



CHAPEL HILL TRANSIT
Town of Chapel Hill
6900 Millhouse Road
Chapel Hill, NC 27514-2401

phone (919) 969-4900 fax (919) 968-2840
www.townofchapelhill.org/transit

**CHAPEL HILL TRANSIT PUBLIC TRANSIT COMMITTEE
NOTICE OF COMMITTEE MEETING AND AGENDA**

February 25, 2014 – 11:00 A.M. to 1:00 P.M.

CHAPEL HILL TRANSIT – FIRST FLOOR CONFERENCE ROOM

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10. Adjourn	

**MEETING SUMMARY OF A REGULAR MEETING OF THE PUBLIC TRANSIT COMMITTEE
1ST FLOOR TRAINING ROOM, CHAPEL HILL TRANSIT**

Tuesday, January 28, 2013 at 11:00 AM

Present: Jim Ward, Chapel Hill Town Council
Ed Harrison, Chapel Hill Town Council
Damon Seils, Carrboro Alderman
Cheryl Stout, UNC Public Safety
Matt Efird, Carrboro Assistant Town Manager
Jeff McCracken, UNC Public Safety
Matt Czajkowski, Chapel Hill Town Council
Than Austin, UNC Transportation Planner

Absent:

Staff present: Brian Litchfield, Transit Director, Rick Shreve, Administrative Analyst, Mila Vega, Transportation Planner, Tyffany Neal Assistant Operations Manager-EZ Rider, Natalie Murdock, Grants Coordinator, Carl Rokos, Maintenance Superintendent, Nick Pittman, Interim Operations Manager, Jeff Brubaker, Carrboro Transportation Planner, Bruce Heflin, Special Projects Facilitator, Chapel Hill Manager's Office

Guests: Michael Parker, Alice Gordon, Nelson Nygaard Consultants, Clean Design Consultants

Jim Ward welcomed Than Austin to the Public Transit Committee. Than will be a permanent member from the University.

1. The Meeting Summary of November 19, 2013 was received and approved as amended.
2. Employee Recognition – Brian introduced the following recently honored Transit employees: Henry Burnette – the Demand Response Driver of the Year, Joe Corbett, the Mechanic of the Year and Antuan Riggsbee, a Safe Driver and winner of the Perfect Attendance award.
3. Consent Items
 - A. December Financial Report – Rick reviewed the report for the Partners. We are currently on track with the budget.
4. **Discussion Items**
 - A. November/December Performance Report – Brian reviewed this report briefly.
 - B. FY 15-16 STP-DA Call for Projects – Brian reviewed the STP-DA Call for Projects. Chapel Hill Transit will be receiving \$1.1 million. Options for use of the money were presented and the

Partners agreed with staff to purchase 3 heavy duty clean fuel fixed route transit buses at an approximate cost of \$440,000 per bus. There will be additional funding of \$175,000 needed to complete the purchase. The Partners asked for further information on where the additional funding would come from and additional information on the emissions.

- C. Regional Branding Study Update – Brian introduced the consultants from Clean Design and they presented the Research and Strategy Recap for the Partners. They looked at Naming, Design and Color. The names suggested were “Go Chapel Hill”, “Go Triangle Transit”, etc. as the number 1 option. The second option was “Pulse Chapel Hill Transit”, “Pulse Triangle Transit Authority”, etc. and a third option was “Chapel Hill Pulse”, “Triangle Transit Pulse”, etc. It was noted that the color of the Chapel Hill buses was not up for discussion and that there would be no change in that. The next steps include rider surveys, agency presentations, approval process, logo and tagline, bus design and action plan. Also noted was that all the Partners need to be included in discussions and decisions. Concern was expressed that there be adequate time for rollout of anything new and that marketing/schedules also need to be included. Communications with UNC and riders needs to be good. TTA will be invited to the February meeting to help answer some of the questions that the Partners had.
- D. Long Range Financial Sustainability Plan – Brian introduced the consultants from Nelson/Nygaard. They provided an update on the study and a review of the system. There is a need to purchase 61 vehicles between now and 2024. There are two options for funding:
1. Manage revenue through purchase, lease, grants
 2. Reduce expenses through reducing service and/or contracting out the Demand Response service

The consultants received feedback and were asked for further information on contracting out the Demand Response service.

They also reviewed staffing and organizational structure and presented the public outreach plan goals, strategies and next steps.

- E. North South Corridor Alternatives Analysis – Brian reviewed the item. It was noted that Orange County staff have not been included and it was recommended that they be included. The Partners agreed to include Orange County.

5. Information Items

- A. Capital Purchases Update – This report was provided for the Partners information.

B. FTA Grant Update – The EZ Rider vehicle purchase is in process.

6. Departmental Monthly Reports

A. Operations – Provided for the Partners information.

B. Maintenance – Provided for the Partners information

C. Director – Provided for the Partners information

7. Future Meeting Items

8. Partner Items

9. Next meeting – February 25, 2014

The Partners set a next meeting date for February 25, 2014
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3A January Financial Report

Prepared by: Rick Shreve

January 2014

- Expenses for the month of January were \$1,404,941. Along with the encumbrances, which are heavily weighted towards the beginning of the fiscal year, approximately 51% of our budget has been expended or reserved for designated purchase (e.g. purchase orders created for vehicle maintenance inventory supplies encumber those funds, and show them as unavailable for other uses).

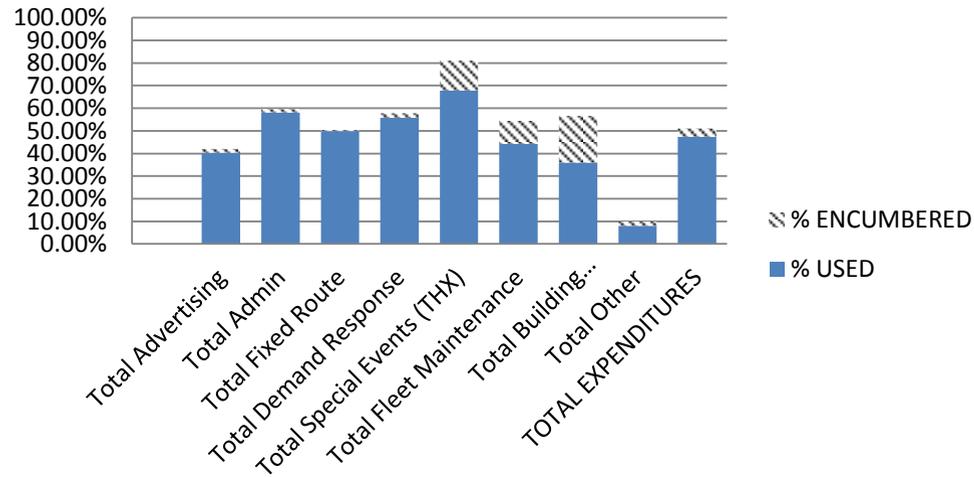
Highlights

- This data is a helpful starting point in developing budget expectations for the remainder of this fiscal year, and for beginning discussions on the FY14-15 budget. This aggregation of expenses and encumbrances is consistent with years past, and is perfectly in line with what we would expect at this point in the year.
- The attached data exhibits the financial information by division within CHT, which should be a useful tool in monitoring our patterns as the year progresses, and is a high-level representation of the data used by our division heads.
 - It is worth noting that the “Special Events” line is mostly comprised of Tarheel Express expenses, and the line labeled “Other” is comprised primarily of special grant-funded expense lines that are not permanent fixtures in the division budgets.

Transit 640 Fund Budget to Actual at end of January 2014

	ORIGINAL BUDGET	REVISED BUDGET	ACTUAL MONTH EXPENSES	ACTUAL YTD EXPENSES	CURRENT ENCUMBRANCES	BALANCE AVAILABLE	% USED OR ENCUMBERED JAN = 58.33%
Total Advertising	\$ 117,207	\$ 117,207	\$ 6,516	\$ 47,208	\$ 1,961	\$ 68,038	41.95%
Total Admin	918,701	921,106	84,373	534,585	13,879	372,643	59.54%
Total Fixed Route	11,029,432	11,066,364	816,968	5,520,477	60,421	5,485,466	50.43%
Total Demand Response	1,861,387	1,857,173	155,606	1,036,458	35,397	785,318	57.71%
Total Special Events (THX)	305,351	305,351	51,988	206,932	40,471	57,948	81.02%
Total Fleet Maintenance	3,766,187	4,029,014	257,893	1,776,996	414,508	1,837,510	54.39%
Total Building Maintenance	616,279	703,205	31,597	253,356	143,911	305,938	56.49%
Total Other	1,148,360	943,808	-	75,310	17,146	851,353	9.80%
TOTAL EXPENDITURES	\$ 19,762,904	\$ 19,943,228	\$ 1,404,941	\$ 9,451,321	\$ 727,693	\$ 9,764,214	51.04%

CHT January 2014 YTD Expenses as % of Budget



4A. Orange County Bus and Rail Investment Plan

Action: 1. Receive information and provide staff and Triangle Transit with feedback.

Staff Resource: Brian Litchfield, Director

- A presentation updating the Partners on the status of the Orange County Bus and Rail Investment Plan will be made at the February 25, 2014, meeting by Triangle Transit General Manager David King.

Service and Fiscal Notes

- The adopted FY13-14 Chapel Hill Transit budget accounted for the use of \$306,000 in new vehicle registration funds for the Bus and Rail plan to help cover the increased cost of existing services not covered by the partners increased contributions.
- The adopted FY13-14 budget also accounted for the use of \$166,000 in new vehicle registration funds to implement service improvements that would provide improved access to jobs with non-traditional work hours and expand access to retail, medical, recreational and education destinations in Chapel Hill and Carrboro for lower-income and transit dependent residents. For FY13-14 these service improvements included and were implemented in August 2013:
 - Weekday: CM, CW, D, F and J (later evening service will operate year around on these routes and additional trips were added to the F)
 - Later evening service on the CM, CW, D and J are not new trips, prior to August these trips were provided ~9 months out of the year when UNC was in-session. They are now available year around. The weekday NU and weekend U and NU are not included in the year around service.
 - Weekend: CM, CW and JN (CM and CW will operate as separate routes and an additional AM trip was added to the JN).

Recommendation

- Partners discuss the information provided in the presentation and provide staff and Triangle Transit with feedback.

4B. FY14-15 Chapel Hill Transit Budget Development

Action: 1. Receive information and provide staff with feedback.

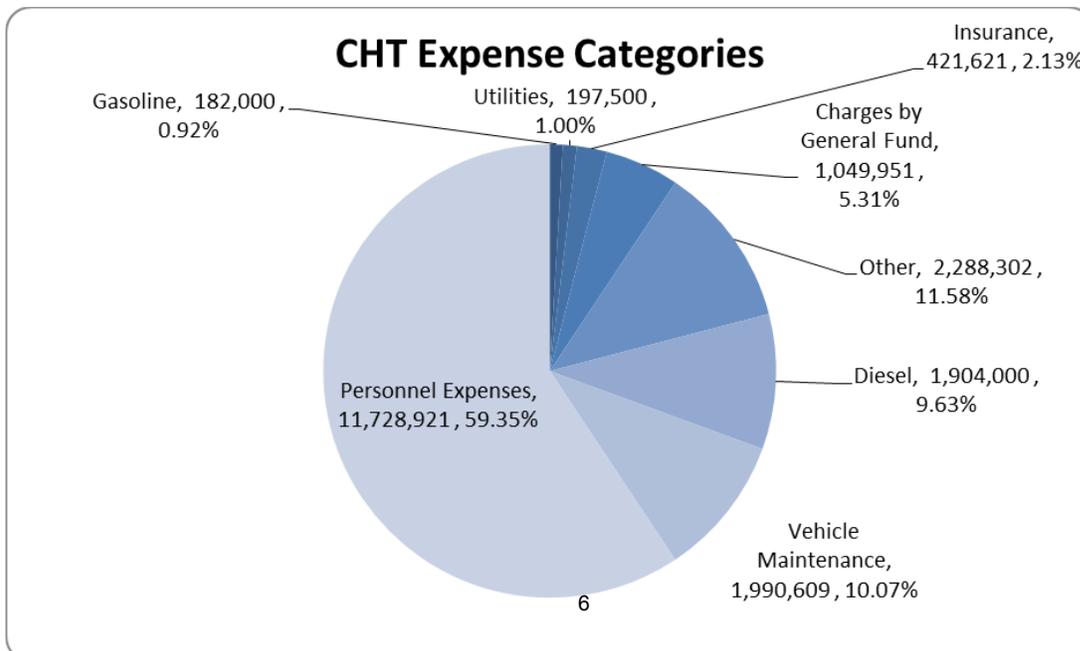
Staff Resource: Rick Shreve, Budget Manager
 Brian Litchfield, Director

Chapel Hill Transit (CHT) staff have begun work internally and with the Town’s Business Management Department (BMD) towards developing our FY14-15 budget proposal. We are meeting at the end of this month to go over preliminary expenditure numbers, and to hone in on revenue expectations for next year.

At this point in the typical budgeting process, major areas of identifiable increases or decreases are assessed (e.g. a large swing in the markets for fuel, a spike in employee medical insurance costs, a change in a major source of revenue), and we are beginning to hone in on the details in our key areas. We currently see only modest changes in key areas of operating expenditures – separate from any capital expenditures towards vehicle replacements – but we still face some potential volatility on the revenue side, as will be discussed below.

Current Year Budget as an Approximation

Without major identifiable changes in our key expense areas, the current year budget serves as a reasonable approximation for our expenses for next year, *at current service levels*. The original CHT budget for the current year was \$19,762,904. The Transit Partners opted to pay for the second increase in local contributions in five years, and also to reduce the degree to which the budget relied on the fund balance: the budget was balanced with \$306,000 of funding from the Orange County Bus and Rail Investment Plan, which is a fraction of the \$1+ million amounts used to balance CHT’s budgets in recent years. The following charts highlight the breakdown and relative percentages of our various expense categories:



Expense Category	FY13-14 Recommended Budget
Gasoline	182,000
Utilities	197,500
Insurance	421,621
Charges by General Fund	1,049,951
Other	2,288,302
Diesel	1,904,000
Vehicle Maintenance	1,990,609
Personnel Expenses	11,728,921
Total FY13-14 Recommended Budget	\$ 19,762,904

Using these expenses as a model will assume no changes in service or staffing levels from the current fiscal year.

Orange County Bus and Rail Investment Plan

In addition to the \$306,000 in funding utilized to cover the cost of existing services, the adopted FY13-14 budget also accounted for the use of \$166,000 in new vehicle registration funds to fund service improvements designed to provide improved access to jobs with non-traditional work hours and expand access to retail, medical, recreational and education destinations in Chapel Hill and Carrboro for lower-income and transit dependent residents. For FY13-14 these service improvements included (August 2013 implementation):

- Weekday: CM, CW, D, F and J (later evening service will operate year around on these routes and additional trips were added to the F)
- Later evening service on the CM, CW, D and J are not new trips, prior to August these trips were provided ~9 months out of the year when UNC was in-session. They are now available year around. The weekday NU and weekend U and NU are not included in the year around service.
- Weekend: CM, CW and JN (CM and CW will operate as separate routes and an additional AM trip was added to the JN).

The proposed FY14-15 will include continued funding for these services.

Anticipated Expense Changes for Next Year's Budget Proposal

We are likely to experience a modest increase in the areas of Salaries and Benefits. The magnitude of such is not yet known, as medical insurance costs and other items are still under consideration. We also have information from the Maintenance Audit and the early work on the Strategic & Financial Sustainability that suggests our staffing levels in key areas of Maintenance and Operations are well under what they should be for a system of our size.

One significant area for which it is difficult to budget is in the maintenance of our vehicles. As we have brought 15 new buses online within the past year, we have planned for some degree of maintenance needs to diminish relative to the 15 buses we replaced. However, all of our

remaining fleet is going to be one year older, and in varied states of needing more maintenance and repairs, simply by virtue of having been on the roads for one more year. A number of our buses aged beyond their warranty periods in the past year, which will lead to more expenses as non-warranty repairs arise. We have faced some extraordinary repairs of buses this year, with a couple of repairs topping \$40,000 apiece.

For the reasons above, all adjustments to these line items are likely to approximate the original budget for FY13-14.

All of this discussion on next year's budget assumes current service levels. Any increases in service levels will obviously lead to increased expenses: The additional mileage and other efforts to accommodate any increases will exact inputs incrementally from nearly every line throughout our budget – from increased salaries and benefits for operators and mechanics, to increased fuel consumption, to increased maintenance and repair needs.

The expenditures and revenues tied to the Strategic & Financial Sustainability Study and the Alternatives Analysis Study will be encumbered and carry forward to next year, so there is no anticipated increase from those.

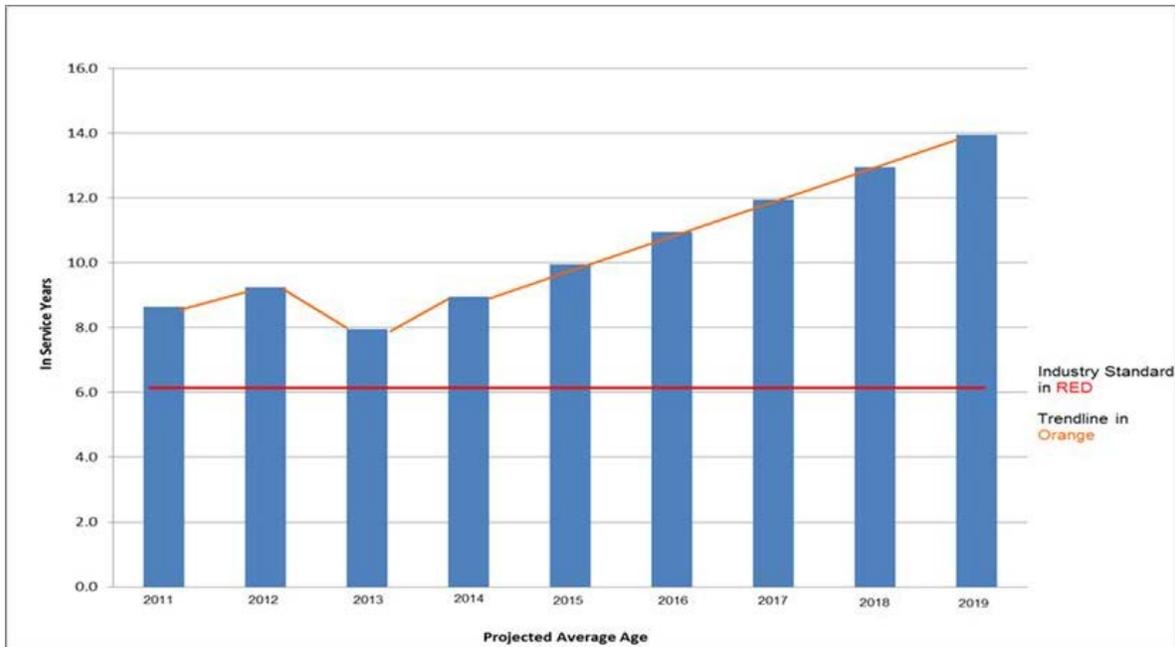
We hope this information serves as impetus to discuss the merits of increased funding options, of the Partners' goal of maintaining and possibly increasing the CHT fund balance, and of considerations for building capital reserves.

Capital Funding

In all of the talk over the next year budget, it would be prudent to keep an eye on the longer term picture as well, and with a particular concern over capital needs. The financial study consultants addressed this at length in the last partners meeting, and their presentation should be referenced for a fuller treatment of this issue.

- Fleet age should be maintained at 7 years. With an older fleet dependability declines as maintenance costs increase.
- 43 buses need to be replaced.
- 19 EZ Rider vehicles need to be replaced.

Should the Partners decide to fund capital replacements, that would obviously factor into any increases in contributions.



Next Steps

- CHT staff will provide more in-depth updates on our projections for the FY2014-15 budget at the March 25, 2014 Partners meeting.
- Staff will be working with Partners to establish meetings to review proposed contributions for FY14-15 and service improvements/adjustments.

Recommendation

- Partners discuss the information provided and provide staff with feedback and direction.

4C. Vehicle Maintenance Audit

Action: 1. Receive information and provide staff with feedback.

Staff Resource: Carl Rokos, Maintenance and Facilities Manager
 Brian Litchfield, Director

Background

Chapel Hill Transit hired McDonald Transit Associates to conduct a comprehensive maintenance audit this past summer. The audit included a review of the maintenance records, maintenance practices, preventive maintenance schedules, technician skill levels, training and a physical inspection of a sample of the various types of vehicles in the CHT revenue service fleet (20% of the fleet). The goal of the audit was to assess the appropriateness, timeliness, thoroughness and quality of the CHT maintenance functions; evaluate the current condition of CHT's fleet and provide recommendations for any needed improvements. McDonald Transit Associates provided Chapel Hill Transit with a detailed written report of the reviews performed, which included a written assessment or the findings documentation of any and all problems or inadequacies in the fleet maintenance and detailed recommendations for corrections of any deficiencies in the vehicles, the records and/or the maintenance procedures. A summary of the report is attached to this item.

Fiscal Note

One of the recommendations of this audit and an early recommendation of the staffing analysis being completed for the Strategic & Financial Sustainability plan is the development of an adequately staffed maintenance department. We currently operate 22 hours per day, with 29.5 FTE's, meaning that at many times during the day we only have 2-4 employees working in the shop at key times. This would require our maintenance department staffing to increase from 29.5 employees to 38 employees over a period of time, based on our current fleet size and service requirements.

Job Title	Current Actual	Recommended
Maintenance Superintendent	1	1
Assistant Maintenance Superintendent	0	1
Shop Supervisor	2	3
Mechanic III	3	3
Mechanic I-II	10	15
Bus Service Technician	2	4
Mechanic Helper	2	0
Service Attendant	6.5	7
Electronics Technician	0	1
Parts Manager	1	1
Parts Clerk	1	2
Administrative Clerk	10 1	0

Next Steps

- CHT staff is working with McDonald Transit Associates to evaluate changes in performance and methods to improve performance.
- CHT staff is developing a schedule to address areas of where improvements are needed, including staffing.
- CHT staff will provide updates over the next several months as suggested improvements are implemented.

Attachment

- Chapel Hill Transit Maintenance Review Summary – provided by McDonald Transit Associates.

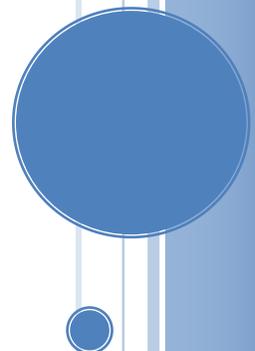
Recommendation

- Partners discuss the information provided and provide staff with feedback and direction.



CHAPEL HILL TRANSIT MAINTENANCE REVIEW

Submitted by McDonald Transit Associates
8/1/2013



INTRODUCTION

McDonald Transit Associates, Inc. conducted an on-site maintenance review of Chapel Hill Transit on July 15-19, 2013. Mr. Timothy Lett, and Mr. Jack Pearl of McDonald Transit Associates, Inc. performed the review.

Personnel included in the review: Brian Litchfield, Carl Rokos, Shop Supervisors, Parts Room staff and Mechanics

Quality Assurance Reviews provide a quality control measure for transit agencies. Every aspect of the transit systems administration, operation, and maintenance functional areas are examined against a set of performance standards developed by McDonald Transit.

The standards represent best practices in public transit management. Because the operating environments of transit systems vary significantly, it is recognized that some standards may never be achieved. The performance standards are intended to clearly define goals toward which transit managers will endeavor diligently to guide their organizations, whether or not present circumstances allow those goals to be attained.

SUMMARY OF FINDINGS

The Chapel Hill Transit maintenance department is performing adequately at the present time. There are instances where it is difficult to meet peak pullout requirements primarily due to problems with older buses. The system has a fleet of vehicles ranging in age from 1995 to 2013. Until a few years ago the fleet was primarily made up of TMC and Nova RTS buses which have not been manufactured since 2003. While these vehicles were considered excellent when they were manufactured it is now becoming difficult and expensive to get replacement parts and components. Replacement vehicles have been secured primarily manufactured by Gillig although there are NABI Articulated buses in the fleet.

The department is led by a Director of Maintenance who recently rejoined the organization after leaving for a period of approximately one year. Discussions and observations of his approach to maintenance indicate that he is fully capable of leading this department. There are some improvements to policies and procedures that are needed and will be outlined throughout this report.

The staff was extremely responsive and helpful in gathering data and information in order to perform this review of Chapel Hill Transit maintenance. Specific areas that are recommended for modification or improvement include:

- a. Staffing and scheduling
- b. Supervision of employees
- c. Updating of some policies and procedures
- d. Shop organization

This report will outline specific areas reviewed and recommendations for improvements.

SYSTEM QUALITY ASSURANCE REPORT

Maintenance

1. **Standard:**

Maintenance plan is up-dated including the most recent vehicle and capital facility additions and contains:

- a. All vehicle types, facilities, and ADA equipment.
- b. A hazardous materials spill plan.
- c. Preventive maintenance procedures.
- d. A maintenance organization chart.
- e. Procedures for repairing lift equipment in accordance with ADA requirements.

Purpose:

This is to ensure that the maintenance plan is being maintained.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review maintenance plan.	a. All 2012 and 2013 vehicles are not included. After the review CHT did get forms developed for the 2012 and 2013 vehicles	None
	b. No hazardous spill plan is included.	Organize and display spill plan
	c. Preventive Maintenance procedures are included.	None.
	d. Maintenance Organization chart is present.	None.
	e. Procedures for repairing lift equipment are present.	None.

Standard:

A maintenance rulebook that addresses specific standards of conduct relevant to the maintenance function has been issued to employees (a signed receipt is placed in each employee’s personnel file.)

Purpose:

This is to ensure that all employees have knowledge of the rules of conduct.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review maintenance rulebook and maintenance employee personnel files.	This standard is met.	None needed.

2. **Standard:**

Operators prior to each pullout perform pre-trip inspections.

- a. Forms are filled out and signed by operators.
- b. Procedures are in place to notify maintenance department of defects.
- c. Documentation is made of repairs, which occur before the vehicle is returned to service.
- d. Forms are retained by day for at least three years.

Purpose:

This is to ensure that pre-trip inspections are being performed.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review pre-trip inspection forms and work orders and observe pre-trip inspection.	Pre trip booklets are provided. The amount of items to be checked is unrealistic within the timeframe operators are allowed to pre-trip vehicles	Pre trip books should be shortened to ensure that required and safety items are checked including brakes, horn, steering, lighting and wheelchair lift. Vehicle diagrams should be provided so operators can denote accident damage on vehicles.

3. **Standard:**

Preventative maintenance is performed on all equipment within the timeframes recommended by the vehicle manufacturer.

- a. Forms for periodic inspection on specific vehicle types are readily available to mechanics.
- b. Forms include ADA equipment.
- c. Inspection forms are filed with work-orders by vehicle.
- d. Forms are properly completed and signed by the mechanic who performed the work.
- e. Inspections are performed when due.
- f. Regular oil sampling (in accordance with manufacturer recommendations) is used to predict power plant failure.
- g. Documentation is made of service inspections that occur each time a vehicle is fueled, serviced, washed and cleaned (brakes, windshield wipers, lights and tires). Any defects that are detected are repaired before the vehicle is placed in service.
- h. Seasonal inspections of air-conditioning and heating systems are conducted.
- i. Vehicles without working climate controls, and ADA equipment, are removed from service as soon as possible.

Purpose:

This is to ensure preventive maintenance is performed.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Preview preventive maintenance schedules, completed preventive maintenance forms, and work orders produced as a result of preventive maintenance inspections.	Reviewed files for each vehicle in the fleet and found that for the last year 99.3% were inspected within the “on-time” requirement. There were some issues found with the Asset Works program that prevented the program from indicating late vehicles in “red” type. This issue was brought to the attention of the maintenance director. Some vehicles are used so	Continue working toward 100% on time for all vehicles and have Asset Works make necessary corrections to the program to highlight in red any inspections that are conducted outside the on-time range. Develop a time system where vehicles operated infrequently are inspected at least twice a year.

	rarely that a time based rather than a mileage based system should be considered.	
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4. **Standard:**

Vehicles should be maintained to the highest level of cleanliness and good repair.

- a. Free of trash and litter (trash can on board.)
- b. Hand rails, walls, roof hatch, etc. are clean.
- c. Interior railings, trim, etc. are in good repair.
- d. No body damage or rust.
- e. Advertising and/or sign frames in good repair. Ads have not expired and are in good condition.
- f. No graffiti is allowed to remain in or on the vehicle more than one day.
- g. Engine and fuel doors are intact and closed properly.
- h. No broken glass.
- i. Engines are steam cleaned at each inspection (no buildup of grease.)
- j. All interior and exterior lights are functioning.

Purpose:

This is to ensure that all vehicles are properly maintained.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Visual inspection of vehicles, including white glove test.	Many buses were dusty and stanchions were dirty. Older buses had instances of dents, scratches, and rust. Evidence of graffiti on bus interiors was evident. Fuel doors on older buses have missing stop posts. Engines and undercarriages are in need of cleaning. Several instances of burned out lights were observed.	Establish guidelines for cleaning vehicles particularly the older vehicles. All vehicles in the fleet should be cleaned to the highest standards. All vehicle bodies should be maintained with body damage being corrected. Undercarriages should be cleaned at each inspection. Burned out lights should be corrected as part of the servicing procedure.

5. **Standard:**

Shop should be kept clean to ensure safe and efficient work environment.

- a. Floors are cleaned daily.
- b. Tools not in use are put away.
- c. Oily and soiled rags are placed in proper receptacles.
- d. Old parts and materials are disposed of in a timely and safe manner.
- e. There are no leaking drums of oil and other materials.
- f. Safety equipment is available (eye wash, back braces, safety glasses, first aid kit, fire extinguisher) and their use is enforced.

Purpose:

This is to ensure a safe and efficient work environment.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Visual inspection of shop.	Shop floors need attention. While some effort has been made to keep the shop clean there were several instances of water on the floor creating a slip hazard. Rags were found lying on the floor.	The floor should be kept clean and dry. Mechanics should clean up the work area after each job is completed. Eye wash protection is needed in the pits.

6. **Standard:**

Parts inventory should be maintained in an orderly and secure fashion to ensure fiscal accountability and efficient maintenance operations. Written parts inventory procedures are maintained.

- a. Parts costing more than a certain value, usually three dollars, and with a useful life of more than one year, are recorded on the accounting books and stored as inventory.
- b. Kept in a secured location.
- c. Good control over parts issued.
- d. Kept in an orderly fashion (no empty boxes, litter, etc.)
- e. Regular inventory reconciliations (adjustments less than 10 percent) are documented at least annually, with spot checks throughout the year.
- f. The inventory system is computerized.

- g. The inventory system tracks use by bus number, signals when re-ordering is necessary, and provides a total inventory value that is linked to the accounting system.

Purpose:

This is to ensure an accurate inventory is maintained.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Interview maintenance manager and/or parts clerk, review parts inventory written procedures, visually inspect parts inventory, review inventory records, and spot check actual inventory against inventory records.	The Parts Room is very clean but could use some organization and removal of obsolete parts. The parts room is not secure. All maintenance employees have access to the room and issue their own parts frequently. Although the annual inventory count reconciled very closely, there are instances where a part issued is not attributed to a particular bus. It is very important that tracking maintenance parts costs per bus are consistent.	The system needs at least one Parts Clerk to issue parts. Preferably two Parts Clerks would be in place to issue parts for the majority of the maintenance work shifts. The bar code system should be implemented for issuing parts to a vehicle. The system is in place but is not operating. Obsolete parts should be disposed of as soon as possible. It is recommended that like parts be stocked together rather than stocked by vehicle type. All parts tags should identify what the part is, and what vehicle make and model it belongs to.

7. **Standard:**

Warranty records should be effectively maintained to ensure maximum recovery of costs for parts and labor under warranty.

- a. Written warranty claim procedures are in place.
- b. Working agreement with the manufacturer that spells out procedures for advance approval of the work, the rates to be charged, the mark-up on parts, the method of payment, etc. is available.
- c. Records of warranty claims are kept in an orderly manner.

- d. Records contain documentation of payment received.
- e. Parts (when requested by the manufacturer) are returned in a timely manner.

Purpose:

This is to ensure maximum recovery of costs for parts and labor under warranty.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Interview maintenance manager and/or parts clerk, review written warranty claim procedures, review warranty claim tracking records, and review work orders.	Warranty procedures are in place for major components such as new buses and sub components. Procedures for covering warranty on smaller rebuilt items such as alternators, starters, air compressors, etc. are not communicated well with vendors.	Establish clear communications with vendors that rebuild all items how the warranty timeframe will work. It should be understood that warranty begins at the time the part is installed in a vehicle and not when it is received from the vendor.

8. **Standard:**

Procedures should be in place to limit the negative impacts associated with the use of hazardous materials.

- a. A written spill response plan is available.
- b. Employees are trained in appropriate spill response.
- c. Emergency phone numbers are posted in close proximity to areas where spills may occur.
- d. Stored in labeled containers (EPA sticker.)
- e. Secured in a covered location.
- f. No leaking containers.
- g. Leak detectors are installed on fuel and lubricant tanks (evidence of tracking records is available.)
- h. Safety equipment is in place and operable (i.e. eye wash, shield on grinders, etc.)

Purpose:

This is to ensure safety.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review spill response plan, review maintenance employee training records, visually inspect storage of hazardous materials, visually check for posting of emergency phone numbers, review leak detection records, and review MSDS forms.	There is a spill response plan that is being updated at this time. One concern is the lack of barrier devices around the above ground fuel tanks.	As pointed out earlier, eye wash devices are needed in the inspection pits. No leaking containers were observed. Fuel tanks are above ground type and should have a barrier installed around them. The system has experienced a small fuel spill that could have been contained with the barriers.

9. **Standard:**

Effective procedures for responding to vehicle breakdowns are in place to minimize inconvenience to customers.

- a. Breakdown procedures are in writing.
- b. Spare revenue vehicles are kept available for immediate service during all hours of operation.
- c. Roadcall forms are filled out and filed after documenting follow-up action by the maintenance department.

Purpose:

This is to ensure effective response to breakdowns.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review written breakdown procedures, check vehicle spare ratio, review roadcall forms, and work orders generated as a result of breakdowns.	There are no written procedures for vehicle breakdowns. Spare vehicles are kept as backup. Reviewer was told there were roadcall forms and they were filed but	Develop written procedures for handling roadcalls that include who to call, what to report, location and communications between operations and maintenance. Ensure that

	none were produced during the review.	there are roadcall forms and they are kept as part of any work orders.
--	---------------------------------------	--

10. **Standard:**

Vehicle performance records are maintained.

- a. Miles, repairs, fuel and oil usage, etc. by vehicle is consistently and accurately tracked.
- b. Monthly vehicle performance report is prepared and used to spot potential vehicle problems.

Purpose:

This is to ensure that performance records are maintained.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Review maintenance reporting forms.	All of this data is kept in Asset Works program. No summary report is produced to provide information to the management team.	Provide monthly summary reports for the management team.

11. **Standard:**

Transit facilities, including passenger amenities (bus stop benches and shelters) are kept clean and in good repair.

- a. Free of trash and litter.
- b. No broken glass or benches.
- c. No rust.
- d. Advertising and/or sign frames in good repair.
- e. No graffiti is allowed to remain more than one day.

Purpose:

This is to ensure a clean and safe environment for passengers and employees.

<u>Audit Procedures</u>	<u>Findings</u>	<u>Corrective Action</u>
Visual inspection of facilities, including a white glove test.	This standard is met.	None needed.

CHAPEL HILL TRANSIT MAINTENANCE REVIEW ITEMS

Organizational Responsiveness and Quality of Work

Review and assess the organizational responsiveness and quality of work performed by employees supporting CHT Vehicle Maintenance Program

Findings/Recommendations:

This task involved the review of maintenance work orders, road call files and reports, and discussion with both maintenance and operations employees.

Preventive maintenance is conducted on schedule 99.3% of the time according to reports reviewed. Observations indicate that the quality of work and repairs is acceptable although the random checks of vehicles indicate there are an excessive number of oil leaks which should be corrected during preventive maintenance inspections. There was no evidence of an excessive number of road calls and the management reports indicate that miles between road calls would be considered within the normal range. There were few repeat mechanical failures. Observations and discussions indicate that there are generally enough buses and spares to meet service requirements.

Resources Provided

Evaluate the resources provided (tools and equipment/training)

Findings/Recommendations:

CHT has done a good job of acquiring the necessary tools and equipment for the maintenance area. Discussions with the Maintenance Director indicate that he has had the opportunity to get any needed equipment.

Training opportunities are critical to ensuring a quality maintenance department. Staff has indicated that training is a critical function that particularly with all the technology that is included in the fleet. The agency has adequate physical resources for training but a planned approach to how training will be conducted needs to be developed. The question is should someone be hired to perform maintenance training exclusively, should a person perform training along with other duties, or should the agency look to an outside agency to conduct necessary training on a continuous basis. For a system the size of CHT the recommended approach would be to use outside and OEM vendors to conduct the training on a recurring basis.

Responsiveness of Organizational Structure

Assessment of staffing and responsiveness of the organizational structure internally within the department and externally to other CHT functions.

Findings/Recommendations:

Chapel Hill Transit has grown to be considered a moderate size transit agency. Review and observations indicate that the maintenance department has grown to accommodate the requirements of a medium size agency. In general the number of employees in the maintenance should be based on the number of revenue miles operated. Because of the operating environment in Chapel Hill alternative methods of determining maintenance manpower requirements are needed. Two ways of determining these are appropriate; the number of revenue vehicles per mechanic or the number of revenue hours operated per mechanic. In transit there is not absolute set amount of personnel required due to several factors; mileage between preventive maintenance inspections, age of the fleet, technologies incorporated, and type of maintenance being done. The current CHT staffing consists of 29.5 employees including the maintenance director and supervisors. A total of 13 employees are classified as Mechanic I, II, or III. There are two bus service technicians and two mechanic helpers. The remaining employees are service personnel, parts room employees, shop supervisors and administrative staff. The maintenance department operates approximately 22 hours Monday through Friday. Saturday the shop has three employees and is open for eight hours and Sunday it has two employees and is open for three hours, primarily for servicing vehicles.

Since Chapel Hill Transit operates seven days a week it would be recommended that the maintenance department operate as a continuously open shop, 24 hours a day, seven days a week. This would allow for maintenance duties to occur continuously helping to ensure a reliable fleet of equipment. In order to achieve this mode of maintenance operations, a significant restructuring of the employee workforce and manpower requirements will be necessary. Attachment A provides recommended staffing for this expanded operation.

Maintenance Policies, Procedures and Methodologies

Review the vehicle maintenance group's policies, procedures, and methodologies to determine if they are sufficient from a safety and efficiency standpoint and are being adhered to by staff; determine if changes need to be made to enhance the efficiency, effectiveness, and safety aspects of the CHT's maintenance effort.

Findings/Recommendations:

Reviewing policies, procedures, and methodologies indicates that for the most part processes are in place to ensure efficiency, effectiveness, and safety aspects of the maintenance effort.

Areas of recommended improvement would be:

1. Consider methods of improving excessive temperature during summer months.
2. Consider requiring the wearing of bump hats when an employee is under a vehicle.
3. Consider eye protection for employees working within the shop at all times
4. Consider the placement of computer workstations at each work area to facilitate input of information. The agency should work to become a paperless shop and computer workstations at each work area will allow the efficient flow of information.

Maintenance Plan

Review the current system maintenance plan and assess whether it adequately establishes standards of performance, performance measurement procedures, and an implementation strategy. The consultant will also examine current management of these functions. Consultant will provide recommendations for improvement of the current program, if necessary. This will also examine consideration of adjustments of current work shifts, expansion of work shifts, and personnel assignments within each work shift.

Findings/Recommendations:

The maintenance plan needs to be updated to include the newest vehicles in the fleet. Updated preventive maintenance schedules and procedures should be included. CHT does have a hazardous spill plan contained as a separate document. It would be recommended to include the hazardous spill plan in the overall maintenance plan.

The maintenance department currently produces performance reports which appear to be relevant and provide necessary information to manage the department. These reports are reviewed by senior management including the Transit Director. Written procedures for compiling and reporting maintenance performance need to be developed to ensure that information is consistent and relevant and is easily compared to previous data to achieve a trend analysis and proper information.

The agency must be aware that an up-to-date maintenance plan is essential and must be treated as a document that will be consistently changing.

PARTS ROOM

Findings/Recommendations:

The Parts area is well managed and maintained. The area was found to be orderly and relatively free of items that are no longer used. The parts area was found to be secure but almost everyone in the maintenance department has card access to the parts room. There is no Parts Clerk at the present time and parts are issued by mechanics and supervisors. Inventory reconciliation appears to be good in spite of the lack of an issuing clerk. There does appear to be problems with reconciling parts to a particular work order or bus and therefore the actual maintenance cost per bus is questionable.

Two recommendations are appropriate for this area.

1. Hire at least one, preferably two parts clerks for issuing and reconciling parts to a vehicle. If the maintenance department becomes a 24/7 shop, it will be imperative that two parts clerks be hired.
2. Implement the bar code system of issuing parts. The agency has this technology but is not functioning at the present time.

At some point consideration should be given to building a mezzanine area above the parts room floor for the purpose of storing large items such as engines and transmissions and other items that might get stored for extended periods of time.

MID LIFE VEHICLE MAINTENANCE

Findings/Recommendations:

A common practice in the transit industry is a mid life overhaul of vehicles. This process is to ensure that vehicles are safe and reliable throughout their life cycle. For the most part, the fixed route buses at CHT are considered 12 year or 500,000 vehicles. In order to more effectively maintain the fleet at CHT, consideration should be given to developing a mid-life vehicle overhaul procedure. Items included in mid life overhaul would be new/updated engines, transmissions, differentials, climate control systems, suspension and technological systems. Grants are available to assist in this process. In considering this recommendation it should be pointed out that a mid life warranty process would be established thereby reducing maintenance costs.

Appendix A

Proposed Staffing

Chapel Hill Transit has grown to be considered a moderate size transit agency. Review and observations indicate that the maintenance department has grown to accommodate the requirements of a medium size agency. As outlined earlier it is being recommended to extend the maintenance department hours to 24 hours a day, seven days a week. The reasoning behind this recommendation is the fact the Chapel Hill Transit operates seven days, has a mixed fleet of older vehicles needing more maintenance and newer vehicles with technological features requiring additional maintenance.

The current CHT staffing consists of 29.5 employees including the maintenance director and supervisors. A total of 13 employees are classified as Mechanic I, II, or III. There are two bus service technicians and two mechanic helpers. The remaining employees are service personnel, parts room employees, shop supervisors and administrative staff. Staffing recommendations take into consideration the number of weeks employee's vacations have accrued. Maintenance must maintain staffing and often encounters significant overtime during times when employees are on vacation leave. . The Chapel Hill Transit maintenance department has a need for one (1) full time bus electronics technician that would be tasked with the maintenance, diagnosis and repair of the advanced design bus electronics. Examples of that equipment are security cameras; exhaust emissions/alternate fuels; automatic passenger counters, voice annunciators; passenger counters; mobile data terminals

Based on the recommendation of establishing a 24/7 maintenance department, it is recommended that a total of 18 employees be classified as Mechanic I, II, or III. The total staffing of the maintenance department would increase from 29.5 employees to 38 employees.

Job Title	Current Actual	Recommended
Maintenance Superintendent	1	1
Assistant Maintenance Superintendent	0	1
Shop Supervisor	2	3
Mechanic III	3	3
Mechanic I-II	10	15
Bus Service Technician	2	4
Mechanic Helper	2	0
Service Attendant	6.5	7
Electronics Technician	0	1
Parts Manager	1	1
Parts Clerk	1	2
Administrative Clerk	1	0

Suggested Employee Schedules (I II III Mechanics Only)

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Mech III	1st Shift	1	1	1	1	1	0	0
Mech III	2nd Shift	1	1	1	1	1	0	0
Mech III	3rd Shift	1	1	1	1	1	0	0
Mech I II	1st Shift	4	4	4	4	4	2	2
Mech I II	2nd Shift	6	6	6	6	6	2	2
Mech I II	3rd Shift	3	3	3	3	1	2	4

Appendix B

Sample Operator Pre Trip Report

Bus Number _____ **Block** _____ **Operator** _____

Operator Pre-Trip/Post Trip Inspection

Lights	OK	Defect
Head Lights (High Bean/Low Beam)	_____	_____
Brake Lights	_____	_____
Turn Signals	_____	_____
License Plate	_____	_____
Turn Signals/4-Way	_____	_____
Clearance Lights	_____	_____
Interior Lights	_____	_____
Interior		
Door Operation	_____	_____
Wheelchair Lift	_____	_____
Climate Control System	_____	_____
Seats/Handrails	_____	_____
Brakes/Emergency Brake	_____	_____
Dash Gauges/Lights	_____	_____
Horn	_____	_____
Fire Extinguisher	_____	_____
Windows/Windshield Cracks/Damage	_____	_____
Exterior		
Windshield Wiper/Washer	_____	_____
Body Damage/Scratches	_____	_____
Exhaust Pipe	_____	_____
Destination Sign	_____	_____
Bike Rack	_____	_____
Tires	_____	_____

Comments: _____

Maintenance Comments/Corrective Action: _____

4D. Bus Shelter Improvement/Replacement Plan

Action: 1. Receive information and provide staff with feedback.

Staff Resource: Matt Cecil, GIS Coordinator

Background

The public's first impression of Chapel Hill Transit and its services is the bus stop. It is important that our bus stops are easily identifiable, safe, accessible, and a comfortable place to wait for the bus. Although, there will likely always be underdeveloped bus stops, we feel that it is important to begin taking steps to improve our bus stops and our customers experience while waiting for the bus. We also feel that our bus stops and shelters in particular, in addition to providing a safe and attractive waiting place for our customers, should also make a positive contribution to the streetscapes in the communities we serve.

A little over two years ago, Chapel Hill Transit undertook a bus stop/shelter assessment project and due to other priorities little progress has been made to begin addressing the issues identified by the assessment. We currently have 120 shelters located at 100 stop locations (some locations have more than one shelter) in our service area. Many of these existing shelters are beginning to age, at least 10 are in a total state of disrepair, many do not include lighting or basic amenities such as a bench or map holder and several do not meet Americans with Disabilities Act (ADA) requirements due to their design.

Existing Shelter Design

The standard shelter design used by Chapel Hill and UNC (Carrboro has generally utilized a unique shelter design) is dated and has significant issues, including but not limited to the following:

- Shelters are not modular, so if any damage occurs the entire shelter usually has to be replaced.
- Due to the age of the shelter, finding replacement parts for the limited parts that can be replaced is a challenge.
- The dome roof is custom fitted to shelter and non-repairable.
- The gutter design causes drainage issues that lead to leaks.
- Generally we have found it would be less expensive to purchase new, modern shelters, than try to retrofit existing shelters with lights, benches, and other reasonable amenities.
- Shelters are not able to easily allow the installation of public art and/or maps and schedules.

Fiscal Note

- Chapel Hill Transit has a small amount of federal grant funding that needs to be allocated to improving customer amenities. There may also be funding available through the Orange County Bus and Rail Investment Plan.

Next Step

- If approved, staff will begin to purchase this new shelter design to replace existing shelters and utilize this design at new stop locations, as appropriate.
- Meet with Carrboro staff to discuss options for Carrboro and determine if a meeting with the Board of Aldermen would be necessary.
- Staff will develop a schedule for replacing existing shelters, based on availability of grant funds. An update on this will be provided at March Partners meeting.

Recommendation

- CHT staff recommends moving to a more modern style shelter that exhibits a gutter-less roof design that can also be incorporated with solar panels, as well as LED lighting options and other passenger amenities.



4E. Chapel Hill Transit Future Meeting Schedule

Action: 1. Approve schedule as presented.

Staff Resource: Brian Litchfield, Director

- During the March 19, 2013 meeting, the Partners adopted a meeting schedule through June 2014 (generally the fourth Tuesday of each month, unless otherwise noted). Staff is recommending the adoption of a similar schedule through June 2015. If approved the schedule will be posted on the Partners webpage and the Town’s meeting calendar.

Chapel Hill Transit Public Transit Committee Meeting Schedule		
Date	Time	Location
March 25, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
April 29, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
May 20, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
June 24, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
July – No Meeting	No Meeting	CHT - 1st Floor Conference Room
August 26, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
September 23, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
October 21, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
November 18, 2014	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
December – No Meeting	No Meeting	CHT - 1st Floor Conference Room
January 27, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
February 24, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
March 24, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
April 28, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
May 19, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room
June 23, 2015	11:00 A.M. – 1:00 P.M.	CHT - 1st Floor Conference Room

Recommendation

- Staff recommends approval of the schedule through June 23, 2015, as presented.

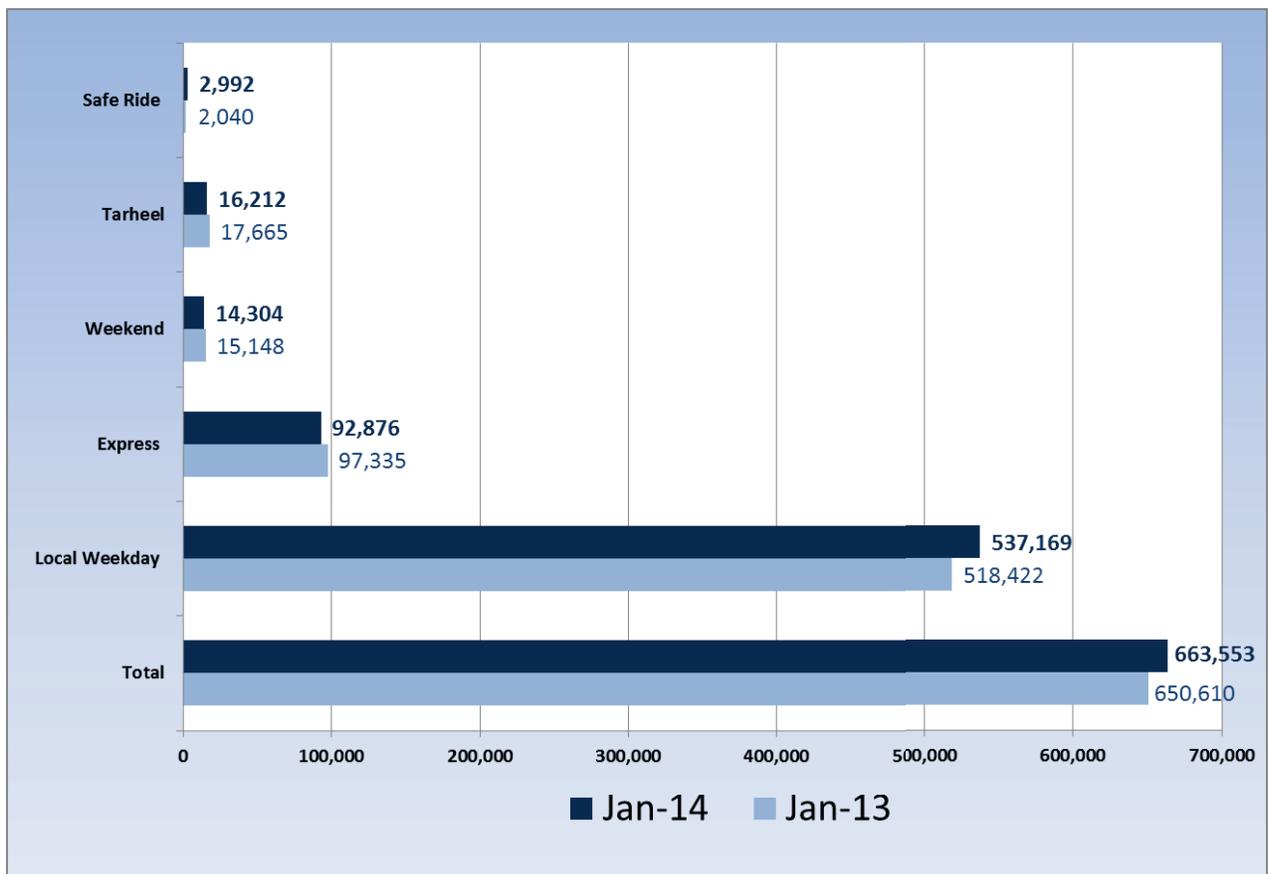
5A. January Performance Report

Staff Resource: Mila Vega

In both January 2013 and January 2014 there were 21 Weekday Service Days. The chart below shows an increase in monthly ridership from January 2013 to January 2014 in the following service categories – Safe Ride, local weekday, and total monthly ridership.

There was a 2% overall increase of monthly ridership from January 2013 to January 2014.

As of January 2014, FY13-14 is on track to maintain comparatively similar ridership to FY12-13. There is 0% change in cumulative ridership from FY12-13 to FY13-14.



5B. Annual Safety and Training Performance Report

Staff Resource: Nick Pittman Fixed Route Operations Manager
 Brian Litchfield, Transit Director

Fixed Route: Accident Frequency Rate (AFR) per 100,000 miles.

Miles	Total Accidents	AFR	Preventable	AFR	Non-Preventable
2009 – 1,840,391	78	3.10	36	2.10	20
2010 – 1,866,701	59	3.16	25	1.34	32
2011 – 1,741,881	65	4.10	20	1.15	45
2012 – 1,756,400	62	3.55	24	1.41	38
2013 – 1,938,626	47	2.40	19	1.00	28

Demand Response: Accident Frequency Rate (AFR) per 30,000 miles.

Miles	Total Accidents	AFR	Preventable	AFR	Non-Preventable
2009 - 233,755	4	0.32	2	0.20	2
2010 – 308,413	9	1.03	6	1.01	3
2011 – 309,496	10	0.96	7	0.68	3
2012 – 241,674	7	1.01	4	1.11	3
2013 – 422,726	5	0.40	3	0.20	2

Action Plan – Safety Culture

Completed

- Safety Assessment of CHT’s Maintenance Facility: A team of risk management consultants from the League of Municipalities (Town’s insurance provider) completed an assessment of our maintenance facility on Thursday, June 20, 2013. The consultants will be providing staff with a report identifying actions to reduce exposure to risk and help us ensure a safe working environment for our employees.
- Building Security System: Staff has been working with Strategic Security Solutions to upgrade the security system for the building, including the installation of card readers on access doors throughout the facility. The new system will be coordinated with the systems in place at Town Hall, Public Works and the Library.
- Vehicle Maintenance Audit: CHT has hired a firm to conduct a comprehensive maintenance audit. The audit will include a review of the maintenance records, maintenance practices, preventive maintenance schedules, technician skill levels, training and a physical inspection of a sample of the various types of vehicles in the CHT

5C. Long Range Financial Sustainability Plan Update

Staff Resource: Rick Shreve, Budget Manager
Brian Litchfield, Director

Overview

At the January Transit Partners meeting, consultants from Nelson Nygaard (NN) presented an analysis of the CHT capital funding history, present state, and future scenarios. The slides from their presentation are online, on the Public Transit Committee page: <http://www.townofchapelhill.org/index.aspx?page=2309>.

NN and CHT staff are further analyzing the scenarios presented last month, as well as expanding an analysis of our operational staffing. Our consultants will return for the March Partners meeting to give a discussion-oriented presentation on the staffing analysis.

Public input sessions, facilitated by the NN subcontractors with Kimley Horne, are planned for the week of March 3rd and a press release and additional information will be issued to public.

Next Steps

- NN will attend the March Partners meeting to further discuss funding scenarios and the work they have completed on the staffing analysis.

5D. North-South Corridor Alternatives Analysis Study

Staff Resource: Mila Vega, Service Planner

Background

The project management team (PMT) continues to hold bi-weekly conference calls to prepare for the first public involvement event planned for the end of March. The tentative date is March 26th, pending confirmation from available meeting locations. Two public meetings will be held on one day: one at the UNC campus at noon and one along the study corridor in the evening.

CHT has issued a press release advertising the study on February 17th. The press release provided an overview of the study and informed the public where to look for information related to the project and upcoming events. A copy of the press release is attached.

All the data requested by the consultant team for the initial stages of the study was located and provided by the PMT. The consultant is using the data to develop the study Purpose and Need Statement draft. The goal is to have the draft report available to the public at the March outreach event.

Next Steps

- Develop draft Purpose and Need Statement for PMT review (3/7/14)
- Plan and hold the first public outreach event (tentatively 3/26/2014)

Attachment

- North South Corridor Alternatives Analysis Announcement Press Release.



CHAPEL HILL TRANSIT
Town of Chapel Hill
6900 Millhouse Road
Chapel Hill, NC 27514-2401

phone (919) 969-4900 *fax* (919) 968-2840
www.townofchapelhill.org/transit

Contact Information:

Brian M Litchfield
Director
Chapel Hill Transit
919-969-4908
919-260-0932
blitchfield@townofchapelhill.org

FOR IMMEDIATE RELEASE

Monday, February 17, 2014

Chapel Hill Transit Announces North-South Corridor Study

Chapel Hill Transit has launched the North-South Corridor Study, a transit service planning initiative for the corridor linking Martin Luther King Jr. Boulevard, South Columbia Street and US Highway 15-501 South.

The study represents a significant step towards achieving the goals established by the Chapel Hill 2020 comprehensive plan. The comprehensive planning work was conducted in six theme groups. "Getting Around" theme group established a set of goals aimed at the development of a well-balanced and holistic transportation system that connects communities, provides a variety of transportation options and places an emphasis on ecological conciseness.

The North-South Corridor study will review the transportation corridor from the Eubanks Road Park and Ride to the Southern Village Park and Ride Lot. Its purpose is to identify and evaluate improved accessibility, capacity, convenience and travel-time for riders.

The transit study will include an analysis of potential improvements, service increases to the UNC-Chapel Hill campus and UNC Health Care, and connections to the new campus at Carolina North. Safety and pedestrian activities, future development potential, and impacts to existing neighborhoods will be paramount concerns of the study.

The study will examine a variety of public transportation options and alignments and will conclude with the identification of a Locally Preferred Alternative (LPA) for the corridor. The study is being funded in part by the Federal Transit Administration. It is the first step in the federal process that will allow Chapel Hill Transit to compete for federal funds for the project in the future.

An extensive public involvement process will encourage partnerships among agencies, businesses and organizations along the corridor. Project staff, fact sheets, maps, and comment

forms will be available at various public meetings and events. Project information and a sign-up form for regular email updates are available at the North-South Corridor Study website: www.NSCStudy.org. The first public involvement event is planned for the end of March 2014; additional information will be provided via future press releases and project website updates.

URS Corporation of North Carolina was selected to conduct the study, officially named the North-South Corridor Alternatives Analysis (AA) Study. URS is a global engineering, construction and technical services organization with transit planning experience across the United States. URS has an office in Morrisville, N.C.

Chapel Hill Transit is the public transportation provider that serves Chapel Hill, Carrboro and the University of North Carolina at Chapel Hill. For complete information about CHT services, schedules, route changes or directions to the nearest CHT stop, visit us at www.chtransit.org, email chtransit@townofchapelhill.org or call a CHT customer service representative at 919-969-4900(press 1).

-End-

5E. Strategic Transportation Investments Update

Staff Resource: Natalie Murdock, Grants Coordinator
Mila Vega, Transit Service Planner

Background

Strategic Transportation Investments – also known as the Strategic Mobility Formula – is a new way to fund and prioritize transportation projects to ensure they provide the maximum benefit to our state.

- NCDOT requested that Transit agencies across the state submit their high priority projects (FY 16-FY20) that fall into specific categories; this includes transit expansion and headway reduction projects. Projects not submitted into this new state system cannot be considered for a 10% state match.
- Replacement bus needs are not included in this process. There is not currently a mechanism the rank replacement vehicle needs.
- Projects that may rank poorly in the state STI process can still be funded with FTA and local funds

Chapel Hill Transit top expansion and headway reduction projects (FY16-FY20)

- Add additional service on the NS, T, NU and A routes (1 additional bus per route)
- Add additional peak hour service on the J route (1 additional bus requested)
- Add additional peak hour service on the F route (1 additional bus requested)
- Add additional service on the G route (1 additional bus requested)
- Add additional service on the CW route (1 additional bus requested)
- Expand the CL and D routes (4 additional buses requested)
- Extend local bus service from Friday Center to serve demand in 54 corridor or I-40 or beyond (4 additional buses requested)
- Increase frequency of the Pittsboro Express route (1 additional bus requested)
- Install new block length shelter at Manning Dr./UNC Hospital

Next Steps

- Staff will receive feedback on proposed project list from the Partners
- NCDOT is currently reviewing our list of projects to generate a data driven score
- The DCHC MPO will rank transit projects in April/May

6A. Operations

Staff Resource: Tyffany Neal, Operations Manager - Demand Response
Nick Pittman, Fixed Route Operations Manager

Demand Response – Tyffany Neal

- Demand Response's On-Time Performance (OTP) for the month of January 2014 – 94.8%
- Demand Response's Total Cancellations for the month of January 2014 – 28.88% (due, in part, to the holiday season (MLK Day) and inclement weather).
- Demand Response had zero (0) Missed Trips in January 2014.
- Demand Response is in the process of hiring four (4) Apprentice Operators. Staff is currently scheduling interviews in hopes of having a new class begin as soon as possible.
- EZ Rider Advisory Committee (EZRAC) meeting was cancelled this month due to the inclement weather. The meeting schedule will resume in March 2014. The Operations Manager-Demand Response will provide an update to the Partners once the EZRAC has had an opportunity to discuss the feedback from the Community Input sessions regarding the revisions to the handbook.

Fixed Route – Nick Pittman

- This month, fixed route would like to honor its Supervisory and fill-in Supervisor staff. During January, CHT faced numerous winter weather storms and our supervisor staff should be commended for their hard work and dedication in ensuring that service was provided to the customer. They all worked long hours both on the street and in the office to do whatever it took.
 - Ty Edwards
 - Richard Roberts
 - Shanika Nickerson
 - Deborah Davis
 - Joe McMiller
 - Quentin Craven
 - Melissa Tillman
- Fixed Route's On-Time Performance (OTP) for the month of January 2014 – 84%;
December – 84%

6B. Maintenance

Staff Resource: Carl Rokos, Fleet and Facilities Manager

Preventive Maintenance Inspections

- Currently Fixed Route Preventive Maintenance on time performance for the month of February is 100% on time. A total of 15 inspections were performed. FY 13-14 PM on time performance for Fixed Route is 96%. Currently Demand Response Preventive Maintenance on time performance for the month of February is 100% on time. A total of 5 inspections were performed. FY 13-14 PM on time performance for Demand Response is 94% on time.

Training

USSC, a seat manufacturer held a seat service and rebuild class at CHT January 21. All Mechanics received training. USSC also provided a demo seat to install on bus 0207 for operations review at no cost.

Maintenance Activities

- All open mechanic positions are filled.
- Two open Service Attendance positions have had challenges, two offers were made and both declined the offer. Subsequent offers have been made with one accepting with a start date the second week of March.
- The joint Public Works and CHT task force has a draft safety policy developed and given to the town manager for review.
- The winter storm was handled very well by the division with staff coming in and working long / odd hours to provide support. Power was lost and restored within 24 hours. Network and phones were lost during this time and the power surge damaged several pieces of equipment including electrical components in the fuel island, shop compressor room and network switching device. All items have been restored and repaired.

6C. Director

Staff Resource: Brian Litchfield

- The Director's Report will be provided to the Partners at the February 25, 2014 meeting.



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www.townofchapelhill.org/transit

**CHAPEL HILL TRANSIT PUBLIC TRANSIT COMMITTEE
 FUTURE MEETING ITEMS**

January 28, 2014

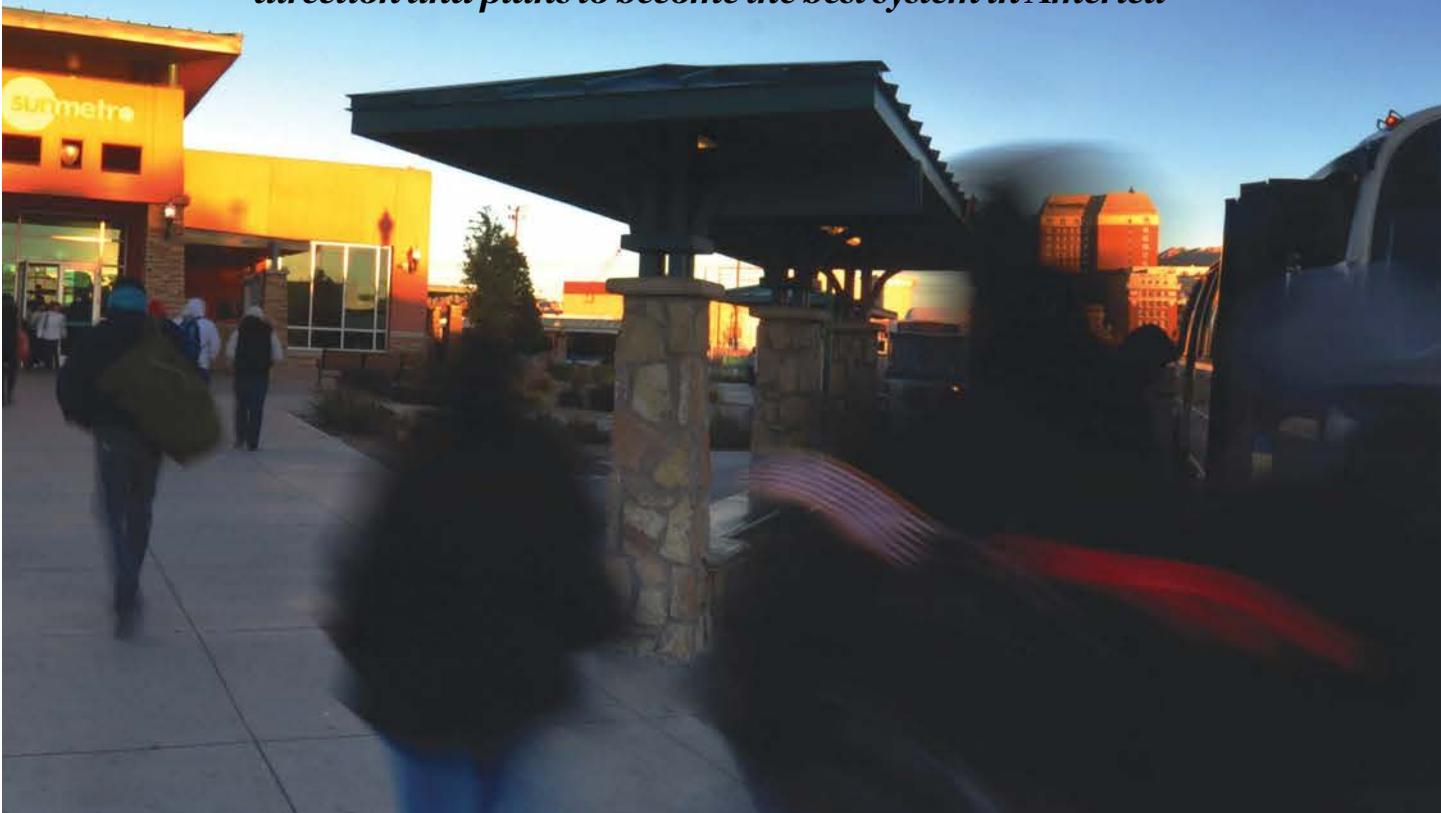
March 25, 2014 11:00 a.m.	
Action Items	Informational Items
	AA Study Update Financial Sustainability Study Update FY 14/15 Budget Process
April 22, 2014 11:00 a.m.	
Action Items	Informational Items
	AA Study Update Financial Sustainability Study Update FY 14/15 Budget Process
May 20, 2014 11:00 a.m.	
Actions Items	Informational Items
	AA Study Update Financial Plan Update FY 14/15 Budget Process

<u>Key Meetings/Dates</u>
TCC Meeting – February 26, 2014, 9-11AM, Durham City Hall

Sun Metro Shines Over El Paso

Joe Petrie

In just one decade, Sun Metro has gone from the verge of extinction to massive growth thanks to a major change in direction and plans to become the best system in America



When Joyce Wilson took over as El Paso city manager in 2004, she found herself facing a massive crisis with the city's archaic and neglected public transit system, Sun Metro.

By 2005, she said there were indicators of "major stress" on the system, which prompted city leaders to do a radical

intervention before Sun Metro ceased to exist at all.

Wilson said a big issue the system faced was projects

were cobbled together using federal grants, with no game plan. It was difficult to get federal monies as well because she said federally elected representatives said plans presented to them didn't highlight a game plan.



“When the crisis hit, it became really apparent that we had to really do something dramatic or we were not going to have a transit system,” Wilson said about the issues.

El Paso began a dramatic change in how Sun Metro was ran and how it focused on serving its community. And within six years, the changes were dramatic enough to take Sun Metro from the edge of extinction to being recognized by the American Public Transportation Association (APTA) as the best mid-sized transit system in the country.



| Sun Metro Manager Jay Banasiak

OVERHAULING THE MANAGEMENT

First Transit took over the system in 2007 and found Sun Metro in need of some care. Tim Omick was the initial First Transit manager of Sun Metro and began to lay the ground work to overhaul it and “shock the system,” before Jay Banasiak took over in 2009.

First Transit needed to revamp the entire transit system in El Paso, which Banasiak said meant getting down to changing the basic outlook and attitudes of employees who had worked in a system with a history of trying to just hang onto what it had.

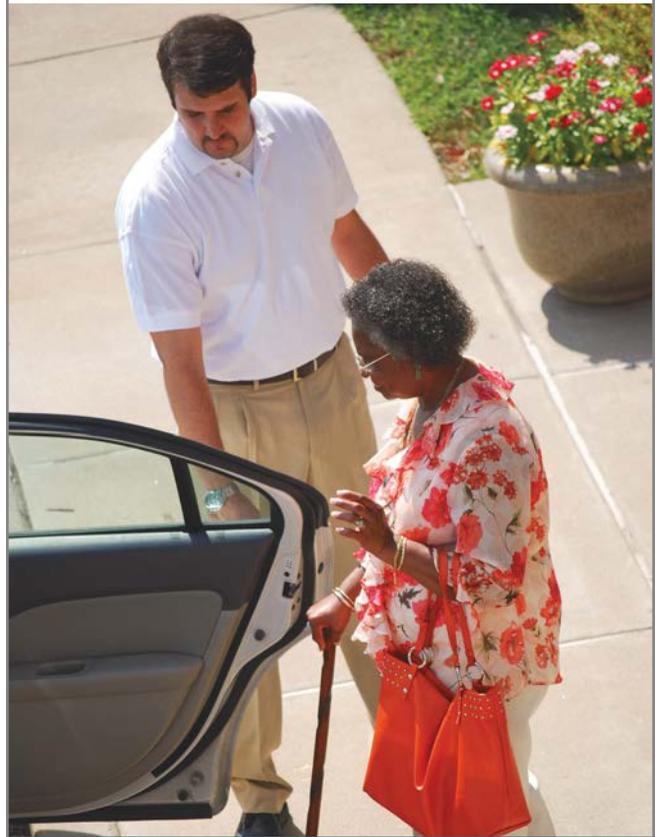
“Before 2007, the system was really stressed out and struggling and the employees got used to that, so basically they were city employees and that’s how they ran it,” he said

Photos by Sun Metro

More than 20,000 riders per day pass through El Paso’s downtown transit center.

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about the culture at Sun Metro when changes began. “When we were first hired at First Transit, we were told ‘I want it to be one of the best transit systems around,’ so we had to get the employees to buy into the fact they’re not really city employees per se, but transit professionals.

“They think like that now. They bought into the system and we really take care of them for all the new things coming and we try to do as many incentives as we can.”

While First Transit was the one implementing the changes at Sun Metro, transit officials said the public transit attitude adopted by city leaders made the changes possible.

“We had a good core of employees and knowledgeable people, but there was no direction or support,” said Lloyd Williams, assistant director of operations for Sun Metro. “It was about changing the culture a little bit and believing in it, so when they saw the new buildings going up it helped change the mentality of the people who really wanted to help in what we were doing.”

Williams said there were lots of employee grievances filed with the agency when First Transit took over, so leaders took steps to tackle them by listening to employees and addressing issues.

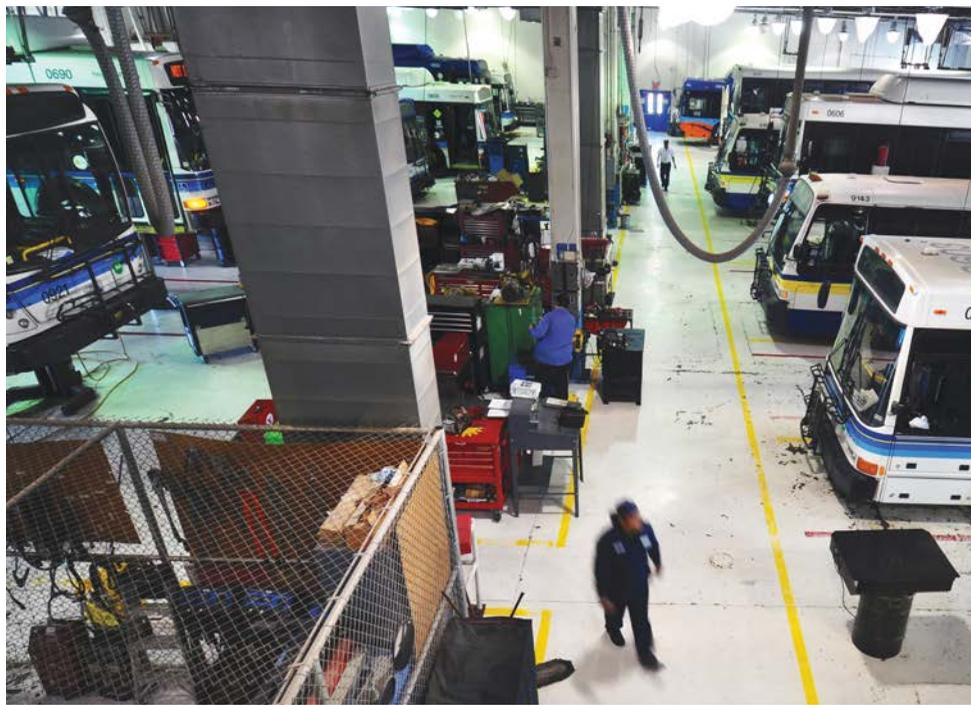
Although Sun Metro employees aren’t unionized, a quasi-union leader filed lots of grievances, so Williams said the employee was named to a supervisory position to give him a chance to make a positive change.

“We’re not in the bus business, we’re in the people business,” Williams said.

The takeover meant First Transit also hired new people with a new focus on customer service as opposed to existing driving skills.

“People are more apt to use transit here,” Banasiak said. “People from Jaurez, Mexico need transit to get to work, so the biggest expectation here is to provide really good service.”

When First Transit first took over Sun Metro, employee attitudes and outlooks weren’t the only things that



needed to be fixed as an archaic bus fleet sat in wait for some care after many years of neglect and use.

Kevin Bunce, assistant director of maintenance for Sun Metro, said buses on the system have a 12-year or 500,000-mile life cycle, but when the agency began retrofitting diesel buses to run on natural gas in the 1990s, it changed the life cycle of the buses, meaning the agency had to wait much longer to replace them.

And the way the agency approached service to its fleet made it very difficult to keep buses on the road.

“When I first came here in 2006, the on-time performance was measured in if the bus actually showed up at all much less on time. It was that awful,” he said. “Now we have a 97 percent on-time performance and that’s measured by when it’s supposed to show up not if it’s going to show.”

Sun Metro began pushing more preventative maintenance on its bus fleets, Bunce said, instead of waiting for the units to break. Once it became priority-one of the maintenance shop, they then put an emphasis of getting OEM replacement parts as opposed to “parts that just fit.”

The usage of OEM parts has saved the agency significantly because it keeps buses on the roads because there’s less failure than cheaper aftermarket parts, which can also



Sun Metro technician Manny Saenz works on a piece of electrical equipment.

damage other bus parts when they fail and affect other units.

Local vendors also bid to sell OEM parts to the agency, Bunce said, so if they need to get something like Bendix brakes they get the best price possible from local suppliers who want to sell the parts to Sun Metro.

“There’s some pretty interesting characters out there selling some pretty interesting things,” he said. “We use the phrase that sometimes I can’t afford to have you save me any money.”

Bunce said maintenance department leaders are still changing attitudes to this day because some employees liked the old system, but when a new bus is purchased all technicians must undergo extensive OEM training to make sure they can fix all the components to keep it running.

Sun Metro is starting predictive maintenance practices in an effort to keep on top of repairs and to lower overall costs to rebuilt parts.



Operator Enrique Perez prepares a Sun Metro bus before it begins service.



Brio will be a four-line bus rapid transit system in El Paso, which is being watched closely by federal officials for its potential impact on the community.

“We can go out and buy the best bus there is, but if my techs don’t know how to work on it, then it’s a piece of crap,” he said.

On-time performance for Sun Metro is 97 to 98 percent. Banasiak said road calls continue to decline despite the system’s aging fleet.

“Probably the biggest reason we’ll continue to be successful is our employees,” Banasiak said. “They understand what we want to do and they understand we’re the best transit system and we want to continue being the best.”

Sun Metro has even tackled vandalism issues

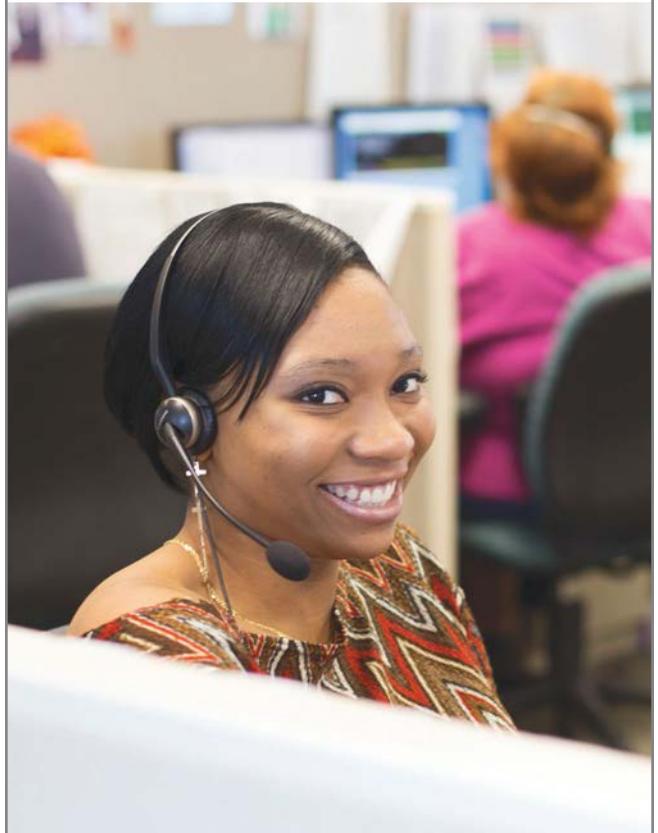
by teaming up with an El Paso community organization. Graffiti was an issue on display boards at the transit centers, so the agency reached out to Creative Kids, which put different Hispanic artwork displays in areas that had been popular targets for graffiti artists.

The artwork is created by children from low income families or children who have terminal diseases or are battling disabilities in the El Paso area.

“It’s a good opportunity to showcase some of the wonderful pieces of art the children made and share them with our community

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Sun Metro's new \$38 million operations center will be set on 37.5 acres of land and will be able to accommodate parking for upward of 270 buses.



as well as help stop or reduce graffiti and tagging," he said "It really has. We hardly get tagged anymore."

BIRTH OF A WORLD-CLASS SYSTEM

After the system was stabilized, Wilson said El Paso leaders were able to get out of crisis mode and develop a forward-thinking strategy for Sun Metro.

"We're a large urban area with about 700,000 people in the city and slightly less than 1 million in the region and that doesn't count our Mexican visitors who use the system," she said. "We need to have a world-class, reliable public transit system for this community if we're going to be competitive with other cities."

Sun Metro is putting an emphasis on improving customer experiences. Banasiak said in the past several years the agency has spent \$8 million on new shelters along with \$31 million building four new transit centers. Each of the centers has Wi-Fi and real-time displays so riders know exactly when their bus will arrive.

The agency has even partnered with Big Boy Concessions to open restaurants in the centers, so riders have a chance to get something to eat while waiting for their ride.

The downtown transit center draws 20,000 riders per day, Banasiak said, so the demand is there for amenities to improve their ride.

"We take care of our passengers because we figure if we have a 97-98 percent on-time schedule, buses seldom break down and we give people

accurate information; that's all we can do," Banasiak said.

Sun Metro will soon go out to bid to get riders next bus information via computer and smartphones by late summer or early fall.

"Passengers will have that information literally at the tips of their fingers," Banasiak said. "They can know exactly when their bus will be there."

Sun Metro has a working relationship with Amtrak, which leases agency space in the agency depot. It also works with the New Mexico Department of Transportation, which runs a route from La Cruces, N.M., into El Paso.

"It has been a great commuter system," Banasiak said. "My wife uses it all the time and it's full."

Bunce said the Sun Metro fleet consists of 103 NABI, 39 New Flyers and 25 Millenniums. The 1991 models will finally be retired and replaced in July.

The old buses need plenty of work because of El Paso's location. The city is 4,000 feet above sea level, with summertime temperatures reaching 100 degrees, so Bunce said it's not uncommon for turbo chargers to be glowing red, so bus cooling systems need to be pretty robust.

The air conditioning units have to contend with cold air escaping the buses in the summer when bus doors open and because of the dust and dirt, severe-duty air filters from makers like Fleet Guard are needed to keep the intake system clean.

"Again, it's about spending the money up front on the durability instead of on the back end when it breaks down," Bunce said.

Sun Metro is also completing a \$38 million operations center, which is a very welcoming addition for the maintenance department, Brunce said because right now roughly 167



Operator Enrique Perez welcomes aboard a Sun Metro rider.



buses are being stored on 13.5 acres, while the new center will have 37.5 acres and fit upward of 270 buses comfortably.

The facility will open up just in time for the arrival of new articulated buses, which will run in what could become the crown jewel of Sun Metro.

A NEW STANDARD IN BRT

Sun Metro is building a \$140 million four-corridor bus rapid transit system, which will feature 100 stations along 50 miles of line. Banasiak said each of the stations will have Wi-Fi allowing riders to use electronic devices seamlessly along their commute.

“One of the biggest things now that we have the infrastructure set and we have this BRT system is now it’s all about economic development,” Banasiak said. “It’s about how we can utilize our BRT corridors to make the economy better.”

Banasiak said the most exciting transit-oriented development associated with the BRT is happening in the northeast part of El Paso on the site of a former mall. The 30-acre mall had not been used in

at least a decade, so Sun Metro bought seven acres for \$5 million to build a transit center on it. The purchase spurred the city to buy the other 23 acres, raze buildings on the site and now Sun Metro is in negotiations with a major developer to put up a major TOD development, which also recently received a \$10 TIGER grant.

Banasiak said the project is looking at building 130,000 square feet of retail space; 800 residential units; 480 parking spaces; and 7,300 linear feet of street. It could be a \$130 million development, Banasiak said, and the terminus will be a BRT route, which has gotten the attention of the Federal Transit Administration.

The development is also near Fort Bliss, which has seen its population swell from 30,000 to 100,000 in recent years due to \$5 billion in investments from the federal government. FTA Administrator Peter Rogoff even came out to see the TOD project, which Banasiak said is creating excitement for federal leaders who want to see the possible economic development potential of a major BRT system.

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“This is a major TOD development usually reserved for a light rail system,” Banasiak said about the BRT project. “Everyone is really excited about how it’s going to turn out.

“And that’s the big thing. You know, when you looked at the property before, it was rundown, now it’s nothing but flat land, ready to be

developed, so it’s really exciting and the city is really excited. The people were there for the breaking down of the old mall. You should have seen the crowd when that first ball hit the side of that building. There’s a lot of anticipation for that area.”

In addition to the BRT, Sun Metro has completed design work on a

planned five-mile streetcar line in El Paso. The project still needs money and Banasiak said it’s “on the back burner” right now, but it’s ready to go if funding comes through.

Michael O. Herrera, assistant director for planning, safety, security and training, said new system leaders inherited an out-dated transit system comprised of several former bus operators who were merged into one entity by the city and there was little thought given to the way routes were designed or to growth of the city.

Now Sun Metro is involved in city planning and development process.

“One thing we worked on was making sure we had a place in the development process and to do any development — large or small scale — we need to sign off on it because now there’s a transit element,” he said.

AIMING FOR THE NEXT LEVEL OF SUCCESS

Sun Metro is an enterprise fund with its local funding coming from a one-half cent sales tax. Farebox recovery is at about 23 percent, with the goal of getting to 25 percent in coming years.

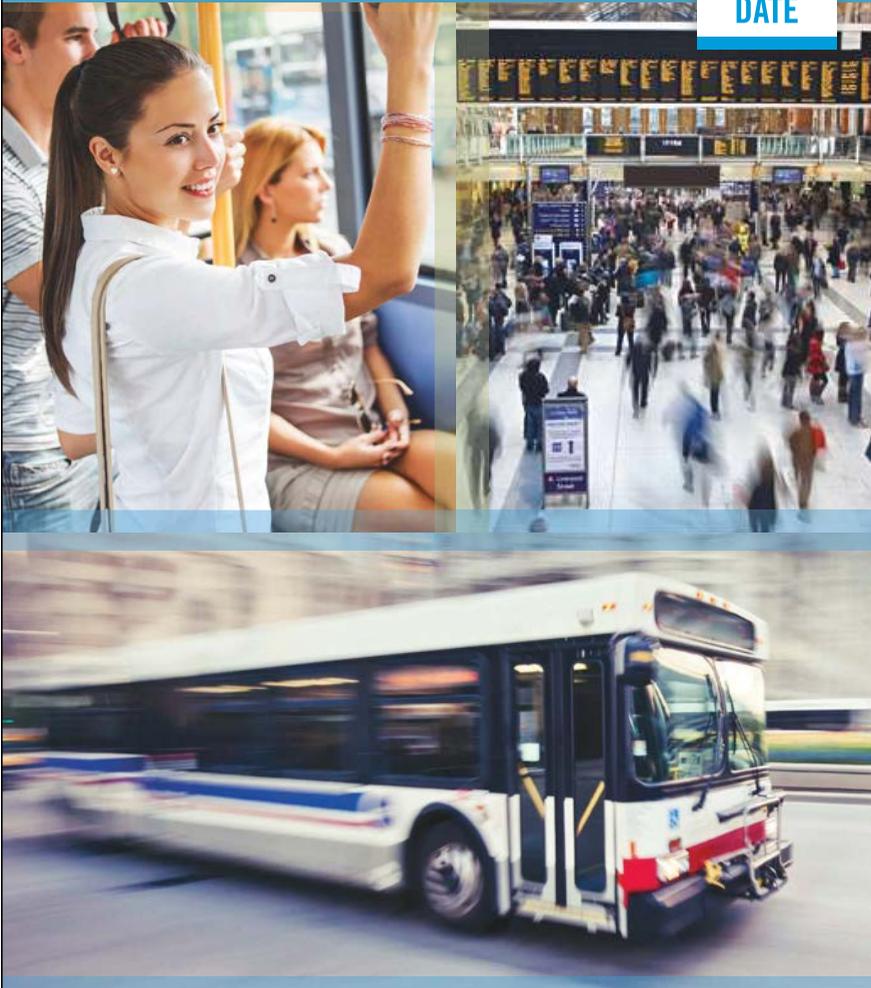
In order to keep things in top running order, Sun Metro has turned to public-private partnerships to fund projects, such as adding benches at bus stops. Banasiak said the agency works with three bench franchisers, which gives Sun Metro a little bit of income and there are now benches at more than 1,500 of the 2,800 stops in the system.

Sun Metro also works with local colleges, such as the University of Texas El Paso, which, Banasiak said leases the agency parking spaces near a transit station. Sun Metro is working with El Paso Community College to create a pass system for students and with the move into the new operations center, Texas Tech will move its school of architecture into the depot.

Banasiak said the school is partially leasing the building right now, but will move completely into the facility once Sun Metro vacates it.

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Sun Metro technician Alfredo Martinez refuels a bus with natural gas.



Herrera said Sun Metro recently hired a TOD manager and the agency looks at land developments not only in the city and county, but in a scope of how it connects interstate.

"We're striving for a truly multi-modal system with all different means of transportation," Herrera said. "We just recently were approved for a pilot ride-sharing program that has been in the works for two or three years and was finally given funding."

Rail also figures into Sun Metro's and El Paso's transit future.

"Eventually we want to evolve our RTS system into light rail," he said. "That's what the future holds for us."

Recently the agency has begun switching to predictive maintenance, Bunce said, by using data to predict when a part may fail, then replace it before it does so without replacing it while there's still lots of life left on the part. The change allows technicians to rebuilt parts at a less expensive repair cost.

Bunce said service crews emphasize cleanliness on Sun Metro buses and the only time there's a complaint about a dirty bus from a driver it's not because someone did a bad job, it's because someone missed it.

"Even though we've got this really old bus, our response is that we can have a really old clean bus," he said.

The change in attitude is paying off and the future is bright in El Paso.

"Our ridership has increased by almost 3 million annually, so it's clear to me that those are choice riders who don't have to use the system," Wilson said about the changes.

From 2009 to 2012, ridership increased 21 percent on Sun Metro, raising ridership to more than 17 million. And given the pace the system is growing and the accolades it's getting,

Banasiak said El Paso is setting up its own expectations for Sun Metro in coming years especially given its win

as the 2011 APTA's mid-sized system of the year and how close it is to moving to the next category of competition, which requires 20 million riders.

"Our goal is to win the large system APTA award," Banasiak said about the future. "Our goal is 20 million riders and we should hit 20 million with the BRT system." **MT**

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Mary Jo Balve
InnoTrans - North American Representative
Little Silver - NJ 07739 - USA
P.: 732-933-1117 - F.: 732-741-6437
mjbalve@globaltradeshows.com

Messe Berlin

For more information, visit www.MassTransitmag.com/10658396