceeds the minimum standards set forth in paragraph XIII (1) of the Original Agreement. From and after the effective date of this First Amendment MDX shall be deemed an Agency for all intents and purposes under the terms of the Original Agreement. For all purposes of the Original Agreement and this First Amendment FDOT shall be considered to be the Home Agency for MDX.

4. Counterparts: This First Amendment may be simultaneously executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

5. Effective Date of First Amendment: The effective date of this First Amendment will be on the date that the last of the parties signed and entered into this First Amendment. The last of the parties to sign shall insert that date on the caption page of this First Amendment.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals to this First Amendment, in several counterparts, by their respective authorized representatives, for the purposes set forth herein.

Florida Department of Transportation
Florida's Turnpike Enterprise

By: _____
James L. Ely, D.P.A.
Executive Director and
Chief Executive Officer

Date signed: _____

Attest: _____
Secretary

Approved as to form and legality:

By: _____
Office of Turnpike General Counsel

Orlando Orange County Expressway Authority

By: _____
Harold W. Worrall, Ph.D., P.E.
Executive Director

Date signed: _____

Attest: _____
Secretary

Approved as to form and legality:

By: _____
Office of the General Counsel to OOCEA

Osceola County

By: _____
Paul Owen, Chairman
Board of County Commissioners

Date signed: _____

Attest: _____
Clerk of the Board of County Commissioners

Approved as to form and legality:

By: _____
Office of the County Attorney

Miami-Dade County Expressway Authority

By: _____
Servando M. Parapar, P.E.
Executive Director

Date signed: _____

Attest: _____
Secretary

Approved as to form and legality:

By: _____
Office of the General Counsel

SECOND AMENDMENT
TO INTERAGENCY ELECTRONIC TOLL COLLECTION INTEROPERABILITY AND RECIPROCITY AGREEMENT DATED MAY ____2004

Effective Date of Second Amendment:

The ____ day of _____, 2004

THIS SECOND AMENDMENT TO INTERAGENCY ELECTRONIC TOLL COLLECTION INTEROPERABILITY AND RECIPROCITY AGREEMENT (hereinafter "Second Amendment") is made and entered this _____ day of _____, 2004, by and among the **Florida Department of Transportation (FDOT)** with principal place of business located at Turnpike Headquarters, Turkey Lake Service Plaza, Mile Post 263, Building 5315, Post Office Box 613069, Ocoee, Florida 34761, **Orlando Orange County Expressway Authority (OOCEA)**, whose address is 525 South Magnolia Avenue, Orlando, Florida 32801, **Osceola County**, whose address is 1 Courthouse Square, Suite 4700, Kissimmee, Florida 34741, **Miami-Dade County Expressway Authority (MDX)**, whose address is 3790 N.W. 21st Street, Miami, Florida 33142, and **Lee County DOT**, whose address is 1366 Colonial Boulevard, Fort Myers, Florida 33907, and first amended on _____ ("First Amendment") to amend the Interagency Electronic Toll Collection Interoperability and Reciprocity Agreement dated March 8, 2002, among **FDOT, OOCEA**, and **Osceola County** (hereinafter the "Original Agreement"). The Original Agreement, First Amendment and this Second Amendment is referred to collectively as the Agreement.

WHEREAS, Paragraph XIII (4) of the Original Agreement expressly contemplates that other agencies may become a "Home Agency" so long as it agrees to the terms of the original Agreement as amended, including the condition precedent that it agrees to, and in fact, has the electronic toll collection systems tested by an independent testing or engineering firm, and that such testing demonstrates that its electronic toll collection system meets or exceeds the minimum standards set out in paragraph XIII (1) of the Original Agreement (as amended) and

WHEREAS, Lee County DOT currently operates an electronic toll collection system, known as LeeWay, for the operation of the Cape Coral toll facility and parallel span bridges, the Midpoint Memorial toll facility and bridge, and the Sanibel Causeway toll facility and drawbridge; and

WHEREAS, in furtherance of the goal of the Original Agreement as amended, to provide an interoperable statewide electronic toll collection system to the customers of each Home Agency, and to provide a single account statement to each customer setting forth transaction activities on all participating agency roadways, Lee County DOT agrees to all terms and conditions set forth herein and the Home Agency parties hereto agree to designate Lee County DOT as a Home Agency under the terms set forth herein.

NOW, THEREFORE, in consideration of the mutual benefits and in further consideration of the covenants and conditions contained herein, the parties mutually agree as follows:

1. Definition of Client Agency: The definitions in paragraph 1 of the Original Agreement is supplemented by defining a Client Agency as

any agency that is a party to this Second Amendment that is not a Home Agency.

2. Lee County DOT is joined as a Home Agency as qualified below: Each of the parties acknowledge that the Lee County DOT electronic toll collection system known as LeeWay must undergo system testing to determine its ability to:

(i) properly read and write to transponders belonging to each Home Agency,
(ii) deduct the correct toll amount from transponder resident Current Balance where the Revenue Type is '01', and
(iii) create transaction records in a correct format as established in the Interoperability Interface Specifications appendix.

Lee County DOT shall have 90 calendar days in which to complete interoperability testing of the LeeWay system in accordance with Article XIII (3) of the Original Agreement. Upon the successful completion of such interoperability testing, Lee County DOT shall automatically and unconditionally be deemed a Home Agency under the terms of the Original Agreement.

In the event that such interoperability testing reveals that interoperability problems exist or persist between the LeeWay system and the systems of the other Home Agencies, then Lee County DOT shall have 60 calendar days after the completion of interoperability testing to correct all such problems with interoperability.

If critical problems are found during interoperability testing, Lee County DOT shall perform a complete re-test to demonstrate the system as a whole is functioning properly. In the event the problems are not deemed critical, a partial re-test may be acceptable but prior written approval must be obtained from the other Home Agencies before the partial re-test is performed. The other Home Agencies shall have sole authority and discretion in determining which problems are deemed critical or not critical. In the event that Lee County DOT is unable to resolve problems with interoperability between the LeeWay system and the systems of the other Home Agencies, then Lee County DOT's status as a Home Agency shall thereafter be suspended until such time as it has resolved all of the interoperability problems between LeeWay and the electronic toll collection systems of the other Home Agencies.

If testing demonstrates that Lee County DOT's LeeWay transponders perform successfully at facilities operated by the other Home Agencies and those operated by their respective Client Agencies, then Lee

County DOT shall be granted partial interoperability and their transponders will be accepted by all Agencies that are a party to this Agreement. Full interoperability shall only be granted upon successful completion of interoperability testing as described above. Only Lee County DOT issued transponders that have been reprogrammed by Lee County DOT to operate in accordance with Section 3 of Exhibit A to the Interoperability Interface Specifications Appendix shall be accepted by other Agencies. Lee County DOT agrees to disburse funds to the respective Home Agencies for electronic toll transactions occurring at their facilities and those of their respective Client Agencies.

3. Appendix: Paragraph XVII of the Original Agreement is hereby deleted and the following Appendix entitled "Interoperability Interface Specifications", dated _____, 2004, which incorporate the following documents is substituted, incorporated and made as part of this Agreement.

   a. Records and Files Interface Specifications;
   b. Accounting Business Rules;
   c. FDOT/Lee County DOT Technical Business Rules;
   d. FDOT/OOCEA Technical Business Rules;
   e. OOCEA/Lee County DOT Technical Business Rules;

4. Technical Business Rules: Each Home Agency and its Client Agency may adopt business rules. Nothing in the business rules shall conflict with the terms of the Original Agreement as amended among the Home Agencies. The adopted business rules between Home Agencies and Client Agencies shall be made available to each Home Agency.

5. Ratification and Confirmation of Agreement: Each of the parties hereto, but specifically including Lee County DOT, hereby ratifies and confirms each and every term and condition of the Original Agreement, the First Amendment, and the terms of this Second Amendment, and agree to be bound thereby.

6. Counterparts: This Second Amendment may be simultaneously executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

7. Effective Date of Second Amendment: The effective date of this Second Amendment will be on the date that the last of the parties has executed this amendment. The last of the parties to sign shall insert that date on the caption page of this Second Amendment.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals to this Second Amendment, in several counterparts, by their respective authorized representatives, for the purposes set forth herein.

Florida Department of Transportation
Florida's Turnpike Enterprise

By: _____
James L. Ely, DPA
Executive Director and Chief
Operating Officer

Attest: _____
Secretary

Date signed: _____

_____
Legal Review

Orlando Orange County
Expressway Authority

By: _____
Michael Snyder, P.E.
Executive Director

Attest: _____
Secretary

Date signed: _____

_____
Legal Review

Osceola County

By: _____
Ken Shipley, Chairman
Board of County Commissioners

Attest: _____
Clerk of the Board of
County Commissioners

Date signed: _____

_____
Legal Review

Miami-Dade County
Expressway Authority

By:_____
Servando M. Parapar, P.E.
Executive Director

Attest:_____
Secretary

Date signed:_____

_____
Legal Review

Lee County DOT

By: _____
John Albion, Chairman
Board of County Commissioners

Attest: _____
Clerk of the Board of
County Commissioners

Date signed: _____

_____
Legal Review