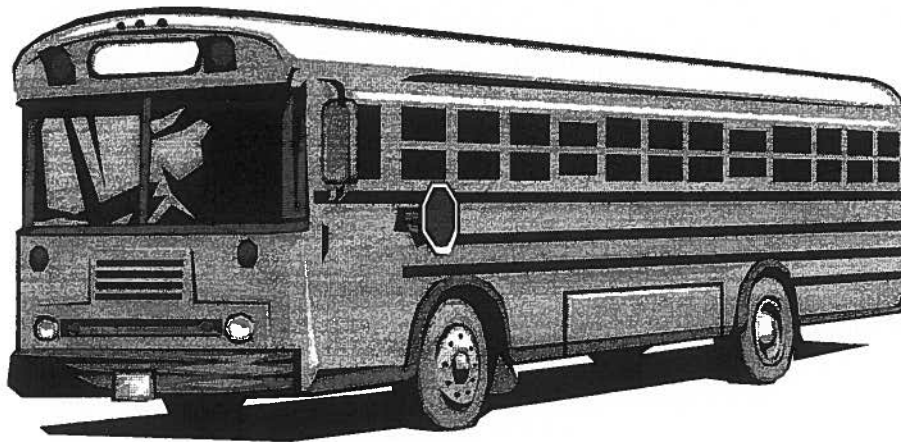


**AN EXAMINATION OF A  
SINGLE TIER VERSUS DOUBLE TIER ROUTING  
STRUCTURE**



**ELLENVILLE CENTRAL SCHOOL DISTRICT  
ELLENVILLE, NEW YORK**

**SEPTEMBER 2008**

**Prepared By**

**LOUIS J. BOFFARDI**

**TRANSPORTATION ADVISORY SERVICES**

**[www.TransportationConsultants.com](http://www.TransportationConsultants.com)**

## **INTRODUCTION**

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Transportation Advisory Services (**TAS**) was engaged by the Ellenville Central School District (hereafter referred to as "School District") to perform a review of the possibility of changing the existing two-tier transportation program into a single-tier program. The purpose of this study is to provide the School District with a third-party perspective of what would be involved in whatever changes may be possible and/or desired as well as the cost projections for the changes.

The School District's liaison for the project was Christine Natoli, School Business Official. Louis J. Boffardi of **TAS** served as the Project Consultant.

## **STUDY PROFILE**

The Ellenville Central School District is located in Ulster County in the mid Hudson Valley section of New York State. The School District is a component of the Ulster BOCES. According to the New York State Education Department's Transportation Formula Aid Output Report (TRA), the School District is 134.737 square miles with a public school enrollment of 13.114 students per square mile based upon the fall 2005 public school enrollment of 1,767 students (2005 is the latest year for which this information is available from the State.). The School District has a State Share Ratio for Transportation Aide of 71.8% (which considers the rural nature of the School District through the addition of a sparsity factor of 02.4%) of approved eligible expenses. This puts the School District in the upper quartile of eligible State transportation aid (The minimum in New York State is 6.5% and the maximum is 90.0%).

The School District consists of a single K-12 school building located on Maple Avenue in the Village of Ellenville.

The transportation program operates on a two-tier system with students in Grades 5-12 (the Middle School and the High School) being transported in the first tier and students in Grades PK-4 (the Elementary School) transported in the second tier. Because PK is a half day program, there is a morning dismissal at 11:30 am and an afternoon arrival 1:00 pm.

Students in Grades 7-12 in the School District are eligible for transportation services if they reside a mile or more from the school, and students in Grades PK-6 are eligible for transportation services if they reside 7/10ths of a mile or more from the school. Under this structure, Middle School students (Grades 5-8) are split in their eligibility for transportation services with approximately half treated as Elementary School students and the other half treated as High School students. Although a division in transportation eligibility is unusual within a school, the split is an historical one representing a period in time when Grades 5 and 6 were contained within the Elementary School.

The transportation program is contracted wholly with Rolling V Bus Corporation of South Fallsburg, New York.

At the time of this report (September 2008), the School District's contracted transportation program consists of 34 vehicles with costs distributed as follows:

Vehicle	Unit Cost	Yearly Cost
13 66-passenger buses	\$54,900.00	\$713,700.00
3 wheelchair vans	\$52,200.00	\$156,600.00
12 19/21-passenger vans	\$49,500.00	\$594,000.00
5 suburban/mini-vans	\$45,900.00	\$229,500.00
1 wheelchair van (108 days)	\$31,320.00	\$ 31,320.00
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34 Vehicles		\$1,725,120.00
17 Aides		\$264,438.00
2.5 additional hours (layover time) at Ulster BOCES Career and Technical Education Center in Port Ewen		\$ 10,125.00
		-----
Sub Total		\$1,999,683.00
Credit for use of School District vehicle		(\$ 8,622.30)
		-----
<b>Total Regular Transportation Program</b>		<b>\$1,991,060.70</b>

5 Pre-Kindergarten vans	\$26,850.00	\$134,250.00
5 Aides	\$ 7,920.75	\$ 39 603.75
<b>Total Pre-Kindergarten Program</b>		<b>\$173,853.75</b>

**Grand Total** (Regular Transportation Program and Pre-Kindergarten Program) excluding late routes **\$2,164,914.45**

Information concerning school start/end time and the present two-tier student transportation system is shown as follows:

Tier	School	Grades	Bus Arrival/ Drop-off	School Hours	Bus Departure	September 2008 Enrollment	September 2008 Scheduled Ridership
1	Ellenville High School	9-12	7:30 am	7:50 am to 2:34 pm	2:45 pm	540	724*
	Ellenville Middle School	5-8	7:30 am	7:50 am to 2:34 pm	2:45 pm	531	
2	Ellenville Elementary School	K-4	8:45 am	9:00 am to 3:30 pm	3:35 pm	625	448**
		PK	8:45 am	9:00 to 11:30 am	11:40 am	30	20**
		PK	12:50 pm	1:00 to 3:30 pm	3:35 pm	30	18
Total		PK-12	6:44 hours for High School/Middle School and 6:30 hours for Elementary School			1,756	1,292*
*Includes 17 students from Wawarsing Christian Academy who are then shuttled to their school with two additional students who walk to the shuttle bus.							
**Elementary School transported number includes only students in grades K-4 and the morning session of PK.							
Source: Information provided by School District and Rolling V Bus Corp.							

More specific information and detailed costs are provided in Appendix A to this report.

In order to facilitate the review and use of this report, it has been prepared in sections that represent the various aspects of the transportation program to be reviewed. This identifies more clearly the various issues, and enhances the on-going use of the report as a resource for the Administration and School District personnel.

Everyone involved in this review was extremely cooperative and provided all information that was requested. All those individuals who cooperated in the study are thanked for their assistance.

## **METHODOLOGY**

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The procedures used by **TAS** in this review are those which are standard in any examination of an operational program and those which **TAS** has found to be successful in the past. These include the use of **TAS'** extensive experience and knowledge of the student transportation industry, to ask for specific written materials, and to review these for completeness as documents that explain the operation of the School District's transportation program. This initial "paper review" is usually followed by telephone, e-mail, and fax contacts to seek additional information and/or to clarify information received. Subsequently, site visits are scheduled that require more direct contact for information on the School District's formal procedures and practices, and interviews are scheduled with key people involved in the transportation program.

Once a base line of information about the present transportation program was provided, the **TAS** Project Consultant began to revise the existing transportation program design to reflect a single tier structure, and a cost analysis of the revised transportation program had to be developed.

Following a review of requested materials sent to **TAS** by the School District and some telephone conversations with Christine Natoli and Vickie Reeves, site visits were made by the **TAS** Project Consultant.

The following information was utilized as a part of our analysis of the School District's transportation program:

- Student, route, and vehicle information contained within the School District's routing software provided to Rolling V Bus as well as the routing software's map of the School District with school locations and route structures (NOTE: The School District's routing software is VersaTrans Solutions from Latham, New York.).
- Printed route sheets and route maps
- Enrollment information by grade level at each Ellenville school
- In-School District school time schedules
- A copy of the February 2008, RFP specifications and proposal that comprise the main contractual agreement between the School District and Rolling V Bus Corporation.
- A cost analysis of the present transportation program prepared by **TAS**.

- A review was made of the 2003-2004 Transportation Program Report and the May 2007 Transportation Program report for related information produced by **TAS** for additional background information
- The School District's Transportation Formula Aid Output Report (TRA) was reviewed in order to gain some information on expenditures and State Aid claims.
- Miscellaneous School District-prepared reports, correspondence from/with Rolling V Bus Corporation, billings, etc.

In addition to the above, meetings were held with the following during the course of the site visit to the School District:

- Lisa A. Wiles, Ellenville Superintendent of Schools
- Christine Natoli, Ellenville School District Business Official
- Philip Vallone, President, Rolling V Bus Corporation
- Vickie Reeves, Rolling V Terminal Manager at Ellenville
- Deborah Lambert, Rolling V Dispatcher at Ellenville
- Various drivers and attendants who shared information on the operation of the present transportation service and their views of the viability of restructuring the transportation program

These meetings enabled the **TAS** Project Consultant to gain a perspective of the present transportation program as well as the possible change as seen by various individuals who are involved in the transportation service.

Discussions of the various aspects of the transportation program was held between the **TAS** Project Consultant, Mrs. Lisa Wiles, and Mrs. Christine Natoli throughout the review process

Throughout the entire study, continual contact was made with Christine Natoli who helped to provide needed information.

### **Implementation:**

It is recommended that this report be reviewed by the appropriate School District Administrators and the Board of Education.

This document constitutes the final written report to the School District. A copy of this report should be provided to the appropriate School District representatives, including Administrators and School Board Members. This report is intended to serve as an advisory document and resource for the School District, and as such it should be reviewed and evaluated by the School District for its applicability to the circumstances at the time of review.

This report does not recommend the implementation of any of the transportation program options nor does it recommend a continuation of the existing service levels. This is a decision that properly belongs with the Board of Education. It presents information and recognizes that it is within the purview of the Board of Education to discern what would be best for the Ellenville School District.

## **PROJECTED ONE-TIER TRANSPORTATION PROGRAM**

The goal of this engagement was to see if the School District's transportation program could be reconstructed into a one-tier (single tripping) system. There are many issues involved in a single-tier system, and it may be helpful to list some of the advantages and disadvantages. This is not intended to be a complete list of all potential benefits and problems, and these are not listed in any order of priority.

### Advantages:

1. All children in the same household would be transported to/from school at the same time and thus reduce a need for child care when one or more children are transported to school in advance of other children. The same principle would apply in the afternoon when one or more children are transported home in advance of other children.
2. With start/end times the same for each school it would be easier to have shared teachers since there would not be a significant length of time between the start/end times of the work day for the teachers in each school.

This is especially true of special area teachers who are often shared between two or three schools.

3. Because the start/end times of the teachers' work day would coincide, teachers from one school can be available to the students in another school for coaching and other after school/extracurricular activities.
4. There may be a perception that some buses are not operating at capacity. Some people feel that placement of Grades PK-12 students on the same bus would ordinarily increase the ridership, and the buses would therefore be used more efficiently.
5. The change to a one-tier system will require total rerouting. This will give the School District the opportunity to move away from the existing historical structure and possibly create greater efficiencies.
6. The buses are currently operating twice in the morning and twice in the afternoon. The move to a single tier system will result in the buses being used once in the morning and once in the afternoon. This will address the perception of lowering the cost due to a reduced unit price per bus and reduction in fuel.

Since all three schools would be on the same time schedule, the Elementary School instructional day would increase from six hours and 30 minutes (6½ hours) to six hours and 44 minutes (one minute less than 6¾ hours).

The Elementary School day is more likely to increase as opposed to the High School and the Middle School day decreasing.

#### Disadvantages:

1. The number of buses plus the time needed to transport students to/from school could increase since the students are no longer spread over two-tiers.



2. With an increase in the number of buses, the Contractor would require no less than a corresponding increase in the number of drivers and the possibility exists of an increase in the number of mechanics at the Ellenville site. Given the general driver shortage and the rural location of the School District these additional people may not be available.
3. Since a single tier system is a major change in the transportation program, it may require a new Bid or RFP. The advice of legal counsel should be sought.

Through a new Bid or RFP costs could increase above that which is projected in this report and what was submitted as a proposal in February 2008.

4. Concerns ordinarily exist by parents because primary school students would be riding the bus with intermediate school age students, middle school students, and high school students. These concerns deal with exposure to inappropriate language and bullying.

While the concerns may be real, the problems do not ordinarily take place or do not take place to the extent anticipated. School districts that have a single-tier structure place the primary school age students in the first few rows of the bus, and their presence ordinarily has a mitigating affect upon the older students with a decrease in inappropriate language and "rough housing."

Video and sound recording devices on school buses have been very effective in monitoring and reducing inappropriate behavior.

5. With the change in school hours, there may be some issues that require discussion and agreement with representatives of the bargaining unit representing

teachers, clerical personnel, classroom aides, custodians, etc.

6. The increase in the number of buses would create problems with the arrangement for student disembarkation in the morning and embarkation in the afternoon. More time would be needed and the number of buses unable to fit in the bus parking area would be increased.

All of the above advantages and disadvantages apply to the Ellenville School District in varying degrees. Some apply specifically to the School District. What issues are more or less important than the other issues is a decision that would have to be determined by the School District.

Assumptions made for the purpose of this report include the following:

1. The present requirements for transportation services and the walking distances remain the same.
2. The September 2008 student enrollment, grade assignments, and student school locations will be used for the purposes of this study.
3. The September 2008 scheduled student ridership will also be used for this study.

In order to develop an efficient single-tier system, it is necessary to establish the School District building time schedule and insure that these schedules coordinate as much as possible with the time schedules of the out-of-School District schools (BOCES locations, private/parochial schools, etc.) and special education locations. The present schools that would have to be considered are Wawarsing Christian Academy as well as the Career and Technical Education Center at the Ulster BOCES campus in Port Ewen. Students attending these schools are shuttled after arriving at the Ellenville School District building on the High School/Middle School buses. Failure to consider these schools could increase the number of buses required and create more dedicated buses to these locations as opposed to the present shuttle structure.

The projected in-School District school building time schedule established for the purpose of this study is shown below:

School	School Hours of Projected One-Tier Structure			
	Grades	Bus Arrival/ Drop-off	School Hours	Bus Departure
Ellenville High School	9-12	7:30 am	7:50 am to 2:34 pm	2:45 pm
Ellenville Middle School	5-8	7:30 am	7:50 am to 2:34 pm	2:45 pm
Ellenville Elementary School	K-4	7:30 am	7:50 am to 2:34 pm	2:45 pm
	PK-AM PK-PM	7:30 am 11:50 pm	7:50 to 10:20 am 12:00 to 2:34 pm	10:30 am 2:45 pm
<b>Total</b>	PK-12		6:44 hours	

The school start/end time established is identical to the existing schedule of the High School and the Middle School in order to maintain the transportation interface for the 19 students attending the Warwasing Christian Academy and the 44 students attending the morning program of the Ulster BOCES Career and Technical Education Center. Keeping the High School/Middle school on the present start/end time also considers the existing athletic and other extra-curricular after school programs.

Based upon the need to transport 1,192 Grade PK-12 in-School District students (707 Grades 5-12 students, 17 Wawarsing Christian Academy students, and 468 Grades PK-4 students [Includes only half of the PK students since this is a half day program]), the number of projected vehicles compared with the existing structure is shown in the following table:

Vehicle Size by Student Capacity	Existing Two-Tier Structure						Projected One-Tier Structure	
	Number of Tier 1 Vehicles	Tier 1 Grades 5-12	Number of Tier 2 Vehicles	Tier 2 Grades PK-4	Total Transported Students	Average Number of Students per Vehicle	Number of Single Tier vehicles	Average Number of Students per Vehicle
66-Passenger	13	630	12	415	1,045	42	20 to 21	50 to 52
20-Passenger	12	88	06	47	135	7.5	12 to 13	10 to 11
Wheelchair Van	01	06	01	06	12	6.0	01	06
<b>Total</b>	26	724*	19	468**	1,192		33 to 35	
*Includes 17 students from Wawarsing Christian Academy who are then shuttled to their school with two additional students who walk to the shuttle bus.								
**Includes 20 morning only PK students.								

What does the above information mean?

1. With the above schedule it is estimated that no student should have to be picked-up earlier than that which presently exists, and no student should arrive home later than 3:50 pm (given normal weather conditions). Because the Elementary School is starting prior to the existing schedule, the arrival home for these students is earlier than what is taking place presently.
2. Because more buses would be used and more students would be dropped-off at the High School/Middle School and the Elementary School at the same time, it is necessary to retain the time span of the bus arrival and student disembarking time of 20 minutes (7:30 to 7:50 am). For the Elementary School this is an increase of five minutes.

The 11 minutes between the end of school and the afternoon departure is a good faith estimate and considers the extra time needed for the buses to be aligned in the parking area to receive students and for others to be waiting their turn to receive students.

It should be noted that the reconstruction of the parking area did not consider an increase in the number of buses needed to disembark and embark students in a single tier system.

3. The total instructional day for the Elementary School would be increased by 14 minutes.
4. Assuming that the out-of-School District locations maintain their present start/end time schedules, the one tier structure that is projected will allow the School District to continue to meet the need of transportation services to existing private/parochial schools, BOCES locations, and special education agencies.
5. The school time schedules shown are not the only option. They represent a place from which to start. If the School District wishes to go to a single-tier system, it may need to establish other school building start/end times that it feels better meet the needs of the community while accommodating the schedule of the students, teachers, and in-building support staff.

The estimate is that the School District would require approximately seven or eight additional 65/66-passenger buses and possibly one additional 20-passenger van to operate a single tier system. This would be an increase of seven to nine vehicles. There are approximately 468 additional students being transported or a total of approximately 1,192 students being transported at the same time.

What's the incremental cost to change from a two-tier transportation system to a one-tier transportation system?

1. Excluding dedicated out-of-School District transportation services and late routes, the present in-School District home-to-school two-tier transportation schedule costs are shown below:

a. 13	66-passenger buses	\$54,900.00	\$ 713,700.00
b. 01	wheelchair van	\$52,200.00	\$ 52,200.00
c. 06	20-passenger vans	\$49,500.00	\$ 297,000.00
d. 01	Wheelchair van for 3 days a week	\$31,320.00	\$ 31,320.00
e. 02	Aides	\$15,930.00	\$ 31,860.00
f.	Layover costs	\$10,125.00	\$ 10,125.00
g. 01	Aide for 3 days a week	\$ 9,558.00	\$ 9,558.00
			\$1,145,763.00
Less credit for use of School District owned Wheelchair van			(\$ 8,622.30)
			\$1,137,140.70

Out-of-School District costs are shown below:

a. 02	Wheelchair vans	\$52,200.00	\$104,400.00
b. 06	20-passenger vans	\$49,500.00	\$297,000.00
c. 05	Suburban/Mini-Vans	\$45,900.00	\$229,500.00
d. 14	Aides	\$15,930.00	\$223,020.00
			\$853,920.00

Pre-Kindergarten costs are:

a. 05	20-passenger vans	\$26,850.00	\$134,250.00
b. 05	Aides	\$ 7,920.75	\$ 39,603.75
			-----
			\$173,853.75

Excluding late routes, the total of  
in-School District and out-of-School  
District transportation costs is: \$2,164,914.45

2. Excluding dedicated out-of-School District transportation services and late routes, a one-tier in-School District home-to-school transportation schedule would cost as follows:

a. 20	66-passenger buses	\$54,900.00	\$1,098,000.00
	to		to
21	66-passenger buses	\$54,900.00	\$1,152,900.00
b. 01	Wheelchair van	\$52,200.00	\$ 52,200.00
c. 06	20-passenger vans	\$49,500.00	\$ 297,000.00
	to		to
07	20-passenger vans	\$49,500.00	\$ 346,500.00
d. 01	Wheelchair van for 3 days a week	\$31,320.00	\$ 31,320.00
e. 02	Aides	\$15,930.00	\$ 31,860.00
f.	Layover costs	\$10,125.00	\$ 10,125.00
g. 01	Aide for 3 days a week	\$ 9,558.00	\$ 9,558.00
			-----
			\$1,530,063.00
			to
			\$1,634,463.00
Less credit for use of School District owned Wheelchair van			(\$ 8,622.30)
			-----
			\$1,521,440.70
			to
			\$1,625,840.70

Dedicated out-of-School District routes will remain the same: \$ 853,920.00

Pre-Kindergarten routes will remain the same: \$ 173,853.75

Excluding late routes, the total of in-School District and out-of-School District transportation costs is: \$2,549,214.45  
to  
\$2,653,614.45

3. Using current charges (2008-2009), the range of the overall incremental cost (excluding late routes as well as field and sports trips) to change from an in-School District two-tier transportation structure to an in-School District one-tier structure is shown as \$384,300 to \$488,700.00 (from \$2,549,214.45 to \$2,653,614.45 less \$2,164,914.45) or an increase from 17.75% to 22.57% in School District transportation costs.

A *caveat*: The above represents a general estimate range. It's based upon the increase in the number of 66-passenger buses and the increase in the 20-passenger vans. Through complete rerouting and factoring to a greater extent the students who are eligible to be transported but elect alternate transportation (driving themselves and others as well as being driven by parents), it may be possible to produce a more precise number. The rerouting would have to start at base zero and be far more comprehensive than what presently takes place from year-to-year.

If the estimated increase from 17.75% to 22.57% is seen as high, keep in mind that 468 PK-4 students are not going to be added to the High School/Middle School routes without the need for additional buses even though some efficiency can be gained by increasing the ridership assigned to a bus. Furthermore, the number of additional buses needed is determined as much as where the students are picked-up/dropped-off as the increase in the number of students being transported at the same time

**Again, using current charges, the above estimated increase from \$384,300.00 to \$488,700.00 over current cost (or 17.75% to 22.57% respectively) is a projection and is subject to actual route development. This assumes the School District's adherence to existing policy on eligible ridership, and the assumptions made in the early portion of this report. The increase could change if the School District introduces factors and variables not considered in the development of this cost estimation.**

The earliest a change from two-tiers to one-tier could be initiated is in 2009-2010. What would be the 2009-2010 cost? Assuming the transportation program does not change from what presently exists, there is a 4% increase in costs according to the February 2008 proposal submission. This means the \$2,164,914.45 (excluding late routes as well as field and athletic trips) increases to \$2,251,511.03, and the cost increase for a one-tier system is a range from \$399,672.00 to \$508,248.00.

Besides an increase in buses, what else could happen when the School District changes from a two-tier to a one-tier route structure?

1. While it may appear that the amount of fuel will drop since the buses are only making one trip in the morning and one in the afternoon, there will be some offset by the additional fuel required for the seven to nine extra buses and the possibility of one extra van. If there are any fuel savings, it is not known at this time. The mileage of the extra buses with the associated fuel needs was not included in this report because of the difficulty of making such a projection without completing some rerouting. The latter was not part of this engagement.
2. The unit cost per bus would not drop as a result of the bus being used for less time. Under the proposal submitted in February 2008, the Contractor submitted the same price for a bus being used two hours a day, three hours a day, and the present four hours a day.

The reason that no unit cost savings would result is that many of the costs of operation are fixed. Insurance, operational overhead and the cost of the bus are not decreased in proportion to a decrease in usage. Also, drivers and aides will continue to receive



the existing four hour guarantee of a minimum payment per day even though their work day has decreased. The latter is necessary to attract and retain drivers and aides.

3. There does not seem to be a specific requirement of the daily start/end time in the collective bargaining agreement between the School District and the teachers as well the support staff. However, if a grievance is filed about a unilateral change in working hours for some staff members, it is possible that PERB could rule that the existing work schedule is an existing past practice and any change in the daily start/end time for employees would have to be negotiated. The School District should confer with legal counsel.
4. Restated is the possible need for a new Bid or RFP due to the increased costs substantially above the percentage increase of the Consumer Price Index (CPI) coupled with a major change in the transportation program. This is something that should be discussed with the School District's legal counsel and possibly the State Education Department.

In the event of a new Bid or RFP the cost of transportation services would most likely be higher than that which was received in February 2008 for the five year period of 2008 to 2013. Furthermore, if a new Bid or RFP is to be utilized, the submission should be no later than early spring 2009 so the Contractor can secure the additional drivers and buses. The latter will increase costs since these new buses may have to meet the requirements of the new Federal emissions standards which become effective in 2010.

What's the bottom line? The one-tier system could create issues for the School District that don't presently exist. These include the need for more buses with associated increases in costs and some social issues of commingling students in Grades PK-12 on the same bus. While the latter may not be as problematic as some people may think, there will be some issues and problems that will arise. These will have to be anticipated and resolved. The cost of additional buses may be the big issue.

The decision to operate a single tier or a double tier route structure rests solely with the School District. If the School District should elect to move towards a one-tier routing system, it is strongly recommended that rerouting begin as soon as possible, that field testing of the new routes be conducted, and a program of parent, student, and staff education be conducted as to why this is taking place.

Thee Ellenville School District Board of Education is thanked for the opportunity to provide this information.

**Appendix A  
ELLENVILLE CENTRAL SCHOOL DISTRICT**

**2008-2009 Transportation Program Costs – Rolling V Bus Corp.**

Item No.	Bus No	Student Capacity	Route Name	2008-2009 Route Location	Aide	Annual Cost Per Route	2008-2009 Comments
1	316	66	Plane	HS/MMS - Elem		\$54,900.00 – Bus	
2	318	66	Dinosaur	HS/MMS - Elem		\$54,900.00 – Bus	
3	329	66	Triangle	HS/MMS - Elem		\$54,900.00 – Bus	
4	321	66	Elephant	HS/MMS in AM HS/MMS – Elem in PM		\$54,900.00 – Bus \$10,125.00 – Extra 2.25 Hours ----- \$65,025.00 – Total	Leaves from the HS/MMS at 7:35 am to bring the morning students to the BOCES Voc Tech program at Port Ewen. Arrives by 8:20 am. The bus leaves at 10:45 am with the morning students and returns to the School District at 11:30 am.
5	320	66	Boat	HS/MMS - Elem		\$54,900.00 – Bus	
6	346	66	Snowflake	HS/MMS – WCS in PM only - Elem		\$54,900.00 – Bus	PM shuttle from Warwasing Christian Academy prior to Elementary School pick-up.
7	378	66	Car	HS/MMS - Elem		\$54,900.00 – Bus	
8	229	66	Star	HS/MMS - Elem		\$54,900.00 – Bus	
9	317	66	Diamond	HS/MMS - Elem		\$54,900.00 – Bus	
10	319	66	Key	HS/MMS - Elem		\$54,900.00 – Bus	
11	348	66	Circle	HS/MMS - Elem		\$54,900.00 – Bus	
12	310	66	Duck	HS/MMS – WCA in AM only - Elem		\$54,900.00 – Bus	AM shuttle to Wawarsing Christian Academy following HS/MMS drop-off.
13	71	WC	Cat	Uister BOCES class at Lenape ES in New Paltz	Two Aides	\$52,200.00 – W/C Van \$15,930.00 – Aide \$15,930.00 – Aide ----- \$84,060.00 – Total	
14	83	20	Orange	HS/MMS plus George Washington School in Kingston plus Children's Annex in Kingston in the morning HS/MMS only in the afternoon	One Aide for first half of the day – AM only. See Item 15	\$49,500.00 – Van \$ 7,965.00 – Aide ----- \$57,465.00 – Total	The other half of this Aide is Item 15. Cost of Aide is split between Items 14 and 15.

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Appendix A

Item No.	Bus No	Student Capacity	Route Name	2008-2009 Route Location	Aide	Annual Cost Per Route	2008-2009 Comments
15	85	20	Orange/ Orange	Afternoon route from Children's Annex in Kingston and ALP program in Port Ewen	One Aide for second half of the day - PM only. See Item 14	\$45,900.00 - Mini Van Payment only \$ 7,965.00 - Aide ----- \$53,865.00 - Total	Route operates in PM only. Morning route is operated by Orange Route (Van 83). Cost of Aide is split between Items 14 and 15.
16	82	20	Snowman	HS/M/S - Elem	One Aide -	\$49,500.00 - Van \$15,930.00 - Aide ----- \$65,430.00 - Total	Mini Van payment only even though a 20-passenger van is provided. One Aide on the HS/MS School portion of the route and then completes the Ellenville Children's Annex portion of the Elem. School route. See Item 24.
17	88	WC	Butterfly	HS/M/S - Elem	One Aide	\$52,200.00 - W/C Van \$15,930.00 - Aide ----- \$68,130.00 - Total	Elementary School portion of route picks-up/drops-off specially assigned students.
18	228	66	X	- Elem		\$54,900.00 - Bus ----- \$65,430.00 - Total	Does the Elephant Elem route in the morning.
19	56	20	Eagle	Orange-Ulster BOCES Special Ed. Classes in Goshen	One Aide	\$49,500.00 - Van \$15,930.00 - Aide ----- \$65,430.00 - Total	In the afternoon, it does only the HS/MS.
20	67	20	Bird	St. Joseph's Parochial School in Middletown		\$49,500.00 - Van ----- \$65,430.00 - Total	
21	92	20	Bear	Ulster BOCES ALP in Port Ewen;	One Aide	\$49,500.00 - Van \$15,930.00 - Aide ----- \$65,430.00 - Total	
22	29	5 - 9	Rabbit	Highland MS	One Aide	\$45,900.00 - Suburban \$15,930.00 - Aide ----- \$61,830.00 - Total	
23	103	20	Squirrel	Sullivan BOCES Center in Liberty; Sullivan BOCES Center in White Sulphur Springs	One Aide	\$49,500.00 - Van \$15,930.00 - Aide ----- \$65,430.00 - Total	

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Item No.	Bus No	Student Capacity	Route Name	2008-2009 Route Location	Aide	Annual Cost Per Route	2008-2009 Comments
24	66	20	Chicken	HS/MS - Elem plus Children's Annex in Ellenville	One Aide - for the Children's Annex in Ellenville portion of the Chicken route.	\$49,500.00 - Van No Charge - Aide ----- \$49,500.00 - Total	Aide required for the Children's Annex portion of route which is completed in the AM and PM after the Elem School portion.
25		22	Sneaker	HS/MS - Elem		\$49,500.00 - Van	Aide comes from the Snowman route. See Item 16.
26	98	20	Worm	HS/MS - Elem		\$49,500.00 - Van	
27	86	20	Apple	HS/MS - Elem		\$49,500.00 - Van	
28	90	20	Swan	ARC of Ulster County - Brookside School in Corteckill	One Aide	\$49,500.00 - Van \$15,930.00 - Aide ----- \$65,430.00 - Total	
29	27	5 - 9	McQuade	McQuade Children's Services in New Windsor	One Aide	\$45,900.00 - Mini Van \$15,930.00 - Aide ----- \$61,830.00 - Total	
30	22	5 - 9	Discovery A	UCP-Sullivan Diag. Treatment Center in Harris	Two Aides	\$45,900.00 - Mini Van \$15,930.00 - Aide \$15,930.00 - Aide ----- \$77,760.00 - Total	
31	108	WC	Discovery B	UCP-Sullivan Diag. Treatment Center in Harris	Two Aides	\$52,200.00 - W/C Van \$15,930.00 - Aide \$15,930.00 - Aide ----- \$84,060.00 - Total	
32	28	5 - 9	Burke	John S. Burke Catholic HS		\$45,900.00 - Mini Van	Special Education student - not private/parochial school student
33	32	20	George Washington School	Afternoon route from George Washington School in Kingston in PM	One Aide - See Item 14	\$45,900.00 - Mini Van Payment only \$15,930.00 - Aide ----- \$61,830.00 - Total	In the AM this student is transported on the Orange route. PM route is separate - see Item 14
34	110	WC	PILOT	PILOT Program		\$31,320.00 - W/C Van for 108 days \$ 9,558.00 - Aide for 108 days -----	One HS wheelchair bound student with a Rolling V and a School District Aide. Program is from 8:30 to 11:30 am. PILOT Program is three days a week (M, T, & W)

Appendix A

Item No.	Bus No	Student Capacity	Route Name	2008-2009 Route Location	Aide	Annual Cost Per Route	2008-2009 Comments
35	90	20		PM Voc Tech		\$40,878.00 - Total \$275.00 - Van rate per Day with the number of days unknown at this time	The beginning of the operation of this route is being held in abeyance until the student who is to be transported to the PM Voc Tech program recovers from his illness.
						\$1,725,120.00 - Vehicles - 13 - 12 Vans - 3 Wheelchair vans - 1 Wheelchair van for 108 days - 5 Suburban/mini vans - - - 34 Vehicles \$ 264,438.00 - Aides -- 17 Aides \$ 10,125.00 - Extra Hours - 2.25 Hours	
						\$1,999,683.00 (\$ 8,622.30) - Less Deduction for Contractor lease of School District owned vehicle	
						\$1,991,060.70 - TOTAL Regular Transportation Program	
						Estimated total is \$140,530.00.	
			Late Routes			Actual operating days may be closer to 160.	
						Actual operating days may be closer to 160.	
						Actual operating days may be closer to 160.	
						NOTE: One or both of the two vans operating at 4:45 pm and not at 5:45 pm may be operating over an hour. Review to be made of actual route time after school is in session and the late route transportation program is in operation.	
						\$140,530.00	
						TOTAL Late Routes	

Appendix A

- NOTES:**
- (1) At the request of the School District a Rolling V provided Aide has been assigned to the PILOT Program route in addition to the School District provided Aide. The purpose of the Rolling V Aide is to function as a Bus Aide including the securing of the student's wheelchair in the van. A Rolling V Aide was also provided in the summer of 2008.
- (2) Not included is the anticipated cost of a van to transport one student to the afternoon Career and Technical Education Program at the Ulster BOCES Center at Port Ewen. The expense will be \$275.00 a day when the program begins.

Mid-Day Pre-Kindergarten Routes

Item No.	Bus No.	Name of Route	Number of Students	Route Miles	Calculation	Annual Cost Per Route	Comments
1	86	Apple			\$150.00 per day for Van \$ 44.25 per day for Aide ----- \$194.25 - Per day Total x 5 Vans	\$26,850.00 - Van \$ 7,920.75 - Aide ----- \$34,770.75 - Total	Cost is for 1½ hours (11:30 am to 1:00 pm)
2	66	Chicken			\$971.25 per day x 179 days ----- \$173,853.75 - Total	\$26,850.00 - Van \$ 7,920.75 - Aide ----- \$34,770.75 - Total	
3	67	Bird			\$134,250.00 - Vans \$ 39,603.75 - Aides ----- \$173,853.75 - Total	\$26,850.00 - Van \$ 7,920.75 - Aide ----- \$34,770.75 - Total	
4	68	Sneaker			\$173,853.75 - Total	\$26,850.00 - Van \$ 7,920.75 - Aide ----- \$34,770.75 - Total	
5	82	Snowman				\$26,850.00 - Van \$ 7,920.75 - Aide ----- \$34,770.75 - Total	
<b>TOTAL Pre-Kindergarten Routes</b>						<b>\$173,853.75</b>	

Appendix A

Total is \$1,991,060.70 Regular Day Transportation Program excluding the anticipated cost of a van for the afternoon Ulster BOCES Career and Technical Education Program at Port Ewen.

\$ 173,853.75 Pre-Kindergarten Transportation Program

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\$2,164,914.45 Total for Home-to-School Program excluding late routes

Payment to be \$216,491.45 per month for 10 months, September 2008 to June 2009

The billing for late routes, shuttles, and field and sports trips are to be separate since these can vary from month to month..

As per agreement on August 25, 2008, between Phil Vallone and Louis Boffardi, T&S Consultant to the Ellenville School District, a three hour minimum is established for an Aide as opposed to the minimum being the same as that of the vehicle. The latter is contained in the RFP Specifications of February 2008. In other words, the minimum time is dropped from four hours to three hours with three hours being more representative of the actual live time, and this will provide a cost savings to the School District.



Appendix A

ADDITIONAL INFORMATION

Total Regular Home-to-School 2008-2009 Costs	\$1,999,683.00	
Less deduction for lease of School District owned vehicle	(\$ 8,622.30)	
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Net Total Regular Home-to-School Costs for 2008-2009	\$1,991,060.70	
Total Pre-Kindergarten Program 2008-2009 Costs	\$ 173,853.75	
Estimate for 2008-2009 Late Routes	\$ 140,530.00	
	-----	
Net Total Costs	\$2,305,444.45	
Net Total Regular Home-to-School Costs for 2007-2008	\$1,926,178.20	
Total Pre-Kindergarten Program 2007-2008 Costs	\$ 148,580.00	
Estimate for 2007-2008 Late Routes	\$ 170,435.20	
	-----	
Net 2007-2008 Total Costs	\$2,245,193.40	
Total 2008-2009 Costs	\$2,305,444.45	
Total 2007-2008 Costs	(\$2,245,193.40)	
	-----	
Increase of 2008-2009 over 2007-2008	\$ 60,251.05	
Percentage Increase of 2008-2009 over 2007-2008	2.68%	Includes Late Routes
Total 2008-2009 Costs	\$2,305,444.45	Includes Late Routes
Initial Estimate	\$2,309,175.00	Includes Late Routes
	-----	
Difference (Projected Decrease over Initial Estimate of Costs)	(\$ 3,269.45)	-- a decrease of 00.14%

# ELLENVILLE CENTRAL SCHOOL DISTRICT

## October 2008 School Bus Ridership Report

Item	Route Name	Vehicle Number	Student Capacity	School	Scheduled No. of Students	Area(s) Covered by Route(s)	Morning Ridership 10/1/08	Morning Ridership 10/8/08	Morning Ridership 10/14/08	Morning Ridership
1	Plane	316	66	HS/MS	36	US Route 209 pass County Line; Blue Sky Trailer Park to Wurtsboro	32	34	36	
2	Dinosaur	318	66	Elem	31	Up and down US Route 209 south	24	21	26	
				HS/MS	35		29	27		
3	Triangle	329	66	Elem	35	Upper Canal Street; State Route 52; Cragmoor	26	23	26	
				HS/MS	66		35	47	39	
4	Elephant	321	66	Elem	21	Napamoch; Nappy Trailer Park; Dowe Road; Bennet Sportsman Road	14	17	18	
				HS/MS	43					
5	Boat	320	66	Elem		Mt. Vernon Road; Phillipsport; Summitville; Firehouse Road; Spring Glen Road	36	41	39	
				HS/MS	28					
6	Snowflake	346	66	Elem	24	State Route 52; lower and upper Greenfield Road, Oakridge Road	22	20	20	
				HS/MS	55		44	45	43	
7	Car	378	66	Elem	38	Kossar Place; Bernie Road; Port Ben Road	25	32	28	
				HS/MS	61		31	51	53	
8	Star	229	66	Elem	55	Up and down US Route 209 North; Warwarsing	31	45	32	
				HS/MS	62		47	44	43	
9	Diamond	317	66	Elem	30	Part of US Route 209; McBride Street, Upper Continental Road; Shady Acres	19	26	26	
				HS/MS	48		41	41	42	
10	Key	319	66	Elem	40	Towne Road; Briggs Highway; Westwood	50	50	50	
				HS/MS	48		37	37	36	
11	Circle	348	66	Elem	33	Ulster Heights; Eastwood Avenue	26	26	23	
				HS/MS	35		24	23	23	
12	Duck	310	66	Elem	41	Continental Road; downtown Napamoch; Irish Cape Road	24	23	23	
				HS/MS	54		35	33	36	
13	Orange	83	20	Elem	42	Lower Route 209; South; and Spring Glen Road	41	37	43	
				HS/MS	12		30	33	31	
14	Snowman	82	20	Elem	09	Cedar Grove; Hillcrest	03	10	09	
				HS/MS	12					
				Elem	09	Brandy Brook; Sholan Road	08	09	09	
				HS/MS	12		05	10	05	

Item	Route Name	Vehicle Number	Student Capacity	School	Scheduled No. of Students	Area(s) Covered by Route(s)	Morning Ridership	Morning Ridership	Morning Ridership	Morning Ridership
15	Butterfly	88	W/C	HS/MS Elem	06 06	Fuegson Road, last road in School District	04 05	03 04	05 05	
16	X ✘	228	66	HS/MS Elem	57 24	Country Club Arms; Cedar Grove; Hillcrest	38 23	47 25	42 28	
17	Chicken	66	20	HS/MS Elem	13 07	Back roads of Oakridge and Mt. Meegan Mt. Meegan; special students; and overflow	08 08	09 09	09 09	
18	Sneaker		22	HS/MS Elem	23 08	Red Hill Road; Aldridge Road; Mt Dale Spring Glen	08 20	05 18	07 21	
19	Worm	98	20	HS/MS Elem	19 11	South Hill and surrounding roads; Sherman Road Back roads of Oakridge	13 07	15 08	16 05	
20	Apple	86	20	HS/MS Elem	14 08	Spook Hole Road; Weiser Road; back roads of Briggs Highway South Hill; Sherman Road	12 07	16 07	14 07	

**NOTE:**

- Routes are determined as much by distance and terrain as by the number of students that can be scheduled on a bus. For this reason some buses are not close to maximum student capacity since the addition of more students would lengthen the route beyond that which is reasonable.
  - School buses have a rated student capacity based upon 13 inches of seat space per student. Therefore, a standard seat of 39 inches is rated to hold three students. Large buses with 22 39-inch seats are rated for 66 student passengers. However, a 39-inch seat ordinarily holds only two middle and high school students making the maximum student capacity of a 66-passenger bus only 44 students, which is the rated adult capacity. Large elementary school students also have difficulty being seated three in a seat.
- A "rule of thumb" is to use two-thirds of the student capacity of a bus or van to determine the middle school and the high school student capacity. A 20-passenger van would ordinarily be able to seat a maximum of 12 or 13 middle and/or high school students.
- Buses and van that have students above these guidelines are generally overloaded.