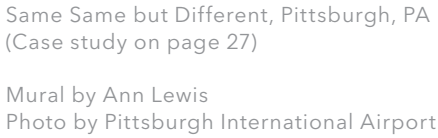
Tools & Tactics

This section breaks down the steps required to implement an asphalt art project.

When it comes to assembling a team, who does what? What difficulties should we expect, and what are some options for handling them? How can funding be acquired? How do we engage the community? What are some good ways for the city and neighborhood groups to work together to implement the project?

These questions and more are addressed here, drawing on the experience of successful project teams across the globe.

There is no one-size-fits-all process for asphalt art – each project will vary depending on its stakeholders, location, complexity, and scale. But the most common elements are discussed in detail in the following pages. They can serve as touchpoints for every step of your your project, troubleshooting along the way, and leveraging the best results throughout.



Same Same but Different, Pittsburgh, PA
(Case study on page 27)

Mural by Ann Lewis
Photo by Pittsburgh International Airport

Project Initiation

Asphalt art projects can be initiated in many ways. They may originate from a community group seeking to slow traffic in their neighborhood or in City Hall as part of a broad planning effort. Some projects are intended only for a short time, while other may be more permanent. There are many details to coordinate, but with the right team and sufficient planning, the project can be reasonably managed.

Generally, a project is initiated after someone identifies a potential site for an intervention and has either the resources, time, or passion to make it happen. Leadership from one person in particular is critical to the success of these projects; there should be someone who is ultimately responsible for managing the schedule and budget, whether that is a project manager assigned by the city or an executive director of a nonprofit.

While every project has basic elements, some of the recommendations in the pages that follow will depend on the initiating entity (community group or city) and the municipality's permitting structure, if any.

Projects are typically initiated in one of three ways:

1. Proposed by a community entity such as a nonprofit organization, informal group, independent artist, designer, or creative collective to address a community goal without a formal municipal approval process.
2. Implemented by a local government or municipal agency based on previous planning efforts or community requests.
3. Implemented through an ongoing initiative or program typically run by a local government agency. This might mean that an agency commissions an artist as part of a regular program for a particular space or that the city has an established permitting process for outside entities to do these projects on their own.

Generally, a project is initiated after someone identifies a potential site for an intervention and has either the resources, time, or passion to make it happen.

This intersection mural in Portland, OR, is one of many done by City Repair, a nonprofit organization that works hand-in-hand with the Portland Bureau of Transportation to accomplish these projects. This is a successful example of how nonprofit organizations often lead asphalt art projects. (Case study on page 19)

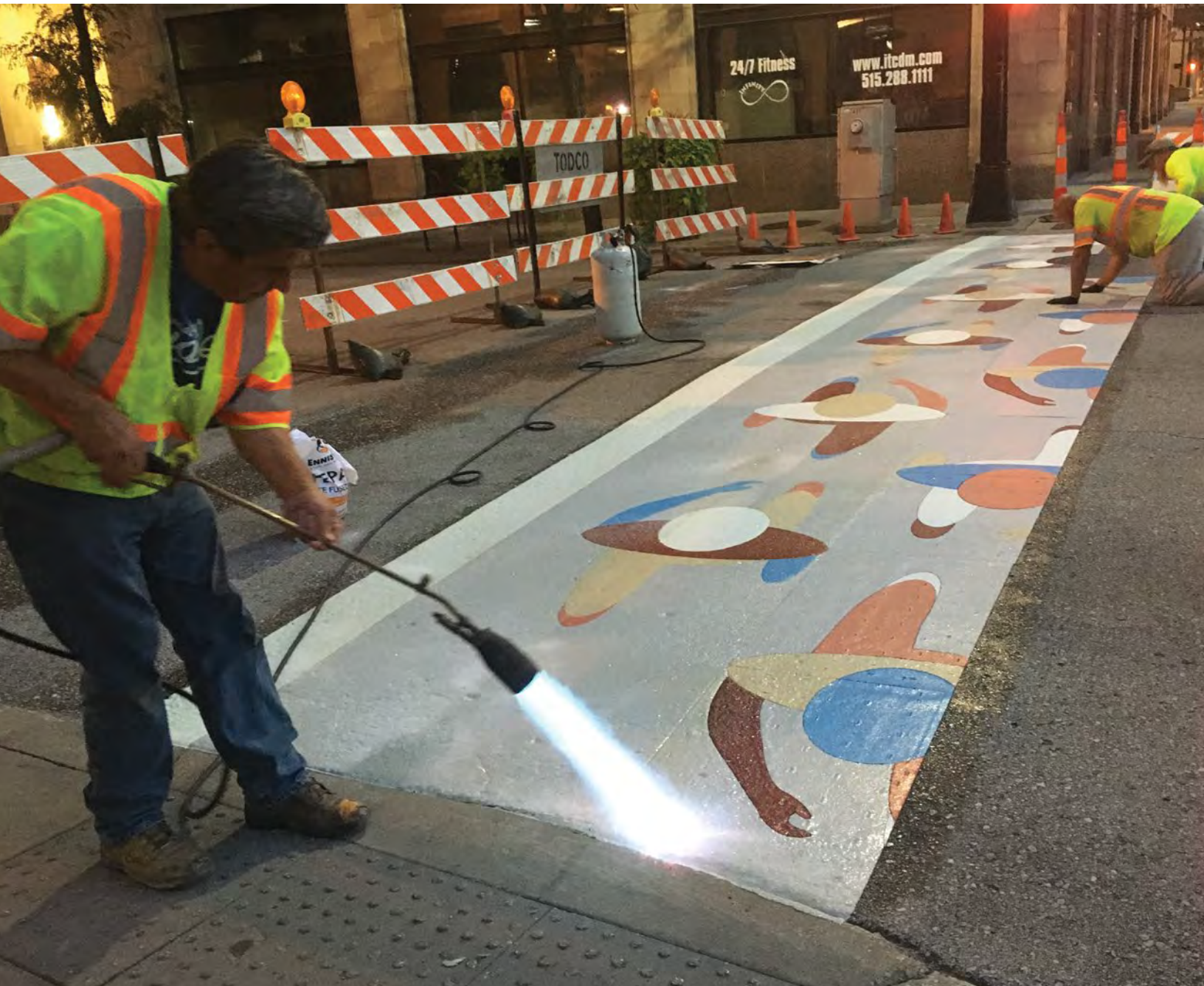
Mural by community member Colleen Smith
Photo by Greg Raisman

INITIAL PROJECT CONSIDERATIONS

Depending on who initiates the project, some preliminary research and planning will be needed. In the first stages of planning, consider the questions on the following pages regarding the location, ownership, creation, and longevity of a project. Knowing the answers to these questions up front will help with a smooth implementation later and raise any red flags about the selected site. We suggest documenting and discussing these details and sharing them with all of the project partners. These questions assume a project location has been selected, though they are useful for someone scouting out potential locations as well. Don't be disheartened if at first you do not have answers to every question! Most projects don't address many of these items and are still successful.

Some paint applications, like this one in Des Moines, may need to be applied by professional contractors. (Case study on page 21)

Crosswalk Mural by Peter Gibson
Photo by Greater Des Moines Partnership



SITE CONSIDERATIONS

Who controls the site? What entities must be involved in design review and permitting? (i.e., department of transportation or public works, art commission, historic commission, or other entity).

This is an essential first question because it may be that the controlling entity has a permitting process for asphalt art projects that will impact the project schedule or the entity may not allow asphalt art projects in the first place.

If you are working on private property, getting permission in writing from the site owner early on is also key. You may still need building permits, street closure permits, or permission from a local arts commission or historic review commission. Inquire about master plans, community plans, or other long-term goals for the site. Inquire about any upcoming projects that may impact your project. What is a vacant lot this summer might be a retail location next year. Having that information will help you evaluate your site and plan for the longevity of your project.

How might the project complement a previous planning effort or a local community goal?

Project teams should determine if there are any existing planning efforts or community goals that this project might advance. Perhaps the project can be tied to an ongoing public planning process as an outreach activity. There may also be funding available for projects that are a part of a master plan.

What is the condition of the pavement?

Pavement that is in bad shape may need additional coats of paint or simply need to be patched or repaved. Crosswalks in particular should be fixed before the project begins. Paint may make it difficult for pedestrians to see cracks or other breaks in the pavement, leading to injury. Some cities repave or micro-surface asphalt before applying a coating, which will dramatically improve the longevity of the project as the coating will adhere much better to fresh asphalt. If this is not feasible, cities should consider requiring certain pavement conditions for accepted projects, and communities should make sure the area being requested is in good condition before applying for a new project. See “Materials & Site Considerations” on page 88 for more information on how to choose the right coating, pre-treatments, and other methods to lengthen the life and general durability of a project.

What type of street is being considered and what is the volume of traffic?

High car volumes will lead to faster wear on the mural, which should be considered as a factor in paint choice. Streets with a car volume of 80,000–100,000 ADT (Average Daily Traffic) may not be suitable candidates for art in the roadway. Wide streets (50'+ or more than five lanes) are also very challenging, but not impossible. The higher the volume and speed of cars on the street, the less appropriate a street is for art in the roadway. For art in pedestrian spaces, the threshold can be higher based on the judgment of the project team and relevant permitting agencies.

Will the site require complex traffic control for installation? How will the installation affect traffic flow and the right of way?

Signalized intersections or high-volume roads (over 20,000 ADT) may require more complex traffic control and redirection. The city may not have the necessary internal traffic control equipment, and the budget may not allow for the rental of such equipment, which can be very costly.

Are there existing marked crosswalks, curb extensions, or other traffic pavement markings?

Consider how these interact with a potential design. Some traffic engineers require designs in the crosswalk to be within the white lines, while others are more permissive depending on context. Other pavement markings may be within the area considered for an asphalt art project. These may be painted over or they may be incorporated into the design.

Are there other street design elements such as: ADA ramps, bus stops, electrical poles, on-street parking, or driveway curb cuts?

These might conflict with proposed curb extensions or crosswalks and should be considered when developing the design.

PROJECT DEVELOPMENT

What is the projected duration of the project? How long is it intended to last?

This will have implications later for maintenance and paint type. For permanent projects, choose more durable paints. If the installation will be repainted within a year, then less durable paint can be used. More durable paints will also be more expensive. See page 88 for more about paint types and duration.

What is the time frame for implementation? Is there a specific deadline for project completion that needs to be met (e.g., the opening of a road or a public event)? Is the deadline flexible?

Consider factors such as weather, local events, seasonal changes in population, or holidays as these might impact the schedule for the installation. See "Project Management & Schedule" on the following page for more information on setting a "build date."

Who is on the core project team? Who are the key decision makers?

It is important to have representatives from both the city and the community on the core team. See "Assembling a Team" on page 74 for more on project team roles and responsibilities.

Who will create required drawings and construction documents for the project?

If the city is the lead, this may mean using an existing on-call contract for the creation of striping plans and maintenance of traffic plans or asking the nonprofit partner to take on the work of hiring an architect to create the plans.

What is the budget? Who is paying for the project?

This will impact material procurement. If the city is the source of funding, then procurement may be challenging: materials may be limited to those the city already has available or can procure with existing contracts. City leads should consider working with nonprofit entities that have more flexibility when spending grant funding.

PROJECT IMPLEMENTATION & STEWARDSHIP

Will the project team utilize volunteers in the implementation?

If so, the team will need liability waivers for volunteers, a volunteer management plan, and amenities for volunteers during the install (water, food, shade, etc.). Volunteers will need to be trained on the material application and safety. See "Site Safety & Traffic Control" on page 95.

Are there any business owners and/or residents adjacent to the site?

If so, these should be the first groups approached about the project. Getting their support and participation may be critical to the success of the project. See "Engaging the Community" on page 90 for more information about different outreach methods.

How will the project be maintained? Will it be allowed to fade after one application or will it be reapplied? Who will maintain the project once it is complete? Has that entity agreed to participate in the project? For how long?

All paint and other materials will fade and require maintenance. How this is addressed might depend on the entity: is a longer term reconstruction of the street planned, or is the project intended to be permanent? If the city is the lead and no upcoming repaving/ reconstruction is in the works, then the city will need to repaint. If a community group is leading, then the city may require them to agree to maintain the project for a certain amount of time. If the project is temporary, the city will need to consider a removal plan. This will be a critical detail when choosing materials. See "Planning for Longevity" on page 88.

For projects that create pedestrian plazas, how will programming and stewardship be addressed on an ongoing basis?

Long-term stewardship is a critical part of the success of a project. Project teams need to consider how the space will be used after the project is complete. These responsibilities are often given to local arts organizations or Business Improvement Districts (BIDs) .

PROJECT MANAGEMENT & SCHEDULE

One of the first steps when initiating a project is establishing a time frame and deadline for the design and implementation of the artwork, along with an overall schedule of milestones. Set a date that works for you and your team given local weather, important holidays, or other events. This is especially important if you plan on working with volunteers or if your installation requires a complex traffic control plan.

For example, consider that many communities have seasonal peaks in tourist activity. You may want to plan the install around these seasons to avoid a traffic control conflict or, alternatively, install during the season as a way of showcasing local art and culture. In the case of the Coxe Avenue example on page 25, the installation was planned around the Fall "leaf" season, when Asheville sees a spike in tourists coming to see the leaves change color. The main mural painting activity became an attraction for many visitors.

Your schedule should act as a to-do list of tasks to be completed and matters to be addressed, outlining responsible partners for each task as well as internal deadlines to meet. Some items might function as an ongoing task, such as community and business outreach, while others may need to meet strict deadlines, like ordering materials and finalizing the design.

Consider the following common tasks as you lay out your schedule:

- ☐ Identify partners and stakeholders (ongoing task)
- ☐ Identify regulatory and political framework
- ☐ Pre-evaluation of the site
- ☐ Develop budget and procurement list
- ☐ Select artist or designer
- ☐ Meet with local government staff (if relevant)
- ☐ Outreach to local businesses and residents (ongoing task)
- ☐ Develop final design (make sure to incorporate time for revisions based on community feedback)
- ☐ Develop construction documents/striping plans
- ☐ Acquire permits/traffic control
- ☐ Material and supply procurement
- ☐ On-site programming or activation
- ☐ Create maintenence plan
- ☐ Create evaluation plan and monitor performance

> Your schedule should act as a to-do list of tasks to be completed and matters to be addressed, outlining responsible partners for each task as well as internal deadlines to meet.

Assembling a Team

A successful project team, like this one in St. Petersburg led by the Arts Alliance, will have representatives from city agencies, community organizations, and other members of the community.
(Case study on page 15)

Intersection mural by Cecilia Lueza
Photo by Beth Reynolds

The ideal team includes representatives from each entity collaborating on the project and a project manager(s) who will lead the team at every step of the process. Once the project manager(s) have been selected, their role is to identify the skills needed to complete the project and to find the balance between an inclusive team and an effective team that can make quick decisions. Those leading the project will direct other team members in their tasks, make sure deadlines are met, and make final decisions on any component of the project (e.g., designs, materials used, duration).

Many projects have a small executive Project Team and a larger Steering Committee. The Project Team makes critical decisions about the project and must be empowered to move things forward on a frequent (perhaps weekly) basis. The Steering Committee convenes less frequently (perhaps once a month) and is meant to include a larger pool of partners with varied expertise.

> The Project Team makes critical decisions about the project and must be empowered to move things forward

Team members may include:

- Entity initiating the project
- Site owner(s)
- Public works, transportation, planning, or other government departments that oversee the public right of way
- Entities that will implement the project, if different from above
- Community member(s) who will use the project
- Community member(s) who live or work near the project
- Artist or designer creating the content for the project

WHAT WILL THE PROJECT TEAM DO?

- ☐ Decide on roles and responsibilities for each team member
- ☐ Establish answers to the questions listed above
- ☐ Manage the administration of the project by coordinating funding, permission, reviews, permits, contracts, budgeting, payments, and communication
- ☐ Make sure the community impacted by the project is aware and supportive of the project
- ☐ Develop process for selection of the artist or designer to create the project
- ☐ Participate in design development and review
- ☐ Secure materials, equipment, and other necessary project materials
- ☐ Manage the implementation of the project by developing a detailed plan of action for painting and installation, being physically present at the site to assist with hands-on activities from painting to answering questions from passersby, managing project volunteers, assisting with day of site needs, and planning a celebration when it is finished
- ☐ Develop a schedule for repair, maintenance, or refreshing of the project

The most successful projects are collaborations between the city and a community partner. There is no one-size-fits-all blueprint for distributing roles and responsibilities. These will depend on the lead entity, the permitting framework established by the city, the capacity of the community organization, and the resources within the city. In the following sections, we describe some common roles for both community organizations and municipal agencies.

This project in Bankside, London, was awarded funding by the Transport for London's Future Streets Incubator Fund, a program created by the mayor to encourage projects that improve public spaces in London. (Case study on page 23)

Colourful Crossings mural by Camille Walala
Photo by Better Bankside

THE ROLE OF A COMMUNITY MEMBER OR NONPROFIT ORGANIZATION

Some of the common responsibilities of a community organization on the team are to convene the community to gather input, conduct volunteer and business outreach, and ensure an equitable and transparent process. The community group can be the communication conduit between the city and the community at large. Schools, churches, businesses, and other nonprofit organizations may all be potential partners.

If a community group is the project lead, it is imperative that they find a partner within the city government, either staff or an elected official, to champion the project and help with any regulatory issues. Making contact early with the city is key. Check in with your local planning, public works, or transportation departments to ask about permits, the design review process, potential partnerships, and how to implement your project within their workflow. They may have an existing program or funding stream to facilitate your idea, information about insurance requirements, as well as recommended materials. For example, the City of Austin has a creative crosswalk program for community-initiated projects. Ask members of these departments to join your project team and be sure to keep them informed as your plans evolve.

> If a community group is the project lead, it is imperative that they find a partner within the city government to champion the project

The community group or other third-party entity in many cases can also handle procurement of materials as a way of working around complex municipal procurement rules. They may also take on the programming or stewardship of a space once completed.

THE ROLE OF THE CITY

Some of the main roles of the city when leading a team or in a support role are to ensure an efficient and easy design and permitting process (e.g., waive fees, offer design review support), to provide traffic control for implementation, and to participate in or lead the marketing and data collection efforts. Many cities have created standards for the creation of asphalt art that also provide a permitting pathway for community-led projects.

The city should take the lead on those project elements for which they have resources or existing processes. These may include cleaning and preparing the site in advance of the project and providing any necessary restriping or touching up of existing striping. If available, the city should provide transport for or store materials for the implementation. In many cases, the city can provide support for implementation through the use of existing city equipment.

If this is the city's first time working on a creative street project, you must enlist the participation of local community members to bridge the gap between municipal leaders and the community at large. Many community organizations and artists may be inspired by your work and want to participate. Your role as the city is to help the community group identify key stakeholders and support the outreach effort by providing resources such as meeting space, printing costs, and other logistics.

Once a project has been identified, seek a variety of partners who can fill roles on the team. As a municipality, your public works and transportation departments have deep knowledge about the kinds of materials that work on your streets, taking into consideration climate, use, and future plans for specific locations. Involve these colleagues in the early planning stages to discuss materials, equipment, process for street closures, staffing requirements and availability, and other technical project needs.

After projects have been completed, conduct an exit interview with project participants to learn from your pilot, including artists, volunteers, and others who were on site during implementation. Consider establishing guidelines and procedures for ongoing projects to make it easy for community entities and artists to participate.


TIMES SQUARE ALLIANCE
TIMES SQUARE ALLIANCE

Managing a Budget

The projects featured in this Guide demonstrate typical funding sources for asphalt art projects:

- Municipal capital improvement funds or other construction funds
- Municipal art funds (usually based on a percentage of construction funds allocated for art)
- Grants or funds from local, state, federal, or private sources (e.g., Seattle Neighborhood Matching Fund, AARP Community Challenge grant program)
- Private or public sponsorships

For this ground mural in Times Square, artist Molly Dilworth was selected from over 150 submissions to NYCDOT's design competition launched in 2010. (Case study on page 41)

Cool Water, Hot Island mural and photo by Molly Dilworth.

PROJECT BUDGET

One of the main reasons why people turn to ground murals for improving streets and public infrastructure is that they are quick and relatively inexpensive. That said, a reasonable project budget is needed to account for everything from insurance to paint. Creative street projects can be affordable – you may be able to secure donations of high-quality supplies, and some work can be done by volunteers. However, there are hard costs associated with all of the project types in this Guide.

The following is a list of potential hard and soft costs that may be included in the budget, though not all of these items will apply to every project:

Planning:

- ☐ Administrative staff time
- ☐ Permits or application fees
- ☐ Legal fees
- ☐ Insurance
- ☐ Fundraising and managing project funds

Design:

- ☐ Artist / designer fees
- ☐ Testing materials or design elements
- ☐ Producing design review documents and presentations

Implementation:

- ☐ Materials and supplies
- ☐ Equipment
- ☐ Fabrication of components from specialty contractors
- ☐ Labor
- ☐ Maintenance of traffic (street closure fees, police, traffic control barriers)
- ☐ Water, cloths, and tarps for on-site cleanup
- ☐ Shade structures or cooling areas
- ☐ On-site hospitality for crew and volunteers, including water, food, and access to a restroom
- ☐ On-site storage or security for supplies, equipment, and personal belongings
- ☐ Opening celebration
- ☐ Documentation (during install)

Post-Installation / Maintenance for Long-Term Installation:

- ☐ Programming planned during the life of the project
- ☐ Documentation (post-install)
- ☐ Labor and materials to refresh project
- ☐ Labor and equipment to remove project

DESIGN FEES

To ensure a high-quality asphalt art project, many project teams formally hire an artist, architect, or designer to produce a design, develop design documents, and/or help organize volunteers or the installation crew to implement the project. In some cases, an artist may be willing to donate their time and design for the project, though it is best practice to include a design fee in a project budget so that artists get paid fairly for their work. Either way, someone will need to be responsible for both the creation of a design and the translation of that design into a built work – from permit drawings to stencil creation. A good benchmark for artistic design and project management is 10–20% of the project budget.

Keep in mind that if an artist or designer is fabricating parts of the project or materials needed for the installation such as stencils, funds will need to be allocated for materials in addition to the design and management fee.

FUNDRAISING

If your project is not fully funded from the start, a fundraising plan will need to be developed. Every member of the project team should participate in brainstorming funding sources. Consider approaching multiple funding sources with interests in the different aspects of these types of projects. For example, asphalt art projects are appealing to corporations and foundations that support placemaking, community

Each year, Mural Arts Philadelphia hires different artists to design and install a mural at the Eakins Oval. (Case study on page 31)

Summer Kaleidoscope mural by Jessie and Katey. Photo by Steve Weinik

development, public art, walkability, and community health. Other funders may be interested in the content of the artwork. For example, a project with natural and environmental content may be of interest to funders with an interest in those areas. Utility boxes wrapped with community photographs may be of interest to a funder who supports photography or journalism. It is also important to research foundations, corporations, and individuals who support the geographic area where your project is located.

When you involve artists in your project, you may become eligible to apply for funds from local and state arts councils. Larger-scale projects with ample time frames could apply to the National Endowment for the Arts.

Inquire if your municipal or county public works department could fund the project with capital construction dollars. If government capital funds are not available, government support could also come in the form of allocations from local or state elected officials. Be sure to meet with representatives from their offices to discuss other grant programs for which your project may be eligible. Small budgets could be covered or small gaps in larger projects could be bridged through an individual contribution campaign or crowd sourcing.

Finally, city departments and community organizations commonly work with fiscal sponsors to accept funding and facilitate contractual relationships. Fiscal sponsors are nonprofit organizations that provide their legal and tax-exempt status to other organizations in furtherance of charitable and civic goals and projects. It is important to determine whether the city or community partners will need a fiscal sponsor to accept funding, hold contracts, or facilitate other aspects of the project.

Design Development

ARTIST & ART SELECTION

Some of the projects included in this Guide were produced by ongoing arts programs with established methods for choosing artists and design professionals. If you are not collaborating with an ongoing program on your project, methods for artist selection include:

- Open call process by request for proposals or request for qualifications
- Invitational where a small group of artists are pre-qualified for the project
- Directly approaching a specific designer for a proposal
- Utilizing an in-house designer or other creative member of the project team

How the art is chosen is important to consider. Selecting the art will require care and expertise to run a process that is fair, sensitive to relevant communities, and will ensure a final product of high artistic quality. In order to execute an efficient and effective artist selection and engagement process, cities should consider working with an experienced arts administrator to oversee the artist selection process and to coordinate participating artists, such as in the Same Same, but Different project in Pittsburgh (page 27). If there is a request for proposals, the arts administrator could coordinate a jury of community members and/or arts professionals who can judge the artistic quality, feasibility, and community relevance of the proposals. Otherwise, selection may be led internally by the project team, but should enlist input from visual arts and design professionals and local

community members. In some cases, other selection models have been employed, such as in the Walks of Life mural in West Palm Beach (page 17), in which students at a nearby art school voted on several design options created by their peers with professional coaching from Street Plans.

In some selection processes, cities select a handful of finalists and request that they develop their design concepts beyond their initial proposals. Note that best practice is to offer compensation for additional design development even if the artists are not selected for the project. Once the winning artist is chosen, they must be given a contract to continue working on the project.

The butterfly mural in Asheville underwent several rounds of design review. The first step was meeting with the community to choose a location for the mural. The project team then worked with artist Jenny Faires to translate the initial sketches into an implementable design. The design drawing shown above was used by the team during the painting process. (Case study on page 25)

Aerial photo by Justin Mitchell
Drawing and additional photos by Street Plans Collaborative

CONTRACTS & LEGAL AGREEMENTS

Unless you are working with an in-house designer to implement the project, you will need a contract. Most likely you will be working with an artist, designer, or other creative collective who should be paid for their work. The contract should outline all of the expectations for products, services, responsibilities, payments, ownership of the physical project, ownership of the copyright, liability insurance, maintenance, life span, and more. For the design and implementation of the project, the contract will likely engage the entity who owns the site, the entities implementing the project, and the entity who will own the project.

For projects on public property, work with your local planning, public works, or transportation department to see if other agreements will need to be put into place. For example, on public property, the government entity that owns the site may need to execute an agreement with the entity implementing the project to legally access the project site (see the Miami Dominoes project on page 61).

Your local government arts agency, public art program, or arts council will likely have a public art contract to adapt for the project. If you are starting from scratch or if you are an artist initiating a project, two good resources are Sarah Connelly Odenkirk's *A Surprisingly Interesting Book About Contracts: For Artists and Other Creatives* (2014, AMMO Books) or the Americans for the Arts' Public Art Network (publicartnetwork.org).

If you are seeking outside resources from a local, state, federal, or private entity, there will also likely be a contract to accept and distribute the funds.

Note that artists will retain the copyright of their work unless the project is specifically designated as a work-for-hire. The artist and commissioning organization can agree on how images of the artwork will be used and credited.

PERMITS

Depending on the jurisdiction of the project and the entity leading the project, a permit may be required. These permits will allow the project team to occupy and use the right of way temporarily during the installation and ensure that safety and mobility won't be compromised.

Some common requirements for submitting permits include:

- Description of the project and a detailed installation plan
- List of materials
- Traffic control plan if the project will occur in the right of way
- Proof of liability insurance, typically naming the site owner and other project partners as additionally insured on the certificate. This is typically a special event coverage for the installation.
- Approval from all or a percentage of property owners adjacent to the installation site
- Site use agreement outlining the responsibilities of all parties involved in relation to ownership, maintenance, and removal

For information on model legal agreements, permits, and insurance, see asphaltart.bloomberg.org.

COMMUNITY ENGAGEMENT & DESIGN REVIEW

Whether the project is being designed in-house (by members of the project team) or by contracted artists, developing a design with the community will require ongoing communications and meetings. Key members of the community should be a part of the core project team. Either the city or a lead nonprofit organization should convene a public meeting to discuss the site and preliminary design considerations. The team artist or designer should participate and might even co-lead this meeting. Following this meeting, the artist or designer should develop draft concepts for review by the project team. This offers the team the chance to share feedback about the content and the materials in a constructive environment and provides the artist or designer with enough time to evolve their concept as they respond to the feedback. Work with the artist or designer to develop a realistic timeline for revisions, and adjust the project schedule accordingly.

Once the design has been reviewed internally, it should be shared with the public at large at a community event in addition to any other reviews required of your project by community, art commission, design commission, site owner, traffic engineer, or other entities.

Ongoing regular meetings with the community and continued in-person outreach where designs are shared with both municipal partners and community members are critical factors in developing an authentic and informed design.

This mural at the Pittsburgh Airport was installed using runway-grade thermoplastic, a material that is engineered to last longer than other paint applications. This ensures the longevity of the project and reduces its maintenance costs. (Case study on page 27)

Same Same but Different mural by Ann Lewis. Photo by Pittsburgh International Airport

DESIGN PROCESS & STANDARDS

Several factors go into a successful and beautiful design. The first driver of a design should be the identity of the surrounding neighborhood, cultural characteristics, and diversity of the community. This may mean looking to local architectural or cultural traditions for inspiration or to the natural world.

For example, the design of Plaza Rue Vendome on page 47 was inspired by the local art deco architecture that is prevalent in Miami Beach. The design team made three potential designs and brought them to the public at a community workshop to vote on the design.

Another factor in the design process should be consideration of how the project will be implemented. Designers must find a balance between the complexity of a proposal and how difficult it will be to implement. This depends in large part on the resources available for things like paid contractor labor and stencils or if the project will be implemented with volunteer help.

For Rue Vendome, a specialized street paint was used that is meant for pedestrian spaces. The paint supplier flew to Miami Beach to train the city and project team in the application, while the city worked with existing contracts for other items like planters and chairs. (Case study on page 47)

Photos by the Street Plans Collaborative

Scale is also an important consideration in the design process. Consider how the project will be viewed and what the experience of a pedestrian will be when walking over the mural. Some designs look great as a drawing on an 8.5" x 11" paper, but do not translate to full scale. Similarly, some street murals look great in photos taken from a helicopter, but may be hard to decipher when standing directly on them. Using repetitive patterns and solid background colors may help create a design that can be appreciated from multiple angles and distances.

For projects that impact the layout of the street, the design may need to be submitted for approval to the city's or other government entity's traffic engineering department. No single national standard exists for art in the right of way. While the Manual of Uniform Traffic Devices (MUTCD) is the document that traffic engineers use to guide the use of pavement markings and paint colors, art on the street is not considered a traffic control device and thus is not regulated by MUTCD. However, where art is used as part of a striped crosswalk, the Federal Highway Administration has provided some guidance: "subdued-colored aesthetic treatments between the legally marked transverse crosswalk lines are permissible provided that they are devoid of retroreflective properties and that they do not diminish the effectiveness of the legally required white transverse pavement markings used to establish the crosswalk."[2]

Every city solves for approval differently based on local context. For example, some cities, such as Houston, allow for any combination of colors, symbols, and words, as long as they occur within the white transverse crosswalk lines. Other communities use the volume of cars or character of a street as a determinant of what is allowed. An engineer may allow for a brightly colored installation on a low-volume residential street, while being more restrictive on a higher-volume, suburban location.

Some city engineers may provide more specific color or pattern recommendations about what they find acceptable, while others might have a more flexible interpretation of the guidelines. The important thing is to have open communication with the approving traffic engineer to translate the community vision into an approved plan.

Asphalt art projects, particularly murals, are generally not considered advertising as long as they do not incorporate commercially recognizable symbols or draw attention to a product, activity, or service. The inclusion of logos or commercial symbols and characters may be subject to regulation as a sign or advertising in certain jurisdictions and thus should be avoided. Be sure to check the local sign ordinance to verify any additional regulations.

> The first driver of a design should be the identity of the surrounding neighborhood fabric.

[2] "Interpretation Letter 3(09)-24(I) – Application of Colored Pavement" Memorandum, U.S. Department of Transportation Federal Highway Administration, August 15, 2013.

PLANNING FOR LONGEVITY

Before developing a design and implementing the project, decide how long the project will last, if it will be allowed to fade, if it will be maintained, or if it will be replaced by another project after a predetermined amount of time. In addition, decide who will be doing the hands-on work of maintenance and removal. Options include the artist or designer, the site owner or manager, city staff, or community volunteers.

It is important to make this decision in the planning stages, since these factors impact the choice of materials, content, and qualifications of an outside artist or designer. For example:

- An asphalt art project with a one-season life span will require a material easy to remove with a power washer. It may also be a good opportunity for project teams working on this scale for the first time.
- A project with a multiple-year life span that will not be maintained will require sturdier materials and a design with continued aesthetic appeal as the project becomes worn by pedestrian, bike, and vehicular traffic.
- Asphalt art projects that will be maintained will require materials, design, and a project site appropriate for the reapplication of materials.
- Artwork meant for spaces that will be eventually driven on will fade much more quickly than artwork on pedestrian-only spaces.

MATERIALS & SITE CONSIDERATIONS

When it comes to materials, each project will require a different selection. Materials will vary depending on the project's desired use and duration. For most projects, local government entities will also require the selected paint to be mixed with a non-slip additive such as Shark Grip® to avoid surfaces from becoming slippery once the installation is in place. Below is a list of common products used for asphalt art projects that range from very temporary to more permanent:

- Tempera paint
- Water-based field-marking paint
- Latex or acrylic household paint
- Acrylic traffic marking paint (Roadzilla® MMA, Rustoleum®)
- Epoxy-based pavement coating
- Thermoplastic (TrafficPatterns®, DuraTherm®, DecoMark®)

To ensure the paint's durability or to extend its life, you may also consider the following methods:

- Power wash and clean the site from any debris the day before or a few hours before the installation begins
- Apply a primer coat prior to the artwork installation

- Apply a sealant once the artwork has cured or, in the case of vertical infrastructure murals, apply anti-graffiti coating. Some projects in this guide have used products like Graf-X WB anti-graffiti coating and Clear Shield anti-graffiti coating.
- Make sure the artwork area is completely closed off to vehicles and foot traffic until the paint has completely dried
- If using light colors, consider applying a white base coat
- Freshly paved areas will absorb more paint. Make sure to account for extra layers of paint if painting over a recently paved surface.
- Consider testing a range of installation tools before purchasing them and making sure the installation crew or volunteers receive proper training to ensure the application process matches your expectations
- If using stencils, make sure they are cleaned before reusing to avoid damaging other parts of the project
- Set up a workstation that will hold all of your painting materials in one place by covering the surface with a large tarp. This will ensure that your working area remains clean even if some paint spills.
- Some cities utilize materials that combat particular environmental challenges. For example, innovative new paving materials have been developed to mitigate rising urban temperatures. "Cool pavements" come in a variety of forms, from a coating on street surfaces that increases the solar reflectivity to entirely new, permeable concrete that can absorb water, which later evaporates and cools the surrounding area.

For Lincoln Hub, the project team used an epoxy traffic paint that is durable enough to be driven over, but can also be used for pedestrian spaces like curb extensions and sidewalks. This paint was intended to last 3 years, but has lasted several years longer with a yearly application of sealant. (Case study on page 37)

Photo by Lakeview Chamber of Commerce

CONNECT WITH SUPPLIERS & MANUFACTURERS

The people who make and distribute products will have information to share about application methods, curing time, reaction with different temperatures and materials, maintenance, and removal. Much of this information can be found on material spec sheets/cut sheets. They may even be willing to participate in the application. Ask for color samples and examples of where the product has been used, giving you a chance to follow up with questions. Share this information with the entire project team, including the artist or designer developing the project. They may consider design adjustments based on how the product performs. In many cases, designs may have to be changed based on available colors.

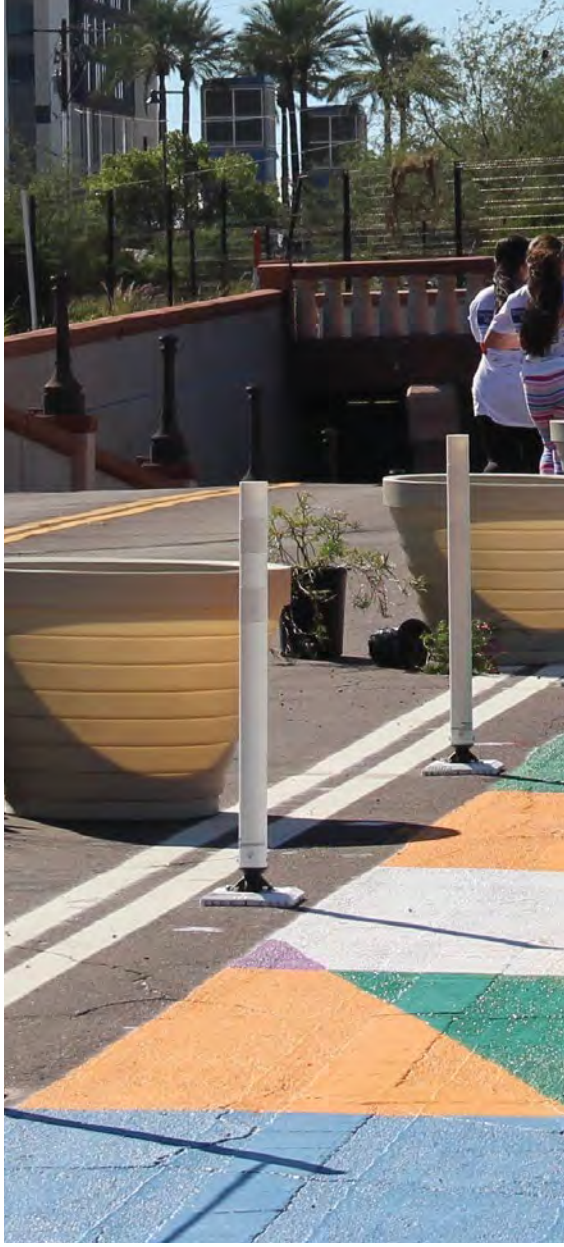
PROCUREMENT

One challenging part of asphalt art projects can be the procurement of materials. Many cities have procurement rules that prescribe specific brands or materials or require a minimum number of bids when the cost a material exceeds a certain threshold. If the project is being led by a city, they may be able to work within these rules by breaking material orders into smaller increments that fall below procurement thresholds or they may include the material costs within a larger contract with an on-call vendor. Depending on the source of funding, the city may consider offering a grant to a local community organization to procure materials or the city and community group may work together to pool resources. The city may also have some types of paint stock that can be used in conjunction with materials procured by others.

TESTING MATERIALS & TRAINING CREW

Unless the artist, designer, or your community has extensive experience working with a specific material on your project surface, it is wise to test materials ahead of time. It is also a good idea to test the application of the materials with the tools you will be using. Additionally, set aside time to train your installation crew if they are not yet familiar with the materials or application process. The test should approximate the pavement conditions as closely as possible – and also use this as an opportunity to test paint removal. Spending an hour testing now can keep you from making costly mistakes later.

Engaging the Community



There are many opportunities to involve community members in the process of asphalt art projects. It is a best practice to inform and engage people who are physically or conceptually connected to a site's location through live, work, play, and interest. Having a variety of engagement strategies will increase the diversity and number of participants as well as support for the project.

Not everyone has the time or ability to attend a public meeting, but they might have time to attend a free event where they can see the design and meet the design team or artists. Transportation, time of day, language spoken, cost, and daycare are common barriers to participation. The project team can develop solutions to remove barriers to participation in your community. For communities with little public participation, building awareness of the process is a way to increase community enthusiasm for future projects. Making the effort to widely engage the community is a strategy to build broad support for the arts.

For all projects, whether undertaken by city departments, local organizations, or neighborhood groups, community engagement tools can include the following:

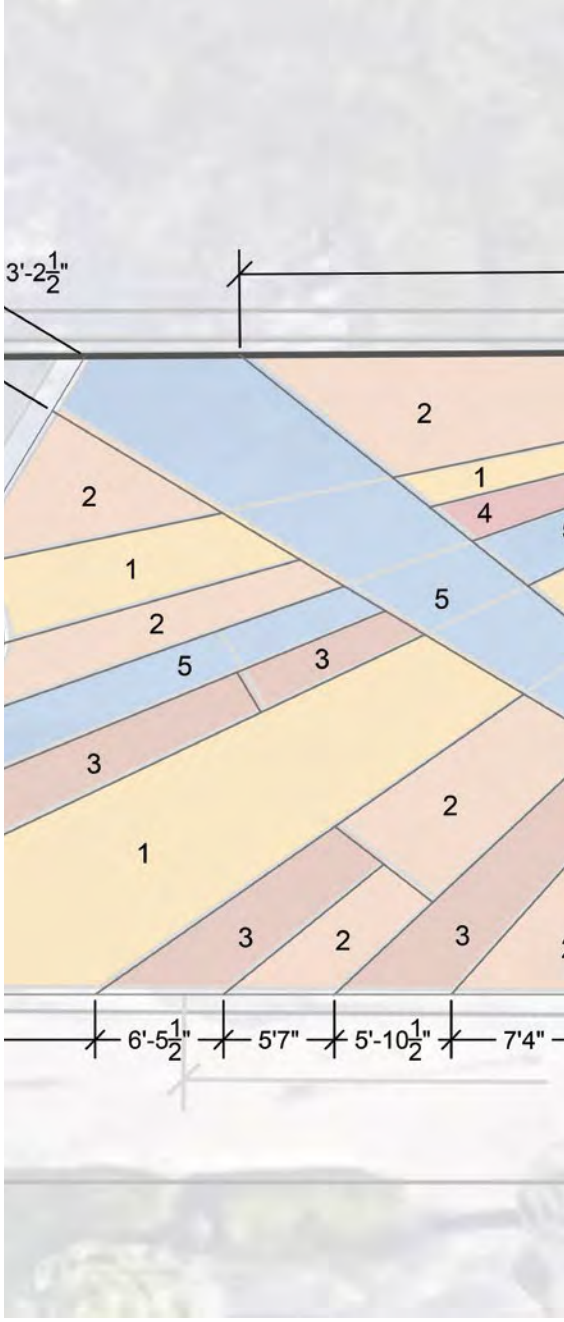
- Door-to-door outreach
- Handing out flyers and creating educational signage
- Public meetings for presenting the project idea and design options
- Allowing the community to vote on the design or be involved in the review process
- Inviting locals to become volunteers during the installation and participate in the creation of the artwork
- Engaging local businesses or institutions such as schools and art organizations to become part of the project team

- Purchasing materials and supplies from local businesses
- Hosting a celebration party once the installation is complete
- Building an ongoing program for activating the space with community events
- Conducting pre- and post-installation surveys to evaluate the community's expectations and receptiveness to the project

In Tucson, the Living Streets Alliance worked as a liaison between the city and the community. They handled community outreach both during the design development phase and handled volunteer management during the installation event. (Case study on page 35)

Photo by Taylor Miller

Implementing the Project

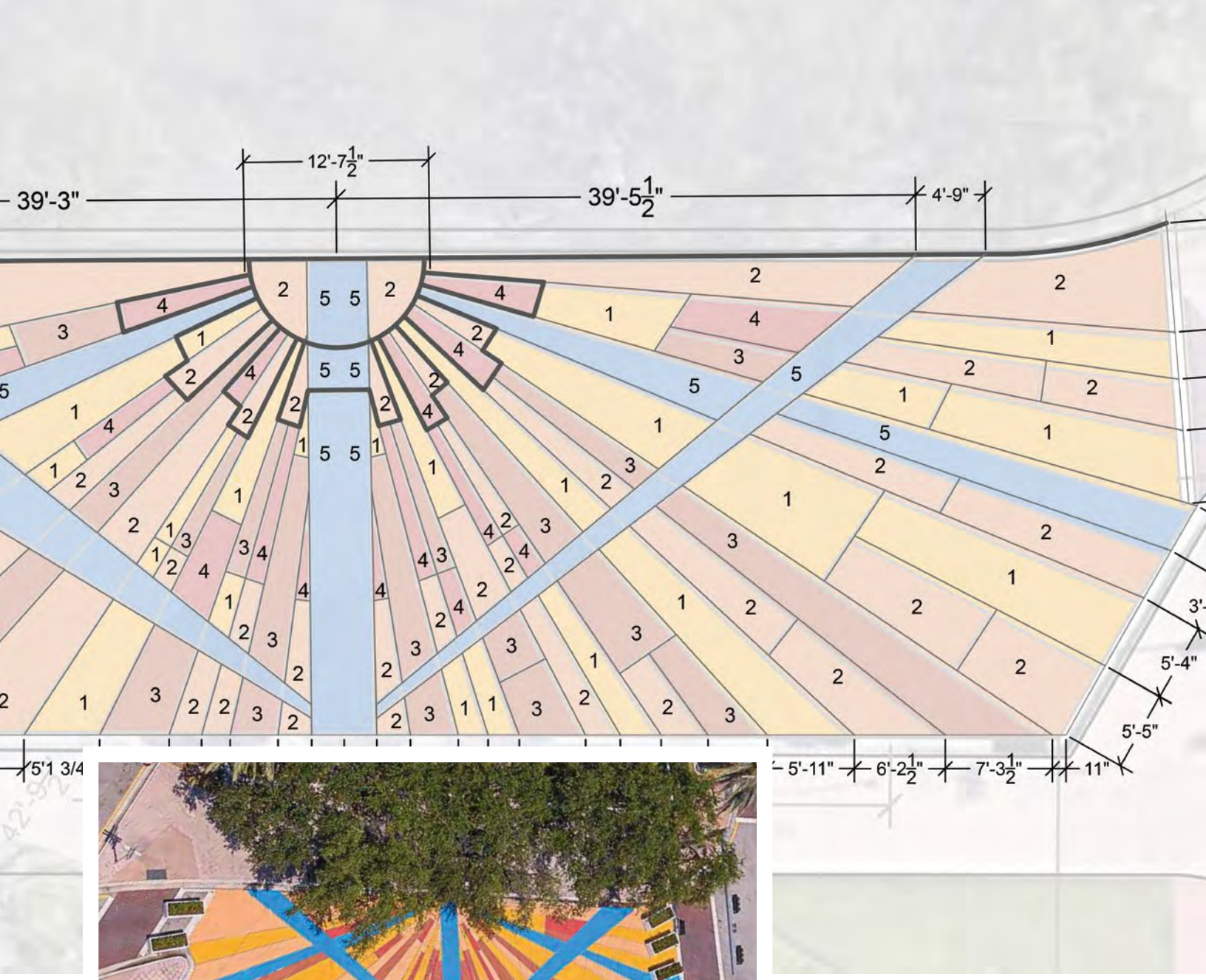


MATERIALS STORAGE

Project teams should secure materials and place them in storage at least a few weeks before the installation begins. Consider longer lead times for custom or large orders of paint and think about the size of any stencils or other equipment needed for install. Work with a local business or public facility near the project site to store supplies, materials, and personal belongings prior to and during the installation. If a space is not available, you can rent a portable storage locker for the site.

CONSTRUCTION DOCUMENTS

Asphalt art projects are guided by a set of construction documents that describe both the final design and the traffic control needed to implement them. These documents will allow the project leaders to instruct the on-site crew and volunteers and include instructions for how to lay out the design, dimensions of the site, and other important design measurements as well as a color key.



Significant planning and detail go into the implementation of asphalt art projects. This design document was used to lay out the mural for Rue Vendome in Miami Beach. (Case study on page 47)

Photo by Andrea Lorena


TRINITY
877-496-3625
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YODOCK

SITE SAFETY & TRAFFIC CONTROL

Everyone on site producing the project will benefit from having a safe, secure, and comfortable place to work. Long days in the summer sun painting a mural on the street are physically challenging, and dehydration and heat stroke are a risk. Make sure that you have water, food, bathrooms, seating, and shade structures available to everyone during the installation so that the experience is safe and enjoyable.

Another part of project implementation involves traffic control. If the project will be installed on the right of way or will require a temporary detour of traffic, you will need a traffic control plan. The plans will show the area to be closed off to vehicles and a temporary plan for how to guide road users through the work zone with traffic control devices. This document will ultimately ensure the safety of all crew and volunteers moving through the installation site. It is always helpful to plan the installation during hours with low traffic volume and to allow time for the artwork to dry before the road is driven on again.

To ensure the public is aware that the project happening is a sanctioned activity, install temporary signage describing the project. Be sure to train volunteers in case they are questioned by community members not familiar with the project and keep copies of permits on site in case they are needed.

DOCUMENTATION

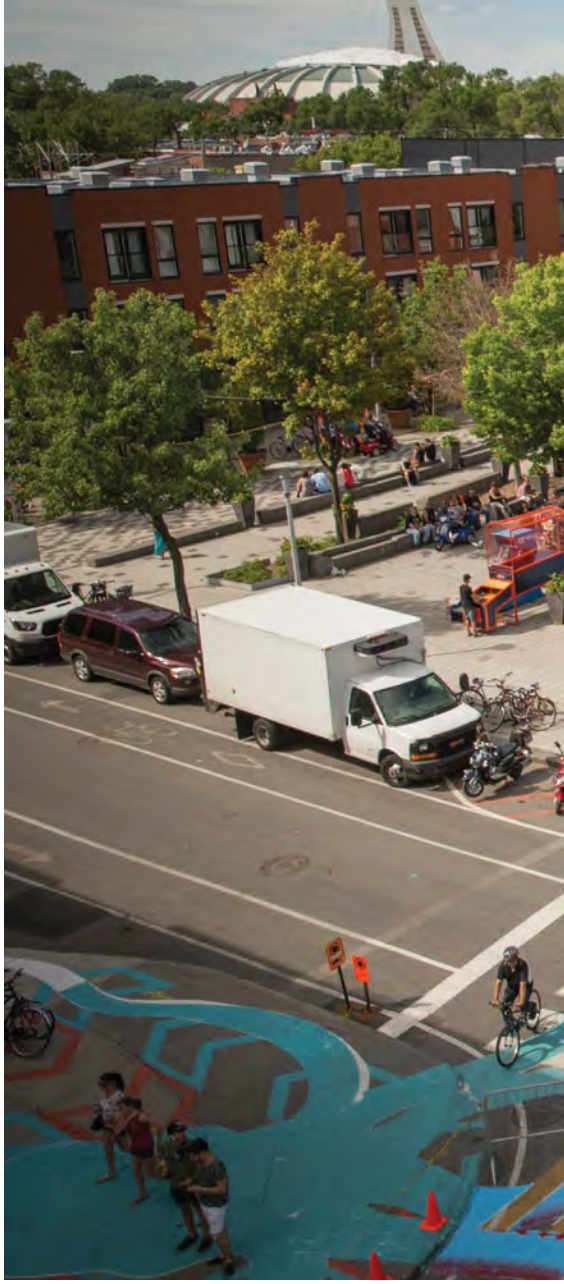
It is important to have professional-quality documentation of the project. Many teams draft documentation plans that describe the types of documentation needed of both the installation process as well as of the completed project. Consider bird's-eye locations for before/after shots taken from adjacent buildings; aerial drones may be very useful in documenting these projects. Also consider getting action shots of the project being installed on the build day.

The documentation produced will be a helpful reference for maintaining and reapplying the project and will provide examples to show other communities who are interested in the work. Photos may also be needed for grant reports and will be the only way to show the history of what is usually a temporary project. In addition, proper documentation can also serve as a tool to visually showcase the project's success and will help cities or other project stakeholders defend their asphalt art projects or advocate for new ones. Be sure to share the documentation with the artist/designer who developed the content of the project.

Traffic control for the Walks of Life project in West Palm Beach was provided by the city's Engineering Department.
(Case study on page 17)

Photo by Maxwell Zengage

Maintenance & Stewardship



PROGRAMMING & ACTIVATION

For projects that seek to use asphalt art to create pedestrian spaces or plazas, activating the project site with programming and events will help ensure the project's longevity. It is important to build a robust program around a newly created public space for the project to grow on the community and for the space to become a celebrated and stewarded neighborhood spot.

One way to host successful events and create traditions around a space is by partnering with local art or cultural organizations that specialize in event production and have the necessary expertise to plan activities that celebrate the creative reclamation of public space (see Rue Vendome project on page 47). From markets and live music to children's games and community-building activities, these organizations will likely know which entities to involve in event planning and program building and how to engage locals from across your community.

PROJECT ADJUSTMENTS OR REPLACEMENT

Note that some projects may require adjustments if the results are not performing as intended or if the installation has unexpected outcomes. These changes may include readjusting the size or boundary of the design or changing the design's overall geometry. If a project will be replaced with a different design in the future, the artist's or designer's contract must outline the predetermined life span. Plans also need to be made to prepare the surface for the next project. This is the responsibility of the site owner or entity managing the project.

MAINTENANCE

If the project will be maintained by someone other than the artist or designer, the artist or designer can help develop a maintenance manual that includes the following information:

- Images of the original project
- Description of how much fading and wear are expected
- Detailed descriptions of each material used in the project, including exact colors
- Application instructions for each material
- List of equipment and tools needed for application
- Tips from the artist or designer about the site and materials

The entity managing the project or the owner of the project will need to organize the permits, street closures, and other steps to ensure the project can be maintained. Proper maintenance will always require a plan and budget. Costs for materials, labor, permits, street closures, and other needs should be included in the project budget, and a new budget should be developed for ongoing maintenance.

Once the Sexapus mural was completed in Montreal, the City of Montreal hosted events and activities that were crucial for creating community buy-in for the project to transition from an interim pilot project to a permanent shared street. (Case study on page 29)

Sexapus mural by Peter Gibson. Photo by Melanie Dusseault

STEWARDSHIP

Spaces that reflect a sense of community ownership and stewardship, especially those that encourage individuals to actively engage in social behavior, usually generate a greater place attachment among visitors. Involving the community in the planning and design stages of the project can create a space that is conducive to social gatherings and can adapt to and support the communities they serve.

Public space enhancement projects and programs are a benefit to the community and should be maintained accordingly. An effective stewardship model can be created through cooperative agreements made between municipal agencies and private entities to maintain public space projects with help from the local community. These agreements should include a written understanding outlining duties and responsibilities of each party involved in the process as well as a set of goals and recommendations for the durability of the project.

The following recommendations can help your project team play a leadership role in project management and stewardship:

For community-led projects:

- Identify fiscal sponsorship resources that will help fund your community project
- Find organizations that specialize in mobilizing volunteers, managing clean up, landscaping, and events such as Detroit's Summer in the City or Tucson's Days of Caring
- Support the sharing of organizational knowledge and practices among grassroots groups
- Designate funding for project maintenance in the planning stages

For city-led projects and programs:

- Ensure that future public space policies and programs emphasize maintenance needs and identify the responsible parties
- Create a permit structure to allow community groups to host a series of small-scale community events in one public space site
- Consider creating an open-source guide for the creation of asphalt art projects in your city

To complete the Underground at Ink Block murals in Boston, development firm National Development worked hand in hand with the Massachusetts Department of Transportation to test materials and manage the planning and permitting of the highway underpass murals. (Case study on page 63)

Photo by Marka27

Project Evaluation

A key factor in measuring the success of asphalt art projects is using data to quantify the impact of the project, whether it is tied to mobility, walkability, or general livability. Whether its measuring the speed of vehicles, the perception of safety, or people's likeliness to use the space after the installation, this information will help effectively communicate the intentions behind any given project. In addition, any data collected along with community input will allow the leading entity to make better decisions when implementing similar projects in the future and creating a streamlined process for project approval, funding, and buy-in.

Below are some metrics that can be used to measure a project's impact:

- Speed of vehicles before and after implementation
- Stop bar compliance
- Pedestrian crossing behavior
- Foot traffic counts
- Likeliness to use the intervened space before and after implementation
- Perception of safety before and after implementation
- Amenity use before and after implementation

This project in Miami Beach has ongoing programming and events organized by third-party organization Prism Creative Group.
(Case study on page 47)

Photo by Andrea Lorena

Tools to collect data include surveys (either in person or online), speed guns, counting machines, digital counters, or other data collection methods. Data-driven evaluation will allow project teams to justify their project and demonstrate its impact, and ultimately lead to a more effective approach for implementing asphalt art projects. See the Corbett Porch case study on page 35 for an example of project metrics.

To guarantee the longevity of the murals created for the StreetArtToronto Program, each utility box is primed before artists arrived and coated with anti-tagging material by Goodbye Graffiti, the city's graffiti management contractor, once the mural is completed. (Case study on page 55)

Colorful Horizon mural by Yasaman Mehrsa. Photo by Jocelyn Renyolds

For other resources and recommendations,
including contacts from each of the case studies,
please visit **asphaltart.bloomberg.org**

Bloomberg
Philanthropies

Memo

CITY OF ASHLAND

Date:	March 12, 2024
From:	Scott A. Fleury
To:	Transportation Advisory Committee
RE:	Distracted Driving Resolutions

BACKGROUND:
Before the Transportation Advisory Committee is a discussion about recommending the City Council pass a distracted driving resolution. The draft resolution is attached for review.

April 2024 is Distracted Driving Month.

From the National Transportation Safety Board:
Distracted driving has become a deadly epidemic on our roads. Cell phone use — specifically, texting, talking, and social media use — has become the most common distraction. Other risky actions include adjusting the radio or GPS, applying makeup, eating and drinking. By driving distracted, you're robbing yourself of seconds that you may need to avoid a close call or deadly crash.

CONCLUSION:
Action required, discuss attached draft resolution and recommendation to forward on to City Council for approval at the April 2, 2024 Business Meeting.

RESOLUTION NO. 2024 - XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ASHLAND, OREGON DECLARING THE MONTH OF APRIL – DISTRACTED DRIVER AWARENESS MONTH

RECITALS:

A. The Council adopted Resolution 2024-05 supporting Vision Zero.

B. The safety of the city's streets and the safety of residents and visitors to Ashland are among the City Council's top priorities.

C. According to a study released by the National Highway Traffic Safety Administration (NHTSA) and the Virginia Tech Transportation Institute (VTTI), 80 percent of collisions and 65 percent of near collisions involve some form of driver distraction.

D. Local collisions statistics show that approximately 80 percent of local street crashes involve a vehicle driver colliding with a fixed object (a parked vehicle, curb, tree, light post, etc); likely attributable to distracted driving.

E. The NHTSA defines "distracted driving" as any non-driving activity a person engages in while operating a motor vehicle. Such distractions endanger drivers, passengers, people walking or riding a bicycle, using a wheelchair or other mobility device; and

F. Engaging in activities such as talking on a phone, texting, checking social media or email, selecting music, or other uses of portable devices while driving increase the risk of a crash by three times; and

G. Text messaging, which requires visual, manual, and cognitive attention from the driver, is by far the riskiest and alarming of distractions; and

H. Distracted driving is a serious, life-threatening practice that is preventable; and

I. Distracted driving has been shown to lead to death and life-altering injuries for those involved in crash caused by distracted driving, and

J. In order to reduce the number of crashes as well as improve driver safety, all motorists should dedicate themselves to adopting and maintaining safe behavior while behind the wheel.

THE CITY OF ASHLAND RESOLVES AS FOLLOWS:

SECTION 1.
The Ashland City Council does hereby proclaim APRIL 2024 as DISTRACTED DRIVING AWARENESS MONTH and calls this observance to the attention of all residents and encourages increased awareness of the dangers of distracted driving.

SECTION 2. T
The Council asks residents and visitors to refrain from the following behaviors while driving:

- Eyes off the road (visual).
- Mind off the road (cognitive).
- Hands off the steering wheel (manual)

SECTION 3. This Resolution takes effect upon signing by the Mayor. This resolution was duly PASSED and ADOPTED this_____day of April, 2024.

_____
Alissa Kolodzinski, City Recorder

SIGNED and APPROVED this_____day of April 2024.

_____
Tonya Graham, Mayor

Reviewed as to form:

_____
Douglas McGeary,
City Attorney

Memo

CITY OF ASHLAND

Date: March 12, 2024
From: Scott A. Fleury
To: Transportation Advisory Committee
RE: Planning Commission Study Session

BACKGROUND:
The Planning Commission is looking to utilize study sessions to discuss comprehensive plan elements and long-range planning efforts underway with stakeholders (committees, etc.). Brandon Goldman, Community Development Director has reached out to Public Works staff to determine interest regarding two (2) members of the TAC and PW staff attending a Planning Commission Study Session (April 23, 2024) to discuss Transportation System projects, planning efforts, issues, concerns and workplan related items the TAC is focused on moving forward.

Staff has attached the Transportation Element section of the Comprehensive Plan for reference. Staff has also attached the TACs workplan for reference as well.

CONCLUSION:
Action required, discuss attendance at Planning Commission meeting to present and discuss transportation related elements the TAC is and will be involved in moving forward.

Transportation Safety and Multimodal Advisory Committee

Work Plan 2023-25

I. Transportation System Plan Update

A. Vision Zero Resolution and Action Plan

II. Capital Improvement Projects(Protected Bike Lanes/Multimodal Analysis)

A. Ashland Street Rehab
B. North Mountain Rehab
C. B Street Bike Boulevard
    1. Safety Analysis
    2. Design

D. Oak Street Rehabilitation

III. Traffic Safety, Parking, Signage, Striping, etc. – Continuous

A. Public Education and Outreach Program
    1. Collaboration with Council, CEPAC, Housing Committee and Planning Commission
B. Traffic Calming Program
C. Traffic Crash and Near Miss Review (twice annually)
D. Bike Parking Inventory (downtown)
E. Transit Support as needed (RVTD)

IV. Council Directed Projects for Review

A. Bird Scooter Program Review
B. Parklet Program Review
C. Downtown Revitalization Grants
D. ODOT Collaboration

The concept of "modal equity," or the equal opportunity to use all modes of travel, is an integral part of realizing this vision.

10.01 Introduction

This is a planning concept that does not necessarily imply equal financial commitment or equal percentage use of each mode, but rather ensures that we will have the opportunity to conveniently and safely use the transportation mode of our choice, and allow us to move towards a less auto-dependent community. Ashland has a vision—to retain our small-town character even while we grow. To achieve this vision, we must proactively plan for a transportation system that is integrated into the community and enhances Ashland's livability, character and natural environment. That is the goal of this Transportation Element.

The concept of "modal equity," or the equal opportunity to use all modes of travel, is an integral part of realizing this vision. Whether Ashland residents and visitors travel by foot, bicycle, public transit or automobile, we must have a well-designed, integrated network that is convenient to use. The focus must be on people being able to move easily through the city in all modes of travel. Modal equity then is more than just a phrase.

When people talk about their love of Ashland, being able to walk many places and linger in public parks and plazas inevitably gets discussed. The ability to easily walk and bike is associated with higher levels of livability for communities, and Ashland enjoys a high ranking. But if Ashland is to retain and improve the quality of life, we must rethink our efforts towards transportation planning. Our past focus on accommodating the automobile must now be replaced by concerted efforts toward equally accommodating all modes of travel.

Ashland is a community, which prides itself on innovation and pressing for positive change. The area of transportation has been no exception. In 1990, community leaders formally began discussions involving a need to change our transportation planning policies from auto-oriented to multi-modal, and to clearly recognize the connection between land use and transportation. Shortly thereafter, federal and state legislation passed, which brought forward these same ideals and required states and local governments to plan for multi-modal transportation systems. Specifically, the Oregon Transportation Planning Rule states as its purpose "Through measures designed to reduce reliance on the automobile, the rule is also intended to assure that the planned transportation system supports a pattern of travel and land use in urban areas which will avoid the air pollution, traffic and livability problems faced by other areas of the country."

Indeed, the lessons learned from such cities as Los Angeles and Seattle spearheaded the need for these efforts. However, Oregon, and Ashland itself, has

not been immune from the increased impacts of the automobile. The number of vehicle miles traveled (VMT) in Oregon increased eight times faster than the population from 1980to 1990. During the same time period, vehicle miles traveled within Ashland grew over four times faster than the population.

Clearly, the pronounced growth in VMT can be partially attributed to the fact that cities are growing ever larger in area. The density of the urban population in the United States is decreasing as more sprawling development occurs. The trend is clear—people have to make more trips to destinations located far apart.

Ashland has followed a similar path, although to a lesser degree. The private automobile is now the predominant travel choice for city residents, with nearly all work, social and recreational trips using the car. If we fail to alter these patterns, Ashland will experience greatly increased traffic, and greater conflicts between the automobile and other travel choices.

Past transportation planning efforts in Ashland focused much of their attention on the accommodation of the single-occupant automobile, with the main concentration being on creating a convenient automobile environment. It was believed that improved livability would result from easier car movement, but as we have experienced, the opposite has tended to occur. And while minor portions of these plans mentioned travel choices other than the auto, most only considered the option of public transit. Since the automobile figured prominently in these past plans, the implementing measures and improvement plans predictably centered around the car.

Incorporating modal equity in our current planning efforts will allow a change in the way our streets are defined. For too long, streets have exclusively been the realm of the automobile. Pedestrians, bicyclists and public transit users need our streets for their travel just as drivers do. And we must recognize that our streets are also part of our public spaces. Well-designed streets, where people socialize and interact as well as travel, are the key factors in the creation of great neighborhoods.

But our planning efforts must involve more than streets and travel modes. We know that land use and transportation patterns are inextricably linked. Ashland's present and future transportation issues can not be resolved without careful consideration of the spatial relationship of homes, businesses and schools, and how this relationship affects our daily travel needs. While it would be unrealistic to try to rid the city of automobiles, there are ways in which land uses can be modified to improve the impacts on our lives. Different uses such as homes, small businesses

Well designed streets, shere people socialize and interact as well as travel, are the key factors in the creation of great neighborhoods.

and schools should be mixed—a blend which would shorten the distance between destinations and thereby encourage the use of all modes of travel, not just the single occupant automobile. Our land use planning efforts must automatically include recognition of the transportation impacts associated with development, and we must consider all options as we continue to grow as a community.

The purpose of this Transportation Element, then, is to lay the groundwork for a new transportation/land use planning paradigm and establish goals and policies to pave the way for this approach. Clearly, the transportation and land use planning efforts of the City directly affect the way Ashland develops.

As outlined in this element, the basis for Ashland's transportation and land use planning will involve a balanced approach based on the concept of modal equity. Allowing people to move easily through the city by providing multiple, interconnected travel options and retaining Ashland's small-community character and livability must be our goal. The focus of the transportation system will not be limited to the automobile, but in addition, transportation options will be created where the number and length of trips can be reduced, and walking, biking, and transit become viable options for daily travel.

10.02 Previous Studies

A review of Ashland's past transportation plans enables us to better understand the current transportation system and it supplies information for future work.

1966 COMPREHENSIVE PLAN (10.02.01)

Developed by the Bureau of Governmental Research and Service, this plan dealt with Ashland's future transportation needs, including increased traffic flows caused by new major streets and a new freeway interchange. This plan was based on a future population of 69,000 people. While it contained some well thought-out policies, the plan was too broad and omitted cost-effective solutions to the expected population growth. This study is most useful as a historic reference point.

BEAR CREEK AREA TRANSPORTATION STUDY (BCATS) (10.02.02)

This comprehensive study provided transportation information for the Bear Creek Valley in 1965. It included origin-destination studies, future traffic flow predictions and transportation needs estimates, based on data collected at that time.

Containing solid base data on driver behavior and origin- destination information, this plan provides a base from which to examine the changes in driving habits during the last 30 years.

1978 COMPREHENSIVE PLAN (10.02.03)

Developed by the Ashland Planning Department in accordance with the Land Conservation and Development Commission's (LCDC) goals and guidelines, this plan dealt with improvements of traffic circulation, bicycle and pedestrian traffic, and on and off street parking. It did not project future traffic flows.

1981 COMPREHENSIVE PLAN (10.02.04)

The Transportation Element of this plan was prepared by the Ashland Planning Department in accordance with LCDC goals and guidelines. A relatively unsophisticated computer model predicted future traffic flows through the year 2000.

Until now, this plan worked well within the confines of the automobile-focused approach of the past. Now, however, the limitations of a transportation system that relies on the private automobile are evident and the need to provide other travel options is clear. The new Oregon Transportation Planning Rule requires cities throughout the state to update comprehensive plans and facilities plans to expedite the development of local transportation systems which make alternative modes attractive and decrease private automobile use.

10.03 Overview of Ashland's Physical and Transportation Setting

Ashland's location has historically governed local transportation, patterns. A linear city, situated between the Siskiyou Mountains to the south and Bear Creek/ Interstate 5 to the north, Ashland has relatively steep terrain to the south of North Main Street- Siskiyou Boulevard and more gentle slopes to the north of this thoroughfare.

GROWTH (10.03.01)

Ashland has grown in a consistent pattern for the last 20 years, with population increases in general agreement with the estimates of the Population Element of the Comprehensive Plan. However, while population growth has occurred as expected, traffic increase, primarily in the number of vehicle trips on our streets, have grown at a much faster rate. For example, while Ashland's population grew approximately 8.5% between 1980 and 1990, the number of vehicle miles traveled (VMT) within the city increased by approximately 39%. While some of this increase can be attributed to tourists, it is apparent that local residents, increasingly dependent on the automobile for convenience, primarily account for the rising figures. More children are driven to school than walk or ride bicycles, more people drive to work alone than

...Ashland's population grew approximately 8.5% between 1980 and 1990, the number of vehicle miles traveled (VMT) within the city increased by approximately 39%.

share rides, and more people make separate shopping excursions than combine them into a single linked trip. Residential development beyond Ashland's city limits also affects the transportation system. The city serves as a shopping/school/employment center for rural southern Jackson County residents who center many of their daily trips around Ashland. With ever-increasing traffic levels, Ashland must ensure future livability by reducing dependence on the automobile and encouraging the use of other travel modes.

LAND USE PATTERNS (10.03.02)

Ashland is fortunate to have retained a relatively compact urban form throughout its history. Despite its linear configuration, most of the community's residential areas are well served by nearby commercial service centers. The downtown core contains the banks, the post office, restaurants, and other services used by local residents. With distinctive stores and restaurants, it is also a regional specialty shopping center for the Southern Oregon/Northern California region. The downtown core is also a tourist destination, as are Lithia Park and the Oregon Shakespeare Festival. Exceptional transportation demands exist in this area and create the city's highest auto and pedestrian flows. The downtown core also experiences the highest traffic congestion levels in Ashland.

Other commercial centers lie adjacent to Southern Oregon State College and near the Interstate 5 freeway interchange at Ashland Street. Multi-family and single-family residential developments are located throughout the city, with a large area of multi- family development centered near the college. Most hillside areas are committed to single-family detached housing units.

With the exception of the Railroad District, most areas of Ashland have been characterized for years by single-use zoning. Few areas exist with "mixed uses" in which a blend of residences, offices, and retail services is available. Separation of uses through single-use zoning has resulted in residents' need to drive longer distances to work or for services. Compatible mixed-use zoning would provide services in residential areas and offer housing in commercial areas. These mixed uses would reduce both the number and length of trips for goods and services.

TRAVEL PATTERNS (10.03.03)

Fortunately, Ashland is still a relatively small community and many of the local shopping, school and service trips are very short. The increase in vehicle miles traveled over the last ten years, however, indicates an ever-increasing number of these short convenience trips.

Ashland has an unusual division of travel modes for work- based trips compared to Jackson County and Oregon, as the following table demonstrates.

Mode	Oregon	Jackson County	Ashland
Drive Alone	73.3%	77.0%	66.9%
Car Pool	12.8%	11.3%	10.7%
Transit	3.4%	0.7%	1.1%
Walk	4.2%	3.8%	10.5%
Other	1.0%	1.1%	3.7%
Work at Home	4.3%	5.1%	7.1%

1990 Census

As shown above, 33.1% of all work based trips use some form of transport other than the single occupant automobile, and 22.4% of all work trips do not use the automobile at all. But while our travel habits, on average, indicate a higher use of the alternate modes than the statewide average, the auto's use within Ashland has risen between 1980 and 1990.

The number of drivers who commute to work alone increased from 57.2% to 66.9% between 1980 and 1990. Fuel pricing is a major factor in this shift. In the mid-1970s, fuel prices rose rapidly, forcing people to travel more efficiently and to strongly consider other options for travel. Public transit and car pools were vigorously promoted during that decade. During the 1980s, however, fuel prices remained essentially constant. With inflation factored in, fuel prices actually declined in later years, reducing much of the impetus toward economy, which characterized driver behavior during the 1970s.

The following table also demonstrates the increase in the number of people who work at home—a figure that almost doubled during the 1980s. Increasingly, many residents' work trips involve traveling from one portion of the house to the other. The growth of home occupations in Ashland has both enhanced economic development and decreased the number of work trips. These patterns continue to substantially change our transportation system.

Mode	Ashland 1990	Ashland 1980
Drive Alone	66.9%	57.2%
Car Pool	10.7%	18.1%
Transit	1.1%	1.4%
Walk	10.5%	14.6%
Other	3.7%	5.0%
Work at Home	7.1%	3.7%

1980 and 1990 Census

Rural development outside the city limits has also affected local transportation. Residents of these lowdensity areas use city streets for shopping, work, schools and entertainment. There are no easy solutions to reduce these trips. Identifying ways in which a rural lifestyle affects city dwellers and reducing development in these areas will help alleviate those impacts.

GENERAL TRANSPORTATION PROBLEMS (10.03.04)

In comparison to metropolitan cities, Ashland has few critical transportation problems. This situation could change quickly, however, as it did during the 1980s. Congested automobile travel areas are currently found in Ashland's downtown area, in the area near Southern Oregon State College, and on East Main Street near the high school and middle school. Should our reliance on the car continue at the present increasing rates, many more congested areas will evolve.

Pedestrians have a relatively good sidewalk network in the pre-World War II areas of Ashland and in most of the recent subdivisions. The downtown commercial core is well designed for pedestrians and offers a welcoming walking environment. Because the remainder of the community has developed without sidewalks, pedestrians are forced to compete with autos for space on many roadways. In some commercial areas of the city, businesses serve drive-up shoppers and make it difficult for those who choose to walk.

Bicyclists' difficulty in traveling through Ashland is primarily due to a lack of safe, comfortable riding areas. North Main Street through the downtown core, and Siskiyou Boulevard between downtown and the college, create major impediments to bicycle travel through Ashland. Although efforts are being made to remedy these problems, conditions remain difficult for local bicyclists.

Public transportation is steadily improving in Ashland. At present, 15-minute bus service is available along Siskiyou Boulevard almost the entire length of the city, and a reduced fare program encourages ridership. Unfortunately, public transit stops are not currently well-sited and they lack necessary amenities. As these stops and overall bus service are improved within the city, ridership will continue to steadily increase.

Transportation planning for Ashland is both complex and critically important. This element of the Comprehensive Plan identifies important transportation issues and addresses ways to solve future problems. This Transportation Element considers and incorporates various methods to accommodate traffic growth while retaining Ashland's character and livability. Through the concept of modal equity, Ashland shall continue to maintain its high level of livability and accommodate the travel needs of our future populations.

10.04 Street Classification

INTRODUCTION (10.04.01)

To create a successful transportation plan for Ashland, the interaction of transportation modes must be care-

fully studied. Whether people walk, drive, take the bus or bicycle, most travel takes place on the city's street network.

Ashland streets must provide convenient transportation facilities and a comfortable, safe atmosphere. Equal consideration of all travel modes requires more than simply providing various physical travel areas. Streets must facilitate pedestrian, transit and bicycle traffic. The streetscape determines which transportation modes people use and affects the community's livability.

This section of the Transportation Element defines the four major street types in Ashland - boulevard, avenue, neighborhood collector and neighborhood street. These classifications identify the character and level of service to be emphasized on city streets. In addition, a classification is included for multi-use paths. Although not typically considered streets, multi-use paths can serve as transportation links to the street network for pedestrians and bicyclists.

The street classifications defined in this section are used throughout this document and on the Transportation System Map (page 9) showing Ashland's future transportation system. Preceding the street classifications are the following definitions of frequently used transportation terms.

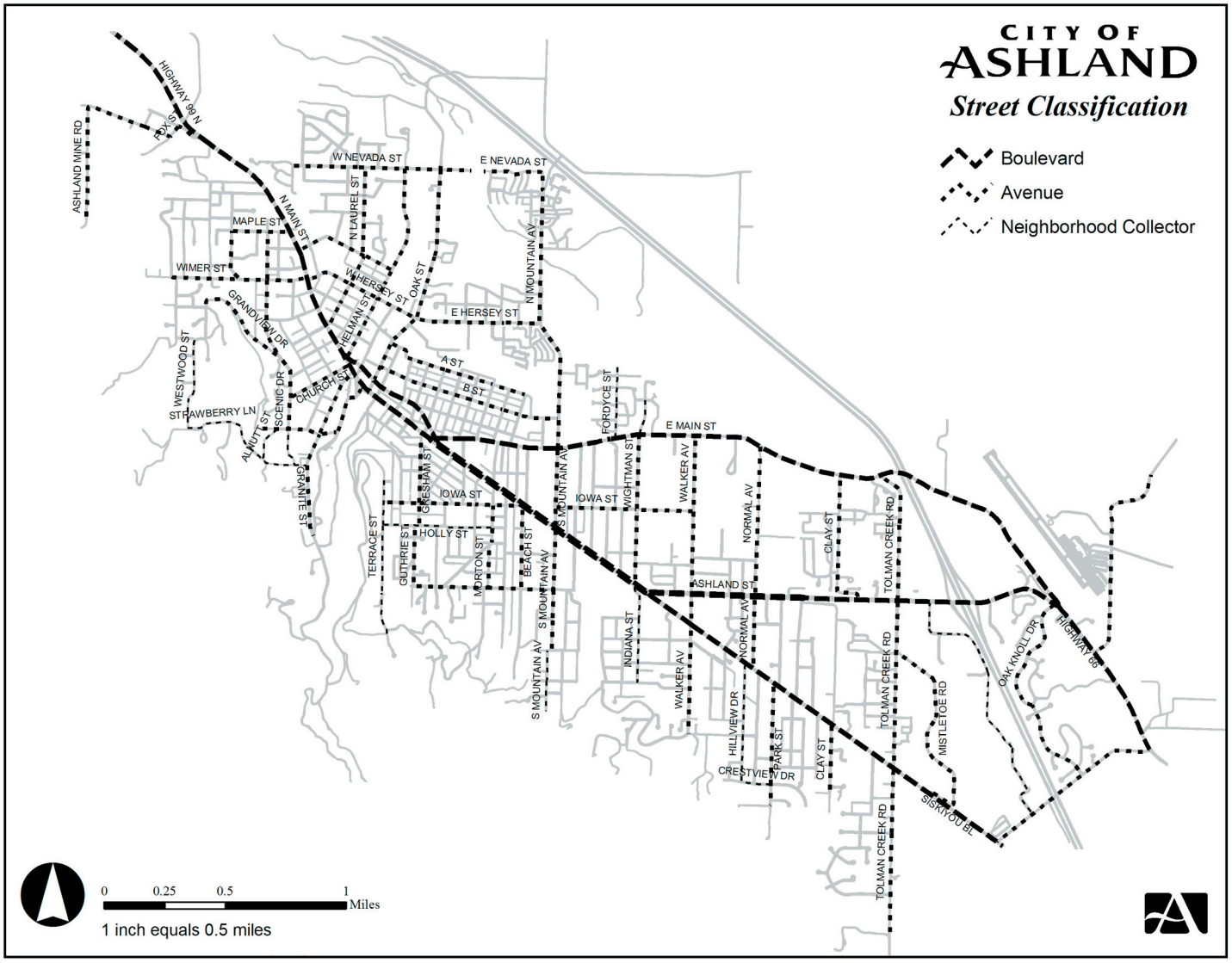
DEFINITIONS (10.04.02)

Bikeways—A bikeway is any road, path or way open to bicycle travel. All streets in Ashland are considered bikeways. The facilities can be a portion of the roadway designated for the preferential use of bicycles such as a bike lane, shared with other transportation modes, or an off-road path. Bikeways must provide direct, continuous courses accessing commercial areas, activity centers and schools. Bikeways must provide safe and convenient bicycle travel and be free of unnecessary delays.

Walkways—Walkways provide a circulation network, a meeting place for neighbors, a play area for children, a leisure area and an exercise place. Walkways are intended to provide safe, attractive and convenient facilities for people traveling on foot and by wheelchair. Walkways are adjacent to streets and although usually in sidewalk form, may occasionally be off-road paths.

Protected Crossings—Protected crossings are pedestrian crossings designed to minimize crossing distance and provide pedestrians with the safest, direct route across streets shared with other modes of travel. Curb extensions, pedestrian refuges, raised crosswalks, marked crosswalks, landscape strips, street trees, onstreet parking and traffic signals are design elements used to achieve this effect.

Ashland streets must provide convenient transportation facilities and a comfortable, safe atmosphere.


CITY OF
ASHLAND
Street Classification
Boulevard
Avenue
Neighborhood Collector
HIGHWAY 99 N
FOX ST
ASHLAND MINE RD
W NEVADA ST
E NEVADA ST
N MAIN ST
N LAUREL ST
MAPLE ST
WIMER ST
WHERSEY ST
OAK ST
HELMAN ST
GRANDVIEW DR
E HERSEY ST
N MOUNTAIN AV
WESTWOOD ST
STRAWBERRY LN
SCENIC DR
CHURCH ST
A ST
B ST
FORDYCE ST
E MAIN ST
ALMOND ST
OAKDALE ST
GRESHAM ST
IOWA ST
S MOUNTAIN AV
WIGHTMAN ST
WALKER AV
NORMAL AV
CLAY ST
TOLMAN CREEK RD
TERRACE ST
GUTHRIE ST
HOLLY ST
MORTON ST
BEACH ST
ASHLAND ST
INDIANA ST
HILLVIEW DR
CRESTVIEW DR
PARK ST
MISTLETOE RD
OAK KNOLL DR
HIGHWAY 99S
SISKIYOU BL
0 0.25 0.5 1 Miles
1 inch equals 0.5 miles

Regional Transit Route—Regional transit routes provide transit service between cities in the Rogue Valley.

10.05 Street Classification Guidelines

BOULEVARD (ARTERIAL) (10.05.01)

Boulevards provide access to major urban activity centers for pedestrians, bicyclists, transit users and motor vehicle users, and provide connections to regional traffic ways such as Interstate 5. The engineering term for this type of street is arterial. North Main Street and Siskiyou Boulevard are examples of boulevards.

On an average day 8,000 to 30,000 motor vehicle trips are made on a typical boulevard. Pedestrian, bicycle and transit travel can be difficult and uncomfortable if the street is not designed to buffer non-auto users. To restore balance pedestrian, bicycle and public transit facilities should be emphasized on boulevards. Traffic without a destination in Ashland should be encouraged to use regional traffic ways and discouraged from using boulevards.

As major thoroughfares, boulevards are busy. They should provide an environment where walking, bicycling and motor vehicle travel are equally convenient. Design should facilitate the boulevard's use as a public space where people can comfortably wait for the bus or rest on a bench.

Land Use

A) Mixed-use development should be encouraged along boulevards.

B) Multi-family development should be encouraged in close proximity to boulevards so that a variety of transportation options are available.

C) Direct and convenient bicycle and pedestrian access between land uses should be emphasized.

D) Schools, commercial areas, transit stop employment areas and parks should be accessible by bikeways and walkways.

E) A high concentration of homes and/or jobs within walking distance (one-quarter to one-half mile) of transit services should be encouraged.

F) A mix of land uses should be encouraged within easy walking distance of a transit stop to reduce the number of separate trips. The types of land uses should be those which public transit riders can readily use.

G) Commercial and recreational development such as shopping centers, entertainment centers museums and stadiums, which attract trips throughout or beyond Ashland, should be encouraged to locate along boulevards and be accessible by regional transit routes.

Design

A) Boulevard design should balance safe, attractive and direct walkways and bikeways with an efficient motor vehicle thoroughfare.

B) Commercial buildings should be oriented to the street with the main entrance facing the bikeway and walkway. Convenient bicycle parking should be located near the main entrance.

C) Landscaped medians and park rows offer a visual sense of entry into the community and provide pedestrians with a traffic buffer. Amenities such as benches, shade trees, bathrooms and water fountains should be pro- vided to accommodate pedestrians and bicyclists.

D) Protected (pedestrian) crossings should be provided along boulevards at a minimum of every three blocks or approximately 1,000 feet.

E) Where two boulevards intersect, a boulevard and an avenue intersect or in high traffic areas, a protected crossing should be provided.

F) Signaled intersections involving boulevards should be designed to allow safe and easy movement of bicycles. Signal triggering devices that can be activated by bicycles should be designated on the roadway. Intersections involving bicycle lanes should be designed to minimize conflicts, such as turning movements, and to provide adequate bicycle crossings.

G) Bicycle lanes should be provided on boulevards. Bike lanes should be separated from motor vehicle lanes by an eight-inch solid white line and be well marked.

H) All boulevards should provide a smooth riding surface for bicycles. Drainage grates, abrupt edges in pavement and debris make bicycle travel difficult and unsafe.

I) Boulevard and railroad crossing intersections should be designed to provide safe passage for bicyclists over the railroad tracks.

J) City bikeways should be linked to county bikeways and statewide highway bikeways.

K) Public transit stops should be easily accessible to pedestrians and bicyclists. Covered bicycle racks or lockers should be provided at transit stops.

L) Transit stops should be covered and contain a bench to provide a convenient, pleasant waiting area. The stops should be located so that oncoming buses are easily visible. A buffer, sidewalk and/or landscaping should be located between the waiting area and motorized traffic.

M) Park and rides should be considered adjacent to boulevards on regional transit routes to encourage commuting residents to use public transit.

N) Maintain carrying capacity through driveway and curb cut consolidation or reduction.

O) Off-street parking by uses located on boulevards should be encouraged.

P) On-street parking removal or street widening should be considered only at specific problem locations, and alternatives and the impacts on adjacent land uses should be studied. Special consideration should also be given to a safe pedestrian environment.

Q) Boulevard intersections with streets with similar uses should be designed to facilitate the movement of traffic and to allow all turning movements.

AVENUE (MAJOR COLLECTOR) (10.05.02)

Avenues provide concentrated pedestrian; bicycle and motor vehicle access from boulevards to neighborhoods and to neighborhood activity centers. As Ashland's population increases, transit routes may access avenues. If public transit routes expand service to avenues, the transit land use and design guidelines for boulevards should be employed. The engineering term for this type of street is major collector. Iowa and Wimer Streets are examples of avenues.

On an average day 3,000 to 10,000 motor vehicle trips are made on a typical avenue. Pedestrian and bicycle facilities should be emphasized on avenues. Avenues are similar to boulevards, but are designed on a smaller scale. There are usually fewer motor vehicle lanes and narrower rights-of-way.

Land Use

A) Mixed-use development should be encouraged on avenues.

B) Multi-family development should be encouraged in close proximity to avenues so that a variety of transportation options are available.

C) Direct and convenient bicycle and pedestrian access between land uses should be emphasized.

D) Schools, commercial areas, transit stops, employment areas and parks should be accessible by bikeway) walkways.

E) New or expanding land uses, which attract trips from the surrounding neighborhoods or from throughout Ashland should be encouraged to locate on avenues.

F) Regional land uses should be discouraged from locating on avenues, except where a boulevard is nearby and directly connected to a state/regional traffic-way, such as Interstate 5.

Design

A) Avenue design should balance safe, attractive and direct walkways and bikeways with an efficient motor vehicle thoroughfare.

B) Commercial buildings should be oriented to the street with the main entrance facing the bikeway and walkway. Convenient bicycle parking should be located near the main entrance.

C) Landscaped medians and park-rows offer a visual sense of entry into the community and provide pedestrians with a buffer from traffic. Amenities such as benches, shade trees, bathrooms and water fountains should be provided to accommodate pedestrians and bicyclists.

D) Protected (pedestrian) crossings should be provided along avenues at a minimum of every three blocks or approximately 1,000 feet.

E) Where a boulevard and an avenue intersect, two avenues intersect or in high traffic areas, a protected crossing should be provided.

F) Signaled intersections involving avenues should be designed to allow safe and easy movement of bicycles. Signal triggering devices that can be activated by bicycles should be designated on the roadway. Intersections involving bicycle lanes should be designed to minimize conflicts, such as turning movements, and to provide adequate bicycle crossings.

G) Bicycle lanes should be provided on avenues. These lanes are separated from motor vehicle lanes by an eight-inch solid white line, and must be well marked.

H) All avenues should provide a smooth riding surface. Drainage grates, abrupt edges in pavement and debris make bicycle travel difficult and unsafe.

I) Avenue and railroad intersection crossings should be designed to provide safe passage for bicyclists over the railroad tracks.

J) City bikeways should be linked to county bikeways and statewide highway bikeways.

K) Maintain carrying capacity through driveway and curb cut consolidation or reduction.

L) Off-street parking by uses located on avenues should be encouraged.

M) On-street parking removal or street widening should be considered only at specific problem locations, and alternatives and the impacts on adjacent land uses should be studied. Special consideration should also be given to a safe pedestrian environment.

N) Intersections of avenues with streets with similar uses should be designed to facilitate the movement of traffic and to allow all turning movements.

NEIGHBORHOOD COLLECTOR (MINOR COLLECTOR) (10.05.03)

Neighborhood collectors distribute traffic from boulevards or avenues to neighborhood streets. The average traffic volume of a neighborhood collector is 1,500 to 5,000 motor vehicles per day. The engineering term for this type of street is minor collector. Fordyce and Morton Streets are examples of neighborhood collectors.

Land Use

A) Mixed-use development that serves the local neighbor- hood should be encouraged.

B) New land uses and major expansions of existing land uses, which attract many traffic trips from outside the neighborhood, should be discouraged on neighborhood collectors.

Design

A) Neighborhood collector design should balance safe, attractive and direct walkways and bikeways with an efficient motor vehicle thoroughfare.

B) Commercial buildings should be oriented to the street with the main entrance facing the bikeway and walkway. Convenient bicycle parking should be located near the main entrance.

C) Landscaped islands and park-rows offer a visual sense of entry into the neighborhood and provide pedestrians with a buffer from traffic. Amenities such as benches, shade trees, bathrooms and water fountains should be provided to accommodate pedestrians and bicyclists.

D) Protected (pedestrian) crossings should be provided along neighborhood collectors at a minimum of every three blocks or approximately 1,000 feet.

E) Bicycle lanes should be provided on streets designated as neighborhood collectors when the average daily traffic is over 3,000, and/or when actual travel speeds exceed 25 miles per hour as outlined in the Oregon Bicycle and Pedestrian Plan. Bike lanes are separated from motor vehicle lanes by an eight-inch solid white line, and must be well marked.

F) All neighborhood collectors should provide a smooth riding surface. Drainage grates, abrupt edges in pavement and debris make bicycle travel difficult and unsafe.

G) Neighborhood collectors and railroad intersection crossings should be designed to provide safe passage for bicyclists over the railroad tracks.

H) City bikeways should be linked to county bikeways and statewide highway bikeways.

I) Maintain carrying capacity through driveway and curb cut consolidation or reduction.

J) Off-street parking by uses located on neighborhood collectors should be encouraged.

K) On-street parking removal or street widening should be considered only at specific problem locations, and alternatives and the impacts on adjacent land uses should be studied. Special consideration should also be given to a safe pedestrian environment.

L) Intersections of neighborhood collectors with streets with similar uses should be designed to facilitate the movement of traffic and to allow all turning movements.

M) Distribution of traffic to the neighborhoods on neighborhood collectors should be encouraged.

N) Non-local neighborhood trips should be discouraged on neighborhood collectors.

NEIGHBORHOOD STREET (LOCAL STREET) (10.05.04)

Neighborhood streets provide access to residential and neighborhood commercial uses. Motor vehicle traffic should be relatively low at 1,000 or less motor vehicles per day. The engineering term for this type of street is "local" street. Sixth, Allison and Quincy Streets are examples of neighborhood streets. Neighborhood streets should facilitate pedestrian circulation, allow a meeting place for residents and provide a play area for children. Generally, neighborhood streets are the narrowest city streets.

Land Use

A) The scale and character of a neighborhood street design should correspond directly to the land use it serves.

B) Auto-oriented land uses should be discouraged from using neighborhood streets as a primary access route.

Design

A) Neighborhood street designs should balance safe, attractive and direct walkways and bikeways with an efficient motor vehicle thoroughfare.

B) Landscaped islands and park-rows offer a visual sense of entry into the neighborhood and provide pedestrians with a buffer from traffic. Amenities such as benches, shade trees, bathrooms and water fountains should be provided to accommodate pedestrians and bicyclists.

C) Traffic control measures or devices may be used to slow traffic, control access or deny traffic movements on neighborhood streets where safety, speed, or non-local traffic problems exist.

D) On-street parking removal or street widening should be considered only at specific problem locations, and alternatives and the impacts on adjacent land uses should be studied. Special consideration should also be given to a safe pedestrian environment.

E) Non-local neighborhood trips should be discouraged on neighborhood collectors.

F) The use of neighborhood streets for one-way traffic is not generally appropriate, unless the entire circulation pattern of the neighborhood has been considered.

ALLEY (10.05.05)

The alley is a semi-public neighborhood space that provides access to the rear of property. The alley eliminates the need for front yard driveways and provides the opportunity for a more positive front yard streetscape. An alley at the rear of properties allows the street located adjacent to the front of properties to be designed using a narrow width with limited on-street parking. The use of alleys can create the opportunity for the use of narrower lots to increase residential densities. Alleys are appropriate in all residential areas and in some commercial areas for business frontage, and for access and delivery depending on the circulation pattern of the area.

Land Use

A) Parking spaces and structures should be encouraged to locate on alleys.

B) Delivery areas for commercial uses should be encouraged to locate on alleys.

C) Accessory units above garages and accessory residential uses should be located on alleys in residential areas.

D) Multi-family units and commercial uses may be appropriate on alleys.

E) Utility easements should be accommodated in the alley.

Design

A) Landscaping, street trees and varying parking surfaces should be incorporated into the alley to create a streetscape.

B) Alleys within commercial districts are valuable public spaces. Buildings should be oriented toward the alley with individual businesses showing a strong sense of entry. Alternative pavement materials, textures and colors should be used to develop the pedestrian environment.

C) When multiple structures are located on one lot, the buildings adjacent to the alley should be oriented to- ward the alley.

D) The use of alleys for one-way traffic is not generally appropriate, unless the entire circulation pattern of the neighborhood has been considered.

MULTI-USE PATH (10.05.06)

Multi-use paths are off-street facilities used primarily for walking and bicycling. These paths can be relatively short connections between neighborhoods (neighborhood connectors), or longer paths adjacent to rivers, creeks, railroad tracks and open space. Frequented by both pedestrians and bicyclists, multi-use paths provide shortcuts through neighborhoods and to other destinations.

Land Use

Parks and schools should be encouraged to locate along multi-use paths.

Design

A) Multi-use paths within the city limits of Ashland should be linked to state highway bikeways and county bikeways.

B) Multi-use paths should be built as neighborhood connectors in areas where block dimensions exceed the recommended maximum circumference standard.

C) Multi-use paths shared by pedestrians and bicyclists should emphasize design features and adequate path markings that allow for the safety of all users.

D) Intersections of multi-use paths and streets should minimize conflicts and provide adequate pedestrian and bicycle crossings. Crossings should be located at points along the road where adequate sight distance exists. When paths cross streets, safety devices such as signs, signals and painted crosswalks should be considered. Curb cuts should be provided.

E) Intersections of multi-use paths with railroad crossings should be designed to provide safe passage for pedestrians and bicyclists over the railroad tracks.

F) Railings and barriers should be provided on both sides of bridges on multi-use paths.

G) All multi-use paths should be signed with regulatory, warning and destination signs as outlined in the Oregon Bicycle and Pedestrian Plan.

10.06 The Street System

INTRODUCTION (10.06.01)

Streets are pivotal in shaping the character of Ashland neighborhoods. Streets provide the first impression visitors have of the community, and longtime resident's view Ashland primarily from the streets — the city's most prevalent public viewshed.

Streets must be reclaimed as multi-purpose public spaces...

Street, public right-of-way and street right-of-way are used interchangeably throughout this document. The term "street" refers to much more than the roadway surface. It includes the sidewalk, planting strip, street trees, lighting and street furniture, as well as traffic calming structures. The publicly owned land a street occupies is called the right-of-way.

Streets provide a travel corridor for pedestrians, bicycles and motor vehicles. They have also historically served aesthetic and social purposes as multi-purpose public spaces, which diffuse light, circulate air, provide landscaped vistas and facilitate informal, spontaneous recreation and socializing.

After World War II and the development of suburban street standards, streets became single-purpose spaces for the safe and convenient operation of automobiles. Houses were set farther back; sidewalks often disappeared completely and use of the front yard as an activity area decreased.

Four decades of single-purpose streets have resulted in negative consequences, such as the loss of livable neighborhoods due to fast-moving traffic. The cost of an automobile-dominated transportation system, traffic's effect on quality of life and the environmental degradation caused by motor vehicles, have forced communities to examine the ways in which the public right-of-way is used. Streets must be reclaimed as multi-purpose public spaces to facilitate non-auto travel and to maintain community livability.

10.07 Existing Street Network

NETWORK DESCRIPTION (10.07.01)

Ashland's geographic location has historically governed local transportation patterns. Bounded on the west by the foothills of the Siskiyou Mountains and on the eastern edge by Interstate 5 and large floodplains, the city has developed in a linear fashion. The main thoroughfare, North Main StreetSiskiyou Boulevard, runs between steep terrain to the south and the gentle slopes of the north.

Ashland's street system design reflects the cultural values and available technology of earlier eras. Most of the first streets were developed within what is today the downtown core. Streets in the Railroad District were laid out in a grid pattern perpendicular and parallel to the tracks. Subsequent neighborhood streets were patterned in a strict north/south grid with little consideration for terrain limits.

As a result, many Ashland streets are very steep. As Ashland became increasingly auto dependent, attempts were made to reduce the car's impact by

limiting access to neighborhood areas. For example, more recent residential developments contain curvilinear streets with cul-de-sacs. Current street design trends employ a modified grid pattern while accommodating terrain limitations.

The main boulevard, North Main Street-Siskiyou Boulevard, extends the length of the city. Two boulevards branch off it in an easterly direction. Ashland Street (Highway 66) intersects Siskiyou Boulevard near Southern Oregon State College and Interstate 5. East Main Street runs in an easterly direction from the city center to Highway 66. Numerous avenues and neighborhood collectors connect city neighborhoods to the boulevards.

Ashland has three freeway interchanges adjacent to Interstate 5. Exit 19 is located at the northern end of the city off Valley View Road. Exits 14 and 11 are located at the southern end of the city off Ashland Street (Highway 66) and Siskiyou Boulevard respectively. Interstate 5 provides primary north-south access through the Rogue River Valley as well as to other Oregon regions and the state of California. On Interstate 5, Ashland is 12 miles from Medford, 40 miles from Grants Pass and 45 miles from Yreka, California.

Several state highways connect Ashland to areas in Southern Oregon. State Highway 99 (Rogue River Highway) is also known as North Main Street and Siskiyou Boulevard within the city limits. Highway 99 closely parallels Interstate 5 and extends from the freeway in Ashland to Grants Pass. Highway 99 also provides access to areas northwest of Ashland.

State Highway 66 (Greensprings Highway) runs in an easterly direction from Ashland to Klamath Falls, 60 miles away. Dead Indian Memorial Road, a county road, extends in a northeasterly direction to State Highway 140. State Highway 140 provides access to Klamath Falls and connects to State Highway 62. Due to steep, rugged terrain, the area directly west of Ashland is not accessible by local roads. The main routes to the Applegate Valley and the Illinois Valley are either State Highway 238 through Jacksonville or U.S. Highway 199 through Grants Pass.

STREET CONDITIONS (10.07.02)

Approximately 83 miles of streets lie within Ashland. There are 75 miles (90%) of paved streets and eight miles (10%) of unpaved streets. Public road maintenance within Ashland is shared by the City, the County, and the State. The Oregon Department of Transportation maintains two of the boulevards in the city—North Main-Siskiyou Boulevard (Highway 99) and Ashland Street (Highway 66). Both streets

are state highways. Jackson County provides maintenance for county roads within the city. The City of Ashland Public Works Department maintains all other public streets within the city limits. The City grades and gravels unpaved streets and conducts required maintenance on paved streets.

Future transportation projects currently planned and funded are described in Appendix A.

STREET CLASSIFICATIONS (10.07.03)

Ashland streets have been classified as part of the transportation planning process. Roadway classifications, also called functional classifications, establish uniform criteria for the construction, maintenance and use of the streets. The classifications are based on street function, traffic volume, average trip length, spacing and relationship to the network. There are four street classifications: boulevard, avenue, neighborhood-collector and neighborhood streets. The Transportation System Map on page 9 shows the functional classification of Ashland streets. The map also indicates proposed streets, which will improve travel circulation as the community grows.

The City of Ashland uses a modified version of the functional class system as outlined in the Street Classifications section. The modifications were made to recapture streets as multi- modal travel corridors and public spaces. Specifically, traditional street type names are used in place of standard engineering terms. Boulevard is used for arterial, avenue is used for major collector, neighborhood collector is used for minor collector and neighborhood street is used for local street. Traditional street type names are used because they evoke classic, human scale streets such as Siskiyou Boulevard and East Main Street rather than modern, automobile dominated roads. See Street Classifications section for further information.

The functional class system was developed by the Federal Highway Administration and adopted in the Federal-Aid Highway Act of 1973. The Oregon Transportation Planning Rule of 1991 requires local jurisdictions to use the functional classification system and ensure that road classifications are consistent with regional and state functional classifications.

According to the functional classification system, streets serve two basic purposes—traffic movement and land access. Boulevards move traffic through the community and onto the collector system and restrict or prohibit access from adjoining properties. Avenues and neighborhood collectors are designed to collect traffic from neighborhood streets and funnel it onto boulevards. Although some property access is provided by these street types, moving traffic is of prime importance. Neighborhood streets primarily provide

access to adjacent properties and move neighborhood traffic onto collectors. Neighborhood streets should be protected from shortcut or detour traffic, from vehicles moving at excessive speeds, and from parking unrelated to residential activities.

While the functional classification system is a useful transportation planning tool, it has several shortcomings. First, the concentration on vehicular traffic volumes and street capacities tends to dominate street design and construction. Streets are widened at the expense of sidewalk width, trees and front yards. Cities across the nation have made changes based on the assumption that traffic would increase at a steady rate in the future and have used traffic volumes and capacities as principal measures of street use. It is becoming increasingly apparent that a road's function and its relationship to the network, as well as its traffic volume, must be considered.

The functional classification system, which focuses on vehicular traffic, assumes that streets exist for two purposes—moving motor vehicles and providing land access. As a result, non-automobile users (pedestrians, bicyclists and transit riders) are only considered in afterthought. The third street purpose that of providing a public space is entirely ignored.

10.08 Roadways Needs

Ashland citizens have expressed opinions about transportation needs in many forums. To address their concerns, the city held neighborhood meetings from February to April 1994. At these meetings citizens identified a variety of problems and possible solutions. Appendix B contains a complete list of neighborhood meeting comments.

LAND USE AND TRAVEL PATTERNS (10.08.01)

Transportation demand and resulting traffic are determined almost entirely from the ways in which land is organized and used. Suburban development tends to be low in population density and requires use of the personal automobile for almost all travel. Destinations are far apart in suburban areas and residential neighborhoods are strictly separated from the places people work, shop, and socialize. Extensive areas of suburban development result in sprawl.

In contrast, traditional neighborhood development is compact and integrates residential areas with employment, shopping and recreational districts. By locating destinations close to areas in which people live, walking, bicycling and public transit can be used for everyday trips. While a sprawling development pattern systematically locks cities into dependence on the single-occupant automobile, a traditional development pattern provides multiple transportation options.

Transportation demand and resulting traffic are determined almost entirely from the ways in which land is organized and used.

"Once attending a child's performance in a play or sporting event was a pleasurable part of life; now it requires a level of scheduling that characterizes a military campaign. How many parents can walk over to the playing fields when a child is playing on the soccer team or even come to watch the soccer game because they have no time?"

Anton Clarence Nelessen

A recently completed study by the University of California at Berkeley's Institute of Urban and Regional Development compared travel characteristics in two distinctly different neighborhoods in the San Francisco-Oakland region's East Bay. These enclaves included Rockridge, an older compact and mixeduse neighborhood with many traditional design qualities, and Lafayette, a post-World War II community dominated by suburban tract housing, spacious community designs and auto- oriented retail strips and plazas. The two neighborhoods were discovered to be similar in some ways. They lie in the same geographic area, are the same approximate distance to downtown San Francisco, have a public transit station, are served by the same regional freeway and have comparable median household incomes.

The study, however, found that the older traditional neighborhood, Rockridge, averaged a 10% higher share of non-work trips by travel modes other than automobile, compared to the auto-oriented Lafayette. Neighborhood characteristics exerted the strongest effect on non-work trips of less than one mile. Specifically, in Rockridge walking trips were frequently substituted for automobile trips. Residents made 28% of non-work trips under one mile by foot and 66% by automobile. In contrast, Lafayette residents made just 6% of non-work trips by foot and 81% by car.

The University of California study highlighted two factors, which have been critical in the evolution of sprawl—the personal automobile and single-use zoning. Prior to the 1950s, homes were built on small lots close to public transportation. As economic growth and the national standard of living escalated in the 1950s, an increasing number of households purchased automobiles. As extensive road systems were developed throughout the nation and within communities, the car became the connecting link between home and work. New homes were built on large lots away from employment centers and the suburban population exploded.

Shortly before the automobile's proliferation, single-use zoning, which designates areas for specific, limited land uses, became the basis of comprehensive planning and zoning in the United States. Singleuse zoning had been developed in the late nineteenth century to prevent poor living conditions caused by industrial pollution, noise and odor, and to prevent fire and disease.

The resulting development pattern decentralized land uses and strictly separated residential and commercial functions. The landmark 1927 U.S. Supreme Court decision of the Village of Euclid vs. Amber Realty Co. upheld the municipality's right to designate areas for single land uses9. Ironically, cars traveling

between separate uses have caused the pollution and destruction of natural resources that singleuse zoning was originally intended to eliminate.
Sprawl-induced dependence on the automobile negatively affects communities in many ways. Sprawl emphasizes the private living space and ignores development of public spaces. It does not respond to changing demographics. As families become smaller and less traditional, and as cars are required for daily living, other demands, such as regular chauffeuring of children, become a hardship.

Sprawl is expensive. On average, a two year old car costs $5,000 per year to own and maintain~3. Keeping a private automobile has become more costly for wage earners and a formidable economic barrier for lower income residents. The cost of installing and maintaining public infrastructure, such as roads, sewers, water, electricity, schools, parks, police and fire protection, grows as the amount of serviced land area increases.

The public pays the high infrastructure costs for a sprawling development pattern. Extensive road networks consume valuable land and low density makes transit inefficient and ineffective. Requiring high-energy consumption, sprawl is also a major source of air and water pollution. The cumulative effects of sprawl compromise the quality of life and the environment, and discourage a sense of community.

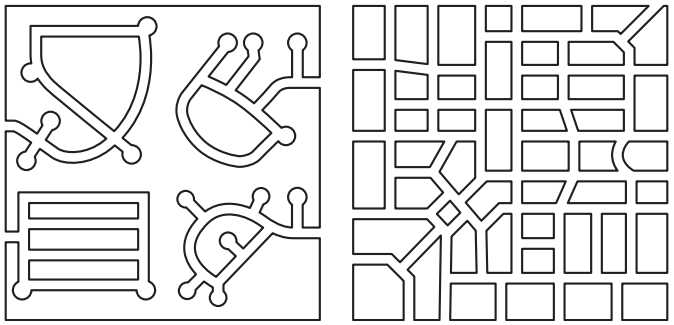
The traditional neighborhood is an alternative to low density development. Traditional neighborhoods are moderately dense, multiple-use communities which provide transportation options. Traditional communities include a core with mixed and multiple uses, variation in the size of buildings and building footprints, an increase in the size of residential units and lot sizes from the neighborhood core to its periphery, open space and a focus on pedestrians and human scale in the streetscape. In Ashland's traditional neighborhoods, such as the Railroad District, new development and redevelopment increasingly integrate those elements, which have historically proven effective.

Traditional neighborhoods facilitate everyday life without the need for extensive driving. Compact land use, mixed and multiple-use areas and the pedestrian environment promote walking, bicycling and public transit. In contrast, the low density development, separated land uses and automobile environment of suburban areas limits travel to the car and promotes an increasing number of vehicle miles traveled (VMT) per capita. Traditional neighborhood development must be facilitated to increase walking and bicycling trips and to make public transit possible in the long term.

STREET LAYOUT AND DESIGN (10.08.02)

Street network patterns and the physical design of the right-of- way are intrinsically linked to travel patterns and neighborhood character. Successful, multi-modal streets in traditional neighborhoods resemble inviting public spaces and function in an interconnected network. Street layout and design should support the traditional neighborhood.

Traditional neighborhoods such as the Ashland's Railroad District reveal common characteristics in network layout and street design. They typically contain a grid network—a framework of parallel or crisscrossed streets intersecting at right angles with very few dead ends. Blocks are 300 to 400 feet in length with 1,200 to 1,600 feet perimeters.



Auto Oriented Planning

Transportation Balanced Planning

In contrast to the multiple curves and cul-de-sacs found in suburban development, a grid network spreads out local traffic by providing multiple ways to reach the same point. The many interconnections and short block lengths mean that trips are more direct and shorter in distance. This network allows residents to get to neighborhood destinations, schools, stores, or friends' houses, without entering a boulevard.

Physical street design is strikingly different in traditional neighborhoods than in suburban areas. Typical neighborhood streets have evolved from the narrow pavement width and right-of-way designed to carry horse-drawn vehicles to the much wider streets seen in today's suburbs, which allow people to drive 40 to 50 miles per hour.

Traditional neighborhood streets typically have 30 to 50 feet of right-of-way, with 18 to 24 feet of pavement. Houses are set back 12 to 20 feet from the right-of-way and detached garages are either located behind the house or set back further than the house facade. In contrast, subdivision streets have 60 feet of right-of-way, 32 to 36 feet of pavement; houses set back 20 to 60 feet from the right-of-way and attached garages set back the same distance as the house facade.

Other elements of traditional neighborhood street design include parallel parking on at least one side, park-rows and sidewalks on both sides, street trees and street lamps at regular intervals, curb radii of not more than 15 feet, and bump-outs and safety islands on wider streets. In traditional neighborhoods, all streets are not the same. Some serve high-density neighborhoods, some commercial cores, and others serve low- density districts. They also vary in pavement widths, sidewalks and building locations contrasting markedly with rigid contemporary suburban standards. A noticeable feature of traditional neighborhoods is that design differs from street to street.

Street design should promote safety and livability. It should permit comfortable and safe pedestrian and bicycle travel as well as motorized vehicular operation. Vulnerable users such as children, the disabled and the elderly, should be protected. The street should be a multipurpose, public space that enhances the neighborhood's overall aesthetics. Deliveries, emergency access and where densities allow, bus or paratransit service must be accommodated.

Ashland's street layout and design need to be better matched to adjacent uses, the physical features of the land, location in the neighborhood and position in the community. A grid or modified grid network pattern should be used to provide connectivity. Ashland street design standards must incorporate traditional neighborhood street elements.

TRAFFIC CALMING (10.08.03)

The challenge of the neighborhood street system is to balance restoring the human scale characteristic of traditional neighborhoods with residents' desire for convenient automobile access to their home. This involves reducing traffic unrelated to the neighborhood, slowing down traffic using the streets and providing for attractive and unobtrusive vehicle parking.

There are three methods for achieving traffic control in the neighborhood: general laws and ordinances; traffic control devices; and traffic calming techniques. The third method, traffic calming, is increasingly being used on neighborhood streets because traffic control devices and speed limit laws tend to be ineffective in both deterring through traffic and slowing down local traffic.

Traffic calming uses geometric design features to guide or restrict physical movement of motor vehicles, bicycles and pedestrians. The basis for traffic calming is simple. Drivers tend to respond to their surroundings rather than to posted speed limit signs. If the street is designed using suburban standards and has the width and gentle curves of a highway, people will drive as if they are on a highway. Even

Drivers tend to respond to their surroundings rather than to posted speed limit signs.

the Romans understood that certain measures had to be taken to restore neighborhood tranquillity when they placed stone blocks at some street entrances as a physical barrier against high speed chariot traffic.

Traffic calming can be used to address two major problems: the protection of neighborhood streets from high speed and through traffic; and the mitigation of traffic impacts on residential areas located on major streets.

"Cut-through" traffic in established neighborhoods disrupts life and erodes the neighborhood's integrity. Residential traffic problems arising on major streets may require special efforts to balance residents' needs with those of the traveling public.

A wide variety of traffic calming measures can be combined in various ways to create different traffic control levels. In general, where there is an alternative route, steps, which discourage use and decrease roadway capacity, are appropriate. In situations where no alternative route exists, traffic can be slowed down without substantially taking away capacity[4].

Traffic problems are most judiciously handled when a clear, understandable traffic control planning process is in place.

Traditionally in Ashland and most small cities, traffic complaints are handled on a case-by-case basis. The weakness in this approach is that complaints do not always come from the areas where problems are most frequent, spot treatment often simply shifts problems to other areas, and residents may demand a specific action which may not be the best solution to their problem.

The Institute of Transportation Engineers recommends developing a traffic control planning process which regularly inventories neighborhood traffic problems throughout the community, and adopting standards to identify conditions which need attention. Once a traffic problem meets the criteria for traffic control treatment, the following process should be used:

- assess problem and causes
- develop alternative courses of action that could eliminate or reduce the problem
- predict both primary and secondary impacts of alternatives on the neighborhood and general community
- develop an implementation strategy, including a financing and maintenance plan
- evaluate in-place performance of selected action or actions, and make adjustments as needed

The City of Ashland should develop a traffic control planning process for the systematic treatment of traffic problems in the existing street network. Traffic calming measures should be used to protect neighborhood streets from through traffic and to mitigate traffic impact on major streets.

FUTURE TRAVEL (10.08.04)

A travel forecasting model for Ashland was developed in 1992 by Kittelson and Associates, Inc. The model tested various measures of reducing future motor vehicle travel in the Ashland area by replicating the existing traffic volumes and predicting future volumes on Ashland streets. Non-automotive measures and automobile-oriented measures were both studied.

Specifically, the 1992 model addressed two questions. First, what roadway network improvements would be necessary for all boulevards and avenues to operate at volume-to-capacity ratios of less than 1.0 in Year 2005? (A volume-to-capacity (V/C) ration equal to or greater than 1.0 means the roadway volumes exceed capacity of the facilities.) Second, what net effect would future non-auto modal enhancements have upon overall travel in the Ashland area in 2005?

The first test, the "base scenario", was conducted to predict traffic flow in the year 2005. It assumes no physical changes to the street network and that the modal split remains the same. The base scenario serves as a constant, to which several other scenarios using different transportation system options can be compared.

In the base scenario, five roadway segments on Ashland's boulevard/avenues street system operate with V/C ratios in excess of capacity in 2005:

- Siskiyou Boulevard (northbound and southbound) between Mountain Avenue and Ashland Street
- Siskiyou Boulevard (northbound) south of the inter-section of East Main Street and Lithia Way
- Ashland Street (eastbound) between Interstate 5 southbound and northbound ramps
- Pioneer Street (both directions) at East Main Street
- Valley View Road (northbound) at Interstate 5 inter-change

When a scenario with full improvements to Hersey Street was studied, the roadway segment of Siskiyou Boulevard south of the intersection of East Main Street and Lithia Way operated below capacity.

Two "automobile-oriented" scenarios, building additional roadway capacity and transportation system management (TSM), were developed to test whether auto measures would alleviate future roadway congestion. (TSM is a method of maximizing the efficiency

of the existing transportation system by managing traffic through the use of traffic control devices such as traffic signals, ramp meters, median turn barriers, restricted access to properties along congested corridors, etc.)

The first scenario to enhance street capacity added more travel lanes to Siskiyou Boulevard between Ashland Street and Lithia Way, and to Ashland Street between the Interstate 5 ramps. The five "above capacity" street segments from the base scenario all operated at V/C rates less than .9 with added travel lanes in 2005.

A second test was conducted using TSM measures such as traffic signal system enhancements, intersection capacity improvements and access management of driveways and intersections instead of added travel lanes. All street segments operated with V/C rates less than 1.0 in 2005 as a result of TSM improvement measures.

Five "mode-split enhancement" scenarios, pedestrian, bicycle, transit, high occupancy vehicle and combined modes, tested whether non-auto measures would reduce automobile travel in the Ashland area and relieve roadway congestion. The pedestrian scenario applied a 25% reduction rate to all trips less than one-half mile, and resulted in a less than 1% reduction in auto trips in 2005. The bicycle scenario applied a 10% reduction to all trips between one-half and two miles, and resulted in a 2% reduction in auto trips in 2005.

MODE-SPLIT ENHANCEMENT SCENARIOS (TDM) FROM 1992 TRAVEL DEMAND MODEL

Increase of...	Reduction in 2005 Auto Trips
25% of all trips made by walking	- 1%
10% of all trips between .5 and 2 miles by bicycling	2%
10% of trips adjacent to bus routes by transit	2%
15% of trips to Medford by high occupancy vehicle	6%
All Mode-Split Enhancements Combined	11%

The transit scenario applied a 10% vehicle trip reduction rate to all origin-destination pairs located adjacent to RVTD bus service Routes #5 and #10 in Ashland. These calculations resulted in a reduction of approximately 2% of future auto trips. The high occupancy vehicle to Medford scenario applied a 15% vehicle trip reduction rate to all Ashland generated trips with an origin or destination located in Medford. This calculation results in a reduction of 6% future auto trips in Ashland.

The combined scenario of all the mode-split enhancements tested the impact of all transportation demand management (TDM) measures on reducing auto travel in Ashland. (The purpose of TDM is to reduce the number of motor vehicles using the road system by providing a wide variety of mobility options. Exam-

ples of TDM strategies include encouraging walking and bicycling trips, decreasing distance traveled through land use, encouraging ridesharing and alternative work arrangements.) Combined trip reduction factors resulted in a decline of approximately 11% future auto trips in Ashland. Overall, auto travel was significantly reduced on North Main Street, Siskiyou Boulevard and Ashland Street. However, V/C rates in excess of 1.0 are still found on two of the five "above capacity" roadway segments from the base scenario—Siskiyou Boulevard between Mountain Avenue and Ashland Street, and on Pioneer Street at Main Street.

Finally, a scenario combining the TSM and Combined Mode- Split Enhancements was developed to test the impact that TSM and TDM measures would have on reducing auto travel in Ashland. The combined TSM/TDM enhancement scenario resulted in a significant reduction of future auto trips on North Main Street and Ashland Street. No roadway segments on Siskiyou Boulevard showed V/C rates above 1.0.

The City must select a transportation system alternative that adequately meets Ashland's transportation needs. The alternative should combine strategies which best meet the goals and objectives of the Transportation Element and which address future capacity insufficiencies.

The travel demand model is a valuable tool for predicting where future bottlenecks, sensitive intersections, etc. will occur. However, like any other forecasting method, travel demand modeling has limitations. Travel demand models are automobile-oriented and were developed strictly to determine where roads should be built or expanded. Traditional models look only at automobile travel and assume that these patterns will continue and remain constant in the future. They do not incorporate alternative modes of transportation or changes in land use patterns, and they do not examine travel behavior or options, which might affect how people travel. When analysis assumes the automobile is the only transportation option, the only solution for congested areas is to add capacity to the streets. In this respect, the travel demand model perpetuates accommodation of increased traffic by building roads.

Many communities mistakenly use model results as the sole basis for transportation policy. Streets, which were supposed to function below capacity for many years in the future, may reach above-capacity conditions in a much shorter time. When cities use travel demand modeling as an overriding doctrine in transportation planning, they often accept methods, which accommodate automobile traffic by building new roads.

In every city of the world the volume of traffic is limited, intentionally or unintentionally, by measures adopted by governments. If these measures were relaxed, there would be more traffic; if they were strengthened, there would be less. In other words the volume of traffic in a city is not something like the rainfall that has to be accepted..."

from Urban Transport and the Environment

Recent travel demand models have only begun to attempt incorporating options such as walking, bicycling, public transit and different land use patterns. Transportation modeling professionals began to consider non-auto modes in response to passage of the Federal Inter-modal Surface Transportation Efficiency Act and the Oregon Transportation Planning Rule. These laws explicitly acknowledge nonauto transport as viable modes of transportation and initiated a new era in transportation planning. At the time of this writing, a model, which solidly predicts walking and bicycling has not been perfected.

The 1992 travel demand model for Ashland included non-auto trip analysis to the extent possible at that time and assumed a traditional, single-use land development pattern in the future. Since then, modeling alternative land use patterns has become a fairly common practice. Depending on advances in travel demand modeling and available resources, the Ashland 1992 model may require refining to test alternative land use patterns and non-auto transport options.

FREEWAY ACCESS (10.08.05)

Presently, the City of Ashland is served by three freeway interchanges- Exit 19 at the northern endofthe city; Exit 14 at the intersection of Ashland Street and Interstate 5, and Exit 11 at the far southern end of the community at the intersection of Siskiyou Boulevard and Interstate 5. In the previous Transportation Element of the Comprehensive Plan (1981), there was discussion of an additional freeway interchange at the intersection of North Mountain Avenue and Interstate 5, designed to serve the center of the community. For several reasons, this new interchange is not likely to be developed during the planning period. However, it is not precluded as an option for the future.

First, additional research has been conducted regarding the service area of the interchange. The new interchange would primarily serve Southern Oregon State College commuter students and Medford-based trips from the nearby residential areas. However, due to the linear nature of the community, and the perceived distance of the freeway interchange from Siskiyou Boulevard, the total area served by the interchange would not be large. The overall impact on through traffic to the community is not offset by the large financial investment necessary to construct the interchange.

Second, regarding the financial investment, current state highway construction dollars are tightly controlled, and the likelihood of gaining state support for construction of an interchange during the planning period is minimal. The availability of three interchanges for a community of 18,000 appears to be ample, by state standards. Therefore, the cost of

constructing the interchange would fall entirely on the local community.

Third, the investment in the freeway interchange, and the necessary infrastructure improvements to streets accessing the North Mountain area would be almost entirely auto-oriented. The benefits to other modes of travel would be minimal, especially when compared to the large capital outlay necessary. Therefore, a freeway interchange at North Mountain Avenue is not likely to be developed during the planning period, but it is not precluded as an option for the future.

ACCESS MANAGEMENT (10.08.06)

Access management reduces maneuvers in the travel corridor through roadway design techniques that maintain or increase street capacity. Access management is used on boulevards and avenues to create a safe roadway environment that allows pedestrian, bicycle and motor vehicle traffic to flow smoothly. Among tools used in access management are proper spacing of traffic signals, provision of turn lanes, use of medians and planned driveway spacing and design.

Access management is a useful transportation management tool for the existing street network as well as for future streets. It can be used as an alternative to constructing additional motor vehicle travel lanes on existing streets. Preliminary studies of Highway 30 from Portland to Astoria show that using access management techniques can decrease the need for traditional highway widening and equal savings of over $75 million over the next 20 years.

All streets functionally classified by the Oregon State Division of Highways as rural collectors and minor arterials that connect Ashland with other municipalities are under the administrative control of either the County or the State. Access management on these routes is handled by permit. Within the city limits, roadways under State administrative control are coordinated by the State. Access management on streets under jurisdictional control of the City is its responsibility. In the interest of minimizing street construction and widening, the City of Ashland must develop an access management plan for the boulevard and avenue street network in cooperation with the County and State.

SAFETY (10.08.07)

Safety is important in existing street network function as well as in the successful design of future streets. Areas prone to traffic accidents must be identified and systematically addressed.

Safety problems are rooted in the conflicts among the many users of street space. Although streets are public property and belong to everyone, some users have

Ashland must be involved in advocating regional land use patterns that support a multi-modal transportation system.

preempted more of the street space than others. The "traffic function", moving traffic streams efficiently, competes with streets as public spaces, access to properties and parking.

The number and types of conflicts between street users depends on the facility's physical design and on the users' behavior. In order to identify goals for street design, it is important to identify all user needs, consider what conflicts they might have and what safety needs might result. Safety for all users should be a guiding factor in street planning and design in Ashland.

Conflicts arise out of the manner in which people use the street and interact with other users. As outlined in the Pedestrian/Bicycle Section, well-enforced traffic laws play an important part of street safety. Also, transportation safety education is one way to familiarize pedestrians, bicyclists and drivers with proper practices and traffic law.

REGIONAL AND STATE ROADWAY SYSTEMS (10.08.08)

Clearly, Ashland needs a safe and efficient roadway system connecting the city to the region, to the state and to the rest of the nation. The United States has heavily invested in the interstate highway system, and as a result the flow of people, goods and service depends on the roadway network. In the interest of the residents and the local economy, Ashland's transportation system must be coordinated with county, regional, state and federal jurisdictions.

In the Rogue Valley region, land use patterns directly affect the development of viable non-auto transportation. Alternatives to the single-occupant vehicle cannot succeed if an auto-oriented low-density development pattern continues. Ashland must be involved in advocating regional land use patterns that support a multi-modal transportation system.

10.09 Street System Goals and Policies

GOAL (10.09.01)

To provide all citizens with safe and convenient transportation while reinforcing the recognition of public rights-of-way as critical public spaces.

POLICIES (10.09.02)

1) Provide zoning that allows for a mix of land uses and traditional neighborhood development, which promotes walking and bicycling.

2) Periodically review and revise street design standards. Incorporate traditional neighborhood design elements such as, but not limited to, planting strips, minimum necessary curb radii, alleys

and skinny streets in standards. The street design standards shall incorporate the land use and design guidelines in the Street Classifications section of this element.

3) Design streets as critical public spaces where creating a comfortable and attractive place that encourages people to walk, bicycle and socialize is balanced with building an efficient travel corridor. Design streets with equal attention to all right-of-way users and to promote livability of neighborhoods.

4) Enhance the streetscape by code changes specifying placement of critical design elements such as, but not limited to, windows, doorways, signs and planting strips.

5) Reduce excessive street pavement width in order to facilitate convenient pedestrian and bicycle circulation, to facilitate convenient pedestrian and bicycle circulation, to reduce the costs of construction, to provide for more efficient use of land and to discourage excessive traffic volumes and speeds.

6) Encourage a connected street network pattern, as topography allows, to promote pedestrian and bicycle travel. Off-street pathways should be connected to the street network. Block perimeters should be 1,200 to 1,600 feet and the distance between streets should be a maximum of 300 to 400 feet.

7) Design the Land Use Ordinance to ensure Ashland Street is developed as a multi-modal corridor including attractive landscaping, sidewalks, bike lanes and controlled access. Development along Ashland Street shall be compatible with and support a multi-modal orientation.

8) Design the Land Use Ordinance to ensure that Siskiyou Boulevard is developed as a multi-modal corridor with sidewalk and bike lane facilities appropriate to the volume and speed of motor vehicle traffic.

9) Design the Land Use Ordinance to ensure that A Street and B Street are developed as multi-modal corridors. Development along A Street and B Street shall be compatible with and support a multimodal orientation.

10) When designing and funding facilities, consider all the costs of automobile use compared with using other forms of transportation. These costs include social costs, and air, noise and water pollution.

11) Advocate regional land-use patterns that support multi-modal transportation.

12) Encourage the use of all modes of travel that contribute to clean air and energy efficiency.

13) Integrate traffic calming techniques into city street design standards to reduce automobile speeds within new and existing neighborhoods.

14) Develop a process for traffic control management for the systematic treatment of traffic problems in the existing and future street network. Traffic control includes general laws and ordinances, traffic control devices and traffic calming techniques. The process should include a regular inventory of neighborhood traffic problems, at both intersection and other locations on the street, throughout Ashland, and standards to identify conditions, which need attention.

15) Develop a process for identifying and addressing areas prone to traffic accidents.

16) Maintain carrying capacity, safety and pedestrian, bicycle, public transit and motor vehicle movement on boulevards, avenues and neighborhood collectors through driveway and curb cut consolidation or reduction.

17) Direct driveway access onto streets designated as boulevards and avenues should be discouraged whenever an alternative exists or can be made available.

18) Require design that combines multiple driveway accesses to a single point in residential and commercial development.

19) Develop a process for evaluating the consistency of curb cut requests with the Comprehensive Plan and Land Use Ordinance.

20) Maintain street surfaces to achieve maximum pavement life so that road conditions are good and pavement maintenance costs are minimized. Prioritize streets for repaying by factors such as the level of use, street classification and pavement condition.

21) Prohibit the formation of new unpaved roads.

22) Discourage development from occurring on unpaved streets.

23) Off-street parking for all land uses shall be adequate, but not excessive, and shall not interfere with multi-modal street uses.

24) Manage the supply, operations and demand for parking in the public right-of-way to encourage economic vitality, traffic safety and livability of neighborhoods. Parking in the right-of-way, in general, should serve land uses in the immediate area.

25) Reduce the number of automobile parking spaces required for new development, discouraging automobile use as the only source of access and encouraging use of alternative modes.

26) Consider environmental impacts when developing new street projects. Require new street projects to reduce impact on terrain and natural vegetation.

27) Acquire or control parcels of land that may be needed in the future for any transportation purpose when the opportunity arises through sale, donation or land use action.

28) Periodically assess future travel demand and corresponding capacity requirements of street network. Choose a comprehensive transportation system approach to address any capacity insufficiencies that is consistent with the goals, policies and philosophy of the Transportation Element of the Comprehensive Plan.

29) Coordinate land use planning with transportation planning. Integrate transportation-related functions that involve several City departments so that the goals, policies and philosophy of the Transportation Element of the Comprehensive Plan are consistently pursued in the transportation project development process.

30) Coordinate City transportation planning with county, regional, state and federal plans.

31) Coordinate the transportation planning efforts of the adopted Ashland Downtown Plan with the goals and policies of the Transportation Element of the Comprehensive Plan, including the provision parking lots and parking structures.

32) Interconnections between residential neighborhoods shall be encouraged for automobile, pedestrians and bicycle traffic, but non- local traffic shall be discouraged through street design, except for boulevards, avenues, and neighborhood collectors. Cul-de-sac or dead-end street designs shall be discouraged whenever an interconnection alternative exists. Development or a modified grid street pattern shall be encouraged for connecting new and existing neighborhoods during subdivisions, partitions, and through the use of the Street Dedication map.

86% of trips 1 mile or less are made by automobile.

33) Plan for the full improvement of Hersey, Nevada and Mountain Avenue as alternative routes to the downtown area for north-south traffic.

34) Street dedications shall be required as a condition of land development. A future street dedication map shall be adopted and implemented as part of the Land Use Ordinance.

35 Re-evaluate parking space size requirements due to the increased use of smaller cars.

36) Encourage sharing of existing and future parking facilities by various nearby businesses.

37) Require effective landscaping throughout continuous paved parking areas to increase shading, screening and buffering aesthetics, and for percolation of water into the groundwater table.

10.10 Pedestrian and Bicycle Transportation

INTRODUCTION (10.10.01)

Habit, established by our nationwide dependence on the automobile since the end of World War II, accounts for most of the situations in which citizens elect the automobile as a standard travel mode. Less apparent reasons for these choices are the perception of greater distance than actually exists and the presence of unsafe, unaesthetic or intimidating barriers to travel that discourage people from walking or cycling.

Ashland residents make decisions about travel each time they run errands, visit friends or attend events. In most cases they choose their cars even when the distances to be covered are relatively short. Although 40% of all trips made in Ashland are two miles or less, and 25% are one mile or less, over 86% of trips one mile or less are still made by automobile.
Like other cities, Ashland must reduce auto dependence in the face of compromised air quality, traffic congestion, and large subsidies for our road systems. The community must avoid further increases in automobile traffic by expanding the number of short trips made on foot or by bicycle.

Pedestrian and bicycle facilities must be improved and promoted in Ashland to encourage residents to abandon their automobile for the sidewalk and the bikeway.

BENEFITS OF WALKING AND BICYCLING (10.10.02)

“Families get to know one another better when there are sidewalks. Without them, it is awkward to take a walk. You feel you’re intruding. A man walking along a sidewalk appears to have a purpose; a man walking in the street or across your front yard looks suspi-

cious... Without sidewalks, houses are just houses. When sidewalks tie them together with a neat ribbon of concrete, they become part of something more: a neighborhood" (Pearce, 1980).

Walking and bicycling not only improve health and well-being; they benefit the general public, motorists, employers, the community and the environment. Many positive effects result when residents walk and bicycle instead of drive.

The number of people who regularly walk and bicycle is one measure of a city's quality of life. Businesses benefit when people stroll and window-shop. Sidewalks provide places for casual socializing. The presence of pedestrians and bicyclists in the community indicates that people feel safe and confident outdoors. Walking and bicycling allow people to more directly appreciate Ashland's natural beauty.

What happens when walking and bicycling replace vehicular trips?

- reduced accidents and property damage
- reduced air and noise pollution
- reduced consumption of petroleum resources
- reduced wear and tear on roads
- reduced light pollution and visual clutter
- reduced need for additional roads, travel lanes and parking

PEDESTRIANS AND BICYCLISTS: DIFFERENCES AND SIMILARITIES (10.10.03)

Although pedestrians and bicyclists do not have the same travel behavior, they have been considered similarly in the past. As bicyclists are routed on sidewalks instead of the road, conflicts arise because they move more rapidly than pedestrians. Motorists are often confused when bicyclists enter or leave the traffic stream at pedestrian crosswalks.

While walking and bicycling are both used for local short trips, pedestrians and bicyclists have very different travel needs. Bicycles move faster than pedestrians but slower than automobiles. Since pedestrians move more slowly, they require greater separation from traffic and need extra time to cross roadways.

Both walking and bicycling are used for short trips that can be accomplished in 20 minutes or less. Typically, this is one-half mile or less for pedestrians, and three miles or less for bicyclists. Both pedestrians and bicyclists are exposed to the elements, both are sensitive to geographical barriers and both are vulnerable to motor vehicles. Pedestrian and bicycle facilities compete with "edge" right-of-way demands such as on-street parking, utility poles and signs. Neither walking nor bicycling requires a license.

Pedestrian and bicycle facilities must be routinely considered as part of the total design on all transportation projects.

WALKWAY AND BIKEWAY DESIGN (10.10.04)

Two factors are critical in walkway and bikeway design. Pedestrian and bicycle facilities must be routinely considered as part of the total design on all transportation projects. Furthermore, individual walkways and bikeways must be designed to be safe, convenient, attractive and easy to use.

The Oregon Bicycle and Pedestrian Plan and the American Association of State Highway and Transportation Officials (AASHTO) provide facility design standards for walkways and bikeways. The following is a brief summary of the basic design principles included in the Oregon Bicycle and Pedestrian Plan.

PEDESTRIAN (10.10.05)

Sidewalks provide separation from traffic and all-weather surfaces for pedestrians. Planted strips between the sidewalk and roadway create an attractive environment by buffering pedestrians from traffic and increase their comfort and safety by making the street more inviting. Ideally, sidewalks should be provided on both sides of streets. Accessible sidewalks must be available to people with disabilities unless topography makes construction unfeasible. Special attention must be given to curb ramps and vertical clearance.

Accessible walkways must be conveniently tied into adjacent development walkways.

BICYCLE (10.10.06)

The type of bikeway provided on a street should be based on the motor vehicle traffic volumes and speeds that share the roadway. Bike lanes are the appropriate facility for bicyclists on boulevards and avenues. Bike lanes help define the road space, provide bicyclists with obstruction-free paths, decrease bicyclists' stress in traffic and remind motorists of cyclists' right to the road. A shared lane is appropriate on neighborhood collectors and streets because of the low traffic volumes and travel speeds.

On existing roadways where bike lanes are not possible due to constraints such as buildings or environmentally sensitive areas, the Oregon Bicycle and Pedestrian Plan recommends a wide outside lane and reduced actual travel speeds of 25 m.p.h, or less. This option, however, is recommended only after alternatives, such as narrowing or removing travel or parking lanes, are examined.

NEIGHBORHOOD CONNECTORS (10.10.07)

Neighborhood connectors are off-road, separate pedestrian and/ or bikeways that minimize travel

distances within and between residential areas and schools, shopping and workplaces. In most cases, walkways and bikeways should be provided along streets in a well-connected street network.

Neighborhood connectors are used in situations where street connections are infeasible. For example, these short multi-use paths are useful to connect cul-de-sac streets and dead ends, and to allow passage through areas with topographical constraints. In Ashland for example, the Talent Irrigation District (TID) right-of-way could provide pedestrian and bicycle connections for areas on steep hillsides that are otherwise inaccessible by roads. Historically, the TID right-of-way has been used as an unofficial neighborhood connector.

EFFECTIVE WALKWAYS AND BIKEWAYS (10.10.08)

A street network should serve the transportation needs of everyone in the community. Well-worn dirt paths where sidewalks would usually be, as well as bicyclists riding on sidewalks, demonstrate that pedestrians and bicyclists use streets even if no facilities exist.

In Ashland, the street network is the primary transportation infrastructure with most destinations oriented to the street. With the most direct and convenient travel routes, this network logically should contain pedestrian and bicycle travel corridors where walkers and cyclists will be more visible than they are on separate pathways. Incorporating these corridors into the street network is economical and efficient and reduces the need for additional easements or maintenance.

According to Oregon Bicycle and Pedestrian Plan, effective walkway and bikeway networks depend on:

- accommodating pedestrians and bicyclists on boulevards, avenues and neighborhood collectors
- providing appropriate facilities
- creating and maintaining a grid system of closely spaced, interconnected neighborhood streets
- overcoming barriers such as freeway crossings, railroad tracks, intersections, rivers and canyons

The Oregon Transportation Planning Rule requires boulevards and avenues, the backbone of the urban transportation system, to accommodate pedestrians and bicyclists. Major streets provide direct, continuous and convenient access to most destination points because they move traffic through the street system. In addition, they provide signalized crossings and bridge obstacles such as rivers, freeways and railroad tracks.

Cyclists and pedestrians tend to use the shortest, most convenient route to travel to their destinations. Major streets provide direct travel routes for pedestri-

ans, bicyclists and motorists alike. If walkways and bikeways are not provided on major streets, negative consequences such as the following may occur:

- Many pedestrians and cyclists will choose to stay on the thoroughfare, even without sidewalks or bike lanes. This can cause safety problems and traffic delays.
- Some motorists will not respect bicyclists or pedestrians who are perceived to be "riding or walking where they don't belong."
- Circuitous bike route signing will be ignored by bicyclists. As a result, other bicycle signing is not respected.
- The importance of bicyclists and pedestrians in the transportation network is diminished.

EXISTING WALKWAYS AND BIKEWAYS (10.10.09)

Most of the boulevards (North Main Street, East Main Street, Lithia Way, Siskiyou Boulevard, Ashland Street and North Mountain) have sidewalks on both sides within the city limits. Avenues, neighborhood collector streets and neighborhood streets, however, lack continuous sidewalks in many places. Boulevards such as East Main Street, Ashland Street from Siskiyou Boulevard to Interstate 5, and Siskiyou Boulevard from Walker Avenue to Tolman Creek Road have bike lanes on both sides. Avenues such as Hersey Street, Walker Avenue from Ashland Street to East Main Street and Tolman Creek Road from the north city limits to Siskiyou Boulevard have bike lanes on both sides. However, similar to the sidewalk situation, the bike lanes are not continuous.

A bikeway system map identifying existing bicycle facilities and future proposed bike lanes, shoulder lanes, shared lanes and bike paths was adopted by the City Council in June 1995.

Future transportation projects, including pedestrian and bicycle facilities, currently planned and funded are described in Appendix A.

PEDESTRIAN AND BICYCLE NEEDS (10.10.10)

Ashland citizens have contributed to an assessment of local transportation needs in many forums. To address their concerns, the city held neighborhood meetings from February to April 1994. At these meetings citizens identified a variety of service and facility needs. Comments ranged from general suggestions, such as "keep bike lanes free of debris," to the site specific such as "difficult crossing Siskiyou at SOSC'. Appendix B contains a complete list of neighborhood meeting comments.

Ashland has many characteristics, which make walking and bicycling viable transportation options. It covers an area roughly six square miles in size, which makes most in-town travel by bicycle possible within 20 to 30 minutes. The 1990 Census indicates that Ashland had one of the highest percentages of residents walking to work of all cities in Oregon. Many of the older neighborhoods such as the Railroad District are compact and have sidewalks in place. Most of the city is within bicycling distance of commercial centers, including the downtown core.

Ashland's goal is to increase the number of short trips made by walking and bicycling. Even though 49% of all trips are within walking or bicycling distance, national statistics show only 7.2% of all trips are by walking and 0.7% by bicycling. In order to determine how walking and bicycling can be increased, three questions must be addressed:

- Who is or will be making short trips?
- Where are people going?
- What makes people drive?

10.11 Who is or will be making short trips?

FUTURE POPULATION AND EMPLOYMENT (10.11.01)

Pedestrian and bicycle systems in Ashland must accommodate both future population changes and employment conditions. Ashland's official population projection for the year 2005 is 20,000, with an employment to total population ratio of approximately 39%. Historically, the majority of employment has been in the service and retail sectors.

An addition of 2,225 people from 1995 to 2005 is equivalent to approximately 820 households. If current transportation trends continue at ten-vehicle trips per household per day, 820 new households would generate roughly 8,200 additional vehicle trips each day.

Ashland demographics vary from typical patterns in several ways. Between now and 2005, the greatest population increase will occur in the 35 to 65 year old age group, the mature work force. While this trend matches existing trends in Jackson County, the SOSC student population results in a disproportionate amount of people in the 15 to 29 year old age group.

The tourist population is also rather unique in Ashland. In 1988, the average daily tourist population in Ashland was 1,476, and in 1989 there were 873 traveler's accommodation units. Even if tourists made only one-half the number of vehicle trips made by a household, they could still generate approximately 4,365 additional vehicle trips each day. Since the tourist market is centered at the Shakespeare Festival and in the downtown area, walking is a viable option. The

In order to maintain quality of life, Ashland pedestrian and bicycle systems must keep pace with population and economic growth.