Pace Suburban Bus Division of the Regional Transportation Authority of Illinois

INITIAL TRANSIT ASSET MANAGEMENT PLAN 2019 UPDATE





INITIAL TRANSIT ASSET MANAGEMENT PLAN

OCTOBER 2018

Prepared with support from:



APPROVAL

ACCOUNTABLE EXECUTIVE	SIGNATURE	DATE
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EXECUTIVE SUMMARY

BACKGROUND

In 2012, Moving Ahead for Progress in the 21st Century (MAP-21) was signed into law. MAP-21 made several fundamental changes to the statutes which authorize the Federal transit programs at 49 U.S.C. Chapter 53. Transit agencies who receive federal assistance or grant money, are required by 2016 law, 49 CFR 625, to create a Transit Asset Management (TAM) Plan comprised of a capital asset inventory (i.e. vehicles, facilities, equipment), capital asset condition assessment, investment prioritization, and performance target measures related to achieving a State of Good Repair (SGR). The intent is to provide increased transparency into agencies' budgetary decision-making process.

By FTA definition, Pace is considered a Tier I provider because we operate greater than 101 vehicles across all fixed route modes. Each Tier I provider developing a TAM Plan must report annually to the National Transit Database (NTD). Pace was required to have an initial nine element TAM Plan in place by no later than October 1, 2018. Pace successfully met this federal requirement. The September 27, 2019 FTA Triennial Exit Conference identified the Pace Initial TAM Plan as "...exemplary amongst its peers, and near the top of those plans reviewed thus far".

In October 2017, Pace awarded a five-year contract to WSP, USA, Inc., to provide TAM Plan consulting services to assist Pace with meeting our MAP-21 regulatory obligations. WSP shall help staff map the organizational mission for TAM and NTD by developing, mentoring, and training, a cross- functional internal TAM task force committee(s) in the industry best practices of transit asset management by educating staff in ways to approach transit asset management as a strategic business plan initiative. On an annual basis, the TAM Consultant shall refine and annually update the capital asset inventory, develop, and conduct an annual capital asset condition assessment of all Pace facilities, and update the TAM Plan as required by federal rule.

WHAT IS AN ASSET MANAGEMENT PLAN?

An asset management plan provides an organization-wide view of the work necessary to deliver the organization's goals and objectives.

In striving to achieve a State-of-Good-Repair (SGR), this plan provides Pace with:

- A consolidated set of current practices and policies
- Consolidated technical and financial information about Pace's assets
- An understanding of our challenges, and present and future demands
- Clearly established links between organizational goals and asset management initiatives



TAM PLAN PURPOSE

This TAM Plan covers a five-year time horizon. While this is one year longer than the FTA mandated four-year time horizon, it is consistent with Pace's Capital Business Plan, and other Federal planning cycles, such as the region's 2019-2024 Transportation Improvement Program (TIP) developed by the Chicago Metropolitan Agency for Planning (CMAP), the region's federally designated Metropolitan Planning Organization (MPO). The purpose of Pace's initial TAM Plan is to:

- Document the existing asset inventory including nature, extent, age, and condition of Pace's physical assets.
- Identify existing and proposed levels of service to be achieved with these assets.
- Document the key processes, organization, technology, and tools that are required to perform effective asset management.
- Identify the lifecycle management strategies of each asset class, including inspection, maintenance, rehabilitation, and replacement.
- Assess the capital and operating budgets necessary to support Safe, Reliable, Courteous, Efficient, and Effective public transportation services.
- Establish plans for reviewing and improving Pace's approach to asset management activities.

ASSET MANAGEMENT POLICY

Pace's first Transit Asset Management Policy was developed in 2018 in accordance with the FTA ruling on asset management and existing policies at Pace. The "Policy" establishes Pace's commitment to maximizing the utilization of Pace's capital assets and establishing a cost-effective plan for long term capital investment needs while balancing service/operational needs and requirements and minimizing lifecycle costs. Transit Asset Management provides a process for performance planning and establishing the strategy for transit capital assets to be maintained in a State of Good Repair.

PACE'S ASSETS AND THEIR CONDITION

The first step to improving the condition of Pace's assets is to identify and document the inventory of assets under Pace control. Pace owns, operates, and maintains a variety of assets, including facilities, vehicles, equipment, and garages. Pace contracts out certain types of transportation services to third party contractors, including Paratransit and some municipal services. The assets used for these contracted services are maintained by the contractors.

This initial TAM Plan brings together inventory information from numerous sources and documents the various rolling stock, facilities, equipment, and systems assets that allow Pace to serve our customers.



At a high-level, Pace's assets include:

- → 30 Over-the road Bus Fleet (BR)
- → 738 Fixed Route Buses (BU)
- → 581 Cutaway Vehicles (CU)
- → 301 Minivan Fleet (MV)
- → 389 Vans (VN)
- → 12 Administration and Maintenance Facilities
- → Farebox System

- → 187 Non-Revenue Vehicles
- → 26 Passenger Facilities
- → Radio System
- → Automated Vehicle Location (AVL) System
- → Intelligent Bus System (IBS)
- → Transit Signal Priority (TSP) System
- → DriveCam On-Bus Security System

The second step to improving the condition of Pace's assets is to understand their current condition. Reliable knowledge of asset condition will enable Pace to justify capital programs, funding requests, and more knowledgably prioritize across multiple divisions and asset classes. Pace already has contracts or processes in place to assess the condition of our facilities and rolling stock, and we will continue to refine our condition inspection and assessment processes and criteria for other asset classes moving forward. This initial TAM Plan provides preliminary condition information for all asset classes, which will be updated in future iterations of the initial TAM Plan.

Preliminary condition information reveals that many of our assets are in good condition. However, expansion or procurement of additional assets, such as garage space, will be important to continue to maintain our existing assets and grow our ridership. Pace's maintenance and rehabilitation practices enable our assets to function safely and meet our service goals, however, additional resources would allow Pace to be more innovative in our service provision and the asset management required to provide those services.

ASSET MANAGEMENT ENABLERS AND LIFECYCLE MANAGEMENT STRATEGIES

The Accountable Executive with responsibility for carrying out asset management practices is Pace's General Manager, and Chief Operating Officer, **Melinda J. Metzger.** Asset Management activities at Pace, including the development of this plan, are led by Pace's Capital Infrastructure Program Manager and Transit Asset Management Coordinator who are in the Capital Financing and Infrastructure Department and are responsible for day-to-day activities related to TAM. Individuals from many other departments throughout Pace have been involved in the development of this TAM Plan, through participation in workshops and provision of relevant data and information and will continue to play an important role in managing Pace's assets moving forward.

Enterprise-wide processes and technologies enable Pace to deliver our asset management objectives and make decisions about asset investments. Pace stores information on our rolling stock assets in Oracle Enterprise Asset Management (eAM). Pace uses a variety of other programs, some of which are flexible, such as Oracle Application Express (APEX), to store, manage, and analyze data on asset age, condition, and replacement costs.



During the development of this initial TAM Plan, the lifecycle strategies for all major assets were reviewed, and a shift to more advanced asset management principles and planning has begun at Pace. To continue to implement innovative solutions to provide more reliable, efficient, and effective service, Pace must invest in both new and existing assets and technology. Pace's Bus on Shoulder and Pulse programs are representative of the direction we are moving; however, innovative programs will require additional investment moving forward to enable Pace to continue to provide these services while continuing to practice effective asset management, including conducting inspections, preventative maintenance, and the immediate correction of any defects identified.

INVESTMENT PRIORITIZATION

Pace has had a Capital Project Scoring process in place since 1991, including Capital Project Scoring Criteria. The criteria have been adjusted as needed over the years during annual budget cycles to accommodate funding limitations and shifting agency priorities. Pace is currently preparing for an update to our 20-year strategic plan, *Vision 2020: Blueprint for the Future*, titled *Driving Innovation* which will inform future adjustments to our Capital Project Scoring process. The Budget Planning and Analysis Department sends out a call for submission of projects annually to kick-off the budgeting cycle. Capital budget requests must include project funding justifications and demonstrate a need that will be met, while considering asset management and impact on State of Good Repair. The total annual request for capital funding typically exceeds the available funding, requiring the Budget Planning and Analysis Department, in coordination with the user departments and Senior Staff, to prioritize the projects that will receive funding. The General Manager and Chief Operating Officer assembles a review committee, which uses the existing Capital Project Scoring Criteria to assess the requests.

For fiscal years 2020 through 2024, Pace expects to have approximately \$548 million available for capital investments from federal funds, Regional Transportation Authority (RTA) appropriations, and positive budget variance (PBV) funds. This funding will be invested in projects ranging from replacement and rehabilitation of rolling stock to procuring new and rehabilitating existing facilities, garages, and the farebox system.

ASSET MANAGEMENT IMPLEMENTATION

At a minimum, this Plan will undergo a comprehensive update and review every four years, with a preferred update cycle of every three years to coincide with the FTA triennial review process. Certain aspects of the initial TAM Plan will be reviewed more frequently, on an annual cycle. This includes a review of asset condition, performance targets (as part of annual submissions to the National Transit Database), and a framework for asset management Baseline and Future Improvement Objectives.

Building on our existing strengths in asset management, such as our established Capital Project Scoring process, we have made significant strides toward improving our asset management practices. Pace has written and approved our initial Transit Asset Management Policy and our initial Transit Asset Management Plan and have contracted with a consulting company to develop a condition assessment methodology for facilities, as well as to conduct condition assessments.



Pace looks forward to building on these first steps to grow a mature asset management system that will enable us to improve our State of Good Repair and ensure the successful operations of our Regional Bus and Paratransit services for many years to come.

END OF EXECUTIVE SUMMARY



1. INTRODUCTION

This Initial Transit Asset Management (TAM) Plan sets out Pace's approach to managing our assets to deliver public transportation services in Northeastern Illinois.

ABOUT PACE

Pace Suburban Bus is the premier suburban transit provider, safely and efficiently moving people to work, school, and other regional destinations.

Pace's family of public transportation services offer affordable, innovative, and environmentally responsible transit options for the residents of 284 municipalities in Cook, Will, DuPage, Kane, Lake and McHenry counties. The backbone of Chicago's suburbs, Pace serves approximately 127,000 daily riders. One of the largest bus services in North America, Pace covers 3,677 square miles, an area nearly the size of the state of Connecticut and about 15 times the size of the City of Chicago. Pace's innovative approach to public transportation gives the agency a national reputation as an industry leader.

Pace is governed by a Board of Directors consisting of thirteen directors. Each serves a four-year term and, with the exception of the Commissioner of the Mayor's Office for People with Disabilities, must be a Mayor or Village President from his or her respective region, or a former Mayor or Village President residing in his or her respective region.





PACE HISTORY AND FACTS

Pace was created by the 1983 RTA Act to unify the numerous disparate suburban bus agencies that existed at that time. In doing so, fares, branding and management were made consistent throughout the region. On July 1, 1984, the consolidated agency began operations as the Suburban Bus Division of the Regional Transportation Authority. A year after that, the brand name 'Pace' was established.

For its first few years, Pace focused on the unification efforts and renewing its bus garages and fleet, but rapid population and employment growth in the suburbs led to multiple strategic planning and long range planning efforts that took place in the late 1980s and throughout the 1990s.

Accessibility has always been a hallmark of Pace service. Pace provided "Section 504" service to people with disabilities several years before this type of service was required by the Americans with Disabilities Act. In 2006, Pace had established itself as a leader in providing efficient, quality service to people with disabilities, and the Illinois legislature designated that Pace would assume responsibility for ADA paratransit in Chicago from the CTA. The move made Pace the largest providers of paratransit service in the United States.

By providing quality public transportation options, Pace helps residents of Northeastern Illinois reduce their carbon footprint, protect the environment for present and future generations, and conserve natural resources. In fact, Pace's family of transit services already removes more than 100,000 cars from our roadways every day.





GO GREEN WITH PACE

According to the American Public Transportation Association (APTA), the "leverage effect" of public transportation reduces the nation's carbon emissions by 37 million metric tons annually - equivalent to the electricity used by 4.9 million households. To achieve a similar reduction in carbon emissions, every household in New York City, Washington, D.C., Atlanta, Denver and Los Angeles combined would have to completely stop using electricity.

People living in households within one-quarter mile of rail or one-tenth mile from a bus stop drive approximately 4,400 fewer miles annually compared to persons in similar households with no access to public transit. This equates to an individual household reduction of 223 gallons of gasoline a year.

Supporting transportation efficient land use patterns saves 4.2 billion gallons of gasoline - more than three times the amount of gasoline refined from the oil we import from Kuwait. Public transportation use saves the equivalent of 900,000 automobile fill-ups every day. The typical public transit rider consumes on average one half of the oil consumed by an automobile rider.

This is why one of Pace's top priorities is to reduce our carbon footprint and improve the quality of our community's environment:

- Pace has 91 buses at South Division which use compressed natural gas (CNG), a fuel source that emits fewer greenhouse gases than diesel. South Division became a CNG fueling station in 2016 and was retrofitted in 2017-18 to allow for indoor maintenance on CNG buses.
- At the other divisions, Pace follows federal guidelines relating to clean diesel and for the maintenance of different engine types to maximize productivity and minimize pollution. We use ultra-low sulfur fuels that meet all federal requirements.
- Pace provides its employees with \$75/month incentive to commute to work in a vanpool. Learn how you can join a carpool or vanpool at PaceRideShare.com.
- Pace recycles tires that can be used for playground flooring, tire retreading and even for tire derived fuel.
- Pace uses transit signal priority on several corridors, which saves fuel and reduces carbon emissions released into the air by buses idling at a red light.
- Any newly purchased diesel-fueled bus, from El Dorado National, have transmissions and hydraulic systems which utilize synthetic fluids that extend drain intervals (every 75,000 miles instead of 12,000) for reduced environmental impact.
- In 2012, Pace purchased hybrid paratransit buses for Schaumburg and Elgin and two full-sized hybrid buses for Highland Park



ACCOUNTABLE EXECUTIVE

625.25 (a)(3) A provider's Accountable Executive is ultimately responsible for ensuring that a TAM Plan is developed and carried out in accordance with this part.

The Accountable Executive with responsibility for carrying out asset management practices is Pace's General Manager/Chief Operating Officer, **Melinda Metzger**.

TAM PLAN SCOPE AND OBJECTIVES

This is Pace's initial TAM Plan, covering groups of assets, broke into categories, based on the required Federal Transit Administration (FTA) National Transit Database (NTD) annual reporting, the main drivers of the TAM Plan, and others based on the Regional Transportation Authority (RTA) annual budget categories. See Appendices for additional information.

The purpose of this initial TAM Plan is to:

- Document the asset inventory, including nature, extent, age, and condition of Pace's physical assets.
- Identify existing and proposed levels of service to be achieved with these assets.
- Identify the baseline lifecycle management needs, including maintenance, replacement, and enhancement for each asset class.
- Assess the capital budgets necessary to support safe, reliable, courteous, efficient, and effective transit services and to maintain the assets in a state of good repair.
- Document the key processes, organization, technology, and tools that enable effective asset management.
- Establish action plans for improving Pace's approach to asset management activities.

This initial TAM Plan provides a baseline from which Pace will continue to build and improve our asset management practices.

RELATIONSHIP TO OTHER DOCUMENTS

Pace's initial TAM Plan is informed by and aligned with several other Pace documents, including:

- Vision 2020: Blueprint for the Future sets forth some of the baseline goals and objectives around which this TAM Plan is aligned as Pace is undertaking an update, titled *Driving Innovation*.
- Annual Operating and Capital Program; Three-Year Business Plan for Operations; and Five-Year Capital Business Plan which provide an overview of Pace's system, describe the funding challenges we face, and outline the capital and operating budget projections.
- Rolling Stock, Facilities, and Equipment Maintenance Manual describes how Pace maintains our fleet of rolling stock and equipment.



- Facility Maintenance Plans and Practice Overview and Procedures for Inspections contains information on how responsibilities are shared across departments, and procedures for various inspections.
- Under development, and for federal compliance is Pace's Public Transit Agency Safety Plan (PTASP).
- Pace Facilities Inspection Reports 2018 and 2019
- Miscellaneous policies, procedures, standards, and plans, which document how Pace operates, providing information used within this TAM Plan.

TAM PLAN PERIOD

625.29 Transit Asset Management plan: horizon period, amendments, and updates. (a) *Horizon period.* A TAM Plan must cover a horizon period of at least four (4) years. (b) *Amendments.* A provider should amend its TAM Plan whenever there is a significant change to the asset inventory, condition assessments, or investment prioritization that the provider did not reasonably anticipate during the development of the TAM Plan. (c) *Updates.* A provider must update its entire TAM Plan at least once every four (4) years. A provider's TAM Plan update should coincide with the planning cycle for the relevant Transportation Improvement Program or Statewide Transportation Improvement Program.

This initial TAM Plan covers a five-year time horizon. While this is one year longer than the FTA mandated four-year time horizon, it is consistent with Pace's Capital Business Plan, and other Federal planning cycles, such as the region's Transportation Improvement Program (TIP) developed by the Chicago Metropolitan Agency for Planning (CMAP), the region's federally designated Metropolitan Planning Organization (MPO). In addition, the Regional Transportation Authority (RTA), which is charged with financial oversight, funding, and regional transit planning for Pace and the region's other two transit operators, the Chicago Transit Authority (CTA) and Metra, is required to prepare and adopt a Strategic Plan every five years, as mandated by the 2008 RTA Act. The RTA has also released *Invest in Transit: the 2018-2023 Regional Transit Strategic Plan*.

Future updates to this initial TAM Plan will be made at least every four years, or more frequently following any major changes to the asset inventory, updated condition assessments, major investments, or revised prioritization processes. As required by the ruling, the update will coincide with the planning cycle for the development of the regional TIP, however, Pace's fiscal year begins on January 1, while the TIP coincides with the federal fiscal year, which begins on October 1. There may be minor misalignment between updates to the initial TAM Plan and the annual budget due to these varying cycles, however, Pace will make appropriate updates to our initial TAM Plan as needed to accurately reflect committed funding and agency priorities.

TAM PLAN REQUIREMENTS

In July 2012, the U.S. Government enacted the Moving Ahead for Progress in the 21st Century (MAP-21) Act, a funding and authorization bill that places specific asset



management requirements on transit operators across the U.S. MAP-21 required that all transit agencies develop and update an Asset Management Plan.¹

The Federal Transit Administration (FTA) released the TAM Final Rule in July 2016, under 625 of Title 49 Code of Federal Regulations. Table 1, on the following two pages, lists the requirements of FTA's TAM Final Rule and describes how the contents of this document relate to these requirements.

¹ 49 CFR 625.25 (a)



Table 1: TAM Plan Requirements and Section Correspondence

	49 CFR PART 625	RELEVANT DOCUMENT SECTION	PAGE NUMBER (STARTING)
Objective	Dbjective 625.25 (a)(1) Each tier I provider must develop and carry out a TAM Plan that includes each element under paragraph (b) of this section. (2) Each tier II provider must develop its own TAM Plan or participate in a group TAM Plan. A tier II provider's TAM Plan and a group TAM Plan only must include elements under paragraphs (b)(1) through (4) of this section.		Entire document
Definition	625.25 (3) A provider's Accountable Executive.	Accountable Executive	9
TAM Plan Core	625.25 (b) A TAM Plan must include (1) An inventory of the number and type of capital assets.	Asset Inventory	23 and appendices
Elements	(2) A condition assessment of those inventoried assets for which a provider has direct capital responsibility.	Asset Condition and Performance	24 and appendices
	(3) A description of analytical processes or decision- support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization;	Description of Analytical Processes for Investment Prioritization	37
	(4) A provider's project-based prioritization of investments,	Project-Based Prioritization of Capital Investments	41
	(5) A provider's TAM and SGR policy;	Transit Asset Management and State of Good Repair Policy	14
	(6) A provider's TAM Plan implementation strategy;	Asset Management Implementation	46
	(7) A description of key TAM activities that a provider intends to engage in over the TAM Plan horizon period;	Lifecycle Management Strategies	29, 32, and appendices
	(8) A summary or list of the resources, including personnel, that a provider needs to develop and carry out the TAM Plan; and	Organization and Resource Plan	27
	(9) An outline of how a provider will monitor, update, and evaluate, as needed, its TAM Plan and related business practices, to ensure the continuous improvement of its TAM practices.	TAM Plan Update and Evaluation	47



Table 1: TAM Plan Requirements and Section Correspondence (Continued)

		RELEVANT	PAGE
			NUMBER
	49 CFR PART 625		(STARTING)
Additional	625.33 Investment prioritization. (a) A TAM Plan	Investment Prioritization	37
Compliance	must include an investment prioritization that		
Items	identifies a provider's programs and projects to		
	improve or manage over the TAM Plan horizon		
	period the state of good repair of capital assets for		
	which the provider has direct capital responsibility.		
	(b) A provider must rank projects to improve or		
	manage the state of good repair of capital assets		
	in order of priority and anticipated project year.		
	(c) A provider's project rankings must be		
	consistent with its TAM policy and strategies.		
	(d) When developing an investment prioritization,		
	a provider must give due consideration to those		
	state of good repair projects to improve that pose		
	an identified unacceptable safety risk when		
	developing its investment prioritization.		
	(e) When developing an investment prioritization,		
	a provider must take into consideration its		
	estimation of funding levels from all available		
	sources that it reasonably expects will be		
	available in each fiscal year during the TAM Plan		
	horizon period. (f) When developing its investment prioritization, a		
	provider must take into consideration		
	requirements under 49 CFR 37.161 and 37.163		
	concerning maintenance of accessible features		
	and the requirements under 49 CFR 37.43		
	concerning alteration of transportation facilities.		
	625.45 Setting performance targets for capital	TAM Performance	25
		Targets FY2019	25
	more performance targets for each applicable	Targota i 12018	
	performance measure. (2) A provider must set a		
	performance target based on realistic		
	expectations, and both the most recent data		
	available and the financial resources from all		
	sources that the provider reasonably expects will		
	be available during the TAM Plan horizon period.		



TAM PLAN STRUCTURE

The plan format shown below outlines the sections contained in this Transit Asset Management Plan.

Executive Summary	Summarizes the core components of all sections below, which could be suitable for separate publication, as required		
	.		
Introduction	Provides an overview of organization, objectives of this TAM Plan and Requirements for Asset Management		
	1		
Asset Management Policy	States the guiding principles by which Pace is developing its Asset Management capability		
	•		
Levels of Service	Links customer levels of service to technical requirements for the assets		
	•		
Asset Inventory	Defines the current asset inventory and its assessed condition		
	.		
Asset Management Enablers	States the current asset management enablers including organization, core business processes, and technology		
	<u> </u>		
Lifecycle Management Strategies	Identifies key asset management approaches across the lifecycle, including maintenance, overhaul and replacement		
	↓		
Investment Prioritization	Describes Pace's processes for developing investment priorities, and lists currently planned projects		
	+		
Asset Management Improvement Program	Summarizes updated baseline and future objectives identified in the Plan and the program for continuous improvement		
			
Appendices	Provides further information on each asset class		

END OF SECTION 1



2. TRANSIT ASSET MANAGEMENT AND STATE OF GOOD REPAIR POLICY

The Transit Asset Management and State of Good Repair Policy defines the guiding principles by which Pace will manage the assets we own and maintain. The policy establishes the direction and objectives for developing asset management capability and implementing an asset management plan.

625.25 (b) A TAM Plan must include (5) A provider's TAM and SGR policy;

Pace's initial Transit Asset Management and State of Good Repair Policy was developed in 2018 in accordance with the FTA ruling. It is included in the following pages.

Internal Services-01

Section: CFI Subject: Transit Asset Management Policy

33. PURPOSE

This Transit Asset Management Policy ("Policy") establishes Pace's commitment to maximizing the utilization of Pace's capital assets and establishing a cost-effective plan for long term capital investment needs while balancing service/operational needs and requirements and minimizing lifecycle costs. Transit Asset Management provides a process for performance planning and establishing the strategy for transit capital assets to be maintained in a state of good repair.

II. DEFINITIONS

The following definitions shall apply to this policy:

- A. Capital or transit asset: a unit of rolling stock such as buses and paratransit vehicles; equipment such as maintenance equipment and non-revenue vehicles; and facilities such as headquarters and the garages, with a useful life of one year or more.
- B. Lifecycle: the procurement, operation, inspection, maintenance, rehabilitation, replacement, and disposal of a capital or transit asset.
- C. Transit Asset Management ("TAM"): a set of strategic and systematic processes and practices for managing the performance, risk, and costs of transit capital assets over their lifecycle to provide safe, cost-effective, and reliable service.
- D. TAM Plan: a plan that establishes the objectives for an asset or group of assets as it relates to delivering service. It sets out the whole life plan for asset maintenance, overhaul, and renewal strategies by specifying capital asset inventories, condition assessments, decision support tools, and investment prioritization.
- E. State of Good Repair ("SGR"): the condition in which a capital asset is able to operate at a full level of performance, that is, the asset can perform its designed function and does not pose an unacceptable safety risk to users.

III. ADMINISTRATION

This Policy and Pace's TAM Plan is administered by Pace's Internal Services Department, with input and assistance from other Pace Departments, as required.

- A. TAM Plan: In accordance with Moving Ahead for Progress in the 21st Century (MAP-21), FTA grant recipients or subrecipients are required to develop a TAM Plan and to report data on their capital assets to the National Transit Database (NTD).
 - 1. A TAM plan is a tool that aides transit providers in: (a) Assessing the current condition of its capital assets; (b) determining what the condition and performance of its assets should be (if they are not already in a state of good repair); (c) identifying the unacceptable risks, including safety risks, in continuing to use an asset that is not in a state of good repair; and (d) deciding how to best balance and prioritize reasonably anticipated funds (revenue from all sources) towards improving asset condition and achieving a sufficient level of performance within those means.
 - 2. The TAM Plan includes capital asset inventories, condition assessments, references to use of decision support tools, and investment prioritization. Pace's report includes the condition of systems, a description of any change in condition since the last report, performance targets in relation to SGR performance measures, progress toward meeting performance target and subsequent fiscal year performance targets. Pace's core TAM Plan elements are: Introduction, Asset Inventory, Condition Assessment, Management Approach, and Work Plans and Schedules.
 - 3. Pace's TAM Plan is a living document that is regularly reviewed, updated, and incorporated into Pace's capital and budget planning and reporting processes.

B. State of Good Repair

- A capital asset is in a state of good repair when that asset is able to perform its designed function, does not pose a known unacceptable safety risk, and its lifecycle investments have been met or recovered.
- 2. When transit assets are not in a state of good repair, the consequences include increased safety risks, decreased system reliability, higher maintenance costs, and lower system performance.
- 3. The FTA's proposed SGR performance measures, set by asset class (rolling stock, equipment, facilities), provide a basis for Pace to determine whether assets are in a condition sufficient to operate at a full level of performance. These performance measures are primarily condition based utilizing age, visual or measured condition as a measurement of performance, however, Pace considers other performance targets and measures related to service, safety, and reliability as Pace sets performance targets annually for each asset class.

C. National Transit Database



Transit Asset Management and State of Good Repair Policy

- 1. The FTA mandates recipients of Federal financial assistance that own, operate, or manage capital assets used in the provision of public transportation to meet reporting requirements.
- 2. Pace complies with the FTA's mandate by providing an annual report to the FTA's NTD and that report contains: projected targets for the next fiscal year; condition assessments and performance results; and a narrative report on changes in transit system conditions and the progress toward achieving previous performance targets.

V. EFFECTIVE DATE

This Policy shall be in effect on the date on which it is signed by Pace's General Manager/Chief Operating Officer.

Melinda J. Metzger,
Accountable Executive
General Manager
Chief Operating Officer

Manch 2019

Date

END OF SECTION 2



3. LEVELS OF SERVICE

This section of the Initial 2018 TAM Plan establishes the relationship between Pace's strategic goals, the customer level of service we provide and the required technical performance of our assets.

OVERVIEW

One of the basic cornerstones of good asset management practice is to align asset management activities with an agency's corporate objectives and customer levels of service, thereby ensuring that assets deliver the required levels of service efficiently and economically. This alignment enables the relationship to be determined between levels of service and the cost of service delivery. In turn, this relationship can be evaluated to:

- Determine the affordability of an asset's operating and capital needs to meet the customer service levels.
- Develop asset management strategies and plans to meet required performance targets.
- Monitor asset performance to ensure Pace continues to meet defined levels of service.
- Where necessary, justify additional funding requirements or justify service cutback requirements.

SCOPE OF SERVICES

Pace operates 224 Fixed bus routes (all of which are accessible to people with disabilities), as well as Vanpools, Dial-a-Ride services, and Paratransit service, providing approximately 35 million annual rides. Details of Pace's service types are described in Table 2, on the next page. Figure 1, on page 20, shows Pace's fixed route services.

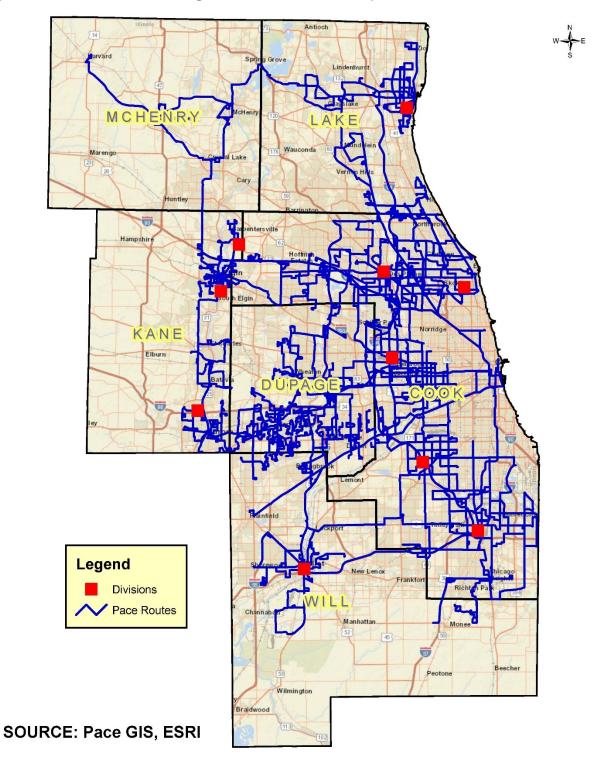


Table 2. Pace's Services

TYPE		DESCRIPTION
	Pace is responsible for the direct operation of service from nine facilities is county region. Together, these divisions—North, North Shore, Northwest, Southwest, West, Fox Valley, River, and Heritage—carry 86 percent of the suburban service ridership.	
	contract	Pace contracts directly with two municipalities, Niles, and Highland Park, for municipal services, and maintains an agreement with the Village of Schaumburg for fixed route services.
		Pace provides service to more than 48 communities by directly contracting with two private transit companies.
ADA I		The major components of the Regional ADA Paratransit Program consist of city ADA services and suburban ADA services. Service delivery under both programs is contracted to private service operators. In addition to the city and suburban cost elements, there are regional support costs which represent the indirect overhead costs of supporting the Regional ADA Paratransit Program, which is overseen by Pace. Pace provides all ADA service within the City of Chicago and the suburbs, primarily through private contractors. Pace is also responsible for the provision of subsidized taxi service to ADA eligible riders in the City of Chicago through the Taxi Access Program (TAP). This program provides subsidized taxi service to ADA eligible riders.
Comn Dial-a	-Ride	Pace partners in 71 Dial-a-Ride service projects throughout the six-county region. Services are operated by townships or local municipalities under contract with Pace or directly by private providers. Pace provides funding for these services based on a formula applied to the total service cost. The local government is also required to contribute a portion of the service cost. Additionally, Pace oversees the Community Transit Program, which allows local municipalities to provide flexible public transportation in their communities.
Vanpo		The Vanpool Program serves groups of five to fifteen people who commute to and from work together in a Pace-owned van. In 1994, the Advantage Vanpool element was added providing a transit alternative to individuals who commute on a regular basis to work sites or rehabilitative workshops. In 1997, the Employer Shuttle Vanpool element was created to allow suburban employers to shuttle employees to and from nearby transit connections. Pace expects the Vanpool Program to have 553 vans in service by the end of 2019.



Figure 1: Pace and Other Regional Service Area Map 2020





SERVICE STANDARDS

Pace abides by service guidelines set to ensure that service features comply with FTA circular 4702.1B (regarding requirements related to Title VI of the Civil Rights Act of 1964). The guidelines indicate that:

- Vehicle Load for most fixed bus routes should not exceed an average maximum vehicle load of 125% during peak hours and 100% during off-peak hours. For express operations, average maximum vehicle load should not exceed 100% for both peak and off-peak hours.
- Maximum service headway on Pace's fixed routes is to operate 60 minutes or better at all times of the day (unless the route has a minimum trip-based headway standard then minimum number of trips applies).
- Pace's on-time performance goal for all fixed route service is 75%, where a bus is on-time if it is no more than one minute early and no more than five minutes late.
- For fixed route buses, bus stop locations are dependent on safety considerations, ease of operation, pedestrian transfer situations, space availability, traffic operations, and location of activity generators.

These standards guide Pace's service planning and scheduling, but Pace is permitted to deviate from these standards where conditions merit. Some routes with especially strong demand may justify service beyond these standards, while others may have special circumstances that justify the opposite.

Service levels are aligned to a set of core goals, set out in the annual budget, and used by Pace to drive improvement.

SERVICE MEASURES

As part of our annual budget, Pace has established agency-wide performance goals which support the core business purpose of providing excellent public transportation service. The goals are to provide public transportation that is:

- Safe
- Reliable
- Courteous
- Efficient
- Effective

Table 3 identifies the measures and performance standards that Pace has established for each goal.



Table 3. Pace's Strategic Goals and Performance Measures²

GOAL	PERFORMANCE MEASURES	PERFORMANCE GOAL
Provide Safe Public Transportation Services	Accidents per 100,000 Revenue Miles	< 5
Provide Reliable Public	On-Time Performance	> 85%
Transportation Services	Actual Vehicle Miles per Road Call	> 14,000
	Percent Missed Trips Per Total Trip Miles	< 0.5%
Provide Courteous Public	Complaints per 100,000 Passenger Miles	<4
Transportation Services	Website Hits on Web Watch Site	Increase over prior period
Provide Efficient Public	Revenue Miles per Revenue Hour	> 17
Transportation Services	Revenue Miles per Total Operator Pay Hours	> 10
	Expense per Revenue Mile	< \$6.50
	Expense per Revenue Hour	< \$125
	Recovery Ratio	> 18%
	Subsidy per Passenger	< \$4
Provide Effective Public	Ridership	Increase from prior period
Transportation Services	Passenger Miles per Revenue Miles	> 9
	Productivity (Passengers per Revenue Hour)	> 24
	Ridership per Revenue Mile	> 1.5
	Vanpool Units in Service	Increase from prior period

END OF SECTION 3

² Pace Suburban Bus. *Suburban Service and Regional ADA Paratransit Budget: 2020 Operating and Capital Program; 2020-2022 Business Plan for Operations; 2020-2024 Capital Business Plan.* Final Program, November 2019, p76.



4. ASSET INVENTORY

Pace's robust portfolio of assets enables transit service across 3,446 square miles. Pace owns or has partial capital responsibility for 2039 Revenue Vehicles, as well as 12 Administrative and Maintenance Facilities, and 26 Passenger Facilities. Pace's assets are operated throughout Northeast Illinois, in the City of Chicago and the counties of Cook, DuPage, Kane, Lake, McHenry, and Will.

625.25 (b) A TAM Plan must include (1) An inventory of the number and type of capital assets. The inventory must include all capital assets that a provider owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle. An inventory also must include third-party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision of public transportation. The asset inventory must be organized at a level of detail commensurate with the level of detail in the provider's program of capital projects;

A summary of Pace's asset inventory is provided in Table 4, below, by asset class, per the NTD categorization. Additional information for each asset class can be found in the appendices.

Table 4. Pace Asset Inventory as of 12/31/2018





ASSET CONDITION AND PERFORMANCE

625.25 (b) A TAM Plan must include: (2) A condition assessment of those inventoried assets for which a provider has direct capital responsibility. A condition assessment must generate information in a level of detail sufficient to monitor and predict the performance of the assets and to inform the investment prioritization; 625.45 Setting performance targets for capital assets. (a) General. (1) A provider must set one or more performance targets for each applicable performance measure. (2) A provider must set a performance target based on realistic expectations, and both the most recent data available and the financial resources from all sources that the provider reasonably expects will be available during the TAM Plan horizon period. 625.55 Annual reporting for transit asset management. (a) Each provider must submit the following reports: (1) An annual data report to FTA's National Transit Database that reflects the SGR performance targets for the following year and condition information for the provider's public transportation system.

(2) An annual narrative report to the National Transit Database that provides a description of any change in the condition of the provider's transit system from the previous year and describes the progress made during the year to meet the performance targets set in the previous reporting year.

It is critical that Pace has clear knowledge of the condition of our assets and their performance. This information enables justification of operating budgets, capital program funding requests and project prioritization across divisions and asset classes. To better communicate needs and the risks of underinvestment, Pace must have a good understanding of our State of Good Repair (SGR) needs – informed by condition assessments. This condition data will be a key input of Pace's prioritization process to ensure efficient and effective use of public funding.

CONDITION RATING METHODOLOGY

In accordance with the TAM Final Ruling, Pace began in 2018 utilizing the condition metrics required for reporting to the National Transit Database (NTD) and used to measure performance against targets.³

Table 5 describes the condition rating method required by the FTA and used by Pace.

Table 5. Condition Rating Methods

	CONDITION RATING METHOD	
ASSET CLASS	TAM NTD	
Rolling Stock	Age-based, % of useful life	
Non-Revenue Vehicles	Age-based, % of useful life	
Administrative and Maintenance Facilities	Quadrennial inspections, 1-5 rating	
Stations and Passenger Facilities	Quadrennial inspections, 1-5 rating	

³ Condition data for some facilities may only be reported to NTD if they meet certain criteria (e.g., any maintenance or administration facility under 100 square-ft. does not need to be included (e.g. security guard shack, stand-alone restroom, storage shelter in which no work is performed) in either of your inventories) defined by FTA including minimum floor area and whether Pace has direct capital responsibility.



The scores above are based on the FTA-defined condition rating levels, as shown in Table 6.

Table 6. Condition Rating Levels

CONDITION	DEFINITION
,	No visible defects, new or near new condition, may still be under warranty if applicable
4 (Good)	Good condition, but no longer new, may have some slightly defective or deteriorated component(s), but is overall functional
3 (Adequate)	Moderately deteriorated or defective components; but has not exceeded useful life
2 (Marginal)	Defective or deteriorated component(s) in need of replacement; exceeded useful life
1 (Poor)	Critically damaged component(s) or in need of immediate repair; well past useful life

Facility Condition Assessments 2019

In July 2019, an additional nine facilities were inspected as part of the four-year cycle of condition assessments to complete another quarter of Pace's facilities. The facilities assessed this year are either Administrative/Maintenance or Passenger Facilities, shown in Table 7.

Table 7: Condition Scores for Facilities Assessed in 2019

ASSET NAME	CONDITION RATING (PRIOR TO 2019)	CONDITION RATING (2019)	COMMENTS ON DIFFERENCES			
Administrative/Maintenance Facilities						
Heritage Division Facility	1	3	Improvement construction campaign underway at the time of site visit.			
North Shore Division Facility	3	4	Scores very slightly increased and rounding brought score up a grade			
McHenry Paratransit Facility	3	3	Score unchanged			
North Division Facility	2	3	Differences in scoring methodology			
River Division Facility	4	3	General wear over time			
Fox Valley Division Facility	3	3	Score unchanged			
Passenger Facilities (Pace Owned)						
Harvey Passenger Transportation Facility	1	2	Scores very slightly increased and rounding brought score up a grade			
Homewood Park-n-Ride Facility	2	3	Scores very slightly increased and rounding brought score up a grade			
Blue Island Park-n-Ride Facility	2	3	Scores very slightly increased and rounding brought score up a grade			

TAM PERFORMANCE TARGETS FY2019

In compliance with the TAM Final Ruling, Pace set performance targets for FY2019, shown in Table 8. For additional information see Appendix A, Pace Suburban Bus Narrative Report, NTD RY2018, Revised June 28, 2019.



Table 8: FY2019 Targets

ASSET CLASS	ASSET TYPE (UL YEARS)	ACTIVE FLEET* (12/31/2018)	PAST UL (12/31/2018)	2019 TARGET
Revenue Vehicles	Over-the-road Bus Fleet (BR)	30	0%	0%
	Bus Fleet (BU)	738	9.76%	23.44%
	Cutaway Fleet (CU)	581	56.11%	55.94%
	Minivan Fleet (MV)	301	31.89%	31.89%
	Van Fleet (VN)	389	50.39%	43.96%
Non-Revenue Vehicles	Automobile Fleet	71	53.52%	57.75%
	Truck Fleet	116	62.93%	64.66%
Facilities	Passenger Facilities	26	26.92%	26.92%
	Maintenance and Administrative	12	33.33%	33.33%

END OF SECTION 4



5. ASSET MANAGEMENT ENABLERS

Asset Management at Pace is carried out by staff from numerous departments within the agency. Core business processes and support technologies enable effective asset management decisions and practices.

OVERVIEW

This section describes the organization of Pace, including the roles and responsibilities for asset management, and the resources that will be needed to carry out the activities outlined within this plan. It also covers the core business processes in place to assist and guide Pace in delivering Asset Management, and the information and technology systems that support asset management, work planning, and decision-making.

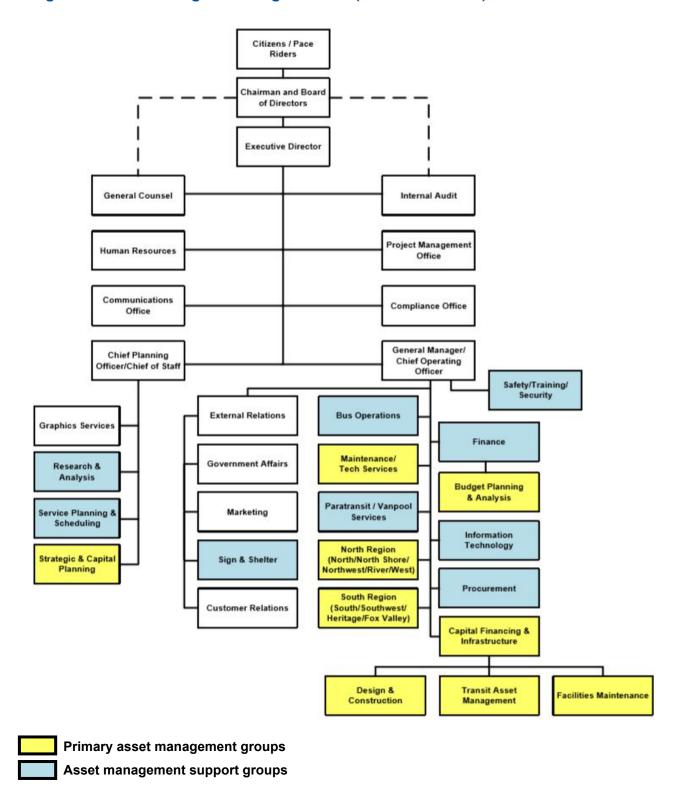
ORGANIZATION AND RESOURCE PLAN

625.25 (b) A TAM Plan must include: (8) A summary or list of the resources, including personnel, that a provider needs to develop and carry out the TAM Plan

Pace's General Manager/Chief Operating Officer is the Accountable Executive for Asset Management and is responsible for ensuring that this TAM Plan is developed and carried out. Pace also has a Capital Infrastructure Program Manager and a Transit Asset Management Coordinator who are in the Capital Financing and Infrastructure Department and are responsible for day-to-day activities related to TAM. Individuals from many other departments throughout Pace have been involved in the development of this TAM Plan, through participation in workshops and provision of relevant data and information and will continue to play an important role in managing Pace's assets. The following organization chart (Figure 2) depicts asset management responsibilities at Pace.



Figure 2. Asset Management Organization (as of 12/31/2019)





CORE BUSINESS PROCESSES

625.25 (b) A TAM Plan must include: (7) A description of key TAM activities that a provider intends to engage in over the TAM Plan horizon period

Several core business processes enable Pace's ability to develop and implement TAM activities. Table 9 depicts the existing key asset management processes and identifies future improvement initiatives. The processes are grouped according to the eight pathways against which Pace was assessed: alignment to organizational goals; control of assets; asset management planning; capital planning and delivery; maintenance planning and delivery; operations and incident management; informed decisions; resource capabilities.

Table 9: Core Business Processes

CORE BUSINESS PROCESS GROUPS	DESCRIPTION		
	Alignment to Organizational Goals		
Strategic Planning	Pace developed our long-term strategic plan, <i>Vision 2020</i> , in 2001, and an update (<i>Driving Innovation</i>) is currently under development. <i>Vision 2020</i> has guided many of Pace's actions over the past twenty years, and <i>Driving Innovation</i> is expected to do the same over the next twenty. Shorter-term planning is represented in Pace's annual budget, which sets out annual goals and an outline of how Pace will achieve them.		
Service Planning and Scheduling	Pace's Service Planning and Scheduling group (within the Strategic Services Department) makes service changes throughout the year, typically coinciding with operator run picks. Approximately 140 service changes are made per year, and these changes are tracked in a spreadsheet. Schedulers use HASTUS to develop operator work schedules.		
	Control of Assets		
Asset Risk Management	Failure rates are tracked and used to estimate required spares ratios to mitigate risk. In addition, plans are in place (and regularly used) to mitigate the effects of weather-related risks on service.		
	Pace's annual budget includes several performance measures, each of which ties to one of Pace's five primary strategic goals (safety, reliability, courtesy, efficiency, and effectiveness). Quarterly board reports measure ridership, complaints, and accidents. Individual departments also regularly track metrics relevant to their assets, such as fuel consumption.		
Audit and Assurance	Pace has a robust internal audit process involving all managers from across the agency. As part of the audit process, Pace administers a Controls Self-Assessment which asks managers to rate the effectiveness of all business processes on a scale of 1-5. Processes rated below a 3 are investigated by the Internal Audit Department to better understand why and may be candidates for more in-depth audit projects. The Internal Audit Department develops an audit plan for the year based on the results of the Controls Self-Assessment.		
Safety and Hazards Management	Pace's Safety Training/Security Department and Bus Operations Department work together to promote safety across Pace. A Safety Manager at each division is responsible for conducting monthly walkthroughs to identify any safety risks/hazards. Under development is Pace's Public Transit Agency Safety Plan (PTASP).		



Table 9: Core Business Processes (Continued)

	To Business Trocesses (Continued)					
CORE BUSINESS PROCESS GROUPS	DESCRIPTION					
	Asset Management Decision Making					
Asset Management Plans	This document represents Pace's initial Asset Management Plan, establishing a baseline on which future iterations will build. Processes for updating the Plan are included in the TAM Plan Update and Evaluation section.					
Asset Strategies	Lifecycle strategies for Pace's assets have been formalized as part of this plan, building on existing practices.					
	Capital Planning and Delivery					
Capital Expenditure Evaluation	Pace has an established and documented evaluation process, which has been in place since 1991 and has been adjusted over time to incorporate lessons learned and reflect changing priorities (see Investment Prioritization section of this plan for more detail).					
Capital Program Development	To develop the annual capital program, Pace department managers and Senior Staff are required to fill out forms detailing their capital requests, which are then scored by an Evaluation Committee of an agreed upon size, appointed by the General Manager/Chief Operating Officer. The Budget Planning and Analysis Department provides score information to Senior Staff who decide which projects to include, in coordination with Pace's Board of Directors, who must ultimately approve the capital program.					
Quality Management	Pace controls for quality by having Pace Project Managers onsite during construction to monitor work and ensure that products are installed per plans and specifications, and that contractor submittals reflect actual work completed. A contract administrator completes all necessary paperwork.					
Asset Handover and Transitioning	Pace's asset commission and handover processes include ensuring that required materials and documentation have been received, including warranties, manuals, waivers, etc.					
	Maintenance Planning and Delivery					
Maintenance Planning and Definition	Pace has many policies/plans, including those related to maintenance. Maintenance delivery strategies/plans and maintenance manuals are reviewed on an as needed basis, including when new assets are delivered, or changes are made.					
Inventory Management	Pace seeks to optimize inventory holdings by tracking minimum and maximum quantity levels, which are set based on historical data and formulas related to per diem usage. Obsolescence of equipment is also considered; when a bus fleet is nearing retirement, The Materials Management Department begins ordering parts on only an as needed basis. Inventory requirements (including min/max quantities, current stock, stock ordered, and lead time) are available in Oracle.					
	Operations and Incident Management					
	Pace has standard operating procedures in place for many assets, and in some cases, these also cover atypical operation (e.g., during special events or weather events). Pace has processes in place for re-routing because of weather, construction, traffic incidents, or other events that make a normal route impractical. Specific alternative routes are defined in advance and provided to the public to limit inconvenience.					
Incident Management	The Safety and Bus Maintenance Departments conduct investigations of incidents involving Pace-owned vehicles. The Safety Department talks to witnesses and reviews video from any nearby cameras, while Bus Maintenance examines the bus. Investigations conclude with recommendations on how to avoid similar incidents in the future, and Pace works with local authorities as needed to implement the recommendations.					



Table 9: Core Business Processes (Continued)

CORE BUSINESS PROCESS GROUPS	DESCRIPTION
	Operations and Incident Management Continued
Business Continuity Planning	Pace has built redundancy into our systems to reduce the likelihood of service disruption. For example, there are contingency plans for recovery for each facility, and a back-up facility assigned in case a center goes down. The South Division also has a 24-hour dispatch center that can pick up for other divisions if needed. Pace employs a mass-calling app ("Call-em-all"), allowing all staff to be reached quickly in case of an emergency.
	Informed Decisions
Asset Cost Capture	Maintenance cost information associated with fixed route vehicles and facilities can be retrieved and reported by activity/job type per asset through Pace's Oracle eAM system.
Asset Information	Pace's asset information is primarily stored in two different Oracle systems: Fixed Assets APEX and eAM. These systems include fields for asset information including size, material, installation date, model, mileage, etc. In eAM, Pace can manually pull up information on asset inspections and work activity histories.
	Resource Capabilities
Training	Pace staff receive necessary training for working with assets, either via the Training Coordinator, within Executive Services, and/or by user departments. Manufacturers also provide training on new fleets.
Supplier Management	Pace's processes for selecting contractors allow for the consideration of other factors beyond cost (at least for some project types and sizes). To monitor contractor quality, Pace visits contractor sites to ensure compliance with requirements. In addition, Pace can restrict vendors from bidding, either indefinitely or temporarily, due to severe performance issues.

CORE ASSET MANAGEMENT SUPPORT SYSTEMS

Pace utilizes several support technologies/systems to store information about our assets, which we rely on to make informed decisions. Table 10 describes Pace's core support systems, and planned actions for improvement.

Table 10: Core Support Systems

SYSTEM	DESCRIPTION	DEPARTMENT
Oracle EBS	Oracle EBS Suite 12.1.3 Fleet maintenance software used for fixed route vehicles maintained by Pace. Maintenance of paratransit, vanpool, and non-revenue fleet is not recorded in Oracle EBS but in contractor hosted solutions.	Maintenance
Oracle eAM	Costs (including labor and materials) are tracked at the individual vehicle level within Oracle eAM, which also contains additional vehicle information, such as fuel and fluid consumption (imported from FLEETWATCH), mileage, and maintenance history.	Maintenance
Oracle APEX	Applications for Fixed Assets, Vanpool Management, Farebox (Revenue Collection), Bus Operations, and Safety Training	Safety/Training/Security, Bus Operations, Paratransit/Vanpool Services, Finance
Microsoft Office 365 (Excel and Access)	The Human Resources Department (HR) planning is done within Excel, not in a separate HR system (e.g., Hyperion). All departments use Microsoft Excel and Access for data storage and processing.	All



Table 10: Core Support Systems (Continued)

SYSTEM	DESCRIPTION	DEPARTMENT
Trapeze	Used for scheduling and operations for paratransit. Paratransit Operations uses Trapeze to track service-related issues and performance measures. Paratransit contractors have their own communications system, using Motorola radios that were updated to use Trapeze. There are no interfaces between Oracle eAM and Trapeze.	Paratransit Operations
	Fixed route uses IBS (Intelligent Bus System), a satellite-based communications technology, to improve the tracking of buses, collection of data, and communication between Pace and our drivers and passengers. IBS interfaces with Trapeze.	Fixed Route Operations, Safety/Training/Security
ArcGIS	ArcGIS is a geographic information system (GIS) that allows the spatial visualization of data along with the capability of tabular data to be mapped and analyzed. GIS uses spatial and statistical methods to analyze and attribute geographic information. ArcGIS is used for long-range planning, service planning, and route visualization.	Strategic and Capital Planning, Service Planning, Operations
Oracle Core- HR	An Oracle module used by Human Resources to information such as organization, location, job, position, grade, and more.	Human Resources
HASTUS	Schedulers use a program called HASTUS for scheduling different "work pieces" that need to be assigned to the different departments. HASTUS provides access to on-time performance, vehicle statistics, labor needs, etc. Data is exported from HASTUS to external apps like Google transit and shared with the Service Analysis group.	Planning Services
FLEETWATCH	Third party fuel and mileage monitoring system	Operations
RidePro	RidePro is a mobile-friendly commuter management software used to manage Pace's RideShare program. Commuters can access information about Pace Vanpooling, including newly forming vans and open seats in existing vans, carpooling, and other alternative commuting services. The software includes reporting, analysis, and dashboard features.	Strategic Planning / RideShare
Farebox System	In 2017, Pace hired IBI Group to review existing on-board and garage Farebox infrastructure to recommend a way-forward strategy that may include refurbishment or replacing the Farebox System. The IBI study included a review of existing Farebox asset inventory, operations and maintenance procedures, and pertinent issues and needs for improvements. The data collected contributed to a comprehensive needs assessment of the existing Farebox system environment. These high-priority needs included better access to data, reduction in maintenance costs, and a reduction in system failure risk. The Farebox System replacement is programmed in the Pace Five-Year 2019-2023 Capital Program (see Section 7, Investment Prioritization).	Operations
	All Pace buses are equipped with constantly recording internal security cameras and DriveCam technology that enables external recording of eight minutes before and after incidents. These technologies promote safety of passengers and drivers and enable Pace to identify driver behavior that may pose a safety risk.	Operations

END OF SECTION 5



6. LIFECYCLE MANAGEMENT STRATEGIES

Lifecycle management strategies have been further developed as part of this TAM Plan to capture the baseline or steady state activities necessary to achieve and maintain a State of Good Repair, and to ensure Pace's assets are functional, reliable, and are able to continue to support a Safe, Reliable, Courteous, Efficient, and Effective regional operation.

OVERVIEW

625.25 (b) A TAM Plan must include:

(7) A description of key TAM activities that a provider intends to engage in over the TAM Plan horizon period;

During the development of this TAM Plan, the lifecycle strategies for all major assets were reviewed by Pace staff and their consultant, WSP. The purpose of this initial TAM Plan is to develop the long-term maintenance and improvement program which will enable Pace to continue to maintain a State of Good Repair. Building on the work previously done by Pace in coordination with the Regional Transportation Authority (RTA), the Capital Asset Condition Assessment Project represents the culmination of many years' work to define Pace's capital needs to meet current and future demands.

The lifecycle management strategies laid out in the asset plans in the appendices to this document begin to define Pace's approach to asset management. Lifecycle strategies may be similar for asset classes where commonalities exist, such as rolling stock and non-revenue vehicles, however, the lifecycle management strategies for each asset class are unique. The current strategy for each asset class is presented in the appendices – and a general overview of lifecycle management practices is presented in this section.

CURRENT LIFECYCLE MANAGEMENT STRATEGIES

Pace's core objective is to provide a safe, reliable, courteous, efficient, and effective suburban bus service. Pace currently employs a variety of lifecycle management strategies to achieve this objective which are detailed in the asset plans in the appendices of this document. Pace's asset lifecycle management strategies fall into the following categories:

- Acquisition activities to procure, design, build, and transfer assets considering long-term maintenance and operations.
- Maintenance activities including inspection/monitoring, preventative maintenance, and corrective maintenance.
 - Inspection/monitoring activities to confirm the asset can function in its required state and provide a safe operational environment.

Lifecycle Management Strategies



- Preventative maintenance activities to achieve a required level of asset performance and maintain a safe operational environment.
- Corrective maintenance activities to return the asset to its required function and restore a safe operational environment.
- Overhaul/Rehabilitation to restore the asset to an operational design standard and maintain performance.
- Disposal to ensure compliant, efficient, cost-effective retirement of assets.

ACQUISITION

Funding for acquisition is determined through the capital program development process, which is based on a well-developed capital project prioritization methodology. For asset acquisitions, property and equipment are recorded at historical cost. Pace capitalizes assets with a useful life of one year or more that is:

- a. Capital equipment
- b. Operation equipment with a unit cost of \$5,000 or more
- c. Costs incurred to extend an asset's useful life as part of a fleet enhancement or major rebuild/rehabilitation program, or
- d. An item determined to be highly susceptible to loss or theft

Most of Pace's assets have been acquired through capital grant projects funded by FTA, IDOT, the RTA, or CMAP. Fixed Route buses, Paratransit buses, Vans, and Non-Revenue vehicles are set up in the Finance Department Fixed Asset APEX System based on their in-service date. When expanding or changing the revenue fleet, the Strategic Services Department works with the Budget Planning and Analysis Department to provide information on planned expansions or other plans. For equipment, replacements are typically made once equipment becomes unreliable. Equipment procurement is done by the Facilities Maintenance or the Revenue Services Department when a simple replacement occurs, but it is possible for the Capital Financing & Infrastructure, Design & Construction Department to handle the asset acquisition, depending on the scope of work. The process for asset acquisitions can be found in the FI-05, Finance Department Fixed Assets Policy.

MAINTENANCE

Pace has a detailed *Rolling Stock, Facilities, and Equipment Maintenance Manual* prescribing planned maintenance for the agency's assets, as well processes to ensure contractor quality and completion, and strict guidelines for disposal of assets. Pace's Maintenance and Technical Services Department is responsible for managing and maintaining buses throughout their lifecycle, while maintenance and repair of Vanpool and Non-Revenue vehicles are conducted by third-party vendors at regular vehicle maintenance shops throughout the region. The Facilities Maintenance Department typically manages the smaller assets and programs that are relevant to the equipment asset category.



INSPECTION/MONITORING

For Administrative and Maintenance Facilities and Passenger Stations, inspections are recorded and tracked by the Facilities Maintenance Department on a biannual basis. Division staff conduct inspections of facilities more frequently, and staff at South Holland conduct monthly inspections of Passenger Facilities. For rolling stock, each driver is required to perform a pre-trip inspection of their rolling stock prior to pullout. Documentation of inspections are recorded on hardcopies, and any noted defects are entered into Oracle eAM. In-addition to pre-trip inspections, in-service rolling stock is serviced daily and ensured by the Maintenance Superintendent.

PREVENTATIVE MAINTENANCE

Pace's maintenance manual prescribes frequencies by which many different assets are inspected. This preventative maintenance ensures that Pace's assets remain safe and reliable to operate. Preventative maintenance for rolling stock includes the inspection of the rolling stock, scheduled oil changes, lubrication, adjustments, service, and repairs that are performed during the inspection/servicing and documented on the appropriate forms. The Preventative Maintenance Inspection (PMI) forms and the Lift-U Preventative Maintenance are performed under a work order by an assigned mechanic at the scheduled mileage intervals.

CORRECTIVE MAINTENANCE

Some maintenance at Pace is reactive, performed in response to defects identified during routine inspection, preventative maintenance, or reported by field staff. When possible, defects are corrected in short order by Pace staff. Pace also has contracts with third party vendors to complete corrective maintenance as needed.

OVERHAUL/REHABILITATION

Buses receive rehabilitations at mid-life, which are performed by third-part vendors. Facilities may also receive extensive rehabilitation when condition warrants it. Other assets are replaced rather than overhauled. These processes are identified in the Facility Maintenance Plans and Practice Overview and Procedures for Inspections Manual and the Rolling Stock, Facilities, and Equipment Maintenance Manual.

DISPOSAL

At Pace, an asset is disposed of if it has exceeded its useful life and is no longer needed or functioning or has been damaged or destroyed before the end of its useful life. When disposal is necessary, an Asset Disposal Form is completed by the division or department that holds or is responsible for the asset. The form is submitted to Accounting and the Fixed Asset Accountant reviews the asset to determine if there is any remaining useful life. If there is, then that is noted on the form. The form is then reviewed and approved by the Section Manager, Accounts Payable/Receivable and the Section Manager, Grants Administration if the asset is capital funded. The Fixed Asset Accountant determines whether an asset should be disposed of by the Using Department or sold by the Purchasing Department. The Purchasing Department is responsible for obtaining payment for the sale of an asset and forwarding those funds



Lifecycle Management Strategies

directly to the Finance Department. If the proceeds from the asset exceed a certain dollar value or have remaining useful life, then the Grants Administration Department will coordinate repayment to the funding agency and obtain concurrence. Pace has an agreement with the FTA that allows Pace to retain all funds due back to the FTA, with the assurance that Pace acquire new assets with the funds and give the FTA 100% equity in those assets.

END OF SECTION 6



7. INVESTMENT PRIORITIZATION

Since 1991, the Pace Capital Project Scoring Criteria has been in place and has been adjusted occasionally during annual budget cycles to accommodate funding limitations and changing agency priorities.

625.25 (b) A TAM Plan must include: (3) A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization; (4) A provider's project-based prioritization of investments;

625.33 Investment prioritization. (a) A TAM Plan must include an investment prioritization that identifies a provider's programs and projects to improve or manage over the TAM Plan horizon period the state of good repair of capital assets for which the provider has direct capital responsibility. (b) A provider must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year. (c) A provider's project rankings must be consistent with its TAM policy and strategies. (d) When developing an investment prioritization, a provider must give due consideration to those state of good repair projects to improve that pose an identified unacceptable safety risk when developing its investment prioritization. (e) When developing an investment prioritization, a provider must take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM Plan horizon period. (f) When developing its investment prioritization, a provider must take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities.

DESCRIPTION OF ANALYTICAL PROCESSES FOR INVESTMENT PRIORITIZATION

Pace's Investment Prioritization method aligns with our Capital Project Scoring Criteria, and the process currently used to select projects during the annual budget cycle. It is Pace's intent to align our Five-Year Capital Program with our Investment Prioritization forecast whereby exceeding the FTA requirement of updates to the overall TAM Plan every four years.⁴ The General Manager and Chief Operating Officer will appoint an Evaluation Committee of an agreed to size.

Pace's capital planning process begins with the RTA's Budget Call. The Budget Planning and Analysis Department sends out instructions and forms—some with subsets for different dollar thresholds representing different asset classes—to Senior Staff and relevant department managers, who are required to return them with their capital requests by a predetermined deadline. Supplemental documents are required as support for certain capital requests, including fleet plans for vehicle requests.

The Budget Planning and Analysis Department collects, compiles, and catalogs all complete requests. The Budget Department implements a scoring process across all

⁴ FTA Transit Asset Management Final Rule, Vol. 81, No. 143, July 26, 2016



the projects. A version of this process has been in place since 1991, though it has been adjusted over the years to incorporate lessons learned and reflect changing priorities.

Capital projects not selected for year-one may be included in years two through five, however, projects not selected must be resubmitted for consideration every year, and there are no implicit or explicit agreements that a project that does not make it into the plan one year will be prioritized the following year. All submissions are reevaluated and reprioritized every year.

The Budget Planning and Analysis Department meet with Senior Staff to present recommendations/ information from the scoring process and to allow Senior Staff to make informed decisions. The prioritization scores are only one factor in the decision process. Another factor may be funding sources, which restrict how money can be spent and must be matched appropriately to specific projects. For example, Pace used an RTA ICE grant for innovative projects to support the IBS system. Based on the feedback received from Senior Staff, the proposed budgets are updated.

Next, Senior Staff and the Budget Planning and Analysis Department introduce the draft Capital Program to the Pace Board Chairman and Directors for a review and comment period in late August/early September prior to public budget introduction at the September Board meeting. A formal budget presentation occurs at the October Board meeting before Pace holds mandated public hearings throughout the six county Northeastern Illinois region. The budget information is made available at most public libraries, township, city, and village offices and on the Pace website. After consideration of input from the public process, the final proposed program is approved by the Pace Board in November. The proposed Capital Program is submitted to RTA in October followed by the final Capital Program in November. The RTA Board adopts the consolidated regional budget and Capital Program in December.

INVESTMENT PRIORITIZATION PROCESS

YEAR ONE

Within each asset category reside individual asset class projects which are scored by pre-determined criteria and scoring ranges assigned to achieve a maximum of 39 total points in year one. Each of the evaluators' scores are averaged to produce an overall asset category score to assign a ranking within the year-one program.

After the evaluation of projects, the Budget Planning and Analysis Department prepares a draft recommended project list and submits it to Senior Staff for review and comment. Recommended projects are tied to available funding as established by the Regional Transportation Authority (RTA) Marks which are adopted no later than the September 15 statutory funding deadline.

YEAR TWO THROUGH YEAR FIVE

Years two through five are approached as an overarching strategic framework for the future direction of potential projects outside of the annual program. The investment prioritization framework is goal-orientated and objective-based in the out-years because it is dependent on the RTA receiving the fully apportioned regional federal grant estimates along with each Service Board receiving potential discretionary funding. Each



program year needs to balance to the RTA Five-Year Capital Program Funding projections (Marks). Listed below is an overview of the current year two through year five prioritization process.

Decision Support Tool Steps:

- Define Unconstrained needs
- Enter the RTA Marks
- Reduce quantities/remove projects (to balance to the RTA marks) based on:
 - Scoring
 - Funding type (restrictive by scope/capital eligibility)
 - Available Staff Resources/Project timelines (phasing)
 - Dependencies on other projects (sequencing)
 - Historical funding levels, trends, or forecasts

Lastly, additional criteria for years two through five may be vetted during this initial effort and incorporated over the course of the TAM Plan horizon period.

INVESTMENT PRIORITIZATION CRITERIA AND SCORING RANGES

The following criteria are used by the Budget Team during the scoring phase of the capital project prioritization process:

1. RIDERSHIP

Each passenger counted each time that person boards a transit vehicle.

Score Range: 0-2

0 = Negative 1 = Neutral 2 = Positive	2 = Positive
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2. RECOVERY RATIO

Operating revenues divided by operating expenses to calculate a percentage that measures efficiency.

Score Range: 0-2

0 = Negative 1 = Neutr	2 = Positive
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3. PASSENGER BENEFITS

Improvements to Safety; Service Reliability; Capacity; Passenger Comfort and/or Convenience; Accessibility.

Score Range: 0-5

Each of the criteria can be awarded up to one point.

4. NEW, NORMAL REPLACEMENT, REHABILITATION, URGENT

New is defined as an asset that is not currently in the inventory (i.e. not a replacement). Normal Replacement is ongoing replacement of existing assets as they reach the end of their expected useful life. Rehabilitation is ongoing rehabilitation needs for existing



assets as required to maintain a State of Good Repair (SGR). Urgent is an asset that is well beyond its useful life or is adversely affecting daily operations.

Score Range: 0, 9, or 10

0 = New	9 = Normal Replacement	9 = Rehabilitation	10 = Urgent
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5. PRIOR OR PROGRAMMED COMMITMENT

A Prior Commitment is a project committed to by a previous funding source that may require additional funding in the current and/or out years. A Programmed Commitment is a high-level agency commitment which may include, but is not limited to, Intergovernmental Agreements (IGA) or contracts with other entities.

Score Range: 0 or 10

0 = Not a Prior or Programmed Commitment	10 = Prior Commitment	10 = Programmed Commitment
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6. SAFETY/SECURITY, MISSION CRITICAL, OR REGULATORY

An internal project that addresses Safety/Security concerns or to comply with the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), or the Illinois Emergency Management Agency (IEMA). A Mission Critical asset or initiative is essential to the daily business operation to minimize disruption or shutdown. A Regulatory mandated project is to comply with federal/state regulations, municipal code, or current industry standards such as the Environmental Protection Agency (EPA) or the Americans with Disabilities Act (ADA).

Score Range: 0 or 10



PROJECT-BASED PRIORITIZATION OF CAPITAL INVESTMENTS

Due to the timing of the annual budget process, Table 11, on the following page, summarizes Pace's proposed five-year capital program priorities by asset class, as of October 2019. More detail can be found in the appendices.

Pace's capital program balances the needs of many different user groups and asset classes. Major projects funded over the coming five years include:

- Acquisition of fixed route buses, paratransit vehicles, CTS vehicles, and vanpool vehicles
- Support facilities improvements, and preventative maintenance for support facilities and equipment
- Passenger facility improvements



Table 11: 2020-2024 Suburban Service Capital Business Plan (000s) - Constrained⁵

					•	
	<u>2020</u>	<u>2021</u>	2022	2023	2024	5 YEAR 2020-2024
Rolling Stock Quantities						
Fixed Route Replacement Diesel Buses	28	0	0	0	32	6
Fixed Route Replacement CNG Buses	0	33	16	66	0	11
Fixed Route Expansion CNG Buses	0	0	18	0	0	1
Paratransit Vehicles	30	24	40	106	203	40
Community Transit/On Demand Vehicles Vanpool Vehicles	18 0	15 0	15 0	32 283	47 42	12 32
Rolling Stock	O	U	U	203	12	32
Fixed Route Replacement Diesel Buses	\$14,000	\$0	\$0	\$0	\$16,000	\$30,00
Fixed Route Replacement CNG Buses	0	18,150	8,800	36,300	0	63,25
Fixed Route Expansion CNG Buses	0	0	9,900	0	0	9,90
Paratransit Vehicles	1,954	1,560	2,600	6,890	13,195	26,19
Community Transit/On Demand Vehicles	1,350	1,125	1,125	2,400	3,525	9,52
Vanpool Vehicles	0	0	0	9,905	1,470	11,37
Engine/Transmission Retrofits	6,998	7,423	7,371	18,185	18,179	58,15
Subtotal	\$24,302	\$28,258	\$29,796	\$73,680	\$52,369	\$208,40
Electrical/Signal/Communications						
Intelligent Bus System Upgrades	\$625	\$500	\$1,000	\$1,500	\$1,500	\$5,12
Subtotal	\$625	\$500	\$1,000	\$1,500	\$1,500	\$5,12
Support Facilities & Equipment						
Improve Support Facilities	\$1,500	\$500	\$1,000	\$1,500	\$1,500	\$6,00
Computer Systems/Hardware & Software	900	500	1,000	1,500	1,500	5,40
Support Equipment/Non-Revenue Vehicles	1,000	350	1,000	1,500	1,500	5,35
Farebox System Replacement	7,500	5,000	5,000	0	0	17,50
Capital Cost of Contracting	6,195	6,322	6,453	6,500	6,500	31,97
Preventive Maintenance	9,000	9,000	9,000	9,000	9,000	45,00
New Northwest Division Garage	41,952	0	0	0	0	41,95
New I-55 Garage	3,500	39,753	0	0	0	43,25
River Division Expansion	0	2,000	18,000	0	0	20,00
North Shore Division Expansion	0	2,000	18,000	0	0	20,00
Southwest Division Expansion	0	2,000	16,000	0	0	18,00
Office Equipment/Furniture	0	0	0	850	850	1,70
Subtotal	\$71,547	\$67,425	\$75,453	\$20,850	\$20,850	\$256,12
Stations & Passenger Facilities						
Improve Passenger Facilities	\$0	\$3,500	\$350	\$1,500	\$1,500	\$6,85
Bus Stop Shelters/Signs	1,550	500	1,000	1,500	1,500	6,05
Bus Tracker Sign Deployment	750	500	1,000	1,500	1,500	5,25
Posted-Stops-Only Conversion	450	0	0	0	0	45
Joliet Transit Center	6,300	0	0	0	0	6,30
Harvey Transportation Center	1,000	7,000	0	0	0	8,00
I-55 Park-n-Rides	0	0	753	6,000	0	6,75
I-294 Stations & Park-n-Rides	0	0	0	3,500	31,500	35,00
Subtotal	\$10,050	\$11,500	\$3,103	\$14,000	\$36,000	\$74,65
Miscellaneous						
Vision Plan Implementation Study	\$1,500	\$1,000	\$0	\$0	\$0	\$2,50
Unanticipated Capital	250	250	250	250	250	1,25
Subtotal	\$1,750	\$1,250	\$250	\$250	\$250	\$3,75
Grand Total - Constrained	\$108,274	\$108,933	\$109,602	\$110,280	\$110,969	\$548,05

⁵ Pace Suburban Bus. Suburban Service and Regional ADA Paratransit Budget: 2020 Operating and Capital Program; 2020-2022 Business Plan for Operations; 2020-2024 Capital Business Plan. Final Program, November 2019, p 44.



Based on the prioritization methodology described in the previous section, Table 12 contains a ranked list of capital projects for 2020, while Table 13 ranks the project intended for years 2021 through 2024.

Table 12: Ranked List of Capital Projects, 2020

PROJECT			UNC	ONSTRAINED	
RANK	PROJECT NAME	ASSET CATEGORY		NEED	SCORE
1	Farebox System Replacement	Support Facilities & Equipment	\$	7,500,000	33.7
2	Joliet Transit Center	Stations & Passenger Facilities	\$	6,300,000	21.7
	Oil/Water separator tank				
3	and installation	Support Facilities & Equipment	\$	200,000	21.0
4	IBS Upgrades	Support Facilities & Equipment	\$	625,000	19.7
5	Underground storage tank repairs	Support Facilities & Equipment	\$	300,000	18.7
6	Bus tracker signs content mngmnt & hosting srvcs	Support Facilities & Equipment	\$	750,000	16.0
7	Underground storage tank testing services	Support Facilities & Equipment	\$	200,000	15.7
8	Posted Stops sign installation	Stations & Passenger Facilities	\$	450,000	15.0
9	Trench drain repairs	Support Facilities & Equipment	\$	478,000	14.7
10	Replacement Paratransit Vehicles	Rolling Stock	\$	1,953,832	14.3
11		Rolling Stock	\$	14,000,000	14.0
	Replacement Community &	3		, ,	
12	On-Demand Vehicles	Rolling Stock	\$	1,350,000	14.0
13	Engine/Transmission Retrofits	Rolling Stock	\$	6,997,989	14.0
14	Shelters and concrete pads	Stations & Passenger Facilities	\$	870,000	13.0
15	Bus tracker signs and installation	Stations & Passenger Facilities	\$	750,000	12.7
16	A/E for bus stop shelters	Stations & Passenger Facilities	\$	630,000	12.7
17	5	Miscellaneous	\$	1,500,000	12.3
18	Non-revenue vehicles	Support Facilities & Equipment	\$	510,000	12.0
19	Titan2 servers and MSA's (disk arrays)	Support Facilities & Equipment	\$	425,000	11.3
20	Caulk precast exterior wall	Support Facilities & Equipment	\$	65,000	11.0
21	Parking lot asphalt repairs	Support Facilities & Equipment	\$	65,000	11.0
22	Carpeting and painting	Support Facilities & Equipment	\$	9,000	11.0
23	Safety simulator	Support Facilities & Equipment	\$	350,000	8.7
24	Bus stop benches	Stations & Passenger Facilities	\$	50,000	6.0
25	Road call service trucks	Support Facilities & Equipment	\$	140,000	5.7
26	Water pumping system	Support Facilities & Equipment	\$	78,000	5.7
27	Construct salt shed	Support Facilities & Equipment	\$	50,000	2.3



Table 13: Ranked List of Capital Projects, 2021-2024

PROJECT RANK	PROJECT NAME	ASSET CATEGORY	UNCONSTRAINED NEED (MILLIONS)	SCORE
1	Farebox System Replacement	Support Facilities & Equipment	\$17.5	30.3
2	New I-55 Garage	Support Facilities & Equipment	\$41	24.0
3	River Division Expansion and improvements	Support Facilities & Equipment	\$14.5	23.3
4	Posted Stops	Stations & Passenger Facilities	\$2.5	23.0
5	Pulse Dempster Buses (18)	Rolling Stock	\$9	20.0
6	North Shore Expansion and improvements	Support Facilities & Equipment	\$19.5	20.0
7	Harvey Transportation Center	Stations & Passenger Facilities	\$7.5	19.0
8	Environmental Consulting/ Underground Tanks	Support Facilities & Equipment	\$2.1	18.7
9	Homewood Transfer Center	Stations & Passenger Facilities	\$1.5	18.7
10	Gurnee Mills Transportation Center	Stations & Passenger Facilities	\$0.75	18.7
11	Fixed Route Bus Replacements (129)	Rolling Stock	\$51.6	18.3
12	Pulse Dempster Construction	Stations & Passenger Facilities	\$13.4	16.0
13	Bus Stop Signs/Shelters	Stations & Passenger Facilities	\$7	15.7
14	Paratransit Vehicle Replacements (274)	Rolling Stock	\$17.8	15.3
15	Support Equipment/ Non- Revenue Vehicles	Support Facilities & Equipment	\$12.5	15.3
16	Community Transit Vehicle Replacements (78)	Rolling Stock	\$5.9	15.0
17	Blue Island Park-n-Ride	Stations & Passenger Facilities	\$2.2	15.0
18	Chicago Heights Transfer Center	Stations & Passenger Facilities	\$2.5	15.0
19	Bolingbrook (Canterbury Lane) Park-n-Ride	Stations & Passenger Facilities	\$1.5	15.0
20	Homewood Park-n-Ride	Stations & Passenger Facilities	\$1.5	15.0
21	Prairie Stone Transportation Center	Stations & Passenger Facilities	\$3	15.0
22	Buffalo Grove Transportation Center	Stations & Passenger Facilities	\$2.5	15.0
23	Hillside Park-n-Ride	Stations & Passenger Facilities	\$1	15.0
24	Engine Transmission/ Retrofits/Associated Capital	Rolling Stock	\$15	14.7
25	Riverdale Bus Turnaround	Stations & Passenger Facilities	\$1.5	13.3
26	Office Equipment/Furniture	Support Facilities & Equipment	\$1	11.7
27	Orland Square Mall Layover	Stations & Passenger Facilities	\$1.6	11.3
28	Computer Systems/ Hardware & Software	Support Facilities & Equipment	\$5	10.3



ESTIMATION OF AVAILABLE CAPITAL FUNDING

In order to pay for our capital investments over the next five years, Pace will rely on funding from the sources described in Table 14.

Table 14: Capital Improvement Program Expected Funds (\$000s), FY2020-2024

ASSET CLASS	PROJECT	2020	2021	2022	2023	2024	5 year (2020-2024)
	Federal 5307	\$41,968	\$42,597	\$43,236	\$43,885	\$44,543	\$216,229
Federal Funds	Federal 5339	1,954	1,983	2,013	2,043	2,074	10,067
	Subtotal - Federal Funds	43,922	44,580	45,249	45,928	46,617	226,296
04-4-	State Bond	52,753	52,753	52,753	52,753	52,753	263,762
State Funds	State Renewal	11,350	11,350	11,350	11,350	11,350	56,750
	Subtotal - State Funds	64,103	64,103	64,103	64,103	64,103	320,513
Pace Funds	Pace PBV	250	250	250	250	250	1,250
Fullus	Subtotal - Pace Funds	250	250	250	250	250	1,250
Total	Total	\$108,274	\$108,933	\$109,602	\$110,280	\$110,969	\$548,058

OPERATIONS AND MAINTENANCE COSTS

Capital investments have an impact on operating and maintenance costs, which are typically higher for older, less efficient vehicles, equipment, and facilities, which are more prone to breakdowns, and for which there may no longer be adequate support from suppliers. Pace's Suburban Service Operating Budget gives a breakdown of our operating revenue/expenses, and public funding received. In FY 2016 and 2017, operating revenue covered about 25 percent of operating expenses for both years, with public funding covering the rest. In Pace's three-year business plan, operating revenues are expected to grow at an annual compound rate of 2.2 percent, expenses at 2.1 percent, and total public funding at 2.4 percent (including both sales tax and federal revenue services). Figure 3 shows the actual/expected system-generated revenues, public funds, and total operating expenses from 2018 through 2022. Of Pace's total operating expenses, approximately 57.92 percent is for labor and fringes.



Figure 3: Operating and Maintenance Costs (\$millions), 2018-2022

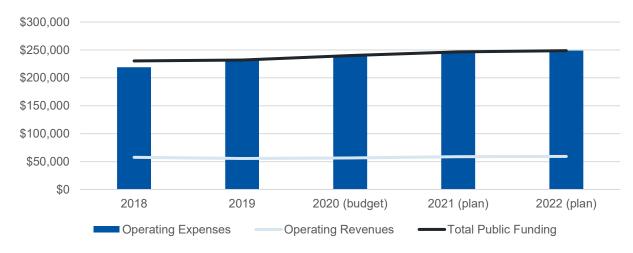


Table 15. Operating Expenses (\$000s)

OPERATING EXPENSES	2018 (ACTUAL)	2019 (ESTIMATE)	2020 (BUDGET)	2021 (PLAN)	2022 (PLAN)
Labor/Fringes	\$128,345	\$131,056	\$138,981	\$143,205	\$147,491
Healthcare	26,181	26,184	27,235	29,632	32,150
Parts/Supplies	7,466	6,427	6,376	6,823	7,292
Purchased Transportation	18,241	25,973	21,332	21,998	22,681
Fuel	13,973	13,166	14,227	14,758	15,218
Utilities	2,238	2,680	3,051	3,205	3,389
Insurance	7,247	11,973	10,937	11,718	12,539
Other (includes Debt Service)	22,061	23,893	26,865	27,132	27,627
Bond Interest	242	216	187	154	119
Regional ADA Support Credit	(7,073)	(8,226)	(9,249)	(9,358)	(9,639)
Budget Balancing Actions	0	0	0	(2,693)	(10,129)
Total expenses before depreciation	\$218,921	\$233,342	\$239,942	\$246,574	\$248,738

END OF SECTION 7



8. ASSET MANAGEMENT IMPLEMENTATION

Pace recognizes that this initial TAM Plan is only the first step of many towards achieving the organization's asset management Baseline and Future improvement objectives.

TAM PLAN UPDATE AND EVALUATION

625.25 (b) A TAM Plan must include (9) An outline of how a provider will monitor, update, and evaluate, as needed, its TAM Plan and related business practices, to ensure the continuous improvement of its TAM practices

At a minimum, this Plan will undergo a comprehensive update and review every four years, with a preferred update cycle of every three years to coincide with the FTA triennial review process. Certain aspects of the Plan will be reviewed more frequently, on an annual cycle. This includes a review of asset condition, performance targets (as part of annual submissions to the NTD), and progress towards asset management objectives.

To ensure the Plan remains useful and relevant, the following are examples of monitoring and review activities that will be undertaken:

- The Transit Asset Management and State of Good Repair Policy which directs the development of future asset management initiatives – including future versions of this asset management plan.
- Guidance for the delivery of maintenance and capital programs.
- Performance targets shall be monitored annually and reviewed as to their ability to deliver the required level of service for each asset class.
- The asset inventory and condition information shall be updated annually as part of NTD reporting.
- Pace's five-year capital plan shall be updated annually, following the investment prioritization procedures laid out in this document.
- Pace's maintenance manuals and other guiding maintenance and management documents will be monitored and updated as needed, to ensure that the lifecycle management strategies contained therein continue to adequately address our assets' maintenance needs.

IMPROVEMENT PLAN

625.25 (b) A TAM Plan must include: (6) A provider's TAM Plan implementation strategy

Originally WSP proposed 23 initiatives to support the October 1, 2018 Pace initial TAM Plan. These were developed in response to a Gap Assessment, which evaluated Pace's general asset management maturity. The proposed initiatives cut across several asset management knowledge pathways, suggesting key actions to improve Pace's asset management capabilities in multiple overlapping areas. The proposed initiatives are



drawn from the "Principles of Asset Management" a training course offered by WSP. Currently, the WSP training course is an out of scope item.

During 2019, the proposed 23 initiatives underwent a conscientious review to focus on results rather than tasks to ensure we were not too rigid in our original thinking. Recognizing Pace strengths, the proposed 23 initiatives were divided into two categories, Baseline and Future TAM Plan Improvement Objectives, versus a prescriptive 5-year calendar for Pace's TAM Plan implementation strategy. As another "tool in our toolbox" to help map our TAM and NTD organizational mission, a guidance manual was created *Pace TAM Improvement Objectives Handbook – 2019* to outline our TAM Plan Baseline and Future Improvement Objectives. This Handbook can assist with developing, mentoring, and training, a cross-functional committee(s) to educate staff in ways to approach transit asset management as a strategic business plan initiative.

Table 16. TAM Plan Baseline and Future Improvement Objectives - 2019

TAM PLAN BASELINE IMPROVEMENT OBJECTIVES

1 ASSET MANAGEMENT DOCUMENTS AND SYSTEMS

Per the TAM Final Rule, 625.29 (c), "A provider must update its entire TAM Plan at least once every 4 years." The overall TAM Plan preferred update cycle is every three years to coincide with the FTA Triennial review process. Certain aspects of the TAM Plan may be updated on an annual cycle. This may include limited scope Status Updates to inform internal and external stakeholders.

2 CONDITION ASSESSMENT PROCESSES

Define an asset condition assessment approach for all critical assets that describes how, when, and what is measured. Condition rating parameters may differ across asset types but the scoring scale, e.g., 1 to 5, should remain consistent to enable comparison.

3 PERFORMANCE TARGETS

Develop key performance targets at the asset level in accordance with FTA requirements for annual NTD reporting.

4 VEHICLE TRACKING SYSTEM

Develop a system in an IT platform to document vehicles, revenue and non-revenue, throughout their expected life cycle. Coordinate data input to the system through various key staff and other system events to limit that amount of information which is required to be hard entered.

TAM PLAN FUTURE IMPROVEMENT OBJECTIVES

5 INVESTMENT PRIORITIZATIONS

Update capital project prioritization process to include out-year projects, and to consider on operations and maintenance, lifecycle costs, asset criticality, and asset condition.

6 ASSET MANAGEMENT ORGANIZATIONAL DEVELOPMENT

Ensure organizational capacity exists to successfully implement asset management through alignment of enterprise strategy and goals with asset management improvement objectives.

7 RISK MANAGEMENT PROCESSES

Design and implement an enterprise-wide risk management program, integrated across departments.

8 LEVEL OF SERVICE DEFINITIONS

Quantify the required levels of service and the vehicles required to meet the service obligation, so that facility and equipment planning can be undertaken during planning of new services.

9 ASSET INFORMATION REQUIREMENTS

Develop standard requirements and guidelines for the provision of asset information by contractors, including asset inventory and data, warranty, OEM manuals, maintenance manuals, and training.



Table 16. TAM Plan Baseline and Future Improvement Objectives - 2019 Continued

TAM PLAN FUTURE IMPROVEMENT OBJECTIVES CONTINUED

10 LIFE CYCLE COSTING

Incorporate lifecycle cost information into investment decision-making, budget preparation, and asset policies and strategies.

11 IN VS. OUTSOURCING

Implement a process for large projects or procurements to consider whether the project should use in-house resources or be contracted out.

12 ASSET CRITICALITY

Develop a procedure for assigning and recording asset criticality and use criticality as a criterion in capital project prioritization and investment decision-making.

13 OPERATIONS AND MAINTENANCE IN CAPITAL PROGRAMMING

Engage maintenance and operations staff during the project development and design process and incorporate information on future maintenance and operations needs and costs into design

14 VEHICLE PERFORMANCE ANALYTICS

Enhance and formalize processes for monitoring vehicle performance, analyzing trends in collected data and making improvements to maintenance plans and procedures.

15 FORMALIZE INVENTORY MANAGEMENT

Formalize strategies and processes related to inventory management, including how requirements are set for new assets, and those soon to be retired.

16 AUTOMATIC MONITORING

Expand use of automatic monitoring/feedback systems and enable automatic generation of work orders based on trigger events.

17 FAILURE ANALYTICS

Implement systems, processes, and procedures for review and analysis of failures to prevent reoccurrences, and ensure corrective action is taken as appropriate.

18 BUSINESS CONTINUITY PLAN

Create a formal Business Continuity Plan that identifies enterprise and asset risks, threats and vulnerabilities that could impact Pace's continued operations.

19 ENTERPRISE ASSET MANAGEMENT (EAM) SYSTEM IMPROVEMENTS

Increase the utility of eAM systems by a) defining parent-child asset hierarchies that enable automatic assignment of work orders to specific sub-assets/components; b) establishing unique identifiers that allow tracking a specific asset across databases; c) incorporating mobile technology to facilitate data collection; d) increasing integration between Pace's eAM system and other technology systems; and e) enabling the capture and recording of lifecycle costs associated with an asset.

20 MASTER DATA GOVERNANCE

Expand the number and type of asset-level condition and performance metrics tracked, identify ways to use this data to predict failure and produce a Master Data Governance Framework.

21 SUCCESSION PLANNING

Formalize succession planning efforts to improve knowledge management and mitigate the impacts associated with a potential loss of institutional knowledge.

22 DEVELOP ASSET MANAGEMENT CULTURE

Strengthen and build on the existing culture of asset management through consistent messaging from senior leadership and management staff, staff training on asset management, and identification of asset management knowledge and skills gaps.

23 CLARIFY ASSET MANAGEMENT ROLES

Formalize asset management-related roles and responsibilities throughout Pace, including identification of champions and process owners, and consider optimal long-term TAM organizational structure.

END OF TAM PLAN MAIN DOCUMENT

Pace Suburban Bus Division

of the Regional Transportation Authority of Illinois

INITIAL TRANSIT ASSET MANAGEMENT PLAN 2019 UPDATE

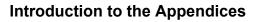
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INTRODUCTION TO THE APPENDICES

These Appendices cover groups of assets, broke into categories, based on the required Federal Transit Administration (FTA) National Transit Database (NTD) annual reporting, the main drivers of the TAM Plan, and others based on the Regional Transportation Authority (RTA) annual budget categories.

Per the TAM Final Rule, Section 625.25, lists the TAM plan requirements, including an asset inventory, condition assessments, a description of analytical processes or decision-support tools used to estimate and prioritize capital investment needs over time, and a project-based prioritization of investments. In general, an asset inventory must include all equipment, rolling stock, facilities, and infrastructure that a provider owns. A provider may exclude from its asset inventory any equipment with an acquisition value of less than \$50,000 unless the asset is service vehicle equipment. The inventory also must include all rolling stock (revenue vehicles), passenger stations, administrative and exclusive use maintenance facilities, and guideway infrastructure owned by a third-party and used by the provider in the provision of public transportation.

The level of detail in a provider's asset inventory should be commensurate with the level of detail in its program of capital projects. A transit provider is required to conduct a condition assessment on all inventoried assets for which the provider has direct capital responsibility, and set targets and develop a project-based prioritization of investments for those assets.

A brief overview of each appendix is contained below.

Appendix A: NTD Annual Reporting

Appendix A contains a copy of the submitted Narrative Report for NTD RY2018 and will contain copies of future reports when TAM updates occur. The report also includes Table A-1: FY2019 Asset Management Performance Measure Targets to mimic the A-90 Form.

Appendix B: Facilities

Appendix B provides more detail on Pace's Facilities, including Passenger Station and Parking assets and Administrative and Maintenance assets, including a more detailed asset inventory, condition information, lifecycle management strategies, asset management enablers, and capital plans. Appendix B also contains copies of condition assessment reports conducted in 2018, and 2019, along with a copy of the NTD RY2018 A-15, Transit Asset Management Facilities Inventory Form.

Appendix C: Support Vehicle / Equipment

Appendix C provides more detail on Pace's Non-Revenue Vehicles and equipment, including a more detailed asset inventory, condition information, lifecycle management strategies, asset management enablers, and capital plans. Appendix C also includes a copy of the submitted NTD RY2018, A-35 Service Vehicle Inventory Form.



Appendix D: Revenue Vehicles

Appendix D provides more detail on Pace's Rolling Stock assets, including a more detailed asset inventory, condition information, lifecycle management strategies, asset management enablers, capital plans, and copies of the submitted NTD RY2018, A-30 Revenue Vehicle Inventory Form.

Appendix E: Electrical, Signal, and Communications

Appendix E is based upon the RTA Budget Category. It provides more detail on Pace's Electrical, Signal, and Communications assets, including a more detailed asset inventory, lifecycle management strategies, and asset management enablers.

Appendix F: Support Facilities and Equipment

Appendix F is included to cover Maintenance and Administration type assets that are *not* included in the NTD Appendix B – Facilities – A-15 Form for RY2018 due to NTD Reporting requirements

Appendix G: Stations and Passenger Facilities

Appendix G is included to cover Passenger Facility type assets that are *not* included in NTD Appendix B – Facilities – A-15 Form for RY2018 due to NTD Reporting requirements.

Appendix H: Abbreviations and Acronyms

This Appendix lists abbreviations used in this document.

Appendix I: Terms and Definitions

This Appendix provides terms and definitions used to describe aspects of asset management that may be referenced in this document.

END OF INTRODUCTION



A. APPENDIX A – NTD ANNUAL REPORTING

Per the Federal Transit Administration's guidance:

The National Transit Database (NTD) program's Asset Inventory Module (AIM) is designed to collect basic information on assets and infrastructure used by U.S. transit agencies to deliver service. The purpose of assembling a nationwide inventory is to improve the Federal Transit Administration's (FTA's) ability to project capital costs for the future replacement (and necessary capital renewal activities) of existing transit assets.

This information supports the FTA biennial report to the U.S. Congress regarding cost estimates of transit capital. These estimates directly influence the FTA annual budget request submitted for the Federal fiscal year (FFY). The Transit Asset Management (TAM) rule (49 CFR part 625) is a set of federal regulations that set out minimum asset management practices for transit providers. Beginning in Report Year (RY) 2018, agencies that receive or benefit from Chapter 53 funds from the Federal Transit Administration are required to report asset inventory, condition and performance information to the National Transit Database.

Each Chapter 53 funding recipient developing a TAM Plan will be required to report annually to the FTA National Transit Database.

Pace's fiscal year aligns with the calendar year, January 1 through December 31. For Pace this means that the RY2018 submission is required to be uploaded to the NTD website no later than April 2019. Pace did not undertake the RY2017 option.

Pace has two NTD ID reporting numbers: 50113 for the Suburban Bus Division, and 50182 for the Regional ADA Paratransit Services. Pace has no capital responsibility for the 50182 Regional ADA Paratransit Services assets.

The Pace RY2018 AIM submission included:

- 1. Projected targets for FY2019.
- Condition assessments and performance results.
- 3. A narrative report on changes in transit system conditions and the progress toward achieving previous performance targets, beginning for RY2019. The RY2018 narrative report serves as an overview of our RY2018 NTD TAM AIM submittal, and is included at the end of the Appendix A.

Note that the FTA requires the use of their new prescribed AIM forms for reporting data elements. FTA does not have a prescribed format for the narrative report.

- 1. Transit Asset Management Performance Targets (A-90)
- Transit Asset Management Facilities Inventory (A-15)
- 3. Transit Way Mileage (A-20) Non-Applicable to Pace
- 4. Revenue Vehicle Inventory (A-30)
- 5. Service Vehicle Inventory (A-35)



A-90 Transit Asset Management Performance Measure Targets

The Useful Life Benchmarks (ULB) are based on Pace's experience with our assets and vary from those proposed by the FTA. FY2019 Performance Targets are set only for the 50113 Suburban Bus Division, as shown in Table A-1. For the Regional ADA Paratransit Services, Pace has checked all boxes as N/A on the A-90 form.

Table A-1: FY2019 Asset Management Performance Measure Targets

1. Rolling stock - % of revenue vehicles past their Useful		
Life Benchmark (ULB)	ULB	2019 Target
Over-the-road Bus (BR)	12	0%
Bus (BU)	12	23.44%
Cutaway (CU)	4	55.94%
Minivan (MV)	5	31.89%
Van (VN)	5	43.96%
2. Equipment - % of service vehicles past their Useful Life		
Benchmark (ULB)	ULB	2019 Target
Automobiles	5	57.75%
Trucks and other Rubber Tire Vehicles	5/10	64.66%
3. Facility - % of facilities rated below 3 on the condition		
scale	ULB	2019 Target
Passenger / Parking Facilities	N/A	26.92%
Administrative / Maintenance Facilities	N/A	33.33%

A-15 Transit Asset Management Facilities Inventory

The Suburban Bus Division Facilities Inventory database reflects passenger and parking facilities used by Pace in the provision of service including the administrative and maintenance facilities for which Pace has capital responsibility. Several of the passenger and parking facilities reported are owned and operated by other FTA-reporting entities: the Chicago Transit Authority (CTA) and Metra. For these facilities, Pace is using the NTD shared lookup function for reporting.

The Regional ADA Paratransit Services Inventory data is not subject to NTD reporting requirements because all administrative and maintenance locations are owned by contract carriers, except one administrative office that Pace leases.

A-20 Transit Way Mileage - Not applicable to Pace.

A-30 Revenue Vehicle Inventory

Pace reports Revenue Vehicle Inventory data across multiple forms, reflecting different types of service separately for the Suburban Bus Division and the Regional ADA Paratransit Services. Some of Pace's revenue vehicle inventory serve both entities and are included in both reports. The meaningful distinction is when the capital responsibility box is checked for performance target setting to avoid double counting.

A-35 Service Vehicle Inventory

The Suburban Bus Division Service Vehicle Inventory database is compiled for service and maintenance vehicles, administrative vehicles, or those which indirectly deliver transit service.



The Regional ADA Paratransit Services Inventory data is not subject to NTD reporting requirements because we do not have service vehicles that support either two modes, Purchased Transportation Demand Response (DR PT) and Demand Response Taxi (DT PT).

ANNUAL TAM DEPARTMENT NTD MISSION STATEMENT: A compliant TAM submittal using the NTD prescribed Asset Inventory Module (AIM) Forms to annually report the prior fiscal year capital asset inventory, asset condition, and performance data, along with a Narrative Report to describe Pace's progress toward meeting the prior fiscal reporting year performance targets, and setting the new projected fiscal year performance targets.

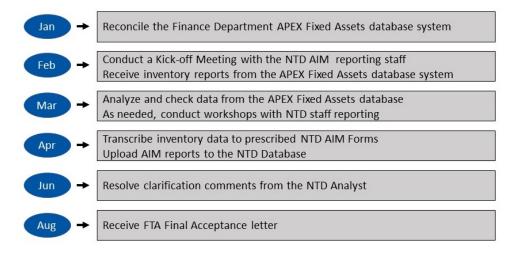
The **ANNUAL TAM DEPARTMENT NTD MISSION STATEMENT** is responsive to the required TAM Plan Element 6: Asset Management Implementation, and TAM Plan Element 7: List of Key Annual Activities.

Equally, the **ANNUAL TAM DEPARTMENT NTD MISSION STATEMENT** advances the TAM Plan Baseline and Future Improvement Objectives, specifically Baseline Improvement Objective 1: ASSET MANAGEMENT DOCUMENTS AND SYSTEMS to provide Pace NTD reporting staff with improved access to accurate, timely, consistent, and complete asset data and information.

The **TAM DEPARTMENT NTD RY2019 STRATEGIC GOAL**: Create a data entry guidance manual for NTD reporting staff. This guidance to include documented instances of NTD RY2018 Analyst Validation Issues with Pace Resolutions, Lessons Learned, and in certain cases, where RY2018 data entry approach was agreed to by conducting staff workshops to ensure Agency reporting consistency.

Figure A-1 shows the timeline for a typical annual NTD reporting cycle.

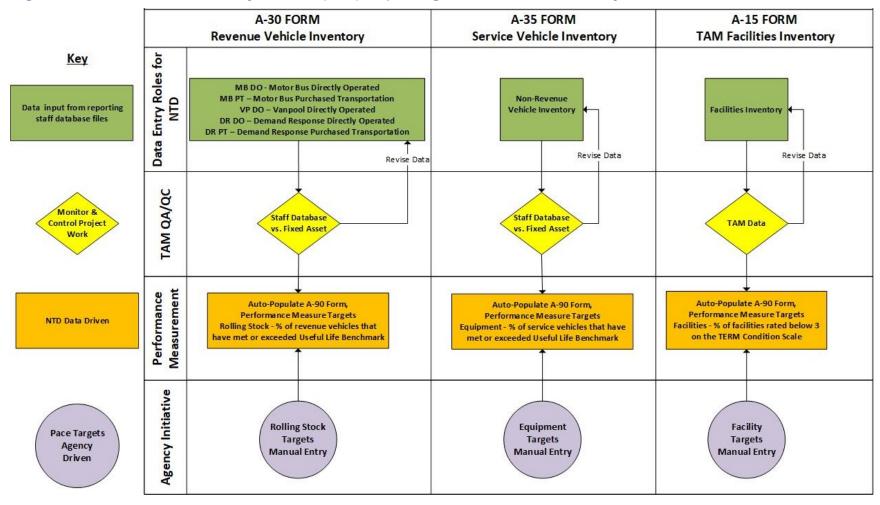
Figure A-1: Typical Annual NTD Reporting Timeline

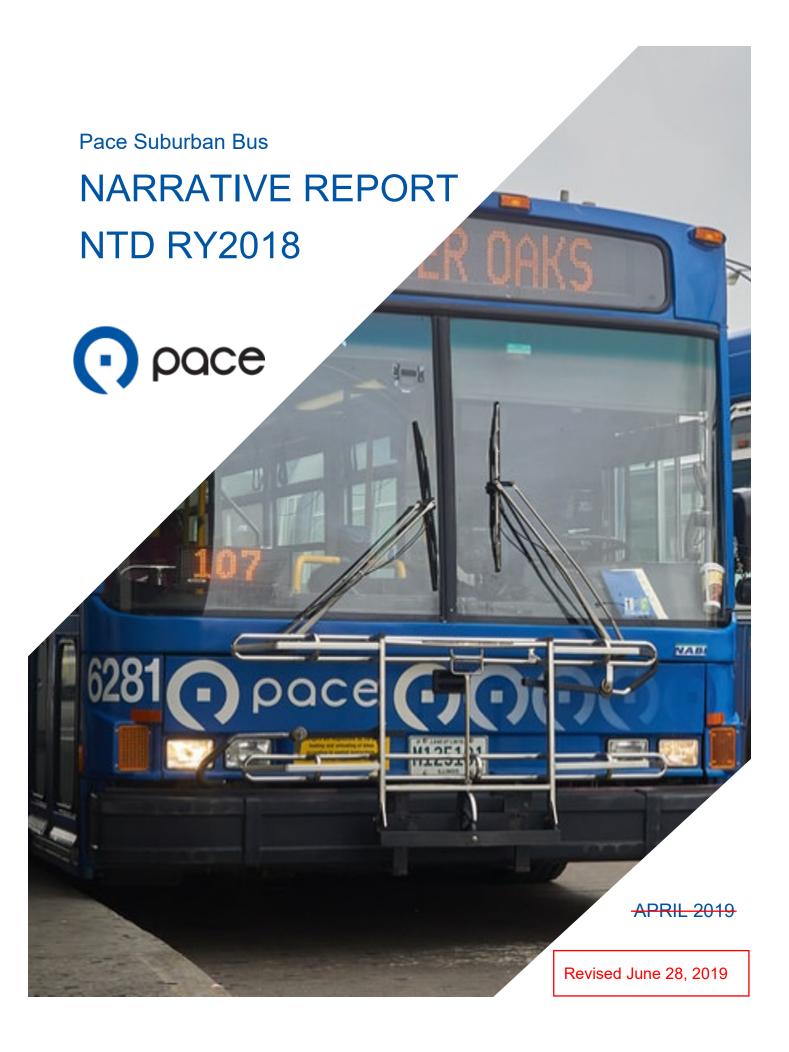


For additional information see Figure A-2 for the NTD Asset Inventory Module (AIM) Reporting Forms TAM Data Entry Process Overview Validation Issues.



Figure A-2: NTD Asset Inventory Module (AIM) Reporting Forms, TAM Data Entry Process Overview







INTRODUCTION

The National Transit Database (NTD) program's Asset Inventory Module (AIM) is designed to collect basic information on assets and infrastructure used by U.S. transit agencies to deliver service. The purpose of assembling a nationwide inventory is to improve the Federal Transit Administration's (FTA's) ability to project capital costs for the future replacement and necessary capital renewal activities of existing transit assets.

The Transit Asset Management (TAM) rule, 49 CFR part 625, is a set of federal regulations that set out minimum asset management practices for transit providers. Beginning in Report Year (RY) 2018, agencies that receive or benefit from FTA Chapter 53 funds are required to report asset inventory, condition, and performance information annually to the NTD using the new prescribed AIM forms for reporting capital data elements.

RY2018 NTD TAM AIM SUBMITTAL

Pace has two NTD ID reporting numbers: 50113 for the Suburban Bus Division, and 50182 for the Regional ADA Paratransit Services. Pace has no capital responsibility for the 50182 Regional ADA Paratransit Services assets.

Pace's fiscal year aligns with the calendar year, January 1 through December 31. For Pace this means that the RY2018 NTD TAM AIM submittal is required to be uploaded to the NTD website no later than April 30, 2019. Pace did not undertake the RY2017 option.

Beginning in RY2019, a narrative report is required to describe changes in transit system conditions and the progress toward achieving previous performance targets. Considering next year's requirement, this year's narrative report serves as an overview of our RY2018 NTD TAM AIM submittal.

A-15 Transit Asset Management Facilities Inventory

The Suburban Bus Division Facilities Inventory database reflects passenger and parking facilities used by Pace in the provision of service including the administrative and maintenance facilities for which Pace has capital responsibility. Several of the passenger and parking facilities reported are owned and operated by other FTA-reporting entities: the Chicago Transit Authority (CTA) and Metra. For these facilities, Pace is using NTD's shared lookup function for reporting.

The Regional ADA Paratransit Services Inventory data is not subject to NTD reporting requirements because all administrative and maintenance locations are owned by contract carriers, except one administrative office that Pace leases.

A-20 Transit Way Mileage - Not applicable to Pace.

A-30 Revenue Vehicle Inventory

Pace reports Revenue Vehicle Inventory data across multiple forms, reflecting different types of service separately for the Suburban Bus Division and the Regional ADA Paratransit Services. Some of Pace's revenue vehicle inventory serve both entities and are included in both reports. The meaningful distinction is when the capital responsibility box is checked for performance target setting to avoid double counting.



A-35 Service Vehicle Inventory

The Suburban Bus Division Service Vehicle Inventory database is compiled for service and maintenance vehicles, administrative vehicles, or those which indirectly deliver transit service.

The Regional ADA Paratransit Services Inventory data is not subject to NTD reporting requirements because we do not have service vehicles that support either two modes, Purchased Transportation Demand Response (DR PT) and Demand Response Taxi (DT PT).

A-90 Transit Asset Management Performance Measure Targets

The Useful Life Benchmarks (ULB) are based on Pace's experience with our assets and vary from those proposed by the FTA. FY2019 Performance Targets are set only for the 50113 Suburban Bus Division, see below. For the Regional ADA Paratransit Services, Pace has checked all boxes as N/A on the A-90 form.

Revised June 28, 2019 Report:

Recapped below are the requested NTD Analyst submittal revisions to Pace A-15 TAM Facilities Inventory, A-30 Revenue Vehicle Inventory for Vanpool Directly Operated (VP DO), and A-35 Service Vehicle Inventory Forms. These changes also caused revisions to the A-90 TAM Performance Measure Form; see table below.

<u>A-15 Form</u>: Four subject Facility ID's were revised to reflect 0% Pace Capital Responsibility: 16095; 16096; 16098; and 16099, with Metra having 100% Capital Responsibility. These changes caused a decrease to our Percentage of Passenger Facilities rated below 3.

Six subject Facility ID's were revised to Bus Transfer Center from Other, Passenger or Parking (described in notes):16065; 16070; 16075; 16078; 16079; and 16081. This caused six new Passenger Facility records to be added to represent the Surface Parking Lot element of the prior records: 16880; 16881; 16882; 16883; 16884; and 16885. These changes caused a decrease to our Percentage of Passenger Facilities rated below 3.

A-30 Form: Two active vehicles in the VP mode with only six seats (RVI ID 29206) were removed from the inventory because FTA only considers VP service to be public transportation only if there are at least seven seats. This change caused a decrease to the Performance Target for MV – Minivans.

<u>A-35 Form</u>: Pace was requested to reassign all non-automobile vehicle type fleets to the "Trucks and Other Rubber Tire Vehicles". This equated to a total of 76 vehicles being reallocated.



FY2019 TRANSIT ASSET MANAGEMENT PERFORMANCE MEASURE TARGETS					
	4/30/2019		6/28/2019 Revision		
1. Rolling Stock - % of revenue vehicles past their Useful Life Benchmark		2019		2019	
(ULB)	ULB	Target	ULB	Target	
Over-the-road Bus (BR)	12	0%	12	0%	
Bus (BU)	12	23.44%	12	23.44%	
Cutaway (CU)	4	55.94%	4	55.94%	
Minivan (MV)	5	32.34%	5	31.89%	
Van (VN)	5	43.96%	5	43.96%	
2. Equipment - % of service vehicles past their Useful Life Benchmark					
(ULB)	ULB	Target	ULB	Target	
Automobiles	5	70.75%	5	57.75%	
Trucks and other Rubber Tire Vehicles	10	30.00%	5/10	64.66%	
3. Facility - % of facilities rated below 3 on the condition scale	ULB	Target	ULB	Target	
Passenger / Parking Facilities	N/A	33.33%	N/A	26.92%	
Administrative / Maintenance Facilities	N/A	33.33%	N/A	33.33%	

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End of Narrative Report

END OF APPENDIX A



B. APPENDIX B – FACILITIES

B.1 NTD ASSET DEFINITION

In the *TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation*, the Federal Transit Administration (FTA) lays out the following guidance and definitions with respect to Facilities:⁶

Passenger Facilities

Agencies report passenger station information for fixed route, fixed schedule services (rail modes, bus modes, trolleybus, ferryboat, and aerial tramway). Each agency must report inventory data for all passenger stations the agency uses in public transportation even if the agency does not own the stations.

Passenger stations are significant structures on a separate right-of-way (ROW). For rail modes, passenger facilities typically mean a platform area and any associated access structures or accessory spaces accessible to passengers or by staff who are in support of passenger service. This definition of passenger facilities includes:

- All rail passenger facilities (except for light rail, cable car, and streetcar modes)
- All light rail, cable car, and streetcar passenger facilities that have platforms and serve track that is in a separate ROW (not in mixed-street traffic)
- All motorbus, rapid bus, commuter bus, and trolley bus passenger facilities in a separate ROW that have an enclosed structure (building) for passengers for items such as ticketing, information, restrooms, and concessions
- All transportation, transit or transfer centers, and transit malls if they have an enclosed structure (building) for passengers for items such as ticketing, information, restrooms, concessions, and telephones

As an example, a bus stop on a street or in a median is not a station if the bus stop does not have a separate, enclosed building. Open shelters, canopies, lighting, signage, or ramps for accessibility alone are not enough to establish a passenger station.

Parking Facilities

Parking facilities include park & ride lots as well as parking garages. Note that passenger and parking facilities are often collectively referenced as "passenger facilities." Parking facilities are those immediately adjacent to passenger facilities.

Administrative Facilities

Administrative facilities are typically offices that house management and supporting activities for overall transit operations such as accounting, finance,

Initial Transit Asset Management Plan 2019 Update Appendices

⁶ Federal Transit Administration, U.S. Department of Transportation, "TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation", Version 1.2, March 2018



engineering, legal, safety, security, customer services, scheduling, and planning. They also include facilities for customer information or ticket sales, but that are not part of any passenger station.

Maintenance Facilities

Maintenance facilities are those where routine maintenance and repairs, or heavy maintenance or unit rebuilds are conducted. Agencies must not report maintenance facilities where third-party vendors perform services, such as a local gasoline service or body shop. Note that characterizing a facility as one maintenance facility type over another will not alter the maintenance and administrative facility performance measure.

B.2 NTD RY2018 ASSET INVENTORY

Pace facilities are located across Northeast Illinois. See Table B - 1 for a copy of the NTD RY2018 A-15, Transit Asset Management Facilities Inventory Form for more information along with their address, the year they were built or reconstructed as new, and the condition rating for facilities for which Pace has capital responsibility.

Pace utilizes bus transfer centers, park-n-ride lots, and passenger or parking facilities, which are primarily transportation centers that combine a bus transfer center with parking. Pace also owns administrative and maintenance facilities and uses support facilities owned by others to provide service. Pace's administration and maintenance facilities contain a mix of offices, garage, storage, and repair functions. Pace provides service to and from several Metra, and CTA stations, and from Park-N-Ride lots not owned by Pace throughout the RTA service area in Northeastern Illinois.



Table B - 1. Facilities Inventory as of 12/31/2018

NTD ID	50113
Reporter Name	Page - Suburban Bus Division 2018 (Revision: 4)
Report	2018 (Revision: 4)

Transit Asset Management Facilities Inventory (A-15)

Ю	Name	Section of Larger Facility?	Street	City	State Zip	Lat	Long	Condition Est D Condi Assessment Asses	tion	Primary Non- Mode Agency Mode	Secondary Modes Private Mode	Facility Type	Year Built or Reconstructed as S New	SqFt	Parking Transit Agency Spaces Capital Responsibility (%	No (6)	ites
16050	Administration Headquarters	false	550 W. Algonquin Road	Arlington Heights	IL 60005	42.04769	-87.98839	4	6/7/2018	MB		Administrative Office / Sales Office	2009	65,000	10	00.00	
16851	Fox Valley Division	false	400 North Overland Drive	North Aurora	IL 60542	41.79926	-88.33869	3	6/7/2018	мв		Combined Administrative and Maintenance Facility (describe in Notes)	1993	56,833	10	00.00	General purpose Maintenance Facility/Depot and Administrative Office/Sales Office
16052	Heritage Division	false	9 Osgood Street	Joliet	IL 60433	41.52013	-88 .0807 3	1	6/7/2018	MB		Combined Administrative and Maintenance Facility (describe in Notes)	1983	66,077	10	00.00	General purpose Maintenance Facility/Depot and Administrative Office/Sales Office
16053	McHenry Paratransit Garage	false	5007 Prime Parkway	McHenry	IL 60050	42.30743	-88 .29296	3	6/7/2018	DR	MB	Combined Administrative and Maintenance Facility (describe in Notes)	2001	28,097	10	00.00	Adminstrative Office / Sales Office and General Purpose Mainteance Facility/Depot
16054	North Division	false	1400 W. Tenth Street	Waukegan	IL 60085	42.34166	-87 .8486 5	3	6/7/2018	мв		Combined Administrative and Maintenance Facility (describe in Notes)	1985	57,754	10	00.00	Administrative Office / Sales Office and General Purpose Maintenance Facility/Depot
16055	North Shore Division	folise	2330 Oakton Street	Evenston	IL 60202	42.02435	-87.70735	3	6/7/2018	мв		Combined Administrative and Maintenance Facility (describe in Notes)	1994	81 ,471	10	00.00	Administrative Office / Sales Office and General Purpose Maintenance Facility/Depot
16056	Northwest Division	false	900 E , Northwest Highway	Des Plaines	IL 60016	42.05003	-87.90025	1	6/7/2018	мв		Combined Administrative and Maintenance Facility (describe in Notes)	2002	82,700	10	00.00	Administration Office / Sales Office and General Purpose Maintenance Facility/Depot
16057	River Division	false	975 S. State Street	Elgin	IL 60123	42.01129	-88 28702	3	6/7/2018	мв	DR	Combined Administrative and Maintenance Facility (describe in Notes)	1989	63,235	10	00.00	Administration Offices / Sales Offices and General Purpose Maintence Facility/Depot
16058	South Division	folise	21 01 VV. 163rd Place	Markham	IL 60428	41.59212	-87.66897	3	6/7/2018	MB		Combined Administrative and Maintenance Facility (describe in Notes)	2017 1	191,182	10	00.00	Administration Office / Sales Office and General Purpose Maintenance Facility/Depot
16059	South Holland Acceptance Facility	false	405 W. Taft Drive	South Holland	IL 60473	41.59324	-87 .6281 2	1	6/7/2018	MB		Vehicle Testing Facility	1994	44,700	10	00.00	
16060	Southwest Division	false	9889 S. Industrial Drive	Bridgeview	IL 60455	41.71184	-87 .80263	3	6/7/2018	мв		Combined Administrative and Maintenance Facility (describe in Notes)	1994	81 ,471	10	00.00	Administration Office / Sales Office and General Purpose Maintenance Facility/Depot
16061	West Division	felise	3500 W. Lake Street	Melorse Park	IL 60160	41.8956	-87.87731	2	6/7/2018	МВ		Combined Administrative and Maintenance Facility (describe in Notes)	1986 2	223,004		0.00	Administration Office / Sales Office and General Purpose Maintenance Facility/Depot
16062	Blue Island Park-n-Ride Bolingbrook - Canterbury	false	3060 VV. Burroak			41.66257	(101)000000	2	6/7/2018	MB		Surface Parking Lot	1998			00.00	
16063	Lane Park-n-Ride	false	170 Canterbury Lane	Bolingbrook	IL 60440	41.69676	-88.07893	3	9/18/2018	MB		Surface Parking Lot	2010		179 10	00.00	
16064	Bolingbrook - Old Chicago Park-n-Ride	false	120 E. Old Chicago Drive	Bolingbrook	IL 60440	41.68054	-88.06592	3	9/18/2018	MB		Surface Parking Lot	2016		219 10	00.00	
16065	Buffalo Grove Transportation Center	folso	801 Commerce Court	Buffalo Grove	IL 60089	42.17112	-87.94323	3	9/20/2018	MB		Bus Transfer Center	2011	250	10	00.00	Bus Transfer Center and Surface Parking Lot
16066	Burr Ridge Park-n-Ride	false	7650 Lincolnshire Drive	BurrRidge	IL 60527	41.75183	-87.91222	2	9/18/2018	MB		Surface Parking Lot	1995		81 10	00.00	
16867	Chicago Heights Transportation Center	false	1620 Vincennes Avenue	Chicago Heights	IL 60411	41.50235	-87.63809	2	6/7/2018	MB		Bus Transfer Center	1998	152	10	00.00	
16068	Elgin Transportation Center	folse	100 W. Chicago Street 35 Northwest Point	Elgin Elk Grove		42.03692		4	6/7/2018	MB		Bus Transfer Center		1,817		00.00	
16069	Elk Grove Park-n-Ride	false	Boulevard	Village		42.03355		3	9/20/2018	MB		Surface Parking Lot	1997			00.00	
16070	Harvey Transportation Center	false	15330 Park Avenue Darmstadt Road & Elm	Harvey	IL 60426		-87.64307	1	6/7/2018	MB		Bus Transfer Center		1,700		00.00	Bus Transfer Center and Surface Parking Lot
16071	Hillside Park-n-Ride	false	Street	Hillside	IL 60162	41.87144	-87.90438	2	6/7/2018	MB		Surface Parking Lot	2001		79 10	00.00	
16072	Hodgkins UPS Bus Terminal	false	One UPS Way	Hodgkins	IL 60525	41.74665	-87.88486	3	6/7/2018	MB		Bus Transfer Center	2003	3,691	10	00.00	
16073	Hodgkins UPS Bus Terminal 2	false	One UPS Way	Hodgkins	IL 60525	41.75032	-87.88208	3	6/7/2018	MB		Bus Transfer Center	2003	1,736	10	00.00	
16074	Homewood Park-n-Ride	folse	750 Ridge Road	Hom ewood	IL 60430	41.56453	-87.63482	2	6/7/2018	MB		Surface Parking Lot	2000		107 10	00.00	
16075	I-90/Barrington Road	false	2410 Central Road	Hoffman Estates		42.06772		5	6/7/2018	MB		Bus Transfer Center		7,300		00.00	Bus Transfer Center and Surface Parking Lot
16076	I-90/IL-25 Park-n-Ride I-90/Randall Road Park-n-	false		Elgin		42.06368		5	9/18/2018			Surface Parking Lot				00.00	
16077	Ride	false	2001 N. Randall Road	Elgin	IL 60192	42.08378	-88 .33553	5	9/18/2018	MB		Surface Parking Lot	2016		150 10	00.00	
16078	Northwest Transportation Center	false	1730 Kim berly Drive	Schaumburg		42.04088		4	6/7/2018	MB	DR	Bus Transfer Center	2014	300		00.00	Bus Transfer Center and Surface Parking Lot
16079	Plainfield Park-n-Ride Prairie Stone Transportation	false	14740 Depot Drive	Plainfield	IL 60544			5	6/7/2018	MB		Bus Transfer Center	2018	1,400		00.00	Bus Transfer Center and Surface Parking Lot
16080	Center	false		Estates	IL 60192	42.0734	-88 21307	3	9/18/2018	MB		Bus Transfer Center	1993	170	10	00.00	
16081	Seatgeek Stadium Direct Transportation Center	false	7000 South Hartem Avenue	Bridgeview		41.76342		5	6/7/2018	MB		Bus Transfer Center		2,400		00.00	Bus Transfer Center and Surface Parking Lot
16082	1701 Woodfield Drive		1701 Woodfield Drive 91st Street and			42.04162		NA		MB		Surface Parking Lot				0.00	Capital responsibility belongs to 1701 Woodfield, LLC.
16083	95th Street Park-n-Ride	false	Normantown	Naperville	IL 60564	41.71583	-88 23367	NA		MB		Surface Parking Lot	2008		202	0.00	Capital responsibility belongs to City of Naperville.
16084	Atrium Center Park-n-Ride	false	3800 Golf Road	Rolling	IL 60008	42.0543	-88.02414	NA		MB		Surface Parking Lot	2018			0.00	Capital responsibility belongs to Whetstone Atrium, LLC.
16085	DeVry University Park-n-Ride White Fence Farm	folse	18624 W. Creek Drive	Tinley Park	IL 60477		-87.79926	NA		MB		Surface Parking Lot				0.00	Capital responsibility belongs to BeVry University, Inc.
16086	Romeoville Park-n-Ride	false	1376 Joliet Road	Romeoville	-	41.67676		NA		MB		Surface Parking Lot	2014		1511.5	0.00	Capital responsibility belongs to White Fence Farms.
16087	Yorktown Mall Sears Centre Arena Lot C	false	203 Yorktown Center 5333 Prairie Stone	Lombard	IL 60148		-88.00453	NA		MB		Surface Parking Lot					apital responsibility belongs to Yorktown Holdings, L.L.C. Capital responsibility belongs to Village of Hoffman
16088	Park-n-Ride	false	Parkway	Estates		42.07003		NA		MB		Surface Parking Lot	2013			0.00	E states.
16095	13171 UPNW Des Plaines	false	1501 Miner St. Ridge Rd. At Harwood	Des Plaines	IL 60016			NA.		MB		At-Grade Fixed Guide way Station	2004			0.00	Capital responsibility belongs to Metra.
16096	05235 MEDML Homewood	false	Ave.	Homewood		41.56222		NA NA		MB		Elevated Fixed Guide way Station	1995			0.00	Capital responsibility belongs to Metra.
16098	15238 MDN Lake Cook Road	false	601 Lake Cook Road	Deerfield	IL 60015	42.15184	-87.84104	NA		MB		At-Grade Fixed Guide way Station	1995	23,274		0.00	Capital responsibility belongs to Metra.



Table B - 1. Facilities Inventory as of 12/31/2018 (Continued)

Narr	ne	Section of Larger Facility?	Street	City	State Zip	Lat	Long	Condition Est. Date of Condition Assessment	Primary Non- Mode Agency Mode Mode	Secondary Modes Private Mode	Facility Type	Year Built or Reconstructed as SqF New	Parking Transit Agency Capital Spaces Responsibility (%)	Hotes
99 110	085 UPW Oak Park Marion	false	1115 W North Blvd	Oak Park	IL 60301	41.88703	-87.80152	NA	мв		Elevated Fixed Guideway Station	2001 21	013 0.0	O Capital responsibility belong
104	10380 BNSF Aurora	false	233 N Broadway	Aurora	IL 60505	41.75946	-88.30909	NA	мв		At-Grade Fixed Guideway Station	1990 32	966 0.0	Capital responsibility belong
106	10316 BNSF Route 59	false	1090 N Route 59	Aurora	IL 60504	41.77805	-88.20873	NA	MB		At-Grade Fixed Guideway Station	1990 25	473 0.0	
107	10285 BN SF Naperville	false	105 E 4th Ave	Naperville	IL 60540	41.77975	-88.14555	NA	MB		At-Grade Fixed Guideway Station	1983 11	545 0.0	This facility is shared with Amtrak, Capital re- belone
108	10245 BNSF Liste	false	1000 Front Street	Liste	IL 60532	41.79793	-88.07191	NA	MB		At-Grade Fixed Guideway Station	1998 20	700 0.0	
109	10226 BNSF Belmont	false	5000 Belmont Road	D owners Grove	IL 60515	41.79545	-88.03811	NA	MB		At-Grade Fixed Guideway Station	2005 26	700 0.0	Capital responsibility belong
102	212 BNSF Downers Grove	false	5001 Main Street	Downers	11 00545	44 70550	-88.00986	NA.	MB		At-Grade Fixed Guideway Station	2004 10	046 0.0	O Capital responsibility belong
m	Main St.			Grove							(4) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1			
112	10195 BNSF Westmont	false	18 West Quincy	Westmont Clarendon			-87.97636	NA	MB		At-Grade Fixed Guideway Station	2004 17		EN NOVEMBER OF THE PROPERTY OF
	1183 BNSF Clarendon Hills	false	1 South Prospect Ave	Hills	IL 60514	41.79713		NA	MB		At-Grade Fixed Guideway Station		0.0	
14	10169 BNSF Hinsdale	fal se	21 E Hinsdale Ave	Hinsdale	IL 60521	41.80297	-87.92826	NA	MB		At-Grade Fixed Guideway Station	1996 20	269 0.0	Capital responsibility belong
15	101 55 BNSF Western Springs	false	914 Burlington Ave	Western Springs	IL 60558	41.80907	-87.9012	NA	MB		At-Grade Fixed Guideway Station	2005 14	900 0.0	Capital responsibility belong
6 101:	138 BNSF LaGrange Road	false	25 W Burlington Rd	LaGrange	IL 60525	41.81588	-87.87096	NA	MB		At-Grade Fixed Guideway Station	1996 6	468 0.0	This facility is shared with Amtrak. Capital re- belong
7 10	0131 BNSF Congress Park	false	1/2 mile West of Maple	Brookfield	II 60643	41 01 00	-87.85756	NA	MB		At-Grade Fixed Guideway Station	2001 3	476 0.0	
18			St on Burlington Ave											
	10123 BN SF Brookfield 101 BNSF Harlem Avenue	false false	8858 Burlington Ave 7135 Windsor Ave	Brookfield Berwyn			-87.84323 -87.80194	NA NA	MB MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station	1980 5 2005 17	068 0.0 118 0.0	
0	10096 BNSF Berwyn	false	6801 Windsor Ave	Berwyn	IL 60402		-87.79351	NA NA	MB		At-Grade Fixed Guideway Station	1987 13		
1	10091 BNSF LaVergne	false	Windsor & Ridgeland	Berwyn			-87 78399	NA.	MB		At-Grade Fixed Guideway Station		206 0.0	
			Ave											
2	89372 HC Joliet	false	GWFC+RC	Joliet	IL 60432	41.52451	-88.07889	NA	MB		Elevated Fixed Guideway Station	2018 24	629 0.0	This facility is shared with Amtrak. Capital red belong
3	09329 HC Lockport	false	13th St. & State St.	Lockport	IL 60441	41.5851	-88.06027	NA	MB		At-Grade Fixed Guideway Station	1988 12	167 0.0	
	08248 SWS Orland Park 153rd St.	false	10401 W 153rd St	Orland Park	IL 60462	41 .611 23	-87.87327	NA	MB		At-Grade Fixed Guideway Station	2005 11	340 0.0	O Capital responsibility belong
	88236 SWS Orland Park	w	143rd St & Southwest	Orland Park	IL 60462	44 02*0	-87.85827	No	MB		At-Grade Fixed Guide way Station	2006 19	428 0.0	Capital responsibility belong
	1 43rd St.	felse	Hwy					NA			ACTUAL DESCRIPTION OF CONTRACT			
06	08182 SWS Worth	false	110th St & Depot Rd	Worth			-87.79599	NA	MB		At-Grade Fixed Guideway Station	1996 11		
08	8168 SWS Chicago Ridge	false	103rd & Ridgeland Ave	Ridge	IL 60415	41.70329	-87.78058	NA	MB		At-Grade Fixed Guideway Station	2005 19	348 0.0	0 Capital responsibility belong
	08152 SWS Oak Lawn	false	9225 S Tulley Ave	Oak Laven	IL 60453	41.71955	-87.74869	NA	MB		At-Grade Fixed Guideway Station	2006 21	476 0.0	Capital responsibility belong
- 1	04189 ME DBI Blue Island	fal se	Vermont St. near Irving	Blue Island	IL 60406	41.65599	-87.67589	NA	мв		At-Grade Fixed Guideway Station	2004 2	697 0.0	0 Capital responsibility belong
	04184 MEDBI Burr Oak	false	Burr Oak Ave. near	Blue Island	11 60406	41 66232	-87.66879	NA	MB		At-Grade Fixed Guideway Station	1961 2	997 0.0	0 Capital responsibility belong
044	4167 MEDBI West Pullman	false	Lincoln St. Heisted St., South of 120th St.	Chicago			-87.64229	NA	мв		At-Grade Fixed Guideway Station		577 0.0	
1	05315 MEDML University Park	false	1900 University Pkwy	University Park	IL 60466	41.45951	-87.72328	NA	MB		Elevated Fixed Guideway Station	2004 15	878 0.0	Capital responsibility belong
0 052	5293 MEDML Richton Park	false	F7PR+75	Richton Park	IL 60471	41.48581	-87.70914	NA	MB		Elevated Fixed Guideway Station	1987 10	716 0.0	O Capital responsibility belong
	05276 MEDML 211th St. Lincoln Hwy.	false	3200 W. 211th St.	Olypmia Fields	IL 60461	41.50629	-87.69813	NA	MB		Elevated Fixed Guideway Station	1999 14	960 0.0	Capital responsibility belong
2	05228 MEDML Calumet	felse	Wood St., South of 174th	East Hazel	11 00400	44 57207	-87 66265	NA	MB		Elevated Fixed Guideway Station	2001 9	437 0.0	Capital responsibility belong
			St.	Crest					MB					
3 05	05223 MED ML Hazel Crest 05200 MED ML Harvey	felse felse	Park Ave. 8 170th St. Park Ave. 8 154th St.	Hazel Crest Harvey			-87.65842 -87.64368	NA NA	MB		Elevated Fixed Guideway Station Elevated Fixed Guideway Station		852 0.0 412 0.0	
	051 90 MEDML 147th St.													
5	Sibley Blvd.	false	147th St. & Clinton St.	Harvey	IL 60426		-87.63596	NA	мв		Elevated Fixed Guideway Station		679 0.0	
	05173 MEDML Riverdale	false	137th St. & Illinois St.	Riverdale	IL 60827	41.64647	-87.62326	NA	MB		Elevated Fixed Guideway Station	1989 9	638 0.0	Capital responsibility belong
r	05120 MEDML 95th St. Chicago State Univ.	false	95th St. & Cottage Grove Ave.	Chicago	IL 60619	41.72175	-87.60393	NA	MB		Elevated Fixed Guideway Station	1990 1	785 0.0	O Capital responsibility belong
	06235 RIDML Tinley Park	false	6700 South St	Tinley Park	IL 60477	41,576	-87.78275	NA	MB		At-Grade Fixed Guideway Station	2003 9	0.0	
	06204 RIDML Oak Forest	false	4850 VV 159th St	Oak Forest	IL 60452			NA	MB		At-Grade Fixed Guideway Station	2013 24		
	06184 RIDML Midlothian	false	3750 W 147th St	Midlothian			-87.71219	NA	MB		At-Grade Fixed Guideway Station	2002 21		
	06157 RID ML Verm ont St. Blue Island	false	2300 W Grove St	Blue Island	IL 60406	41.65469	-87.67756	NA	MB		At-Grade Fixed Guideway Station	1967 9	473 0.0	Capital responsibility belong
2 07	7158 RIDBB Prairie Street	false	2100 W Prairie St	Blue Island	IL 60406	41.66239	-87.67504	NA.	MB		Exclusive Grade-Separated Platform	1980 2	787 0.0	O Capital responsibility belong
	07117 RIDBB 95th St.		470					***	WE		Station			
3	Beverly Hills	false	1766 W 95th St	Chicago	IL 60643	41.72146	-87.66749	NA	MB		At-Grade Fixed Guideway Station	2000 10	131 0.0	Capital responsibility belong
4	06109 RIDML 95th St. Longwood	false	9501 S Vincennes Ave	Chicago	IL 60643	41.72093	-87.65044	NA	MB		At-Grade Fixed Guideway Station	1991	579 0.0	O Capital responsibility belong
1 239	198 MDVV Big Timber Road	false	2025 Big Timber	Elgin	IL 60123	42.05864	-88.32785	NA	MB		At-Grade Fixed Guideway Station	2000 14	776 0.0	O Capital responsibility belong
3	12366 MDW Elgin	false	109 W. Chicago St.	Elgin	IL 60123	42.03619	-88.28632	NA	MB		At-Grade Fixed Guideway Station	2005 13	963 0.0	Capital responsibility belong
1	12284 MDW Hanover Park	false	1975 W Lake St.	Hanover Park	IL 60193	41.98812	-88.14922	NA	MB		At-Grade Fixed Guideway Station	1995 19	334 0.0	Capital responsibility belong
	12265 MD W Schaumburg	false	2000 S. Springinsguth Rd.	Schaumburg	IL 60172	41.98924	-88.11822	NA	мв		At-Grade Fixed Guideway Station	2006 20	624 0.0	Capital responsibility belong
		4.00		DuPage	II 004	44.070.	-88.05235		мв					
	12239 MDW Roselle	false	Medinah Rd.	County				NA			At-Grade Fixed Guideway Station	2002 11		
	1 2210 MDW Itasca	false	119 Division Street	Wood Dale			-87.97476	NA	MB		At-Grade Fixed Guideway Station	1990 16		
	12172 MDW Benserville	false	Front St. and Lincoln St.	Franklin Park	IL 60130	41.94176	-87.88404	NA	MB		At-Grade Fixed Guideway Station	1976 2	612 0.0	O Capital responsibility belong
1	12132 MDW Franklin Park	false	3148 Rose Steet.	Franklin Park	IL 60131	41.93648	-87.86649	NA	MB		At-Grade Fixed Guideway Station	2002 13	101 0.0	Capital responsibility belong
	12114 MDW River Grove	false		Park River Grove			-87 83642	NA	MB		At-Grade Fixed Guide way Station	1995 12		
	2102 MDW Elmwood Park	false	7600 W. Grand Ave.	Elmwood		0.0000000	-87.81515	NA NA	MB		At-Grade Fixed Guideway Station	2006 13	701.	
				Park					100000					
3	1 2095 MDVV Mont Clare	false	7007 W. Medill Street Nippersink Blvd At Grand	Chicago			-87.80153	NA	MB		At-Grade Fixed Guideway Station	2006 10		
4	15495 MDN Fox Lake	false	Ave.	FoxLake	IL 60020	42.39834	-88.1824	NA	MB		At-Grade Fixed Guideway Station	2003 9	950 0.0	O Capital responsibility belong
			Washington St. and											



Table B - 1. Facilities Inventory as of 12/31/2018 (Continued)

ID		Section of Larger	Street	City	State Zip	Lat		Condition Est. Date of Condition	Primary Non- Mode Agency	Secondary Modes Private Mode F	acility Type	Year Built or Reconstructed as	aFt	Parking Transit Agency Spaces Responsibility (%)	Notes	
16220	15440 MDN Round Lake	Facility?	Route 134 and Cedar	Round Lake		42.35464	-	Assessment NA	Mode Mode	Modes	At-Grade Fixed Guideway Station	New 1991	_	Responsibility (%)	Capital res	sponsibility belongs to Metra
			Lake Rd. 200 W. Lake Stat										200		10.000	
16221	15355 MDN Libertyville		Milwaukee Ave.	Libertyville		42.29103		NA	MB		At-Grade Fixed Guideway Station	2000	8,854	0.0		sponsibility belongs to Metra
16222	15280 MDN Lake Forest 15242 MDN Deerfield	false	911 Telegraph Road 860 Deerfield Rd.	Lake Forest Deerfield	IL 60045 IL 60015	42.22365	-87.87457 -87.84976	NA NA	MB MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station	1992 1967		0.00		sponsibility belongs to Metra sponsibility belongs to Metra
16224	15211 MDN Northbrook		1401 Shermer Rd.	Northbrook			-87.82776	NA NA	MB		At-Grade Fixed Guideway Station	2005		0.0		sponsibility belongs to Metra sponsibility belongs to Metra
16225	15174 MDN Glenview		1116 Depot Street	Glenview			-87 80584	NA.	MB		At-Grade Fixed Guideway Station	1995		0.00		Amtrak. Capital responsibility
	15188 MDN Glen of North															belongs to Metra
6226	Glenview	19838	3000 Old WilliowRd. 5438 W. Devon	Glenview			-87.81573 -87.76571	NA NA	MB MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station	2005 1991	20,035	0.00		sponsibility belongs to Metra sponsibility belongs to Metra
16228	15116 MDN Edgebrook 11355 UPW Geneva	false false	328 Crescent Place	Chicago	IL 60646 IL 60134	41.88153		NA NA	MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station		10,271	0.0		sponsibility belongs to Metra sponsibility belongs to Metra
6229	11250 UPW Wheaton		402 W Front St	Wheaton			-88.11208	NA NA	MB		At-Grade Fixed Guideway Station			0.0		ponsibility belongs to Metra
6230	11 238 UPW College Avenue		303 N . President Street	Wheaton			-88.09036	NA	MB		At-Grade Fixed Guideway Station	2005		0.00		ponsibility belongs to Metro
5231	111 57 UPW Elmhurst	false	128 W. 1 st St (at York Rd.)	Elm hurst			-87.94089	NA	мв		At-Grade Fixed Guideway Station	1989		0.0		sponsibility belongs to Metr
232	11113 UPW Melrose Park	folise	1801 VV. Main St.	Melrose	IL 60160	41.89023	-87.85585	NA	мв		At-Grade Fixed Guideway Station	1990	7,612	0.0	Capital res	ponsibility belongs to Metr
233	11105 UPW Mayeood		450 W St Charles	Maywood			-87 83868	NΔ	MB		At-Grade Fixed Guideway Station	1994	9.556	0.00		ponsibility belongs to Met
234	11097 UPW River Forest		8001 W. Central Avenue		IL 60305	11.00000	01.00000	NA	MB		Elevated Fixed Guideway Station	1001	15.092	0.0		sponsibility belongs to Met
235	16369 NCS Mundelein	folioe	205 N. Archer Ave.	Mundelein	IL 60060	42.26687		NA	MB		At-Grade Fixed Guideway Station		13,848	0.00		ponsibility belongs to Met
236	16295 NCS Buffalo Grove	false	825 Commerce Ct.	Buffalo	II 60089	42 16909	.87 94144	NA	MB		At-Grade Fixed Guideway Station	2007	14,690	0.0	Capital res	ponsibility belongs to Met
237	16272 NCS Wheeling		400 Town Street	Grove Wheeling		42.13651		NA	MB		At-Grade Fixed Guideway Station	1996		0.00		ponsibility belongs to Met
			12012	V/heeling Prospect					(200.00)		100 S In 100 100 100 100	1555				94677 10 75 95070 7
	16240 NCS Prospect Heights		55 South Wolf Road	Heights			-87.90788	NA	MB		At-Grade Fixed Guideway Station	2002		0.0		sponsibility belongs to Met
239	16156 NCS Rosemont		9898 Berwyn Ave.	Rosemont	IL 60018		-87.873	NA	MB		At-Grade Fixed Guideway Station		11,696	0.0		sponsibility belongs to Met
240	16148 NCS Schiller Park	tal se	4555 Ruby St.			41.96251		NA.	MB		At-Grade Fixed Guideway Station		13,720	0.0		ponsibility belongs to Met
41	17359 UPN Waukegan		95 N. Spring St.	Waukegan			-87.82813	NA	мв		At-Grade Fixed Guideway Station	1988		0.0	and the second	ponsibility belongs to Met
242	17332 UPN North Chicago	false	1633 Lakeside Ave.	Chicago	IL 60064	42.32877	-87.83712	NA	MB		At-Grade Fixed Guideway Station	1986	9,700	0.0	Capital res	ponsibility belongs to Met
43	17322 UPN Great Lakes		3000 S Sheridan Road	North Chicago			-87.84661	NA	MB		At-Grade Fixed Guideway Station	2003		0.0		sponsibility belongs to Met
244	17283 UPN Lake Forest	false	691 N. Western Ave.	Lake Forest	IL 60045	42.25243	-87.83978	NA	MB		At-Grade Fixed Guideway Station	1986	20,908	0.0	Capital res	sponsibility belongs to Met
245	17230 UPN Highland Park	fall se	1700 St. Johns Ave.	Highland Park	IL 60035	42.18326	-87.79758	NA	MB		At-Grade Fixed Guideway Station	1995	17,038	0.0	Capital res	sponsibility belongs to Me
246	17205 UPN Braeside	false	10 N. St. Johns Ave.	Highland Park	IL 60035	42.15277	-87.77267	NA	MB		At-Grade Fixed Guideway Station	1978	8,656	0.0	Capital res	ponsibility belongs to Met
47	171 92 UP N Glencoe	false	724 Green Bay Rd.	Glencoe	IL 60022	42.13548	-87.75816	NA	MB		At-Grade Fixed Guideway Station	1989	12,782	0.0	Capital res	ponsibility belongs to Met
248	17177 UP N Hubbard Woods	false	1065 Gage St.	Winnetka	IL 60093	42.11835	-87.74366	NA	MB		At-Grade Fixed Guideway Station	1989	14,076	0.0	Capital res	ponsibility belongs to Met
249	17166 UPN Winnetka	false	754 Elm St	Winnetka	IL 60093			NA	MB		At-Grade Fixed Guideway Station		16,792	0.0		ponsibility belongs to Met
250	17158 UPN Indian Hill	0.000	111 N. Green Bay Rd.	Winnetka	IL 60093		-87.72365	NA	MB		Elevated Fixed Guideway Station	1993		0.0		sponsibility belongs to Met
251	17152 UPN Kenilworth		400 Richmod Rd.	Kenilworth	IL 60043	42.08629	-87.71689 -87.70936	NA NA	MB MB		At-Grade Fixed Guideway Station		14,746	0.00		ponsibility belongs to Met
	17133 UPN Central St.	false	722 Green Bay Rd.								At-Grade Fixed Guideway Station		23,350			sponsibility belongs to Me
253	Evanaton 17120 UPN Davis St.	false	1826 Central St.	Evanston	IL 60201		-87.69818	NA	MB		Elevated Fixed Guideway Station	1996		0.0		sponsibility belongs to Met
254	Evanston	fall se	901 Davis St.	Evanston	IL 60201	42.04781	-87.68468	NA	MB		Elevated Fixed Guideway Station	2005	25,590	0.0	Capital res	ponsibility belongs to Me
255	14506 UPNW McHenry (Branch Line)	false	4005 Main St	McHenry	IL 60050	42.34345	-88 27631	NA	MB		At-Grade Fixed Guideway Station	1967	7,238	0.0	Capital res	ponsibility belongs to Me
256	13516 UP NW Woodstock	fel se	90 Church Street	Woodstock	IL 60098	42.31705	-88.44742	NA	MB		At-Grade Fixed Guideway Station	1967	10,168	0.0	Capital res	ponsibility belongs to Me
257	13432 UP NW Crystal Lake	false	70 E . Woodstock Ave. & Grant St.	Crystal Lake	IL 60014	42.24417	-88.317	NA	MB		At-Grade Fixed Guideway Station	2005	16,318	0.0	Capital res	sponsibility belongs to Me
258	13228 UP NW Arlington Heights	false	45 W. Northwest Highway	Arlington Heights	IL 60004	42.08413	-87.98368	NA	MB		At-Grade Fixed Guideway Station	2001	28,518	0.0	Capital res	sponsibility belongs to Met
259	13200 UP NVV Mount	false	13 E. Northwest Hwy.	Mount	IL 60056	42.06296	-87.93618	NA	MB		At-Grade Fixed Guideway Station	1989	22.454	0.00	Capital res	ponsibility belongs to Me
	Prospect		475 E . Northwest	Prospect				NA	мв					0.00		
60	13186 UP NW Cum berland	false	Highway	Des Plaines			-87.91227				At-Grade Fixed Guideway Station	1986				sponsibility belongs to Me
261 262	13150 UPNW Dee Road 13135 UPNW Park Ridge		950 Bussee Highway 100 S. Summit Ave.	Park Ridge Park Ridge			-87.85637 -87.83169	NA NA	MB MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station	2005 2007		0.0		sponsibility belongs to Me sponsibility belongs to Me
	7		6730 North Olmstead												1,5	
263	13126 UP NW Edison Park	false	Avenue	Chicago		42.00215		NA	MB		At-Grade Fixed Guideway Station			0.00		ponsibility belongs to Me
264	13091 UPNVV Jefferson Park	false	4963 N. Milwaukee Ave.	Chicago	IL 60630	41.97075	-87.76211	NA	MB		Elevated Fixed Guideway Station	2007	18,252	0.0		ponsibility belongs to Me
265	08000 OTHER Union Station	false	225 S. Canal St	Chicago	IL 60606	41.87867	-87.6392	NA	MB		Other, Passenger or Parking (describe in Notes)	1991	30,740	0.0		on; multi-level. This facility oital responsibility belongs Me
266	05000 MED ML Millennium	false	151 N. Michigan Ave.	Chicago			-87 62456	NA.	MB		Other, Passenger or Parking	2016	FO 700	0.00	Terminal passenge	er station; multi-level. Cap
-	Station	1 1000			1000000		0000000		25076		(describe in Notes)	2010	-	500	res	sponsibility belongs to Me
67	Hoverd	9 90000	7519 N. Paulina St.	Chicago			-87.672878	NA	MB		Elevated Fixed Guideway Station	2009		0.0		esponsibility belongs to C
68	Cermak - Chinatown	false	138 W. Cermak Road	Chicago			-87.630994	NA	MB	Shared With Non-Public Mode:	At-Grade Fixed Guideway Station	1969		0.00		esponsibility belongs to (
69	95th - Dan Ryan	false	15 W. 95th Street	Chicago			-87.624309	NA	MB	Shared With Non-Public Mode: Airport, Private Bus Transit	At-Grade Fixed Guideway Station	2017	69,583	0.0	Capital re	esponsibility belongs to C
78	Rosemont	false	5801 N. River Road	Rosemont	IL 60018	41.983468	-87.858961	NA	MB		At-Grade Fixed Guideway Station	1983	13,100	0.0	Capital re	esponsibility belongs to C
71	Cum berland	false	5800 N. Cumberland Avenue	Chicago	IL 60631	41 .9841 36	-87.837961	NA	MB	Shared With Non-Public Mode: Airport, Private Bus Transit	At-Grade Fixed Guideway Station	1983	13,300	0.0	Capital re	esponsibility belongs to C
72	Harlem - O'Hare	false	5550 N. Harlem Avenue	Chicago	IL 60656	41.982253	-87.80895	NA	MB	capor, ravata pas fraist	At-Grade Fixed Guideway Station	1983	18,900	0.0	Capital re	esponsibility belongs to 0
	Je fferson Park	false	4917 N. Milwaukee	Chicago			-87.76188	NA.	мв		At-Grade Fixed Guideway Station		16,700	0.00		esponsibility belongs to (
	oe ner soft Park		Avenue								Underground Fixed Guideway					
73	dileter = -	talse	426 S. Clinton Street	Chicago	IL 60607		-87.640992	NA.	MB		Station	1958		0.00		esponsibility belongs to
273	Clinton - Dearn Sub.													0.0		
273 274 275	Racine	false	430 S. Radine Avenue	Chicago		41.875917		NA	MB		At-Grade Fixed Guideway Station	1958	10,500			
273 274 275 276	Racine Cicero - Forest Park	false	720 S. Cicero Avenue	Chicago	IL 60644	41.871586	-87.745199	NA	MB		At-Grade Fixed Guideway Station	1958	7,900	0.0	Capital re	esponsibility belongs to C
5273 5274 5275 5276 5277	Racine Cicero - Forest Park Austin - Forest Park	fal se fal se	720 S. Cicero Avenue 1050 S. Austin Avenue	Chicago Oak Park	IL 60644 IL 60304	41 .871586 41 .870871	-87.745199 -87.776876	NA NA	MB MB		At-Grade Fixed Guideway Station At-Grade Fixed Guideway Station	1958 1960	7,900 8,800	0.0	Capital re	esponsibility belongs to Cl esponsibility belongs to Cl esponsibility belongs to Cl esponsibility belongs to Cl
5272 5273 5274 5275 5276 5277 5278	Racine Cicero - Forest Park	false false false	720 S. Cicero Avenue	Chicago Oak Park Oak Park	IL 60644 IL 60304 IL 60304	41.871586 41.870871 41.872052	-87.745199 -87.776876 -87.791661	NA	MB		At-Grade Fixed Guideway Station	1958	7,900	0.0	Capital re Capital re Capital re	esponsibility belongs to Cl



Table B - 1. Facilities Inventory as of 12/31/2018 (Continued)

0 1	lame	Section of Larger Facility?	Stre	eet	City	State Zip	Lat	Long	Condition Assessment Est Da Conditi Assess	on	rimary Hon- Mode Mode	Secondar Modes	y Private Mode		Year Built or Reconstructed as New	SqFt	Parking Transit Agency Spaces Capital Responsibility (%)	Notes	
6280	Forest Park	fals	е	711 S. Des Plaines avenue	Forest park	IL 6013	0 41.87	43 -87.81724	NA		MB			At-Grade Fixed Guideway Station	1982	16,150	0	.00	Capital responsibility belongs to CTA
6287	Harlem /Lake	tals	e	1 S. Harlem Avenue	Forest Park	IL 6013	0 41.8868	41 -87.803145	NA.		MB			Elevated Fixed Guideway Station	1962	11,000	0	.00	Capital responsibility belongs to CTA
6288	Oak Park - Lake	tals	e 100	D S. Oak Park Avenue	Oak Park	IL 6030	4 41.8870	07 -87.793807	NA.		MB			Elevated Fixed Guideway Station	1962	8,000	0	.00	Capital responsibility belongs to CT
6289	Ridgeland	fals	e 36	S. Ridgeland Avenue	Oak Park	IL 6030	2 41.8871	93 -87.78363	NA NA		MB			Elevated Fixed Guideway Station	1962	6,700	0	.00	Capital responsibility belongs to CT
6290	Austin - Lake	fals	e	351 N. Austin Avenue	Chicago	IL 6064	4 41.8873	11 -87.774179	NA.		MB			Elevated Fixed Guideway Station	1962	8,000	0	.00	Capital responsibility belongs to CTA
6291	Cicero - Lake	fal s	е	4800 W. Lake Street	Chicago	IL 6064	4 41.8865	29 -87.744696	NA.		MB			Elevated Fixed Guideway Station	1996	10,400	0	.00	Capital responsibility belongs to CTA
6292	Midway	fals	е	4612 W. 59th Street	Chicago	IL 6062	9 41.7866	37 -87.73785	NA		MB		Shared With Non-Public Mode: Airport, Private Bus Transit	At-Grade Fixed Guideway Station	1993	33,400	0	.00	Capital responsibility belongs to CTA
6293	Linden	falls	e 3	349 W. Linden Avenue	Wilmette	IL 6009	1 42.0731	47 -87.690711	NA		MB			At-Grade Fixed Guideway Station	1993	9,400	0	.00	Capital responsibility belongs to CTA
6294	Davis	folio	e 16	12 N. Benson Avenue	Evanston	IL 6020	1 42.0477	02 -87.683547	NA		MB			Elevated Fixed Guideway Station	1994	11,900	0	.00	Capital responsibility belongs to CTA
6295	54th/Cermak	fol o	e	2134 S. 54th Street	Cicero	IL 6065	0 41.8518	15 -87.756688	NA.		MB			At-Grade Fixed Guideway Station	2003	15,100	0	.00	Capital responsibility belongs to CTA
6296	Cicero - Douglas	fals	e	2133 S. 48th Avenue	Cicero	IL 6065	0 41.8518	51 -87.745291	NA		MB			At-Grade Fixed Guideway Station	1978	23,500	0	.00	Capital responsibility belongs to CTA
6297	Damen - Douglas	fals	e 20	010 S. Damen Avenue	Chicago	IL 6060	8 41.8545	33 -87.675931	NA		MB			Elevated Fixed Guideway Station	2004	13,450	0	.00	Capital responsibility belongs to CTA
6298	Oakton-Skokie	fals	e 4	800 W. Oakton Street	Skokie	IL 6007	6 42.0262	42 -87.747214	NA.		MB			At-Grade Fixed Guideway Station	2012	10,651	0	.00	Capital responsibility belongs to CT
6299	Dem pater-Skokie	fals	e 500	1 W. Dempster Street	Skokie	IL 6007	7 42.0389	53 -87.75191	NA		MB			At-Grade Fixed Guideway Station	1994	5,700	0	.00	Capital responsibility belongs to CTA
6880	Buffalo Grove Park-n-Ride	tals	e	801 Commerce Court	Buffalo Grove	IL 6008	9 42.171	12 -87.94323	3	9/20/2018	MB			Surface Parking Lot	2011		92 100	.00	Surface parking lot for Facility ID 1606
6881	Harvey Transportation Center Park-n-Ride	folio	e	15330 Park Avenue	Harvey	IL 6042	6 41,61	05 -87.64307	1	6/7/2018	MB			Surface Parking Lot	1998		68 100	.00	Surface parking lot for Facility ID 16070
6882	I-90/Barrington Road Park-n- Ride	felo	e	2410 Central Road	Hoffman Estates	IL 6019	2 42.067	72 -88.14263	5	6/7/2018	MB			Surface Parking Lot	2018		174 100	.00	Surface parking lot for Facility ID 1607
883	Northwest Transportation Center Park-n-Ride	fels	e	1730 Kimberly Drive	Schaumburg	IL 6017	3 42.040	88 -88.03705	4	6/7/2018	MB	DF	t	Surface Parking Lot	2014		154 100	.00	Surface parking lot for Facility ID 16070
6884	Plainfield Park-n-Ride	fals	e	14740 Depot Drive	Plainfield	IL 6054	4 41.61	95 -88.2101	5	6/7/2018	MB			Surface Parking Lot	2018		600 100	.00	Surface parking lot for Facility ID 1607
6885	Seatgeek Stadium Direct Transit Center Park-n-Ride	falls	e	7000 South Harlem Avenue	Bridgevie w	IL 6045	5 41.763	42 -87.80285	5	6/7/2018	мв			Surface Parking Lot	2016		288 100	.00	Surface parking lot for Facility ID 1608



B.3 ASSET CONDITION

B.3.1 CONDITION ASSESSMENT

The condition ratings reported in this Plan for Pace's facilities assets reflect a mix of sources:

- RTA's Capital Optimization Support Tool (COST)
- Desktop Review by Pace Facilities Maintenance and Revenue Services staff
- Physical Condition Assessment by WSP, USA, Inc. (2018 & 2019)

In all cases, the condition scores follow the FTA-defined condition ratings as shown in Table B - 2.

Table B - 2. Passenger Facilities Condition Rating Levels

CONDITION	DEFINITION
5 (Excellent)	No visible defects, new or near new condition, may still be under warranty if applicable
	Good condition, but no longer new, may have some slightly defective or deteriorated component(s), but is overall functional
3 (Adequate)	Moderately deteriorated or defective components; but has not exceeded useful life
2 (Marginal)	Defective or deteriorated component(s) in need of replacement; exceeded useful life
1 (Poor)	Critically damaged component(s) or in need of immediate repair; well past useful life

Between 2012 and 2016, the annual RTA Budget Ordinance required Pace, CTA, and Metra, (i.e. Service Boards) to run the RTA's Capital Optimization Support Tool (COST) as another "tool in their toolbox" to produce a data driven report to assess transit capital investment needs. The COST condition rating process is based on the FTA's TERM-Lite software which uses an age/decay-curve based approach for asset condition estimation, supplemented by a small sample of actual asset condition observation site visits were conducted by the RTA consultant that also developed the COST tool. At that time, the RTA asset condition sampling forms were tailored at a high level and used to gather general site and building conditions by visual observation only. For many assets, the condition data were collected for individual components and scores were aggregated into a single, overall condition score for that asset.

WSP Facility Condition Assessments Conducted in 2018 & 2019

Beginning in 2018 Pace commenced assessing the condition of our facilities using the FTA guidance document for facilities condition assessments. As per the guidance Pace intends to assess at least one-quarter of our facilities each year, completing assessments of all facilities on a four-year cycle. In October 2017, Pace contracted with WSP, USA, Inc. to conduct the facility physical condition assessments over the TAM Plan horizon period of four years, ending in 2022.

The condition scores collected prior to 2018 (see Table B - 4) will remain in place for facilities not yet assessed using the new methodology. This prior methodology is discussed above. As the remaining facilities are assessed in the coming four years those older scores will be replaced. The older scores use the same TERM scale



detailed in Table B - 2, but the RTA consultant scores were based on a different breakdown of sub-assets within each facility and summed using a different calculation.

In 2018 nine facilities were inspected by the WSP Inspection Team, and an additional 9 were inspected in 2019. The 2019 condition assessments are summarized in Table B - 4. Each facility was scored using "TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation", issued by the FTA, as the primary source for inspection and grading methodology. The FTA Guidebook relies largely on visual inspection, and in cases of difficult to access areas, it relies on visual inspection from an access point. The FTA Guidebook requires condition scores be given to 10 building systems in each facility (substructure, shell, interiors, elevators, plumbing, HVAC, fire protection, electrical, site, and fare collection), which are summed into a single score for each facility using a calculation method at the discretion of the agency.

Pace has used a bespoke weighting system based upon the criticality of those 10 building systems to delivery of customer service. Those weightings appear in the detailed scorecards in Section B.7 but are summarized in Table B - 3. Ranges are provided because some facilities did not have all the building systems listed so weightings are redistributed accordingly in that case. Many of the sites have large areas of pavement and or landscaping which are scored under "Site" which proportionally reduces the weightings given to the other building systems.

Table B - 3. Building Systems Weightings

ID	BUILDING SYSTEM	WEIGHTINGS (%)
Α	Substructure	5-15
В	Shell	20-35
С	Interiors	5-10
D	Conveyance	1-5
Е	Plumbing	5-10
F	HVAC	5-10
G	Fire Protection	1-5
Н	Electrical	1-5
I	Equipment / Fare Collection	10-15
J	Site	10-15
Total		100%

To record grades and notes, the WSP Inspection Team utilized a grading sheet like that available in the FTA Guidebook but modified to allow more room for notes. Where a building system had multiple scores for multiple areas, a weighting system was used to determine an overall score for that system. This scoring is evident in the 2018 and 2019 scorecards found in Section B.7.

Pace staff accompanied the WSP Inspection Team on their walks while they made observations of the site, made observations of each structure, and walked through and observed all accessible spaces and equipment of each facility. Pace supplied background (not verified as-built) drawings were used by the WSP Inspection Team to augment the inspection, including showing possible underground utility locations. Certain difficult to access or difficult items for direct view resulted in the WSP Inspection



Team making distant and/or indirect observations where required. All items were classified as part of one of the 10 building systems and graded in accordance with the FTA Guidebook.

B.3.2 CURRENT CONDITION INFORMATION AND PERFORMANCE TARGETS

Condition information for Pace's passenger facilities, as of December 31, 2018 (used for the FY 2019 performance targets), is reported by facility in Table B - 1, while updated condition rating for facilities assessed by WSP in 2019 is included in Table B - 4, and will be used for the FY 2020 performance target setting.

Table B - 4. Condition Scores for Facilities Assessed in 2019

ASSET NAME	CONDITION RATING (PRIOR TO 2018)	CONDITION RATING (2018/2019)	COMMENTS ON DIFFERENCES
	Pa	ssenger Faci	lities
Blue Island PNR	2	3	Scores very slightly increased and rounding brought score up a grade
Harvey Transportation Center	1	2	Scores very slightly increased and rounding brought score up a grade
Homewood PNR	2	3	Scores very slightly increased and rounding brought score up a grade
	Administrativ	e and Mainte	nance Facilities
McHenry Paratransit Facility	3	3	Score unchanged
Heritage Division Facility	1	3	Improvement construction campaign underway at the time of site visit.
North Shore Division Facility	3	4	Scores very slightly increased and rounding brought score up a grade
North Division Facility	2	3	Differences in scoring methodology
River Division Facility	4	3	General wear over time
Fox Valley Division Facility	3	3	Score unchanged

Condition ratings will be used for required reporting in the National Transit Database (NTD), and to measure performance against annual targets. With the introduction of TAM, Pace has been required since 2017 to develop performance targets for the assets for which we have capital replacement responsibility. For passenger/parking facilities, the performance target must reflect the "percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale (1=Poor to 5=Excellent)."

"Beginning in Report Year 2019, agencies must upload a narrative report to the NTD that outlines performance targets and their progress toward those targets. This narrative may include any changes in transit system conditions that may affect progress toward targets. There is no prescribed format for the narrative report."

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⁷ Federal Transit Administration, U.S. Department of Transportation, National Transit Database Asset Inventory Module 2017-2018 Reporting Guide

⁸ Ibid 7.



Information on Pace's performance targets for facilities is contained in Table B - 5. Performance Targets are developed per FTA's guidance for locations where Pace has capital responsibility.

Table B - 5. Performance Targets for Stations and Passenger Facilities

ASSET TYPE	2018 PERFORMANCE	2019 TARGET
Passenger / Parking Facilities	26.92%	26.92%
Administrative / Maintenance Facilities	33.33%	33.33%

B.4 LIFECYCLE MANAGEMENT STRATEGIES

B.4.1 OVERVIEW

Pace has developed several processes to best manage the lifecycle of our facilities. These include a detailed maintenance manual prescribing planned maintenance and useful life information for the agency's assets, processes to ensure contractor quality and completion, and strict guidelines for disposal of assets.

The following sections detail the lifecycle management strategies that Pace uses to maintain our facilities in a State of Good Repair.

B.4.2 *MAINTENANCE*

Pace has developed the Rolling Stock, Facilities, and Equipment Maintenance Manual, and the Facility Maintenance Plans and Practice Overview and Procedures for Inspections Manual, which describe the agency's standard operating procedures required to maintain the system. The four core goals of the maintenance manual can be broadly described as safety, performance, efficiency, and professionalism.

These four goals ensure that 1) safety and comfort of the agency's passengers are the primary consideration of all maintenance functions, 2) the fleet is serviced at a rate that covers the needs of the agency and addresses any emergencies that might arise, 3) the lowest cost is maintained without sacrificing safety, and 4) maintenance is technologically current.

All equipment shall be maintained as listed in the Pace Capital Financing & Infrastructure Facility Maintenance logbook. The frequency of inspections and services shall be no less than those recommended by the manufacturers. In the event there is no recommended service frequency in the Pace Capital Financing & Infrastructure Facility Maintenance logbook, the Revenue Services, Superintendent of Maintenance shall consult the Capital Financing & Infrastructure, Section Manager, Facility Maintenance at Corporate to determine the frequency.

All inspections, service and repairs shall be authorized and documented using Oracle eAM as well as forms in the Pace Facility Maintenance logbook. From these documentation procedures, the Revenue Services, Superintendent of Maintenance shall prepare a monthly report including inspections, services, and equipment breakdowns.



Preventative Maintenance

The responsibility of maintenance and repairs to passenger facilities lies with Revenue Services / Bus Operations. The Capital Financing & Infrastructure Facility Maintenance staff do perform bi-annual inspections to those passenger facilities where there are buildings (i.e. driver washrooms, passenger waiting areas, etc.). In addition, Revenue Services / Bus Operations staff based at the South Holland Acceptance Facility conduct monthly inspections of passenger facilities too.

Building inspections of Administrative and Maintenance Facilities are conducted by Capital Financing & Infrastructure / Facilities Maintenance on a bi-annual basis. Revenue Services Division staff (e.g. Building Maintainers) conduct inspections of maintenance facilities more frequently. Some contractors are required to conduct preventative maintenance which is tracked in Oracle eAM.

Corrective Maintenance

Any deficiencies found during the Capital Financing & Infrastructure / Facilities Maintenance inspections of passenger facilities are reported to Revenue Services / Bus Operations for follow-up repairs. Any major deficiencies (concrete and asphalt failure, tuck pointing, etc.) are identified and referred to the Capital Financing & Infrastructure Department Manager for further analysis to determine whether the infrastructure is nearing the end of its life and if so, develops a replacement cost estimate and recommends that it be included in the next annual capital budget request for funding. The Capital Financing & Infrastructure / Design & Construction Department is responsible for writing design and engineering scopes for large scale improvement projects to monitor Pace's effort to returning our infrastructure to a State of Good Repair.

When a defect at an Administrative and Maintenance facility is identified, it is reported to the Division Superintendent of Maintenance. The Supervisor or the Senior Facilities Engineer for Pace's Administrative Building calls the Facility Maintenance Specialist in Facilities Maintenance assigned to the area to report the defect. In some cases, the Facility Maintenance Specialist may advise that the Revenue Services, Building Maintainer can address the defect, however, if this is not the case, then the Facility Maintenance Specialist will call the appropriate vendor.

Contract Maintenance

Pace has several on-call contracts in place for Facilities Maintenance. When the Facility Maintenance Specialist calls a vendor, they must provide a Facilities Maintenance number (FM number), which is equivalent to a purchase order number, specific to the job. The FM number is generated through Oracle eAM, which is also where costs are tracked. For service calls more than \$500, the vendor must send a quote before performing service, and the quote must be reviewed and approved by the Facilities Maintenance, Section Manager, before work commences. All Facilities Maintenance work carried out by vendors that does not exceed \$500 is tracked in Oracle and will be assigned an FM number.



B.4.3 CAPITAL INVESTMENT

The budgeting process for facilities follows the same process outlined in Section 7, **Investment Prioritization**, of the TAM Plan. The need for capital investment in Facilities is assessed using Pace's Capital Project Scoring Criteria and prioritized for investment based on funding availability.

B.4.4 DISPOSAL

At Pace, an asset is disposed of if it has exceeded its useful life and is no longer needed or functioning or has been damaged or destroyed before the end of its useful life. When disposal is necessary, an Asset Disposal Form is completed by the division or department that holds or is responsible for the asset. The Form is submitted to Accounting, and the Fixed Asset Accountant reviews the asset to determine if there is any remaining useful life. If there is, then that is noted on the Form. The Form is then reviewed and approved by the Section Manager, Accounts Payable/Receivable and the Section Manager, Grants Administration, if the asset is capital funded. The Fixed Asset Accountant determines whether an asset should be disposed of by the Using Department or sold by the Purchasing Department. The Purchasing Department is responsible for obtaining payment for the sale of an asset and forwarding those funds directly to the Finance Department. If the proceeds from the asset exceed a certain dollar value or have remaining useful life, then the Section Manager, Grants Administration will coordinate repayment to the funding agency and obtain concurrence. Pace has an agreement with the FTA that allows Pace to retain all funds due back to the FTA, with the assurance that Pace acquire new assets with the funds and give the FTA 100% equity in those assets.

B.4.5 SUPPLY CHAIN AND PROCUREMENT

Size and scope of the project influences which department, Capital Financing & Infrastructure / Design & Construction, Capital Financing & Infrastructure / Facilities Maintenance or Revenue Services / Bus Operations manages the procurement. Once a project or procurement has been approved and included in the Capital Program, staff develop the scope of work, conduct research on appropriate specifications and estimated cost. Once complete, the scope is sent to a series of approvers, who may request revisions or modifications to the request as necessary before final approval. The Capital Financing & Infrastructure / Design & Construction Department has a formal process that outlines how and when input from other departments should be solicited during the procurement process.

As part of the procurement process, Pace collects all necessary documentation from the winning contractor, including insurance & bonds, if applicable. Pace staff administer construction contracts and perform construction management and oversight of contractors. Pace has formal processes in place for the following: requests for information (RFI), payment application, and change orders.

Once a project reaches substantial completion, the contractor must notify Pace in writing, indicating what work remains to be completed, and request an inspection. If Pace agrees that the project is substantially complete, a punch list is created for all remaining items. At substantial completion, the contractor is eligible for a reduction in



retainage (retainage is typically 10 percent of the contract value), the amount of which differs by subcontract. Upon completion, contractors are paid in full.

Sometimes projects undertaken at existing facilities are completed in multiple phases to reduce the impact of construction on routine business. For example, one portion of a facility will be taken out of service until substantially complete; once it is substantially complete it will be put back into service and another part will be taken out of service.

A contract is closed once Pace has received all deliverables or assets and all parties (prime and sub-contractors) have been fully paid. Substantial completion indicates that the constructed improvements may be used. Prior to declaring substantial completion, Pace will walk through the premises to ensure it is suitable for operation and develop a punch list of remaining items to be completed before closing the contract. As part of close-out procedures, Pace ensures that all materials and documentation have been received, including warranties, manuals, waivers, and certified pay applications.

B.5 ASSET MANAGEMENT ENABLERS

B.5.1 ORGANIZATION

Responsibility for operations and maintenance of Pace's passenger and parking facilities is divided across the organization, between Capital Financing & Infrastructure / Facilities Maintenance, and Revenue Services / Bus Operations. At the Transportation Centers, Facilities Maintenance is only responsible for maintaining the HVAC systems. Facilities Maintenance includes the Transportation Centers in the Blanket Contract that applies to all garages. The Revenue Services / Bus Operations Department has four Facility Maintenance Specialists based out of South Holland Acceptance Facility who handle passenger station facility maintenance, and not repairs at the Operating Divisions.

The Facilities Maintenance Department based out of Arlington Heights is responsible for operations and maintenance of the HVAC and mechanical systems, roofing, and other building elements at Pace's Administrative and Maintenance Buildings. The Facility Maintenance Department is comprised of a Section Manager, one Environmental Coordinator, one Specification Writer, one Project Manager, one Senior Facilities Engineer for Arlington Heights, two Senior Contract Administrators, two Facility Maintenance Specialists; one for the Northern, and one for the Southern regions to oversee contractors working on equipment assets fixed to the building, and one Senior Facility Maintenance Specialist Coordinator for all the garages responsible for receiving service calls. The Senior Facilities Specialist Coordinator can troubleshoot any issue to determine whether the issue requires specialized knowledge and expertise, in which case an existing on-call vendor is called.

Revenue Service, Building Maintainers, stationed at each division, are assigned to Revenue Service / Bus Operations. Building Maintainers are responsible for interior work, changing filters, and other routine maintenance tasks. They may receive direction from Facilities Maintenance regarding defects.

The Capital Financing & Infrastructure / Design & Construction Department is responsible for improvement campaigns, rehabs, expansions, and other larger projects,



including anything that requires architectural and engineering (A&E) services. The Design & Construction Department is comprised of a Section Manager, seven Capital Construction Project Managers, one Supervisor, Contract Administrator, two Contract Administrators, and one Construction Document Controller. Capital Construction projects typically range from \$200,000-\$10,000,000 with around 12 active projects at any time.

B.5.2 TRAINING

When an asset is replaced or modified, training is provided for in-house staff, and a review of operations and maintenance (O&M) manuals and preventative maintenance checklists is completed to ensure they are up to date and relevant to the new assets. Staff from the garages are heavily involved in this update process.

B.5.3 STANDARDS, LEGISLATION, REGULATION, AND OTHER MANDATED REQUIREMENTS

There are multiple "lines of defense" at Pace regarding compliance: managers, compliance areas, and Internal Audit. Managers are the front line, responsible for setting and enforcing policies. Compliance areas such as Ethics, Legal, and Human Resources are the second line. Internal Audit follows Institute of Internal Auditing Standards. Pace has an Audit Charter approved by the Pace Audit Committee and Board of Directors and has a procedure manual.

Compliance Departments such as General Counsel, Ethics, Internal Audit, and Human Resources are primarily responsible for knowing the relevant regulatory requirements. The Finance / Accounting, Grants Administration, and Purchasing Departments are also responsible for compliance. Internal Audit reviews regulatory requirements, and policies/procedures to ensure Pace compliance as it relates to each audit conducted by Internal Audit and ensures compliance with them. All requirements are captured in policies, which are on the Pace Corporate Intranet, though there is no separate depository for legislative/regulatory requirements at this time.

B.5.4 *TECHNOLOGY*

Pace relies on several software applications to support improved performance management and decision-making including Oracle Enterprise Asset Management (eAM) and Oracle Application Express (APEX).

Oracle eAM is a comprehensive maintenance management system that delivers numerous efficiencies and cost savings. Pace uses Oracle eAM to:

- Create a preventative maintenance strategy
- Maximize resource availability, including both equipment and labor
- Optimize scheduling and resource efficiency
- Provide Asset Management and Work Management functions



B.5.5 ASSET KNOWLEDGE AND INFORMATION

Pace relies on Oracle eAM to record facilities-related assets. Pace transitioned to eAM from Maximo several years ago. Oracle eAM can include parent/child relationships, however, Pace is not currently using this functionality to its full capacity.

Information on specific assets can, including maintenance history, can be pulled up in eAM; however, there is no comprehensive inventory of all items installed and their individual costs; items that are part of buildings (e.g., HVAC or electrical systems) are not tagged as separate assets.

Oracle eAM contains information that would allow the Department Manager / Capital Financing & Infrastructure to assess which facilities are spending the most money or having the most issues, including looking at specific assets.

Pace does not require our contractors to provide asset information to be input directly into eAM. Instead, a list of equipment is provided to Pace's eAM managers (within IT), who enter the information into eAM manually.

B.5.6 ASSURANCE

During construction, project managers and technical support staff, including architectural/engineering design consultants and testing consultants as needed, are onsite to monitor contractor performance, including to ensure that all work is performed in accordance with contract requirements.

Consistent with auditing standards and because of limited resources, Internal Audit develops an annual audit plan based on an annual risk assessment. Walk-through facility inspections are included in the plan with a goal to complete six Pace and six contractor facilities annually. The maintenance records are observed as part of the inspection. Walk through facility inspections are not as comprehensive as audits. More comprehensive compliance with maintenance procedures audits are conducted per a management request or based on high risk.

B.6 CAPITAL PLANS

In FY2020 through FY2024, Pace expects to spend over \$226 million on facilities. Table B - 6, below, provides a snapshot of Pace's anticipated capital spend in this asset class.



Table B - 6. Facilities Capital Budget Forecast (\$000s)

PROJECT	2020 BUDGET	2021 FORECAST	2022 FORECAST	2023 FORECAST	2024 FORECAST
Improve Passenger Facilities	-	\$3,500	\$350	\$1,500	\$1,500
Bus Stop Shelters/Signs	1,550	500	1,000	1,500	1,500
Bus Tracker Sign Deployment	750	500	1,000	1,500	1,500
Posted Stops Only Conversion	450	-	-	-	-
Joliet Transit Center	6,300	-	-	-	-
Harvey Transportation Center Renovation	1,000	7,000	-	-	-
I-55 Park-n-Rides	-	-	753	6,000	-
I-294 Station & Park-n-Rides	-	-	-	3,500	31,500
Improve Support Facilities	1,500	500	1,000	1,500	1,500
New Northwest Division Garage	41,952	-	-	-	-
New I-55 Garage	3,500	39,753	-	-	-
River Division Expansion	-	2,000	18,000	-	-
North Shore Division Expansion	-	2,000	18,000	-	-
Southwest Division Expansion	-	2,000	16,000	-	-
Office Equipment/Furniture	-	-	-	850	850
Total	\$57,003	\$57,753	\$56,103	\$16,350	\$38,350

B.7 CONDITION ASSESSMENT REPORTS

The following 18 scoresheets, Table B - 7 through Table B - 24 show the scores given for each building system at each facility, the overall scores, and include a representative photo and thumbnail site plan. These are all extracts from more detailed reports on the condition assessments, "Pace Facilities Inspection Report 2018" and "Pace Facilities Inspection Report 2019".



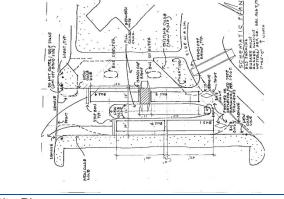
Table B - 7. WSP Inspection Report - Gurnee Mills

Inspection Date	September 17, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Gurnee Mills Transit Center
Address / Location	6170 W. Grand Ave. Gurnee Illinois 60031

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION						
					VALUE	5	4	3	2	1		
Α	Substructure	168	SF	2	6				100			
В	Shell	432	SF	1.86	10				86	14		
С	Interiors	0	SF	0	0							
D	Conveyance	0	Each	0	0							
Е	Plumbing	3	Each	3	1			100				
F	HVAC	0	Each	0	0							
G	Fire Protection	0	SF	0	0							
Н	Electrical	0	SF	0	0							
I	Equipment	0	Each	0	0							
J	Site	10,070	SF	1.44	83				44	56		

Total Aggregate Rating 1.53
Aggregate Rating Rounded 2





Representative Inspection Photo

Site Plan



Table B - 8. WSP Inspection Report - Prairie Stone

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Prairie Stone Transit Center
Address / Location	5401 Trillium Blvd. Hoffman Estates, IL 60192

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF AS QUANTITY BY CONI				
					VALUE	5	4	3	2	1
Α	Substructure	976	SF	2	10				100	
В	Shell	9,426	SF	2.79	25			84	11	5
С	Interiors	170	SF	1.79	4				79	21
D	Conveyance	0	Each	0	0					
Ε	Plumbing	4	Each	2.5	4			75		25
F	HVAC	2	Each	3	1			100		
G	Fire Protection	1	SF	3	1			100		
Н	Electrical	30	Each	1.67	5				67	33
I	Equipment	0	Each	0	0					
J	Site	58,409	SF	2.7	50			80	10	10

Total Aggregate Rating 2.56
Aggregate Rating Rounded 3



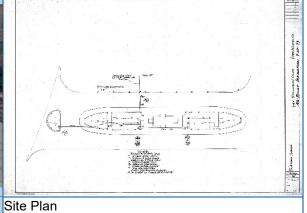




Table B - 9. WSP Inspection Report - I-90 Randall Road

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	I-90 Randall Road Transit Center
Address / Location	2001 N. Randall Road Elgin, Illinois 60123

ID#	NAME	ASSET UNIT OF QUANTITY MEASURE		CONDITION ASSIGNED RATING WEIGHT		PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	755	SF	5	10	100					
В	Shell	2,230	SF	4.99	20	99	1				
С	Interiors	703	SF	4.98	4	98	2				
D	Conveyance	0	Each	0	0						
Е	Plumbing	2	Each	5	4	100					
F	HVAC	4	Each	5	1	100					
G	Fire Protection	0	SF	0	0						
Н	Electrical	18	Each	5	5	100					
I	Equipment	1	Each	1	1					100	
J	Site	155,248	SF	4.99	55	99	1				

Total Aggregate Rating
Aggregate Rating Rounded

5

Representative Inspection Photo
Site Plan



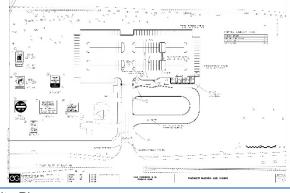
Table B - 10. WSP Inspection Report - I-90 IL 25 Park N Ride

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	I-90 / IL 25 Park n Ride
Address / Location	1475 Dundee Ave. Elgin, IL 60120

ID #	NAME	ASSET UNIT OF CONTROL		CONDITION ASSIGNED RATING WEIGHT		PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	224	SF	5	13	100					
В	Shell	1,012	SF	4.99	20	99	1				
С	Interiors	0	SF	0	0						
D	Conveyance	0	Each	0	0						
Е	Plumbing	0	Each	0	0						
F	HVAC	2	Each	5	1	100					
G	Fire Protection	0	SF	0	0						
Н	Electrical	17	Each	5	5	100					
I	Equipment	1	Each	2.5	1		50			50	
J	Site	115,200	SF	4.85	60	94.5		2	3	0.5	

Total Aggregate Rating 4.88
Aggregate Rating Rounded 5





Representative Inspection Photo

Site Plan



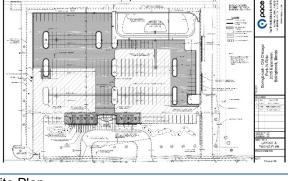
Table B - 11. WSP Inspection Report - Bolingbrook Old Chicago

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Bolingbrook Old Chicago
Address / Location	120 East Old Chicago Drive Bolingbrook 60440

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASS QUANTITY BY COND				
					VALUE	5	4	3	2	1
Α	Substructure	112	SF	3	12			100		
В	Shell	506	SF	3	20			100		
С	Interiors	0	SF	0	0					
D	Conveyance	0	Each	0	0					
Ε	Plumbing	0	Each	0	0					
F	HVAC	1	Each	4	1		100			
G	Fire Protection	1	Each	2	1				100	
Н	Electrical	15	Each	3.7	5		85	6	6	
I	Equipment	1	Each	0	1		50			50
J	Site	139,730	SF	3.26	60		36	54	10	

Total Aggregate Rating 3.16
Aggregate Rating Rounded 3





Representative Inspection Photo



Table B - 12. WSP Inspection Report – Bolingbrook Canterbury

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Bolingbrook Canterbury
Address / Location	170 Canterbury Lane Bolingbrook, Illinois 60440

ID#	NAME			CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	112	SF	3	12			100			
В	Shell	506	SF	2	20				100		
С	Interiors	0	SF	0	0						
D	Conveyance	0	Each	0	0						
Ε	Plumbing	0	Each	0	0						
F	HVAC	1	Each	3	1			100			
G	Fire Protection	1	Each	2	1				100		
Н	Electrical	7	Each	2.72	5			72	28		
I	Equipment	1	Each	2	1			50		50	
J	Site	88,680	SF	2.9	60			95		5	

Total Aggregate Rating 2.71
Aggregate Rating Rounded 3





Table B - 13. WSP Inspection Report - Burr Ridge

Inspection Date	September 18, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Burr Ridge Park n Ride
Address / Location	7650 Lincolnshire Drive, Burr Ridge, Illinois, 60527

ID#	NAME	ASSET QUANTITY		CONDITION / RATING	WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	324	SF	2.85	10			85	15		
В	Shell	594	SF	2.4	20			70		30	
С	Interiors	0	SF	0	0						
D	Conveyance	0	Each	0	0						
E	Plumbing*	88,680	SF	3	3			100			
F	HVAC	0	Each	0							
G	Fire Protection	0	Each	0							
Н	Electrical	10	Each	2.5	5			60	30	10	
I	Equipment	1	Each	2	1			50		50	
J	Site	88,680	SF	1.8	60			40		60	

* Plumbing in this instance refers to a sprinkler system over the whole site.

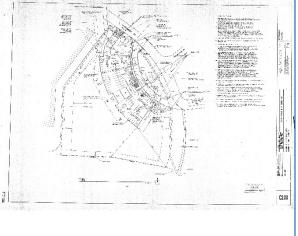
Total Aggregate Rating

2.08

Aggregate Rating Rounded

2





Representative Inspection Photo

Site Plan



Table B - 14. WSP Inspection Report - Buffalo Grove

Inspection Date	September 20, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Buffalo Grove Park n Ride
Address / Location	801 Commerce Ct, Buffalo Grove, Illinois 60089

ID#	NAME	ASSET QUANTITY				PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	464	SF	4	10		100				
В	Shell	594	SF	3.97	15		99			1	
С	Interiors	510	SF	3	5			100			
D	Conveyance	10	Each	0	0						
Е	Plumbing	4	Each	2	2				100		
F	HVAC	2	Each	2	2				100		
G	Fire Protection	10	Each	0	0						
Н	Electrical	24	Each	2.84	5			92		8	
I	Equipment	1	Each	2.5	1		50			50	
J	Site	72,481	SF	3.5	60		65		45		

Total Aggregate Rating 3.49
Aggregate Rating Rounded 3



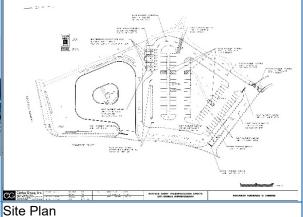




Table B - 15. WSP Inspection Report - Elk Grove

Inspection Date	September 20, 2018
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Elk Grove Park n Ride
Address / Location	35 NW Point Blvd Elk Grove Village, Illinois 60007

ID#	NAME	ASSET QUANTITY		WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1
Α	Substructure	112	SF	3	10			100		
В	Shell	624	SF	3	15			100		
С	Interiors	10	SF	0	0					
D	Conveyance	10	Each	0	0					
E	Plumbing*	75,673	Each	3	2			100		
F	HVAC	10	Each	0	0					
G	Fire Protection	10	Each	0	0					
Н	Electrical	16	Each	2.5	5			50	50	
I	Equipment	1	Each	2.5	1		50			50
J	Site	75,673	SF	2.66	60			68	30	2

^{*} Plumbing in this instance refers to a sprinkler system over the whole site.





Table B - 16. WSP Inspection Report - Heritage Division Facility

Inspection Date	July 8, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Heritage Division
Address / Location	9 Osgood Street, Joliet, Illinois, 60433

ID#	NAME	ASSET UNIT OF QUANTITY MEASURI		CONDITION ASSIGNED RATING WEIGHT		PERCENT OF ASSET QUANTITY BY CONDITION				
					VALUE	5	4	3	2	1
Α	Substructure	66,077	SF	2.8	15			85	10	5
В	Shell	66,077	SF	2.85	35			80	20	5
С	Interiors	66,077	SF	2.8	10			80	20	
D	Conveyance	0	Each	0	0					
Е	Plumbing	25	Each	2	5			90	10	
F	HVAC	1	Each	3	6			100		
G	Fire Protection	1	Each	3	2			100		
Н	Electrical	106,362	SF	2.9	2			90	10	
I	Equipment	15	Each	2.75	10			75	25	
J	Site	40,285	SF	2.67	15			67	33	

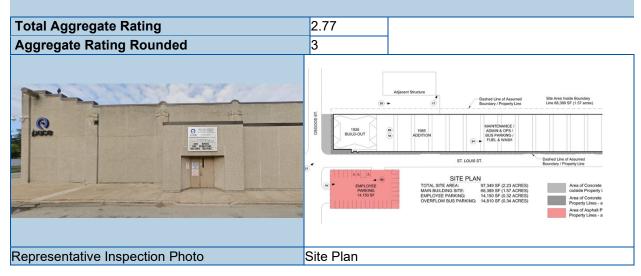




Table B - 17. WSP Inspection Report - Homewood Park-N-Ride

luana atian Data	L.L. 0 0040
Inspection Date	July 8, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Homewood Park-N-Ride
Address / Location	750 Ridge Road, Homewood, Illinois 60430

ID#	NAME	ASSET QUANTITY		WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1
Α	Substructure	435	SF	2.9	10			90	10	
В	Shell	435	SF	2.9	20			90	10	
С	Interiors	435	SF	2.95	5			95	5	
D	Conveyance	0	Each	0	0					
E	Plumbing*	4	Each	2	4			100		
F	HVAC	2	Each	3	1			100		
G	Fire Protection	0	SF	0	0					
Н	Electrical	87,556	SF	3	5			100		
I	Equipment	0	Each	0	0					
J	Site	41,179	SF	2.8	55	0	0	85	10	5

Total Aggregate Rating 2.82 **Aggregate Rating Rounded** 3







Table B - 18. WSP Inspection Report – Harvey Transportation Center

Inspection Date	July 8, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Harvey Transportation Center Facility
Address / Location	15330 Park Avenue, Harvey, Illinois 60426

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSI QUANTITY BY CONDI				
					VALUE	5	4	3	2	1
Α	Substructure	1,983	SF	2.95	25			95	5	
В	Shell	1,566	SF	1.7	10				70	30
С	Interiors	720	SF	2.1	10			20	70	10
D	Conveyance	0	Each	0	0					
Е	Plumbing*	6	Each	2	3			100		
F	HVAC	1	Each	3	5				100	
G	Fire Protection	0	SF	0	0					
Н	Electrical	14,800	SF	2.9	5			90	10	
I	Equipment	5	Each	3.7	2		90			10
J	Site	45,490	SF	1.5	40				50	50

Total Aggregate Rating 2.15
Aggregate Rating Rounded 2





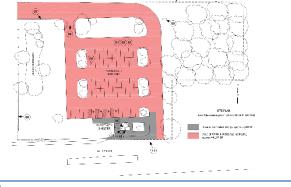
Table B - 19. WSP Inspection Report - Blue Island Park-N-Ride

Inspection Date	July 8, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Blue Island Park-N-Ride
Address / Location	3060 W. 127th Street, Blue Island, Illinois 60406

ID#	NAME	AME ASSET UNIT OF QUANTITY MEASURE		CONDITION ASSIGNED RATING WEIGHT		PERCENT OF ASSET QUANTITY BY CONDITION				
					VALUE	5	4	3	2	1
Α	Substructure	100	SF	2.95	15			95	5	
В	Shell	100	SF	2.8	15			80	20	
С	Interiors	0	SF	0	0					
D	Conveyance	0	Each	0	0					
E	Plumbing*	0	Each	0	0					
F	HVAC	0	Each	0	1					
G	Fire Protection	1	SF	3	0			100		
Н	Electrical	121,973	SF	2.9	4			90	10	
I	Equipment	0	Each							
J	Site	121,973	SF	2.83	65			88	7	5

Total Aggregate Rating 2.82
Aggregate Rating Rounded 3





Representative Inspection Photo

Site Plan



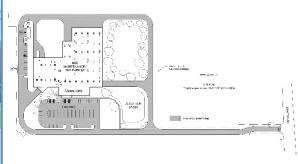
Table B - 20. WSP Inspection Report - North Shore Division Facility

Inspection Date	July 9, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	North Shore Division
Address / Location	2330 Oakton Street, Evanston, Illinois 60202

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PE QUA	ASSI ONDI			
					VALUE	5	4	3	2	1
Α	Substructure	81,471	SF	2.95	15			95	5	
В	Shell	81,471	SF	3.75	35		80	15	5	
С	Interiors	81,471	SF	3.75	10		80	15	5	
D	Conveyance	0	Each	0	0					
Е	Plumbing*	32	Each	3	5			100		
F	HVAC	1	Each	3.05	6		10	85	5	
G	Fire Protection	0	SF	3	2			100		
Н	Electrical	424,258	SF	3	2			100		
I	Equipment	16	Each	3.45	10		50	45	5	
J	Site	342,787	SF	3.8	15		85	10	5	

Total Aggregate Rating 3.5
Aggregate Rating Rounded 4





Representative Inspection Photo

Site Plan



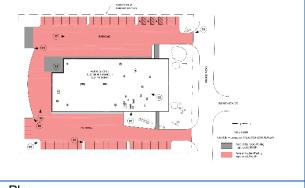
Table B - 21. WSP Inspection Report - McHenry Paratransit Facility

Inspection Date	July 10, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	McHenry Paratransit Facility
Address / Location	5007 Prime Parkway, McHenry, Illinois 60050

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1
		28,097	SF	2.95	15			95	5	
В	Shell	28,097	SF	3.3	35		40	50	10	
С	Interiors	28,097	SF	3.4	10		50	40	10	
D	Conveyance	0	Each	0	0					
Е	Plumbing*	6	Each	3	5			100		
F	HVAC	1	Each	3	6			100		
G	Fire Protection	0	SF	0	2					
Н	Electrical	112,837	SF	2.95	2			95	5	
I	Equipment	5	Each	2.7	10			75	20	5
J	Site	85,159	SF	3.07	15		7	93		

Total Aggregate Rating 3.06
Aggregate Rating Rounded 3





Representative Inspection Photo

Site Plan



Table B - 22. WSP Inspection Report - North Division Facility

Inspection Date	July 10, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	North Division
Address / Location	1400 W. Tenth Street, Waukegan, Illinois 60085

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION						
					VALUE	5	4	3	2	1		
Α	Substructure	57,754	SF	2.75	15			80	15	5		
В	Shell	57,754	SF	3.2	35		30	60	10			
С	Interiors	57,754	SF	2.85	10		20	50	25	5		
D	Conveyance	0	Each	0	0							
Е	Plumbing*	6	Each	2.9	5			95		5		
F	HVAC	1	Each	3	6			100				
G	Fire Protection	0	SF	0	2							
Н	Electrical	204,628	SF	2.95	2			95	5			
I	Equipment	5	Each	2.95	10		10	80	5	5		
J	Site	142,622	SF	3	15	0	20	60	20	0		

Total Aggregate Rating 2.95
Aggregate Rating Rounded 3



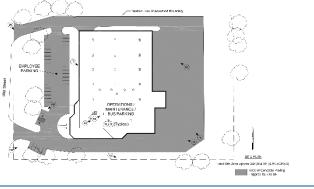




Table B - 23. WSP Inspection Report - River Division Facility

Inspection Date	July 11, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	River Division
Address / Location	975 S. State Street, Elgin, Illinois 60123

ID#	NAME	ASSET QUANTITY		CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	63,235	SF	2.9	15			90	10		
В	Shell	63,235	SF	2.7	35			70	30		
С	Interiors	63,235	SF	2.7	10			70	30		
D	Conveyance	0	Each	0	0						
Е	Plumbing*	6	Each	2.9	5			90	10		
F	HVAC	1	Each	2.6	6			60	40		
G	Fire Protection	1	SF	3	2			100			
Н	Electrical	385,212	SF	3	2			100			
I	Equipment	16	Each	2.6	10			70	20	10	
J	Site	370,405	SF	2.3	15			50	30	20	

Total Aggregate Rating 2.68
Aggregate Rating Rounded 3



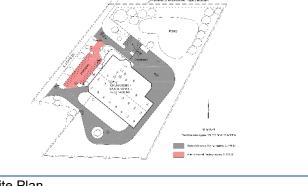
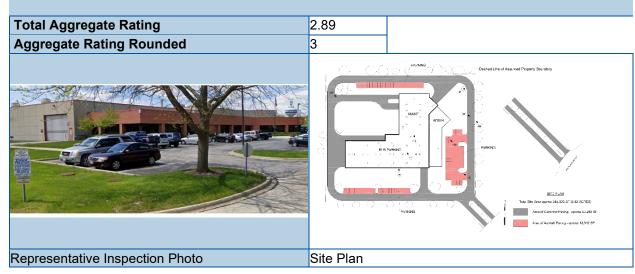




Table B - 24. WSP Inspection Report - Fox Valley Division Facility

Inspection Date	July 12, 2019
Inspector Name	Cary Els / Rafael Ruiz
Facility Name	Fox Valley Division
Address / Location	400 North Overland Drive, North Aurora, Illinois 60542

ID#	NAME	ASSET QUANTITY	UNIT OF MEASURE	CONDITION RATING	ASSIGNED WEIGHT	PERCENT OF ASSET QUANTITY BY CONDITION					
					VALUE	5	4	3	2	1	
Α	Substructure	56,833	SF	2.95	15			95	5		
В	Shell	56,833	SF	2.95	35		20	60	15	5	
С	Interiors	56,833	SF	2.9	10		20	50	30		
D	Conveyance	0	Each	0	0						
E	Plumbing*	33	Each	2.9	5			90	10		
F	HVAC	3	Each	2.7	6			70	30		
G	Fire Protection	56,833	SF	2.9	2			90	10		
Н	Electrical	243,936	SF	2.98	2			98	2		
I	Equipment	11	Each	2.5	10			70	10	20	
J	Site	187,103	SF	3	15		20	60	20		



END OF APPENDIX B



C. APPENDIX C - SERVICE VEHICLE

C.1 ASSET DEFINITION

In the *NTD 2017-2018 Asset Inventory Module Reporting Guide* (for equipment),⁹ the FTA lays out the following guidance and definitions with respect to Equipment:

Service Vehicle Inventory

Transit agencies are required to report data on service vehicles that support revenue operations, maintain revenue vehicles, and perform transit-oriented administrative activities for which they have capital replacement responsibility.

Transit agencies report service vehicle inventory data by groups or fleets. Agencies should group vehicles into fleets if they are identical in all aspects, including vehicle type, manufacture year, primary mode, etc.

Service vehicles must be road worthy, self-propelled, or major pieces of construction equipment to be reportable to the NTD. Examples of reportable service vehicles include automobiles used by supervisors or maintenance staff, wreckers, tow trucks, work trains, tampers, diggers, etc. Flatbed train cars, golf carts, and small forklifts are not considered reportable service vehicles.

C.2 NTD RY2018 ASSET INVENTORY

A fleet of non-revenue vehicles are used at Pace's facilities, and in the field, to ensure the efficient management of bus service as well as maintain fixed assets such as buildings, grounds, and passenger stations.

Pace's non-revenue fleet consists of vehicles of various make, model, and manufacturer. This fleet consists of on-highway vehicles as well as other specialty support equipment.

See Table C - 1 for a copy of the submitted NTD RY2018, A-35 Service Vehicle Inventory Form which displays more information on Pace's non-revenue vehicle fleet, including vehicle type, model year, age, useful life benchmark (ULB, as determined by eligibility for replacement grants), the quantity in service, and the percentage of remaining useful life.

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⁹ Federal Transit Administration, U.S. Department of Transportation, National Transit Database Asset Inventory Module 2017-2018 Reporting Guide



Table C - 1. A-35 Service Vehicle Inventory Form as of 12/31/2018

NTD ID	50113
Reporter Name Report	Pace - Suburban Bus Division
Report	2018 (Revision: 4)

Service Vehicle Inventory (A-35)

D Agency Fleet Ic	1 Fleet Name	Vehicle Type	Primary Mode	Year Manufactured	E stimated Cost	Useful Life Benchmark (Years)	Useful Life Remaining (Year	rs) Total Ve	hicles	Transit Agency Capital Responsibility (%)	Year Dollars of Estimated Cost	Secondary Modes	Notes Status
9577	Chevy C7H042	Trucks and other Rubber Tire Vehicles	MB - But	1994	\$46,071.00		10	-14	1	100	0 199	4	Active
9578	GMC C7H042	Trucks and other Rubber Tire Vehicles	MB - Bu	1994	\$51,706.00		10	-14	1	1003	0 199	4	Active
9579	International 4170	Trucks and other Rubber Tire Vehicles	MB - But	1995	\$219,900.00		10	-13	4	100	0 199	5	Active
9580	International 4700	Trucks and other Rubber Tire Vehicles	MB - But	1995	\$109,950.00		10	-13	2	100	0 1999	5	Active
9581	Ford F350	Trucks and other Rubber Tire Vehicles	MB - But	2000	\$39,663.00		10	-8	1	1003	0 200)	Active
9582	Ford F150	Trucks and other Rubber Tire Vehicles	MB - But	2005	\$28,330.00		10	-3	1.	100	0 200:	5	Active
9583	Ford F250	Trucks and other Rubber Tire Vehicles	MB - But	2009	\$57,196.00		10	-1	2	100	0 2009	9	Active
9584	Ford F150	Trucks and other Rubber Tire Vehicles	MB - Bu	2010	\$47,876.00		10	2	2	100	0 2011)	Active
9585	Ford F350	Trucks and other Rubber Tire Vehicles	MB - But	2010	\$207,010.20		10	2	6	100	0 2011)	Active
9586	Ford F350	Trucks and other Rubber Tire Vehicles	MB - But	2010	\$164,510.80		10	2	4	100	0 2010)	Active
9587	Ford E350 Cube Van	Trucks and other Rubber Tire Vehicles	MB - But	2012	\$62,694.00		10	4	2	1003	0 201:	2	Active
9588	Ford F250	Trucks and other Rubber Tire Vehicles	MB - Bu	2012	\$35,989.00		10	4	1	100.0	0 201:	2	Active
9589	Dodge Ram 1500	Trucks and other Rubber Tire Vehicles	MB - Bus	2013	\$73,875.00		10	5	3	100	0 201:	3	Active
9590	International 7400	Trucks and other Rubber Tire Vehicles	MB - But	2013	\$231,461.00		10	5	1	1003	0 201:	3	Active
9591	Ford F150	Trucks and other Rubber Tire Vehicles	MB - But	2016	\$35,514.48		10	8	1	100.	0 2011	3	Active
9592	Ford F350	Trucks and other Rubber Tire Vehicles	MB - Bu	2016	\$48,120.00		10	8	1	100	0 2010	3	Active
9593	Freightliner 35T	Trucks and other Rubber Tire Vehicles	MB - Bu	2018	\$321,999.00		10	10	1	100	0 201	7	Active
9594	Ford F150	Trucks and other Rubber Tire Vehicles	MB - But	2018	\$157,065.00		10	10	5	100.	0 2011	3	Active
9595	Ford F550	Trucks and other Rubber Tire Vehicles	MB - Bu	2018	\$103,556.00		10	10	1	100.0	0 2011	3	Active
9596	Ford Windstar	Trucks and other Rubber Tire Vehicles	MB - Bu	2003	\$23,027.64		5	-10	1	100.0	0 200	3	Active
9597	C hevy Malibu	Autom obiles	MB - But	2009	\$25,975.00		5	-4	1	100.1	0 200	9	Active
9598	Dodge Caravan	Trucks and other Rubber Tire Vehicles	MB - Bu	2009	\$53,730.00		5	-4	3	100	0 2009	9	Active
9599	Ford Focus	Autom obiles	MB - Bu	2009	\$66,173.00		5	-4	5	100.0	0 2009	9	Active
9600	Chevy Impala	Autom obiles	MB - But	2010	\$154,017.60		5	-3	8	100.0	0 2011)	Active
9601	Ford E 350	Trucks and other Rubber Tire Vehicles	MB - Bu	2010	\$522,222.30		5	-3	13	100	0 2011)	Active
9602	Ford Focus	Autom obiles	MB - Bu	2010	\$354,246.00		5	-3	24	100.0	0 2011)	Active
9604	Dodge Caravan	Trucks and other Rubber Tire Vehicles	MB - But	2011	\$49,634.80		5	-2	2	100.0	0 201	1	Active
9605	Dodge Grand Caravan	Trucks and other Rubber Tire Vehicles	MB - Bu	2012	\$361,471.60		5	-1	14	1000	0 201:	2	Active
9606	Dodge Grand Caravan	Trucks and other Rubber Tire Vehicles	MB - Bus	2013	\$327,631.20		5	0	13	100.0	0 201:	3	Active
9607	Ford Explorer	Trucks and other Rubber Tire Vehicles	MB - But	2013	\$316,778.88		5	0	12	100.0	0 201:	3	Active
9608	Ford Transit Connect Mini	Trucks and other Rubber Tire Vehicles	MB - Bu	2013	\$109,532.00		5	0	5	100)	0 201:	3	Active
9609	Ford Focus	Autom obiles	MB - Bu	2014	\$33,388.00		5	1	2	100.0	0 201:	3	Active
9610	Ford Focus - Electric	Autom obiles	MB - But	2014	\$32,380.00		5	1	1	100.0	0 2014	4	Active
9611	Dodge Grand Caravan	Trucks and other Rubber Tire Vehicles	MB - Bu	2016	\$82,335.00		5	3	3	1000	0 2011	3	Active
9612	Ford Taurus	Autom obiles	MB - Bu	2016	\$483,392.00		5	3	26	100	0 2010	3	Active
9613	Ford Explorer	Trucks and other Rubber Tire Vehicles	MB - But		\$55,996.00		5	4	2	100.0			Active
9614	Ford Taurus	Autom obiles			\$85,436.00		5	4	4	100			Active
9615	Ford Escape	Trucks and other Rubber Tire Vehicles	MB - Bu		\$195,416.00		5	5	8	100			Active

Total Vehicles: 187



C.3 ASSET CONDITION

C.3.1 CONDITION ASSESSMENT

For service vehicles, condition is measured based on the asset's age relative to its useful life benchmark. A useful life benchmark is the expected lifecycle of a capital asset for a Transit Provider's operating environment, or the acceptable period of use in service for a Transit Provider's operating environment, or as per FTA guidance.

C.3.2 CURRENT CONDITION INFORMATION AND PERFORMANCE TARGETS

Table C - 1 contains information on the ULB used to assess the condition and the useful life remaining) for each type of service vehicle based on the year it was manufactured. A negative number indicates that the asset is life-expired, though is still being maintained for safe usage. Table C - 2 contains information on Pace's performance targets for service vehicles.

Table C - 2. Performance Targets for Equipment

ASSET TYPE	2018 PERFORMANCE	2019 TARGET
Automobiles	53.52%	57.75%
Trucks and Other Rubber Tire Vehicles	62.93%	64.66%

C.4 LIFECYCLE MANAGEMENT STRATEGIES

C.4.1 OVERVIEW

Pace has developed several processes to best manage the lifecycle of our non-revenue service vehicles assets. These include a detailed maintenance manual prescribing planned maintenance and useful life information for the agency's assets, processes to ensure contractor quality and completion, and strict guidelines for disposal of assets. Maintenance and repair are conducted by contractors at regular vehicle maintenance shops throughout the region. The Non-Revenue Fleet Administrator manages maintenance of the non-revenue service vehicle fleet.

The following sections go into additional detail regarding the lifecycle management strategies Pace employs on a regular basis.

C.4.2 MAINTENANCE

Preventative Maintenance

Table C - 3 contains an example of planned maintenance frequencies. Company cars, uniquely, are the responsibility of the Non-Revenue Vehicle Fleet Administrator. If any repair work will cost more than \$500, the Non-Revenue Vehicle Fleet Administrator reviews and determines whether to move forward.

The Maintenance Management and Accident Management providers are required to provide annual reviews each year. The Non-Revenue Fleet Administrator also performs fleet vehicle inspections on an annual basis.



Table C - 3. Examples of Planned Maintenance Frequency

ASSET	MAINTENANCE FREQUENCY	
Service Trucks	Every 5,000 miles / 3 months	
Cars	Every 5,000 miles / 6 months	

Corrective Maintenance

The decision to replace equipment is typically made when it becomes undependable and requires frequent repair. Field personnel may report problems with equipment to the supervisor, who would then make a request for replacement. Requests are centrally reviewed and prioritized.

Contract Maintenance

Non-revenue drivers call into one contractor that acts as a middleman and directs the driver to the appropriate location for repairs. This master contractor also ensures that that charges at individual shops are in line with what is expected.

C.4.3 CAPITAL INVESTMENT

The decision to replace equipment is typically made based on a 5-year vehicle replacement plan. Field personnel can report problems with equipment to their Supervisor, who determines whether replacement is necessary, and if so, makes a request to Purchasing for the new equipment. Requests are centrally reviewed and prioritized.

C.4.4 DISPOSAL

There are three reasons for an asset disposal:

- Item has exceeded its useful life and is either no longer needed or no longer functioning.
- Item has not met its useful life but is no longer functioning or has been damaged or destroyed.
- Item has been reported lost or stolen.

When disposal is necessary, an Asset Disposal Form is completed by the division or department that holds or is responsible for the asset. The Form is submitted to Accounting and the Fixed Asset Accountant review the asset to determine if there is any remaining useful life. If there is, then that is noted on the Form. The Form is then approved by the Section Manager, Accounts Payable/Receivable and the Section Manager, Grants Administration, if the asset is capital funded. The Fixed Asset Accountant determines whether an asset should be disposed of by the Using Department or the Purchasing Department. The Purchasing Department is responsible for obtaining payment for the sale of an asset and forwarding those funds directly to the Finance Department. If the proceeds from the asset exceed a certain dollar value or have remaining useful life, then the Section Manager, Grants Administration will coordinate repayment to the funding agency and obtain concurrence. Pace has an agreement with the FTA that allows Pace to retain all funds due back to the FTA, with



the assurance that Pace acquire new assets with the funds and give the FTA 100% equity in those assets.

For Non-Revenue vehicles, a disposal folder is submitted to Accounting and the Fixed Asset Accountants review the asset to determine if there is any remaining useful life. The Form is then approved by the Section Manager, Accounts Payable/Receivable, and the Section Manager, Grants Administration, if the asset is capital funded. Once approved, the Non-Revenue Fleet Administrator sends all necessary paperwork to our disposal vendor. The disposal vendor will then sell the vehicle through an auction. Once sold, the disposal vendor will send a check directly to Fixed Asset Accounting.

C.4.5 SUPPLY CHAIN AND PROCUREMENT

The Non-Revenue Fleet Administrator handles the procurement of Non-Revenue vehicles. All non-revenue vehicles are received and inspected at Headquarters by the Non-Revenue Fleet Administrator, and if suitable, are accepted for service. A monthly vehicle in-service report is distributed by Accounting and staff make updates as to whether vehicles have been placed into service. When they go into service, the asset record is activated and begins depreciating. Accounting receives the titles for the vehicles and verifies the vehicle identification number against the fixed asset record. The Pace assigned vehicle number is written on the vehicle title. All titles are stored in a secured room and are not removed until the vehicle is sold or if it is involved in an accident and must be removed from service. The Non-Revenue Fleet has a 5-year replacement plan that is reviewed and updated every 6 months.

C.5 ASSET MANAGEMENT ENABLERS

C.5.1 ORGANIZATION

The Non-Revenue Fleet Administrator manages maintenance of the non-revenue fleet, largely relying on outside contractors to carry out the work.

C.5.2 TECHNOLOGY / ASSET KNOWLEDGE AND INFORMATION

Pace relies on several software applications to support improved performance management and decision making including FLEETWATCH Fuel and Fluids Management System, Oracle Enterprise Asset Management (eAM), and Oracle Application Express (APEX). APEX is used to record all asset information. The records in APEX are used to track cost, useful life, depreciation, grant funding, location, and the status of the asset. The application also has many reporting capabilities.

C.5.3 ASSURANCE

Pace will solicit input from additional departments as a form of quality assurance. This ensures that a cross-section of the agency reviews the proposed policy and/or procedure before it is acted upon. For example, Vendors that Pace works with will also provide information on their equipment as specifications are being developed.



C.6 CAPITAL PLANS

Table C - 4 provides a snapshot of Pace's anticipated capital spend in this asset class in FY2020 through FY2024.

Table C - 4. Equipment Capital Budget Forecast (\$000s)

PROJECT	2020 BUDGET	2021 FORECAST	2022 FORECAST	2023 FORECAST	2024 FORECAST
Computer Systems/ Hardware & Software	\$900	\$500	\$1,000	\$1,500	\$1,500
Support Equipment/Non- Revenue Vehicles	1,000	350	1,000	1,500	1,500
Farebox System	7,500	5,000	5,000	-	-
Capital Cost of Contracting	6,195	6,322	6,453	6,500	6,500
Preventive Maintenance	9,000	9,000	9,000	9,000	9,000
Total	\$24,595	\$21,172	\$22,453	\$18,500	\$18,500

END OF APPENDIX C



D. APPENDIX D – REVENUE VEHICLE

D.1 ASSET DEFINITION

In the *NTD 2017-2018 Asset Inventory Module Reporting Guide*, the FTA lays out the following guidance and definitions with respect to Rolling Stock:¹⁰

Revenue Vehicles

All transit agencies reporting service data must provide information on revenue vehicles by mode and type of service.

Transit agencies must inventory all revenue vehicles they use to provide public transportation that have not been sold or disposed of at the end of the fiscal year. This inventory identifies the vehicles in the total fleet and includes all revenue vehicles in the following situations.

- Vehicles in operation (i.e., providing revenue service)
- Vehicles awaiting sale or disposal
- Vehicles out for long-term repair
- Vehicles in storage
- Vehicles retained as part of an FTA-approved emergency contingency plan

Transit agencies report revenue vehicle inventory data by groups or fleets. Agencies should group vehicles into fleets if they are identical in all aspects, including vehicle type, manufacture year, model, and funding source, etc.

D.2 NTD RY2018 ASSET INVENTORY

Pace's rolling stock assets used in revenue service include Fixed Route Buses, Paratransit vehicles, Vanpool vans, and Community Transit Service (CTS) vehicles. See Table D - 1 through Table D - 8 for a copy of the submitted NTD RY2018, A-30 Revenue Vehicle Inventory Form which displays more information on Pace's revenue vehicles, including quantity by fleet, length, and year of manufacture.

Pace reports Revenue Vehicle Inventory data across multiple forms, reflecting different types of service separately for the Suburban Bus Division and the Regional ADA Paratransit Services. Some of Pace's revenue vehicle inventory serve both entities and are included in both reports. The meaningful distinction is when the capital responsibility box is checked for performance target setting to avoid double counting.

Pace has two NTD ID reporting numbers: 50113 for the Suburban Bus Division, and 50182 for the Regional ADA Paratransit Services. Pace has no capital responsibility for the 50182 Regional ADA Paratransit Services assets and does not set performance targets for these assets

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¹⁰ Federal Transit Administration, U.S. Department of Transportation, National Transit Database Asset Inventory Module 2017-2018 Reporting Guide



The following tables are organized by NTD ID and type of service:

- NTD ID: 50113 Suburban Bus Division
 - Table D 1. Revenue Vehicle Inventory (A-30) DR PT 50113
 - o Table D 2. Revenue Vehicle Inventory (A-30) DR DO 50113
 - o Table D 3. Revenue Vehicle Inventory (A-30) DT PT 50113
 - Table D 4. Revenue Vehicle Inventory (A-30) MB DO 50113
 - o Table D 5. Revenue Vehicle Inventory (A-30) MB PT 50113
 - o Table D 6. Revenue Vehicle Inventory (A-30) VP DO 50113
- NTD ID: 50182 Regional ADA Paratransit Services
 - o Table D 7. Revenue Vehicle Inventory (A-30) DR PT 50182
 - o Table D 8. Revenue Vehicle Inventory (A-30) DT PT 50182

At the present time for the ADA service in the City of Chicago, Pace utilizes private contractors who own their vehicles. The ADA private contractor fleet is comprised of 775 vehicles which have not been individually listed in a separate table. This inventory will be included in the NTD reporting.

Section D.3 Asset Condition continues on page 114.



Table D - 1. Revenue Vehicle Inventory (A-30) - DR PT 50113

 NTD DI
 50113

 Reporter Name
 Pina: - Substant Bus Division

 Report
 2016 (Revision: 4)

Revenue Vehicle Inventory (A-30) - DR PT

leets

Fleets																						
RVI ID Agency Fleet Id	Type		tive Dedica hicles Fleet	nted No Capital Replacement Responsibility	Manufacturer	Describe Other Manufacturer	Model	Year Year Manufactured Rebu		Other Fuel Type	Dual Ve Fuel Le Type Le	shicle Seat angth Capa	ing Stan scity Caps	ding Ownersh city Type	Other Fu Ownership Type	nding ADA Accessible Vehicles	Emergen Vehicles	Type of Last Renewal	Useful Life Use Benchmark Ren		M	rg Lifetime les per Active Status Notes shicle
58101	Cutaway (CU)	1	1 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2009	Diesel Fuel			24	12	0 OOPA	LIA		1		4	-5	16,526	182,204 Active
58102	Cutaway (CU)	1	0 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Net. Coach/ NCC		AEROLITE	2010	Diesel Fuel			22	15	0 OOPA	LIA				4	4		Retired
58104	Cutaway (CU)	6	O Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2008	Diesel Fuel			24	15	0 OOPA	LIA			0	4	-6		Retired
58105	(CU)	1	O Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2010	Diesel Fuel			24	11	0 OOPA	LIA				4	4		Retired
58110	Cutaway (CU)	3	0 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2009	Puel Fuel			24	15	0 OOPA	LIA			0	4	-5		Retired
58112	(CU)	1	O Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2008	Puel Fuel			24	12	0 OOPA	LIA				4	-6		Retired
58113	(CU)	8	2 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROLITE	2009	Puel Fuel			22	12	0 OOPA	LIA		2		4	-5	32,330	214,986 Active
58114	(CU)	16	11 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2009	Fuel			24	15	0 OOPA	LIA		11		4	-5	177,561	200,587 Active
58115	(CU) Cutaway	8	4 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC EDN - ElDorado National (formerly El		AEROLITE	2010	Diesel Fuel Diesel			22	12	0 OOPA	LIA		4		4	4	51,425	139,181 Active
58117	(CU)	72	29 Yes		Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2010	Fuel			24	15	0 OOPA	LIA		29		4	-4	460,155	197,219 Active
58118	(CU) Cutaway	78	78 Yes		CMC - Champion Motor Coach Inc. EDN - ElDorado National (formerly El		CHALLENGER	2014	Gasoline	•		22	11	0 OOPA	LIA		78		4	0	,638,635	87,789 Active
58119	(CU) Minivan	155	155 Yes		Dorado/EBC/Nat. Coach/ NCC CMD - Chevrolet Motor Division —		AEROTECH	2014	Casolin			25	15	0 OOPA	LIA	1	55		4	0 1	5,245,148	182,466 Active
58314	(MV) Cutaway	1	1 Yes		GMC - Chevrolet Motor Division —		UPLANDER	2007	Casolin			15	6	0 OOPA	LIA		1		5	-6	3,491	111,693 Active
58315	(CU) Cutaway	7	2 Yes		CMC - Champion Motor Coach Inc.		CRUSADER	2007	Gasolin			21	13	0 OOPA	LIA		2		4	-7	20,688	121,224 Active
58316	(CU) Cutaway	6	6 Yes		CMC - Champion Motor Coach Inc.		CRUSADER	2007	Gasolin			21	10	0 OOPA	LIA		6		4	-7	42,639	92,787 Active
58318	(CU) Vien	19	15 Yes		CMC - Champion Motor Coach Inc.		CRUSADER	2009	Gasoline			21	13	0 OOPA	LIA		15		4	-5	119,058	94,416 Active
58319	(VN) Minivan	1	O Yes		FRD - Ford Motor Corporation DTD - Dodge Division — Chrysler		CONV14	2009	Gasolin			18	14	0 OOPA	LIA				5	-4		Retired
58321	(MV) Viro	1	O Yes		Corporation		CARAVAN E-350	2009	Gasolin			16	7	0 OOPA	LIA				5	4		Retired
58324	(VN) Cutaway	3	3 Yes		FRD - Ford Motor Corporation		CONVLIFT	2011	Gasolin			18	7	0 OOPA	LIA		3		5	-2	12,280	42,289 Active
58325	(CU) Minivan	8	8 Yes		CMC - Champion Motor Coach Inc. DTD - Dodge Division — Chrysler		CRUSADER	2012	Gasoline			21	12	0 OOPA	LIA		8		4	-2	90,228	80,797 Active
58326 58327	(MV) Vim	1 17	1 Yes		Corporation		E-350	2012	Gasolini			18	7	0 OOPA	LIA		0		5	-1	6,205	81,385 Active
58327	(VN) Minivan	10	17 Yes		FRD - Ford Motor Corporation DTD - Dodge Division — Chrysler		CONVLIFT	2013	Gasolini			16	6	0 OOPA	LIA		17		5	0	118,680	52,695 Active 62,852 Active
58329	(MV) Cutaway	18	10 Yes		Corporation CMC - Champion Motor Coach Inc.		CRUSADER	2013	Gasolin			21	12	0 OOPA	LIA		18		4	_	234,990	62,652 Active 46,692 Active
337654	(CU) Cutaway	10	1 Yes	Yes	EDN - ElDorado National (formerly El		AEROTECH.	2015	Gasolin			24	13	0 OOPA	NF.		10		•		6.518	40,032 Active
337656	(CU) Vim				Dorado/EBC/Net. Coach/ NCC CMD - Chevrolet Motor Division —		EXPRESS.	2009	Gasolin			22	12		NF						0,510	
337656	(VN) Cutaway		O Yes	Yes	GMC EDN - ElDorado National (formerly El		AEROTECH.		Diesel	•		24		0 OOPA	NF NF							Retired
337657	(CU) Cutaway	1	O Yes	Yes	Dorado/EBC/Nat. Coach/ NCC EDN - ElDorado National (formerly El		AEROTECH.	2010	Fuel			24	15	0 OOPA	NF NF		0				10.110	Retired
337657	(CU) Cutaway	2	1 Yes 0 Yes	rell	Dorado/EBC/Net. Coach/ NCC CMD - Chevrolet Motor Division —		GMC 6.6 4500	2011	Diesel	•		24	13	0 OOPA	NF NF				4	-1	10,110	117,672 Active Retired
337660	(CU) Cutaway		O Yes	Yes	GMC SPC - Startrans (Supreme		SENATOR	2013	Fuel Diesel			19	16	0 OOPA	NF NF				•	-1		Retired
342542	(CU) Cutaway		O Yes	Yes	Corporation) CMD - Chevrolet Motor Division —		TITAN 4500.	2014	Fuel Diesel			25	16	0 OOPA	NF.							Retired
348740	(CU) Cutaway		1 Yes	Yes	GMC SPC - Startrans (Supreme		ALLSTAR.	2014	Fuel			23	14	0 OOPA	NF NF		1				12.617	33.093 Active
348741	(CU) Cutaway	50	49 Yes		Corporation) EDN - ElDorado National (formerly El		AEROTECH	2016	Gasoline			25	15	0 OOPA	UA		49		4	2	1.633.259	81,808 Active
354590	(CU) Cutaway	120	120 Yes		Dorado/EBC/Nat. Coach/ NCC EDN - ElDorado National (formerly El		AREOTECH	2017	Gasoline			25	15	0 OOPA	UA		20		4		2.418.141	20,166 Active
354591	(CU) Cutaway	1	1 Yes	Yes	Dorado/EBC/Nat. Coach/ NCC STR - Starcraft		240 ALLSTAR	2017	Gasoline			24	20	0 OOPA	NF		1		-		26,679	51,777 Active
354592	(CU) Vien	2	2 Yes	_	FRD - Ford Motor Corporation		E-350 CONV-	2013	Gasolin			18	10	0 OOPA	UA				5	0	11.158	10.764 Active
354593	(VN) Cutaway	35	35 Yes		CMC - Champion Motor Coach Inc.		10 CRUSADER	2017	Gasoline			21	12	0 OOPA	UA		35		4	3	452,427	20.874 Active
354594	(CU) Minivan (MV)	3	3 Yes		DTD - Dodge Division — Chrysler Corporation		CARAVAN	2017	Gasolin			16	7	0 OOPA	LIA				5	4	21,159	10,163 Active
354595	Vian (VN)	1	1 Yes		FRD - Ford Motor Corporation		TRANSIT CONV-14	2017	Gasoline			18	14	0 OOPA	LIA				5	4	14,420	16,213 Active
Total Control	(VN)	***					CUNV-14										98	0				
Total		696	608														90				1,066,618	

54,307 Gallors 564,112 Gallors



Diesel Fuel Gasoline

Table D - 1. Revenue Vehicle Inventory (A-30) - DR PT 50113 (Continued)

Vehicle Type	Total Vehicles	Active Vehicles	Dedicated	No Capital Replacement Responsibility	Manufacturer	Describe Other Manufacturer	Model	Year Year Manufactured Rebuil	Fuel It Type	Other Fuel Type	Dual Fuel Type	Vehicle Sea Length Cap	ting St sacity Ca	anding spacity	Ownership Type	Ownership	Funding	ADA Accessible Vehicles	Emergeno Vehicles	Type of Last Renewal	Useful Life Benchmark	Useful Life Remaining	Miles Th Year		ive Status Notes
Van (VN)	1		1 Yes		FRD - Ford Motor Corporation		TRANSIT CONV-LI	2016	Gasoline			18	7	0	OOPA		UA	1			5	5	24,7	47 24	747 Active
(VN)	1		1 Yes		FRD - Ford Motor Corporation		TRANSIT CONV14	2018	Gasoline			18	14	0 (OOPA		UA				5		4,0	04 4	,004 Active
Cutaway (CU)	3		3 Yes		CMD - Chevrolet Motor Division — GMC		CRUSADER	2018	Gasoline			21	12	0 (OOPA		UA	3			4	4		0	531 Active
Cutaway (CU)	28	2	5 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AREOTECH 240	2018	Gasoline			25	15	0 (OOPA		UA	28			4	4	18,1	56	648 Active
	696	60	B															598		0			13,066,6	18	
mption																									
								Amou	int									Unit							
	Vien (VN) Vien (VN) Cutaway (CU) Cutaway (CU)	Vian (VN) 1 Vian (VN) 1 Cutaveney (CU) 28 (CU) 28 696	Type	Type Vehicles Vehicles Fleet (kN) 1 1 Vies (kN) 1 1 Vies Van 1 1 Vies Cutanion 3 3 Vies (CU) 28 28 Vies (CU) 696 608	Variotic Total	Venicus Total Active Dedicated Replacement Responsibility	Vehicles Vehicles	Venicles Vehicles Vehicles	Vehicles Vehicles	Value Total Active Total Total	Vehicles Vehicles	Variety Vari	Vehicles Whitches white the first of the fir	Value Total Active Total Active Total Active Total Active Total Active Total Responsibility Responsibility	Variety Vari	Varieties Vertices Vertices	Varieties Vertices Vertices	Varieties Vehicles Vehicles	Varieties Vertices Vertices	Value Total Active Total Active Total Active Total Responsibility Type Vertices Vertic	Varieties Vertices Vertices	Varieties Vertices Vertices	Varieties Vertices Vertices	Varieties Vertices Vertices	Varieties Vertical Property Vertical Pro

Table D - 2. Revenue Vehicle Inventory (A-30) - DR DO 50113

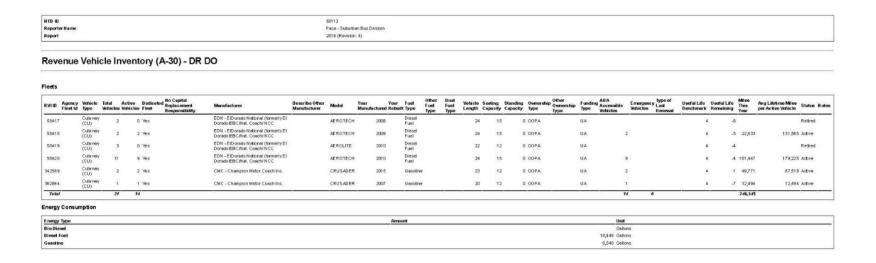




Table D - 3. Revenue Vehicle Inventory (A-30) - DT PT 50113

NTD ID Reporter Name Report									50113 Pace - Su 2018 (Re	uburban Bus D vision: 4)	Mision															
Revenue	Veh	icle l	nvent	tory (A	1-30) - DT PT																					
Fleets																										
RVI ID Agency Fleet Id	Vehicle Type	Total Vohicle	Active es Vehicles	Dedicates s Fleet	d No Capital Replacement Responsibility	Manufacturer	Describe Other Manufacturer	Model Year Manuf	Ye fectured Re	er Fuel built Type	Other Fuel Type	Dual Fuel Vel			nding pacity	Ownership Othe Type Type	r riship	unding ABA Accessib Vehicles	e Em	ergency icles	Type of Last Renewal	U seful Life Benchmark	Useful Life Remaining	Miles This You	Avg Lifetime Miles per Active Vehicle	Status Hot
43039	Van (VN)	4	48 4	48 No		N/A	N/A	N/A	N/A	N/A Gasolin	6		N/A	5	N/A	OOPE		IFPE.	0	N/A			reserve			Adire
		- 4	18	48									95		100				0	0	,	70				S 2
Total																										
Total Energy Consu	mption																									



Table D - 4. Revenue Vehicle Inventory (A-30) - MB DO 50113

NTD ID Reporter Name Report								an Bus Division													
Revenue	Vehicle	Inver	ntory (A-30) - MB D	0																
eets																					
RVIID Agency Fleet Id	Vehicle Type	Total Ac Vehicles Vel	tive Dedi hicles Fleet	cated No Capital Replacement Responsibility	Manufacturer	Describe Other Manufacturer	Model Ye	ar Year Inufactured Reb	r uilt Fuel Type	Fuel	Dual Fuel Vehicl Type Lengti	Seatin Capac	g Standi ity Capac	ing Ownership Other ownership ity Type Type	Funding ADA Type Accessi Vehicles	ible En	nergency Type of Last hicles Renewal	Useful Life Benchmark			Awg Lifetime Miles per Active Status No Vehicle
7234	Bus (BU)	58	56 Yes		NAB - North American Bus Industries Inc. (form. Ikarus USA Inc. #KU)		4028	2005	Diesel Fuel			0	34	17 OOPA	UA	56	0	12	-1	1,954,457	525,796 Active
7235	Bus (BU)	19	13 Yes		NAB - North American Bus Industries Inc. (form. Ikerus USAInc./IKU)		4028	2003	Diesel Fuel			0	34	17 OOPA	UA	13	6	12	-3	429,250	512,364 Active
7236	Bus (BU)	25	3 Yes		NAB - North American Bus Industries		3505	2003	Diesel Fuel			5	27	14 OOPA	UA	3	22	12	-3	87,356	555,098 Active
28890	Bus (BU)	45	44 Vec		Inc. (form. Ikarus USAInc. IKU) EDN - E Dorado National (formerly El		E ZII	2007	Diesel Fuel		1		27	16 OOPA	UA	44	0	12		1,627,306	
28891					Dorado/EBC/Net. Coach/ NCC EDN - ElDorado National (formerly E)												0				
	Bus (BU)	29	29 Yes		Dorado/EBC/Net. Coach/ NCC EDN - ElDorado National (formerly El		E ZII	2008	Diesel Fuel		3		27	15 OOPA	UA	29		12		1,224,895	
37463	Bus(BU)	25	24 Yes		Dorado/EBC/Net. Coach/ NCC		E ZII	2009	Diesel Fuel		3	0	27	15 OOPA	UA	24	0	12	3	1,029,682	375,617 Active
42049	Bus (BU)	37	36 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		E ZII	2010	Diesel Fuel		3	0	27	15 OOPA	UA	36	0	12	4	1,002,194	283,535 Adive
42050	Bus (BU)	4	4 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		E ZII	2011	Diesel Fuel		3	0	27	15 OOPA	UA	4	0	12	5	119,476	233,195 Adive
52441	Bus (BU)	54	54 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Axess	2013	Diesel Fuel			0	37	18 OOPA	UA	54	0	12	7	2,269,407	252,719 Adive
58477	Bus(BU)	15	15 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Axess	2013	Diesel Fuel		4	0	35	18 OOPA	UA	15	0	12	7	558,396	214,881 Adive
58478	Bus (BU)	8	8 Yes		EDN - ElDorado National (formerly El		Axe ss	2013	Diesel Fuel			0	37	18 OOPA	UA	8	0	12	7	298,858	185,588 Active
30470	Over-the-		0 100		Dorado/EBC/Net, Coach/NCC MCI - Motor Coach Industries		A.W. 00	2015	Dieser i dei				31	IU OOFA					5	200,000	103,550 7424
58507	road Bus (BR)	13	13 Yes		International (DINA)		D4000	2013	Diesel Fuel			0	49	0 OOPA	UA	13	0	12	7	659,071	263,431 Active
334648	Bus (BU)	7	7 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Axess	2014	Diesel Fuel			0	37	18 OOPA	UA	7	0	12	8	307,766	161,251 Active
334649	Over-the- road Bus	9	9 Yes		MCI - Motor Coach Industries		D4000	2015	Diesel Fuel			n	49	0 OOPA	UA	9	0	12	9	481,546	190,149 Adive
	(BR)				International (DINA) EDN - ElDorado National (formerly E)																
334650	Bus (BU)	47	47 Yes		Dorado/EBC/Nat. Coach/ NCC		Axess	2015	Diesel Fuel		4	0	37	18 OOPA	UA	47	0	12	9	1,953,145	141,815 Adive
334651	Dus (BU)	20	20 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Axess	2015	Compressed Natural Gas		4	0	37	18 OOPA	NFPA	20	0	12	9	863,131	125,044 Adive
334652	Bus (BU)	30	30 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Avess	2014	Diesel Fuel			0	37	18 OOPA	UA	30	0	12	8	1,178,582	169,356 Adive
348469	Bus (BU)	25	25 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		Axess	2016	Diesel Fuel			0	35	18 OOPA	UA	25	0	12	10	1,803,956	156,053 Adive
348471	Bus (BU)	54	53 Yea		EDN - ElDorado National (formerly E1 Dorado/EBC/Nat. Coach/ NCC		Axess	2016	Diesel Fuel			0	37	18 OOPA	UA	53	a	12	10	2,601,710	99,671 Active
354507	Bus(BU)	11	11 Yes		EDN - ElDorado National (formerly El		Axess	2016	Diesel Fuel			0	37	18 OOPA	UA	11	0	12		420,131	
					Dorado/EBC/Nat. Coach/ NCC EDN - ElDorado National (formerly El				Compressed	i											
354508	Bus (BU) Over-the-	71	70 Yes		Dorado/EBC/Nat. Coach/ NCC		Axess	2017	Natural Gas		•	U	37	18 OOPA	NFPA	70	0	12	11	3,658,182	2 74,497 Adive
354509	road Bus (BR)	8	8 Yes		MCI - Motor Coach Industries International (DINA)		D4000	2017	Diesel Fuel		4	0	49	0 OOPA	UA	8	0	12	11	455,962	90,518 Adive
354510	Bus (BU)	54	54 Yes		EDN - ElDorado National (formerly EI Dorado/EBC/Nat. Coach/ NCC		Axess	2017	Diesel Fuel			0	37	18 OOPA	UA	54	0	12	-11	1,859,324	39,695 Active
362734	Bus (BU)	32	32 Yes		EDN - ElDorado National (formerly El		Axess	2017	Diesel Fuel		4	0	37	18 OOPA	UA	32	0	12	-11	972,602	32,668 Adive
362735	Bus (BU)	11	8 Yes		Dorado/EBC/Nat. Coach/ NCC EDN - ElDorado National (formerly El		Axess	2018	Compressed				37	18 OOPA	NEPA	8		12		240,371	
Total	230(00)	709	673		Dorado/EBC/Net. Coach/ NCC			2010	Natural Gas			-	-	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		673	28	- 12	12	28,056,765	
nergy Consu	mption	(0.00)																			
Energy Type	.,												Amour	nt				Unit			
Bio-Diesel Compressed Nat Diesel Fuel	tural Gas																	0 Gallons 933 Gallons 769 Gallons			



Table D - 5. Revenue Vehicle Inventory (A-30) - MB PT 50113

NTD ID						4	0113																	
Roporter Har	me						ace - Suburban B	lus Division																
Report	200						018 (Revision: 4)																	
eveni	uo Vohi	icle Inv	ventor	y (A-30) - ME	R DT																			
eets				, (, , , , , , , , , , , , , , , , , ,																				
	ncy Vehicle at ld Type	Total A Vehicles W	ctive Dedi ehicles Fleet	cated Replacement Responsibility	Manufacturer	Describe Other Menufacturer Mode	Year Manufactured	Year Fuel Rebuilt Type	Other Fuel Type	Dual Fuel Type	Vehicle Se Length C	eating Si spacity C	anding Ownershi spacity Type	Other Ownership Type	Funding Type	ADA Accessible Vehicles	E mergeno Vehicles	Type of Last Renewal	Useful Life Use Benchmark Rem			Avg Lifetim Miles per Ad Vehicle		Notes
7229	Bus (BU)	7	0 Yes		CCI - Chance Bus Inc. (formerly Chance Manufacturing Company/CHI)	АН28	2000	Diese Fuel	4		27	22	10 OOPA		UA				12	-6			Retire	1
22556	Bus (BU)	57	57 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	E ZII	2007	Diese	4		30	27	15 OOPA		NEPA	51	7)	12	1	933,76	0 22	,456 Active	
28893	(BU)	9	8 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	€ ZII	2008	ruei			30	27	15 OOPA		UA		3)	12	2	401,12	9 46	,203 Active	
42063	(BU)	21	21 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	E ZII	2010	Fuel			30	27	15 OOPA		UA	21)	12	4	384,60	6 16	,596 Active	
52721	(CU)	2	2 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	Aerok	to 2009	Fuel			20	13	8 GOPA		UA	1	2)	4	-5	36,80	16	775 Active	
52722	(CU)	1	1 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	Aeroli	te 2010	Fuel			20	13	8 GOPA		UA	1)	4	-4	24,31	8 15	3,746 Active	Reduced by one due to new trolley fleet.
52723	(BU)	2	2 Yes		OBI - Orion Bus Industries Ltd. (formerly Ontario Bus Industries)	7	2011	Hybri			30	29	15 OOPA		UA	1	2)	12	5	43,57	2 14	2,444 Active	Trolley (adjustment was made)
355128	(BU)	7	7 Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat . Coach/ NCC	EZII	2017	Diese Fuel	d		30	25	15 OOPA		UA	1	,		12	11	75,02	7 1	3,327 Active	align with new NTD TAM reporting requirements)
Total		706	98													9	8	,			1,899,21	5		
nergy Cor	nsumption																							
Energy Type								A	mount									Unit						
Bio-Diesel Diesel Fuel																	366,4	0 Gallons 84 Gallons						



Table D - 6. Revenue Vehicle Inventory (A-30) - VP DO 50113

NTD ID Reporter Name								- Suburban Bus 0	Division																
teport							2018	(Revision: 4)																	
evenue	Vehic	le Inv	entory	(A-30) - VP [00																				
eets																									
RVIID Agency Fleet Id	Type \	Total Ac Vehicles Ve	tive Dedica	Ne Capital Replacement Responsibility	Manufacturer	B escribe Other Manufacturer	Model	Year Yes Manufactured Re	er Fuel built Type		Dual Fuel Type	Vehicle Longth	Seating Capacit		ng Ownerst ty Type	Other Ownership Type	Fundir Type	ADA Accessible Vehicles	E merger Vehicles	cy Type of L Ronoval	est Useful Life Benchmark	Useful Life Remaining	Mile	s Avg Lifetime Year per Active Ve	Miles Status Hot chicle
7177	Miniven (MV)	1	0 Yes		FRD - Ford Motor Corporation		Windstor	2003	Gase	oline		16		7	0 00PA		UA			0		5 -	10		Adive
22759	(VN)	0	0 Yes		FRD - Ford Motor Corporation		E-350	2006	Gasc	oline		18		13	0 OOPA		UA					5	-7		Retired
22761	Van CVND	1	1 Yes		FRD - Ford Motor Corporation		E-350	2006	Gaso	oline		18		14	0 OOPA		UA		0	0		5	-7	4,296	37,882 Adive
22762	Van CVND	5	5 Yes		FRD - Ford Motor Corporation		E-350	2006	Gasc	oline		18		7	0 OOPA		UA		5	0		5	7 1	8,940	85,291 Active
29205	Van	5	1 Yes		FRD - Ford Motor		E-350	2005	Gasc	oline		18		13	0 OOPA		UA		0	0		5	-8	4,256	61,455 Active
29207	(WI) Minivan	0	0 Yes		Corporation CMD - Chevrolet Motor		Uplander	2007	Gase	line		16		7	8 OOPA		UA					5	.6		Retired
	(MV) Van				Division — GMC FRD - Ford Motor																			0.000	
2920B	(VN) Van	4	3 Yes		Corporation FRD - Ford Motor		E-350	2007	Gase			18		7	0 OOPA		UA		3	0				3,597	46,462 Active
29209	(M)	1	1 Yes		Corporation		E-350	2007	Gase	oline		18		13	8 OOPA		UA		0	0		5	-6	9,980	66,616 Adive
29218	(MV)	1	1 Yes		FRD - Ford Motor Corporation		E-350	2007	Gase	oline		18		14	0 OOPA		UA		0	0		5	-6	0,994	101,241 Adive
32855	(M)	3	1 Yes		FRD - Ford Motor Corporation		E-350	2008	Gaso	olne		18		14	0 OOPA		UA		0	0		5	-5	6,815	93,565 Adive
36938	Minivan (MV)	3	0 Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2009	Gaso	olne		16		7	0 OOPA		UA			0		5	.4		Active
36939	Van (VN)	3	3 Yes		FRD - Ford Motor Corporation		E-350	2009	Gaso	olne		18		7	0 OOPA		UA		3	0		5	4 1	2,382	81,959 Adive
36940	Van	6	2 Yes		FRD - Ford Motor		E-350	2009	Gaso	oline		18		14	0 OOPA		UA		0	0		5	4 1	0,196	93.612 Adive
42147	(WI) Minivan	2	0 Yes		Corporation DTD - Dodge Division —		Caravan	2010	Gass	nine		16		7	0 OOPA		UA			0		5	.3		Adive
42148	(MV) Van				Chrysler Concoration FRD - Ford Motor														2	0					
	(M) Van	3	2 Yes		Corporation FRD - Ford Motor		E-350	2010	Gast			18		7	0 OOPA		UA								110,086 Adive
42149	(MI)	20	12 Yes		Corporation		E-350	2010	Gass	oline		18		14	0 OOPA		UA		0	0		5	-3 10	1 ,594	79,063 Active
42150	(WI)	4	1 Yes		FRD - Ford Motor Corporation		E-350	2010	Gasc	olne		18		0	0 OOPA		UA		0	0		5	-3	1 ,072	104,485 Active
46860	Minivan (MV)	5	4 Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2011	Gaso	olne		16		7	0 OOPA		UA		0	0		5	-2 2	9,138	79,375 Adive
46861	Van (VN)	18	16 Yes		FRD - Ford Motor Corporation		E-350	2011	Gaso	olne		18		7	0 OOPA		UA		16	0		5	.2 4	7,592	59,735 Active
46862	Van (WI)	7	6 Yes		FRD - Ford Motor Corporation		E-350	2011	Gaso	olne		18		14	0 OOPA		UA		0	0		5	.2 2	9,817	62,602 Adive
46863	Vien	5	4 Yes		FRD - Ford Motor		E-350	2011	Gaso	oline		18		10	0 OOPA		UA		0	0		5	-2 1	0,963	67.925 Adive
52309	(MI) Minivan	27	18 Yes		Corporation DTD - Dodge Division —		Caravan	2012	Gass	nine		16		7	0 OOPA		UA		0	0			-1 20		84,099 Active
	(MV) Minivan				Chrysler Concoration DTD - Dodge Division —																				
58452	(MV) Ven	81	62 Vbs		Chrysler Corporation FRD - Ford Motor		Caravan	2013	Gase			16		7	O OOPA		UA		0	0			0 1,03		77,783 Active
58463	(M)	9	9 Vbs		Corporation		E-350	2013	Gasc	olne		18		7	0 OOPA		UA		9	0		5	0 6	6,452	39,935 Active
58454	(M)	89	75 Yes		FRD - Ford Motor Corporation		E-350	2013	Gasc	oline		18		14	0 OOPA		UA		0	0		5	0 83	3,012	69,115 Active
58455	Van (VN)	36	31 Ves		FRD - Ford Motor Corporation		E-350	2013	Gaso	oline		18		10	0 OOPA		UA		0	0		5	0 36	8,245	66,795 Active
341930	Minivan (MV)	20	19 Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2016	Gaso	oine		16		7	0 OOPA		UA		0	0		5	3 36	6,443	65,728 Active
341931	Van (M)	19	19 Yes		FRD - Ford Motor Corporation		Transt	2016	Gaso	oine		18		10	0 OOPA		UA		0	0		5	3 26	6,992	29,719 Active
341932	Van	30	30 Yes		FRD - Ford Motor		Transit	2016	Gass	oine		18		14	0 OOPA		UA		0	0		5	3 50	1,991	41,826 Adive
348596	(M) Van	19	19 Yes		Corporation FRD - Ford Motor		Transt	2016	Gass			18		7	0 OOPA		UA		19	0		5		4,323	27,884 Active
348697	(WI) Van	1	1 700		Corporation FRD - Ford Motor		Tranat	2016	Gass			18		10	0 OOPA		UA		0	0				5.084	34.973 Active
	(M) Minisan				Corporation DTD - Dodge Division —																				
154622	(MV)	184	183 Vbs		Chrysler Corporation		Carevan	2017	Gasc			16		7	8 OOPA		UA		0	0		6	4 3,10		24,010 Active
154623	(40)	39	39 Yes		Corporation		Transit	2017	Gaso	oline		18		14	0 OOPA		UA		0	0		5	4 60	6,378	26,362 Active
354524	(W)	15	15 Yes		FRD - Ford Motor Corporation		Transit	2017	Gase	oline		18		7	8 OOPA		UA		15	0		5	4 14	0,759	15,449 Active
362895	Van (VN)	67	67 Yes		FRD - Ford Motor Corporation		Transit	2018	Oasi	oline		18		14	0 OOPA		UA		0	0		5	5 18	6,200	3,210 Active
Total		733	650																72	0			8,2	13,411	
nergy Consu	mption																								
nergy Type										imount									Unit				_		
Sasoline																		567,9	38 Gallons						



Table D - 7. Revenue Vehicle Inventory (A-30) - DR PT 50182

Revenue Vehicle Inventory (A-30) - DR PT

Fleets

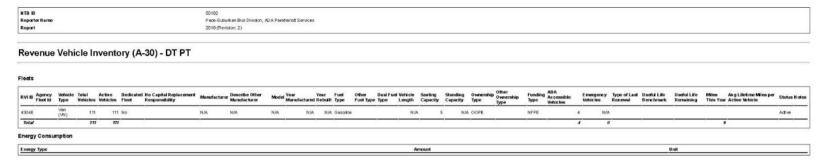
IID Agency Fleet Id	y Vehicle T 1 Type V	otal Ac enicles Vel	tive I	redicated Rep	Capital lacement ponsibility	Manufacturer	Describe Other Manufacturer	Model	Year Year Manufactured Rebu	Fuel it Type	Other Fuel Type	Fuel L Type	enicle Se ength Ca	ating Standing pacity Capacity	Ownership Type	Other Ownership Type	Funding	ADA Accessible Vehicles	E mergene Vehicles	Type of Last Renewal	Useful Life Benchmark	Jseful Life M Remaining Y	lies This ear	Avg Lifetime Miles per Acti Vehicle	ve Status No
8345	Cuta way (CU)	1	0 1	es Yes		EDN - ElDorado National (formerly El Dorado ÆBC Nat. Coach/ NCC		AEROTECH	2008	Diesel			24	12	0 OOPA		UA								Retired
8350	Cuta way (CU)	1	1.1	es Yes		EDN - ElDorado National (tonnerly El Dorado ÆBC Nat. Coach/ NCC		AEROTECH	2009	Diesel			24	12	0 OOPA		UA	1					16,526	152,	425 Active
8361	Cutamay (CU)	8	2 1	es Yes		EDN - ElDorado National (formerly El Dorado ÆBC Nat. Coach/ NCC		AEROLITE	2009	Diesel			22	12	0 OOPA		UA		2				32,330	214,	986 Active
8352	Cutamay (CU)	8	4 1	res Yes		EDN - ElDorado National (formerly El Dorado ÆBC Nat. Coach/ NCC		AEROLITE	2010	Diesel			22	12	0 OOPA		UA		4				51,425	139,	181 Active
8355	Cuta very (CU)	6	0 1	res Yes		EDN - ElDorado National (formerly El Dorado ÆBC Nat. Coach/ NCC		AEROTECH	2008	Diesel Fuel			24	15	0 OOPA		UA								Retired
8366	Cuta way (CU)	16	11 1	es Yes		EDN - ElDorado National (formerly El Dorado ÆBC Nat. Coach/ NCC		AEROTECH	2009	Diesel			24	15	0 OOPA		UA	11					177,551	200	833 Active
8360	Cutaway	155	155 1	es Yes		EDN - ElDorado National (formerly El Dorado ÆBC/Nat. Coach/ NCC		AER OTE CH	2014	Gasoin	e		25	15	0 OOPA		UA	155	s				5,245,148	182	466 Active
8391	(CU) Cutaway (CU)	3	3 1			SPC - Startrans (Supreme Corporation)		SENATOR	2011	Gasoin			20		0 OOPE		NFPE	3	3				29,028		699 Active
8396	Cutavay	3	3 1			SP C - Startrans (Supreme		SENATOR	2012	Gasolin			26		0 OOPE		NFPE		3				46,657		987 Active
8397	(CU) Cutaway	2	2 1			Corporation) SPC - Startrans (Supreme		CANIDATE CII	2013	Gasolin			20		0 OOPE		NEPE		2				3,810		042 Active
6461	(CU) Minivon	15	0 1			Corporation) DTD - Dodge Division — Chrysler		Caravan	2014	Gasolin			17		0 OOPE		NFPE						3,410		Retired
6463	(MV) Minivon	25	0 1			Corporation DTD - Dodge Division — Chrysler		Caravan	2014	Gasoin			17		0 OOPE		NFPE								Retired
8465	(MV) Minivon	24		es Yes		Corporation DTD - Dodge Division — Chrysler		Caravan	2015	Gasoin			17		0 OOPE		NFPE	24					1,112,800	127	372 Active
	(MV) Cuta very					Corporation EDN - ElDorado National (formerly El											NFPE								
6466	(CU) Cutarray	12	12 1			Dorado/EBC/Nat. Coach/ NCC		Aerolte 210	2014	Gasoin			22		0 OOPE			12					122,764		306 Adive
6467	(CU) Cutamay	22	22 1			STR - Starces t		STARLITE	2014	Gasoln			20		0 OOPE		NFPE	22	2				532,333		348 Adive
6468	(CU) Cutamay	5	5 1			STR - Starcraft		ALLSTAR	2014	Gasoln			23		0 OOPE		NFPE		5				89,966		S97 Adive
6469	(CU) Miniven	3	3 1			STR - Starcraft DTD - Dodge Division — Chrysler		ALLSTAR	2014	Gasoin			26		0 OOPE		NFPE	3					56,726		459 Active
6472	(MV)	2	2 1	res Yes		Corporation		Caravan	2013	Gesoin	•		16	6	0 OOPE		NFPE	-					29,615		004 Active
6473	(MV)	43	43 1	les Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2014	Gasoin	0		16	6	0 OOPE		NFPE	43	3				907,660	106,	007 Active
6477	Minivan (MV)	19	0.1	Yes Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2014	Gasoin	0		16	7	0 OOPE		NFPE								Retired
6478	Minivon (MV)	47	0 1	fes Yes		DTD - Doolge Division — Chrysler Corporation		Caravan	2014	Gasoin	•		16	6	0 OOPE		NFPE								Retired
6479	(CU)	12	12 1	es Yes		ZZZ - Other (Describe)	MobilityWorks (Transit Works)	TW Paratransi	2014	Gasoin	•		23	12	0 OOPE		NFPE	12	2				436,890	133,	466 Active
6505	Minivan (MV)	68	68 1	es Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2014	Oasoin	0		16	5	0 OOPE		NFPE	66	3				1,978,477	133,	844 Adive
6507	Minivon (MV)	25	26 1	es Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2014	Gasolin	e		16	5	0 OOPE		NFPE)				405,995	82,	630 Adive
6509	Cutaway (CU)	8	8 1	es Yes		CMC - Champion Motor Coach Inc.		CHALLENGER	2014	Gasolin	•		22	12	0 OOPE		NFPE		3				141,065	104,	447 Adive
7634	Cutamey (CU)	1	0 1	fes Yes		EDN - ElDorado National (formerly El Diorado,/EBC/Nat. Coach/ NCC		AEROTECH	2010	Diesel Fuel			24	12	0 OOPA		UA			0					Retired
7635	Cutaway (CU)	72	29 1	les Yes		EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AEROTECH	2010	Diesel Fuel			24	15	0 OOPA		UA	25	9				460,155	197	512 Active
7636	Cuteway (CU)	52	52 1	fee Yes		CMC - Champion Motor Coach Inc.		CHALLENGER	2014	Gesoin			22	11	0 OOPA		UA:	50	2				1,395,936	99,	170 Active
2546	Cutaway (CU)	1	0.1	ies Yes		EDN - ElDorado National (formerly El Dorado ÆBC/Nat. Coach/ NCC		AEROLITE	2010	Diesel Fuel			22	15	0 OOPA		UA:								Retired
2547	Cuta nay (CU)	2	2 1	fes Yes		STR - Storom t		ALLSTAR	2015	Gasoin			26	21	0 OOPE		NFPE	-	2				48,392	103,	765 Active
2548	Cuterney (CU)	7	7.3	es Yes		STR - Sterore t		ALLSTAR	2015	Gasolin			23	12	0 OOPE		NFPE		7				134,292	87,	669 Active
2549	Minivon (MV)	24	24 1	es Yes		DTD - Dodge Division — Chrysler Componition		Caravan	2015	Oasoin	e		16	6	0 OOPE		NFPE	24					1,345,297	157.	479 Active
2550	Minivon	4	4.1	es Yes		DTD - Dodge Division — Chrysler Corporation		Caravan	2015	Gasoln	e		16	7	0 OOPE		NFPE		3				226,680	161	891 Adive
2552	(MV) Minivon	9	9.1	es Yes		DTD - Dodge Division — Chrysler		Caravan	2015	Gasoln			16	6	0 OOPE		NFPE)				367,043	176	742 Adive
8757	(MV) Minivan	108		es Yes		Corporation DTD - Dodge Division — Chrysler		CARAVIN	2016	Gasolin			16		0 OOPE		NFPE	108					4,477,219		158 Active
8758	(MV) Minivan	80	80 1			Corporation DTD - Dodge Division — Chrysler		CARAVIN	2016	Gasoin			16		0 OOPE		NEDE	80					4,263,483		748 Active
8759	(MV) Cutanay	30	30 1			Corporation STR - Stormet		ALI STAR22	2016	Georgia			23		0 OOPE		MEDE	30					922,523		330 Active
876N	(CU) Cutaway	50	49			EDN - ElDorado National (tormerly El		AEROTE CH	2016	Gasoin			25		0 OOPA		UA	46					922,523		915 Active
	(CU) Miniven	47	-			Dorado ÆBC/Net. Coach/ NCC DTD - Dodge Division — Chrysler		240 CARAVAN										45							
4621	(MV)	47	47	fes Yes		Corporation		CARAVAN	2017	Gasoin	0		16	6	0 OOPE		NFPE	47					1,640,733	62,	084 Active



Table D - 7. Revenue Vehicle Inventory (A-30) - DR PT 50182 (Continued)

EVIID Agenc		Total Active Vehicles Vehicle	Dedicat so Floot	ed No Capital Replacement Responsibility	Manufacturor	Describe Other Manufacturer	Model	Year Year Manufactured Robu	Fuel it Type	Other Fuel Type	Dual Fuel Type		eating Stan			Fund Type	ADA Accessible Vehicles	E mergeno Vehic les	y Type of Last Renewal	Useful Life Benchmark	e Miles Thi g Year	Avg Lifetime Miles per Active Status Hote Vehicle
354622	Minivan (MV)	17	17 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2017	Gasoline			16	7	0 000	PE	NFPE	:				769,37	1 63,968 Active
354623	Cute ney (CU)	3	3 Yes	Yes	STR - Storcraft		ALLSTAR	2017	Gasoine			28	21	0 000	PE	NFPE		3			54,52	27,399 Active
354624	Cuta way (CU)	7	7 Yes	Yes	STR - Storcraft		ALLSTAR	2017	Gasoline			23	14	0 0 0 0	PE	NFPE		7			197,67	0 49,231 Adive
354625	Cuta way (CU)	111 1	11 Yes	Yes	EDN - ElDorado National (formerty El Dorado/EBC/Nat. Coach/ NCC		AREOTECH 240	2017	Gasoline			25	15	0 008	PA	UA	111				2,315,90	8 20,879 Active
354626	Miniven (MV)	50	50 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2017	Gasolne			16	7	0 000	PE	NEPE)			2,559,13	67,364 Adive
354627	Miniven (MV)	15	15 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2017	Gasolne			16	7	0 000	PE	NFPE)			427,79	4 75,292 Active
362944	Miniven (MV)	52	52 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2018	Gasolne			16	7	0 000	PE	NFPE	5	2			492,13	9,464 Active
362945	Miniven (MV)	72	72 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2018	Gasoine			16	6	0 000	PE	NFPE	7	2			2,416,75	2 33,566 Active
362946	Miniven (MV)	15	15 Yes	Yes	DTD - Dodge Division — Chrysler Corporation		CARAVAN	2018	Gasoine			16	7	0 000	PE	NFPE		0			401,38	5 26,759 Active
362947	Cuteway (CU)	28	28 Yes	Yes	EDN - ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC		AREOTECH 240	2018	Gasoline			25	15	0 000	PA	UA	2	3			18,15	6 648 Active
Total		1,391 1,2	17														1,13	1	0		38,664,60	7
nergy Cons	umption																					
nergy Type								Amount										Unit				
Bio-Diesel																		Gallons				
Diesel Fuel																	110,800					
3 asoline																	3,411,423	Gallons				

Table D - 8. Revenue Vehicle Inventory (A-30) - DT PT 50182





D.3 ASSET CONDITION

D.3.1 CONDITION ASSESSMENT

Per FTA requirements, Pace measures rolling stock condition based on age relative to useful life benchmarks (ULB). A useful life benchmark is the expected lifecycle of a capital asset for a Transit Provider's operating environment, or the acceptable period of use in service for a particular Transit Provider's operating environment.

D.3.2 CURRENT CONDITION INFORMATION AND PERFORMANCE TARGETS

Table D - 1 through Table D - 6 contain information on the ULB used to assess the condition of rolling stock, and the percentage of useful life remaining for each type of fleet based on the year it was manufactured. A negative number indicates that the asset is life-expired, though is still being maintained for safe usage.

With the introduction of TAM, Pace has been required since 2017 to develop performance targets for the assets for which we have capital replacement responsibility. For rolling stock, the performance target must reflect the "percent of revenue vehicles that are expected to meet or exceed their Useful Life Benchmark." 11

Information on Pace's FTA-required performance targets for rolling stock is contained in Table D - 9.

Table D - 9. Performand	ce Targets for Rolling Stock

ASSET TYPE	2018 PERFORMANCE	2019 TARGET
BR – Over-the-road Bus	0.00%	0.00%
BU – Bus	9.76%	23.44%
CU – Cutaway	56.11%	55.94%
MV – Minivan	31.89%	31.89%
VN – Van	50.39%	43.96%

D.4 LIFECYCLE MANAGEMENT STRATEGIES

D.4.1 OVERVIEW

Pace has developed the *Rolling Stock*, *Facilities*, *and Equipment Maintenance Manual*, which describes the agency's standard operating procedures required to maintain the system. The four core goals of the maintenance manual can be broadly described as safety, performance, efficiency, and professionalism.

These four goals ensure that 1) safety and comfort of the agency's passengers are the primary consideration of all maintenance functions, 2) the fleet is serviced at a rate that covers the needs of the agency and addresses any emergencies that might arise, 3) the lowest cost is maintained without sacrificing safety, and 4) maintenance is technologically current.

¹¹ Federal Transit Administration, National Transit Database, 2019 Policy Manual



Pace's Maintenance and Technical Services Department is responsible for managing and maintaining buses throughout their lifecycle, reflecting four broad goals categorized under safety, availability of rolling stock, efficiency, and professionalism. The lifecycle management strategies for rolling stock at Pace are detailed in sections D.4.2 through D.4.5 below.

D.4.2 MAINTENANCE

Fixed Route Vehicles

PRE-TRIP INSPECTIONS AND WORK ORDERS

Each driver is required to perform a pre-trip inspection of his/her rolling stock prior to pullout. The driver inspects the bus and documents the inspection, including any problems with the bus, on a "Bus Pre-Trip Card." All hard copies are returned to the Maintenance Department for processing, and any noted defects are entered in Oracle eAM, a work order generated, and the hard copy attached to the work order.

When it is determined that a work order is necessary, a Maintenance Superintendent or designee shall prepare a Work Order utilizing Oracle eAM, a work order form, and the corresponding facility codes. An employee assigned to a work order will evaluate the work and request clarification from the Foreman if necessary. The employee executes the work order, and the Maintenance Superintendent or designee reviews the Work Order for completeness and accuracy and proceeds to close out the work order once the work has been verified.

DAILY SERVICING

In addition to Pre-Trip Inspections, in-service rolling stock is serviced daily, ensured by the Maintenance Superintendent. Daily Servicing involves:

- Fueling the rolling stock vehicle
- Checking other fluids and filling as needed: engine oil, transmission oil, glycol
- Checking of air filter indicators
- Cash box dump into fare collection vault
- Tires checked
- Notation of all defects
- Washing/cleaning of interior and exterior

PREVENTATIVE MAINTENANCE

Preventative Maintenance includes inspection of the rolling stock, scheduled oil changes, lubrication, adjustments, service, and repairs that are performed during the inspection/servicing and documented on the appropriate forms. The Maintenance Superintendent or designee prints the Scheduled Maintenance report from Oracle eAM to determine which vehicles are due for inspection and creates a Work Order scheduling the inspections and assigning mechanics to the Work Orders. The Preventative Maintenance Inspections (PMI) forms and the Lift-U Preventative Maintenance shall be performed under a work order by the assignment mechanic at the scheduled mileage intervals. Defects found during the PMI must be recorded on the Preventative Maintenance Defect Sheet (PMDS), and any minor repairs made during the PMI should be recorded on the PMI Work Order. After the PMI Work Order, PMDS,



PMI Forms, Lift-U PM Sheet, and brake test results are forwarded to the Maintenance Superintendent or designee, the PMI Work Order should be closed out with all work recorded in Oracle and a new work order will be opened with all defects found and not repaired from the PMDS.

DAMAGE AND COLLISION REPAIRS

Pace policy dictates that all collision-damaged rolling stock be reported as required in an Accident/Incident Report and shall have repair authorization or direction from the Senior Inspector at South Holland. The accident reporting instructions include:

- All rolling stock accidents must be reported immediately to the garage Dispatcher, who then notifies the Safety Supervisor or Transportation Superintendent.
- If it is a service accident or accident with personal injuries, the Dispatcher must also notify Pace Headquarters, Revenue Services Department Manager.
- The vehicle driver must then fill out the Accident Incident Report, submitted to the garage Transportation Superintendent, who forwards it to Pace Safety Department at Fox Valley Division within 24 hours.

After the Accident/Incident Report requirements have been fulfilled, the Maintenance Superintendent should determine if the garage can handle the repair in-house and call the Senior Inspector to authorize the repairs. For In-House repairs, the garage will furnish a detailed In-House estimate of the repairs (Vehicle Repair Estimate Form), while the Senior Inspector will schedule viewings for outside contractor repairs.

NON-COLLISION RELATED REPAIRS

Non-collision-related structural repairs over \$1000 need to have repair authorization or direction from the Senior Inspector at South Holland. These structural repairs include straightening, replacement, and welding of body frame and structural components. The Senior Inspector will then take the appropriate steps to have the work performed by body repair contractor, after which the Maintenance Superintendent will prepare a Bus Transfer Form. For those that are under \$1000, the Maintenance Superintendent may proceed with the work at the garage.

Vanpool Vehicles

Vanpool drivers are required to take the van in for periodic maintenance checks and repairs. Drivers are also expected to fuel the van and have it washed once per week. For convenience, the primary driver is provided with a fuel card, maintenance card, and van wash card, all valid at numerous locations throughout the Pace service region.

Paratransit Vehicles

Contractors conduct maintenance and heavy repairs of paratransit vehicles, which are inspected approximately twice per year. The Superintendent of Maintenance for Paratransit oversees the contractors, including visiting them onsite during their work. Paratransit vehicles are inspected approximately twice per year.



D.4.3 CAPITAL INVESTMENT

For asset acquisitions, property and equipment are recorded at historical cost. Pace capitalizes assets with a useful life of one year or more that is:

- a. Capital equipment
- b. Operation equipment with a unit cost of \$5000 or more
- c. Costs incurred to extend an asset's useful life as part of a fleet enhancement or major rebuild/rehabilitation program, or
- d. An item determined to be highly susceptible to loss or theft

Most of Pace's assets have been acquired through capital grant projects funded by FTA, IDOT, the RTA or CMAP. Asset Acquisition Forms do not need to be completed for vehicles, associated capital parts, capital maintenance, fleet enhancement activities, and other intangible costs. Fixed Route buses, Paratransit buses and Vans are set up in the fixed asset system based on their in-service date. On a monthly basis, Revenue Services sends a listing of in-service dates for all revenue vehicles to the Senior Fixed Asset Accountant, who then establishes the fixed asset record accordingly and begins depreciating the asset.

When expanding or changing the fixed route revenue fleet, the Strategic Services Department works with the Revenue Services Department to provide information on planned expansions or other plans. The Budget Planning and Analysis Department catalogs any requests, analyzes funding sources, and engages in an iterative process to balance needs and make recommendations to Senior Staff. Senior Staff will make the final decisions while the Grants Administration Department applies for the funding.

D.4.4 DISPOSAL

At Pace, an asset is disposed of if it has exceeded its useful life and is no longer needed or functioning or has been damaged or destroyed before its useful life, or the item has been reported lost or stolen. When disposal is necessary, an Asset Disposal Form is completed by the division or department that holds or is responsible for the asset. The Form is submitted to Accounting and the Fixed Asset Accountant review the asset to determine if there is any remaining useful life. If there is, then that is noted on the Form. The Form is then approved by the Section Manager, Accounts Payable/Receivable and the Section Manager, Grants Administration if the asset is capital funded. The Purchasing Department is responsible for obtaining payment for the sale of an asset and forwarding those funds directly to the Finance Department. If the proceeds from the asset exceed a certain dollar value or have remaining useful life, then Grants Administration will coordinate repayment to the funding agency and obtain concurrence. Pace has an agreement with the FTA that allows Pace to retain all funds due back to the FTA, with the assurance that Pace acquire new assets with the funds and give the FTA 100 percent equity in those assets.

For revenue vehicles, a request is made from Purchasing for the vehicle title via a Title Request Form. The Accounting Department removes the title from their files and obtains signature from the requestor who is handling the vehicle sale.



D.4.5 SUPPLY CHAIN AND PROCUREMENT

Lifecycle maintenance cost differentials are typically not considered as part of procurement, although sometimes Maintenance may try to indicate preference for or against components due to cost of maintenance.

The decision to send work to a vendor is based upon an assessment of the Scope of Work, complexity of the work, and available resources. Pace uses metrics and inventory management (Min-Max) to assess procurement needs. Contractors typically have three to five-year terms with multiple bidders and separate contracts for engines, transmissions, repair and replacement, etc.

For work done in-house, repair and maintenance bus parts are procured and used. These items are procured by the Materials Management department using a Min-Max inventory model. Materials management is also tasked with inventory tracking and work order processing of these rolling stock parts.

D.5 ASSET MANAGEMENT ENABLERS

D.5.1 ORGANIZATION

Vehicle Maintenance is led by the Maintenance Superintendents at different Pace locations. All the Maintenance Superintendents at the different locations report to their respective Division Managers. Maintenance efforts are coordinated with the Maintenance and Technical Services Department at South Holland.

D.5.2 TRAINING

New hires (both drivers and maintenance workers) undergo six weeks of training, including two weeks at the Fox Valley Centralized Training facility, and four weeks in their division. To ensure safe operations, the Safety Training staff conducts behind the wheel training for new employees and retraining for existing employees as needed.

There is also a quarterly refresher training in each garage, and additional training when there are changes in routes, and addition of new routes or equipment. Forklift training is provided when new forklifts are introduced, and retraining is provided as needed.

Formal training is conducted via the Training Coordinator, underneath Revenue Services, and/or by user departments. Manufacturers also provide training on new fleets as needed.

D.5.3 STANDARDS, LEGISLATION, REGULATION, AND OTHER MANDATED REQUIREMENTS

Pace's rolling stock maintenance program complies with Federal regulations for inspection, repair, and maintenance, including systematic inspection of vehicles to ensure that vehicle parts are always in working order. Maintenance practices are based on Original Equipment Manufacturer recommendations and are documented in Standard Operating Procedures.

All Pace rolling stock meet Federal Transit Administration (FTA) Standards and are tested and meet minimum requirements for service life and quality control as well as



Environmental Protection Agency (EPA) Emissions Standards and Americans with Disabilities Act (ADA) Accessibility Guidelines. Federal Motor Vehicle Safety Standards apply to all motor vehicle procurements, including revenue vehicles and non-revenue vehicles, and specify the rules and regulations for motor vehicle design, construction, and performance to meet minimum safety performance and crash test requirements.

D.5.4 TECHNOLOGY

To support improved performance management and decision making, Pace relies on several software applications, including FLEETWATCH Fuel and Fluids Management System, Oracle Enterprise Asset Management (eAM), and Oracle Application Express (APEX).

Oracle eAM is a comprehensive maintenance management system produced by Oracle. It tracks all functions related to the maintenance of vehicles and vehicle maintenance equipment at Pace, including vehicle life-cycle management; repair and preventative maintenance work orders; and parts and inventory management. In addition, Oracle eAM delivers numerous efficiency and cost saving benefits, such as:

- Creating a preventative maintenance strategy
- Maximizing resource availability, including both equipment and labor
- Optimizing scheduling and resource efficiency
- Providing Asset Management and Work Management functions

However, not all maintenance personnel are on Oracle eAM or FLEETWATCH and use paper forms submitted to Maintenance Superintendents. The information provided on these forms is uploaded into the appropriate management system.

D.5.5 ASSET KNOWLEDGE AND INFORMATION

Oracle eAM stores information on Pace's vehicle assets, including defects, pending work orders, daily servicing, preventative maintenance, as well as damage and collision repairs. For vehicle information that is not uploaded into Oracle eAM, there are extensive processes in place for storing information with hardcopy documentation.

D.5.6 ASSURANCE

It is the responsibility of the Maintenance Superintendent at each location to ensure compliance with all rolling stock maintenance procedures and policies daily. Many of these daily responsibilities are outlined in the "Maintenance" section of this Appendix.

D.6 CAPITAL PLANS

In FY2020 through FY2024, Pace expects to spend approximately \$208 million on rolling stock. Table D - 10, below, provides a snapshot of Pace's anticipated capital spend in this asset class.



Table D - 10. Rolling Stock Capital Budget Forecasts (\$000s)

PROJECT	2020 BUDGET	2021 FORECAST	2022 FORECAST	2023 FORECAST	2024 FORECAST
Fixed Route Diesel Replacement Buses	\$14,000	-	-	-	\$16,000
Fixed Route CNG Replacement Buses	-	18,150	8,800	36,300	-
Fixed Route CNG Expansion Buses	-	-	9,900	-	-
Paratransit Vehicles	1,954	1,560	2,600	6,890	13,195
Community Transit/On Demand Vehicles	1,350	1,125	1,125	2,400	3,525
Vanpool Vehicles	-	-	-	9,905	1,470
Engine/Transmission Retrofits	6,998	7,423	7,371	18,185	18,179
Total	\$24,302	\$28,258	\$29,796	\$73,680	\$52,369

END OF APPENDIX D



E. APPENDIX E – ELECTRICAL, SIGNAL, AND COMMUNICATIONS

E.1 ASSET DEFINITION

Electrical, Signal, and Communications is *not* a required NTD reporting category for bus agencies. However, this is based upon the RTA annual budget categories budgeted for in Pace's Program of Projects, and because it is expected that all assets used in the provision of public transit will be included in the TAM Plan asset inventory.

E.2 ASSET INVENTORY

Pace has several different systems, and associated assets, that comprise our Electrical, Signal, and Communications asset inventory, including a Radio System, an Automated Vehicle Location (AVL) system, an Intelligent Bus System (IBS), a Transit Signal Priority (TSP) system, and an on-bus security system called DriveCam.

The TSP system has been implemented along Pace's Milwaukee Pulse line to support the Rapid Transit Program. Pace developed a Regional Interoperable TSP System Platform in coordination with IL, Chicago and County DOT's and CTA. Pace also implemented signal timing optimization along 400 plus intersections connecting individual signal interconnects by signal timing offsets. Pace also identified and designed TSP Signal Timing Plans for 300 intersections for TSP implementation along ten corridors within its service area. The TSP implementation along these intersections is expected to be completed by end of year 2021. The developed interoperable TSP platform relies on AVL system to generate TSP calls rather than new hardware on buses and primary component to support Pulse Network. Pace Plans to continue TSP deployment along other corridors and is also looking at centralized TSP options for future deployments.

IBS is a satellite-based communications technology, used to improve the tracking of fixed route buses, collection of data, and communication between Pace and our drivers and passengers.

All Pace buses are equipped with constantly recording internal security cameras and DriveCam technology that enables external recording of eight minutes before and after incidents. These technologies promote safety of passengers and drivers and enable Pace to identify driver behavior that may pose a safety risk.

Pace has various types of Bus Tracker signage deployed at most of its highest-ridership locations. These electronic signs offer real-time information about upcoming bus departures and provide for customer-facing messaging. The following series of tables list different types of Bus Tracker signs by location. These tables are:

- Table E 1. Nexus Alpha Bus Tracker signs installed at shelters/buildings
- Table E 2. "e-ink" CHK Bus Tracker signs embedded in shelters
- Table E 3. Parsons Video-style Bus Tracker signs at transit centers

Appendix E - Electrical, Signal, and Communications

- Table E 4. Pending Nexus Alpha Bus Tracker signs at shelters
- Table E 5. Parsons Video-style Bus Tracker signs at Pulse stations
- Table E 6. Pending Parsons video-style Bus Tracker signs at Pulse stations
- Table E 7. Pending "e-ink" CHK Bus Tracker signs embedded in shelters
- Table E 8. Installed Wayside Bus Tracker signs at shelters—donated signs to test solar functionality



Table E - 1. Nexus Alpha Bus Tracker signs installed at shelters/buildings

	LOCATION	CORNER/SITE	CITY	COUNTY
1	Indiana Ave & 136th St	#1 in TC	Riverdale	Cook
2	Indiana Ave & 136th St	#2 in TC	Riverdale	Cook
3	Lincolnshire & McClintock	Park-n-Ride	Burr Ridge	DuPage
4	Sheridan/Washington	#1(N) on E Side	Waukegan	Lake
5	Sheridan/Washington	#5(S) on E Side	Waukegan	Lake
6	Old Chicago Rd/Route 53 (Park-n-Ride)	NW	Bolingbrook	Will
7	Canterbury/Briarcliffe (Park-n-Ride)	SE	Bolingbrook	Will
8	Oak Park/South Blvd	SE	Oak Park	Cook
9	Joliet Jr. College	n/a	Joliet	Will
10	Galena Square Walmart	EB	Aurora	Kane
11	Des Plaines Metra canopy	South side	Des Plaines	Cook
12	I-90/Randall Park-n-Ride	n/a	Elgin	Kane
13	Lyle/Grandstand	NW	Elgin	Kane
14	Lake Cook Metra	n/a	Deerfield	Lake
15	Rosemont Blue Line Station	TC	Rosemont	Cook
16	Madison St & 19th Street	SE	Maywood	Cook
17	Main/Victory	SE	Park Forest	Cook
18	UPS	Terminal 1	Hodgkins	Cook
19	UPS	Terminal 2	Hodgkins	Cook



Table E - 1. Nexus Alpha Bus Tracker signs installed at shelters/buildings Continued

	LOCATION	CORNER/SITE	CITY	COUNTY
20	Harlem Ave/Cermak Rd	SW	North Riverside	Cook
21	Western Ave/135 th St	NE	Blue Island	Cook
22	I-90/IL25 Park-n-Ride	Park-n-Ride	Elgin	Kane
23	Central/12th St	SE	Wilmette	Cook
24	Naperville Metra station	South side	Naperville	DuPage
25	Gregory/York	SE	Blue Island	Cook
26	519 W. Algonquin Rd	EB	Arlington Heights	Cook
27	Halsted St/Sibley	SE	Harvey	Cook
	South Blvd & Ridgeland Ave		Oak Park	Cook
29	Forest Park Blue Line Station	TC, north	Forest Park	Cook
30	Forest Park Blue Line Station	TC, south	Forest Park	Cook
31	Linden Purple Line Station	In building	Wilmette	Cook
32	Mannheim Rd/Washington St	NE	Bellwood	Cook
33	159 th St/Oak Ave	NE	Oak Forest	Cook
34	Triton College	n/a	River Grove	Cook
35	Jefferson/Joyce	SW	Joliet	Will
36	Bridgeview TC (Harlem/71st)	N wall	Bridgeview	Cook
37	Bridgeview TC (Harlem/71st)	W wall	Bridgeview	Cook
38	Lake St/East Ave		Oak Park	Cook
39	Aurora TC	Bay 2	Aurora	Kane
40	Aurora TC	Bay 4	Aurora	Kane
41	Aurora TC	Bay 6	Aurora	Kane
42	Aurora TC	Bay 8	Aurora	Kane
43	Halsted St/144 th St	NE	Riverdale	Cook
44	Northwest Pointe Park-n- Ride	In Pace Park-n- Ride	Elk Grove Village	Cook
45	22nd St. & McDonald's Dr.	SE	Oak Brook	DuPage
46	Busse Hwy & Mark Ln		Elk Grove Village	Cook
47	Lively Blvd & Chase Blvd		Elk Grove Village	Cook

Appendix E – Electrical, Signal, and Communications



Table E - 2. "e-ink" CHK Bus Tracker signs embedded in shelters

	LOCATION	CORNER/SITE	CITY	COUNTY
1	127th St & Gregory	NW	Blue Island	Cook
2	Golf Rd & Golf Terrace Rd	north side	Niles	Cook
3	Touhy Ave & Milwaukee Ave	SE	Niles	Cook
4	Touhy Ave & Harlem Ave	SE	Niles	Cook
5	159 th St/93rd Ave.	SE	Orland Hills	Cook
6	Mannheim Rd & Irving Park Rd	NE	Schiller Park	Cook
7	Roosevelt Rd & 5 th Ave	NW	Maywood	Cook
8	Oak Park Ave/Cermak Rd	NE	Berwyn	Cook
pending	Chicago Rd & Sibley Blvd	NE	Dolton	Cook





Table E - 3. Parsons Video-style Bus Tracker signs at transit centers

LOCATION	# OF SIGNS	CITY	COUNTY
Barrington Rd pedestrian bridge	2	Hoffman Estates	Cook
Chicago Heights TC	6	Chicago Heights	Cook
Harvey TC	8	Harvey	Cook
Northwest TC	4	Schaumburg	Cook
Elgin TC	5	Elgin	Kane
Plainfield Park-n-Ride	2	Plainfield	Will



Table E - 4. Pending Nexus Alpha Bus Tracker signs at shelters

LOCATION	CORNER/SITE	CITY	COUNTY
159 th St/Kedzie	SE	Markham	Cook
Future I-90/Barrington road Park-n-Ride (at boarding location B)	Park-n-Ride	Hoffman Estates	Cook
Future I-90/Barrington road Park-n-Ride (at boarding location C)	Park-n-Ride	Hoffman Estates	Cook
Future I-90/Barrington road Park-n-Ride (at boarding location D)	Park-n-Ride	Hoffman Estates	Cook
Hawthorn Mall	n/a	Vernon Hills	Lake
Gary Ave/Hiawatha	SW	Carol Stream	DuPage
Maine South High School		Park Ridge	Cook
Lincolnwood Town Center		Lincolnwood	Cook



Table E - 5. Parsons Video-style Bus Tracker signs at Pulse stations 12

LOCATION	CITY	COUNTY
Golf Mill Mall	Niles	Cook
Milwaukee/Dempster Southbound	Niles	Cook
Milwaukee/Dempster Northbound	Niles	Cook
Milwaukee/Main Southbound	Niles	Cook
Milwaukee/Main Northbound	Niles	Cook
Milwaukee/Oakton Southbound	Niles	Cook
Milwaukee/Oakton Northbound	Niles	Cook
Milwaukee/Harlem Southbound	Niles	Cook
Milwaukee/Harlem Northbound	Niles	Cook
Milwaukee/Touhy Southbound	Niles	Cook
Milwaukee/Touhy Northbound	Niles	Cook
Milwaukee/Austin Southbound	Chicago	Cook
Milwaukee/Austin Northbound	Chicago	Cook
Milwaukee/Devon Northbound	Chicago	Cook

Table E - 6. Pending Parsons video-style Bus Tracker signs at Pulse stations

LOCATION	CITY	COUNTY
Milwaukee/Devon Southbound	Chicago	Cook
Milwaukee/Central Southbound	Chicago	Cook
Milwaukee/Central Northbound	Chicago	Cook

Table E - 7. Pending "e-ink" CHK Bus Tracker signs embedded in shelters

LOCATION	CORNER/SITE	CITY	COUNTY
Harlem Ave/Roosevelt Rd	NE	Oak Park	Cook
Liberty/West (Metra station)	WB	Wheaton	DuPage
Jefferson/Stryker	SE/EB	Joliet	Will
Cass Ave/Chicago St	NE	Joliet	Will
Western/Broadway	NW	Joliet	Will
Grand Ave/Genesee	NW	Waukegan	Lake
Roosevelt Rd/Finley	SE	Lombard	DuPage
Torrence Ave/170h St	NW	Calumet City	Cook
Torrence Ave/Oak St	SW	Calumet City	Cook
Sibley Blvd/Torrence Ave	NW	Calumet City	Cook
Lincoln/Lake	NW	Addison	DuPage
Louis Joliet Mall entrance	n/a	Joliet	Will
Chicago Rd & 142 nd St	NE	Dolton	Cook

¹² Two signs have been installed at each of these locations: one on each side of the vertical marker.

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Table E - 8. Installed Wayside Bus Tracker signs at shelters—donated signs to test solar functionality

LOCATION	CORNER/SITE	CITY	COUNTY
550 W. Algonquin	N side	Arlington	Cook
Road		Heights	
North Ave & 38th Ave	EB	Stone Park	Cook

E.3 ASSET CONDITION

Electrical, Signal, and Communications is not an FTA required Performance Target asset setting category, and as such Pace does not set Performance Targets for this asset class.

E.4 LIFECYCLE MANAGEMENT STRATEGIES

E.4.1 CAPITAL INVESTMENT

Pace develops strategic and vision plans, such as *Vision 2020*, which will be succeeded by *Driving Innovation* in late 2020. These plans identify new programs that will require procurement of new assets, such as Transit Signal Priority (TSP). New signals, electrical, or communications assets that are required to implement those programs are identified in the Capital Program once an appropriate funding source has been identified. Real-Time Information displays and related communications network are components of Pulse stations, transit stations and at many shelters, and regional installation is on-going.

E.4.2 DISPOSAL

Pace also has maintenance contracts for any hardware that is out of warranty; for example, the radio system is now coming out of warranty and so Pace is initiating a requisition for the next few years of maintenance.

Despite old technology in some cases, Pace staff manage to make the current communications system work well, and to replace items as needed since the agency cannot afford a system-wide overhaul.

Typically, these items are scrapped. Soon, Pace hopes to build a market for these obsolete products through an upcoming auction website.

There are three reasons for an asset disposal:

- Item has exceeded its useful life and is either no longer needed or no longer functioning.
- Item has not met its useful life but is no longer functioning or has been damaged or destroyed.
- Item has been reported lost or stolen.

When disposal is necessary, an Asset Disposal Form is completed by the division or department that holds or is responsible for the asset. The form is submitted to Accounting and the Fixed Asset Accountant review the asset to determine if there is any

Appendix E - Electrical, Signal, and Communications

remaining useful life. If there is, then that is noted on the form. The Asset Disposal Form is then approved by the Section Manager, Accounts Payable/Receivable and the Section Manager, Grants Administration if the asset is capital funded. The Fixed Asset Accountant determines whether an asset should be disposed of by the Using Department or the Purchasing Department. The Purchasing Department is responsible for obtaining payment for the sale of an asset and forwarding those funds directly to the Finance Department. If the proceeds from the asset exceed a certain dollar value or have remaining useful life, then Grants Administration will coordinate repayment to the funding agency and obtain concurrence. Pace has an agreement with the FTA that allows Pace to retain all funds due back to the FTA, with the assurance that Pace acquire new assets with the funds and give the FTA 100 percent equity in those assets.

E.4.3 SUPPLY CHAIN AND PROCUREMENT

For work done in-house, repair and maintenance parts are procured and used. These items are procured by the Materials Management department using a Min-Max inventory model. Some items may also be ordered with directive given by Tech Services management, such as in preparation for an upcoming repair or new-installation campaign. The Materials Management Department is also tasked with inventory tracking and work order processing of these parts.

E.5 ASSET MANAGEMENT ENABLERS

E.5.1 ORGANIZATION

Pace's Strategic and Capital Planning group within Strategic Services focuses on longer-term planning for initiatives that rely on signal and communications improvements and modernization, including the Bus on Shoulder program, Pulse, and TSP. The Research and Analysis group relies on data collected from systems like IBS, to track ridership and fare payment, which inform mid to long-range planning, which may affect asset acquisition. Strategic and Capital Planning is responsible for TSP maintenance. These services are contracted to DOT approved vendors.

E.5.2 TECHNOLOGY

To support improved performance management and decision making, Pace relies on several software applications, including Oracle Enterprise Asset Management (eAM), and Oracle Application Express (APEX). Oracle Enterprise Asset Management (eAM) is a comprehensive maintenance management system. Pace uses a distributed system that monitors and feeds data back to Headquarters. Pace attempts to resolve issues first from Headquarters, before going into the field to address the issue if needed. of Pace's technological assets have extended manufacturer warranties and are simply sent back for replacement if broken.

Fixed route uses IBS (Intelligent Bus System), a satellite-based communications technology, to improve the tracking of buses, collect data, and communicate between Pace and our drivers and passengers. IBS interfaces with Trapeze. Paratransit contractors have their own communications system, using Motorola radios that were updated to use Trapeze.

Appendix E - Electrical, Signal, and Communications

The TSP System is monitored by Pace Developed custom Central TSP Management System. The Central TSP Management System is connected to all devices in field and to buses via AVL. The Central System is capable of live health monitoring, systems management, configuration management, log all activity, and perform data analysis.

Pace can monitor its Bus Tracker Signs remotely to confirm the presence of power, a data connection, and other "health" characteristics of the signs. This remote monitoring occurs through three different content management systems, each provided by the manufacturer of the signs themselves.

E.6 CAPITAL PLANS

In FY2020 through FY2024, Pace expects to spend approximately \$5 million on Electrical, Signal, and Communications assets, for intelligent bus system upgrades. Table E - 9 below presents Pace's anticipated capital spend in this asset class.

Table E - 9. Electrical, Signal, and Communications Capital Budget Forecasts (\$000s)

PROJECT	2020	2021	2022	2023	2024
	BUDGET	FORECAST	FORECAST	FORECAST	FORECAST
Intelligent Bus System Upgrades	\$625	\$500	\$1,000	\$1,500	\$1,500

END OF APPENDIX E



F. APPENDIX F – SUPPORT FACILITIES & EQUIPMENT

F.1 ASSET DEFINITION

Per the Transit Asset Management Final Rule issued on July 26, 2016:

In general, an asset inventory must include all equipment, rolling stock, facilities, and infrastructure that a provider owns. A provider may exclude from its asset inventory any equipment with an acquisition value of less than \$50,000 unless the asset is service vehicle equipment. The inventory also must include all rolling stock (revenue vehicles), passenger stations, administrative and exclusive use maintenance facilities, and guideway infrastructure owned by a third-party and used by the provider in the provision of public transportation. The level of detail in a provider's asset inventory should be commensurate with the level of detail in its program of capital projects. A transit provider is required to conduct a condition assessment on all inventoried assets for which the provider has direct capital responsibility, and set targets and develop a project-based prioritization of investments for those assets

Appendix F is included to cover Maintenance and Administration type assets that are *not* included in the NTD Appendix B – Facilities – A-15 Form for RY2018 due to NTD Reporting requirements.

F.2 FY2019 SUPPORT FACILITIES INVENTORY

Pace uses several facilities other than those captured in the NTD A-15 data to provide services throughout the Northeastern Illinois region. Below is a listing of these facilities that are either leased or used in coordination with a contracted service agreement.

These facilities represent no capital responsibility for Pace's use, though maintenance contracts may cover some of the locations that Pace leases.



Table F - 1. Support Facility Inventory

ASSET NAME	ADDRESS	YEAR BUILT (RENOVATED)	CONDITION RATING
Non-Pace-Owned Administ	ration and Maintenance Facilities	•	
Pace Chicago 10th Floor	547 W. Jackson, Chicago	(2006)	N/A
Pace Chicago 8th Floor	547 W. Jackson, Chicago	(2018)	N/A
80-86 N. Lively - Printshop	80-86 N. Lively Boulevard, Elk Grove Village	(2010)	N/A
515 W. Algonquin - Vanpool	515 W. Algonquin Rd., Arlington Heights	(2013)	N/A
Pace East Dundee	401 Christina Dr., East Dundee	(2016)	N/A
Non-Pace-Owned - Purchas	sed Service Administration and Maintenance	e Facilities	
City of Highland Park	1150 Half Day Road, Highland Park	(1974)	N/A
Village of Niles	6859 West Touhy Avenue, Niles	(2001)	N/A
First Student - Glen Ellyn	22 W 760 Poss Street, Glen Ellyn	(1976)	N/A
First Student - Naperville	31 W330 Schoger Drive, Naperville	(1994)	N/A
First Student - Westmont	250 West 53rd Street, Westmont	(1967)	N/A
MV Transportation – Batavia	1896 Suncast Lane, Batavia, IL 60510	(2006)	N/A
MV Transportation – Romeoville	720 Parkwood Avenue, Romeoville, IL 60446	(1970)	N/A
Cook DuPage Transportation	1200 W. Fulton, Chicago, IL 60607	(1942)	N/A
First Transit – Chicago	615 W. 41st Street, Chicago, IL 60609	(1952)	N/A
MV Transit – Chicago	4400 W. 45th Street, Chicago, IL 60632	(1955)	N/A
SCR Transportation	8801 S. Greenwood Ave., Chicago, IL 60619	(2013)	N/A
First Transit – Grayslake	39 Ziegler Drive, Grayslake, IL 60030	(1987)	N/A
First Transit Joliet	2085 Oak Leaf, Joliet, IL	(1995)	N/A
First Transit West Cook	2020 Indian Boundary Dr., Melrose Park, IL	(1970)	N/A
MV Transportation – Alsip	12500 Lombard Lane, Alsip, IL 60803	Unavailable	N/A
MV Transportation – Niles	6230 W. Gross Point Road, Niles, IL 60714	(1974)	N/A
Ride Right – Batavia	1375 Paramount Parkway, Batavia, IL 60510	(1990)	N/A
Aurora Township	80 N. Broadway, Aurora, IL 60505	(1968)	N/A

F.3 ASSET CONDITION

F.3.1 CONDITION ASSESSMENT

For these locations, Pace is not required to complete a condition assessment as it does not have Capital Responsibility over the properties. This is outlined in the Transit Asset Management Final Rule.

END OF APPENDIX F



G. APPENDIX G – STATIONS AND PASSENGER FACILITIES

G.1 ASSET DEFINITION

Per the Transit Asset Management Final Rule issued on July 26, 2016:

In general, an asset inventory must include all equipment, rolling stock, facilities, and infrastructure that a provider owns. A provider may exclude from its asset inventory any equipment with an acquisition value of less than \$50,000 unless the asset is service vehicle equipment. The inventory also must include all rolling stock (revenue vehicles), passenger stations, administrative and exclusive use maintenance facilities, and guideway infrastructure owned by a third-party and used by the provider in the provision of public transportation. The level of detail in a provider's asset inventory should be commensurate with the level of detail in its program of capital projects. A transit provider is required to conduct a condition assessment on all inventoried assets for which the provider has direct capital responsibility, and set targets and develop a project-based prioritization of investments for those assets.

This appendix is included to cover Passenger Facility type assets that are not included in NTD Appendix B – Facilities – A-15 Form due to NTD Reporting requirements.

G.2 FY2019 STATIONS & PASSENGER FACILITIES INVENTORY

Pace uses several facilities other than those captured in the NTD RY2018 A-15 data to provide services throughout the Northeastern Illinois region. In Table G - 1 is a listing of these facilities that are either leased or used in coordination with a contracted service agreement.

The capital responsibility, if any, is typically outlined in agreements that Pace enters for use of a property. In the case that Pace owns the property, the capital responsibility remains Pace's. However, this inventory is based upon the RTA annual budget categories budgeted for in Pace's Program of Projects, and because it is expected that all assets used in the provision of public transit will be included in the TAM Plan asset inventory.

Table G-2 lists Pace's Pulse Stations, which are not yet reportable to the NTD, but may require reporting in the future.

Appendix G – Stations and Passenger Facilities

Table G - 1. Stations & Passenger Facilities Inventory

ASSET NAME	ADDRESS	YEAR BUILT (RENOVATED)	CONDITION RATING
Boarding and Turnaround Fa	cilities		
Antioch	305 Depot St., Antioch	Unavailable	N/A
College of Lake County	19351 West Washington, Grayslake 60030	Unavailable	N/A
Palatine Metra	Smith St. at Wood St., Palatine	2000	N/A
Park Forest Turnout	Main St. at Victory St., Park Forest	Unavailable	N/A
Summit CTA/Pace	IL Route 171 at 63rd St., Summit	Unavailable	N/A
Prairie View - Metra	Main St., between Easton Ave. and Illinois Route 22	Unavailable	N/A
Riverdale Bus Turnaround	13600 Indiana Ave., Riverdale	2002	2
Round Lake Beach - Metra	680 East Mallard Creek Dr., Round Lake Beach	Unavailable	N/A
South Suburban College - South Holland	Indiana Ave. at 162nd St., South Holland	Unavailable	3
Vernon Hills – Metra	75 East Route 45, Vernon Hills, IL	Unavailable	N/A
Waukegan Transit Center	Sheridan Rd. north of Washington St., Waukegan	Unavailable	N/A
Transportation Centers			
Gurnee Mills TC	6170 W. Grand Ave., Gurnee	1992 (1992)	1
Park-n-Ride Lots* (Non-Pace	Owned)		
Chancellory PNR	500 Park Boulevard, Itasca	Unavailable	N/A
Larry's Diner	24522 Lockport St., Plainfield	Unavailable	N/A
Community Christian Church	1635 Emerson Lane, Naperville	Unavailable	N/A
St. Thomas the Apostle Church	1500 N Brookdale Rd., Naperville	Unavailable	N/A
Wheatland Salem Church	1852 W. 95th St., Naperville	Unavailable	N/A
IDOT Channahon PNR	I-55 and Route 6, Channahon	Unavailable	N/A
IDOT Shorewood PNR	I-55 and Route 52, Shorewood	Unavailable	N/A
IDOT Joliet PNR	I-55 and Route 30, Joliet	Unavailable	N/A
Fairview Plaza	75th St. and Fairview, Downers Grove	Unavailable	N/A
Meadowbrook Shopping Center	Belmont Rd., South of 63rd St., Downers Grove	Unavailable	N/A
McHenry DOT PNR	Virginia Rd. at IL 31, Lake in the Hills	Unavailable	N/A
Palos Heights Metra	11451 Southwest Highway, Palos Heights	Unavailable	N/A
Oak Lawn Metra	9525 S. Tulley Ave., Oak Lawn	Unavailable	N/A

Table G - 2. Milwaukee Pulse Stations (MILWPS)

ASSET LOCATION
Austin Northbound
Austin Southbound
Central Northbound
Central Southbound
Dempster Northbound
Dempster Southbound
Devon Northbound
Devon Southbound
Golf Mill Terminal – Northern Limit
Harlem Northbound
Harlem Southbound
Main Northbound
Main Southbound
Oakton Northbound
Oakton Southbound
Touhy Northbound
Touhy Southbound

G.3 ASSET CONDITION

G.3.1 CONDITION ASSESSMENT

For these locations, Pace may or may not need conduct Condition Assessments. For many locations there is not a Capital Responsibility for Pace to take care of. For locations that Pace does have capital responsibility, it will conduct condition assessments regardless of reporting applicability to the NTD.

END OF APPENDIX G



H. APPENDIX H – ABBREVIATIONS AND ACRONYMS

The following abbreviations and acronyms are used throughout this document.

ABBREVIATION	MEANING
ADA	Americans with Disabilities Act
AM	Asset Management
AMP	Asset Management Plan
AMS	Asset Management System
APEX	Application Express (Oracle)
AVL	Automated Vehicle Location
A&E	Architectural and Engineering
CIP	Capital Investment Plan
CFI	Capital Financing and Infrastructure
CMAP	Chicago Metropolitan Agency for Planning
COST	Capital Optimization Support Tool
CTA	Chicago Transit Authority
CTS	Community Transit Service
D&C	Design and Construction
EAM	Enterprise Asset Management
FM	Facilities Maintenance
FTA	Federal Transit Administration
GIS	Geographic Information System
HR	Human Resources
IBS	Intelligent Bus System
HVAC	Heating, Ventilation, and Air Conditioning
IGA	Intergovernmental Agreements
IDOT	Illinois Department of Transportation
ISO	International Standards Organization
IT	Information Technology
KPI	Key Performance Indicator

ABBREVIATION	MEANING
LOS	Level of Service
MAP-21	Moving Ahead for Progress in the 21st Century
MPO	Metropolitan Planning Organization
NTD	National Transit Database
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
PAS	Publicly Available Specification
PBV	Positive Budget Variance
PMI	Preventative Maintenance Inspections
QA/QC	Quality Assurance/Quality Control
ROW	Right of Way
RS	Revenue Services
RTA	Regional Transportation Authority
SGR	State of Good Repair
SOGR	State of Good Repair
SOP	Standard Operating Procedure
TAM	Transit Asset Management
TAMP	Transit Asset Management Plan
TAP	Taxi Access Program
TERM	Transit Economic Requirements Model
TIP	Transportation Improvement Program
TSP	Transportation Signal Priority
UL	Useful Life
ULB	Useful Life Benchmark
WSP	Consultant supporting Pace's TAM efforts

END OF APPENDIX H



I. APPENDIX I – TERMS AND DEFINITIONS

The following terms and definitions are used to describe aspects of asset management and have been applied in this document.

ASSET MANAGEMENT TERMS AND DEFINITIONS		
Asset	ISO Definition: item, thing or entity that has potential or actual value to an organization. More relevant definition: A tangible item of value that is owned, managed, or leased by Pace for the purposes of providing transit services. Infrastructure assets that are repairable, replaceable, and subject to a preventative maintenance schedule or inspection or calibration or need to be tracked from a capital depreciation point of view. This does not include consumables (e.g., a filter), but does include software (the action of modifying a software version being the repair).	
Asset Class	Refers to the sub-group of assets. Within Pace the following asset classes are referred to: Fixed Route Vehicles Vanpool Vehicles Community Vehicles Paratransit Vehicles Non-Revenue Vehicles Administrative and Maintenance Facilities Passenger Stations	
Asset Hierarchy	A framework for segmenting an asset inventory into appropriate classifications. The hierarchy is usually represented by a "parent-child" relationship between the top-level asset identifier down to the maintenance managed item (MMI). In many instances, this breakdown will include sub-systems and components (parts of asset). It is important that the asset hierarchy is applicable across all business functions so that costs, performance, and other factors can be analyzed. The framework should therefore consider both maintenance and capital planning as well as asset operation	
Asset Register	A record of asset information including asset attribute data such as quantity, type, configuration, cost, condition etc. The Asset Register is structured as per the <i>Asset Hierarchy</i> .	
Asset Management	ISO Definition: coordinated activity of an organization to realize value from assets More relevant definition: Asset Management is the optimized lifecycle management of Pace's assets. It is being able to make the right decisions based on facts, to do the right work in the right place, and to spend money where it is needed most.	
Asset Management Capability	ISO Definition: The measure of capacity and ability of Pace to achieve our objectives. In the context of this report, determined through an assessment of people, processes, technology, data & information, and the ability to provide assurance as compared to good industry practice asset management.	
Asset Management Policy	ISO definition: intentions and direction of an organization as formally expressed by its top management. More relevant definition: The overall intentions and direction of Pace related to our assets and the framework for control of asset-related processes and activities (for example, capital planning, maintenance, operations, etc.). The policy should be derived from and be consistent with Pace's mission, vision, and values.	



Appendix I – Terms and Definitions

Asset Management Objectives Service	ISO definition: In the context of asset management systems, asset management objectives are set by the organization, consistent with the organizational objectives and asset management policy, to achieve specific measurable results. More relevant definition: Specific outcomes or achievement required of assets and asset management. These can include, for example, condition, reduction in unit costs and/or improvement in performance, as well as more organization focused objectives, including competency, capability, review, and assurance. Specific levels of service defined by Pace for the performance of the services provided.
Objectives	This can include frequency and location of services as well as reliability measures.
Asset Management Implementation	Lists the Baseline and Future Objectives proposed to develop Pace's asset management capability in line with a stated objective.
Asset Management Plan	ISO definition: documented information that specifies the activities, resources and timescales required for an individual asset, or a grouping of assets, to achieve the organization's asset management objectives. More relevant definition: Specifies the activities (maintenance, overhaul, replacement, and renewal), resources and timescales required for a group of assets to achieve Pace's service and asset management objectives. This is consistent with the definition of an asset management plan in the following: BSI PAS-55: 2008 – British Standard Specification for the optimized management of physical infrastructure assets ISO-55001:2014 – International Standard for Asset Management – management system requirements. Global Forum for Maintenance and Asset Management International Infrastructure Management Manual
Asset Management System	ISO definition: set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives. More relevant definition: The collection of policies, processes and procedures that control and manage the way Pace manages our assets. The management system should consider all stages of the assets lifecycle and Pace's functions or departments that support the full lifecycle approach (including for example Capital Planning, Capital Delivery, Maintenance, and Operations). An established Asset Management System is a requirement of the FTA. The As-Is Processes Report represents an initial capture of Pace's asset management processes.
Enterprise Asset Management (eAM) System.	The Enterprise Asset Management System or eAM system, refers to the technology application used to support the management of the assets. Through the course of the workshops this was often referred to as the 'Asset Management System', but for clarity is referred to in this report as the eAM system. Pace uses Oracle eAM as their eAM system.
Risk Management	Coordinated activities to direct and control an organization regarding risk (From ISO31001: 2009. Risk Management Principles and Guidelines).
Tactical Risk Management	Defined as the use of assessment techniques based on safety or other impacts that prioritize immediate intervention requirements. These typically address issues that have occurred (non-conformities).
Strategic Risk Management	Defined as the use of risk management activities to support asset strategy and asset management planning purposes. This is consistent with the definition for risk management from ISO31000 set out above.

END OF APPENDIX I

END OF TAM PLAN APPENDICES