APTA STANDARDS DEVELOPMENT PROGRAM
RECOMMENDED PRACTICE
American Public Transportation Association
1666 K Street, NW, Washington, DC, 20006-1215

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APTA Sustainable Urban Design Standards Working Group, Arts in Transit Subgroup

Best Practices for Integrating Art into Capital Projects

Abstract: For more than 30 years, transit art professionals have set the methodologies to achieve high standards for art and design in public transit systems. High quality art and design have proven beneficial to transit agencies by improving the customer experience and giving a sense of identity and vibrancy to transit systems, while positively contributing to the community at large. Transit art professionals, working with contemporary artists from around the country, successfully integrate art into capital improvement projects. These professionals possess accumulated knowledge based on firsthand experience and lessons learned over decades of program development and project implementation. Recommended best practices capture this knowledge as it relates to current conditions in the public art field.

Keywords: *best practices, contemporary public art, percent for art, art administrator, art program manager, program guidelines, and project guidelines*

Summary: The integration of public art and the emphasis on design excellence and art in transit is a global phenomenon codified in the U.S. more than three decades ago. The periodic defining and recommendation of best practices ensures the continued relevance of processes and protocols used in the field. This paper documents best practices used by experienced transit art administrators who are well versed in contemporary art and have developed comprehensive art in transit programs across the country.

Scope and purpose: This Recommended Best Practice is the first of a series of APTA documents on art intended to support APTA members as they work to improve their transit systems. The purpose of this document is to provide guidance in the development and implementation of transit art programs and incorporation of contemporary art into transit infrastructure projects. Future documents will expand upon these practices. The recommendations are presented by veteran transit art administrators representing various sized programs and agencies in regional locations and are based on their lessons learned. The intent is to ensure that transit customers are the recipients of high quality art and design that improve their transit experience.

Participants

The American Public Transportation Association greatly appreciates the contributions of the **APTA Sustainable Urban Design Standards Working Group, Arts in Transit Subgroup**, which provided the primary effort in the drafting of this *Recommended Practice*.

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APTA Sustainable Urban Design
Standards Working Group

Best Practices for Integrating Art into Capital Projects

1. Overview

APTA SUDS UD RP 003-11 Why Design Matters for Transit clearly outlines how aesthetics, function and durability combine to enhance the transportation experience. The document demonstrates the strong link between art and design and the value of pursuing both simultaneously. The reasons for committing to integrating high quality art into transit facilities are closely related to those for design excellence.

The visual quality of the nation's public transit systems has a profound impact on transit riders, the community at large, and the image of a city, with implications for a city's livability and economy. Well-designed public transit systems are positive symbols for cities, attract local riders, tourists, and the attention of decision makers and attendees of national and international events. High quality public art and design improve the appearance and safety of a facility, add vibrancy to public spaces, and make patrons feel welcome, often resulting in higher usage of the facility. Excellent design and high quality art contribute to the goal that transit facilities aid in creating communities where people wish to live and work. These Best Practices provide guidance to transit agencies around the country and enable them to maximize the potential benefits of including art within their transit capital construction projects.

This document specifically addresses permanently installed transit art as part of capital projects. Arts in transit can take many other forms as well, including events, programming, and changing art installations on vehicles and in stations. These will be addressed in future recommended practice documents.

2. Background

The U.S. Department of Transportation initiated its support for high quality art and design in federally funded transit projects in the 1970s. At the time, the National Endowment for the Arts published *The Design Necessity*, a case study of federal design projects presented at the first Federal Design Assembly.

In early 1977, President Jimmy Carter asked the U.S. Department of Transportation (DOT) agencies to support projects that contribute to the architectural and cultural heritage of local communities. Consequently, the DOT's *Design, Art and Architecture Program* officially supported the expenditure of funds for permanent public art in transit projects.

In 1978 Boston was one of three cities to receive DOT funds under the new program. Atlanta received support for its Hartsfield International Airport Terminal and Baltimore for the restoration of architectural details in its historic Pennsylvania Railroad Station. Greater Boston's *Arts on the Line* program was a joint initiative of the Massachusetts Bay Transportation Authority and the Cambridge Arts Council. *Arts on the Line* became an award-winning DOT "pilot project" for art in transit, establishing guidelines for the administration and the integration of public art in a transit system.

Numerous transit art programs followed Boston, including New York, Pittsburgh, Buffalo, Cleveland, St. Louis, Baltimore, San Francisco, Los Angeles, Sacramento, Atlanta, San Jose, Portland, and Seattle.

In June 1995, the Federal Transit Administration (FTA) revised and updated its initial guidelines. FTA Circular 9400.1A updated the continued federal support for art and design and provided revised guidelines for the incorporation of high quality design and art reflecting changes in the field of public art and transit. FTA continued flexible guidelines that left the level of percent allocation (from a minimum one half of 1% but not to exceed 5% of project costs) at the discretion of the local transit entity. The FTA acknowledged that transit agencies had continually demonstrated that the communities they serve greatly benefited from high quality design and art.

Through the past three decades, transit art has evolved as a distinct field. Transit art is installed in high-traffic, environmentally exposed environments and must address operational issues very different from those of other public art. Transit art, like transit architecture, transit engineering, or transit operations, is a specialized expertise, and it is crucial that transit arts programs be managed by arts professionals with experience in transit.

The best practice for a transit art program is to have a full-time arts professional (the Transit Art Program Manager) on the agency staff. Art is not a one-time undertaking; once art is installed, it must be maintained, and ongoing programs should introduce the public to the art on the system. The Transit Art Program manager serves as a continuing source of expertise, maintains institutional knowledge, and serves as a liaison with agency staff, artists, and the arts community. An agency large enough to regularly construct major capital projects, or large enough to maintain a significant fixed guideway transit system, can justify this full-time staff.

This document outlines the process of establishing and managing a permanent arts program to manage transit art in capital projects. Thus, these guidelines will be most relevant to large and medium-sized agencies. However, smaller agencies can also successfully implement transit art capital projects. The same fundamental principles will apply, but the implementation will vary. A future recommended practice document will address practices relevant to smaller agencies.

3. Benefits of art in transit

- **Encourages ridership**
  Public artwork can add value to a public transit agency's primary goal of building ridership. Art can entice the choice rider, a major target audience for increasing ridership, as well as attract new riders.

- **Improves perception of transit**
  The presence of high quality art engenders a positive perception of transit. The public appreciates the aesthetic value that art brings to their surroundings and reacts positively to features that were expressly created to improve the transit experience.

- **Conveys customer care**
  The inclusion of art demonstrates an agency's attention to the personal experience of its riders and a concern for the wellbeing of its patrons. In much the same way that the immediate removal of graffiti helps maintain a secure feeling environment, the presence of art sends the message that "we care."

- **Enhances community livability**
  Art can become a galvanizing or unifying element for a neighborhood and help set the tone for adjacent development and improvements. Art helps cement the impression of permanence and can be the catalyst that helps others commit to investing resources into development infrastructure.

- **Improves customer experience**
  Public transit agencies continually work to improve service reliability, safety, competence, and desirability. A positive customer experience is critical for maintaining and increasing transit ridership. Art is a cost-effective way of heightening the customer experience and associating public transit with positive cultural images and aspirations.

- **Improves organizational identity**
  Art that is well cared for and actively promoted through informational programs and materials can enhance the image of a transit agency within its region of operation. A successful art program is one more way for transit agencies to project an overall image of competence and desirability.

- **Deters vandalism**
  Art adds a humanistic dimension to the customer environment and in doing so may deter graffiti and other forms of vandalism.

- **Increases safety and security**
  Well-lit, well-designed transit stations, that include high quality art, create an environment that provides riders with a sense of safety and security. When the public's respect for place is heightened, positive behavior results. The integration of art in public spaces sends a message that this is a valued space and in effect, the people who use the space are valued.

4. Recommended best practices

4.1 Program development

With the professional guidance of an experienced Transit Art Program Manager, a transit agency can establish a transit art program that conforms to best practices used by other transit agencies. Each agency identifies its transit art program needs and the best means of implementing and achieving its program goals and objectives. Recommended best practices include:

- Establishing an agency policy or resolution setting the percentage of the capital improvement budget to be used to integrate art into all future capital improvement projects and specifying ineligible project components. The percent for art is typically between 1% and 2% of capital project budgets, though it may be as high as 5%.
- Defining eligibility of artistic undertakings that the agency supports and ineligibility of artistic undertakings that promote specific private, corporate, business, non-profit, religious or political interests.
- Establishing flexible program guidelines based on best practices demonstrated in the transit art field.
- Creating an agency staff position for a Transit Art Program Manager and hiring an arts administration professional with experience integrating art work into capital projects.
- Engaging art professionals through the Transit Art Program Manager, who may establish an advisory group of arts professionals to provide expert advice to transit art program staff.
- Outlining acceptable methods for the selection of artists through a competitive professional peer review process.
- Defining community involvement in appropriate and specific ways to ensure understanding and appreciation of the art by the transit ridership and neighboring communities.

4.2 Program management

A transit art program should be organized as a permanent operating function of the agency and led by a qualified and experienced transit art professional. The Transit Art Program Manager develops, administers and leads the agency's transit art program. The transit agency typically funds the administration and overhead of its transit art program through its operating budget.

Transit art professionals bring a range of highly specialized and critical skills to the agency including but not limited to:

- Ability to bridge the artistic and public sector worlds, serving as an integral conduit in planning and implementing public art.
- Knowledge of transit operations and maintenance, ensuring that the development and long term needs of the art program within the agency are addressed effectively.
- Ability to identify appropriate, impactful art opportunities, locations and materials for the project and to create specialized scopes of work and calls to artists.

- Ability to attract artists to participate in transit art programs. Without professional arts administrators, highly qualified artists will not participate in projects.
- Ability to guide artists through the complex and lengthy process of design and construction, ensuring that artists do their best work, meet critical deadlines and adhere to budgets.
- Expertise in highly specialized art fabrication and installation materials and methods.
- Ability to communicate effectively with the public, arts community, media, elected officials and stakeholders on arts related topics and to develop effective informational and educational materials.

The agency's Transit Art Program Manager is typically a member of each capital project team, serving as the art program's liaison between the artist and the project team and design professionals, engineers, fabricators, contractors and sub-contractors to integrate the art into each project.

The Transit Art Program Manager is responsible for the ongoing oversight of the agency's art collection. This oversight includes key areas such as maintenance and repairs, relocation and alterations, art law, donations, and de-accessioning.

4.3 Funding

Funding for art in transit projects varies amongst cities, states and transit authorities, as does the source of funding for the capital improvement projects which can include federal, state, county, city (local), or private or a combination of these sources. Funding for the integration of public art into a project is typically between 1% and 2% of the project's capital budget.

The capital budget "line item" for project art covers the design, fabrication and installation oversight of the artwork. In some cases, such as where the art project is not part of a larger infrastructure construction project or the installation requires specialized skills, the art line item may also cover installation costs.

Long-term care and maintenance of art is funded outside the capital budget, typically through the agency's operational budget, as is customary with other physical assets.

4.4 Project development

The Transit Art Program Manager must be involved at the earliest stages of a capital project's development to ensure integration of art into the project, as well as to determine the best time to bring the artist on board, which may vary from project to project.

Lessons learned reaffirm the importance of informed art program staff working directly with the project team and developing the opportunities, locations and materials for the artwork based on their knowledge and familiarity with transit operations and the project community. The art program staff develops and issues scopes of work and calls to artists and serves as the liaison between the artist and the project team, design professionals, engineers, fabricators, contractors and sub-contractors to integrate the art into each project.

Under certain circumstances, the Transit Art Program Manager may employ a collaborative approach by including an artist(s) with substantial experience working on large capital building projects and/or transit infrastructure projects on the project design team.

4.5 Criteria for art

Criteria for art should be clearly stated in all artist solicitations and should include the following:

- **Quality of the Work**
  High quality artwork is determined by recognized arts professionals such as curators, arts administrators and artists qualified to evaluate contemporary artist portfolios, credentials and/or proposals.

- **Site-specificity**

An artist's concept and the physical artwork is integrated into the project and should relate to the project site, immediate landscape, urban fabric, and/or surrounding communities.

- **Durability of Materials**
  Artworks in transit systems are exposed to a variety of harsh conditions including continual heavy public use, build-up of soot and grime, a range of climate conditions and vandalism. Durable materials should be used for minimal maintenance and proven ability to withstand the challenging transit environment and specific environmental conditions of the area.

4.6 Community involvement

The extent and type of community involvement is determined by the Transit Art Program Manager and commissioning agency and will vary depending on both the project and the community. Similarly, the amount of interaction the artist is expected to have with the community will also differ. While some artists are more process oriented than others, the ultimate goal is to produce permanent artwork that will continue to engage the community for many years to come.

Community members and business representatives are typically not experts in contemporary art. However, their knowledge of their neighborhoods, history, and communities can be a helpful resource to art program staff and commissioned artists, who may not otherwise be aware of sensitive local histories or contemporary conditions.

In addition to the information provided by local residents and business representatives, local historians may be engaged to research and develop more detailed information about the character, makeup, and history of areas in proximity to a project.

4.7 Selection of artists

Best practices recommend that the process used to select artists be structured to assure a justifiable process, demonstrating appropriate use of public funds. The Transit Art Manager develops calls to artists and uses various avenues to reach artists throughout the country to ensure that the process is competitive and effective. The process, which will vary depending upon the nature and scope of the project, characteristics of the site, resources, and state and local statutes, should include the following:

- A call to artists is designed to solicit national, regional, and/or local professional artists.
- Selection of artists by a panel of recognized arts professionals, knowledgeable about contemporary public art and what artists can contribute to a public art project. The panel may include but is not limited to contemporary art administrators, artists, art educators, and curators.
- Selection of artists based on past high quality art works and appropriateness of their work to the scope and scale of the project.
- Eligibility of artists does not include consideration of race, color, creed, national origin, sexual orientation, or age.

The selection process can be two-phased, with finalists being chosen during the first phase and paid to develop and present specific proposals for the project in the second phase.

4.8 Art contracts

The Transit Art Program Manager provides the expertise to write and manage contracts, including artists and fabrication contracts. Their knowledge covers issues such as artists copyright, scope of services, roles and responsibilities, risk management and insurance requirements, sequence of tasks, schedules, coordination of construction, compensation, documentation requirements, maintenance instructions for the completed artwork, and procedures for alterations to or removal of the artwork.

4.9 Technical review

Art undergoes technical reviews at various design and construction phases. Reviews are organized by the Transit Art Program Manager and usually done by agency representatives with specific expertise, including but not limited to project team planners, designers, engineers and representatives from Transit Operation, Safety, Security and Maintenance. Agency engineers review engineering drawings and ensure requirements are met, such as welding certifications and tests. When artists propose using unfamiliar materials, staff often requires a conservationist review. Transit art staff prepares artists to respond to such reviews.

Transit art program staff and arts professionals have the experience, skills and familiarity with contemporary art, materials options, and the realities of transit environments necessary to guide the design and fabrication process to help ensure the longevity and appropriate care of the art collection. It is important to ensure maintenance considerations are built into the review process.

4.10 Fabrication

The Transit Art Program Manager determines with the artists the best approaches to fabrication. In some cases fabrication will be done by the artist or the artist's chosen fabricator under contract to the artist. In others cases, fabrication may be done by an art fabricator under contract to the agency or general contractor.

4.11 Installation

In most cases, the agency's general contractor installs the artwork. The general contractor provides the footings, riggings, and other installation details required to integrate the work into the project site. The artist or fabricator's contract should provide for delivery to the construction site and inspection by all parties, before the artwork becomes the general contractor's responsibility as the liable party. Exceptions will apply when the art is best installed by the artisan/fabricator who produced the work. The art staff and often the artist are present at the site during the installation to advise on any adjustments or issues that arise, and this role should be made clear at the outset of the project.

4.12 Documentation

After installation, either the transit agency or the artist (if specified in the artist's contract), under the direction of the Transit Art Program Manager photographically documents the art and completes a permanent record. A permanent record should include such information as general description, artistic intent, desired appearance over time, materials, fabricators, installers and maintenance recommendations

4.13 Maintenance and Conservation

The transit agency needs to have a long-term commitment to the care and maintenance of its art collection. The Transit Art Program Manager works closely with operations and maintenance staff to ensure the longevity of the agency's art collection and determines what maintenance can be done by in-house staff and when a qualified conservator should be contracted. Most agencies establish a line item cost in the annual operation budget to ensure the ongoing maintenance of art and establish a separate fund for more comprehensive art conservation. Ongoing and periodic maintenance lessens the expense of conservation over time. The Transit Art Program Manager should be involved in any alterations to transit facilities which may affect artwork.

4.14 Education

The best practice for a transit system is to have an ongoing program to introduce the public to the art on the system. Transit art staff working with appropriate agency departments should ensure that art and artists are introduced to the public through various ongoing outreach activities. Such activities may include receptions, public inaugurations, media coverage, exhibitions, social media, and other means. Interpretative materials such as online information, smartphone or digital applications, guidebooks, brochures and plaques are critical tools in assisting transit users and the general public to gain understanding and appreciation of the full content and meaning of artworks, beyond just their physical appearances. Digital resources such as audio tours and other downloadable information add to the possible means of educating the public about the art.

5. Glossary

Arts Professional - A trained professional with expertise in the arts and artistic processes.

Best practices - Methodologies developed and generally accepted by experienced professionals in a given field

Public art - Works of art in any media, created by an artist and planned and executed with the specific intention of being publicly accessible and in the physical public domain.

Contemporary art - The art of our time. Work created by artists and sanctioned by professionals in the art world.

Percent for Art Programs - Programs of municipalities, organizations and transit agencies whereby a percentage of capital project budgets are set aside for the integration of art into a project..

Transit Art Professional - A trained professional with expertise in the arts and artistic processes as well as the practicalities of transit and transit construction.

Public Art Policy - A formal policy adopted by a transit agency which provides an operational framework for a public art program.

Program Administrative Guidelines - Operational processes developed to implement and carry out the public art policy. Guidelines should be flexible and follow best practices in the field of public art.

6. Resources

MTA All Agency Policy Directive Permanent Art Program/Design Review

www.mta.info/art

http://trimet.org/publicart/index.htm

www.artsintransit.org

http://www.metro.net/about/art/

www.charmeck.org/city/charlotte/cats/planning/ArtinTransit

Appendix A: FTA Circular 9400.1A Design and Art in Transit Projects, June 1995

Federal Transit Administration Design and Art in Transit Projects

C 9400.1A
06-09-95

1. Purpose This circular revises FTA Circular 9400.1, reaffirms that costs for design and art are eligible costs for FTA-funded transit projects, provides guidance for the incorporation of quality design and art into transit projects funded by FTA, and, within recommended parameters, leaves the allocation of funds for art to the discretion of the local transit entity.

2. Cancellation This circular cancels FTA Circular 9400.1, "Design and Art in Public Transportation Projects," dated 1-19-1981.

3. References

a. 42 U.S.C. 321 and 331, National Environmental Policy Act of 1969.
b. 49 U.S.C. U.S.C. 303(a) and 303(b), "Policy on lands, wildlife and waterfowl refuges and historic sites" (formerly §(f) of the Department of Transportation Act of 1966).
c. 49 U.S.C. 5301(e), "Preserving the Environment" (formerly Section 14 (a) of the Federal Transit Act, as amended).
d. 23 CFR Part 771, "Environmental Impact and Related Procedures."
e. FTA Third Party Contracting Guidelines 4220.1B.

4. Applicability This circular applies to Federal assistance under 49 U.S.C. 5309, 5303, 5307, and 5311 (formerly Sections 3, 8, 9, and 18 of the Federal Transit Act, as amended) and note that under the flexible funding provisions of Title 23 U.S.C. funds may be transferred to selected FTA programs.

5. Policy The visual quality of the nation's mass transit systems has a profound impact on transit patrons and the community at large. Mass transit systems should be positive symbols for cities, attracting local riders, tourists, and the attention of decision makers for national and international events. Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome. Good design and art will also contribute to the goal that transit facilities help to create livable communities.

In updating this Circular, FTA articulates its commitment to fund quality design and art in mass transit projects and allows local agencies discretion in developing allocation of funds for these efforts within recommended parameters. FTA will fund the costs of design, fabrication, and installation of art that is part of a transit facility.

To create facilities that are integral components of communities, information about the character, makeup, and history of the neighborhood should be developed and local residents and business could be involved in generating ideas for the project. Artists should be encouraged to interact with the community and may even choose to work directly with residents and businesses on a project.

6. Areas of Application While many transit projects can benefit from quality design and the inclusion of

art, some areas offer greater potential for such aesthetic treatment. Examples of projects that offer special promise are:

a. Major Construction Projects New fixed guideway ("New Starts") projects, bus terminals, intermodal facilities, park-and-ride lots, and other associated facilities that provide bicycle and pedestrian access to the transit facilities have a significant impact on their environs and provide an opportunity to include artists on teams that plan, design, and engineer all aspects of the project. Artist should be part of the initial stages of project development.
b. Modernization Projects Fixed guideways, bus terminals, and intermodal facilities periodically undergo modernization and renovation. Such projects offer opportunities to restore valuable historic elements and to include contemporary art that responds to the historic context. Rehabilitation of these facilities and integration of art that respects the original architecture may serve to reinforce the history of mass transit in the modern urban setting. These facilities can also serve as showcases for regional and other exhibits, thereby increasing their identity as important public facilities.
c. Vehicle and Related Facility Improvements Rail cars, buses, and paratransit vehicles can be made more attractive through distinctive interior and exterior design and graphics employed in a cost-effective manner by design professionals artists. Many communities have a need for bus shelters to protect riders for inclement weather. These shelters and surrounding areas can be designed by architects, landscape architects, or artists, or a team approach can be taken. In addition, the shelters could provide display cases for posters or announcements of local events.
d. Construction Mitigation Temporary art may be commissioned during construction to mitigate the negative economic impacts on businesses and to be used as part of a public outreach program for the community.

7. Eligibility of Costs for Art in FTA-funded Projects Although facility design and construction activities are eligible FTA project expenses covered under ongoing planning and capital grant programs, art has not always been an eligible capital cost as a component for these activities. The incorporation of art into all areas of transit projects that are visible to the public is considered to be an eligible capital cost as a part of planning, design, and construction activities. The definition of art can be interpreted broadly for these purposes, from free-standing sculpture to wall pieces to functional elements such as seating, lighting, or railings to artists being part of an interdisciplinary team in which the artists contribute to the overall design and specific art pieces may or may not be created.

a. Eligibility In order to promote local determination of appropriate transit-related art undertakings, FTA has established broad, flexible guidelines for including these items in agency-funded projects. In general, such artistic undertakings should conform to the following criteria:
(1) Studies and other local activities to develop programs for including art in the planning and design of transportation facilities and to obtain public participation must be included in the appropriate annual planning work programs (the Unified Planning Work Program for planning-only projects and the Metropolitan Transportation Improvement Programs for capital projects) that are assisted with FTA funds.
(2) Funds spent on the art component of projects should be appropriate to the overall costs of the transit project and adequate to have an impact. These costs should be all-inclusive and generally should be at minimum one half of 1% of construction costs, but should not exceed 5% of construction costs, depending on the scale of the project. Artists may be paid a fixed fee or an hourly wage with a cap, similar to other design professional services (see FTA Third Party Contracting Guidelines, 4220.1B)
(3) Costs should be included in the relevant budget line items; that is, in planning, design, and construction line items.
(4) Artistic undertakings that promote specific private or corporate business interests are ineligible for FTA funding.
(5) The local transit agency should provide adequate administrative and technical support to

professionally develop and implement the art program as well as make a long-term commitment to the maintenance of art, as is customary with other physical assets. b. Procuring Artists FTA Third Party Contracting Guidelines stipulate procedures for selecting architects for transit projects but do not specifically address the selection of artists. The appropriate artists selection process should vary among projects, depending upon the nature and scope of the project, characteristics of the site, resources of the community, and state and local statutes. Whatever process is used to select artists, FTA recommends that it be structured to assure the following:
(1) A justifiable process, demonstrating appropriate use of public funds, that gives serious consideration to a variety of artists available and capable of working on the project.
(2) Artists, regardless of race, color, creed, national origin, sex, or age, are eligible for consideration.
(3) Selection of artists and/or artwork recommended to the grantee is determined by a panel of art and design professionals, which may include but is not limited to art administrators, artists, curators, and architects.
(4) The community surrounding the future facility participates in the selection process. This could include all levels of participation, including supplying information, attending panel meetings, and being voting members of the panel. The extent and type of participation should be determined by the commissioning agency and be appropriate to both the project and the community. c. Criteria for Transit Projects in Which Artists Are Involved It is suggested that the following criteria be used when artists are involved in planning and design of transit projects and/or when individual works of art are commissioned:
(1) quality of art or design,
(2) impact on mass-transit customers,
(3) connection to site and/or adjacent community; art that relates, in form or substance to the cultures, people, natural or built surroundings, or history of the area in which the project is located,
(4) appropriateness for site, including safety and scale,
(5) durability of materials,
(6) resistance to vandalism, and
(7) minimum maintenance.

Appendix B: APTA SUDS UD RP 003-11 Why Design Matters

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APTA Sustainable Urban Design Standards Working Group

Why Design Matters for Transit

Abstract: This *Recommended Practice* promotes the importance of design in the success of a transit project, including transit facilities and transit systems. Key principles of design are summarized, and specific tools to achieve design excellence are described, including design guidelines. Design and the design process are promoted for establishing an agency vision and sense of purpose, guiding the development of a facility and clarifying the agency's core functions so the design decisions will support (rather than contradict) them. Typical transit facility/system design goals include convenience, cost-effectiveness, safety, security, dynamic placemaking, multimodal balance, economic stimulation, environmental sustainability and a positive identity for the transit line, transit agency and surrounding community.

Keywords: aesthetics, design, development, durability, features, function

Summary: Design is the necessary process for responding to three critical challenges of a successful development project: aesthetics, function and durability. A project that appeals to its users, anticipates and accommodates them, and ensures that future users can also benefit from its development has successfully addressed all three concerns. A lack of attention to design at the macro (systemwide) and micro (station/stop) levels puts the success of a project at risk. Function must be achieved while being aesthetically pleasing, and ignoring the future ability to maintain and sustain a project is never a cost-effective decision, no matter what the initial cost savings are. In short, good design is a good investment, and having good design guide decisions is one way to ensure that a project will be perceived as both an immediate success and one that gracefully stands the test of time. Successful transit agencies know that people have a choice; these things matter to riders.

Scope and purpose: This document advocating the benefits of design excellence for transit facilities and systems begins with the discussion of design as the intersection of three "realms": aesthetics, function and durability. The document highlights how a good design process can enhance the successful experience and use of a transit facility and system for all stakeholders. While this standard can be applied to both large and small transit agencies, it should be applied in a way that is sensitive to the regional and local contexts, with the clear understanding that good design is an integral feature of a positive environment, resulting in a good quality of life.

Participants

The American Public Transportation Association greatly appreciates the contributions of the **APTA Sustainable Urban Design Standards Working Group, Design Subgroup**, which provided the primary effort in the drafting of this *Recommended Practice*.

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Why Design Matters for Transit

7. Overview

APTA is committed to excellence in art and design in all aspects of the public transportation experience. Design is the necessary process for responding to three critical features of a successful development project: **aesthetics**, **function** and **durability**. A project that appeals to its users, that anticipates and accommodates them, and that ensures that future users can also benefit from its use has successfully addressed all three features. In the world of transit—its facilities and systems, including infrastructure, station architecture, rolling stock and branding—there are common goals of design excellence that can inspire pride and confidence in all who experience the design solutions, including convenience, cost-effectiveness, safety, passenger security, dynamic/vital placemaking, achieving multimodal balance, being an economic catalyst, environmental sustainability and dynamic placemaking. These are all variations of aesthetics, function and durability. These features may be addressed with different degrees of relative importance in the overall project design, and design excellence has sometimes been considered a lesser concern than, for example, the utilitarian functionality of infrastructure implemented on a limited budget. This document asserts that design excellence is in itself a priority for even the most cost-conscious transit properties, which will typically benefit from a set of adopted guidelines that promote a conscientious and prioritized focus on design, supported by decisions led by design professionals. Invariably, a good design process will ensure that all three features are considered and incorporated and, ideally, implemented to enhance one another in their execution.

A lack of attention to design at the macro (systemwide) and micro (station/stop) levels puts the success of a project at risk. A project need not accommodate function at the expense of appearance. And ignoring the future ability to maintain and sustain a project is never a cost-effective decision, no matter what the initial costs savings are. In short, good design is a good investment, and having good design guide decisions is one way to ensure that a project will be perceived as both an immediate success and one that gracefully stands the test of time. Successful transit agencies know that people have a choice; these things matter to riders.

In many ways, the lack of consideration of design is a design choice, since decisions are made every day that affect the design and operation of transit facilities. The decisions are made by many parties affecting the built environment, including public works and buildings departments, developers, elected officials, community groups and transit agencies. It is often the case that these people may not share the same goals regarding the project development. But without coordination and consensus, the development of a project will not result in the efficient, attractive, safe and comfortable facility that transit riders deserve and transit operators need.

A good design process establishes a vision and sense of purpose to guide the development of a facility. The preparation of design guidelines will focus the process and represent the prioritized consensus about the design goals. They clarify the project's core functions so the design decisions will support rather than contradict them. If design guidelines are to be useful, they are written so that they can be understood and used by a wide audience, allowing an entire community to easily find agreement on the key priorities and principles. This agreement will help resolve the conflicts and challenges that will arise throughout the development of the facility. Therefore, agencies should either develop their own design guidelines or use guidelines that have worked elsewhere.

7.1 APTA Sustainable Urban Design Standards program goals

The importance of design in developing transit facilities, and how to achieve design excellence, lies at the heart of the goals of the Sustainable Urban Design Standards program. These are:

- to build sustainable communities by **integrating transit service** into existing and new neighborhoods, corridors and regions;
- to increase transit ridership by effectively **linking transit service** with more compact development;
- to improve transit efficiency by **coordinating transit service** and investments with infrastructure improvements and land development;
- to conserve natural resources by **developing patterns and communities** that require less land for development, create open space and reduce the demand for fossil fuels to meet energy needs; and
- to promote the sense of civic pride in using transit by **enhancing its image and "brand"** as a primary urban transportation mode.

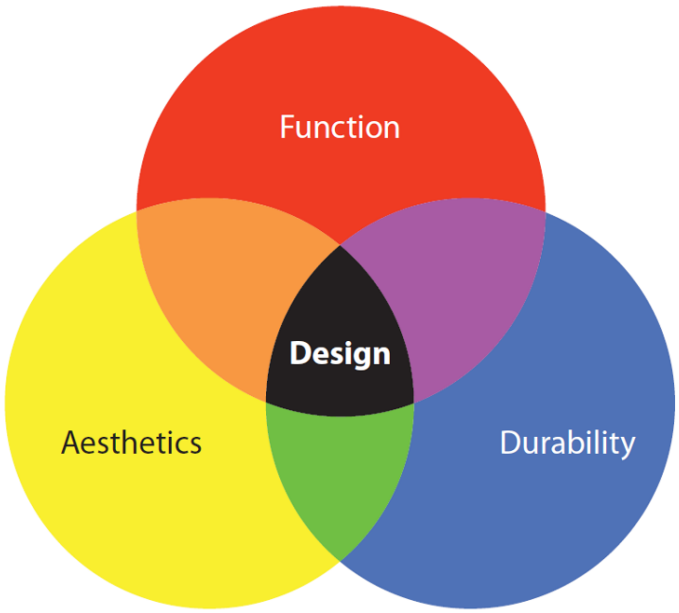
The key words among these goals are *integrating, linking, coordinating, developing* and *enhancing* to encourage transit agencies in accomplishing outcomes in specific and thoughtful ways. Design is both the concept and the process of applying thought to achieve specific desired results.

7.2 Design: function, aesthetics and durability

More specifically, a good design process determines three principle characteristics:

- **Function:** How it works.
- **Aesthetics:** How it is perceived.
- **Durability:** How it holds up.

FIGURE 1
The Three Elements of Design Excellence



It's essential to keep the three features of design (**Figure 1**) in coexistence. These features are not ranked in order of importance; they are interdependent. Without durability and aesthetics, function is impaired. Yet aesthetics must be durable, to ensure a long life cycle. All three design features comprehensively define the

station environment characteristics when they are anticipated and evaluated together. Good design uplifts the environment and also enhances the quality of life.

Every transit facility decision integrates aesthetics, function and durability to some degree. The type of design priorities each agency follows is a choice made early on in the process. Frequently, local agencies, under pressure to keep costs within limits, focus more on pure function. While at the point of initial capital outlay this appears to save money, failure to accommodate durability or aesthetics puts the long-term success of a project at risk, increases life-cycle cost and can reduce ridership. This *Recommended Practice* is intended to underscore the need to incorporate comprehensive design practices from the outset of the planning process through complete implementation of transit facilities.

8. Why commit to design excellence?

The design of transit facilities as well as system performance plays an integral role in building transit ridership and ensuring customer satisfaction and system productivity. An increasing number of transit agencies have used comprehensive design to change the way they provide service to their customers, to improve their public image and even to redefine their purpose. While good design does not necessarily cost more than poor design, these transit agencies have shown that investing in design features to *build* ridership can be a cost-effective alternative to reducing service or sacrificing aesthetics in an effort to cut costs—that can create a continuing downward spiral of ridership. In fact:

- **People react positively to features that were expressly designed to improve the transit experience.** Passengers especially appreciate these when they are well placed and well designed, particularly when such basic service characteristics as frequency, efficiency, safety and reliability are perceived by passengers to be well under control. Design features can help to instill rider confidence in a transit agency, as well as raise passenger optimism regarding the quality and stability of future transit trips and experiences. An attractive, comfortable transit facility may be especially important for infrequent or choice riders, a major target audience for increasing ridership. Design features do not just help make transit safer and more comfortable, but also influence first-time or new riders' perceptions of transit as a viable mobility option.
- **Good design adds value.** As Apple has legendarily demonstrated, a product's design, in and of itself, can become the distinguishing factor in its success with customers. The investment in the design process and provision of excellent design solutions are more likely to attract the support of public/private partnerships with local communities, businesses and governments, while redefining the way transit agencies traditionally work with manufacturers. Such a process will typically leverage a greater sum of its parts: a collaboration among transit properties challenged with a need and opportunity, project developers seeking return on investment, architects tasked with envisioning a structure's functional success, artists engaged because of various required or recommended "percent for art" programs (dedicating a portion of total project funds to incorporating an art element) , civic leaders championing a project as part of a community legacy, etc. Often, utilitarian and functional aspects of the facility design can be effectively influenced by these collaborations.
- **Bad design costs more.** "Poor" design in a transit facility can be described as one that fails to accomplish the goals of good design in one or more of the following ways: The design 1) does not fully anticipate the range of *functions* the facility should accommodate, 2) dismisses the value of *aesthetics* as a fundamental facility attribute, and 3) underestimates the need for *durability* as a quality of the facility's features. Poor design can often result in customer complaints and identification of functional and safety issues, which must be addressed through design work and possible service disruptions and followed by the actual remedies. Poor design could have a negative impact on safety, resulting in litigation and a decrease in ridership/passenger loyalty.
- **Pride in ownership.** Agencies that implement amenity improvements and phased improvement programs are more likely to have sought input addressing actual passenger experiences or consumer

perceptions. Appreciation of even small and inexpensive enhancements of riders' experiences are often reflected and affirmed in customer feedback. This is evident in some very simple yet effective steps that transit agencies are taking to assess customer concerns—focus groups, surveys and other methods—critical in ascertaining whether or not a particular amenity should be considered. Amenity projects thus become part of a total program geared toward providing customer-friendly service, and serve as a physical reminder of the bond between transit agency and community.

Successful transit systems across North America are continually striving to maintain and increase their ridership, and in some instances keep up with the ever-growing demand of a growing ridership. There are opportunities to enhance all aspects of the transit experience for passengers, from approaching and leaving the boarding area, to waiting at the stop/station, to boarding, riding and alighting from the vehicle. Knowing what design features passengers in a particular city want most and making sure they understand that those improvements can often come with a cost or a tradeoff (forgoing a fare decrease, for example) can help an agency determine which design features to offer. Agencies that have implemented successful amenity programs have experienced the tangible appreciation of their core riders' everyday experiences, and have seen the appeal of such improvements to attracting new riders and new support centers in the community. These factors should be considered in the cost/benefit discussions that precede agency design and construction practices.

9. Benefits of good design

Design features influence customer behavior and the surrounding community, which will directly and/or indirectly affect ridership and, as a result, emphasize the essential role a well-planned, sustained transit system plays in that community's very livelihood. Many transit agencies are committed to improving both passenger experience and the relationship of their facilities to the communities they serve because they recognize that their long-term viability depends on it.

9.1 Increased safety and security

Design features can improve security for passengers waiting at a station or stop. A Canadian report suggests a reduction in security incidents can be measurably tied to the implementation of a broad range of design features, including adequate lighting, telephone access, active land usage, and a map of the surrounding area at and *around* bus stops. The use of graphic symbols to convey security measures, visually consistent with an agency's standard format, may also be used to promote security awareness.

Design features can also impact security indirectly. A transit facility of poor general appearance, with low lighting levels and lacking maintenance or the presence of "official" people (ticket agents, security personnel, retail vendors) is understandably perceived as "dangerous" if only due to these signs of deterioration, and equating the obvious neglect with the sense that the place is unsafe or "out of control." Studies of New York City subway station environmental improvements have shown that when stations are rehabilitated, people feel safer, regardless of actual crime patterns.[1] When design features are provided and successfully maintained, there is also an implied security presence and a sense that someone is in control of the transit station. One way to ensure or improve station safety is to arrange a design or remodel review by a certified practitioner. These don't cost much time or money, since thousands of existing agency employees across the country are already certified and able to bring their industrial-setting crime prevention skills and awareness to the benefit of the design process. In addition, the use of fare or "smart" cards on buses and trolleys makes drivers feel safer because there is less cash on board. Security cameras on buses also may make passengers feel more secure.

[1] TCRP Report 22, p. 69.

From the perspective of economic sustainability, the comprehensive accommodation of design features that address safety, security and universal access should be recognized as smart investment measures that will manage and reduce future liability concerns.

9.2 Enhanced community pride and image

Design features located within transit waiting environments should be viewed not only as serving transit, but also as focal points for the communities around them. Features such as artwork, newsstands, lighting, cafes, and even station buildings themselves can be catalysts for the physical, economic and social improvement of a community. Ridership benefits can thus be indirect: supporting revitalization of communities, which in turn increases demand for transit.

Case studies documenting this approach are presented in TCRP Report 22, "The Role of Transit in Creating Livable Metropolitan Communities." There are numerous detailed case studies in which transit design features have had a strong positive impact on surrounding neighborhoods, and in which entire downtowns have sparked new community partnerships due to transit. Successful transit amenity improvements from Boston to Los Angeles have been implemented through partnerships, formed between government and the private sector, which allow local transit authorities to move beyond simpler design features to develop entire environments integral to the revitalization of a downtown. These partnerships represent significant opportunities, given the fact that many transit agencies have limited operating budgets, do not always own the property on which their bus or light rail stops are located, and often have difficulty siting these stops. They also provide ways for local communities to make a presence within transit service and facilities.

In many communities, providing transit service is difficult due to the automobile-oriented design of streets. A lack of connections between subdivisions forces buses to use busy arterials, which are unappealing waiting environments for passengers. Many bus stops are not even located or reachable by sidewalks, forcing passengers to walk and sometimes wait in the street. Additionally, the design of the workplace, often an isolated building surrounded by parking lots, undermines the opportunity for building design to enhance the transit experience. Even in this situation, design features that improve pedestrian access to transit can become a catalyst for improvements that are of broader benefit to a community.

9.3 Enhanced economic development

A well-designed transit facility that inspires civic pride and robust use of transit may also be used as a tool to stimulate economic development in the surrounding community. The strength of a transit facility as a beacon and magnet for customers depends not only on the design of the facility itself, but also on how well-integrated the facility is with the overall urban design of the larger area. Certainly, adjacency is an economic boon to the businesses and commercial establishments within view of the sumptuous detailing and regal proportions of New York's Grand Central Terminal and the Union Stations in Los Angeles and Washington, D.C. However, the design benefits of blending functional as well as an aesthetic considerations and combining information, access and visibility can provide "micro" economic benefits as well: For example, a transit station with prominent real-time service information and easy access paths adjacent to a café can inform and inspire customers to spend money while waiting (with confidence) for the next transit arrival.

9.4 More efficient operations

Design features should prioritize making transit more efficient and easier to use. One example is the use of bus waiting areas that "bump out" sidewalks so that buses do not have to pull into the curb and such that waiting areas are increased in size. Other features that appear to improve transit efficiency are multiple doors to allow simultaneous boarding and alighting, the alignment of the waiting area with the vehicle floor, fare purchase mechanisms and the arrangement of design features at the stop and the waiting area to facilitate queuing and easy boarding—which also reduce dwell times, crowding and service delays.

9.5 Improved customer experience

Design features that provide people with comfort, knowledge and confidence about how to use the transit system improve their ability to use public transit and perhaps make it more likely that they will do so. Examples of these extend beyond the obvious design features of seating, lighting, noise and weather protection. Design features that enhance orientation and trip certainty include posted and available route schedules and information, both at the transit stop and on the vehicles, and recorded stop announcements.

A well-maintained and accurate website is another method to inform the public about local transportation methods. Application software and social media are increasingly well-used forms of sharing and disseminating transit information as well. The public can avail themselves of these resources for global positioning, route planning, approximate arrival and departure times, travel choice options and adjacency to services and destinations. Local transit officials could also promote the use of available online tools as an alternative method to trip planning. Multiple routes and modes of transportation are available for the passenger to choose from. A well thought out informational technology service for public transit information significantly improves public transit operations and potentially increases ridership.

Design features that specifically improve the customer experience figure into the overall sense of customer satisfaction, along with more operation aspects as safety, reliability and travel speed. When reflected in annual customer surveys or a reduction in service complaints, the contributions of good design to increased customer satisfaction represents real added value wherever political support, measured performance and voter-initiative funding support will factor in the success and future capital and operational fundability of a transit agency.

9.6 Comprehensive service to all (design for barrier free)

Compliance with the requirements of the Americans with Disabilities Act (ADA) has pressed transit operators to make significant, conscientious accommodations in how they design both their transit facilities and vehicles. These include adequate circulation space within a bus shelter; adequate lighting; bus stops that are connected to streets and sidewalks by an accessible path (which means that sidewalks of a prescribed width need to be provided); and legible signage, including bus route and schedule information. These investments and upgrades to provide universal access improve the sense of personal safety, security and access not only for the disabled, but for all transit customers.

9.7 Increased environmental sustainability

An efficient, well-designed transit system provides measurable environmental benefits over the automobile, including reduced emissions per traveler, reduced use of land for rights-of-way and parking and a fundamental role in contributing to a compact urban development pattern. Efficient system design to build and sustain ridership includes siting station and stop locations at activity centers and scheduling service to meet demand. Other transit facility design choices that support environmental sustainability include paving (for surface permeability), building materials (for durability and reduced maintenance), utilities and insulation (for reduced demand of nonrenewable energy), and land use/access site design (promoting walking, bicycle and other non-emission access modes).

9.8 Improved organizational identity

The image and branding of a transit agency communicates the pride and confidence the agency has in its operations and its role in the community. How these are conveyed to the public is a design decision in itself, represented in its maps, schedules, brochures, websites, publications, advertising, promotional campaigns and media releases. The imagery associated with the Tube in London, or the Paris Metro—logo, map diagrams, station entrances, even vernacular slang—has become irrefutably integrated into the general civic image of the metropolis to the point where one cannot fully consider the identity of one without the other. Where T-

shirts at both touristy gift shops and hip boutiques bear icons of a city's transit system, design excellence likely has succeeded in promoting the transit system to the level of civic ambassador.

Transit agencies with enduring and successful iconographic identity recognize that consistency, clarity and an understanding the real and monetary value of being a distinctive brand are important guidelines to how this identity is conveyed and represented: in short, marketing itself as a design strategy.

9.9 Lowered maintenance costs

Durability and sustainability as design goals help translate short-term investment into long-term savings. Transit agencies with sophisticated financial strategies generally consider capital expenses as easier to anticipate and budget than labor costs, and therefore tend to favor investments—and design decisions—that lower maintenance costs as a goal. Project specific procedures should include life cycle costing analysis to evaluate first costs against long term maintenance costs. Relevant systems, materials and concepts to be evaluated will differ with each project.

9.10 Ridership

A 1996 TCRP study, "Transit Ridership Initiative," describes ridership as "a fragile, somewhat ambiguous goal, and a moving target." The study found that many aspects of transit operations and investment decisions affect ridership, and identified "planning orientation" (community- and customer-based approaches) as one of five main factors in achieving ridership increases. Whether seeking to attract new riders or sustain and optimize its current ridership, a transit agency should understand the influence of this factor on ridership—and how much it is the result of design decisions, deliberate or not.

10. Next steps

10.1 Make design excellence an organizational priority

Transit agencies that value ridership, cost-effectiveness, popular support and the other benefits of good design identified above invariably recognize the contributions that design excellence makes toward these goals. Accordingly, when design is prioritized among the top factors governing decision-making, these benefits are effectively prioritized as agency outcomes.

10.2 Ensure that design decisions are led by design professionals

Excellence in managing design decisions, much like managing the same in structural, operational and budgetary decisions, requires the engagement of experts who know the field—who have learned from previous accomplishments and can provide a track record of success. Architectural solutions guided by architects and graphic design produced by professional graphic designers are examples of design realms best managed by professionals. Arts decisions should be led by professional arts administrators, and professional artists should be selected to create permanent artworks or to lead permanent art projects where work will be created by students and non-professionals. The best projects include teams made up of professionals from right disciplines and success relies on including professionals from the appropriate disciplines related to the specific project. These professionals are typically willing to readily and compellingly demonstrate the benefits and advantages of engaging their services to accomplish design goals with the greatest certainty.

10.3 Develop and adopt design guidelines

Design guidelines establish a vision and sense of purpose to guide the development of a facility. They clarify needs and goals of facility components and requirements so the design decisions will support rather than contradict them. They are written so that they can be understood and used by a wide audience, allowing an entire community to easily find agreement on the key priorities and principles.

Guidelines should be both flexible and prescriptive. They allow for creativity in suggesting how a policy or goal could be achieved, but they also give guidance to steer users away from bad decisions about appearance, function and cost-effectiveness of operation. Many of the criteria guidelines employed are subjective, and each community has its own unique needs and preferences. The more clear and well defined the vision, though, the more useful design guidelines can be in helping decision makers find their way to a successful design solution. Below are specific objectives to consider when drafting design guidelines.

10.3.1 Design guidelines promote good design when goals require compromise

Design guidelines should be able to guide users to solutions when various and divergent priorities seem to contradict one another by reinstating the overriding priorities of an agency and the need to strive for long-term design excellence. They can also help identify where realms of concerns that seem to conflict may overlap. Without a common understanding of these overriding priorities among the various stakeholders, design decisions made during project development may not result in the aesthetic, functional, durable facility that transit riders deserve and transit operators need. Design guidelines should be written with simple, clear, easy-to-interpret text that will reduce this risk by anticipating and suggesting a trade-off analysis process that leads to excellence in design and consensus among stakeholders.

10.3.2 Design guidelines tailor solutions to the local context

When it comes to design guidelines, one size does not fit all. No one set of design guidelines will address all the features and aspects of concern to every community. The positive qualities that make each community and transit agency unique should emerge and be addressed in the setting of goals and in the input obtained from stakeholders and should be clearly reflected in the guidelines' objectives and policies.

10.3.3 Design guidelines can be good marketing

Design guidelines should promote the idea that transit facilities can be a source of community pride. Their very design and graphic layout should be consistent with the image and outcome they are designed to present. As well as being a tool for sound planning and effective community partnership, they should be viewed as a marketing piece to enhance the stature of the transit agency, leverage funding and partnerships, and inspire confidence in the professionalism of the organization.

10.3.4 Design guidelines increase grant competitiveness of projects

Design guidelines are intended to precede the often-lengthy design and engineering process that takes a facility to a construction-ready state. Guidelines can facilitate the grant-readiness of a project by highlighting aspects that the design should address to be in a better position to qualify for funding from a variety of sources. Numerous grant programs have been established to reward agencies that develop facilities with aspects that feature artwork in the design, that measurably reduce reliance on fossil fuel and driving (such as carefully thought out pedestrian links), that address safety, that represent extensive community engagement, that support environmental justice, that promote walking and better public health, etc.

10.3.5 Design guidelines facilitate an effective design process

Consulting the document alone does not guarantee success. The guidelines should suggest process steps that advancing the development of a facility to a successful solution. To facilitate a greater degree of consensus, guidelines should be structured to lead a group through:

- the identification of a concept;
- the assessment of the concept's adherence to community and stakeholder priorities;
- the method of balancing conflicting goals and brokering compromise; and
- investment strategies to ensure implementing the desired outcome.

10.4 Set the bar higher

Transit agencies across North America have used innovative and effective strategies to develop infrastructure and support systems of extraordinary design quality. Examples of this success can range from individual bus stop amenities to comprehensive transit-oriented developments. A variety of agencies have developed their own guidelines, art portfolios, design solutions and other state-of-the-art design examples that can be found posted on agency websites and may be useful to consider as inspirations and reference points.

10.5 Learn from the design process

Design is a living process that responds to changing times and priorities. The transit agency and the community may find it worthwhile to revisit the criteria, goals, policies and principles previously established should the guideline development process highlight areas that are no longer current, relevant or applicable. Being open to this possibility from the beginning and meticulous in documenting these observations throughout will help the agency and its design staff and tools, including guidelines documents, accurately reflect community priorities.

10.6 Seek endorsement for design excellence

Fundamentally, an agency's design process and guidelines are a public statement of intent to build healthy, attractive, safe and sustainable facilities and communities. This selling point alone may not hold its own when difficult compromises must be reached. To be effective, design guidelines and other design process tools may require some official "stamp of approval": adoption or endorsement by key commission and/or boards to give them the stature needed to enlist the attention and support of the all decision-makers they are designed to advise. Below is a checklist of potential stakeholders compiled by a range of transit agencies to consider consulting in the public vetting process:

- Residents and members of the community
- Elected officials
- Transit agency planners, designers, engineers, architects, construction staff
- Transit agency operations staff: operators, maintenance and capital development staff
- Transit agency or city arts administrators and/or public arts consultants
- Planning and design staff from the local jurisdiction
- Area businesses, employers and property owners
- Area employees
- Transit passengers
- The development community/industry
- Chambers of commerce/center city and downtown associations
- Law enforcement personnel
- Local chapters of professional architecture, engineering and planning associations

10.7 Promote design excellence within the organization and the community

Success in accomplishing design excellence should not be ignored or overlooked. Convey the prioritization of design excellence as an agency priority to a priority of the community as a whole. Reinforce this success by measuring the benefits that good design practices have produced, and demonstrate the relationship between the measured benefit and the design process. By celebrating the success of a design process, the agency helps bring the community along to affirm that design excellence is a community priority to sustain.

11. Conclusions

Design is a process and an outcome. When it comes to transit facilities, infrastructure and information materials, the process a transit agency undertakes and the outcomes it produces represent that agency's

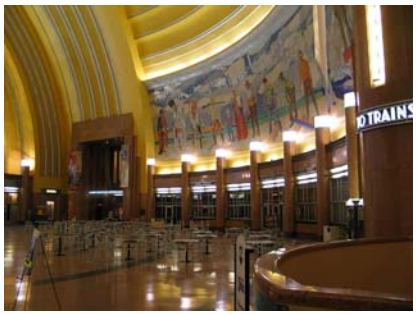
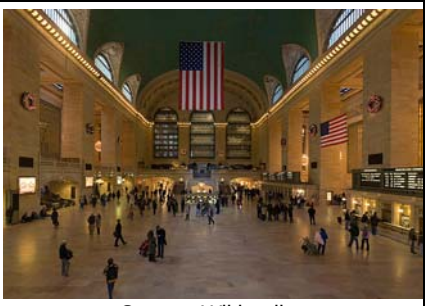
commitment to design excellence. As demonstrated in this document, design is the integration of function, aesthetics and durability, and a good design process challenges decision-makers to remember and consider the priorities of the agency and the community it serves in planning for both the near term and the long term. As such, design excellence as a goal invariably protects the transit system as a community asset, and specific tools, such as design guidelines, can be instrumental in attaining this goal.

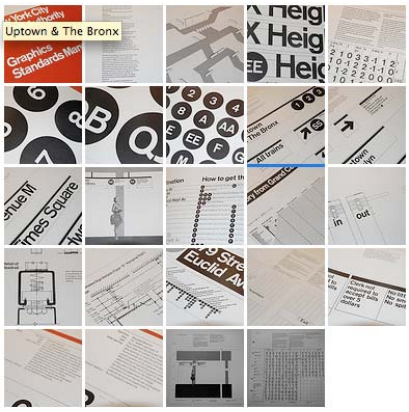
When viewed in this context, design as a transit agency priority can be seen as a commitment to the community. Whether supporting the transit system as a regular user or indirectly as a taxpaying member of the community, the public must entrust the agency with the role of fundamentally influencing its safety, prosperity and opportunity. Through design, the agency signals its commitment to sustaining this role, and to inspiring the confidence of future generations in the value of the transit agency as an essential partner well worth the public investment.

Appendix A: References for review and inspiration

These are intended to be examples of **extraordinary design excellence** that have withstood the test of time (at least one decade) and have been universally recognized as such by transit agency peers.

Branding and Logos/Promo	
The London Underground roundel originated as a red circle to make station names stand out in the clutter of advertising-covered station walls. In 1920, graphic designer Frank Johnston standardized it into the now familiar ring and bar and paired it with a custom typeface (also still used today) to create a uniformed graphic identity for a system created from multiple independent companies. By 1930s it was used as a logo for London Transport. Today, in various colors, it represents the underground, buses, light rail, ferries, commuter rail, cable cars, and even bikeshare. Its universally recognizable form has endured for a century, and while it is used in different colors today, it still stands out wherever it is used.	 Source: Yottanesia-Wikipedia
In 1908, Frank Pick was hired to lead London Underground's publicity efforts. To increase ridership on new tube lines competing with streetcars and buses, he commissioned a series of advertising posters. Early posters promoted the ease of traveling by Underground. As the system expanded into the suburbs, posters advertised the green lifestyle available within easy commute of the city. To draw weeknight and weekend ridership, posters promoted parks, museums, theaters, sports, and sightseeing. Over three decades, he picked numerous outstanding artists and designers. These posters are remembered for capturing the character of the city, highlighting some of the best artists and designers of the period, and cementing transit's place in the identity of the city.	 Source: ® Transport for London and London Transport Museum

Public Art	
Cincinnati Union Terminal was one of the last of the classic American train stations. Seven railroads agreed to jointly build and operate the terminal in 1928. Its art deco architecture reflected the optimism of the 1920s, and its scale — it was designed for 216 trains a day — reflected the golden era of railroads, when passenger trains still dominated over cars and airplanes for long distance travel. The building was designed as a gateway to Cincinnati, and an integral part of its architecture was a set of stucco and tile murals by Winold Reiss that celebrated the city. Two murals in the rotunda, over 100 feet long and 20 feet high, depicted working people, the building of great cities, and the development of transpiration. On either side, smaller murals depicted the civic leaders responsible for the project, and 14 more murals, each 20 by 20 feet, in the concourse depicted Cincinnati's industries, from foundries to piano manufacture. The terminal itself declined over time; by 1971 it served only two trains, and the next year it was replaced by a small station that required less maintenance. Part of the building was demolished; the rest was converted into a shopping mall, but that, too failed. But the murals has found a place in Cincinnati's heart, and in 1973 , when demolition threatened the concourse murals, citizens raised money to preserve them. They were removed and re-installed in the Cincinnati/Northern Kentucky International Airport, where they still greet passengers arriving in the city, as they were originally intended to. The rotunda murals were saved as well: in 1986 Hamilton County voters approved a bond issue to restore the terminal to house six museums. The murals had outlived the original purpose of the building, and parts of the building itself, but in the end they were part of the impetus for saving a great building.	 Source: Wikipedia
Stations and Entrances	
In the 1970s, Washington's new subway system carried extraordinary expectations: not only was it one of a handful of new systems that were expected to reinvent public transportation and a key initiative in the federal program to halt the decline of cities, but it would also be a symbol of the nation. Remarkably, DC's subway stains, designed by Harry Weese, lived up to these expectations. The coffered vaults seemed modern but also spoke to the classical monuments above them. The stations were roomy, and the cross-shaped transfer stations, with their magnificent vault intersection in the center, has a clarity no subway station had ever had before. The design has also proven timeless: while many public projects from the 1970s now seem unmistakably dated, the stations still seem modern.	 Source: David W. Dunlap
Grand Central Terminal has become the archetype of a train station. Its Beaux-Arts façade has held its own amongst the high-rises that have sprouted around it since its completion in 1913. The main concourse, topped with a ceiling depicting the constellations, has become the city's "living room;" its brass clock is an iconic meeting place. But functionality is equally significant in the design. The station serves 268 trains a day on 67 tracks on two underground levels. A system of ramps and passageways, essentially unmodified from its original designs, smoothly carries 750,000 people a day through the station.	 Source: Wikipedia

Unlike D.C.'s stations, Paris Metro stations are not standardized; they capture the spirit of eras and of neighborhoods, and an experienced rider can tell at a glimpse where they are. Among the standouts are station entrances by Art Nouveau architect Hector Guimard, built from 1899 to 1905. Considered out of date by the 1930s, many were demolished, but the ones that survive are now treasured as among the best examples of the Art Nouveaux movement. Some have even emigrated: one has been transplanted to Square-Victoria station in Montreal and one is displayed in the sculpture garden of the National Gallery of Art in Washington DC.	 Source: Peter Clericuzi-Wikipedia
Signage/Wayfinding	
The New York city subway system is the most complex in the world, with 468 stations, 26 routes that frequently share track, and convoluted transfers. Signage is critical to helping riders navigate, but before 1970 it was disorganized hodgepodge of different typefaces, colors, shapes, line names, and station names. In that year, a new graphic standards manual by Unimark International (Massimo Vignelli and Bob Noorda) brought order to the chaos. While Vignelli wanted to use Helvetica, the original typeface in the manual was Standard Medium, a similar but different typeface. In 1989, the MTA reissued the 1970 manual, replacing the Standard Medium with Helvetica Medium, so similar to the Standard Medium that most people were not aware of the change. Today the New York City Transit subway signage is recognizable around the world and stands out as a premier example of excellent design.	 Source: SwissMiss
Harry Beck's London Underground diagram is universally recognized as one of the all-time great pieces of graphic design. It revolutionized the transit map with its radical simplicity: all lines were straight; all angles were 45 degrees; the context of the city was reduced to the single line of the river Thames; transfer stations, no matter how complex; were represented with a simple dot; geometry was radically warped; and distances distorted. The diagram turned a complex system into something easily understood. It has stood the test of time. Having adapted as the system grew and changed. It has inspired numerous transit maps since; virtually every subway map anywhere in the world includes its basic DNA. It also changed the mental geography of London, making distant suburbs seems more accessible and giving Londonders and visitors a like a simple way to visualize a complex city.	 Source: ® Transport for London

TOD	
The Union Station bike station in Washington D.C. provides a place for riders to rent bikes, store bikes, rent lockers, use a changing room, and get their bike repaired at a node with connections to subway, commuter rail, intercity rail, and bus. The 1,600 square foot building by KGP design slips in next to the classical arcades of Daniel Burnham's Union Station but asserts its own modern style in a shape inspired by the geometry and structural strength of a bicycle wheel, creating a beacon that represents sustainable transportation options.	 Source: DCist
Vehicles	
When San Diego inaugurated the first modern light rail system in the United States in 1981, they made two very deliberate branding decisions: calling the system a "trolley," not "light rail" or "Metro," and painting the cars solid red. Both decisions have endured. The red trolley has become part of the fabric and identity of San Diego, and nothing else in the United States looks like it.	 Source:Robert McConnell
The PCC streetcar was the standard U.S. Streetcar for a generation, and its mechanical robustness and good looks have kept it operating for 75 years. Designed by the President's Conference Committee, a consortium of transit operators and manufacturers, in an era when private cars were supplanting public transit, it was intended to be more comfortable, faster, more durable, and less expansive to operate than its predecessors; equally significantly, it was designed to look modern. All of these design features proved their value. 5000 PCCs were built from 1936 to 1952. In Pittsburgh, Boston, San Francisco, and Cleveland, they operated into the 1980s, keeping those systems open long enough to be modernized and converted into light rail. Today, rehabilitated PCC cars still run in regular transit service in San Francisco, Boston, Philadelphia, and Kenosha, as durable, comfortable, and visually striking as ever.	 Source: Chris Wood-Wikimedia Commons
The Minneapolis bus system of the mid-1970s featured vehicles that were painted entirely red. They used Helvetica, which was not yet a cliché, but added to the sense of modernity.	 Source: Twin Cities Metropolitan Council

When Bay Area Rapid Transit opened in 1972, it was the first entirely new rail transit in the United States in 50 years, and the first to be built in the interstate era. To change public perception of transit, it was designed to be the opposite of older subway systems, with well-lit stations, upholstered and carpeted cars, a smooth ride, magnetic strip ticketing, and a computerized control room that Richard Nixon compared to NASA mission control. The emblem of this new kind of transit was a new space-age transit car that looked the part. The smooth sloping front and asymmetrical window of the BART car became the visual representation of this new era of transit and an icon for the entire system.	 Source: © San Francisco News

Additional resources from the Federal Transit Administration:

- Federal Transit Administration Design and Art in Transit Projects: www.fta.dot.gov/13750.html
- Federal Transit Administration, "Art in Transit…Making It Happen," 1996. http://www.fta.dot.gov/publications/reports/other_reports/about_FTA_3529.html
- Art and Design in Public Transportation: http://www.fta.dot.gov/about/13750.html
- Art and Design: Eligible Activities, Selection and Procurement: http://fta.dot.gov/about_FTA_10643.html

Appendix B: Case studies of art and design in public transportation

- NYC Department of Design and Construction: www.nyc.gov/html/ddc/html/pubs/publications.shtml
- Project for Public Spaces. "Managing Downtown Public Spaces," p. 8. http://placemaking.pps.org/info/Books_Videos/managing_downtown
- Hensher, David. *Bus Transport: Economics, Policy and Planning*, Elsevier, Amsterdam, 2007.
- Mandell et al., *A Historical Survey of Transit Buses in the United States*, Society of Automotive Engineers, Warrendale, PA, 1990.
- Transportation Research Board, National Research Council, TCRP Report 22, "The Role of Transit in Creating Livable Metropolitan Communities" Washington, D.C., 1997. http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_22-a.pdf

Definitions

accessible path: A connection between destinations and/or transit stops that fully confirms to the America's with Disabilities Act, effectively avoiding barriers presented by grade, width, paving materials, change in elevation, and other factors that limit access for the disabled.

architect: One who designs and supervises the construction of buildings or other large structures. His or her design reach and impact is probably greatest in transit facilities.

automobile-oriented design: Design that prioritizes accommodating the automobile over transit, walking, bikes, etc.

brokering compromise: In a facilitated context, working with stakeholders with differing aims and objectives to establish common ground and general agreement.

built environment: The context for transit faculties that includes buildings, streets, plazas, parks and trackways.

community identity: The physical, demographic or ideological characteristics that distinguish a community from others.

design features: Elements of a transit facility that could be subject to design, such as stations, shelters, seating, monitors, etc. The design of these elements is often considered integral to transit users' experience.

design guidelines: Recommended practices, tools or elements that establish a vision and sense of purpose to guide the development of a facility and that suggest but do not dictate, encouraging creative solutions to technical problems.

grant-readiness: The degree to which a design solution complies with typical requirements for grant money to fund furthering the design or construction.

local jurisdiction: A county, city, village or township that exercises some level of control over land use and development within its boundaries.

multimodal: Refers to the integration of multiple transit services (and sometimes suggests different transit technologies such as rail, bus, ferry, etc.) including but not limited to transit, vehicular, pedestrian and bicycling.

percent for art: Municipal or other type of governmental ordinance requiring the dedication of a portion of total project budget costs to incorporating an art element in a capital construction project.

placemaking: A holistic process of engaging communities in defining and designing public spaces to meet their needs and to create a sense of place.

stakeholders: Project clients, including transit riders, transit operators, land use planners, neighbors of transit facilities, other city agencies and officials, building and property owners, employees in a TOD, the special-needs population, and elected officials. All may have unique and differing needs.

transit facilities: Bus stops, shelters, stations and other key components that house transit systems and contain design features.

transit-oriented development (TOD): Real estate development and neighborhoods that take advantage of transit access and support increased transit usage. TOD is often characterized by compact, mixed-use development within an easy walking distance of transit (typically within one-half mile of the transit station) that accommodates safe multimodal access.

Abbreviations and acronyms

ADA	Americans with Disabilities Act
PCC	Presidents' Conference Committee
TCRP	Transit Cooperative Research Program