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Executive Summary

By 2045, the San Antonio region will have nearly 1.5 million new residents. The northeastern suburban subregion between Interstate 35 and Interstate 10 is expected to grow from approximately 215,000 in 2015 to approximately 455,000 (a 112% increase). The Alamo Area Metropolitan Planning Organization (AAMPO) chose to conduct a planning study in this northeastern portion of their planning area to identify and prioritize multimodal transportation projects that would provide regional solutions and diverse mobility options to residents and visitors.

The Study Area is a 290 square mile subregion comprised of portions of Bexar, Comal, Guadalupe, and Hays Counties. Sixty-three percent (183 square miles) of the study area is unincorporated. Twelve cities comprise the remaining 107 square miles of the study area (37%).

There are 397 miles of roadway in the study area, from high-volume interstates and principal arterials to local streets; congestion on many of these is predicted to increase significantly by 2045. There are 82.9 miles of existing and planned bicycle and pedestrian facilities within the study area.
Based on recommendations from previous planning studies and guidance from the Study Oversight Committee (SOC), the Consultant Team developed a list of more than 100 potential multimodal projects to help meet the goals and objectives adopted by the SOC. The Consultant Team prioritized these projects from 1 to 116 using a performance-based ranking process reflective of the adopted goals and objectives. At the request of the SOC, this ranking did not consider project costs. Cost was considered after the project prioritization when the Benefit-Cost Analysis was conducted. The estimated investment for all 116 projects is about $1.2 billion; the Top 25 projects’ estimated costs total approximately $900 million.

**RECOMMENDATIONS**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Identifier</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GH1</td>
<td>SH 123 Widening</td>
</tr>
<tr>
<td>2</td>
<td>G3</td>
<td>FM 78 On-Street Bike Lanes – Segment II</td>
</tr>
<tr>
<td>3</td>
<td>B29</td>
<td>FM 1518 Expansion - Segment III</td>
</tr>
<tr>
<td>4</td>
<td>CG2</td>
<td>FM 1103 Expansion - Segment I</td>
</tr>
<tr>
<td>5</td>
<td>INT B8</td>
<td>SL 1604 Intersection Improvements - Segment II</td>
</tr>
<tr>
<td>6</td>
<td>C9</td>
<td>FM 1101 Expansion</td>
</tr>
<tr>
<td>7</td>
<td>INT B7</td>
<td>SL 1604 Intersection Improvements - Segment I</td>
</tr>
<tr>
<td>8</td>
<td>G27</td>
<td>FM 1103 Expansion - Segment II</td>
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<tr>
<td>9</td>
<td>C5</td>
<td>Kowald Lane Expansion</td>
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<tr>
<td>10</td>
<td>G35</td>
<td>FM 758 Expansion</td>
</tr>
<tr>
<td>11</td>
<td>C1</td>
<td>FM 3009 On-Street Bike Lanes</td>
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<tr>
<td>12</td>
<td>G2</td>
<td>Guadalupe River/Lake McQueeney Trail</td>
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<td>13</td>
<td>CG7</td>
<td>SH 46 Expansion</td>
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<tr>
<td>14</td>
<td>G4</td>
<td>FM 78 On-Street Bike Lanes - Segment I</td>
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<tr>
<td>15</td>
<td>B13</td>
<td>Olympia Parkway Shared Use Path - Segment I</td>
</tr>
<tr>
<td>16</td>
<td>G29</td>
<td>Woodland Oaks Dr On-Street Bike Lanes/Shared Use Path</td>
</tr>
<tr>
<td>17</td>
<td>C6</td>
<td>New roadway from IH 35 Frontage Road to FM 1044</td>
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<tr>
<td>18</td>
<td>G26</td>
<td>FM 725 Expansion</td>
</tr>
<tr>
<td>19</td>
<td>C3</td>
<td>Common Street Expansion</td>
</tr>
<tr>
<td>20</td>
<td>C14</td>
<td>River Road On-Street Bike Lanes</td>
</tr>
<tr>
<td>21</td>
<td>G14</td>
<td>Savannah Drive Shared Use Path</td>
</tr>
<tr>
<td>22</td>
<td>G25</td>
<td>SH 123 Expansion</td>
</tr>
<tr>
<td>23</td>
<td>B9</td>
<td>New Roadway from Binz Engleman to Pfeil Road</td>
</tr>
<tr>
<td>24</td>
<td>G17</td>
<td>Four Oaks Lane Extension</td>
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<tr>
<td>25</td>
<td>G30</td>
<td>Savannah Drive On-Street Bike Lanes and Shared Use Path</td>
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AAMPO prioritizes *Roadway Connectivity, Multimodal Transportation Options*, and *Transportation Equity*, which considers the circumstances impacting a community and seeks fairness in meeting the needs of all community members, particularly underserved populations. This study has been conducted with these three priorities as guidance.

AAMPO and the SOC requested this study be actionable and result in projects that are implementable in the short-term (0 to 5 years) and mid-term (6 to 15 years). The most important criteria in ensuring implemented projects...
improve mobility in the study area is for those projects to have people to champion them and funding opportunities to pay for them.

**ACTION ITEMS**

To help keep the implementation process moving forward, the team has developed several implementation strategies and checklists to keep the implementation process at the forefront. Described in more detail in Chapter 8.0, Project Implementation Strategies identified include:

- **Agency Coordination**
  - Obtain agreements from all project partners to commit to funding and maintenance.

- **AAMPO Staff Liaison and Check-In Program**
  - Check in at least once quarterly with the Project Champion to assess project status.

- **Project Advancement Committees**
  - Help to expedite the project planning and implementation process.
  - Oversee planning to advance the project and ensure appropriate readiness to be competitive in the Transportation Improvement Program (TIP) Call for Projects.

- **Collaboration with Real Estate Developers and Interest Groups**
  - Collaborate with developers and non-profit groups to partner on community enhancing projects.

- **Special Funding**
  - Certain Subregional Planning Study projects may be eligible for funding through programs like Congestion Mitigation and Air Quality Improvement (CMAQ) Program and the Surface Transportation Program (STP).

- **Enhanced Federal Funding**
  - The Infrastructure and Investment Jobs Act (IIJA) will also provide additional funding for federal grants as well as other programs that focus on complete streets and safety.
**Project Implementation Strategies**

<table>
<thead>
<tr>
<th>AGENCY COORDINATION CHECKLIST</th>
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<tbody>
<tr>
<td>- Consider developing Memoranda of Understanding (MOU) or other agreements with TxDOT and adjacent municipalities to facilitate planning, funding, execution, and maintenance.</td>
</tr>
<tr>
<td>- Obtain letters of commitment for local match from potential Project Partners</td>
</tr>
<tr>
<td>- Identify potential collaboration opportunities with already-planned projects e.g., including bike lanes in a County re-stripping project</td>
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<thead>
<tr>
<th>AAMPO STAFF LIASON &amp; CHECK-IN PROGRAM CHECKLIST</th>
</tr>
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<tbody>
<tr>
<td>- AAMPO identify staff liaison based on project</td>
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<tr>
<td>- Director or Deputy Director: Regionally significant project liaison</td>
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<tr>
<td>- Regional Transportation Planner: Roadway extensions, widenings, and intersection projects</td>
</tr>
<tr>
<td>- Active Transportation Planner: Bike/ped projects</td>
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<tr>
<td>- Commute Solutions Planner: Transit or transit adjacent projects</td>
</tr>
<tr>
<td>- AAMPO Staff Liaison check-in with Project Champion and Project Advancement Committee regarding project progress at a minimum of once per quarter</td>
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<table>
<thead>
<tr>
<th>PROJECT ADVANCEMENT COMMITTEES CHECKLIST</th>
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</thead>
<tbody>
<tr>
<td>- Establish a committee comprised of representatives from the Project Partners</td>
</tr>
<tr>
<td>- Identify a committee leader who will also be the Project Champion, taking accountability for moving the project planning process forward</td>
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<tr>
<td>- Include a member of an appropriate AAMPO committee, such as a Technical Advisory Committee (TAC) member for roadway projects and an Active Transportation Advisory Committee (ATAC) member for bike/ped projects</td>
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<tr>
<td>- Meet regularly to identify appropriate stakeholders, develop project scopes, ensure eligibility for federal funds, and support the completion of future planning studies (as applicable)</td>
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<tr>
<td>- Help to integrate local maintenance plans into the project advancement process to streamline efforts and find ways to maximize limited funding resources</td>
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<tr>
<th>COLLABORATION WITH DEVELOPERS &amp; INTEREST GROUPS CHECKLIST</th>
</tr>
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<tbody>
<tr>
<td>- Project partners review plans for development in vicinity of project</td>
</tr>
<tr>
<td>- Project partners reach out to developers to help fund projects that benefit all residents</td>
</tr>
<tr>
<td>- Greenways</td>
</tr>
<tr>
<td>- Bike lanes</td>
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<td>- Shared use paths</td>
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<tr>
<td>- Consider implementing policies to encourage mixed-use developments and encourage transit-oriented developments</td>
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<tr>
<td>- Reach out to interest groups like The Great Springs Project to identify opportunities for project collaboration</td>
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<tr>
<th>SPECIAL FUNDING CHECKLIST</th>
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<tbody>
<tr>
<td>- Identify which projects on the Subregional Planning Study list that may be eligible for Congestion Mitigation and Air Quality Improvement (CMAQ) funding</td>
</tr>
<tr>
<td>- Bexar County projects</td>
</tr>
<tr>
<td>- Intersection improvements that reduce idling and congestion</td>
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<tr>
<td>- Bike/ped facilities</td>
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<tr>
<td>- Capacity-increasing projects that may reduce congestion</td>
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<tr>
<th>ENHANCED FEDERAL FUNDING OPPORTUNITIES CHECKLIST</th>
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<tbody>
<tr>
<td>- Project partners evaluate project’s eligibility for Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program and other federal discretionary grant opportunities</td>
</tr>
<tr>
<td>- Project Partners monitor Infrastructure Investment and Jobs Act (IIJA) and potential new project funding programs, including</td>
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<tr>
<td>- Safe Streets and Roads for All (Section 24112)</td>
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<tr>
<td>- Local and Regional Project Assistance (Section 2102)</td>
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<tr>
<td>- Railroad Crossing Elimination Program (Section 22104)</td>
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# Keep Project Implementation Moving!

<table>
<thead>
<tr>
<th>Project Name:</th>
<th></th>
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<tbody>
<tr>
<td>Project County:</td>
<td></td>
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<tr>
<td>Project City(ies):</td>
<td></td>
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<tr>
<td>Project Partners:</td>
<td></td>
</tr>
<tr>
<td>Project Champion:</td>
<td></td>
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<tr>
<td>AAMPO Staff Liaison:</td>
<td></td>
</tr>
<tr>
<td>Project Advancement Committee Members:</td>
<td></td>
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</tbody>
</table>

## Months 1 - 3
- [ ] Identify a Project Champion from one of the Project Partners
- [ ] Identify an AAMPO Staff Liaison
- [ ] Convene a Project Advancement Committee
- [ ] Determine goal implementation date/goal Call for Projects
- [ ] Explore options for preserving ROW that accommodates the proposed improvements

## Months 4 - 6
- [ ] Project Advancement Committee Meeting #2
- [ ] Develop cost estimates
- [ ] Identify applicable funding sources
- [ ] Identify if other funding sources can be obtained (e.g. grants)
- [ ] Determine how to apply for funding

## Months 7 - 9
- [ ] Project Advancement Committee Meeting #3
- [ ] Identify likely major environmental and community concerns/right-of-way acquisition/utility relocation/railroad coordination/
- [ ] Identify stakeholders that may be impacted
- [ ] Identify local match (if applicable)

## Months 10 - 12
- [ ] Project Advancement Committee Meeting #4
- [ ] Determine status of funding requests
- [ ] Project sponsor(s) develop call for projects application
Get the Transit Conversation Started in Your Community ✔

First Year of Planning

Community Name: ____________________________

County(ies): _______________________________

City(ies): _________________________________

Partnering Transit Agency(ies): ____________________________

Transit Champion: ____________________________

AAMPO Staff Liaison: ____________________________

Transit Agency Liaison: ____________________________

Transit Advancement Committee Members: ____________________________

---

**Months 1 - 3**

☐ Identify a Transit Champion, a key stakeholder who will keep the transit conversation going

☐ Identify a partnering transit agency(ies): VIA and/or Alamo Regional Transit

☐ Identify an AAMPO Staff Liaison

☐ Begin planning for public engagement

**Months 4 - 6**

☐ Convene a Transit Implementation Committee

☐ Determine goal implementation date

☐ Conduct citizen surveys to gauge interest in transit commuter options

☐ Plan and hold first meeting of committee with transit agency

**Months 7 - 9**

☐ Develop cost estimates

☐ Identify applicable funding sources

☐ Identify if other funding sources can be obtained (e.g. grants)

☐ Determine how to apply for funding

☐ Plan and hold second meeting of committee with transit agency

**Months 10 - 12**

☐ Plan and hold third meeting of committee with transit agency

☐ Identify next steps required for transit implementation, including public engagement, funding, and policy recommendations
Chapter 1  Introduction
Federal regulations require a Metropolitan Planning Organization (MPO) be designated for any area of 50,000 or greater in population. The MPO is charged with carrying out the transportation planning process in the designated urbanized area, as well as for areas expected to become urbanized within the next 20 years.

Because transportation projects are typically funded with a combination of federal, state and local dollars, there are specific requirements for transportation planning set forth in the federal transportation funding legislation, currently Fixing America’s Surface Transportation Act, or the FAST Act. The Alamo Area Metropolitan Planning Organization (AAMPO) is the federally designated organization responsible for cooperatively planning for transportation in Bexar, Comal, and Guadalupe Counties, and a portion of Kendall County; AAMPO’s planning study encompasses 67 cities (Figure 1). Most MPOs are part of another government agency or council of governments. AAMPO, however, is an independent agency that plans for the expenditure of federal transportation funds through a comprehensive, coordinated, and continuous process with the local governments and agencies in the San Antonio metropolitan area.

One of the key responsibilities of the MPO is the development of the Metropolitan Transportation Plan (MTP) a 20 to 25-years long-range plan that is required to be updated every 5 years (every 4 years for air quality non-attainment MPOs, such as AAMPO). The most recent AAMPO MTP is Mobility 2045. Mobility 2045 is the 25-year plan that sets the goals, objectives, and strategies to address the transportation needs within the MPO area. Mobility 2045 includes the identification of the existing conditions within the AAMPO planning area and projects the future conditions to the planning horizon year of 2045. It also identifies specific projects that are expected to improve mobility for people and goods in the region. AAMPO notes that congestion levels in the region are projected to continue to grow and proposed projects will not eliminate congestion.

AAMPO chose to conduct this Subregional Planning Study in order to continue the planning work begun by the 2019 TxDOT Capital-Alamo Connection Study (CACS) and the 2018 AAMPO Regional Thoroughfare Planning Study (RTP). The results of this study include a prioritized list of short-term (0-5 years) and mid-term (6-15 years) multimodal projects, tailored to individual responsible agencies in the subregion. The subregion encompassed by the study area is one that is experiencing an exceptionally high rate of growth in a region whose population and infrastructure are growing at a tremendous rate. By 2045, the San Antonio region will have nearly 1.5 million new residents raising the region’s population to over 3.4 million people. The study area’s population is expected to grow from approximately 215,000 in 2015 to approximately 455,000 in 2045 - a 112% increase.
Promoting seamless roadway connectivity, a variety of multimodal transportation options, and transportation equity across their planning area are all priorities for AAMPO, and this study ensures the planning process in this subregion supports those priorities, regardless of jurisdictions and municipal lines.

The Subregional Study Area is a 290-square mile portion of AAMPO’s planning area (and a small portion of the Capital Area MPO [CAMPO] planning area) located northeast of the City of San Antonio between Interstate Highway (IH) 35 and IH-10 (Figure 2).

The study area includes parts of Bexar, Comal, Guadalupe, and Hays Counties, and includes the following 12 cities in whole or in part:

- Cibolo
- Converse
- Live Oak
- Marion
- New Braunfels
- San Antonio
- San Marcos
- Santa Clara
- Schertz
- Seguin
- Selma
- Universal City
The study has been guided by AAMPO staff and a Study Oversight Committee (Chapter 2.0) comprised of representatives from many of the study area’s key stakeholder agencies. Several members of this Study Oversight Committee also serve on AAMPO’s Technical Advisory Committee (TAC).

The Study Oversight Committee and Consultant Team developed a list of more than 100 potential multimodal projects to help improve mobility in the study area. The Consultant Team prioritized these projects from 1 to 116 using a performance-based ranking process reflective of the goals and objectives developed by the Study Oversight Committee. At the request of the Study Oversight Committee, this ranking did not consider project cost. The estimated investment for all 116 projects is about $1.2 billion. A detailed list of these projects is included in Appendix A.

The Top 25 projects identified by the prioritization process are listed in Table 1. Chapter 7.0 details implementation considerations, limits, and high-level costs for these Top 25 projects, whose estimated costs total approximately $900 million.
Table 1: Top 25 Prioritized Projects

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Identifier</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GH1</td>
<td>SH 123 Widening</td>
</tr>
<tr>
<td>2</td>
<td>G3</td>
<td>FM 78 On-Street Bike Lanes - Segment II</td>
</tr>
<tr>
<td>3</td>
<td>B29</td>
<td>FM 1518 Expansion - Segment III</td>
</tr>
<tr>
<td>4</td>
<td>CG2</td>
<td>FM 1103 Expansion - Segment I</td>
</tr>
<tr>
<td>5</td>
<td>INT B8</td>
<td>SL 1604 Intersection Improvements - Segment II</td>
</tr>
<tr>
<td>6</td>
<td>C9</td>
<td>FM 1101 Expansion</td>
</tr>
<tr>
<td>7</td>
<td>INT B7</td>
<td>SL 1604 Intersection Improvements - Segment I</td>
</tr>
<tr>
<td>8</td>
<td>G27</td>
<td>FM 1103 Expansion - Segment II</td>
</tr>
<tr>
<td>9</td>
<td>C5</td>
<td>Kowald Lane Expansion</td>
</tr>
<tr>
<td>10</td>
<td>G35</td>
<td>FM 758 Expansion</td>
</tr>
<tr>
<td>11</td>
<td>C1</td>
<td>FM 3009 On-Street Bike Lanes</td>
</tr>
<tr>
<td>12</td>
<td>G2</td>
<td>Guadalupe River/Lake McQueeney Trail</td>
</tr>
<tr>
<td>13</td>
<td>CG7</td>
<td>SH 46 Expansion</td>
</tr>
<tr>
<td>14</td>
<td>G4</td>
<td>FM 78 On-Street Bike Lanes - Segment I</td>
</tr>
<tr>
<td>15</td>
<td>B13</td>
<td>Olympia Parkway Shared Use Path - Segment I</td>
</tr>
<tr>
<td>16</td>
<td>G29</td>
<td>Woodland Oaks Dr On-Street Bike Lanes/Shared Use Path</td>
</tr>
<tr>
<td>17</td>
<td>C6</td>
<td>New roadway from IH-35 Frontage Road to FM 1044</td>
</tr>
<tr>
<td>18</td>
<td>G26</td>
<td>FM 725 Expansion</td>
</tr>
<tr>
<td>19</td>
<td>C3</td>
<td>Common Street Expansion</td>
</tr>
<tr>
<td>20</td>
<td>C14</td>
<td>River Road On-Street Bike Lanes</td>
</tr>
<tr>
<td>21</td>
<td>G14</td>
<td>Savannah Drive Shared Use Path</td>
</tr>
<tr>
<td>22</td>
<td>G25</td>
<td>SH 123 Expansion</td>
</tr>
<tr>
<td>23</td>
<td>B9</td>
<td>New Roadway from Binz Engleman to Pfeil Road</td>
</tr>
<tr>
<td>24</td>
<td>G17</td>
<td>Four Oaks Lane Extension</td>
</tr>
<tr>
<td>25</td>
<td>G30</td>
<td>Savannah Drive On-Street Bike Lanes and Shared Use Path</td>
</tr>
</tbody>
</table>
Chapter 2  Project Oversight and Goals
2.1 STUDY OVERSIGHT COMMITTEE

The Subregional Planning Study has been guided by AAMPO staff and a Study Oversight Committee (SOC) comprised of representatives from many of the study area’s key stakeholder agencies. Several members of the SOC also serve on AAMPO’s Technical Advisory Committee (TAC). (Table 2).

<table>
<thead>
<tr>
<th>Agency</th>
<th>Representative(s)</th>
<th>Representative Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamo Area MPO</td>
<td>Clifton Hall</td>
<td>Regional Transportation Planner</td>
</tr>
<tr>
<td>Alamo Area Council of Governments</td>
<td>Stella Garcia</td>
<td>Senior Director of Operations</td>
</tr>
<tr>
<td>Alamo Area Council of Governments</td>
<td>Lyle Hufstetler</td>
<td>Clean Cities Coordinator</td>
</tr>
<tr>
<td>Capitol Area MPO</td>
<td>Zack Lofton</td>
<td>Regional Planning Manager</td>
</tr>
<tr>
<td>Capitol Area MPO</td>
<td>Nick Samuel</td>
<td>Regional Planner</td>
</tr>
<tr>
<td>Bexar County</td>
<td>Dave Wegmann</td>
<td>Engineering Services Manager</td>
</tr>
<tr>
<td>Comal County/City of New Braunfels</td>
<td>Garry Ford</td>
<td>Transportation and Capital Improvements Director</td>
</tr>
<tr>
<td>Guadalupe County</td>
<td>Councilman Joel Hicks</td>
<td>District 7 City Council Representative</td>
</tr>
<tr>
<td>City of San Antonio</td>
<td>Greg Reininger</td>
<td>Principal Transportation Planner</td>
</tr>
<tr>
<td>City of Seguin</td>
<td>Bill Hornung</td>
<td>Project Engineer</td>
</tr>
<tr>
<td>City of Seguin</td>
<td>Michael Sharpe</td>
<td>Engineering Technician</td>
</tr>
<tr>
<td>Joint Base San Antonio</td>
<td>John Anderson</td>
<td>Executive Director, Community Initiatives</td>
</tr>
<tr>
<td>Joint Base San Antonio</td>
<td>Katie Merry</td>
<td>Community Planner</td>
</tr>
<tr>
<td>TxDOT</td>
<td>Darcie Schipull</td>
<td>Strategic Initiative Liaison</td>
</tr>
<tr>
<td>TxDOT</td>
<td>Scott Nelson</td>
<td>Transportation Engineer</td>
</tr>
<tr>
<td>VIA</td>
<td>Kammy Horne</td>
<td>Senior Vice President of Development</td>
</tr>
</tbody>
</table>
2.2 STUDY OVERSIGHT COMMITTEE MEETINGS

The SOC met four times throughout the course of the study before broader stakeholder engagement began. Presentations from each meeting are included in Appendix B. Due to public health recommendations, these meetings were held virtually. Minutes from each meeting are included in Appendix C.

2.2.1. Study Oversight Committee Meeting No. 1

During the first meeting on Tuesday, March 30, 2021, the study team polled the SOC regarding their priorities for the subregion. The committee identified their shared concerns and priorities for the subregion. Their responses are discussed in Section 2.3.

2.2.2. Study Oversight Committee Meeting No. 2

During the second meeting on Thursday, May 13, 2021, the committee developed the Study’s Goals and Objectives. The six study goals are described in Section 2.4.

2.2.3. Study Oversight Committee Meeting No. 3

The third Committee meeting took place on Wednesday, October 13, 2021. During this meeting the consultant team presented the SOC with the project identification and prioritization process (Chapter 5.0). The SOC was also presented with the preliminary prioritized list of projects. They were asked to review the projects and to identify any projects that were already in progress, that would meet with extensive public disapproval, or that would not be feasible from a planning or engineering standpoint. The SOC was asked to provide any such commentary to the consultant team by October 15, 2021.

2.2.4. Study Oversight Committee Meeting No. 4

The fourth and final Committee meeting took place on Tuesday, January 4, 2022. During this meeting, the consultant team presented the Top 25 projects to the SOC with detailed information about the projects’ planning-level cost estimates, Benefit-Cost Ratios, and estimated ease of implementation.

2.3 OVERSIGHT COMMITTEE PRIORITIES

During the first Committee meeting, the study team polled the SOC regarding their priorities for the subregion. The team utilized ParticiPoll to make the virtual conversation run smoothly. Their responses are shown in Figures 3 and 4 and Tables 3 and 4.
Figure 3: Study Oversight Committee Top Three Concerns for the Subregion

Figure 4: Study Oversight Committee Ideal Prioritized Mode for Planning in this Subregion

Table 3: Study Oversight Committee Expectation for Study Achievement

<table>
<thead>
<tr>
<th>Achievement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectivity</td>
<td></td>
</tr>
<tr>
<td>Coordination</td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td></td>
</tr>
<tr>
<td>Project Prioritization</td>
<td></td>
</tr>
<tr>
<td>Multimodal Option</td>
<td></td>
</tr>
<tr>
<td>Direct Funding</td>
<td></td>
</tr>
</tbody>
</table>
Table 4: Study Oversight Committee Reasons Why Study is Important to Subregion

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s a high growth area</td>
</tr>
<tr>
<td>To enhance mobility/safety</td>
</tr>
<tr>
<td>Efforts need to be coordinated</td>
</tr>
<tr>
<td>To clearly define goals</td>
</tr>
<tr>
<td>To set an example</td>
</tr>
<tr>
<td>Because the study area has competing interests</td>
</tr>
</tbody>
</table>

2.4 STUDY OVERSIGHT COMMITTEE GOALS

The SOC established a series of six overall project goals that were applied to the prioritization. The goals are ranked from 1 to 6, with 1 being the most important to the Committee.

2.4.1. Subregional Planning Study Goal 1

The first Subregional Planning Study goal is to *Provide a safe multimodal transportation network*. The objectives developed to help achieve this goal are:

- Identify safety measures for bicycle and pedestrian crash hot spots.
- Coordinate with TxDOT’s Safety Program.
- Continue to implement safety projects to maintain a crash rate below the statewide average.

2.4.2. Subregional Planning Study Goal 2

The second Subregional Planning Study goal is to *Provide an integrated and connected multimodal network that enhances transportation options*. The objectives developed to help achieve this goal are:

- Identify and address gaps in the bicycle and pedestrian networks.
- Provide multimodal connections to employment and activity centers.
- Provide safe multimodal access to schools and community resources.

2.4.3. Subregional Planning Study Goal 3

The third Subregional Planning Study goal is to *Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility*. The objectives developed to help achieve this goal are:

- Research the use of technology to improve/address congestion.
- Identify operational enhancements to address corridor and intersection congestion.
- Identify areas for inter-jurisdictional coordination to improve congestion.
2.4.4. **Subregional Planning Study Goal 4**
The fourth Subregional Planning Study goal is to *Identify opportunities for increased and enhanced transit services within the area, as well as connecting to major employment and activity centers outside of the area.* The objectives developed to help achieve this goal are:

- Ensure that potential transit services match transit demands and needs.
- Work with major industries/employers to determine transit needs and interest.
- Coordinate with existing transit and human services to identify opportunities to meet mobility needs.

2.4.5. **Subregional Planning Study Goal 5**
The fifth Subregional Planning Study goal is to *Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally.* The objectives developed to help achieve this goal are:

- Foster collaboration with planning partners and jurisdictions within the study area.
- Coordinate with planning agencies outside of AAMPO’s planning study where growth trends indicate mobility interrelationships.
- Develop ongoing strategies for continued coordination on planning and implementation of projects.

2.4.6. **Subregional Planning Study Goal 6**
The sixth Subregional Planning Study goal is to *Coordinate between transportation and land use to proactively address mobility issues associated with future growth.* The objectives developed to help achieve this goal are:

- Understand the mobility impacts fostered by high growth rates.
- Coordinate among jurisdictions on transportation and land use decisions.
- Monitor future growth and development plans and make coordinated decisions to minimize/mitigate mobility impacts.
Chapter 3 Existing Conditions
3.1 PREVIOUS PLANS AND STUDIES

Several regional and local plans were assessed and reviewed in order to form a background of the existing conditions, needs, and goals of the various agencies and communities that influence AAMPO’s planning study area. These plans, listed in Tables 5 and 6, range from regionwide or county-wide plans, to individual city comprehensive plans, thoroughfare plans, and transportation plans.

A detailed review of each plan can be found in Appendix D. Defined in each review is a background summary, concerns and needs, ongoing activities, and relationship to the subregional study area. The AAMPO Subregional Study will align with the needs and goals of each agency and community within the study area.

Some of the studies included plans for specific projects, which were reviewed and compiled. Consideration of these planned projects will help prevent duplicated efforts and will provide potential collaboration opportunities as possible projects are prioritized.

Table 5: Summary of Previous Regional Plans and Studies

<table>
<thead>
<tr>
<th>Source Agency</th>
<th>Plan Name</th>
<th>Year Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMPO</td>
<td>Mobility 2045</td>
<td>2019</td>
</tr>
<tr>
<td>AAMPO</td>
<td>Transportation Improvement Plan – FY 2019-2022</td>
<td>2019</td>
</tr>
<tr>
<td>AAMPO</td>
<td>Bike Share Master Plan</td>
<td>2018</td>
</tr>
<tr>
<td>AAMPO</td>
<td>Regional Thoroughfare Plan</td>
<td>2018</td>
</tr>
<tr>
<td>AAMPO</td>
<td>Regional Bicycle and Pedestrian Planning Study</td>
<td>2016</td>
</tr>
<tr>
<td>Guadalupe County</td>
<td>Guiding Guadalupe County Strategic Plan</td>
<td>2018</td>
</tr>
<tr>
<td>Hays County</td>
<td>Hays County Transportation Plan Update</td>
<td>In process</td>
</tr>
<tr>
<td>Joint Base – San</td>
<td>Regional Compatible Use Plan</td>
<td>2021</td>
</tr>
<tr>
<td>Antonio (JBSA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TxDOT</td>
<td>Capital-Alamo Connection Study</td>
<td>2019</td>
</tr>
</tbody>
</table>
### Table 6: Summary of Previous Local Plans and Studies

<table>
<thead>
<tr>
<th>Source Agency</th>
<th>Plan Name</th>
<th>Year Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Cibolo</td>
<td>IH-10 Corridor Study</td>
<td>In process</td>
</tr>
<tr>
<td>City of Cibolo</td>
<td>Cibolo Comprehensive Master Plan</td>
<td>2016</td>
</tr>
<tr>
<td>City of Cibolo</td>
<td>FM78 Corridor Plan</td>
<td>2016</td>
</tr>
<tr>
<td>City of Converse</td>
<td>City of Converse Strategic Plan</td>
<td>2019</td>
</tr>
<tr>
<td>City of Converse</td>
<td>City of Converse Recreational Vision Study</td>
<td>2016</td>
</tr>
<tr>
<td>City of Live Oak</td>
<td>City of Live Oak Comprehensive Plan</td>
<td>2020</td>
</tr>
<tr>
<td>City of Marion</td>
<td>Comprehensive Plan</td>
<td>2015</td>
</tr>
<tr>
<td>City of New Braunfels</td>
<td>Envision New Braunfels Comprehensive Plan</td>
<td>2018</td>
</tr>
<tr>
<td>City of New Braunfels</td>
<td>Parks and Recreation Strategic Master Plan</td>
<td>2017</td>
</tr>
<tr>
<td>City of San Antonio</td>
<td>SA Tomorrow Comprehensive Plan</td>
<td>2016</td>
</tr>
<tr>
<td>City of San Antonio</td>
<td>SA Tomorrow Multimodal Transportation Plan</td>
<td>2016</td>
</tr>
<tr>
<td>City of San Antonio</td>
<td>Transportation Demand Management Plan</td>
<td>2015</td>
</tr>
<tr>
<td>City of San Marcos</td>
<td>San Marcos Transportation Corridor Study</td>
<td>In process</td>
</tr>
<tr>
<td>City of San Marcos</td>
<td>Vision San Marcos Comprehensive Plan Rewrite</td>
<td>In process</td>
</tr>
<tr>
<td>City of San Marcos</td>
<td>Parks, Recreation, and Open Space Master Plan</td>
<td>2019</td>
</tr>
<tr>
<td>City of Santa Clara</td>
<td>Santa Clara Master Plan</td>
<td>2013</td>
</tr>
<tr>
<td>City of Schertz</td>
<td>Comprehensive Land Plan Update</td>
<td>In process</td>
</tr>
<tr>
<td>City of Schertz</td>
<td>Schertz Master Thoroughfare Plan</td>
<td>2017</td>
</tr>
<tr>
<td>City of Schertz</td>
<td>Parks and Recreation Master Plan</td>
<td>2014</td>
</tr>
<tr>
<td>City of Schertz</td>
<td>Schertz Sector Plan Amendment</td>
<td>2013</td>
</tr>
<tr>
<td>City of Schertz</td>
<td>Comprehensive Land Plan</td>
<td>2002</td>
</tr>
<tr>
<td>City of Seguin</td>
<td>Seguin Master Thoroughfare Plan</td>
<td>2017</td>
</tr>
<tr>
<td>City of Seguin</td>
<td>Seguin Comprehensive Plan</td>
<td>2008</td>
</tr>
<tr>
<td>City of Selma</td>
<td>Trails and Branding Master Plan</td>
<td>2018</td>
</tr>
<tr>
<td>City of Selma</td>
<td>Comprehensive Development Plan</td>
<td>2017</td>
</tr>
<tr>
<td>City of Universal City</td>
<td>Comprehensive Plan</td>
<td>2017</td>
</tr>
<tr>
<td>City of Universal City</td>
<td>Parks, Recreation, and Open Space Master Plan</td>
<td>2013</td>
</tr>
<tr>
<td>JBSA-Randolph AFB</td>
<td>Air Installations Compatible Use Zones Study</td>
<td>2017</td>
</tr>
</tbody>
</table>
3.2 LAND USE

3.2.1. Counties
Portions of four counties make up the study area: Bexar, Comal, Guadalupe, and Hays. Sixty-three percent (183 square miles) of the study area is unincorporated portions of the counties. These counties do not have zoning regulations in their unincorporated areas.

The majority of the study area (72%) is located in Guadalupe County, the northeastern-most county in AAMPO’s planning area. In 2019, Guadalupe County had a population of approximately 167,000 people. The cities of Seguin (county seat), Marion, and Santa Clara are located entirely in Guadalupe County, as is the majority of Cibolo. Portions of New Braunfels, Schertz, and Selma are located in Guadalupe County as well.

Comal County, to the west of Guadalupe, comprises 12% of the study area. Its 2019 population was approximately 156,000. The majority of New Braunfels (county seat) and a portion of Schertz are located in Comal County.

With approximately 2 million residents in 2019, Bexar County is the most populated in AAMPO’s planning area, though it only accounts for 13% of the study area. The portion of San Antonio (county seat) that is in the study area is located entirely in Bexar County, as are Universal City, Converse, and Live Oak. Portions of Schertz, Cibolo, and Selma are also located in Bexar County.

A small portion of the study area (3%) is located in Hays County, which had a 2019 population of approximately 230,000 people. Hays County is not in AAMPO’s planning area; it is part of the Austin-Round Rock metropolitan statistical area (MSA) and is located in the Capital Area MPO’s planning area. Because the Greater San Antonio and Greater Austin regions are expanding toward each other so rapidly, both MPOs have made bi-regional planning strategies a priority. Therefore, a portion of CAMPO’s planning area was included in the study area. The portion of Hays County that is in the study area is largely unincorporated, but does include a small portion of San Marcos (county seat).

3.2.2. Cities
The study area encompasses all or portions of 12 cities in AAMPO’s planning area, which are described below in Table 7. These cities comprise 107 sq miles of the study area (37%).

<table>
<thead>
<tr>
<th>City</th>
<th>County(ies)</th>
<th>Total Area (sq mi)</th>
<th>In Study Area</th>
<th>2019 Population</th>
<th>Pct Growth*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cibolo</td>
<td>Bexar, Guadalupe</td>
<td>15.6</td>
<td>100%</td>
<td>31,281</td>
<td>55%</td>
</tr>
<tr>
<td>Converse</td>
<td>Bexar</td>
<td>8.5</td>
<td>28%</td>
<td>28,171</td>
<td>31%</td>
</tr>
<tr>
<td>Live Oak</td>
<td>Bexar</td>
<td>4.8</td>
<td>23%</td>
<td>16,499</td>
<td>27%</td>
</tr>
<tr>
<td>Marion</td>
<td>Guadalupe</td>
<td>0.7</td>
<td>100%</td>
<td>1,353</td>
<td>27%</td>
</tr>
</tbody>
</table>
3.2.3. **Land Use Trends**

Each of these municipalities manage development differently within their borders, but there are land use trends throughout the subregion. With approximately 63% of the study area in the unincorporated areas of the counties, a vast majority of this space is currently being used for agricultural purposes and extra-territorial jurisdictional residential development.

Though growth is occurring across the entire study area, development is concentrated in two places:
- The suburban cities closest to the San Antonio Urban Area
  - Selma and Cibolo, in particular, have seen extremely high growth rates since 2010.
- Along the IH-35 corridor and within the cities of New Braunfels and San Marcos.

The study area has been divided into four sectors in order to describe the land use trends.
- IH-35 Corridor
- IH-10 Corridor
- Farm-to-Market Road (FM) 78 Corridor
- Areas away from the major roadways

### 3.2.3.1 IH-35 Corridor

In the study area, IH-35 is a 6-to-8-lane controlled north-south access freeway with frontage roads. The frontage roads are mainly continuous and one-way; in some areas on the northern end of the study, the frontage roads are two-way (namely near the San Marcos Toyota dealership). Auxiliary lanes are present near the interchange with State Loop (SL) 1604.

Selma, Schertz, and New Braunfels have concentrated commercial, business, manufacturing and industrial land uses adjacent to IH-35. The majority of the corridor is located within the city limits of Schertz and New Braunfels. Both communities have significant developments closest to the interstate, as does Selma. Commercial development is closest to the interstate while residential neighborhoods begin beyond the commercial developments.
3.2.3.2 IH-10 Corridor
The IH-10 corridor runs parallel to the southern study area boundary. It is primarily undeveloped within the study area, where it is a 4-lane controlled east-west access freeway with frontage roads. The frontage roads are not continuous and many are two-way. No auxiliary lanes are present.

The majority of IH-10 between Schertz and Seguin is agricultural with small clusters of commercial and residential uses. Approaching Seguin, the corridor increased commercial developments are present. In this area, IH-10 provides access to several large developments including the Texas Lutheran University.

3.2.3.3 FM 78 Corridor
FM 78 is a two-lane roadway; in areas, the lane numbers temporarily increase where two-way left turn lanes are present. Traffic lights are present along the roadway throughout this corridor.

Along FM 78, the cities of Schertz and Cibolo have significant residential and commercial development. Moving east along the corridor, land use is primarily agricultural with some light development in the City of Marion. Land use then returns to primarily agricultural until FM 78 crosses the Guadalupe River, at which point commercial, warehousing, and residential developments begin to appear approaching the City of Seguin.

An active Union Pacific Railroad (UPRR) main line follows the right-of-way (ROW) of FM 78 for the majority of its run through the study area, diverging temporarily over the Guadalupe River.

Located just south of FM 78 and north of SL 1604, Joint Base San Antonio (JBSA) – Randolph Air Force Base (RAFB) represents one of the most significant single land uses in the area. This military installation represents one of the major employers in the area. Military installations tend to have significant impacts on the nearby communities and will often boost nearby employment through operations similar to those of small cities.

3.2.3.4 Areas away from Major Roadways
Further from IH-35, the development in these cites trends toward residential and eventually agricultural uses. The portion of the study area bounded by Schertz and New Braunfels/Seguin (west and east) is generally agricultural in nature. FM 1044, FM 725, and State Highway (SH) 46 run through this area, where large fields are abundant with light residential and some commercial located in clusters. FM 1044 is a two-lane, state-maintained roadway. FM 725 varies from two to four lanes. SH 46 is a four-lane state highway; in areas, the lane numbers temporarily increase where two-way left turn lanes are present.

Though the area is largely agricultural outside of the city borders, three significant cement and paving materials distribution operations are just north of the study area. These locations may contribute to heavy truck and freight traffic within the region.

3.3 DEMOGRAPHIC DATA
Demographic data was analyzed using two geographic formats: Census tracts and block groups, and Traffic Analysis Zones (TAZ) developed for the AAMPO and CAMPO Travel Demand Models (TDM).

The U.S. Census, a decennial national population and demographic survey, utilizes three main geography types to divide counties into manageable groups for data collection: Tracts (largest), block groups, and
blocks (smallest). Most demographic data used in planning studies is available at the tract and/or block group level. The study area includes 53 Census tracts and 103 Census block groups.

The TDM is one of the major tools used in analyzing the transportation network as part of the planning process. It utilizes two sets of inputs: transportation network characteristics and socioeconomic data. The data utilized include the demographic base year information (2015) and the projected information for the planning horizon year (2045). For modeling purposes, the planning area is stratified into TAZs. The TAZs are smaller geographic areas that are typically defined by similar characteristics, a geographic feature, or transportation facility. TAZs include socioeconomic data including population, number of households, and employment. The study area includes 143 TAZs from the AAMPO TDM and 8 TAZs from the CAMPO TDM.

### 3.3.1. Population

*Table 8* displays existing 2015 and projected 2045 population data for the study area and surrounding counties. The population in the 4 adjacent counties is projected to increase by an average of 81%. The county with the highest population growth is Hays County with a 267% increase, followed by Guadalupe County with a 121% increase. The study area shows a population growth rate of 112%. The study area’s existing 2015 population and projected 2045 population are illustrated in *Figures 5* and *6*, respectively.

*Table 8: Existing and Projected Population*

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2045</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bexar</td>
<td>1,898,173</td>
<td>3,004,011</td>
<td>58%</td>
</tr>
<tr>
<td>Comal</td>
<td>134,019</td>
<td>287,655</td>
<td>115%</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>165,183</td>
<td>365,048</td>
<td>121%</td>
</tr>
<tr>
<td>Hays</td>
<td>172,395</td>
<td>632,937</td>
<td>267%</td>
</tr>
<tr>
<td>Total</td>
<td>2,369,770</td>
<td>4,289,651</td>
<td>81%</td>
</tr>
<tr>
<td>Study Area</td>
<td>214,760</td>
<td>455,350</td>
<td>112%</td>
</tr>
</tbody>
</table>
Figure 5: Existing 2015 Population by TAZ

Figure 6: Projected 2045 Population by TAZ
3.3.2. Households

Table 9 displays existing 2015 and projected 2045 number of households for the study area and surrounding counties. The number of households in the adjacent counties are projected to increase by an average of 99%. The county with the highest household growth rate is Hays County with a 308% increase, followed by Guadalupe County with a 140% increase. Households in the study area are projected to increase by 128%. The study area’s existing 2015 households and projected 2045 households are illustrated in Figures 7 and 8, respectively.

Table 9: Existing and Projected Households

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2045</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bexar</td>
<td>695,282</td>
<td>1,216,384</td>
<td>75%</td>
</tr>
<tr>
<td>Comal</td>
<td>52,050</td>
<td>114,695</td>
<td>120%</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>59,526</td>
<td>143,037</td>
<td>140%</td>
</tr>
<tr>
<td>Hays</td>
<td>62,718</td>
<td>255,712</td>
<td>308%</td>
</tr>
<tr>
<td>Total</td>
<td>869,576</td>
<td>1,729,828</td>
<td>99%</td>
</tr>
<tr>
<td>Study Area</td>
<td>78,039</td>
<td>177,592</td>
<td>128%</td>
</tr>
</tbody>
</table>

Figure 7: Existing 2015 Households by TAZ
3.3.3. Employment

Table 10 displays existing 2015 and projected 2045 employment for the study area and surrounding counties. Employment in the adjacent counties is projected to increase by an average of 94%. The county with the highest employment growth is Hays County with an increase of 229%, followed by Guadalupe County with an increase of 146%. The study area shows an employment growth rate of 117%. The study area’s existing 2015 employment and projected 2045 employment are illustrated in Figures 9 and 10, respectively.

Table 10: Existing and Projected Employment

<table>
<thead>
<tr>
<th>County</th>
<th>Employment 2015</th>
<th>Employment 2045</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bexar</td>
<td>893,782</td>
<td>1,571,410</td>
<td>76%</td>
</tr>
<tr>
<td>Comal</td>
<td>52,683</td>
<td>119,352</td>
<td>127%</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>41,862</td>
<td>102,824</td>
<td>146%</td>
</tr>
<tr>
<td>Hays</td>
<td>90,793</td>
<td>299,050</td>
<td>229%</td>
</tr>
<tr>
<td>Total</td>
<td>1,079,120</td>
<td>2,092,636</td>
<td>94%</td>
</tr>
<tr>
<td>Study Area</td>
<td>82,352</td>
<td>179,009</td>
<td>117%</td>
</tr>
</tbody>
</table>
Figure 9: Existing 2015 Employment by TAZ

Figure 10: Projected 2045 Employment by TAZ
3.4 TRANSPORTATION EQUITY

AAMPO places a high priority on Transportation Equity, which considers the circumstances impacting a community and seeks fairness in meeting the needs of all community members, particularly underserved populations. Title VI of the Civil Rights Act of 1964 (Title VI) and Environmental Justice (EJ) analysis are both important components of Transportation Equity and, as the recipients of federal transportation dollars, the MPO planning process must incorporate both of them.

Title VI states that no person on the grounds of race, color, or national origin shall be subject to discrimination under any program or activity receiving federal financial assistance. In addition, the focus on EJ states that federal agencies shall identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income populations.

The US Census Bureau American Community Survey data from 2019 was used to identify Title VI and EJ tracts and block groups. AAMPO’s planning area average for each of the following categories was calculated by Census block group (Figure 11):

- Racial minorities (non-white)
- Hispanic
- Elderly (age 65 and over)
- Poverty
- Households without access to an automobile

Figure 11: Title VI/EJ Characteristics Above AAMPO Regional Averages per Census Block Group
The regional average for the following categories was calculated by Census tract (Figure 12):

- Persons with disabilities
- Persons with ambulatory disabilities

**Figure 12: Title VI/EJ Characteristics Above AAMPO Regional Averages per Census Tract (Persons with Disabilities)**

The block groups / tracts with populations above AAMPO’s planning area average were identified. The beige color indicates non-EJ block groups / tracts. Block groups with higher percentages of EJ populations were concentrated in the cities, particularly Seguin, New Braunfels, Cibolo, Live Oak, Universal City, and Selma. Tracts with higher percentages of EJ populations (people with disabilities) were concentrated in the New Braunfels, Universal City, Marion, Santa Clara and the unincorporated parts of Guadalupe County surrounding Marion and Santa Clara. Eighty-four percent of the block groups in the study area have at least one EJ characteristic.

**Figure 13** displays the block groups with Non-White population above the regional average of 19%. The identified block groups are located mainly in the western portion of the study area, with concentrations of populations occurring in Schertz, Cibolo, Converse, and unincorporated portions of Guadalupe County surrounding Cibolo.
Figure 13: Non-White Populations Above AAMPO Regional Average

The block groups with Hispanic / Latino populations above the regional average of 59% were also identified and are shown in Figure 14. The largest concentrations of Hispanic populations occur in Universal City, New Braunfels, and unincorporated portions of Guadalupe County surrounding New Braunfels.

Elderly populations (those over 65 years of age) above the regional average of 14% were found primarily in Seguin, New Braunfels, and unincorporated portions of Guadalupe County surrounding Seguin and Marion (Figure 15).

The regional average of populations living in poverty is 13%. Those areas with populations above the regional average are found in Selma, Live Oak, Converse, and Universal City in the southwest portion of the study area and New Braunfels, Seguin, and unincorporated portions of northern Guadalupe County (Figure 16).

The regional average of populations with no access to a vehicle (zero-vehicle households) is 7%. Higher percentages of zero-vehicle households are concentrated along the SL 1604 corridor in Bexar County and along the IH-35 corridor in Comal County with additional concentration in parts of Seguin (Figure 17).
Figure 14: Hispanic / Latino Populations Above AAMPO Regional Average

Figure 15: Elderly Populations Above the Regional Average
Figure 16: Populations in Poverty Above AAMPO Regional Average

Figure 17: Zero Vehicle Households Above AAMPO Regional Average
The regional average of populations with Limited English Proficiency (LEP) is 8%. Higher percentages of LEP population are found mainly in Cibolo and unincorporated portions of Comal and Guadalupe Counties around New Braunfels and Seguin (Figure 18).

The regional average for populations of persons with disabilities is 14%. Those Census tracts above the regional average are shown in Figure 19. The largest populations (18-20% above the regional average) are found in Live Oak, Universal City, Marion, Santa Clara, Seguin, and New Braunfels, as well as unincorporated portions of Guadalupe County. The regional average for populations of persons with ambulatory disabilities is 7%. Those Census tracts above the regional average are shown in Figure 20. The largest populations (10-12% above the regional average) are found in Universal City, Cibolo, Marion, Santa Clara, Seguin, and New Braunfels, as well as unincorporated portions of Guadalupe County.
Figure 19: Populations of Persons with Disabilities Above the Regional Average

Figure 20: Populations of Persons with Ambulatory Disabilities Above the Regional Average
3.5 PLANNING CONSTRAINTS

3.5.1. Environmental Constraints
Hydrologic and geologic features within the study area should be considered when planning for future transportation projects. Within the study area, there are more than 3 million linear feet of rivers and streams surrounded by approximately 25,000 acres of 100-yr floodplain, including nearly 6,500 acres of floodway. Additionally, there are more than 80 acres of mapped wetland, as well as approximately 1,000 acres each of freshwater ponds and lakes. Hydrologic constraints are illustrated in Figure 21.

Figure 22 depicts the major geologic features in the study area. This study area sits partially over the Edwards and Trinity Aquifers and abuts the Carrizo Aquifer. The study area also contains karst formations at or near the ground’s surface, including carbonate rocks and unconsolidated calcareous rocks.

Figure 21: Hydrologic Constraints within the Study Area
The Railroad Commission of Texas, which regulates oil and gas activity throughout the state, shows 84 oil/gas wells and 29 petroleum pipelines in the study area. These may include plugged/dry wells and out-of-service wells and pipelines (Figure 23).

3.5.2. Cultural Resources

The Texas Education Agency identifies 65 schools within the study area, including 38 elementary, 15 junior high/middle, and 12 high schools under the jurisdiction of 10 independent school districts, which are:

- Comal
- East Central
- Judson
- Marion
- Navarro
- New Braunfels
- Randolph Field
- San Marcos Consolidated
- Schertz-Cibolo-Universal City
- Seguin
Figure 23: Oil/Gas Constraints within the Study Area

The Texas Historical Commission (THC) has designated seven sites located within the study area as National Historic Register Sites: the Randolph Field Historic District and Base Administration Building (Universal City), the John S. Harrison House (Selma), the SH 3-A Bridge (Schertz), the Andreas Breustedt House (New Braunfels), the Faust Street Bridge (New Braunfels), and the Selma Stagecoach Stop and Post Office (Selma). There are also five historic neighborhood surveys around the following sites: the F.P. McLaughlin House (New Braunfels), 2760 North Austin Street (New Braunfels), and three historic gas stations (two in New Braunfels, one in Schertz). One museum, the Pecan Museum of Texas, is located in the study area (Seguin). Iterations of the historic Meridian Highway, one of the first north-south highways of the 20th century, generally followed the route of the portion of IH-35 that runs through the study area. These are mapped by THC in the study area.

There are no state historic sites or county courthouses in the study area. Cultural resources are illustrated in Figure 24.
3.5.3. Military Facilities

JBSA is a three-base U.S. Military facility that is comprised of Fort Sam Houston (U.S. Army) and Lackland and Randolph Air Force Bases (U.S. Air Force). RAFB is located within the Subregional Planning Study Area in Universal City in Bexar County (Figure 25). It is a flight training facility for the U.S Air Force, as well as the U.S. Army Air Corps and the U.S. Army Air Forces. It has been used for this purpose since 1931, when it was opened. RAFB operates a second auxiliary airfield in Seguin; this auxiliary airfield is located outside of the study area.

RAFB is a census-designated place with a 2015 population of more than 1,415 and a projected 2045 population of 2,465 (74% predicted increase). The base is served by the Randolph Field Independent School District (RFISD), which operates an elementary, a middle, and a high school, all located on the grounds of RAFB. Students enrolled at the RFISD schools include children of military personnel who reside on base, as well as children of military personnel who reside off-base (with special enrollment requirements for the latter). RAFB is a large regional employer, with 2015 employee population of 10,851 and a projected 2045 employee population of 10,857 (0.05% predicted increase).

The historic Randolph Field, located at the center of the RAFB, was designed in the 1920s as a model airfield for flight training for the Army Air Corps. In 1996 it was designated as a National Historic Landmark.
The Department of Defense has undertaken Compatible Use Plan studies to identify planning challenges for communities surrounding military bases, such as land use, spectrum interference, climate change, environmental protection, bird strikes, drones, resiliency, and cyber and energy vulnerability. The 5-mile RAFB Compatible Use Plan Regional Focus Area comprises approximately 30% (88 square miles) of the study area.

Figure 25: Randolph Air Force Base and Compatible Use Plan Regional Focus Area

3.6 TRANSPORTATION SYSTEMS

The variety of modal transportation networks within AAMPO’s planning area are interrelated and provide options for the efficient movement of people and goods within and through the region. These transportation networks include roadway, bicycle and pedestrian, transit, rail, and air.

3.6.1. Roadway

There are currently 397 miles of roadway in the study area consisting of a range of facilities from high-volume interstates and principal arterials to local streets. Each of these roadways is classified by TxDOT based on their specific infrastructure characteristics and the type of travel they serve. These roadway categories, or Functional Classification, include Interstates, Freeway/Expressway, Arterials, Collectors and Local facilities. The existing highway network and functional classification is shown in Figure 26. Interstates are high-speed, controlled-access highways that form part of the National Highway System in the United States. There are 49 miles of interstate highway located within the study area consisting of IH-35 and
IH-10. Expressways or Freeways are high-speed, high volume facilities with full access control. There are 9 miles of Freeway/Expressway in the study area consisting of the SL 1604. Arterials carry relatively higher speed and higher volumes of traffic traveling longer distances. There are 40 miles of arterials in the study area and include roadways such as FM 78, FM 1101, FM 3009, SH 46, SH 123, and SH 218. Collectors are those facilities that provide a connection to the arterial system from the local streets, which are facilities that are low volume, low speed facilities serving primarily short distance, local trips. Eighty-six miles of collectors are found within the study area and include roadways such as Green Valley Road, Weil Road, and Lower Seguin Road.

Existing traffic count data is an important tool in the analysis of existing and future needs on the transportation network. TxDOT collects traffic counts on TxDOT maintained roads, county roads, and city streets year-round to measure the use of public roads in the state. Traffic stations collect short-term traffic count data to produce Annual Average Daily Traffic (AADT). The existing 2019 daily traffic volume along the study area roadways is illustrated in **Figure 27**. AADT volumes ranged from 11 vehicles on local streets to 150,024 vehicles on the interstates. Traffic demand is highest along the interstates and freeways/expressways such as IH-35, IH-10, and SL 1604. However, other arterials are also experiencing high traffic volumes such as SH 46, FM 78, FM 1518, and FM 3009. Projected 2045 AADT are illustrated in **Figure 28**.

**Figure 26: Roadway Network and Functional Classification**
Figure 27: Existing 2019 Average Annual Daily Traffic (AADT)

Figure 28: Projected 2045 Average Annual Daily Traffic (AADT)
3.6.2. Travel Demand Model

AAMPO’s TDM volumes for year 2017 (traffic base year) and projections for year 2045 (horizon year) were used to assess congestion levels along roadways within the study area (Figures 29 and 30). Volume to Capacity ratio (V/C) was used as performance measure to indicate congestion levels. V/C values higher than 0.75 are typically considered to reflect vehicular delays and queueing.

For future year 2045, the model projections indicate traffic along IH-35, IH-10, SH 46, SH 123, and other connecting FM roads almost double in volume causing severe congestion in the study area. As a result, major arterials, minor arterials, and local streets grow congested with peak hour cut-through traffic. Traffic growth in New Braunfels, Santa Clara, New Berlin, Seguin, and Selma can be attributed to high annual growth rate in population and employment.

Figures 31 through 36 illustrate 2017 and 2045 AADTs for the northeast suburbs (Selma, Live Oak, Universal City, Cibolo, Schertz, and surrounding areas, New Braunfels, and Seguin.

Figure 29: 2017 Study Area Volumes and V/C Ratios from AAMPO TDM
Figure 30: 2045 Predicted Study Area Volumes and V/C Ratios from AAMPO TDM

Figure 31: 2017 Northeast Suburbs Volumes and V/C Ratios from AAMPO TDM
Figure 32: 2045 Predicted Northeast Suburbs Volumes and V/C Ratios from AAMPO TDM

Figure 33: 2017 New Braunfels Volumes and V/C Ratios from AAMPO TDM
Figure 34: 2045 Predicted New Braunfels Volumes and V/C Ratios from AAMPO TDM

Figure 35: 2017 Seguin Volumes and V/C Ratios from AAMPO TDM
3.6.3. Active Transportation Facilities

The existing and planned bicycle and pedestrian facilities within the study area are concentrated within the cities of Universal City, Schertz, Cibolo, and New Braunfels. Figure 37 illustrates the existing and planned bicycle and pedestrian facilities within the study area. The existing and planned network consists of 82.9 miles of facilities and includes a combination of bike lanes, bike routes, bike shoulders, and multi-use trails. Table 11 depicts the total number of existing and planned miles for each pedestrian and bicycle facility by type. There are currently 4.8 miles of bike lanes, 0.1 miles of bike routes, 1.1 miles of bike shoulders, and 11.8 miles of bike/ped multi-use trails. Bike lanes exist on segments of SH 218, Universal City Boulevard, Woodland Oaks Drive, Savannah Drive, Bentwood Ranch Drive, and FM 78. Bike shoulders exist on segments of FM 78 and FM 1518. Existing bike/ped trails are located mostly off-street along greenways, parks, and neighborhoods. There are 65.1 miles of planned bicycle and pedestrian facilities within the study area consisting of 3 miles of bike lanes and 62.1 miles of bike/ped trails.

Table 11: Miles of Existing and Planned Bicycle/Pedestrian Facilities by Type

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Existing (mi)</th>
<th>Planned (mi)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Lane</td>
<td>4.8</td>
<td>3.0</td>
<td>7.7</td>
</tr>
<tr>
<td>Bike Route</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Bike Shoulder</td>
<td>1.1</td>
<td>0.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Bike/Ped Trail</td>
<td>11.8</td>
<td>62.1</td>
<td>73.9</td>
</tr>
<tr>
<td>Total</td>
<td>17.9</td>
<td>65.1</td>
<td>82.9</td>
</tr>
</tbody>
</table>
Figure 37: Existing and Planned Bicycle and Pedestrian Facilities

Level of Traffic Stress (LTS) is an approach that quantifies how stressful it feels to ride a bike close to cars, buses, and other traffic. AAMPO and the City of San Antonio worked together on a modified approach to evaluate traffic stress in the MPO’s study area. Figure 38 illustrates the bicycle LTS on roads within the study area. AAMPO created four categories of LTS: Green, Comfortable, Confident, and Strong. Green indicates that everyone will feel comfortable bicycling on this segment. These segments include trails, shared use paths, and roads with low speeds and fewer than four lanes. Comfortable indicates that most (even less experienced) cyclists will bicycle these segments. Generally, these are streets with posted speeds of 30-35 mph and fewer than four lanes wide. Confident indicates that some cyclists will bicycle these segments. Generally, these are streets with posted speeds of 35 mph that are three to four lanes wide. Strong indicates that only more experienced cyclists will likely use these segments. Generally, these are streets with posted speeds of 40 mph or higher that are four lanes wide or wider.
3.6.4. Transit

VIA Metropolitan Transit (VIA) is the major fixed route transit service provider in the San Antonio region and operates more than 90 routes. The study area falls outside of the VIA service area and currently does not have any existing fixed route transit service. Alamo Regional Transit (ART) provides public transportation bus service to 12 rural counties including Comal and Guadalupe. ART largely provides demand response, curb-to-curb transportation service for taking riders to adult day care, medical appointments, shopping, work, and school. ART on-demand operates weekly Monday through Friday, from 7 AM to 6 PM. Rides must be scheduled at least 24 hours in advance and by noon the previous business day. ART also operates a small deviated fixed route in downtown Seguin that slightly overlaps the study area. VIA and ART fixed routes are shown in Figure 39.

Figure 38: Bicycle Level of Traffic Stress (LTS)
3.6.5. Freight

The Texas Highway Freight Network is designated by TxDOT, and it is not constrained by mileage limits or inclusion criteria set forth at the federal level. The foundation of the Texas Highway Freight Network is the Texas portion of the National Highway Freight Network. Additional highways critical to freight movement are also included and were identified through a systematic, data driven, and stakeholder informed process during development of the Texas Freight Mobility Plan 2017. The facilities designated as freight corridors within the study area are illustrated in Figure 40 and include IH-35, IH-10, FM 78, FM 306, FM 1518, FM 1976, FM 3009, SH 46, SH 123, SH 218, SL 337, SL 1604, and US 90.

TxDOT collects recent traffic information, as well as truck information with traffic count sites located throughout the state. Data is collected year-round 24 hours a day to support federal, state, regional, and local transportation entities. The 2019 daily truck traffic volume along the study area roadways is illustrated in Figure 41.
Figure 40: Designated Freight Network

Figure 41: Existing 2019 Truck Average Annual Daily Traffic (AADT)
3.6.6. Rail
A UPRR main line, used for freight movement, follows the ROW of FM 78 for the majority of its run through the study area.

AMTRAK operates two passenger rail lines that serve the San Antonio and Austin regions. The Texas Eagle runs from Los Angeles, CA to Chicago, IL and stops in San Antonio, San Marcos, and Austin; none of those train stations are located within the study area. The Sunset Limited runs from Los Angeles, CA to New Orleans, LA and stops in San Antonio; this train station is not located within the study area.

No local or regional passenger rail exists in the AAMPO Planning Region. Between 2003 and 2016, plans and studies were conducted to assess the feasibility of a commuter rail line from San Antonio to Georgetown, a suburb 30 miles north of Austin. These plans and studies were undertaken by the now-defunct Lone Star Rail District (LSRD). The Lone Star Rail Project was not advanced to the degree necessary and alternate ROW for UPRR was not identified within the period suggested by the Memorandum of Understanding between LSRD and UPRR.

VIA Metropolitan Transit does not operate any rail service. Advanced Rapid Transit is part of the VIA long-range plan and it may be either in the form of Bus Rapid Transit or Light Rail. Light rail was indicated as a high-demand option by people surveyed about transit in the San Antonio region.

3.6.7. Airports
There is one public-use airport located in the study area: New Braunfels Regional Airport (NBRA) (Figure 42). This airport, located 5 miles east of downtown New Braunfels in Guadalupe County, is owned by the City of New Braunfels and categorized by the Federal Aviation Administration (FAA) as General Aviation Non-Primary National. General aviation airports are public-use airports, but they do not have scheduled service and/or they have fewer than 2,500 annual passenger boardings. The FAA describes the role of National airports as “providing communities access to national and international markets in multiple States and throughout the United States. National airports have very high levels of aviation activity with many jets and multiengine propeller aircraft.”
As the region grows, so do the demands on the NBRA, whose director describes a “24% increase in operations in recent years.” More than 150 aircraft based at this airport, ranging from single-engine aircraft to corporate jets. In the past seven years, the airport has constructed six new corporate hangars and two more are currently under development. The airport houses four aircraft repair shops, an avionics repair station, and two flight schools. Services available at this airport include air ambulance, aircraft maintenance and sales, charter services, dining facilities, flight instruction, fueling, hangar space, meeting and conference rooms, and technical education opportunities.

NBRA currently has two asphalt runways. The main runway, positioned northwest-southeast, is 6,503 feet long by 100 feet wide. The secondary runway, which runs north-south, is 5,364 feet in length and 100 feet in width. Projects taken on by NBRA in recent years include a terminal renovation, a runway extension and resurfacing project, a Master Plan Update, upgrades to the fuel farm, a new drainage detention pond, rehabilitation of the north aircraft ramp, and expanding the terminal parking lot.

Ground transportation providing access to the airport include automobile rentals, limousine rentals, taxi service and rideshare services. There is no fixed route transit service to the airport.

As discussed above, the Randolph Air Force Base is located in the study area.
AAMPO’s planning area is served by two major commercial international airports: San Antonio International, located in the City of San Antonio and Austin-Bergstrom, located in the City of Austin. These are two of the 24 designated commercial service airports in Texas. Neither airport is located within the study area.

Planning in an area with an active airport should consider Title 14 CFR Part 77 (Safe, Efficient Use and Preservation of Navigable Airspace), which places height restrictions on structures, including transportation facilities, constructed within approximately 3 miles of an airport. The study area is not within the 3-mile radii of any surrounding airports other than NBRA and RAFB. If projects are built near RAFB, they should be evaluated for impacts to military operations and coordinated with military personnel.

### 3.7 SAFETY ANALYSIS

A crash analysis was performed to determine the safety conditions within the study area. Crashes were analyzed by total, year, five-year average, roadway classification, location, type, time of day, and severity to identify trends in the study area. As part of this analysis, crash rates were determined for the study area, roadway classifications, and top crash locations per 100 million vehicle miles and compared to statewide average rates to ascertain safety risk and identify potential causes of the crashes.

The complete Study Area Crash Analysis is included in Appendix E.

#### 3.7.1. Safety Data Overview

The data used in this analysis was obtained from the Crash Records Information System (CRIS) and covers a five-year period (2015 - 2019) of data most representative of traffic conditions prior to the COVID-19 pandemic. CRIS is maintained by TxDOT and is a database that contains a collection of records regarding motor vehicle traffic crashes as submitted by law enforcement officers through a standardized crash report. These reports are processed to exclude personal information but include other crash details relevant to analysis, such as crash severity, contributing factors, time of day, location, and roadway condition. The summaries and figures in this analysis provide illustrations to better understand regional crash trends in the study area, including total crashes regionwide, crash rates, crashes by severity, crash types, crash times, and crashes involving pedestrians or bicyclists. It is important to note that CRIS data does not differentiate interstate main lanes with frontage and access roads; therefore, it may be assumed that some interstate crashes are potentially occurring along frontage/access roadway facilities.

#### 3.7.2. Crash Trends

##### 3.7.2.1 Total Crashes

Between 2015 and 2019, a total of 20,807 crashes occurred within the study area. Over this five-year period, the total number of crashes per year has remained between the range of 3,500 to 4,500, with the largest single-year total (4,424) occurring in 2019. The region experienced a 20% increase between 2015 and 2016 and a 5% decrease in the total number of crashes between 2017 and 2018. Overall, the study area has experienced a 24% increase in total crashes from 2015 to 2019. Figure 43 summarizes the annual number of reported crashes in the region between 2015 and 2019.
Figure 43: Total Crashes (2015 - 2019)

Figure 44 summarizes the total crashes by roadway classification, highlighting roadway types that experience a higher number of crashes. Notably, Interstate and US/State Highway classifications experienced the most total crashes over the five-year period at 43% and 25% of total study area crashes, respectively. FM and City Street classifications both experienced a similar threshold of total crashes from 2015 to 2019 and made up 16% and 14% of total study area crashes, respectively. County Road classifications experienced the least number of crashes with approximately 2% of the study area’s total crashes.

Figure 44: Total Crashes by CRIS Roadway Classification (2015 - 2019)
3.7.2.2  Total Crash Rates
Crash rate is a metric that illustrates the ratio of crashes that occur per vehicle miles traveled (VMT) within the region and provides a method to normalize the gross crash count by including a consideration of roadway usage (i.e., VMT). To calculate study area crash rates, the AAMPO TDM roadway network was used as a base, and a 2017 scenario run was used to generate total vehicle miles traveled (VMT) for the study area. Regional 2017 VMT was collected for roadways classified as collector or higher, to best match the CRIS point data with the model roadway network. This 2017 VMT total was used throughout the analysis to generate crash rates against CRIS crash point totals and five-year averages.

Crash rates over the five-year period largely remain consistent, with a gradual increase from 2015 to 2017 and a gradual decrease from 2017 to 2019. This pattern is consistent with the study area’s total crashes over the five-year period.

**Figure 45** shows the crashes per 100 million vehicle miles traveled for the region between 2015 and 2019.

*Figure 45: Study Area Crashes per 100 Million VMT by Year (2015 - 2019): Collectors and Higher*

To better understand safety conditions by study area roadway classification, crash rates were calculated for each roadway type and compared to TxDOT statewide traffic crash rates (**Figure 46**). The 2017 VMT outputs were used to calculate crash rates for roadway classifications (using five-year averages per classification). TxDOT statewide traffic crash rates were obtained for the same five-year period (2015 – 2019) and averaged for comparison. Due to roughly 75% of study area roadways being classified as “Urban” in the CRIS dataset, TxDOT comparisons were referenced from highway system tables by urban classifications; only the “County Road” classification used road type tables by rural classifications. Finalized measures provide a scale relative to the study area to better understand the frequency of crash occurrences by roadway classification.
Figure 46: Study Area and Statewide 5-Year Average Crash Rate Comparison by Roadway Classification

The five-year average crash rates for each roadway classification in the study area are lower than the average TxDOT statewide traffic crash rates for the five-year period. US and State Highway classifications display the five-year average crash rate closest to the Texas five-year average, suggesting this roadway type is close to matching statewide levels.

3.7.2.3 Crash Hotspots

Crash hotspots were identified within the study area through spatial analysis of intersections and roadway segments that experienced the highest number of crashes over the five-year period. Total crashes involving pedestrians, crashes involving bicyclists, and crashes resulting in serious injury or fatality are considered in this analysis. Figure 47 displays crash hotspots for all roadway classifications identified through geolocation of the collected crash data.

Figure 47: Regional Crash Hotspots, All Roadway Classifications (2015 - 2019)
3.7.2.4 Top Crash Locations

CRIS crash point data was used to calculate total crashes for individual study area roadways, displayed in Table 12, which shows roughly 31% of study area crashes occurred along the IH-35 corridor over the five-year period. Further, data suggests 76% of the total study area crashes from 2015 to 2019 occurred within the 10 corridors identified in the table.

The table also presents crashes per lane mile and crash rates based on five-year averages of total crashes and combined fatal and serious injury crashes for each corridor to provide normalized measures for comparison. Crash rates were attributed to corridors using similar methods as previously discussed for roadway classification rates; however, the regional VMT total was used to calculate final crash rates. The AAMPO TDM roadway network segment length in miles and lane number attributes were used to calculate mileage per corridor. While major interstate corridors present the highest crash totals, other roadway classifications (i.e., state highways, FM roads) displayed higher crashes per lane mile and crash rates, suggesting worse overall safety conditions over the five-year period. These corridors include SH 218, FM 1103, and FM 3009, which all share similarities to some extent regarding posted speed (40 to 45 mph), center turn lanes, commercial land uses, high number of access points, and minimal shoulder widths.

Table 12: Roadways with Highest Crash Totals (2015 - 2019)

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Crash Count - Total</th>
<th>% of Total Study Area Crashes</th>
<th>Crashes per Lane Mile – 5-Yr. Avg.</th>
<th>Total Crash Rate – 5-Yr. Avg.</th>
<th>F/S* Crash Rate – 5-Yr. Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH-35</td>
<td>6,439</td>
<td>31%</td>
<td>4.1</td>
<td>96.4</td>
<td>3.0</td>
</tr>
<tr>
<td>IH-10</td>
<td>2,295</td>
<td>11%</td>
<td>2.3</td>
<td>75.8</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 1604</td>
<td>2,027</td>
<td>10%</td>
<td>9.4</td>
<td>244.1</td>
<td>5.7</td>
</tr>
<tr>
<td>SH 218</td>
<td>1,064</td>
<td>5%</td>
<td>15.3</td>
<td>590.8</td>
<td>22.8</td>
</tr>
<tr>
<td>FM 78</td>
<td>1,008</td>
<td>5%</td>
<td>3.2</td>
<td>178.7</td>
<td>6.9</td>
</tr>
<tr>
<td>SH 46</td>
<td>890</td>
<td>4%</td>
<td>3.6</td>
<td>126.2</td>
<td>6.8</td>
</tr>
<tr>
<td>FM 3009</td>
<td>706</td>
<td>3%</td>
<td>7.1</td>
<td>304.8</td>
<td>7.3</td>
</tr>
<tr>
<td>FM 1103</td>
<td>505</td>
<td>2%</td>
<td>8.7</td>
<td>408.0</td>
<td>10.5</td>
</tr>
<tr>
<td>FM 725</td>
<td>409</td>
<td>2%</td>
<td>2.9</td>
<td>161.2</td>
<td>8.7</td>
</tr>
<tr>
<td>SH 123</td>
<td>396</td>
<td>2%</td>
<td>1.5</td>
<td>130.0</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Roadways Total</strong></td>
<td><strong>15,739</strong></td>
<td><strong>75%</strong></td>
<td><strong>--</strong></td>
<td><strong>--</strong></td>
<td><strong>--</strong></td>
</tr>
</tbody>
</table>

*Crash rate for five-year average of combined fatal and serious injury crashes
3.7.2.5 Crashes by Severity

Crash severity is a crucial aspect of each reported crash, as crashes resulting in fatalities or serious injuries represent a higher risk to life and safety. Understanding where there are concentrations of these types of crashes can illuminate opportunities for operational or design improvements. The following section reviews crash data in three different ways including the number and rate of total crashes, the number and rate of crashes involving a fatality, and the number and rate of crashes involving a serious injury; each is compared to statewide averages. Statewide values were obtained from the 2021 Texas Strategic Highway Safety Plan. The data represented in Table 13 demonstrates that, on average, 3% of crashes in the region resulted in a serious injury, and 0.5% resulted in a fatality. Table 14 compares the study area five-year average to the statewide average.

Table 13: Study Area Crash Totals by Year and 5-Yr. Average (Collector and Above)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>3,052</td>
<td>3,706</td>
<td>3,834</td>
<td>3,579</td>
<td>3,720</td>
<td>3,578</td>
<td>100%</td>
</tr>
<tr>
<td>Total Crashes per 100 million VMT</td>
<td>99.1</td>
<td>120.3</td>
<td>124.5</td>
<td>116.2</td>
<td>12.8</td>
<td>116.2</td>
<td>--</td>
</tr>
<tr>
<td>Crashes with Fatalities</td>
<td>19</td>
<td>22</td>
<td>16</td>
<td>22</td>
<td>14</td>
<td>19</td>
<td>0.5%</td>
</tr>
<tr>
<td>Crashes with Fatalities per 100 million VMT</td>
<td>0.6</td>
<td>0.7</td>
<td>0.5</td>
<td>0.7</td>
<td>0.45</td>
<td>0.60</td>
<td>--</td>
</tr>
<tr>
<td>Crashes with Serious Injuries</td>
<td>102</td>
<td>141</td>
<td>119</td>
<td>89</td>
<td>92</td>
<td>109</td>
<td>3%</td>
</tr>
<tr>
<td>Crashes with Serious Injuries per 100 million VMT</td>
<td>3.3</td>
<td>4.6</td>
<td>3.9</td>
<td>2.9</td>
<td>3.0</td>
<td>3.5</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 14: Study Area and State Comparison: 5-Yr. Average (Collector and Above)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Study Area 2019 5-Yr. Average</th>
<th>TX 5-Yr. Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>3,578</td>
<td>626,172</td>
</tr>
<tr>
<td>Total Crashes per 100 million VMT</td>
<td>116.2</td>
<td>124.5</td>
</tr>
<tr>
<td>Crashes with Fatalities</td>
<td>19</td>
<td>3,363</td>
</tr>
<tr>
<td>Crashes with Fatalities per 100 million VMT</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Crashes with Serious Injuries</td>
<td>120</td>
<td>13,836</td>
</tr>
<tr>
<td>Crashes with Serious Injuries per 100 million VMT</td>
<td>3.5</td>
<td>6.0</td>
</tr>
</tbody>
</table>

The average five-year total crash rate within the study area was 116.2 per 100 million VMT from 2015 to 2019. For fatal crashes, the five-year average rate was 0.6 per 100 million VMT and 3.5 per 100 million VMT for serious injury crashes. A comparison to the statewide five-year average of total crashes (124.5), fatal crashes (1.4), and serious injury crashes (6.0) indicates that fewer crashes in the region have resulted in fatality or serious injury compared to the rest of the state over the five-year period.
**Figure 48** displays crash rate trends for fatality and serious injury crashes over the five-year period. While serious injury crashes saw an increase in crash rate in 2016, the study area has experienced a decline in crashes per 100 million VMT. Similarly, fatal crashes per 100 million VMT have also declined since 2015.

**Figure 48: Fatality and Serious Injury Crash Rate Trends (2015 - 2019): Collector and Above**

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**Figure 49** maps the location of all crashes resulting in fatality or serious injury between 2015 and 2019. Fatalities occurred primarily on major interstate and highway corridors (e.g., IH-35, IH-10, N SL 1604) within the study area. Similarly, crashes resulting in serious injury also occurred along interstate and highway corridors, with major clusters near interchanges/connections to study area cities (e.g., New Braunfels, Seguin). Roads providing local accessibility and connectivity between IH-10 and IH-35 also contain significant concentrations of severe crashes, including but not limited to FM 78, FM 725, SH 46, and SH 123.

The map also displays significant crash activity in the northwestern portion of the study area (i.e., Live Oak, Universal City, and Schertz). This includes roadways such as FM 218, Schertz Pkwy, Roy Richard Dr, and FM 1103.
3.7.2.6 Crashes By Type

Crash types were developed from several categories identified in the TXDOT CRIS data including first harmful event (location), manner of collision, facility type, and other factors, and were defined and grouped using guidance from the 2015 Highway Safety Improvement Program Manual.

Figure 50 displays the different types of crashes that occurred within the study area from 2015 to 2019 as a percentage of total crashes. Sideswipe (48%) and single vehicle (25%) crash types were most prevalent along the corridor, accounting for 63% of the total crashes combined. The next most common crash type was angle collisions (15%).
Figure 50: Study Area Crash Types (2015 - 2019)

Table 15 presents five-year average crash totals by crash type and CRIS roadway classification; accordingly, this highlights crash types which occurred most often by roadway classification over the five-year period. Further, this helps suggest what types of operational and/or design improvements may be more likely to mitigate crashes based on roadway classification. Cells highlighted in red represent crash types that accounted for equal to or greater than 25% of the roadway classification’s total crashes.

Table 15: Study Area Crash Types (2015 - 2019)

<table>
<thead>
<tr>
<th></th>
<th>City St 5-Yr. Avg.</th>
<th>City St %</th>
<th>County Rd 5-Yr. Avg.</th>
<th>County Rd %</th>
<th>FM 5-Yr. Avg.</th>
<th>FM %</th>
<th>Highways 5-Yr. Avg.</th>
<th>Highways %</th>
<th>Interstate 5-Yr. Avg.</th>
<th>Interstate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle</td>
<td>162.6</td>
<td>28%</td>
<td>6.8</td>
<td>8%</td>
<td>123.8</td>
<td>19%</td>
<td>189</td>
<td>18%</td>
<td>164.4</td>
<td>9%</td>
</tr>
<tr>
<td>Head On</td>
<td>11.6</td>
<td>2%</td>
<td>3.2</td>
<td>4%</td>
<td>16.8</td>
<td>3%</td>
<td>10.8</td>
<td>1%</td>
<td>8.2</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>80.4</td>
<td>14%</td>
<td>4.2</td>
<td>5%</td>
<td>105.6</td>
<td>16%</td>
<td>129.4</td>
<td>12%</td>
<td>122.8</td>
<td>7%</td>
</tr>
<tr>
<td>Rear End</td>
<td>0.2</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0.4</td>
<td>0%</td>
<td>0.2</td>
<td>0%</td>
<td>0.6</td>
<td>0%</td>
</tr>
<tr>
<td>Sideswipe</td>
<td>95.4</td>
<td>16%</td>
<td>6.2</td>
<td>7%</td>
<td>314.2</td>
<td>47%</td>
<td>522.4</td>
<td>50%</td>
<td>1,060.4</td>
<td>59%</td>
</tr>
<tr>
<td>Single Vehicle</td>
<td>232</td>
<td>40%</td>
<td>69.2</td>
<td>77%</td>
<td>105</td>
<td>16%</td>
<td>185.2</td>
<td>18%</td>
<td>429.4</td>
<td>24%</td>
</tr>
<tr>
<td>Total Avg.</td>
<td>582.2</td>
<td>100%</td>
<td>89.6</td>
<td>100%</td>
<td>665.8</td>
<td>100%</td>
<td>1,037</td>
<td>100%</td>
<td>1,785.8</td>
<td>100%</td>
</tr>
</tbody>
</table>
3.7.2.7  Crash By Time

The time at which each crash on the corridor occurred was analyzed to identify trends. *Figure 51* presents the frequency of crashes in four-hour intervals by interstate and non-interstate roadways. Crashes within the study area most frequently occur between 4:00 PM and 8:00 PM for both roadway classifications.

*Figure 51: Crash Time of Day Frequency (2015 - 2019)*

While most crashes occurred during PM peak period travel times, significant numbers of crashes occurred during both daylight and dark conditions. Further analysis was performed on the reported light condition at the time of the crashes. Crashes analyzed were limited to non-interstate roadways as light conditions are more likely to impact off-system roadways (*Figure 52*). The majority of study area crashes occur during daylight (71%). Roughly 29% of crashes occur in dark conditions (lighted or not lighted).

*Figure 52: Study Area Crash Light Conditions, Non-Interstate Roadways*
3.7.3. Bicyclist and Pedestrian Crash Trends

Of the 20,807 crashes that occurred during the five-year period, a total of 165 crashes were categorized as either bicyclist or pedestrian crashes, accounting for roughly 1% of the total number of crashes for the study area (Table 16). However, compared to overall study area fatalities, bicyclist and pedestrian crashes comprise 36% of all fatal crashes. It must be noted that research suggests, due to the nature of crash reporting, bicyclist and pedestrian crash statistics tend to be underreported. This underreporting can potentially be attributed to variations in definitions of reporting level, periods of study, study locations, and user input error. Accordingly, the crash results presented in this memorandum represent the most accurate and up-to-date data provided by CRIS, but the actual number of crashes may be significantly higher.

Table 16: Comparison of Five-Year Crash Totals: Bicyclist and Pedestrian vs. All Crashes (2015 - 2019)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total Study Area Crashes</th>
<th>Crashes Involving a Bicyclist or Pedestrian</th>
<th>% of Total Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crash Count</td>
<td>20,807</td>
<td>165</td>
<td>1%</td>
</tr>
<tr>
<td>Fatalities</td>
<td>96</td>
<td>35</td>
<td>36%</td>
</tr>
<tr>
<td>Serious Injuries</td>
<td>600</td>
<td>21</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 17 further breaks down bicyclist and pedestrian crashes for the five-year period within the study area, showing that out of all bicyclist/pedestrian crashes, 62% involved pedestrians while the remaining 38% involved bicyclists.

Table 17: Bicyclist and Pedestrian Crash Totals and % of Total (2015 - 2019)

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Crash Count - Total</th>
<th>% of Crashes Involving a Bicyclist or Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crashes Involving Pedestrians</td>
<td>102</td>
<td>62%</td>
</tr>
<tr>
<td>Crashes Involving Bicyclists</td>
<td>63</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 18 shows the severity of bicyclist and pedestrian crashes based on five-year averages. Reviewing crash severity for non-motorized users, 67% of fatalities occurred on interstate roadways. Additionally, the five-year average indicates that approximately 80% of serious injuries occurred on non-interstate facilities.

Table 18: Regional 5-Year Average Bicyclist and Pedestrian Crashes (2015 - 2019)

<table>
<thead>
<tr>
<th>Measure (5-yr Avg)</th>
<th>Interstate</th>
<th>% of Avg. Total</th>
<th>Non-Interstate</th>
<th>% of Avg. Total</th>
<th>Total 5-Yr. Avg.</th>
<th>% of Avg. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4.0</td>
<td>39%</td>
<td>6.2</td>
<td>61%</td>
<td>10.2</td>
<td>100%</td>
</tr>
<tr>
<td>Fatal</td>
<td>2.8</td>
<td>67%</td>
<td>1.4</td>
<td>33%</td>
<td>4.2</td>
<td>100%</td>
</tr>
<tr>
<td>Serious Injury</td>
<td>1.2</td>
<td>20%</td>
<td>4.8</td>
<td>80%</td>
<td>6.0</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 53 shows the location of crashes involving bicyclists and pedestrians throughout the region between 2015 and 2019. Figure 54 displays bicyclist and pedestrian crashes by severity.

Figure 53: Study Area Crashes Involving Bicyclists and Pedestrians (2015 - 2019)

Figure 54: Study Area Bicyclist and Pedestrian Crashes Resulting in Fatality and/or Serious Injury (2015 - 2019)
Chapter 4 Stakeholder Engagement
The project team and Study Oversight Committee (SOC) identified a variety of stakeholders whose input on subregional issues and needs helped shape the study. The general list of stakeholder categories is included in Table 19.

The AAMPO Subregional Study Project Manager and the members of the SOC reached out to identified stakeholder representatives. The SOC decided three identical virtual stakeholder meetings would be scheduled so that as many stakeholders as possible could participate in the engagement process.

**Table 19: Subregional Planning Study Targeted Stakeholder Categories**

<table>
<thead>
<tr>
<th>Identified Potential Stakeholder Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater San Antonio Builders Association</td>
</tr>
<tr>
<td>The Great Springs Project</td>
</tr>
<tr>
<td>Comal Trails Alliance</td>
</tr>
<tr>
<td>Cycling Groups</td>
</tr>
<tr>
<td>AAMPO Bicycle Mobility Advisory Committee</td>
</tr>
<tr>
<td>Study Area Chambers of Commerce</td>
</tr>
<tr>
<td>Human services advocacy groups</td>
</tr>
<tr>
<td>Universities</td>
</tr>
<tr>
<td>Freight shipping associations</td>
</tr>
<tr>
<td>Distribution/warehouse centers</td>
</tr>
</tbody>
</table>

**4.1.1. Stakeholder Meeting No. 1**

The first stakeholder meeting was held via Zoom from 11 to 12 pm CDT on Tuesday June 8, 2021. The meeting was moderated by AAMPO’s Allison Blazosky. It consisted of a presentation (Appendix F) by RS&H’s Nick Arnio detailing a study overview, the study area’s existing conditions, and the goals and objectives developed by the SOC, followed by discussion with the attendees. Stakeholder Meeting No. 1 attendees are listed in Table 20.

Discussion during this meeting centered around activities at the New Braunfels Airport, planning efforts currently being undertaken by JBSA, and freight activity (including truck parking) along the IH-35 corridor. Detailed meeting minutes are located in Appendix G.

Stakeholder comments from this meeting submitted in writing are included in Appendix H.
Table 20: Subregional Planning Study Stakeholder Meeting No. 1 Attendees

<table>
<thead>
<tr>
<th>Invitee</th>
<th>Agency</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison Blazosky</td>
<td>AAMPO</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Bill Loudon</td>
<td>Alliance Transportation Group</td>
<td>Study Team</td>
</tr>
<tr>
<td>Charles Jenigen</td>
<td>JBSA</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Clayton Ripps</td>
<td>TxDOT SAT</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Clifton Hall</td>
<td>AAMPO</td>
<td>SOC</td>
</tr>
<tr>
<td>Dave Wegmann</td>
<td>Bexar County</td>
<td>SOC</td>
</tr>
<tr>
<td>David Rabago</td>
<td>City of Seguin</td>
<td>SOC</td>
</tr>
<tr>
<td>Elizabeth High</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Greg Reininger</td>
<td>City of San Antonio</td>
<td>SOC</td>
</tr>
<tr>
<td>Jayasree Korukonda</td>
<td>TxDOT Freight Intern</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Joey Pawlik</td>
<td>AAMPO</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Kammy Horne</td>
<td>VIA Metropolitan Transit</td>
<td>SOC</td>
</tr>
<tr>
<td>Katie Merry</td>
<td>JBSA- Randolph Air Force Base</td>
<td>SOC</td>
</tr>
<tr>
<td>Marcela Aguirre</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Nick Arnio</td>
<td>RS&amp;H</td>
<td>Study Team (PM)</td>
</tr>
<tr>
<td>Robert Lee</td>
<td>New Braunfels Regional Airport</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Sherry Pifer</td>
<td>TxDOT Freight</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Stella Garcia</td>
<td>AACOG</td>
<td>SOC</td>
</tr>
<tr>
<td>Tom Hornseth</td>
<td>Comal County</td>
<td>Stakeholder</td>
</tr>
</tbody>
</table>

4.1.2. Stakeholder Meeting No. 2

The second stakeholder meeting was held via Zoom from 10 to 11 am CDT on Thursday June 17, 2021. The presentation by RS&H’s Elizabeth High provided the same information as the first stakeholder meeting, and was followed by discussion with the attendees. Stakeholder Meeting No. 2 attendees are listed in Table 21.

Discussion during this meeting centered around specific TxDOT projects in the study area, planning activities in Seguin, potential for bike/ped options in suburban areas, trail development in the study area, and potential demand or lack of demand for transit from residents in new suburban developments. Detailed meeting minutes are located in Appendix G.
### Table 21: Subregional Planning Study Stakeholder Meeting No. 2 Attendees

<table>
<thead>
<tr>
<th>Invitee</th>
<th>Agency</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison Blazosky</td>
<td>AAMPO</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Bev Davis</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Brigida Gonzalez</td>
<td>TxDOT TPP</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Charles Jenigen</td>
<td>JBSA</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Clayton Ripps</td>
<td>TxDOT SAT District</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Clifton Hall</td>
<td>AAMPO</td>
<td>SOC</td>
</tr>
<tr>
<td>David Bemporad</td>
<td>Great Springs Project</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Elizabeth High</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Greg Reininger</td>
<td>City of San Antonio</td>
<td>SOC</td>
</tr>
<tr>
<td>Jean Drew</td>
<td>City of New Braunfels</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Joey Pawlik</td>
<td>AAMPO</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Marcela Aguirre</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Mark Mosley</td>
<td>TxDOT SAT District</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Nick Arnio</td>
<td>RS&amp;H</td>
<td>Study Team (PM)</td>
</tr>
<tr>
<td>Robert Lee</td>
<td>New Braunfels National Airport</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Sean Scott</td>
<td>AACOG</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Stella Garcia</td>
<td>AACOG</td>
<td>SOC</td>
</tr>
<tr>
<td>Tom Hornseth</td>
<td>Comal County</td>
<td>Stakeholder</td>
</tr>
</tbody>
</table>

#### 4.1.3. Stakeholder Meeting No. 3
The third and final stakeholder meeting was held via Zoom from 11 to 12 pm CDT on Tuesday June 22, 2021. The presentation by RS&H’s Elizabeth High provided the same information as the first two stakeholder meetings, and was followed by discussion with the attendees. Stakeholder Meeting No. 3 attendees are listed in Table 22.

Discussion during this meeting centered around specific TxDOT projects in the study area, activities at the New Braunfels Airport, potential for bike/ped options in suburban areas, and potential lack of transit demand from residents in new suburban developments. Detailed meeting minutes are located in Appendix G.
### Table 22: Subregional Planning Study Stakeholder Meeting No. 3 Attendees

<table>
<thead>
<tr>
<th>Invittee</th>
<th>Agency</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison Blazosky</td>
<td>AAMPO</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Bev Davis</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Darcie Schipull</td>
<td>TxDOT SAT District</td>
<td>SOC</td>
</tr>
<tr>
<td>David Bemporad</td>
<td>Great Springs Project</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Elizabeth High</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Joey Pawlik</td>
<td>AAMPO</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>John Gianotti</td>
<td>TxDOT -TransGuide</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Lorena Echeverria-deMisi</td>
<td>TxDOT AUS District</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Marcela Aguirre</td>
<td>RS&amp;H</td>
<td>Study Team</td>
</tr>
<tr>
<td>Nancy Pappas</td>
<td>NBU Headwaters at the Comal</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Nick Arnio</td>
<td>RS&amp;H</td>
<td>Study Team (PM)</td>
</tr>
<tr>
<td>Pam Centeno</td>
<td>City of Seguin</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Robert Lee</td>
<td>New Braunfels National Airport</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Ryan Johnson</td>
<td>Great Springs Project</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Scott Nelson</td>
<td>TxDOT SAT District</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Tom Hornseth</td>
<td>Comal County</td>
<td>Stakeholder</td>
</tr>
<tr>
<td>Wade Walker</td>
<td>Kittelson</td>
<td>Study Team</td>
</tr>
<tr>
<td>Sirisha Pillalamarri</td>
<td>Transcend</td>
<td>Study Team</td>
</tr>
</tbody>
</table>

### 4.1.4. Other Meetings with Stakeholders

**Great Springs Project – 6/30/2021**

On June 30, 2021, RS&H team member Wade Walker (Kittelson & Associates Inc) met with Lyda Creus Molanphy and David Bemporad of the Great Springs Project (GSP), an Austin-based non-profit working to create a continuous protected trailway between Austin and San Antonio. Highlights of the meeting include:

- The GSP consists of about 100 miles of trail to connect the Alamo in San Antonio to the Capitol in Austin, touching on four natural springs along the way.
- Goal is to complete trail by 2036.
- Project has no set alignment yet.
- Corridor is west of IH-35 and not within the study corridor.
  - However, there are numerous opportunities to leverage the trail and greenway work being done within the study area to catalyze Great Springs Project through potential connections.
- GSP understands that coordination with TxDOT will be a big piece of moving forward.
In addition to the various counties they are passing through, they are also working with the San Marcos Greenbelt Alliance and Crown Trail work group.

GSP would like to take advantage of connecting to the study area via two existing underpasses on IH-35 and want to find more opportunities to connect across IH-35.

Potential for east-west connector along power line easement in Schertz – termed the “Great Northern Trail.”

**City of New Braunfels Chamber of Commerce Transportation Committee – 7/1/2021**

On July 1, 2021, AAMPO’s Allison Blazosky and RS&H’s Elizabeth High presented an overview of the Subregional Planning Study to the City of New Braunfels Chamber of Commerce Transportation Committee.

Following the presentation, attendees were asked to provide comments regarding the study area.

Comments received during the meeting include:

- There are five connectors to the northern end of SH 130, but only one into the southern end. It would be a missed opportunity to divert traffic off IH-35 if connections to the south aren’t prioritized.
- Plan for parking/all-terrain issues
- SH 21 serves people traveling to East Texas and could offer an additional route between IH-35 and IH-10. Also see SH 21 to SH 71
- Project approved Monday at city council for north of New Braunfels that could be an opportunity.
- “At some point, we have to commit” (to a specific southern connection between IH-35 and SH 130).
- Consider impact of driverless cars
- James Lovett, representative of SH 130 group attended.
  - Happy to provide data on usage and survey information.

Written comments received as a result of this meeting are included in Appendix H.

**Joint Base San Antonio Community Initiatives Department – 8/4/2021**

On August 4, 2021, AAMPO’s Allison Blazosky and RS&H’s Nick Arnio and Elizabeth High held a virtual meeting with representatives from the Joint Base San Antonio (JBSA) Community Initiatives Department including directors John Anderson and Curtis Robertson, as well as their staff (Sam Meta, Val Ramirez, Rich King, Katie Merry, Jill Herring, and Chuck Jenigen). Because Randolph Air Force Base (RAFB), located in the study area, is one of the four main installations of JBSA, AAMPO wanted to make sure the particular planning needs of JBSA and RAFB specifically, were identified and considered throughout the study effort.

Comments received during the meeting include:

- Major traffic issues occur at five gates where traffic enters RAFB
- UPRR train track that runs along FM 78 can cause major traffic delays depending on train’s schedule and any specific events or meetings occurring at the base.
- When traffic backs up, non-moving vehicles are stuck in the airfields’ clear zone and present a security concern.

Detailed meeting minutes are located in Appendix G.
Chapter 5 Project Assessment Methodology
5.1 PROJECT PRIORITIZATION

The Subregional Planning Study project list was developed through the identification of programmed and potential projects within the region. This project list generation began with the review of existing plans and studies to determine the location and types of transportation projects applicable to this planning effort. Once the plans and studies within the study area were analyzed, the project list was sent to the SOC for review. The SOC provided valuable feedback on the projects and made adjustments by adding projects and removing those that were no longer applicable.

Once the overall list of projects within the study area was identified, prioritization was conducted. *Per the SOC’s direction, this prioritization process utilized available quantitative data without the inclusion of assumed costs.* This prioritization tool methodology was used to rank the projects within the region based on available data. The full prioritization methodology is included within *Appendix I.*

5.1.1 Project Source

Projects were identified from a variety of sources, including AAMPO’s Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP), local comprehensive and transportation plans, the SOC, and the Consultant Team. Projects listed in the MTP may move forward to advanced planning. Projects currently in the TIP have identified funding sources and may be more easily implemented than other projects. Projects from other sources will need to compete with other projects submitted to AAMPO for inclusion in the next MTP or MTP update. Funding options in *Chapter 6.0* are particularly important for projects not yet in the TIP as even MTP projects do not have guaranteed funds (only a cost estimates). Project Sheets for projects proposed for the MTP are included in *Appendix J.*

5.1.2 Project Goals and Weighting

The SOC established a series of six overall project goals that were applied to the prioritization. The goals are ranked from 1 to 6, with 1 being the most important to the SOC.

- Goal 1: Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility
- Goal 2: Provide an integrated and connected multimodal network that enhances transportation options
- Goal 3: Identify opportunities for increased and enhanced transit services within the area, as well as connecting to major employment and activity centers outside of the area
- Goal 4: Coordinate between transportation and land use to proactively address mobility issues associated with future growth
- Goal 5: Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally
- Goal 6: Provide a safe multimodal transportation network

The first step in the prioritization methodology was to determine the weight (importance) of each goal, which was accomplished by the SOC ranking the goals. In addition to these six weighted goals, multiple factors were analyzed to determine information vital to developing the performance ranking. These factors were used in conjunction with local stakeholder data and Geographic Information Systems (GIS) data to determine performance of the projects in both the base year (2017 - the base year of TDM) and future year
(2045) if applicable. There are a total of 116 projects. These projects are located in Bexar, Comal, Guadalupe, and Hays Counties in Texas, with 37 projects solely in Bexar, 20 in Comal, 47 in Guadalupe, and 12 projects that cross county boundaries. Many of these projects cross city boundaries and involve TxDOT as well as local partners.

5.1.3. Prioritization Workflow
The prioritization tool is Microsoft Excel-based. Data inputs were housed on individual tabs. Data was referenced to projects by unique project identifiers (Project IDs). The Project IDs were developed by combining the county/counties the project is in and an individual numeric identifier relating each project to this study. The project performance assessment was conducted by compiling data points for each of the projects representing qualitative and quantitative summaries of the data. These data summaries were used to determine unweighted project scores. The project goals were used to add weight to specific data points, thereby giving each project an overall weighted score that accounted for local needs and desires. The factors included in the prioritization are referenced below.

5.1.4. Project Prioritization Criteria for Analysis
The Project Prioritization Criteria used to create the weighted and unweighted scores are described in Table 23. The Ranking Criteria column describes the category of the data, while the Ranking Metric column identifies the metric used to score each project. The last column indicates the possible score a project could receive for each ranking metric. These variables work together to form the overall scores for each project, where a higher score represents a higher regional need. For example, 1 represents a positive impact and -1 represents a negative impact to the overall score.

### Table 23: Project Prioritization Criteria

<table>
<thead>
<tr>
<th>Ranking Category</th>
<th>Ranking Criteria</th>
<th>Ranking Metric</th>
<th>Possible Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volumes</td>
<td>Top 50% Truck</td>
<td>Truck volumes over the median value</td>
<td>0, 1</td>
</tr>
<tr>
<td>Volumes</td>
<td>Top 50% Base V/C (Volume to Capacity)</td>
<td>Base year V/C over the median value</td>
<td>0, 1</td>
</tr>
<tr>
<td>Volumes</td>
<td>Top 50% Future V/C (Volume to Capacity)</td>
<td>Future year V/C over the median value</td>
<td>0, 1</td>
</tr>
<tr>
<td>Reliability</td>
<td>Total Safety Score</td>
<td>Number of bicycle/pedestrian injuries and fatalities</td>
<td># of Crashes</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td>Number of fatalities</td>
<td># of Crashes</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td>Crash rate quartile score based in relation to the other projects (Higher percentile of crashes indicated higher need)</td>
<td>1, 2, 3, 4</td>
</tr>
</tbody>
</table>
Table 23 (cont): Project Prioritization Criteria

<table>
<thead>
<tr>
<th>Ranking Category</th>
<th>Ranking Criteria</th>
<th>Ranking Metric</th>
<th>Possible Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Development/Freight</td>
<td>Supports Freight Movement</td>
<td>Proximity to Freight Route or Strategic Highway Network (STRAHNET)</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td></td>
<td>Supports Defense Access</td>
<td>Proximity to STRAHNET or military installation</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td>Travel and Tourism</td>
<td>Supports Access to Tourism</td>
<td>Support of known tourism areas and interstate access</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td>Multimodal</td>
<td>Planned Bicycle/Pedestrian Facilities</td>
<td>Support of bicycle, pedestrian, and multimodal movement</td>
<td>0, 0.5, 1, 1.5, 2, 2.5, 3</td>
</tr>
<tr>
<td></td>
<td>Supports Improved Access to Public Airport</td>
<td>Support access to a public airport</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td></td>
<td>Recommended or Support of Transit</td>
<td>Support of existing or future transit</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td>Environment and Quality of Life</td>
<td>Impacts Historic Resources</td>
<td>Proximity to historic/cultural resources</td>
<td>-1, -0.5, 0</td>
</tr>
<tr>
<td></td>
<td>Impacts Environmental Resources</td>
<td>Proximity to wetlands and waterbodies</td>
<td>-1, -0.5, 0</td>
</tr>
<tr>
<td></td>
<td>School Proximity</td>
<td>Proximity to schools</td>
<td>0, 0.5, 1</td>
</tr>
<tr>
<td></td>
<td>Runway Clear Zone Impact</td>
<td>Proximity to the military runway clear zones</td>
<td>-5, 0</td>
</tr>
<tr>
<td>Multijurisdictional Impact</td>
<td>Projects crossing county and city boundaries</td>
<td></td>
<td>0, 1</td>
</tr>
</tbody>
</table>

5.2 POST PRIORITIZATION ASSESSMENT CATEGORIES

5.2.1. Benefit-Cost Analysis

The prioritized list of projects was finalized without consideration of cost, as requested by the SOC. The Top 25 projects in the prioritized list were then carried forward into the AAMPO Subregional Planning Study - Benefit-Cost Analysis (BCA) (Appendix K) that used additional data points to determine the Benefit-Cost Ratio (BCR) of the project. The BCR of the Top 25 Projects are included in their description in Chapter 7.0.

Typically, projects with a BCR lower than 1.0 indicate the cost of the project outweighs the benefit to the community. However, BCAs for transportation projects are generally conducted with very narrow parameters, the two largest being safety improvements and congestion improvements. The BCA for this study was developed in this traditional manner. However, the Consultant Team notes the needs of this study area extend beyond congestion mitigation and safety improvements. Therefore, projects with lower-than-desirable BCR may still provide extensive benefits to the communities in the Subregional Planning Study area, particularly as the areas continue to grow at the rapid pace demonstrated over the past decade.
Project G2 does not have a BCR because it is not associated with a roadway and the methodology used to develop the BCR requires inputs including Annual Average Daily Traffic (AADT), capacity, and safety improvements. The team recommends a non-traditional BCA be developed for this project if implementation is pursued.

### 5.2.2. Planning-Level Estimated Cost

Though the SOC asked that projects be identified and ranked without consideration to cost, once the prioritization process was completed, the team identified estimated costs for the projects so a BCA could be performed. For projects derived from the MTP or TIP, the total estimated project costs were identified directly from these documents. For all other projects, high-level cost estimates were developed. Costs per mile and/or per intersection were derived from a variety of sources including FHWA and TxDOT. These are general estimations and should not be interpreted as working costs. Instead, they are provided to give AAMPO and planning partners a general idea of what level of funding may be required.

### 5.2.3. Funding Options

Potential funding options are discussed in detail in Chapter 6.0, but the most significant ones are listed with the projects on pages 78 through 102.

### 5.2.4. Project Partners and Multi-Jurisdictional Designation

Projects that cross the boundaries of more than one city/county and/or share jurisdiction with TxDOT are considered multi-jurisdictional and will require specific planning and coordination among all Project Partners. Project Partners are all entities expected to be involved in the planning, design, and/or funding of a project.

### 5.2.5. Ease of Implementation

Though project implementation is complex, the team developed a three-category grouping system to explain estimated ease or difficulty of implementing each Top 25 project: A – Easiest, B – Moderate, and C – Difficult.

The Group A projects will be relatively easy to implement. Projects in Group A are generally lower cost, require no acquisition of ROW, are unlikely to have environmental impacts, do not require construction that would interrupt or significantly impact traffic operations, and won't require utility relocation.

The Group B projects may be moderately difficult to implement relative to other projects on the list. Group B generally had a lower-to-moderate cost. Extensive traffic interruptions are not expected for projects in Group B; they likely involve minimal if any environmental impacts, will involve construction that could interrupt traffic operations, and are unlikely to require utility relocation.

The Group C projects will be more difficult to implement relative to other projects on the list. Group C projects are generally high cost, are likely to require acquisition of ROW and/or utility relocation, will involve construction that is likely to interrupt traffic operations, and will have moderate to extensive environmental impacts.
Chapter 6 Potential Funding Options
The full list of 116 potential projects from the AAMPO Subregional Planning Study was evaluated using a Funding Eligibility Evaluator. The results suggest there are numerous potential funding sources that should be considered for each of the unfunded projects on the list and these potential sources are in all four of the major categories for many of the projects:

- Local Sources
- State Sources
- Federal Sources
- Non-Governmental Sources

Although the Funding Eligibility Evaluator provides an indication of whether a particular source has the potential to provide funds for an individual project, it does not guarantee that funds would be available from the source. The evaluation conducted with the tool is intended to identify those potential sources that might be worth exploring. The sections below provide some of the major observations from the results of the Funding Eligibility Evaluator application for the AAMPO Subregional Planning Study.

The AAMPO Subregional Planning Study - Potential Funding Sources memo is included in Appendix L.

6.1 POTENTIAL LOCAL FUNDING SOURCES

Funding projects entirely with local dollars typically allows several aspects of the project, including design, to occur faster than projects with state and/or federal funding. Locally funded projects also do not need to compete with a large number of other projects to be considered for the AAMPO MTP and TIP, and may also include less stringent environmental restrictions. Even if a project is not entirely locally funded, a local match (20%) is typically required when using state and/or federal funds.

6.1.1. Bond and Tax Funding

All unfunded Top 25 projects are eligible for Property Tax revenue, the most likely source of funding for projects that are not in the TxDOT system. These projects could also potentially be included in a city or county Bond Program for use of property or general sales tax revenues if the projects were packaged together and received voter approval. With the exception of G4, they are also in jurisdictions with a local sales tax and are eligible for General Sales Tax revenue funding.

6.1.2. Special Assessment District Funding

Within Special Assessment Districts (SAD), property owners—typically business owners—will vote to dedicate a portion of their sales tax or property tax to fund some improvement or service that benefits the district. Of the unfunded Top 25 projects that are in a SAD, 12 could potentially be eligible for SAD revenue. These are CG7, B9, C3, C5, C6, C9, G17, G35, C1, C14, INT B7, and INT B8.

6.1.3. Traffic or Development Impact Fee Funding

In the study area, the Cities of Cibolo, New Braunfels, Schertz, and Seguin have Development Impact Fees, which attempt to place a portion of the burden of funding improvements on developers who are creating or adding to the need for improvements. Of the unfunded Top 25 projects in jurisdictions that have a Traffic or Development Impact Fee, nine could potentially be eligible for revenue from the impact fees. Eligibility depends on location of the project relative to new development and whether the improvement represented...
by the project is identified as necessary to mitigate the impact of expected future development. Eligible Top 25 projects include CG7, B9, C3, C5, C6, C9, CG2, G17, and G35.

6.1.4. Tax Increment Reinvestment Zone Funding
A tax increment reinvestment zone (TIRZ) is a political subdivision of a municipality or county. TIRZs must be economically depressed and have a deleterious effect on the economic future of the community. Of the unfunded Top 25 projects that are in a TIRZ, 14 could potentially be eligible for revenue from the source. To be eligible for this source, the project sponsor must be able to demonstrate that the project offsets the existing deleterious effect of the zone. Eligible unfunded Top 25 projects include CG7, B9, C3, C5, C6, C9, G17, G35, C1, C14, B13, G14, INT B7, and INT B8.

6.1.5. Economic Development Grants
The Development Corporation Act of 1979 gives cities the ability to finance new and expanded business enterprises in their local communities through Economic Development Districts (EDDs). Although many Subregional Planning Study projects are in EDDs, only one unfunded Top 25 project, CG7, is likely to lead to expanded business and is potentially eligible for Economic Development Grants.

6.1.6. Advanced Transportation District Funding
Advanced Transportation Districts (ATD) allow use of a local sales tax to fund advanced transportation projects. Half of the revenue generated from the ATD sales tax is allocated to VIA Metropolitan Transit to fund transit projects, with the remainder equally divided between the City of San Antonio and TxDOT (Bexar County) to fund streets, roads, and interstate projects. Only three of the unfunded Top 25 projects are within the ATD. These projects are in San Antonio, Schertz, or Converse and will support VIA, City of San Antonio, or TxDOT: B9, INT B7, and INT B8.

6.2 POTENTIAL STATE FUNDING SOURCES
Although there are twelve categories of TxDOT funding for transportation funding in Texas, three of them are strategic and discretionary funding categories allocated for specially defined uses by the Texas Transportation Commission or the TxDOT Districts and are not generally used to fund local projects:

- Category 10: Supplemental Transportation Programs
- Category 11: District Discretionary
- Category 12: Strategic Priority

Only the remaining nine TxDOT funding categories (Categories 1-9) were considered as potential funding sources for the Subregional Planning Study. While most of the nine state sources evaluated are not restricted to projects on the TxDOT state system, most of the decisions about the state sources are made by TxDOT Districts and projects on the state system have a better chance for funding. Four of the TxDOT funding categories (Categories 2, 5, 7 and 9) are distributed within urbanized areas by the MPO.

6.2.1. Category 1 – Preventive Maintenance and Rehabilitation
No projects were thought to be preventive maintenance or rehabilitation.
6.2.2. **Category 2 – Metropolitan and Urban Area Corridors**

The nine unfunded projects in the Top 25 that are on TxDOT facilities may potentially be eligible for Category 2, which addresses mobility and added capacity projects on urban corridors to mitigate traffic congestion, as well as increasing traffic safety and improving roadway maintenance or rehabilitation. Eligible Top 25 projects include CG7, C9, CG2, G35, C1, G3, G4, INT B7, and INT B8.

6.2.3. **Category 3 - Non-Traditional**

All unfunded Top 25 projects may be considered for Category 3, which includes all non-TxDOT funding sources. Those sources are covered in the Local and Non-Governmental categories in this memorandum.

6.2.4. **Category 4 – Statewide Connectivity Corridors**

There are five unfunded Top 25 projects eligible for Category 4. These are general projects on major state highway system corridors that provide statewide connectivity between urban areas and other statewide corridors, helping to create a highway connectivity network. Eligible Top 25 projects include CG7, C1, G3, INT B7, and INT B8.

6.2.5. **Category 5 – Congestion Mitigation and Air Quality Improvement (CMAQ)**

Projects that could reduce vehicle traffic and pollutant emission and are in the non-attainment area (Bexar County) would be eligible for Category 5. Eligible projects must reduce pollutant emissions and help address the non-attainment status. There are three potentially eligible unfunded Top 25 projects for this source of funding if an emission reduction benefit can be demonstrated: B13, INT B7, and INT B8.

6.2.6. **Category 6 – Structure Rehabilitation and Replacement**

None of the projects considered are related to bridge or structure rehabilitation or replacement.

6.2.7. **Category 7 – Metropolitan Mobility and Rehabilitation**

Projects that address transportation needs within the boundaries of transportation management areas (TMA) [areas with populations of 200,000 or more] are eligible for Category 7. The entire study area is within a TMA, so all unfunded Top 25 projects would be eligible for this funding category. Projects would be selected by AAMPO through a competitive process. MPOs use a performance-based prioritization process that assesses mobility needs within the MPO boundaries.

6.2.8. **Category 8 - Safety**

All projects that would improve safety are eligible for Category 8, but these projects generally have to be in TxDOT’s Highway Safety Improvement Program (HSIP) and are generally on TxDOT facilities. These funds are allocated by TxDOT. Of the unfunded Top 25 projects, 10 would potentially be eligible for this category of funding: CG7, C1, C14, G3, G4, B13, G14, G2, INT B7, and INT B8.

6.2.9. **Category 9 – Transportation Alternatives (TA)**

All seven unfunded active transportation projects in the Top 25 would be eligible for Category 9. These include C1, C14, G3, G4, B13, G14, and G2. For urbanized areas with populations over 200,000, the MPO selects TA projects through a competitive process. All projects are selected using a performance-based prioritization process that assesses local transportation needs, including bicycle and pedestrian access.
6.3 POTENTIAL FEDERAL FUNDING SOURCES

The opportunities for specialized federal funds for unfunded Subregional Planning Study projects may be somewhat limited outside of the federal funds distributed through TxDOT funding categories. In addition to grant opportunities that may result from the recently-passed Infrastructure Investments and Jobs Act (IIJA), three programs may provide options for some projects.

6.3.1. Rebuilding American Infrastructure With Sustainability And Equity (RAISE) Grants

RAISE Grants, formerly known as BUILD and TIGER, have awarded over $8.935 billion to projects in all 50 states, the District of Columbia, and Puerto Rico since 2009. Projects for RAISE funding are evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, USDOT gives priority to projects that can demonstrate improvements to racial equity, reduce impacts of climate change, and create good-paying jobs. Many of the unfunded Subregional Planning Study Top 25 active transportation projects (C1, C14, G3, G4, B13, G14, and G2) may be eligible for RAISE grants. In the past, RAISE projects have had to be “shovel-ready” so significant planning will need to take place to make these projects shovel-ready, fully eligible, and competitive.

6.3.2. Infrastructure For Rebuilding America (INFRA) Grant Program and the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program

The INFRA Grant Program and the TIFIA Program provide federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. SH 46 between IH-10 and IH-35 likely meet the 23 CFR § 450.104 definition of regionally significant due to its facilitation of access to and from the area outside the region. Therefore, CG7 may be eligible for funding through one or both of these programs.

6.4 POTENTIAL NON-GOVERNMENTAL FUNDING SOURCES

Numerous non-governmental organizations also provide funding for grants to achieve specific goals in transportation development. Three specific grant programs include:

- AARP Community Challenge Grant Program
- Blue Cross Blue Shield Grant Program
- Cigna Grant Programs

This list above provides a sampling of the private grant programs available. The main criteria for these three programs is that the projects improve the health and well-being of the communities in which they are implemented. All nine active transportation projects on the Top 25 list may be potentially eligible.
Chapter 7 Recommended Projects
The 25 projects discussed in this section ranked highest in the performance-based prioritization process described in Chapter 5.0. The entire list of 116 projects with their rankings is included in Appendix A. Section 5.2 details the post-assessment categories used to describe the Top 25 projects below.

### 7.1 TOP 25 PROJECTS

*Table 24* contains the Top 25 projects with their rank, Ease of Implementation Group, and Benefit-Cost Ratio.

*Table 24: Summary of Top 25 Projects with Ease of Implementation and BCR*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Identifier</th>
<th>Project Source</th>
<th>Ease of Implementation Group</th>
<th>Benefit-Cost Ratio</th>
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</table>
### 7.1.1. SH 123 Widening (ID: GH1)

**Project Rank**

1

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#### Project Source

AAMPO 2045 MTP

#### Project Description

Widen roadway and shoulders to provide operational improvements from the Guadalupe/Hays County Line to Cordova Lane in Seguin.

#### Project Length

12.46 mi

#### Cost in MTP

$60,950,000

#### Project Partners

TxDOT, Guadalupe County, Hays County, City of Seguin (multi-jurisdictional)

#### Benefit-Cost Ratio

1.02

#### Funding Options*

Property Tax, Bond, Sales Tax, TxDOT Cat 2, 3, 4, 7, and 8, TIFIA

#### Ease of Implementation

*C (Difficult): involves an extended length of roadway (approximately 12.5 miles) through two counties and may require ROW acquisition. Existing roadway crosses multiple areas of floodway and 100-yr floodplain, as well as mapped wetlands.

#### Why It Ranked Well

Supports goals 1, 2, 4, 5, and 6. Addresses traffic congestion, provides opportunities for enhanced transit services connecting to employment centers. Scores in the volumes and reliability project data categories as well as scoring higher than other listed projects in its total safety score (i.e., having a high safety need). Supports economic development and freight, planned multimodal facilities implementation, and is in proximity to a school.

*Funding options defined in greater detail in *Chapter 6.0*
7.1.2. **FM 78 On-Street Bike Lanes – II (ID: G3)**

### Project Rank

![Project Rank 2]

### Project Source

Consultant Team

### Project Description

Adding bike lanes to both directions of this existing roadway from FM 1518 in Schertz, through Cibolo, and ending at the Marion city limit.

### Project Length

7.72 mi

### Planning-Level Estimated Cost

$425,000

### Project Partners

Guadalupe County, Cities of Cibolo, Schertz, and Santa Clara (multi-jurisdictional)

### Benefit-Cost Ratio

4.32

### Funding Options

Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

### Ease of Implementation

*B (Moderate)*: If existing footprint cannot accommodate bike lanes, difficulty will increase.

### Why it Ranked Well

Supports goals 1, 2, 4, 5, and 6. Will provide for efficient, multimodal mobility with emphasis on providing a safe, connected, and integrated network along a currently congested corridor. Addresses a corridor with safety concerns, economic development considerations, and freight movement.

### Other Notes

Reduction in travel lanes to accommodate bike lanes not suggested.
### 7.1.3. FM 1518 Expansion – III (ID: B29)

**Project Rank**
3

**Project Source**
AAMPO 2045 MTP

**Project Description**
Expansion from 2 to 4 lanes and add a raised median or center left turn lane, bike lanes, and sidewalks from FM 78 to the IH-10 westbound frontage road in Schertz.

**Project Length**
5.41 mi

**Cost in MTP**
$65,020,000

**Project Partners**
TxDOT, City of Schertz (multi-jurisdictional)

**Benefit-Cost Ratio**
0.54

**Funding Options**
Property Tax, Bond, Sales Tax, Special Assessments, Development Impact Fee, TIRZ, ATD, TxDOT Cat 2, 3, 4, 7, and 8, TIFIA

**Ease of Implementation**
C (Difficult): This expansion project involves an extended length of roadway (approximately 5.5 miles) that may require ROW acquisition. The existing roadway runs parallel to a floodway and crosses multiple areas of 100-yr floodplain, as well as mapped wetlands.

**Why It Ranked Well**
Supports goals 1, 2, 4, and 5. Improves a corridor with congestion/volume in addition to other reliability concerns. Supports freight movement and planned bike/ped facilities, and coordination between land use and transportation to address future mobility issues. Will help provide a connected and integrated multimodal network to increase transportation options.

**Other Notes**
Project is funded; currently in design phase. Expected to let Fall 2024.
7.1.4. FM 1103 Expansion – I (ID: CG2)

**Project Rank**

4

**Project Source**

City of Schertz 2017 Thoroughfare Plan

**Project Description**

Expansion from 2 to 4 lanes and add sidewalks from the IH-35 northbound frontage through Schertz and Cibolo to the Cibolo city limit near County Road 374.

**Project Length**

3.24 mi

**Planning-Level Estimated Cost**

$20,000,000

**Project Partners**

TxDOT, City of Cibolo, City of Schertz (multi-jurisdictional)

**Benefit-Cost Ratio**

1.55

**Funding Options**

Property Tax, Bond, Sales Tax, TxDOT Cat 2 and 3, Traffic or Development Impact Fee

**Ease of Implementation**

C (Difficult): Involves a moderate length of roadway (approximately 3.25 miles) that may require ROW acquisition. Existing roadway crosses a 100-yr floodplain.

**Why It Ranked Well**

Supports goals 1, 2, 4 and 5. Addresses a corridor with volume/congestion and reliability needs. Addresses some multimodal considerations since the project connects to a freight route.

**Other Notes**

Project is funded; currently in design phase.
### 7.1.5. SL 1604 Intersection Improvements – II (ID: INT B8)

**Project Rank**

5

**Project Source**

Consultant Team

**Project Description**

Improvements, including updating signal timing and increasing length of turn bays, at the intersection of westbound IH-10 frontage road and SL 1604.

**Project Length**

N/A

**Planning-Level Estimated Cost**

N/A (Project Complete)

**Project Partners**

TxDOT (not multi-jurisdictional)

**Benefit-Cost Ratio**

74.84

**Funding Options**

N/A (Project Complete)

**Ease of Implementation**

A (Easy): Involve minimal disruptions to existing operations and can be completed in a relatively short time frame.

**Why It Ranked Well**

Supports goals 1, 2, 4, and 6. Addresses an area with volume/congestion and reliability needs. May improve freight movement and defense access. Likely to support tourist activity in the area.

**Other Notes**

Project complete
### 7.1.6. FM 1101 Expansion (ID: C9)

#### Project Source
Oversight Committee

#### Project Description
Expansion from 2 to 4 lanes and adding sidewalks from Barbarosa Road to Kohlenberg Road in New Braunfels.

#### Project Length
1.87 mi

#### Planning-Level Estimated Cost
$15,420,000

#### Project Partners
TxDOT, City of New Braunfels (multi-jurisdictional)

#### Benefit-Cost Ratio
0.74

#### Funding Options
Property and Sales Tax, Bond, TxDOT Cat 2 and 3, SAD, Traffic or Development Impact Fee, TIRZ

#### Ease of Implementation
*C (Difficult):* May require ROW acquisition. Existing roadway crosses a 100-yr floodplain that contains a floodway and mapped wetlands.

#### Why It Ranked Well
Supports goals 1, 2, 4, and 5. Increases capacity on a corridor with volume and reliability concerns, adds sidewalks for increased pedestrian safety, and connects to freight route.
### Project Rank

**7**

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#### Project Source
Consultant Team

#### Project Description
Improvements, including updating signal timing and increasing length of turn bays, at the intersection of eastbound IH-10 frontage road and SL 1604.

#### Project Length
N/A

#### Planning-Level Estimated Cost
N/A (Project Complete)

#### Project Partners
TxDOT (not multi-jurisdictional)

#### Benefit-Cost Ratio
26.85

#### Funding Options
N/A (Project Complete)

#### Ease of Implementation
A (Easy): Involves minimal disruptions to existing operations and can be completed in a relatively short time frame.

#### Why It Ranked Well
Supports goals 1, 2, 4, and 6. Addresses an area with volume/congestion and reliability needs. May improve freight movement and defense access. Likely to support tourist activity in the area.

#### Other Notes
Project complete
7.1.8. **FM 1103 Expansion – II (ID: G27)**

**Project Rank**

8

**Project Source**
AAMPO 2045 MTP

**Project Description**
Expansion from 2 to 4 lanes and add median, bike lanes, and sidewalks from FM 78 to Rodeo Way in Cibolo.

**Project Length**
1.84 mi

**Cost in MTP**
$30,286,000

**Project Partners**
TxDOT, City of Cibolo (multi-jurisdictional)

**Benefit-Cost Ratio**
0.83

**Funding Options**
Property Tax, Bond, Sales Tax, Development Impact Fee, TIRZ, ATD, TxDOT Cat 2, 3, and 7, TIFIA, RRIF

**Ease of Implementation**

C (Difficult): Involves a moderate length of roadway (approximately 2 miles) that may require ROW acquisition. Existing roadway crosses a floodway and multiple areas of 100-yr floodplain.

**Why It Ranked Well**
Supports goals 1, 2, 4, 5, and 6. Addresses a corridor with congestion and reliability concerns, supports multimodality, and is in proximity to a school.
### 7.1.9. Kowald Lane Expansion (ID: C5)

**Project Rank**

9

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**Project Source**

Oversight Committee

**Project Description**

Expansion from 2 to 3 lanes and add sidewalks from the IH-35 northbound frontage road to FM 1101 in New Braunfels.

**Project Length**

0.77 mi

**Planning-level Estimated Cost**

$1,760,000

**Project Partners**

City of New Braunfels (not multi-jurisdictional)

**Benefit-Cost Ratio**

0.33

**Funding Options**

Property and Sales Tax, Bond, TxDOT Cat 3, SAD, Traffic or Development Impact Fee, TIRZ

**Ease of Implementation**

B (Moderate): Involves a moderate length of roadway (approximately 2 miles) that may require ROW acquisition.

**Why It Ranked Well**

Supports goals 1, 2, and 4. Addresses a corridor with congestion and volume concerns. In close proximity to a school, and supports multimodality initiatives.
7.1.10.FM 758 Expansion (ID: G35)

**Project Rank**

10

**Project Source**

Oversight Committee

**Project Description**

Expansion from 2 to 4 lanes from SH 46 to Airport Road in New Braunfels, and realign western portion to meet the future Weltner Road Parkway (Project G34) at SH 46.

**Project Length**

3.00 mi

**Planning-level Estimated Cost**

$20,000,000

**Project Partners**

TxDOT, Guadalupe County, City of New Braunfels (multi-jurisdictional)

**Benefit-Cost Ratio**

1.73

**Funding Options**

Property and Sales Tax, Bond, TxDOT Cat 2 and 3, SAD, Traffic or Development Impact Fee, TIRZ

**Ease of Implementation**

B (Moderate): Involves a moderate length of roadway (approximately 2 miles) that will require ROW acquisition in the portions of the roadway that are new construction.

**Why It Ranked Well**

Supports goals 1, 2, 4, and 5. Addresses a corridor with congestion and volume concerns and supports multimodal considerations via improved access to the public airport and planned bike/ped facilities.
7.1.11. FM 3009 On-Street Bike Lanes (ID: C1)

**Project Rank**

11

**Project Source**

Consultant Team

**Project Description**

Add bike lanes to both directions of this existing roadway from Schoenthal Road in Garden Ridge to Tri-County Parkway in Schertz.

**Project Length**

2.82 mi

**Planning-Level Estimated Cost**

$160,000

**Project Partners**

City of Schertz, City of Garden Ridge (multi-jurisdictional)

**Benefit-Cost Ratio**

35.61

**Funding Options**

Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

**Ease of Implementation**

A (Easy): Involves striped bike lanes in the existing footprint of FM 3009.

**Why It Ranked Well**

Supports goals 1, 2, 5, and 6. Addresses a corridor with reliability concerns and supports multimodal transportation options.

**Other Notes**

Reduction in travel lanes to accommodate bike lanes not suggested.
7.1.12. Guadalupe River/Lake McQueeney Trail (ID: G2)

**Project Rank**

12

**Project Source**

Consultant Team

**Project Description**

Construct a 10-ft to 12-ft shared-use bicycle/pedestrian trail along the northern/eastern shore of the Guadalupe River and Lake McQueeney in Guadalupe County.

**Project Length**

6.74 mi

**Planning-Level Estimated Cost**

$3,500,000

**Project Partners**

Guadalupe County, City of Seguin (multi-jurisdictional)

**Benefit-Cost Ratio**

This project is not associated with a roadway and the methodology used to develop the BCR requires inputs including AADT, capacity, and safety improvements. The team recommends a non-traditional BCA be developed for this project if implementation is pursued.

**Funding Options**

Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

**Ease of Implementation**

C (Difficult): Trail is an extended length (approximately 7 miles) that will require extensive ROW acquisition, requires construction in a floodway and 100-yr floodplain, and will cross an active railroad track.

**Why It Ranked Well**

Supports goals 1, 2, 5, and 6. Will improve the study area’s multimodality elements and is likely to benefit a nearby school.
### 7.1.13. SH 46 Expansion (ID: CG7)

<table>
<thead>
<tr>
<th><strong>Project Rank</strong></th>
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</thead>
</table>

#### Project Source
AAMPO 2045 MTP – Unfunded Projects List

#### Project Description
Expansion from 4 to 6 lanes from IH-35 in New Braunfels to IH-10 in Seguin.

#### Project Length
10.14 mi

#### Planning-Level Estimated Cost
$600,000,000

#### Project Partners
TxDOT, Guadalupe County, City of New Braunfels, City of Seguin (multi-jurisdictional)

#### Benefit-Cost Ratio
3.01

#### Funding Options
Property and Sales Tax, Bond, TxDOT Cat 2, 3, 4, and 8, SAD, Traffic or Development Impact Fee, TIRZ, EDD, INFRA, TIFIA

#### Ease of Implementation
**C (Difficult):** Involves an extended length of roadway (approximately 10 miles) that may require ROW acquisition. Existing roadway crosses multiple areas of 100-yr floodplain and mapped wetlands, and will cross an active railroad track.

#### Why It Ranked Well
Supports goals 1, 2, 4, 5 and 6. Will improve a corridor with volume, congestion and safety considerations. Likely to improve freight movement.
7.1.14.FM 78 On-Street Bike Lanes – I (ID: G4)

**Project Rank**

14

**Project Source**

Consultant Team

**Project Description**

Add bike lanes to both directions of this existing roadway from Vernell Lane (east of Marion) to the Guadalupe River in McQueeney.

**Project Length**

5.24 mi

**Planning-Level Estimated Cost**

$300,000

**Project Partners**

Guadalupe County (not multi-jurisdictional)

**Benefit-Cost Ratio**

8.46

**Funding Options**

Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

**Ease of Implementation**

B (Moderate): If existing footprint cannot accommodate bike lanes, difficulty will increase.

**Why It Ranked Well**

Supports goals 1, 2, 4 and 6. Addresses a roadway with congestion and volume concerns. Supports multimodal initiatives via the development of bicycle lanes.

**Other Notes**

Reduction in travel lanes to accommodate bike lanes not suggested.
### 7.1.15. Olympia Parkway Shared Use Path – I (ID: B13)

<table>
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<tr>
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#### Project Source
City of Selma 2018 Trails and Branding Master Plan

#### Project Description
Construct a 10-ft to 12-ft trail parallel to Olympia Parkway and include a 6-ft wide tree buffer from the Selma/Universal City border to Agora Parkway in Selma.

#### Project Length
0.36 mi

#### Planning-level Estimated Cost
$380,000

#### Project Partners
City of Selma (not multi-jurisdictional)

#### Benefit-Cost Ratio
0.43

#### Funding Options
Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

#### Ease of Implementation
**B (Moderate):** May involve acquisition of ROW to accommodate addition of shared-use path alongside Olympia Parkway.

#### Why It Ranked Well
Supports goals 1, 2, and 4. Supports multimodal enhancements and is located near a school. Addresses a corridor with reliability concerns.
### 7.1.16. Woodland Oaks Drive On-Street Bike Lanes and Shared Use Path (ID: G29)

#### Project Rank
![Project Rank 16](image)

#### Project Source
AAMPO 2019 – 2022 TIP

#### Project Description
Add bike lanes and construct a 10-ft to 12-ft trail (including a 6-ft wide tree buffer) parallel to both directions of this existing roadway in Schertz from FM 3009 to Schertz Parkway.

#### Project Length
0.99 mi

#### Cost in TIP
$1,158,266

#### Project Partners
City of Schertz (not multi-jurisdictional)

#### Benefit-Cost Ratio
1.61

#### Funding Identified in TIP
TxDOT Cat 9 (Transportation Alternatives), Other (local match)

#### Ease of Implementation
B (Moderate): May involve acquisition of ROW to accommodate addition of shared-use path alongside Woodland Oaks Drive.

#### Why It Ranked Well
Supports goals 1, 2, and 4. Addresses multimodality concerns by constructing on street bike lanes and a shared use path. These improvements are expected to improve overall corridor safety.

#### Other Notes
Reduction in travel lanes to accommodate bike lanes not suggested.
7.1.17. New roadway from IH-35 Frontage Road to FM 1044 (ID: C6)

**Project Rank**

17

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</thead>
<tbody>
<tr>
<td><strong>Project Description</strong></td>
<td>Construct new 4 lane divided roadway with sidewalks from FM 1044 north of Weil Road in Guadalupe County to the IH-35 frontage road in New Braunfels.</td>
</tr>
<tr>
<td><strong>Project Length</strong></td>
<td>2.59 mi</td>
</tr>
<tr>
<td><strong>Planning-Level Estimated Cost</strong></td>
<td>$19,780,000</td>
</tr>
<tr>
<td><strong>Project Partners</strong></td>
<td>Guadalupe County, City of New Braunfels (multi-jurisdictional)</td>
</tr>
<tr>
<td><strong>Benefit-Cost Ratio</strong></td>
<td>0.33</td>
</tr>
<tr>
<td><strong>Funding Options</strong></td>
<td>Property and Sales Tax, Bond, TxDOT Cat 3, SAD, Traffic or Development Impact Fee, TIRZ</td>
</tr>
<tr>
<td><strong>Ease of Implementation</strong></td>
<td>C (Difficult): Will require extensive ROW acquisition. Planned corridor crosses mapped wetlands.</td>
</tr>
<tr>
<td><strong>Why It Ranked Well</strong></td>
<td>Supports goals 1, 2, 4, and 5. Addresses an area with limited connectivity to IH-35 and is expected to mitigate congestion and volume concerns. Planned pedestrian facility will support multimodal options.</td>
</tr>
</tbody>
</table>
7.1.18. FM 725 Expansion (ID: G26)

**Project Rank**

18

**Project Source**

AAMPO 2045 MTP

**Project Description**

Expansion from 2 to 4 lanes, adding sidewalks from FM 78 in McQueeney to Zipp Road in New Braunfels, and developing intersection improvements at FM 78 and Zipp Road.

**Project Length**

6.11 mi

**Cost in MTP**

$32,791,000

**Project Partners**

TxDOT, Guadalupe County, City of New Braunfels (multi-jurisdictional)

**Benefit-Cost Ratio**

1.23

**Funding Options**

Property Tax, Bond, Sales Tax, Special Assessments, Development Impact Fee, TxDOT Cat 2, 3, and 7, RRIF

**Ease of Implementation**

C (Difficult): Involves an extended length of roadway (approximately 6 miles) that may require ROW acquisition. Existing roadway crosses multiple areas of 100-yr floodplain and mapped wetlands, and will cross an active railroad track.

**Why It Ranked Well**

Supports goals 1, 2, 4, and 5. Supports volume and reliability improvements by expanding the existing roadway. This project is likely to improve future transit access with additional sidewalks and is likely to benefit access to a nearby school.

**Other Notes**

Project is funded
### Project Rank

<table>
<thead>
<tr>
<th>7.1.19. Common Street Expansion (ID: C3)</th>
</tr>
</thead>
</table>

#### Project Source
Oversight Committee

#### Project Description
Expansion from 2 to 4 lanes, add sidewalks from SH 46 to FM 306, and develop intersection improvements at SH 46 and FM 306.

#### Project Length
1.90 mi

#### Planning-Level Estimated Cost
$12,300,000

#### Project Partners
City of New Braunfels (not multi-jurisdictional)

#### Benefit-Cost Ratio
1.41

#### Funding Options
Property and Sales Tax, Bond, TxDOT Cat 3, SAD, Traffic or Development Impact Fee, TIRZ

#### Ease of Implementation
**B (Moderate):** This expansion project involves a moderate length of roadway (approximately 2 miles) that may require ROW acquisition.

#### Why It Ranked Well
Supports goals 1 and 2. Will increase capacity on a corridor with congestion and reliability concerns and will provide pedestrian enhancements.
7.1.20. River Road On-Street Bike Lanes (ID: C14)

**Project Rank**

20

**PROJECT SOURCE**

Consultant Team

**PROJECT DESCRIPTION**

Add bike lanes in both direction from Lakeview Boulevard in New Braunfels to the Guadalupe River in Comal County.

**PROJECT LENGTH**

3.11 mi

**PLANNING-LEVEL ESTIMATED COST**

$170,000

**PROJECT PARTNERS**

Comal County, City of New Braunfels (multi-jurisdictional)

**BENEFIT-COST RATIO**

5.74

**FUNDING OPTIONS**

Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs

**EASE OF IMPLEMENTATION**

A (Easy): Involves striping bike lanes in the existing footprint of River Road.

**WHY IT RANKED WELL**

Supports goals 1, 2, 5, and 6. Improves a corridor with reliability considerations through the implementation of bicycle lane facilities. Likely to improve the overall corridor safety.

**OTHER NOTES**

Reduction in travel lanes to accommodate bike lanes not suggested.
### 7.1.21. Savannah Drive Shared Use Path (ID: G14)

<table>
<thead>
<tr>
<th><strong>Project Source</strong></th>
<th>City of Selma Trails and Branding Master Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Description</strong></td>
<td>Construct a 10-ft to 12-ft trail parallel to Savannah Drive and include a 6-ft wide tree buffer from FM 1518 running behind the western edge of Kensington Ranch.</td>
</tr>
<tr>
<td><strong>PROJECT LENGTH</strong></td>
<td>0.63 mi</td>
</tr>
<tr>
<td><strong>Planning-level Estimated Cost</strong></td>
<td>$650,000</td>
</tr>
<tr>
<td><strong>Project Partners</strong></td>
<td>City of Schertz, City of Selma (multi-jurisdictional)</td>
</tr>
<tr>
<td><strong>Benefit-Cost Ratio</strong></td>
<td>0.25</td>
</tr>
<tr>
<td><strong>Funding Options</strong></td>
<td>Property Tax, Bond, Sales Tax, TxDOT Cat 3, Non-governmental grant programs</td>
</tr>
<tr>
<td><strong>Ease of Implementation</strong></td>
<td>B (Moderate): May involve acquisition of ROW to accommodate addition of shared-use path alongside Savannah Drive.</td>
</tr>
<tr>
<td><strong>Why It Ranked Well</strong></td>
<td>Supports goals 1, 2, 4, and 5 through the implementation of a trail that will improve the bicycle and pedestrian network in proximity to a school. Likely to improve safety conditions along the corridor by reducing interaction with motor vehicles.</td>
</tr>
</tbody>
</table>
7.1.22.SH 123 Expansion (ID: G25)

**Project Rank**

![Map of G25 Project]

<table>
<thead>
<tr>
<th><strong>Project Source</strong></th>
<th>AAMPO 2045 MTP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Description</strong></td>
<td>Expansion from 2 to 4 lanes with raised median or center left turn lane from Cordova Road to IH-10 in Seguin.</td>
</tr>
<tr>
<td><strong>Project Length</strong></td>
<td>2.30 mi</td>
</tr>
<tr>
<td><strong>Cost in MTP</strong></td>
<td>$19,748,000</td>
</tr>
<tr>
<td><strong>Project Partners</strong></td>
<td>TxDOT, City of Seguin (multi-jurisdictional)</td>
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<tr>
<td><strong>Benefit-Cost Ratio</strong></td>
<td>0.99</td>
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<tr>
<td><strong>Funding Options</strong></td>
<td>Property Tax, Bond, Sales Tax, Development Impact Fee, TxDOT Cat 2, 3, 4, and 7</td>
</tr>
<tr>
<td><strong>Ease of Implementation</strong></td>
<td>C (Difficult): Involves a moderate length of roadway (approximately 2.5 miles) that may require ROW acquisition. Project crosses mapped wetlands.</td>
</tr>
<tr>
<td><strong>Why It Ranked Well</strong></td>
<td>Supports goals 1, 2, 4 and 6. Will add travel lanes to a corridor with congestion and volume concerns. Likely to benefit freight movement and military STRAHNET routes. Likely to support future transit efforts.</td>
</tr>
<tr>
<td><strong>Other Notes</strong></td>
<td>Project is funded.</td>
</tr>
</tbody>
</table>
7.1.23. New Roadway from Binz Engleman to Pfeil Road (ID: B9)

<table>
<thead>
<tr>
<th><strong>Project Rank</strong></th>
<th><strong>23</strong></th>
</tr>
</thead>
</table>

**Project Source**  
City of Schertz 2017 Thoroughfare Plan

**Project Description**  
Construct a new 4-lane divided roadway with sidewalks.

**PROJECT LENGTH**  
2.61 mi

**Planning-level Estimated Cost**  
$21,000,000

**Project Partners**  
City of San Antonio, City of Schertz (multi-jurisdictional)

**Benefit-Cost Ratio**  
0.14

**Funding Options**  
Property and Sales Tax, Bond, TxDOT Cat 3, SAD, Traffic or Development Impact Fee, TIRZ, ATD

**Ease of Implementation**  
*C (Difficult)*: Will require extensive ROW acquisition. Planned corridor crosses mapped wetlands, streams, and floodplains.

**Why It Ranked Well**  
Supports goals 1, 2, and 5. Will cross multiple jurisdictions and is anticipated to improve movement of vehicles, pedestrians, freight, and military equipment through the study area. Likely to improve congestion and safety within the area.
7.1.24. Four Oaks Lane Extension (ID: G17)

**Project Rank**

| Rank | 24 |

**Project Source**
City of Schertz 2017 Thoroughfare Plan

**Project Description**
Extension of Four Oaks Lane from its current eastern terminus to Cibolo Valley Drive.

**PROJECT LENGTH**
0.53 mi

**Planning-level Estimated Cost**
$4,000,000

**Project Partners**
City of Schertz (not multi-jurisdictional)

**Benefit-Cost Ratio**
0.16

**Funding Options**
Property and Sales Tax, Bond, TxDOT Cat 3, SAD, Traffic or Development Impact Fee, TIRZ

**Ease of Implementation**
C (Difficult): Will require ROW acquisition. Planned corridor crosses a 100-yr floodplain.

**Why It Ranked Well**
Supports goals 1, 2, and 4. Will lengthen a corridor with current volume and congestion concerns. Likely to include bicycle and pedestrian facility improvements with the possibility to improve freight movement through the study area.
### Project Rank

**25**

---

### Project Source
AAMPO FY 2019 – 2022 TIP

### Project Description
Add bike lanes and construct a 10-ft to 12-ft trail (including a 6-ft wide tree buffer) parallel to both directions of this existing roadway in Schertz from FM 3009 to Schertz border with Selma.

### Project Length
1.76 mi

### Cost in TIP
$1,158,266

### Project Partners
City of Schertz

### Benefit-Cost Ratio
1.36

### Funding Identified in TIP
- TxDOT Cat 9 (Transportation Alternatives), Other (local match)

### Ease of Implementation
*B (Moderate)*: May involve the acquisition of ROW to accommodate the addition of a shared-use path alongside Savannah Drive.

### Why It Ranked Well
Supports goals 1, 2, and 4. This bike lane and shared use path project addresses a corridor with volume and reliability concerns with the addition of multimodal initiatives. Likely to benefit nearby school through these multimodal elements.

### Other Notes
Reduction in travel lanes to accommodate bike lanes not suggested.
Chapter 8 Project Implementation Strategies
There are several strategies that can be leveraged to facilitate the implementation of federally, state, and locally funded projects. These strategies are outlined below.

8.1 PROJECT ADVANCEMENT COMMITTEES
Establishing an Advancement Committee for each project will help to expedite the project planning and implementation process. This committee can oversee planning to advance the project and ensure appropriate readiness to be competitive in the TIP Call for Projects.

- **PROJECT ADVANCEMENT COMMITTEES CHECKLIST**
  - Establish a committee comprised of representatives from the Project Partners
  - Identify a committee leader who will also be the Project Champion, taking accountability for moving the project planning process forward.
  - Include a member of an appropriate AAMPO committee, such as a Technical Advisory Committee (TAC) member for roadway projects and an Active Transportation Advisory Committee (ATAC) member for bike/ped projects.
  - Meet regularly to identify appropriate stakeholders, develop project scopes, ensure eligibility for federal funds, and support the completion of future planning studies (as applicable).
  - Help to integrate local maintenance plans into the project advancement process to streamline efforts and find ways to maximize limited funding resources.

- **AGENCY COORDINATION CHECKLIST**
  - Consider developing Memoranda of Understanding (MOU) or other agreements with TxDOT and adjacent municipalities to facilitate planning, funding, execution, and maintenance.
  - Obtain letters of commitment for local match from potential Project Partners.
  - Identify potential collaboration opportunities with already-planned projects e.g. including bike lanes in a County re-striping project.
8.2 AGENCY COORDINATION

Sixteen of the Top 25 recommended projects in this Plan are multi-jurisdictional. One of the Study’s goals is to promote regional collaboration, so a project being multi-jurisdictional helped it to score well in the performance-based ranking process. Many federal grant programs favor multi-jurisdictional projects, so letters of commitment from all jurisdictions to match funding contributions will help improve project scores on grant applications.

8.3 AAMPO STAFF LIAISON AND CHECK-IN PROGRAM

In addition to the primary Project Champion leading the Project Advancement Committee, it will also be helpful to have a specific champion from AAMPO to help keep the process running smoothly and in a timely
This AAMPO Staff Liaison should check in at least once quarterly with the Project Champion to assess project status.

8.4 SPECIAL FUNDING

Because Bexar County is in air quality non-attainment of the national ambient air quality standard for ozone, projects located in Bexar County may be eligible for funding through the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. CMAQ funds support transportation projects that reduce mobile source emissions.

The Surface Transportation Program (STP) may be another special funding option for Subregional Planning Study projects. STP is a grant program developed as part of the MAP-21 law. The STP provides funding for both state and local government projects for both maintenance and improvements on any facility eligible for Federal funds.

8.5 ENHANCED FEDERAL FUNDING OPPORTUNITIES

Grant programs such as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) give TxDOT and local Project Partners an avenue to obtain funding for projects that may not be eligible or are not strong candidates for more traditional state and federal funding programs. Projects that can demonstrate an expected return on economic investment are more likely to receive funding from these programs, so multi-jurisdictional projects with a high BCR would be good candidates for these grants. Active transportation projects that do not have a high BCR in a traditional Benefit-Cost Analysis may still score well in a RAISE grant application if a significant public health benefit can be demonstrated. As is the case with most federal funding, these grant programs require a 20% local funding match.

The IIJA will also provide additional funding for federal grants as well as other programs that focus on complete streets and safety such as the Safe Streets and Roads for All Grant Program, the Local and Regional Project Assistance program, and the Railroad Crossing Elimination Program.
8.6 COLLABORATION WITH DEVELOPERS AND INTEREST GROUPS

The population of the Subregional Planning Study Area is growing at a tremendous rate, resulting in extensive commercial and residential development.

Additionally, special interest groups, such as the non-profit The Great Springs Project, may be good partners in planning active transportation projects. The Great Springs Project is working to create a connected greenway of protected lands between Austin and San Antonio. Though their work area doesn’t technically overlap the Subregional Planning Study area, they have been engaged in many of the discussions that have occurred during this study and have expressed an interest in collaboration where possible.

Please see Appendix M for our AAMPO Subregional Planning Study: Multi-Jurisdiction Implementation for Active Transportation Projects memo.

---

**COLLABORATION WITH DEVELOPERS & INTEREST GROUPS CHECKLIST**

- Project partners review plans for development in vicinity of project
- Project partners reach out to developers to help fund projects that benefit all residents
  - Greenways
  - Bike lanes
  - Shared use paths
- Consider implementing policies to encourage mixed-use developments and encourage transit-oriented developments
- Reach out to interest groups like The Great Springs Project to identify opportunities for project collaboration
Chapter 9 Next Steps
9.1 MONITORING PROGRAM TO TRACK PERFORMANCE

In keeping with the national shift to a performance-based planning approach, the team recommends AAMPO and Project Partners utilize the FHWA-recommended SMART approach. Using the SMART approach, goals are expected to be:

- **Specific**
- **Measurable**
- **Agreed-upon**
- **Realistic**
- **Time-bound**

Project recommendations and progress from this Subregional Planning Study should be assessed on a regular basis to determine the current status, issues impeding the anticipated implementation schedule, and potential strategies to overcome these issues. These assessments should be conducted a minimum of once per fiscal year. However, the team recommends a minimum of quarterly meetings of Project Advancement Committees to keep implementation top-of-mind. A comprehensive Year 1 Implementation Checklist is included at the end of this Section. Each project slated for implementation will benefit from having one of these checklists during the first year of the implementation process.

9.2 MOVING FORWARD WITH TRANSIT

One of the Study goals identified by the SOC was to identify opportunities for increased and enhanced transit services within the area. Though an important goal, it was tricky to achieve it because there is currently very little transit in the Subregion. There is a very limited deviated fixed-route service operated by the Alamo Regional Transit (ART) in downtown Seguin and ART also provides pickup by advanced appointment to those in the study area. On-demand rides are available in the Bexar County portion of the study area through VIA’s on-demand ride-share, VIALink, but VIA has no fixed routes that serve the study area. The VIA service area does not extend into Comal, Guadalupe, or Hays Counties, so the communities in those counties do not have access to any VIA service, including fixed route and on-demand.

Conversations between AAMPO, VIA, and the communities of the Subregional Planning Study Area should be prioritized so that viable transit services may be planned for the study area in the future. Access to transit is a key component in AAMPO’s commitment to transportation equity and several communities in the study area have expressed interest in offering transit services to their residents. Most recently, the City of New Braunfels completed a transit study that included public surveys. The large majority of New Braunfels citizens expressed the opinion that fixed-route transit serve is important to the City; they anticipate using it most commonly for running errands, social activities and accessing San Antonio.

A comprehensive Year 1 Checklist for getting the transit conversation started in a community is included at the end of this Section. Each community with an interest in adding transit to its multimodal transportation options will benefit from having one of these checklists during the first year of conversations about transit.
9.3 IMPLEMENTATION CHECKLISTS

The team has developed several checklists to reference as the project implementation process progresses, particularly within the first year. These checklists are found throughout the Implementation Plan, and two are included at the end of this section. Appendix N includes all of these checklists:

✓ IMPLEMENTATION STRATEGIES CHECKLISTS
  o PROJECT ADVANCEMENT COMMITTEE
  o AGENCY COORDINATION CHECKLISTS
  o AAMPO STAFF LIAISON AND CHECK-IN PROGRAM CHECKLISTS
  o SPECIAL FUNDING CHECKLISTS
  o ENHANCED FEDERAL FUNDING OPPORTUNITIES CHECKLISTS
  o COLLABORATION WITH DEVELOPERS AND INTEREST GROUPS CHECKLISTS

✓ IMPLEMENTATION PROGRESS CHECKLIST

✓ TRANSIT IMPLEMENTATION CHECKLIST
# Keep Project Implementation Moving!

<table>
<thead>
<tr>
<th>Project Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project County:</td>
<td></td>
</tr>
<tr>
<td>Project City(ies):</td>
<td></td>
</tr>
<tr>
<td>Project Partners:</td>
<td></td>
</tr>
<tr>
<td>Project Champion:</td>
<td></td>
</tr>
<tr>
<td>AAMPO Staff Liaison:</td>
<td></td>
</tr>
<tr>
<td>Project Advancement Committee Members:</td>
<td></td>
</tr>
</tbody>
</table>

## Months 1 - 3
- [ ] Identify a Project Champion from one of the Project Partners
- [ ] Identify an AAMPO Staff Liaison
- [ ] Convene a Project Advancement Committee
- [ ] Determine goal implementation date/goal Call for Projects
- [ ] Explore options for preserving ROW that accommodates the proposed improvements

## Months 4 - 6
- [ ] Project Advancement Committee Meeting #2
- [ ] Develop cost estimates
- [ ] Identify applicable funding sources
- [ ] Identify if other funding sources can be obtained (e.g. grants)
- [ ] Determine how to apply for funding

## Months 7 - 9
- [ ] Project Advancement Committee Meeting #3
- [ ] Identify likely major environmental and community concerns /right-of-way acquisition/utility relocation/railroad coordination/
- [ ] Identify stakeholders that may be impacted
- [ ] Identify local match (if applicable)

## Months 10 - 12
- [ ] Project Advancement Committee Meeting #4
- [ ] Determine status of funding requests
- [ ] Project sponsor(s) develop call for projects application
Get the Transit Conversation Started in Your Community

First Year of Planning

Community Name: ____________________________
County(ies): ________________________________
City(ies): _________________________________
Partnering Transit Agency(ies): __________________
Transit Champion ____________________________
AAMPO Staff Liaison: _________________________
Transit Agency Liaison: _______________________
Transit Advancement Committee Members: _______

Months 1 - 3
☐ Identify a Transit Champion, a key stakeholder who will keep the transit conversation going
☐ Identify a partnering transit agency(ies): VIA and/or Alamo Regional Transit
☐ Identify an AAMPO Staff Liaison
☐ Begin planning for public engagement

Months 4 - 6
☐ Convene a Transit Implementation Committee
☐ Determine goal implementation date
☐ Conduct citizen surveys to gauge interest in transit commuter options
☐ Plan and hold first meeting of committee with transit agency

Months 7 - 9
☐ Develop cost estimates
☐ Identify applicable funding sources
☐ Identify if other funding sources can be obtained (e.g. grants)
☐ Determine how to apply for funding
☐ Plan and hold second meeting of committee with transit agency

Months 10 - 12
☐ Plan and hold third meeting of committee with transit agency
☐ Identify next steps required for transit implementation, including public engagement, funding, and policy recommendations
Appendix A

Prioritized Projects List

1 through 116
<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Identifier</th>
<th>Project Name</th>
<th>Roadway</th>
<th>To</th>
<th>From</th>
<th>Type of Work</th>
<th>Project Descriptions</th>
<th>County 1</th>
<th>County 2</th>
<th>County 3</th>
<th>City1</th>
<th>City2</th>
<th>Length (mi)</th>
<th>Overall Weighted Score</th>
<th>Overall Unweighted Score</th>
<th>Estimated Cost (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GH1</td>
<td>SH 123 Widening</td>
<td>SH 128</td>
<td>Converse Ln</td>
<td>Guadalupe/Hays County Line</td>
<td>Widening</td>
<td>Widen roadway and shoulders to provide operational improvements</td>
<td>Guadalupe</td>
<td>Hays</td>
<td>Seguin</td>
<td></td>
<td></td>
<td>12.46</td>
<td>12.46</td>
<td>12.46</td>
<td>$90,110,000</td>
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<tr>
<td>2</td>
<td>G3</td>
<td>FM 78 Onto Street Bike Lanes - B</td>
<td>FM 78 west</td>
<td>Marion City Limit (west)</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Cicero</td>
<td>Schertz</td>
<td></td>
<td></td>
<td>7.72</td>
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<td>$45,900</td>
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<tr>
<td>3</td>
<td>B29</td>
<td>FM 1518 Expansion - B</td>
<td>FM 1518</td>
<td>H-15-B</td>
<td>FM 78</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes with raised median or center left turn lane, bike lanes and sidewalks</td>
<td>Bexar</td>
<td>Schertz</td>
<td></td>
<td></td>
<td></td>
<td>5.41</td>
<td>5.41</td>
<td>5.41</td>
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<tr>
<td>4</td>
<td>CG2</td>
<td>FM 1103 Expansion - I</td>
<td>FM 1101</td>
<td>Cibolo city limit</td>
<td>FM 3505</td>
<td>Frontage road</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes and add sidewalks</td>
<td>Guadalupe</td>
<td>Cibolo</td>
<td>Schertz</td>
<td></td>
<td></td>
<td>8.54</td>
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<td>8.54</td>
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<tr>
<td>5</td>
<td>INT B8</td>
<td>SL 1604 Intersection Improvements - B</td>
<td>SL 1604 (IB)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including updating signal timing and increasing length of turn bays</td>
<td>Bexar</td>
<td>San Antonio</td>
<td></td>
<td></td>
<td></td>
<td>5.14</td>
<td>5.14</td>
<td>5.14</td>
<td>$52,000,000</td>
</tr>
<tr>
<td>6</td>
<td>C9</td>
<td>FM 1101 Expansion</td>
<td>FM 1101</td>
<td>Schertz Parkway</td>
<td>FM 46</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>Schertz</td>
<td></td>
<td></td>
<td>3.24</td>
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<td>3.24</td>
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<tr>
<td>7</td>
<td>INT B7</td>
<td>SL 1604 Intersection Improvements - I</td>
<td>SL 1604 (IB)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including updating signal timing and increasing length of turn bays</td>
<td>Bexar</td>
<td>San Antonio</td>
<td></td>
<td></td>
<td></td>
<td>5.14</td>
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<tr>
<td>8</td>
<td>G27</td>
<td>FM 1103 Expansion - B</td>
<td>FM 1103</td>
<td>FM 78</td>
<td>Rogers Way</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes with median, bike lanes and sidewalks</td>
<td>Guadalupe</td>
<td>Cibolo</td>
<td></td>
<td></td>
<td></td>
<td>3.84</td>
<td>3.84</td>
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<tr>
<td>9</td>
<td>C5</td>
<td>Kowalski Lane Expansion</td>
<td>Kowalski Lane</td>
<td>FM 1101</td>
<td>Business Bri-35 Frontage road</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes and add sidewalks</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>FM 75 Expansion</td>
<td>FM 75</td>
<td>SH 46</td>
<td>SH 123</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>FM 3009 Onto Street Bike Lanes</td>
<td>FM 3009</td>
<td>Schoenthal Rd</td>
<td>Lookout Rd</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Comal</td>
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<td>12</td>
<td>G2</td>
<td>Guadalupe River/Lake McBee Trail</td>
<td>Lake McBee Trail</td>
<td>100 ft south of Center Street</td>
<td>FM 78</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft shared use bicycle/pedestrian trail</td>
<td>Guadalupe</td>
<td>Seguin</td>
<td></td>
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<td>G4</td>
<td>FM 78 Onto Street Bike Lanes - I</td>
<td>FM 78 west</td>
<td>Marion City Limit</td>
<td>H-15-B</td>
<td>Roadway - Added Capacity</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>None</td>
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<td>Olympia Parkway Shared Use Path - I</td>
<td>Olympia Parkway</td>
<td>City Limit</td>
<td>Agora Parkway</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
<td>Schertz</td>
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<td>G20</td>
<td>Street Bike Lanes and Shared Use Path</td>
<td>Woodward Oaks Drive</td>
<td>Schertz Parkway</td>
<td>FM 3009</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Add bike lanes to roadway and construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Schertz</td>
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<td>New roadway from H-135 Frontage Road to FM 1044</td>
<td>New roadway</td>
<td>H-135 Frontage Road</td>
<td>FM 1044</td>
<td>Roadway - New Construction</td>
<td>Construct new 4 lane divided roadway with sidewalks</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>G26</td>
<td>FM 725 Expansion</td>
<td>FM 725</td>
<td>FM 78</td>
<td>Zipp Rd</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes, adding sidewalks, and develop intersection improvements at FM 78 and Zipp Road</td>
<td>Guadalupe</td>
<td>New Braunfels</td>
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<td>C8</td>
<td>Common Street Expansion</td>
<td>Common Street</td>
<td>SH 46</td>
<td>FM 306</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes, adding sidewalks, and develop intersection improvements at SH 46 and FM 306</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>River Road Onto Street Bike Lanes</td>
<td>River Road</td>
<td>Lakeview Blvd</td>
<td>Guadalupe River</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>G14</td>
<td>Savannah Drive Shared Use Path</td>
<td>Savannah Drive</td>
<td>Shownage Channel</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Seguin</td>
<td>Schertz</td>
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<td>SH 123 Expansion</td>
<td>SH 123</td>
<td>H-10</td>
<td>Cordova Ln</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes with raised median or center left turn lane</td>
<td>Guadalupe</td>
<td>Seguin</td>
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<td>B9</td>
<td>New roadway from Brite Engleman to Pflueg Road</td>
<td>New roadway</td>
<td>Brite Engleman</td>
<td>Pflueg Road</td>
<td>Roadway - New Construction</td>
<td>Construct new 4 lane divided roadway with sidewalks</td>
<td>Bexar</td>
<td>San Antonio</td>
<td></td>
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<td>Four Oaks Lane Extension</td>
<td>Four Oaks Lane</td>
<td>Guadalupe Valley Drive</td>
<td>Terminus of Four Oaks Lane</td>
<td>Roadway - Added Capacity</td>
<td>Extend roadway from current eastern terminus to Guadalupe Valley Drive</td>
<td>Guadalupe</td>
<td>Schertz</td>
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<td>G30</td>
<td>Savannah Drive Onto Street Bike Lanes and Shared Use Path</td>
<td>Savannah Drive</td>
<td>Schertz City Limit</td>
<td>FM 3009</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to roadway and construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td></td>
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<td>Project Identifier</td>
<td>Project Name</td>
<td>Roadway</td>
<td>To</td>
<td>From</td>
<td>Type of Work</td>
<td>Project Descriptions</td>
<td>County 1</td>
<td>County 2</td>
<td>County 3</td>
<td>City1</td>
<td>City2</td>
<td>Length (mi)</td>
<td>Overall Weighted Score</td>
<td>Overall Unweighted Score</td>
<td>Estimated Cost (rounded)</td>
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<td>26</td>
<td>C15</td>
<td>San Antonio Street On-Street Bike Lanes</td>
<td>San Antonio St</td>
<td>Comal Ave</td>
<td>unicorn Ave</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>Guadalupe</td>
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<td>INT G1</td>
<td>FM 3001 Intersection Improvements - I</td>
<td>FM 3001 (N)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including updating signal timing and increasing length of turn bays</td>
<td>Guadalupe</td>
<td>NA</td>
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<td>INT G2</td>
<td>FM 3001 Intersection Improvements - II</td>
<td>FM 3001 (R)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s) and updating signal phasing</td>
<td>Guadalupe</td>
<td>NA</td>
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<td>29</td>
<td>G32</td>
<td>Saur Road Reconstruction</td>
<td>Saur Road</td>
<td>Saengerhalle Rd</td>
<td>FM 718</td>
<td>Roadway - Reconstruction</td>
<td>Reconstruction of 2 lane road with improved horizontal curves</td>
<td>Guadalupe</td>
<td>New Braunfels</td>
<td>NA</td>
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<td>INT G6</td>
<td>Saengerhalle Rd Intersection Improvements</td>
<td>Saengerhalle Rd at SH 46</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s) and updating to standard signal</td>
<td>Guadalupe</td>
<td>New Braunfels</td>
<td>NA</td>
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<td>31</td>
<td>G19</td>
<td>FM 1518 Shared Use Path - III</td>
<td>FM 1518</td>
<td>Monlavi Crest</td>
<td>Savannah Drive</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Guadalupe</td>
<td>Solana</td>
<td>Schertz</td>
<td>NA</td>
<td>7</td>
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<td>INT C3</td>
<td>Ruyscile Rd Intersection Improvements</td>
<td>Ruyscile Rd at 3-35</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s), update signal timing, and lengthening existing turn bays</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>NA</td>
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<td>33</td>
<td>G34</td>
<td>New North-South Connector - Weilner Road Parkway</td>
<td>FM 725</td>
<td>SH 46</td>
<td>Roadway - New Construction</td>
<td>Construct new 6-lane regional arterial roadway and Guadalupe River crossing with sidewalks</td>
<td>Guadalupe</td>
<td>New Braunfels</td>
<td>NA</td>
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<td>B15</td>
<td>Agora Parkway Shared Use Path</td>
<td>Agora Pkwy</td>
<td>Forum Pkwy</td>
<td>Olympia Pkwy</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Bexar</td>
<td>Solana</td>
<td>Live Oak</td>
<td>NA</td>
<td>27</td>
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<td>B16</td>
<td>Brightside Drive Shared Use Path</td>
<td>Brightside Drive</td>
<td>Utopia Blvd</td>
<td>Bluffside Dr</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Bexar</td>
<td>Solana</td>
<td>Bexar</td>
<td>NA</td>
<td>8</td>
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<td>36</td>
<td>G21</td>
<td>Rustic Willow Shared Use Path</td>
<td>Rustic Willow</td>
<td>End of Rustic Willow</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Solana</td>
<td>Solana</td>
<td>Solana</td>
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<td>37</td>
<td>G31</td>
<td>Schertz Pedestrian and Bike Trail</td>
<td>Shared Use Trail</td>
<td>Wiederstein Road</td>
<td>Schertz Parkway</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 shared-use bicycle/pedestrian trail</td>
<td>Guadalupe</td>
<td>Schertz</td>
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<td>C4</td>
<td>Kohlberg Road Expansion</td>
<td>Kohlberg Rd H-35 frontage road</td>
<td>FM 1101</td>
<td>Roadway - Added Capacity</td>
<td>Improve regional arterial roadway by expanding from 2 to 4 lanes along and adding sidewalks</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>NA</td>
<td>6</td>
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<td>B3</td>
<td>New North-South Connector from Schaefer Road to FM 78</td>
<td>New Roadway (N)</td>
<td>Schaefer Rd</td>
<td>FM 78</td>
<td>Roadway - New Construction</td>
<td>Construct new 4-lane divided roadway with sidewalks</td>
<td>Bexar</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>NA</td>
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<td>Old Wiederstein Road</td>
<td>Old Wiederstein Rd</td>
<td>H-35 frontage road</td>
<td>Roadway - New Construction</td>
<td>Construct new 2-lane divided roadway with sidewalks</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>Solana</td>
<td>NA</td>
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<td>41</td>
<td>INT C2</td>
<td>Spur Street Intersection Improvements</td>
<td>Spur St at 8-35</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s), update signal phasing, and lengthening existing turn bays</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>G12</td>
<td>FM 1518 Shared Use Path - II</td>
<td>FM 1518</td>
<td>Wiederstein Rd</td>
<td>H-35 frontage road</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Guadalupe</td>
<td>Solana</td>
<td>NA</td>
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<td>43</td>
<td>G22</td>
<td>Drainage Channel Shared Use Path - I</td>
<td>Allong drainage channel</td>
<td>Savannah Drive</td>
<td>Rustic Willow</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail along drainage ditch that runs behind KensingtonSan's subdivision</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>NA</td>
<td>27</td>
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<td>INT G7</td>
<td>Mary Boulevard Intersection Improvements</td>
<td>Mary Blvd at SH 46</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s) and updating to standard signal</td>
<td>Guadalupe</td>
<td>NA</td>
<td>6</td>
<td>0.60</td>
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<td>CG4</td>
<td>Alamo Parkway Extension</td>
<td>Alamo Parkway Extension</td>
<td>Lookout Road</td>
<td>Terminus of Alamo Parkway</td>
<td>Roadway - Added Capacity</td>
<td>Extend roadway from current northern terminus to Lookout Rd</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>Solana</td>
<td>NA</td>
<td>8</td>
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<td>46</td>
<td>B28</td>
<td>Bluffside Boulevard Shared Use Path</td>
<td>Bluffside Blvd</td>
<td>End of Bluffside Blvd</td>
<td>Chipman Blvd</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Bexar</td>
<td>Solana</td>
<td>NA</td>
<td>5</td>
<td>0.43</td>
<td>26</td>
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<td>47</td>
<td>G6</td>
<td>FM 1518 On-Street Bike Lanes</td>
<td>FM 1518</td>
<td>FM 78</td>
<td>H-35 frontage road</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Solana</td>
<td>Schertz</td>
<td>NA</td>
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<td>48</td>
<td>G13</td>
<td>Wiederstein Road Shared Use Path</td>
<td>Wiederstein Rd</td>
<td>Drainage Channel</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-8 ft to 12-9 trail parallel to existing roadway and include a 6-8 wide tree buffer</td>
<td>Guadalupe</td>
<td>Solana</td>
<td>NA</td>
<td>6</td>
<td>0.70</td>
<td>26</td>
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<td>49</td>
<td>INT C4</td>
<td>Solana Road Intersection Improvements</td>
<td>Solana Rd at 8-45</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lane(s) and updating signal phasing</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>NA</td>
<td>8</td>
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<td>50</td>
<td>INT G9</td>
<td>Weilner Rd Intersection Improvements</td>
<td>SH 46 at Weilner Rd</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Add turn lanes at Weilner and signal at intersection</td>
<td>Guadalupe</td>
<td>New Braunfels</td>
<td>NA</td>
<td>6</td>
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<td>Overall Unweighted Score</td>
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<td>51</td>
<td>CBG1</td>
<td>Corporate Drive Shared Use Path</td>
<td>Corporate Drive</td>
<td>Lookout Road</td>
<td>H-35 frontage road</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>Bexar</td>
<td>Selma</td>
<td></td>
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<td>52</td>
<td>INT 95</td>
<td>FM 78 Intersection Improvements - I</td>
<td>FM 78 (NB)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lanes and updating signal timing</td>
<td>Bexar</td>
<td>Converse</td>
<td>NA</td>
<td>25</td>
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<td>53</td>
<td>INT 96</td>
<td>FM 78 Intersection Improvements - II</td>
<td>FM 78 (SB)</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including updating signal timing and lengthening existing turn lanes</td>
<td>Bexar</td>
<td>Converse</td>
<td>NA</td>
<td>25</td>
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<td>54</td>
<td>G20</td>
<td>Bee Lane Shared Use Path</td>
<td>Bee Lane</td>
<td>Drainage Channel</td>
<td>Wiedenrad Rd</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>0.12</td>
<td>25</td>
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<td>55</td>
<td>G22</td>
<td>Drainage Channel Shared Use Path - I</td>
<td>Drainage Channel</td>
<td>Rustic Willow</td>
<td>Wiedenrad Rd</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail along drainage ditch that runs behind Remington Ranch subdivision</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>0.16</td>
<td>25</td>
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<td>56</td>
<td>CGA</td>
<td>Corporate Drive Extension</td>
<td>Corporate Drive (extended)</td>
<td>Lookout Road</td>
<td>terminus of Corporate Drive</td>
<td>Roadway - Added Capacity</td>
<td>Extend roadway from current northern terminus over Lookout Rd to train tracks</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>Selma</td>
<td></td>
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<td>57</td>
<td>B6</td>
<td>Olympic Parkway On-Street Bike Lanes</td>
<td>Olympic Pkwy</td>
<td>Phoenix Ave</td>
<td>H-35 frontage road</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Bexar</td>
<td></td>
<td></td>
<td>Selma</td>
<td></td>
<td>0.43</td>
<td>25</td>
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<td>G16</td>
<td>FM 1516 Extension - B</td>
<td>FM 1516</td>
<td>Muske Road</td>
<td>FM 78</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes and add sidewalks</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>1.73</td>
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<td>Alton Boulevard Shared Use Path</td>
<td>Alton Blvd</td>
<td>Arcadia Dr</td>
<td>Chippewa Blvd</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
<td></td>
<td></td>
<td>Selma</td>
<td>0.46</td>
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<td>60</td>
<td>C13</td>
<td>FM 1142 Extension</td>
<td>FM 1142</td>
<td>FM 306</td>
<td>Watson Ln</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes, adding sidewalks and bike lanes, and developing intersection improvements at FM 306 and Watson Lane</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>4.53</td>
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<td>C18</td>
<td>Union Avenue On-Street Bike Lanes</td>
<td>Union Ave</td>
<td>Torrey St</td>
<td>San Antonio St</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>0.70</td>
<td>25</td>
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<td>G7</td>
<td>Savannah Drive On-Street Bike Lanes</td>
<td>Savannah Dr</td>
<td>Sunset Ridge</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Schertz</td>
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<td>25</td>
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<td>63</td>
<td>INT 91</td>
<td>SL 1044 Frontage Road Intersection Improvements - I</td>
<td>SL 1044</td>
<td>Frontage Road</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Review and adjust timing phasing of signals in vicinity that affect flow of traffic onto direct connectors</td>
<td>Bexar</td>
<td>Live Oak</td>
<td>NA</td>
<td>24</td>
<td>6</td>
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<tr>
<td>64</td>
<td>INT 92</td>
<td>H-35 Frontage Road Intersection Improvements</td>
<td>H-35 Frontage Road</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Review and adjust timing phasing of signals in vicinity that affect flow of traffic onto direct connectors</td>
<td>Bexar</td>
<td>Live Oak</td>
<td>NA</td>
<td>24</td>
<td>6</td>
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<td>G9</td>
<td>Community Club Boulevard Extension</td>
<td>Community Club Blvd</td>
<td>Schertz city limits</td>
<td>Existing terminus</td>
<td>Roadway - Extension</td>
<td>Extend roadway from its existing terminus to Schertz city line</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>0.36</td>
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<td>C10</td>
<td>New Roadway from FM 1044 to County Line</td>
<td>New roadway</td>
<td>FM 1544</td>
<td>County Line</td>
<td>Roadway - New Construction</td>
<td>Construct new 4 lane divided roadway with sidewalks</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>2.88</td>
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<td>67</td>
<td>B1</td>
<td>Agora CSR-Cole Parkways On-Street Bike Lanes</td>
<td>Agora Pkwy</td>
<td>Olympic Pkwy</td>
<td>SL 1044</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Bexar</td>
<td>Selma</td>
<td>Jove Oak</td>
<td></td>
<td>1.39</td>
<td>22</td>
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<td>68</td>
<td>B17</td>
<td>Mount Carmel Drive Shared Use Path</td>
<td>Mount Carmel Dr</td>
<td>Cemetery</td>
<td>Lookout Rd</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
<td>Selma</td>
<td></td>
<td></td>
<td>0.35</td>
<td>24</td>
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<td>69</td>
<td>B31</td>
<td>Forum Parkway On-Street Bike Lanes</td>
<td>Forum Pkwy</td>
<td>Agora Pkwy</td>
<td>H-35 frontage road</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Bexar</td>
<td></td>
<td></td>
<td>Selma</td>
<td>0.12</td>
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<tr>
<td>70</td>
<td>G15</td>
<td>FM 1518 Shared Use Path - II</td>
<td>FM 1518</td>
<td>Wiedenrad Rd</td>
<td>Savannah Dr</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>0.49</td>
<td>23</td>
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<td>71</td>
<td>C11</td>
<td>FM 482 Expansion</td>
<td>FM 482</td>
<td>H-35 frontage road</td>
<td>FM 2252</td>
<td>Roadway - Added Capacity</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes, adding sidewalks, and developing intersection improvements including adding dedicated left turn lanes, updating signal timing, increase and lengthening existing turn lanes</td>
<td>Comal</td>
<td>Schertz</td>
<td>New Braunfels</td>
<td>7.18</td>
<td>21</td>
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<td>72</td>
<td>INT 34</td>
<td>Pat Boeker Road Intersection Improvements - II</td>
<td>Pat Boeker Road at Village Oak Dr</td>
<td>NA</td>
<td>NA</td>
<td>Intersection Improvements</td>
<td>Develop intersection improvements including adding dedicated left turn lanes, updating signal timing, increase and lengthening existing turn lanes</td>
<td>Bexar</td>
<td>Live Oak</td>
<td>NA</td>
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<td>73</td>
<td>B14</td>
<td>Winged Foot Shared Use Path</td>
<td>Winged Foot</td>
<td>Harrison Park</td>
<td>Valhalla Dr</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
<td>Live Oak</td>
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<td>B32</td>
<td>Evans Road Extension</td>
<td>Evans Rd</td>
<td>FM 2252</td>
<td>Lookout Rd</td>
<td>Roadway - Extension</td>
<td>Extend roadway from current northern terminus to FM 2252</td>
<td>Bexar</td>
<td>San Antonio</td>
<td>Selma</td>
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<td>75</td>
<td>C7</td>
<td>Onion Drive Expansion</td>
<td>Onion Drive</td>
<td>FM 1142</td>
<td>Goodson Lane</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 3 lanes and add sidewalks</td>
<td>Comal</td>
<td>New Braunfels</td>
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<td>From</td>
<td>Type of Work</td>
<td>Project Descriptions</td>
<td>County 1</td>
<td>County 2</td>
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<td>Length (mi)</td>
<td>Overall Weighted Score</td>
<td>Overall Unweighted Score</td>
<td>Estimated Cost (rounded)</td>
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<td>76</td>
<td>C06</td>
<td>Run Rd On-Street Bike Lanes</td>
<td>Run Rd</td>
<td>Green Valley Rd</td>
<td>Morningside Dr</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Comal</td>
<td>New Braunfels</td>
<td>1.21</td>
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<td>8-45 Frontage Road Shared Use Path - II</td>
<td>8-45 Frontage Rd</td>
<td>Valhalla Dr</td>
<td>Pastranapco</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
<td>Selma</td>
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<td>G37</td>
<td>Rudolph Road Extension</td>
<td>Rudolph Road</td>
<td>Huber Road</td>
<td>SW 46</td>
<td>Roadway - Added Capacity</td>
<td>Expand road from 2 to 4 lanes with center turn lane, sidewalks, and bike lanes</td>
<td>Guadalupe</td>
<td>Seguin</td>
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<td>1.26</td>
<td>22</td>
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<td>79</td>
<td>C28</td>
<td>Live Oak Road Bike Lanes and Shared Use Path</td>
<td>Live Oak Rd</td>
<td>Schertz Parkway</td>
<td>FM 3809</td>
<td>Bicycle/Pedestrian (on and off street)</td>
<td>Add bike lanes to roadway and construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td></td>
<td>0.85</td>
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<td>80</td>
<td>C11</td>
<td>Old Wiederstein Road - Roadway Extension</td>
<td>Old Wiederstein Dr</td>
<td>Cibolo Creek Dr</td>
<td>FM 3809</td>
<td>Roadway - Extension</td>
<td>Extend roadway from Cibolo Valley Drive to FM 3809</td>
<td>Guadalupe</td>
<td>Schertz</td>
<td>Cibolo</td>
<td>0.85</td>
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<td>81</td>
<td>B4</td>
<td>Gateway Boulevard On-Street Bike Lanes</td>
<td>Gateway Blvd</td>
<td>Lookout Rd</td>
<td>SL 1624</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Bexar</td>
<td>Live Oak</td>
<td></td>
<td>0.82</td>
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<td>G8</td>
<td>Wiederstein Road On-Street Bike Lanes</td>
<td>Wiederstein Rd</td>
<td>Strangeway Channel</td>
<td>FM 1518</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Selma</td>
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<td>0.73</td>
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<td>G36</td>
<td>West Road On-Street Bike Lanes</td>
<td>West Rd</td>
<td>Marion Rd</td>
<td>North Santa Clara Rd</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>Add bike lanes to existing roadway</td>
<td>Guadalupe</td>
<td>Santa Clara</td>
<td></td>
<td>1.54</td>
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<tr>
<td>84</td>
<td>C10</td>
<td>From Schertz Parkway to Alamo Parkway</td>
<td>New Roadway (L-W Connection)</td>
<td>Schertz Parkway</td>
<td>Extension of Alamo Parkway</td>
<td>Roadway - New Construction</td>
<td>Construct new 4 lane divided roadway with sidewalks</td>
<td>Guadalupe</td>
<td>Schertz</td>
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<td>Forum Pkwy</td>
<td>Old Austin Rd</td>
<td>Olympia Pkwy</td>
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<td>Add bike lanes to existing roadway</td>
<td>Bexar</td>
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<td>Develop intersection improvements including adding dedicated left turn lanes, update signal timing, and lengthening existing turn bays</td>
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<td>Construct grade separation at FM 78 and FM 3500 (divide FM 78 over FM 3500)</td>
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<td>Graytown Rd</td>
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<td>New East-West Connector - Rudolph Road</td>
<td>Rudolph Road</td>
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<td>Comal Rd</td>
<td>FM 1182</td>
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<td>Schertz Pkwy</td>
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<td>Marion Rd</td>
<td>Green Valley Rd</td>
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<td>Schertz Parkway</td>
<td>Maske Road</td>
<td>roadway - extension</td>
<td>Extend roadway from Schertz Pkwy to Maske Rd</td>
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<td>Cobble Creek</td>
<td>Terminals of Truman-St Rd</td>
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<td>west of Emerald Gate</td>
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<td>IH-35 Frontage Road</td>
<td>Retama Pkwy</td>
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<td>bike/pedestrian (off street)</td>
<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
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<td>Construct a 10-ft to 12-ft trail parallel to existing roadway and include a 6-ft wide tree buffer</td>
<td>Bexar</td>
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<td>Lower Seguin Road Separation - II</td>
<td>Lower Seguin Rd</td>
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<td>SL 1604</td>
<td>roadway - added capacity</td>
<td>Expand road from 2 to 4 lanes and add shoulders</td>
<td>Bexar</td>
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Appendix B

Oversight Committee

Meeting Presentations
Study Oversight

Committee Meeting #1

March 30, 2021
AAMPO Subregional Planning Study
Oversight Committee Kick-Off Meeting
March 30, 2021
MEETING AGENDA

• INTRODUCTIONS
• STUDY OVERVIEW
• OVERSIGHT COMMITTEE ROLE
• BACKGROUND STUDIES
• EXPECTATIONS AND PRIORITIES
• NEXT STEPS
• QUESTIONS AND DISCUSSION
STUDY OVERVIEW
STUDY OVERVIEW

Why are we conducting the Subregional Planning Study?

• Refine regional planning strategies recommended by previous local and regional planning studies.

What will we have accomplished by the end of the study?

• A prioritized menu of short-term (0-5 years) and mid-term (5-10 years) multimodal projects and programs to improve regional and subregional connectivity.
**STUDY ELEMENTS**

**Project Management**
- Scheduling / Coordination

**Research & Background**
- Existing Conditions
- Goals, Objectives, and Measures of Effectiveness

**Implementation Plan**
- Stakeholder Participation
- Financial Analysis
- Prioritized Project List
- Implementation Plan Development

**Final Report**
- Presentation to Transportation Policy Board
- Final Report
- Final Documentation
OVERSIGHT COMMITTEE – KEY RESPONSIBILITIES

Research & Background
• Goals & Objectives
• Needs Assessment

Implementation Plan
• Stakeholder Engagement
• Prioritization Criteria
• Project Assessment
• Prioritized Project List
## Schedule

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<td>Existing Conditions</td>
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<td>Develop Goals and Objectives</td>
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<td>Stakeholder Outreach</td>
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<td>Prioritized Projects and Programs List</td>
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<td>Financial Analysis &amp; Implementation Plan</td>
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<td>Draft Final Report</td>
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<td>Presentation to Transportation Policy Board</td>
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<td>Final Report</td>
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<td>Deliver Final Documents and Data</td>
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<td><strong>January 2022 Transportation Policy Board Meeting</strong></td>
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We are HERE!
FILE SHARING

All Oversight Committee Members will have access to upload and download from our shared workspace.

Email invitation to follow!
**TXDOT CAPITOL-ALAMO CONNECTIONS STUDY - 2019**

**Goal**

- Develop regional strategies for creating transportation solutions

**Approach**

- Technical Analysis
- Stakeholder Engagement
Recommended Strategies Include:

**Short-Term:** 0 – 5 yr
- Joint website to document efforts
- Formalize Data Sharing Agreement
- Develop bi-regional Travel Demand Model
- Define bi-regional transportation improvement objectives and performance measures

**Mid-Term:** 6 – 15 yr
- Create a policy-level bi-regional cooperative body with representatives from CACS partnership
- Implement bi-regional mobility improvement solutions
- Create a bi-regional technical committee

**Long-Term:** 16 – 25 yr
- Develop a bi-regional long-range plan
AAMPO REGIONAL THOROUGHFARE PLAN - 2018

Goals Include

• Identify differences between various thoroughfare plans in AAMPO service area.
• Address capacity and connectivity needs to identify high-priority planning areas.
• Provide tools to make thoroughfare planning easier for AAMPO member agencies.
• Establish a common regional thoroughfare organizational structure and vocabulary.
• Strategize better continuity and transitions between jurisdictions.
• Identify regional best practices.
• Create “bridge” to relate individual jurisdictions’ classification systems to regional system.
AAMPO REGIONAL THOROUGHFARE PLAN - 2018

Key Takeaways Include

**Priority Zones**

![Map of Priority Zones](image)

**Design Standard Matrix**

<table>
<thead>
<tr>
<th>STREET TYPE</th>
<th>MINIMUM RECOMMENDED TYPICAL SECTION</th>
<th>SECTION DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR ARTERIAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MINOR ARTERIAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>URBAN ARTERIAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Intersection Plan Layouts**

![Intersection Plan](image)
VIA VISION 2040 LONG-RANGE PLAN - 2016

Goals and Objectives

• Strengthen Regional Mobility, Development and Sustainability
• Provide an outstanding Multimodal Transportation System

Vision

• Improved bus system
• Rapid transit network, including regional service
• Innovative solutions, including emerging technologies and transit-oriented development
VIA VISION 2040 LONG-RANGE PLAN - 2016

Implementation Strategies

- Aggressively pursue federal, state, and local funding sources
- Prioritize projects based on community feedback, ridership forecasts, mobility improvements, and development potential
- Partner and collaborate with other regional planning efforts
- Develop projects from planning through construction
- Monitor project progress, public priorities, regional growth, and new opportunities
EXPECTATIONS & PRIORITIES
GET READY TO VOTE USING YOUR PHONE AT...
https://rsandhsatx.participoll.com

1. Take a photo of this QR code with your phone’s camera

2. Touch the pop-up that you see on top of your screen
WHAT’S THE BEST TV SHOW YOU QUARANTINE-BINGED?

LIVE POLL WAS HERE

vote at rsandhsatx.participoll.com
vote at rsandhsatx.participoll.com
WHAT ARE YOUR TOP 3 TRANSPORTATION CONCERNS FOR OUR REGION?

A. Improved bike/ped network connectivity
B. Expanded bike/ped network
C. Freight management
D. ITS / Technology
E. Jurisdictional collaboration
F. Ridesharing / Park & Ride
G. Roadway connectivity
H. Safety
I. Congestion
J. Existing transit availability and access
K. Expanded transit services / frequency
L. Other

vote at rsandhsatx.participoll.com
IF YOU SAID “OTHER,” PLEASE SHARE WITH US YOU WERE THINKING (REMEMBER THIS IS ALL ANONYMOUS!)

LIVE POLL WAS HERE

Or upvote someone else’s answer!
IN A PERFECT WORLD, WHAT MODE OF TRANSPORTATION WOULD YOU PRIORITIZE WHEN PLANNING FOR OUR REGION’S FUTURE?

A. Bike/ped
B. Mass transit
C. Roadway
D. Roadway with focus on ride-sharing
IN A WORD OR TWO TELL US WHAT YOU EXPECT THIS STUDY TO ACHIEVE?

Or upvote someone else's answer!

LIVE POLL WAS HERE

vote at rsandhsatx.participoll.com
BRIEFLY TELL US WHY YOU THINK THIS STUDY IS IMPORTANT FOR OUR STUDY AREA?

Or upvote someone else's answer!
WE’VE DEVELOPED THIS PRELIMINARY LIST OF STAKEHOLDERS.

WHAT OTHER AGENCIES/GROUPS DO YOU THINK WE SHOULD INCLUDE?

<table>
<thead>
<tr>
<th>Stakeholders - Subregional Planning Study 2021</th>
</tr>
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<tbody>
<tr>
<td>Study Area MPOs</td>
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<td>Greater San Antonio Builders Association</td>
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<td>The Great Springs Project</td>
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</tbody>
</table>
WE’RE GOING TO HOLD THREE SEPARATE VIRTUAL WORKING SESSIONS WITH STAKEHOLDERS.

HOW DO YOU THINK THOSE SHOULD BE ORGANIZED?

A. By category (i.e. cities, agencies, interest groups, etc.)

B. By geography (i.e. stakeholders in Guadalupe County, stakeholders with an interest in the entire subregion, etc)

C. Hold three meetings with the same information and allow people to join whichever is most convenient
**NEXT STEPS**

- Complete Existing Conditions Analysis
- Begin Development of Goals and Objectives
- Stakeholder Engagement
- Begin Needs Assessment, Development of Performance Measures, and Project Prioritization
Study Oversight
Committee Meeting #2
May 13, 2021
AAMPO Subregional Planning Study Oversight Committee: Meeting #2
Goals and Priorities
May 13, 2021
Meeting Agenda

» Schedule
» Existing Conditions
» Expectations and Priorities Review
» Draft Goals
» Stakeholder Presentations Draft Agenda
» Next steps
» Questions and Discussion
## Schedule

<table>
<thead>
<tr>
<th>Project Tasks</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>Feb</td>
<td>Mar</td>
</tr>
<tr>
<td>Existing Conditions</td>
<td>Apr</td>
<td>May</td>
</tr>
<tr>
<td>Develop Goals and Objectives</td>
<td>Jun</td>
<td>Jul</td>
</tr>
<tr>
<td>Stakeholder Outreach</td>
<td>Aug</td>
<td>Sep</td>
</tr>
<tr>
<td>Prioritized Projects and Programs List</td>
<td>Oct</td>
<td>Nov</td>
</tr>
<tr>
<td>Financial Analysis &amp; Implementation Plan</td>
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</tr>
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<tr>
<td>Deliver Final Documents and Data</td>
<td>Aug</td>
<td>Sep</td>
</tr>
</tbody>
</table>

- **Oversight Committee Meetings**
- **Stakeholder Meetings**
- **January 2022 Transportation Policy Board Meeting**

*We are HERE!*
Existing Conditions
Study Area
Existing Conditions - Population

2015

2045 (Projected)
Existing Conditions - Employment

2015

2045 (Projected)
Existing Conditions - Congestion

2015

2045 (Projected)
Transportation Equity

– Considers the circumstances impacting a community and seeks fairness in meeting the needs of all community members, particularly underserved populations.

» Title VI of the Civil Rights Act of 1964
– No person on the ground of race, color, or national origin shall be subject to discrimination under any program or activity receiving Federal financial assistance

» Environmental Justice
– Federal agencies shall identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income populations
Determining Transportation Equity Focus Areas

» The AAMPO Planning Area average was calculated for the following categories:
  – Racial minorities (non-white)
  – Hispanic
  – Limited English Proficiency
  – Persons with disabilities (any)
  – Persons with ambulatory disabilities
  – Elderly (age 65+)
  – Poverty
  – Households without access to an automobile

» Block Groups or Tracts above the regional average were identified
Transportation Equity:
Non-White Population Above Regional Average
Transportation Equity:
Hispanic Population Above Regional Average
Transportation Equity:
LEP Population Above Regional Average
Transportation Equity: Elderly Populations (65+) Above Regional Average
Transportation Equity: Population in Poverty Above Regional Average
Transportation Equity:
Zero-Vehicle Households Above Regional Average
Transportation Equity:
Persons with Disabilities Above Regional Average
Transportation Equity:
Persons with Ambulatory Disabilities Above Regional Average
Transportation Equity:
Block Groups / Tracts by Equity / EJ Characteristics

RS&H
## Transportation Equity:
### Block Groups by Characteristics

<table>
<thead>
<tr>
<th>Category</th>
<th>AAMPO Regional Average</th>
<th>Study Area Block Groups* / Tracts** Percent Above Regional Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial minorities (non-white)*</td>
<td>19%</td>
<td>59%</td>
</tr>
<tr>
<td>Hispanic*</td>
<td>59%</td>
<td>14%</td>
</tr>
<tr>
<td>Elderly (age 65 and over)*</td>
<td>14%</td>
<td>33%</td>
</tr>
<tr>
<td>Poverty*</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Households without access to an automobile*</td>
<td>7%</td>
<td>18%</td>
</tr>
<tr>
<td>Limited English Proficiency*</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Disabilities**</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>Ambulatory Disabilities**</td>
<td>7%</td>
<td>22%</td>
</tr>
</tbody>
</table>
Transportation Equity: What Did We Learn?

» The majority (84%) of the block groups in the study area are above the AAMPO Planning Area average for at least one Transportation Equity focus category.

» About half (49%) of the tracts in the study area are above the AAMPO Planning Area average for Persons with Disabilities and/or Ambulatory Disabilities.

» All Transportation Equity focus categories are above the AAMPO regional average in at least 10% of the block groups and tracts in the study area.

» Block groups with below-average Transportation Equity focus characteristics are concentrated between New Braunfels and San Marcos in Comal County and Western Guadalupe County.

RS&H
Safety: Determining High Crash Locations

> Data was pulled from TxDOT’s Crash Records Information System (CRIS) for years 2015 through 2019

> Crashes analyzed by

- Total
- Year
- Five-year average
- Roadway classification
- Location
- Type
- Time of day
- Severity

RS&H

» 20,807 total crashes
  – Crashes per year average 3,500 to 4,500
  – Largest single year: 4,424 in 2019
  – Total crashes increased by 24% from 2015 to 2019
Crashes by Roadway Type (2015 – 2019)

- Interstate: 43%
- US & State Highways: 25%
- County Road: 2%
- Farm to Market: 16%
- City Street: 14%
Crash Rate* (2015 – 2019)

» Ratio: number of crashes per 100 million vehicle-miles-traveled (VMT)
» Normalizes crash count
Crash Rate* (2015 – 2019): Study Area vs Statewide

- Interstate: Study Area 91.7, Statewide 139.0
- US/State Highway: Study Area 219.2, Statewide 228.2
- FM Roads: Study Area 175.9, Statewide 255.9
- County Roads: Study Area 31.9, Statewide 102.0

*CRASH RATES PER 100 MILLION VMT
Rate of Fatal and Serious Injury Crashes
Fatal and Serious Injury Crashes
Crash Hot Spots

- SL 1604
  - Live Oak
  - Universal City
  - @ IH-35
  - @ IH-10

- IH-35
  - New Braunfels
  - Schertz

- SH-46
  - New Braunfels
  - Seguin
Crashes by Type

» Sideswipe 48%
» Single Vehicle 25%
» Angle 15%
» Head On 1%
» Other 11%
» Rear End 0%
Crashes by Time of Day

<table>
<thead>
<tr>
<th>Crash Time</th>
<th>Interstate</th>
<th>Non-Interstate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midnight to 4:00AM</td>
<td>681</td>
<td>658</td>
</tr>
<tr>
<td>4:00-8:00AM</td>
<td>1,192</td>
<td>1,502</td>
</tr>
<tr>
<td>8:00AM-Noon</td>
<td>1,423</td>
<td>1,981</td>
</tr>
<tr>
<td>12:00-4:00PM</td>
<td>2,296</td>
<td>2,930</td>
</tr>
<tr>
<td>4:00-8:00PM</td>
<td>2,364</td>
<td>3,537</td>
</tr>
<tr>
<td>8:00PM-Midnight</td>
<td>973</td>
<td>1,270</td>
</tr>
</tbody>
</table>

RS&H
Crashes: What Did We Learn?

*Five-yr crash rates are lower than 5-yr statewide crash rates.*

*Interstates accounted for the highest percentage of crashes; County Roads accounted for the lowest.*

*Roadways with crash hot spots include Loop 1604, I-35, and SH 46.*

*The most prevalent types of crashes were sideswipe and single vehicle.*

*Fatal crashes occurred primarily on major interstate and highway corridors, while crashes resulting in serious injury also occurred along these corridors, with clustering near interchanges/connections to study area cities.*

**RS&H**
Existing Conditions: Bike/Ped Crashes
Bike/Ped Crashes

> Pedestrian crashes outnumber bicycle crashes

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Crash Count - Total</th>
<th>% of Crashes Involving a Bicyclist or Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crashes Involving Pedestrians</td>
<td>102</td>
<td>62%</td>
</tr>
<tr>
<td>Crashes Involving Bicyclists</td>
<td>63</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
</tr>
</tbody>
</table>
Bike/Ped Injury Risk by Vehicular Speed
Bike/Ped Crashes: What Did We Learn?

» Bicyclists and pedestrian crashes accounted for 1% of study area crashes
  – 36% of all fatal crashes involved a bicycle or pedestrian
  – 4% of all serious injury crashes involved a bicycle or pedestrian

» Bicyclists and pedestrians are more likely than vehicle occupants to be injured or killed in a crash
  – 21% of bike/ped crashes are fatal
    • Compared with 0.5% of total crashes
  – 13% of bike/ped crashes result in a serious injury
    • Compared with 3% of total crashes
Expectations & Priorities

Review
What Are Your Top 3 Transportation Concerns for Our Region?

- Safety
- Improved bike/ped network connectivity
- Roadway connectivity
- Congestion
- Existing transit availability and access
- Expanded transit services / frequency
- ITS / Technology
- Jurisdictional collaboration
- Ridesharing / Park & Ride
- Freight management
- Expanded bike/ped network
- Other

RS&H
If you said “Other,” please share with us you were thinking

Connectivity 3+

 Crash management 1+

Agency coordination 1+

ITS 1+

+ Indicates number of “upvotes”
In a perfect world, what mode of transportation would you prioritize when planning for our region’s future?
In a word or two tell us what you expect this study to achieve?

**Connectivity**: 4+
**Coordination/Collaboration**: 7+
**Action**: 2+
**Project Prioritization**: 1+
**Multimodal Options**: 2+
**Direct Funding**: 1+

*Indicates number of “upvotes”*
Briefly tell us why you think this study is important for our Study Area?

High Growth Area 5+
Coordinated Efforts 3+
Competing Interests 1+
Enhance Mobility/Safety 2+
Clearly Define Goals 1+
Set An Example 1+

+ Indicates number of “upvotes”
We’ve developed this preliminary list of stakeholders. What other agencies/groups do you think we should include?

**Your Suggestions**

» Comal Trails Alliance
» Cycling groups, such as Wheel Men
» AAMPO BMAC rep – Joey Pawlik
» Human services advocacy groups, including groups that represent underserved communities
» Universities (Texas Lutheran, Alamo Colleges)
» Freight shipping associations
» Distribution/warehouse centers

---

**Preliminary List**

<table>
<thead>
<tr>
<th>Stakeholders - Subregional Planning Study 2021</th>
</tr>
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<tbody>
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<td>The Great Springs Project</td>
</tr>
</tbody>
</table>
We’re going to hold three separate virtual working sessions with stakeholders. How do you think those should be organized?
Draft Goals
AAMPO MTP Goals

- Identify opportunities to improve and enhance the regional transportation system and preserve the investment in the existing transportation system.
- Increase the efficiency of the transportation system and manage traffic congestion.
- Maintain a focus on safety.
- Address the social and environmental issues of the region in transportation planning efforts.
- Support economic activity, employment growth and encourage innovative partnerships.
- Facilitate the involvement and participation of communities, agencies, organizations and the general public in the transportation planning process.
- Ensure the transportation planning efforts are coordinated with local land use plans to support future growth and development patterns.
Oversight Committee Top Concerns

» Safety
» Multimodal network connectivity
» Congestion
» Transit availability, service, and access
» Coordination/Collaboration
» High Growth
Draft Goals Idea

» Committee Concern
  – Safety

» Corresponding MTP Goal
  – Maintain a focus on safety

Study Goal Idea:
Provide a safe multimodal transportation network
Draft Goals Idea

» Committee Concern:
  – Multimodal network connectivity

» Corresponding MTP Goals:
  – Identify opportunities to improve and enhance the regional transportation system and preserve the investment in the existing transportation system.
  – Increase the efficiency of the transportation system and manage traffic congestion

Study Goal Idea:

Provide an integrated and connected multimodal network that enhances transportation options
Draft Goals Idea

» Committee Concern:
  – Congestion

» Corresponding MTP Goals:
  – Identify opportunities to improve and enhance the regional transportation system and preserve the investment in the existing transportation system.
  – Increase the efficiency of the transportation system and manage traffic congestion

Study Goal Idea:

*Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility*
Draft Goals Idea

» Committee Concern:
  – Transit availability, service, and access

» Corresponding MTP Goals:
  – Identify opportunities to improve and enhance the regional transportation system and preserve the investment in the existing transportation system.
  – Increase the efficiency of the transportation system and manage traffic congestion
  – Address the social and environmental issues of the region in transportation planning efforts

Study Goal Idea:
Identify opportunities for increased and enhanced transit services within the area that also connect to major employment and activity centers outside of the area
Draft Goals Idea

» Committee Concern:
  – Coordination/Collaboration

» Corresponding MTP Goals:
  – Support economic activity, employment growth and encourage innovative partnerships.
  – Facilitate the involvement and participation of communities, agencies, organizations, and the general public in the transportation planning process

Study Goal Idea:
*Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally*
Draft Goals Idea

» Committee Concern:
  – High Growth

» Corresponding MTP Goals:
  – Support economic activity, employment growth and encourage innovative partnerships.
  – Ensure the transportation planning efforts are coordinated with local land use plans to support future growth and development patterns.

Study Goal Idea:

Coordination between transportation and land use to proactively address mobility issues associated with future growth

RS&H
Draft Goals Ideas: Discussion

- PROVIDE A SAFE MULTIMODAL TRANSPORTATION NETWORK
- PROVIDE AN INTEGRATED AND CONNECTED MULTIMODAL NETWORK
- ADDRESS CONGESTION AND PROVIDE FOR MULTIMODAL MOBILITY
- INCREASED AND ENHANCED TRANSIT SERVICES WITHIN AND CONNECTING TO STUDY AREA
- JURISDICTIONAL AND AGENCY COORDINATION REGIONALLY AND INTER-REGIONALLY
- COORDINATION BETWEEN TRANSPORTATION AND LAND USE AS GROWTH CONTINUES
Stakeholder Presentations
Draft Agenda
Stakeholder Presentations

» Project Overview

» Existing Conditions Summary

» Discussion of Oversight Committee’s Concerns

» Presentation of Draft Goals

» Stakeholders’ Feedback on Goals
Next Steps

1. Stakeholder Engagement
2. Finalize Goals and Objectives
Questions?
Study Oversight
Committee Meeting #3
October 13, 2021
AAMPO Subregional Planning Study
Oversight Committee: Meeting #3
Project Prioritization
October 13, 2021
Meeting Agenda

» Schedule

» Next Steps

» Study Review

» Performance-Based Project Assessment

» Questions and Discussion

RS&H
Schedule

<table>
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<th>Project Tasks</th>
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</tr>
</tbody>
</table>

- Green dot: Oversight Committee Meetings
- Blue dot: Stakeholder Meetings
- Gold star: January 2022 Transportation Policy Board Meeting

RS&H

We are HERE!
Next Steps

• Individual review of the project ranking
  • Feedback requested by October 20, 2021

• Complete Project Prioritization

• Cost-Benefit Analysis

• Implementation Plan

• Final Oversight Committee Meeting

• Presentation to AAMPO TAC

• Presentation to AAMPO TPB
STUDY REVIEW
STUDY REVIEW: PURPOSE

The study’s purpose:

- Develop a prioritized menu of short-term (0-5 years) and mid-term (5-10 years) multimodal projects and programs to improve regional and subregional connectivity.

<table>
<thead>
<tr>
<th>Short-Term Projects</th>
<th>Mid-Term Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Sidewalk......... $200K/mile</td>
<td>Add Travel Lane.... $1.7M/mile</td>
</tr>
<tr>
<td>Add Multi-use Trail... $400K/mile</td>
<td>New Alignment 2-Lane... $8.0M/mile</td>
</tr>
<tr>
<td>Widen Shoulder....... $500K/mile</td>
<td>New Alignment 4-Lane... $15.0M/mile</td>
</tr>
<tr>
<td>Add 5' Bike Lane..... $100K/mile</td>
<td>Grade Separated Intersection... $20.0M/mile</td>
</tr>
<tr>
<td>Add Barrier Separated Bike Lane... $350K/mile</td>
<td>Fixed Route Bus System... $500k/mile</td>
</tr>
<tr>
<td>Add Turn Lane........ $100K</td>
<td>Park &amp; Ride (Garage)..... $3.0M</td>
</tr>
<tr>
<td>Upgrade to Signalized Intersection.......... $150K</td>
<td>BRT (Mixed Flow) .......... $500K/mile</td>
</tr>
<tr>
<td>Access Management.... Market Price</td>
<td>BRT (Dedicated, Arterial) ... $2.0/mile</td>
</tr>
<tr>
<td></td>
<td>BRT (Dedicated, Freeway) ... $4.0/mile</td>
</tr>
</tbody>
</table>

2022–2027

2022–2037
STUDY REVIEW: GOALS

1. ADDRESS CONGESTION AND PROVIDE FOR MULTIMODAL MOBILITY

2. PROVIDE AN INTEGRATED AND CONNECTED MULTIMODAL NETWORK

3. INCREASED AND ENHANCED TRANSIT SERVICES WITHIN AND CONNECTING TO STUDY AREA

4. COORDINATION BETWEEN TRANSPORTATION AND LAND USE AS GROWTH CONTINUES

5. JURISDICTIONAL AND AGENCY COORDINATION REGIONALLY AND INTER-REGIONALLY

6. PROVIDE A SAFE MULTIMODAL TRANSPORTATION NETWORK
## STUDY REVIEW: PROJECTS

<table>
<thead>
<tr>
<th>Facility</th>
<th>From</th>
<th>To</th>
<th>Project Type</th>
<th>Has this project already been completed, or is it in progress</th>
<th>Is this project no longer feasible? (If so, why not?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Comal Trail</td>
<td>-</td>
<td>-</td>
<td>Trail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Braunfels Pedestrian</td>
<td>On San Antonio Street, Walnut Avenue,</td>
<td>and McQueeney Road and Seele Elementary</td>
<td>Bicycle/Pedestrian</td>
<td></td>
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</tr>
<tr>
<td>Connectivity</td>
<td></td>
<td></td>
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<tr>
<td>Binz-Engleman Road</td>
<td>Loop 1604 (San Antonio)</td>
<td>Ware Seguin Road</td>
<td>Extension</td>
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<tr>
<td>Connector Road</td>
<td>IH 35</td>
<td>Old Wiederstein Road</td>
<td>Widening/Expansion</td>
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<td>Country Club Boulevard</td>
<td>Existing terminus</td>
<td>City Limits</td>
<td>Extension</td>
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<tr>
<td>Ebel/Borgfeld Rd</td>
<td>Schertz Parkway</td>
<td>Gutierrez Park</td>
<td>Bicycle/Pedestrian</td>
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<tr>
<td>Engel Road</td>
<td>East-West connector</td>
<td>New Street, New Braunfels ETJ</td>
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<tr>
<td>FM 1103</td>
<td>IH 35</td>
<td>IH 10</td>
<td>Operational</td>
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<tr>
<td>FM 1103</td>
<td>IH 35</td>
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<td>Widening/Expansion</td>
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<tr>
<td>FM 1518</td>
<td>FM 78</td>
<td>IH 10</td>
<td>Widening/Expansion</td>
<td></td>
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<tr>
<td>FM 1518 (046502027)</td>
<td>FM 78</td>
<td>I-10 (may include bridge over FM 78)</td>
<td>Widening/Expansion</td>
<td>Funded</td>
<td></td>
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<tr>
<td>FM 1518</td>
<td>Maske Road</td>
<td>FM 78</td>
<td>Widening/Expansion</td>
<td></td>
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</tr>
<tr>
<td>FM 78 and FM 3009</td>
<td>-</td>
<td>-</td>
<td>Grade Separation</td>
<td></td>
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<tr>
<td>FM 78 and FM 3009</td>
<td>-</td>
<td>-</td>
<td>Grade Separation</td>
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<td>Four Oaks Lane</td>
<td>FM 3005</td>
<td>North-South Connector</td>
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<td>Graytown Road</td>
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<td>I-10</td>
<td>Widening/Expansion</td>
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<td>Eckhardt Road</td>
<td>Schertz ETJ limit</td>
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<td>Maske Road</td>
<td>Schertz Parkway</td>
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<td>Lower Seguin Road</td>
<td>FM 1518</td>
<td>Cibolo Creek</td>
<td>Widening/Expansion</td>
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<td>Lower Seguin Road</td>
<td>Loop 1604 (San Antonio)</td>
<td>FM 1518</td>
<td>Widening/Expansion</td>
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<td></td>
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<tr>
<td>New Street (near Pfeil Road)</td>
<td>Pfeil Road</td>
<td>Binz Engleman</td>
<td>New Road</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STUDY REVIEW: PRIORITY ZATION

» Prioritization Goals
   – Develop a performance-based project assessment process that will be used for project prioritization

» Strategies
   – Use adopted goals to build assessment process
   – Use available data to assess each project for performance
   – Establish a prioritization criteria that will be applied to performance scoring
PERFORMANCE-BASED PROJECT ASSESSMENT
Project Performance Assessment Summary

» Project Profile
- Total Number of Projects 117
- Projects by Type
  - Bicycle/Pedestrian - 58
  - Intersection Improvements - 20
  - Roadway – 39

RS&H
The cost benefit analysis will also be used to further rank these projects.
These data inputs are housed on individual tabs and are referenced to projects by the project #.
Performance Based Project Assessment

» Input Examples
  – Crash locations and severity
  – Location of historic and natural resources
  – Location of military installations and the STRAHNET
  – Freight routes and freight development
  – Ability to improve multimodal movement
  – Traffic volumes and capacity

» Data inputs were pulled from a variety of resources

» Methodology Memorandum
  • In development

Table 1: Performance Based Screening Tool Inputs

<table>
<thead>
<tr>
<th>Ranking Summary</th>
<th>County</th>
<th>iAADT</th>
<th>iHistoric</th>
<th>iNatural_R</th>
<th>iDefence</th>
<th>iFreight</th>
<th>iAirport</th>
<th>iMultimodal</th>
<th>iTourism</th>
<th>IV_C_LOS</th>
<th>Safety</th>
<th>Descriptions</th>
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</table>

RS&H
<table>
<thead>
<tr>
<th>Project</th>
<th>Active Scoring</th>
<th>Connection to Airport or Support in Notes</th>
<th>Scoring</th>
<th>Notes</th>
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<tbody>
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<td>1. Adjacent or providing direct access to New Braunfels Municipal Airport</td>
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<tr>
<td>2</td>
<td>0</td>
<td>Intersection</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>Intersection</td>
<td>SOMEWHAT</td>
<td>0.5 Indirect Access to New Braunfels Municipal Airport</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
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<td>Intersection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>0</td>
<td>Intersection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performance Based Project Assessment

» Tool Inputs (Numerical Values)
  – Average Annual Daily Traffic (AADT)
    • TxDOT Roadway Inventory (2019)
    • Travel Demand Model’s future projection counts (2045)
    • Nearby corridors traffic counts for new construction projects (estimated)
    • Truck Volume Percentage
  – Vehicle to Capacity Ratio (V/C) 2017 and 2045
    • Used to estimate Level of Service
  – Total Vehicle Crashes, Injury Crashes and Fatal Crashes
    • Crash Rates (per 100 MVMT)
    • Bike/Ped Crashes, Injury Crashes, and Fatal Crashes
Performance Based Project Assessment

» Tool Inputs (Yes/No/Somewhat)
  – Supports Access to Freight Generators and Attractors
    • Review of Satellite Imagery
    • Support of a designated freight route
  – Supports Access to Tourism Attractions
    • Access to an Interstate
    • Access to a known tourism destination (i.e., Schlitterbahn)
  – Multimodal Elements
    • Access to Planned Bicycle/Pedestrian Facilities
    • Airport Access
    • Freight Access

• Supports Access to Military Installations and Military Mobilization Routes
  • STRAHNET (Strategic Highway Network)
  • Nearby Installations
• Proximity to Historic Locations and Buildings
  • National Register, cemeteries, Historical markers
• Proximity to Wetlands, Waterbodies and Karst features
Performance Based Project Assessment

» Quantitative Project Scoring Process
  – Numerical values will be sorted based on associated impact

» Qualitative Project Scoring Process
  – Yes/No/Somewhat will be scored as follows:
    • Yes: 1/-1
    • Somewhat: 0.5/-0.5
    • No: 0
The cost benefit analysis will also be used to further rank these projects.
Project Input and List from Oversight Committee

Oversight Committee Review

Base Analysis Results Without Weighting

Priority Weighting Analysis (Using Goals to add weight to metrics)

Cost Benefit Analysis

Project Performance Assessment

In this sheet you will see the data summary for each project before thresholds and priority weighting is applied.

Cost benefit analysis will be used to further rank these projects.
Performance Based Project Assessment

» Project Scoring Process
  – The sum of the total aggregate values for each project will make up the Performance Based Ranking
    • Projects will then be ranked based on their position in the sorted list
      • Highest score = Highest Need
  – Priority ranking multipliers are added to introduce local goals
    • Goal ranks were used to add weight to specific metrics
# Performance Based Project Assessment

## Goal Multipliers

<table>
<thead>
<tr>
<th>Goal #</th>
<th>Goal</th>
<th>Priority Rank</th>
<th>Applied to these data points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility</td>
<td>6</td>
<td>V/C, Bike Ped</td>
</tr>
<tr>
<td>2</td>
<td>Provide an integrated and connected multimodal network that enhances transportation options</td>
<td>5</td>
<td>Airport, Freight, Defense, Tourism</td>
</tr>
<tr>
<td>3</td>
<td>Identify opportunities for increased and enhanced transit services within the area, as well as connecting to major employment and activity centers outside of the area</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Coordination between transportation and land use to proactively address mobility issues associated with future growth</td>
<td>3</td>
<td>Historic/Cultural/Environmental</td>
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<tr>
<td>5</td>
<td>Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally</td>
<td>2</td>
<td>N/A</td>
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<tr>
<td>6</td>
<td>Provide a safe multimodal transportation network</td>
<td>1</td>
<td>Safety Score</td>
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Performance Based Project Assessment

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Active Scoring</th>
<th>Near Historic Resource</th>
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<tr>
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.Data

Score

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<tr>
<th>Goal #</th>
<th>Goal</th>
<th>Priority Rank</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
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</tr>
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<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Coordination between transportation and land use to proactively address mobility issues associated with future growth</td>
<td>3</td>
</tr>
</tbody>
</table>

Applied Goal Multiplier
Performance Based Project Assessment

» Factors for Ranking
  – Truck % – Over the median value
  – Existing and Future V/C – Over the median value
  – Safety
    • Overall quartile crash rate
    • Number of Bike/Ped injuries and fatalities
    • Number of overall fatalities

  – Supports Access
    • Freight Movement
    • Defense
    • Tourism
    • Bike/Ped
    • Airport

  – Potential Impacts
    • Historic/Cultural Site
    • Wetlands, Waterbodies or Karst Features
The cost benefit analysis will also be used to further rank these projects.
Performance Based Project Assessment

» Want do we want from You!?  
  – Identify projects that should have higher or lower ranks  
    **But identify why!**  
    • *Some reasons may include:*  
      • Number of crashes  
      • High vehicle volumes  
      • Dedicated funds  
      • Equitable representation

Perhaps a corridor is underreporting accidents?
## Performance Based Project Assessment

### Summary Spreadsheet

<table>
<thead>
<tr>
<th>Project</th>
<th>Scope</th>
<th>Schedule</th>
<th>Budget</th>
<th>Resources</th>
<th>Quality</th>
<th>Risk Management</th>
<th>Timeline</th>
<th>Status</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Project A</td>
<td>New</td>
<td>1 Qtr</td>
<td>$100k</td>
<td>100 people</td>
<td>90%</td>
<td>Low</td>
<td>2023 Q1</td>
<td>In progress</td>
<td>None</td>
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<tr>
<td>Project B</td>
<td>Expansion</td>
<td>2 Qtr</td>
<td>$200k</td>
<td>200 people</td>
<td>95%</td>
<td>Medium</td>
<td>2023 Q2</td>
<td>Completed</td>
<td>None</td>
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<tr>
<td>Project C</td>
<td>Upgrade</td>
<td>3 Qtr</td>
<td>$300k</td>
<td>300 people</td>
<td>85%</td>
<td>High</td>
<td>2023 Q3</td>
<td>Delayed</td>
<td>None</td>
</tr>
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</table>

### Key Metrics
- **Revenue**
- **Expense**
- **Profitability**
- **Customer Satisfaction**
- **Employee Engagement**

### Additional Information
- Detailed project reports available upon request.
Discussion
Next Steps

- Individual review of the project ranking
  - Feedback Requested by October 20, 2021

- Complete Project Prioritization

- Cost-Benefit Analysis

- Implementation Plan

- Final Oversight Committee Meeting

- Presentation to AAMPO TPB
Study Oversight

Committee Meeting #4

January 4, 2022
AAMPO Subregional Planning Study
Final Oversight Committee Meeting
JANUARY 4, 2022
MEETING AGENDA

- SCHEDULE
- PROJECT ASSESSMENT RECAP
- IMPLEMENTATION STRATEGIES
- TOP 25 PROJECTS
- EXAMPLE IMPLEMENTATION CHECKLIST
- NEXT STEPS
- QUESTIONS AND DISCUSSION
## SCHEDULE

<table>
<thead>
<tr>
<th>Project Tasks</th>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td>Project Management</td>
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<tr>
<td>Existing Conditions</td>
<td></td>
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<tr>
<td>Develop Goals and Objectives</td>
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<td></td>
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<tr>
<td>Stakeholder Outreach</td>
<td></td>
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<tr>
<td>Prioritized Projects and Programs List</td>
<td></td>
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<tr>
<td>Financial Analysis &amp; Implementation Plan</td>
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<tr>
<td>Draft Final Report</td>
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<td>TAC &amp; TPB Presentations</td>
<td></td>
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<td>Final Report</td>
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<td>Deliver Final Documents and Data</td>
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</tbody>
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- **Oversight Committee Meetings**
- **Stakeholder Meetings**
- **January 2022 Technical Advisory Board Meeting**
- **January 2022 Transportation Policy Board Meeting**

*We are HERE!*
PROJECT ASSESSMENT RECAP
STUDY GOALS

1. Address congestion and provide for multimodal mobility
2. Provide an integrated and connected multimodal network
3. Increased and enhanced transit services within and connecting to study area
4. Coordination between transportation and land use as growth continues
5. Jurisdictional and agency coordination regionally and inter-regionally
6. Provide a safe multimodal transportation network

RS&H
PROJECT PRIORITIZATION

Project Input and List From Oversight Committee

Prioritization

- List of Projects to Test
- Performance Input: AADT/Truck Percentage
- Reliability Inputs: V/C, 10S
- Safety Inputs: Crash Type, Rates, Severity
- Freight/Defence/Tourism Related Development
- Multimodal Inputs: Planned Facilities, Airport Access
- Environmental and Cultural Impacts

Qualitative and Quantitative Assessment Criteria
Base Analysis Results Without Weighting
Priority Weighting Analysis (Using Goals to Add Weight to Metrics)

Results

- Fiscally Unconstrained Prioritized List
- Oversight Committee Review
- Data for Cost Benefit Analysis

Top 25 Project List

Top 25 BCRS
POST-ASSESSMENT PROJECT DETAILS
BENEFIT-COST ANALYSIS

- Calculated expected monetary value of benefits over life of project in:
  - Delay
  - Safety
  - Emissions

- Different benefit estimation spreadsheets used for
  - Roadway /Intersection Projects
  - Active Transportation Projects

RS&H

**BCR ≥ 1.0**

means benefits of project are equal to or greater than the cost
EASE OF IMPLEMENTATION

» Group A – Easy
- Lower cost
- No ROW acquisition
- Unlikely to have environmental impacts
- Won’t interrupt or significantly impact traffic operations
- Won’t require utility relocation

5
in the Top 25

» Group B – Moderate
- Lower to moderate cost
- Minimal, if any, ROW acquisition
- Minimal, if any, environmental impacts
- May interrupt traffic operations
- Unlikely to require utility relocation

8
in the Top 25

» Group C – Difficult
- Higher cost
- Moderate to extensive ROW acquisition
- Moderate to significant environmental impacts
- Will interrupt or significantly impact traffic operations
- Likely to require utility relocation

12
in the Top 25
IMPLEMENTATION STRATEGIES
Implementation Strategies

» Agency Coordination

» Project Champion and Advancement Committees

» AAMPO Staff Liaison and Check-In Program

» Special Funding and Enhanced Federal Funding

» Collaboration with Developers and Interest Groups
Agency Coordination

✓ Consider developing Memoranda of Understanding (MOU) or other agreements with TxDOT and adjacent municipalities to facilitate planning, funding, execution, and maintenance

✓ Obtain letters of commitment to match funding from all Project Partners

✓ Identify potential collaboration opportunities with already-planned projects e.g. including bike lanes in a County re-striping project

RS&H
Project Champion and Project Advancement Committees

- Establish a committee comprised of representatives from the Project Partners
- Identify a committee leader who will also be the Project Champion
- Include a member of an appropriate AAMPO committee
- Meet regularly to advance project implementation
- Help to integrate project into existing plans to streamline efforts and maximize funding
- Identify Transportation Equity / Environmental Justice issues associated with project
AAMPO Staff Liaison

✓ AAMPO identify staff liaison based on project
  ✓ Regionally significant project liaison: Director or Deputy Director
  ✓ Roadway extensions, widenings, and intersection projects: Regional Transportation Planner
  ✓ Bike/ped projects: Active Transportation Planner
  ✓ Transit or transit adjacent projects: Commute Solutions Planner

✓ AAMPO Staff Liaison check in with Project Champion and Project Advancement Committee regarding project progress at a minimum of once per quarter
Special Funding

- Identify projects that may be eligible for CMAQ funding. Examples include:
  - Bexar County projects
  - Intersection improvements that reduce idling and congestion
  - Bike/ped facilities
  - Capacity-increasing projects that may reduce congestion

- Identify projects that may be eligible for Surface Transportation Program (STP) funding. Examples include:
  - New roadway construction
  - Bridge construction
  - Transit research and development
  - Intersection Safety Improvements
Enhanced Federal Funding

✓ Project partners evaluate projects’ eligibility for RAISE program, FLAP, and other grant opportunities

✓ Project Partners monitor Infrastructure Investment and Jobs Act (IIJA) bill and potential new project funding programs, including:
  ✓ Safe Streets and Roads for All (Section 24112)
  ✓ Local and Regional Project Assistance (Section 21202)
  ✓ Railroad Crossing Elimination Program (Section 22104)
Collaboration with Developers and Interest Groups

- Project partners review plans for development in vicinity of project
- Project partners reach out to developers to help fund projects that benefit all residents
  - Greenways
  - Bike lanes
  - Shared use paths
- Consider implementing policies to encourage mixed use developments and encourage transit-oriented developments
- Reach out to interest groups like The Great Springs Project to identify opportunities for project collaboration
TOP 25 PROJECTS
116 RANKED PROJECTS
Project Sources

» AAMPO
  – 2019 MTP
  – 2019 MTP – Unfunded Projects List
  – 2019 – 2022 TIP

» City of New Braunfels
  – 2012 Regional Transportation Plan

» City of Schertz
  – 2017 Thoroughfare Plan
  – 2014 Parks and Recreation Master Plan

» City of Seguin
  – 2008 Comprehensive Master Plan

» City of Selma
  – 2017-2032 Comprehensive Development Plan
  – 2018 Trails & Branding Master Plan

» Consultant Team

» Oversight Committee
State Highway 123 Widening – GH1

Widen roadway and shoulders to provide operational improvements

Estimated Cost
$60,950,000 (from MTP)

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
1.04

Project Rank
1

Project Champion
?

RS&H

Texas Department of Transportation
Guadalupe County
The State of Texas
Seguin Texas
FM 78 On-Street Bike Lanes – G3

*Add bike lanes in both directions from FM 1518 to Marion city limit*

**Project Rank:** 2

**Estimated Cost**
$425,000

**Ease of Implementation**
A (easy) to B (moderate)

**Benefit-Cost Ratio**
4.32

**Project Champion**
FM 1518 Expansion III – B29

Expand from 2 to 4 lanes and add a raised median or center turn lane, bike lanes, and sidewalks from FM 78 to IH-10

Estimated Cost
$65,020,000 (cost from MTP)

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
0.54

Funded
FM 1103 Expansion I – CG2
Expand from 2 to 4 lanes and add sidewalks from IH-35 to Cibolo city limit

Estimated Cost
$20,000,000

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
1.55
SL 1604 Intersection Improvements II – INT B8

Update signal timing and increase length of turn bays at the intersection of WB IH-10 frontage road and SL 1604.

Estimated Cost
$260,000

Ease of Implementation
A (easy)

Benefit-Cost Ratio
74.84
FM 1101 Expansion – C9

Expand from 2 to 4 lanes and add sidewalks from Barbarosa Road to Kohlenberg Road

Estimated Cost
$15,420,000

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
0.74

Project Champion
SL 1604 Intersection Improvements I – INT B7

Update signal timing and increase length of turn bays at the intersection of EB IH-10 frontage road and SL 1604.

**Estimated Cost**
$260,000

**Ease of Implementation**
A (easy)

**Benefit-Cost Ratio**
26.85
FM 1103 Expansion II – G27

Expand from 2 to 4 lanes and add median, bike lanes and sidewalks from FM 78 to Rodeo Way in Cibolo

**Estimated Cost**
$30,286,000 (from MTP)

**Ease of Implementation**
C (difficult)

**Benefit-Cost Ratio**
0.83
Kowald Lane Expansion – C5

Expand from 2 to 3 lanes and add sidewalks from IH-35 to FM 1101

Estimated Cost
$1,760,000

Ease of Implementation
B (moderate)

Benefit-Cost Ratio
0.33
FM 758 Expansion – G35
Expand from 2 to 4 lanes from SH 46 to Airport Road and realign western portion to meet the future Weltner Road Parkway (Project G34) at SH 46

**Estimated Cost**
$20,000,000

**Ease of Implementation**
B (moderate)

**Benefit-Cost Ratio**
1.73
FM 3009 On-Street Bike Lanes – C1

Add bike lanes in both directions from Schoenthal Road to Lookout Road

**Estimated Cost**
$160,000

**Ease of Implementation**
A (easy)

**Benefit-Cost Ratio**
35.61

Project Champion

RS&H
Guadalupe River/Lake McQueeny Trail – G2

Construct 10-ft to 12-ft wide shared-use bicycle/pedestrian trail along the Guadalupe River and Lake McQueeny

**Estimated Cost**
$3,500,000

**Ease of Implementation**
C (difficult)

**Benefit-Cost Ratio**
Needs further assessment

Project Champion

RS&H

THE STATE OF TEXAS
GUADALUPE COUNTY
SEGuin
TExAS
SH 46 Expansion – CG7
Expand from 4 to 6 lanes from IH-35 in New Braunfels to IH-10 in Seguin

Estimated Cost
$600,000,000

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
3.01

Project Champion
?
FM 78 On-Street Bike Lanes 1 – G4
Add bike lanes in both directions from Vernell Lane (east of Marion) to the Guadalupe River

Estimated Cost
$300,000

Ease of Implementation
A (easy) to B (moderate)

Benefit-Cost Ratio
8.46
Olympia Parkway Shared Use Path – B13

Construct 10-ft to 12-ft wide trail with tree buffer parallel to both directions from Selma/Universal City border to Agora Parkway.

Estimated Cost
$380,000

Ease of Implementation
B (moderate)

Benefit-Cost Ratio
0.43
Woodland Oaks Drive On-Street Bike Lanes and Shared Use Path – G29

Add bike lanes and construct a 10-ft to 12-ft wide trail with tree buffer parallel to both directions from FM 3009 to Schertz Parkway

Estimated Cost
$1,158,266 (from TIP)

Ease of Implementation
B (moderate)

Benefit-Cost Ratio
1.61
New roadway from IH 35 Frontage Road to FM 1044 – C6
Construct new 4 lane divided roadway with sidewalks from FM 1044 north of Weil Road to IH-35

Estimated Cost
$19,780,000

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
0.33
FM 725 Expansion – G26

Expand from 2 to 4 lanes and add sidewalks from FM 78 to Zipp Road, and develop intersection improvements at FM 78 and Zipp Road

Estimated Cost
$32,791,000 (from MTP)

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
1.23
Common Street Expansion – C3

Expand from 2 to 4 lanes and add sidewalks from SH 46 to FM 306, and develop intersection improvements at SH 46 and FM 306

Estimated Cost
$1,760,000

Ease of Implementation
B (moderate)

Benefit-Cost Ratio
1.41
River Road On-Street Bike Lanes – C14

Add bike lanes in both directions from Lakeview Boulevard to the Guadalupe River

**Estimated Cost**
$170,000

**Ease of Implementation**
B (moderate)

**Benefit-Cost Ratio**
5.74

Project Champion

RS&H

The State of Texas

City of New Braunfels
Savannah Drive Shared Use Path – G14

Construct 10-ft to 12-ft wide trail with tree buffer parallel to Savannah Drive from FM 1518 running behind the western end of Kensington Ranch

Estimated Cost
$650,000

Ease of Implementation
B (moderate)

Benefit-Cost Ratio
0.25
SH 123 Expansion – G25

Expand from 2 to 4 lanes with raised median or center left turn lane from Cordova Road to IH-10 in Seguin

**Estimated Cost**
$19,748,000 (from MTP)

**Ease of Implementation**
C (difficult)

**Benefit-Cost Ratio**
0.99

---

Project Rank 22

Already in the MTP

Project Champion

RS&H

Funded

Texas Department of Transportation

Seguin, Texas
New roadway from Binz Engleman to Pfeil Road – B9

*Construct new 4 lane divided roadway with sidewalks from Binz Engleman to Pfeil Road*

**Estimated Cost**
$21,000,000

**Ease of Implementation**
C (difficult)

**Benefit-Cost Ratio**
0.14
Four Oaks Lane Extension – G17

Extend Four Oaks Lane from its current eastern terminus to Cibolo Valley Drive

Estimated Cost
$4,000,000

Ease of Implementation
C (difficult)

Benefit-Cost Ratio
0.16
Savannah Oaks Drive On-Street Bike Lanes and Shared Use Path – G30

Add bike lanes and construct a 10-ft to 12-ft wide trail with tree buffer parallel to both directions from FM 3009 to Schertz/Selma line

**Estimated Cost**
$1,426,966 (from TIP)

**Ease of Implementation**
B (moderate)

**Benefit-Cost Ratio**
1.36
EXAMPLE IMPLEMENTATION
State Highway 123 Widening – GH1
Widen roadway and shoulders to provide operational improvements

- TxDOT, Hays County, Guadalupe County, and City of Seguin develop MOU and provide letters of commitment to match funding
- AAMPO identify staff liaison for this roadway project
- TxDOT, Hays County, Guadalupe County, and City of Seguin convene Project Advancement Committee

- Project Advancement Committee Meeting #1
  - Committee identify Project champion
  - Committee choose a TAC member to join
  - Committee develop goal implementation date

- Project Advancement Committee Meeting #2
  - Identify status of funding Identify likely major environmental and community concerns: floodway, wetlands
  - Identify stakeholders that may be impacted
  - Evaluate project readiness and identify other items needed to make project "shovel-ready"

- Project Advancement Committee Meeting #3
  - Committee develop a Call for Projects submittal
**NEXT STEPS**

**Technical Advisory Committee Review**
- Recommend approval for TPB

**Transportation Policy Board Review**
- Approval of Implementation Plan

**Final Report**
- Synthesis of all project findings and recommendations
Appendix C

Oversight Committee Meeting Minutes
Study Oversight

Committee Meeting #1

MINUTES

March 30, 2021
Meeting Minutes

Project Name: AAMPO Subregional Planning Study
Project Number: 115-0015-000
Meeting Date: March 30, 2021
Meeting Time: 1:30 pm – 2:30 pm CST
Meeting Place: Zoom Call
Subject: Oversight Committee Kickoff Meeting

Attendees: Allison Blazosky (AAMPO), Clifton Hall (AAMPO), Councilman Joel Hicks (NEP / Guadalupe County), Greg Reininger (CoSA), Darcie Schipull (TxDOT), David Rabago (City of Seguin), Garry Ford (City of New Braunfels), Katie Merry (JBSA), Zack Lofton (CAMPO), Larry Picasso (Bexar County), Kammy Horne (VIA), Stella Garcia (AACOG), Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Bill Loudon (ATG), Wade Walker (KAI), Raj Basavaraju (Transcend), Venu Kukkapalli (Transcend)

1. Introductions
   - Introduce Oversight Committee members
   - Introduce consultant team members

2. Presentation, including Oversight Committee taking part in ParticiPoll

3. Discussion
   - Garry Ford stated that his vision for the study is that we look at the area as a whole with no boundaries rather than looking at it by jurisdiction or by funding availability; identify what is needed for the area and then bring into the agency focus collaboratively to develop solutions and then identify the implementation strategies
   - Ideas for stakeholders:
     i. Comal Trails Alliance
     ii. Cycling groups, such as
        1. Wheel Men
     iii. AAMPO BMAC rep – Joey Pawlik
     iv. Human services advocacy groups, including groups that represent underserved communities
     v. Universities (Texas Lutheran, Alamo Colleges)
     vi. Freight shipping associations
     vii. Distribution/warehouse representatives centers

4. Action Items
   - Allie will send info for AAMPO BPAC contact and freight representative contact.
   - Allie will send out doodle poll with possible dates for stakeholder meetings.
   - Liz to send Biscom site invite to whole committee
   - RS&H to synthesize answers to ParticiPoll questions to help formulate draft goals and objectives for the study
## Poll Results

### What are your Top 3 transportation concerns for our region?

<table>
<thead>
<tr>
<th>Concern</th>
<th>Count</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Improved bike/ped network connectivity</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>B. Expanded bike/ped network</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>C. Freight management</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>D. ITS / Technology</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>E. Jurisdictional collaboration</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>F. Ridesharing / Park &amp; Ride</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>G. Roadway connectivity</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>H. Safety</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>I. Congestion</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>J. Existing transit availability and access</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>K. Expanded transit services / frequency</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>L. Other</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

If you said “Other,” please share with us you were thinking

<table>
<thead>
<tr>
<th>Concern</th>
<th>Count</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectivity</td>
<td>6</td>
<td>50%</td>
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<tr>
<td>Agency coordination</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>ITS</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Crash management</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

In a perfect world, what mode of transportation would you prioritize when planning for our region’s future?

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Bike/ped</td>
<td>2</td>
<td>14%</td>
</tr>
<tr>
<td>B. Mass transit</td>
<td>9</td>
<td>64%</td>
</tr>
<tr>
<td>C. Roadway</td>
<td>2</td>
<td>14%</td>
</tr>
<tr>
<td>D. Roadway with focus on ride-sharing</td>
<td>1</td>
<td>7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

In a word or two tell us what you expect this study to achieve?

<table>
<thead>
<tr>
<th>Objective</th>
<th>Count</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination/connectivity</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Multimodal options</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>ACTION</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Connectivity</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Direct funding</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Collaboration /coordination</td>
<td>5</td>
<td>26%</td>
</tr>
<tr>
<td>Project prioritization</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Briefly tell us why you think this study is important for our Study Area?</td>
<td>Count</td>
<td>Pct</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>Keep up with growth</td>
<td>4</td>
<td>21%</td>
</tr>
<tr>
<td>High growth area</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Coordinated efforts</td>
<td>4</td>
<td>21%</td>
</tr>
<tr>
<td>Enhance Mobility/Safety</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Competing interest</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Clearly define goals</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Sets an Example</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>We’re going to hold three separate virtual working sessions with stakeholders. How do you think those should be organized?</th>
<th>Count</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. By category (i.e. cities, agencies, interest groups, etc.)</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>B. By geography (i.e. stakeholders in Guadalupe County, stakeholders with an interest in the entire subregion, etc)</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>C. Hold three meetings with the same information and allow people to join whichever is most convenient</td>
<td>7</td>
<td>58%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Meeting recording [here](#).
Study Oversight

Committee Meeting #2

MINUTES

May 13, 2021
### Meeting Minutes

**Project Name:** AAMPO Subregional Planning Study  
**Project Number:** 115-0015-000  
**Meeting Date:** May 13, 2021  
**Meeting Time:** 10 am – 11 am CST  
**Meeting Place:** Zoom Call  
**Subject:** Oversight Committee Meeting #2  

**Attendees:** Allison Blazosky (AAMPO), Clifton Hall (AAMPO), Councilman Joel Hicks (NEP / Guadalupe County), Lauren Simcic (CoSA), Scott Nelson (TxDOT), David Rabago (City of Seguin), Garry Ford (City of New Braunfels), Katie Merry (JBSA), David Wegmann (Bexar County), Kammy Horne (VIA), Stella Garcia (AACOG), Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Bill Loudon (ATG)

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1. **Welcome**  
   - Allison Blazosky

2. **Presentation**  
   - Nick Arnio

3. **Discussion**
   
   i. Gary Ford  
      - Requested a copy of the PowerPoint.  
      - Pleased with the goals that were presented.  
      - Noted that we should look at transit need on a high level and identify what options may ultimately work for later implemented by individual agencies/jurisdictions.

   ii. Councilman Joel Hicks  
      - Representing City of Cibolo and Guadalupe County.  
      - Requested a copy of the PowerPoint.  
      - Pleased with the goals that were presented.  
      - Noted that safety is his biggest concern and should be the top goal.  
        a. Safety is the reason he got into public service.  
      - Stated that there is little demand among his constituents for transit.

   iii. Lauren Simcic  
      - Noted that transit is the most needed and most important goal.  
      - Suggested VIALink and on-demand transit may be a good way to meet regional demand.

   iv. Kammy Horne  
      - Thought powerpoint was good.  
      - Noted that we need to dive deeper into demand for transit and identify appropriate locations where demand exists.
v. David Rabago
   - Noted that we should identify if transit makes sense for certain communities.
   - There are big industries, such as Caterpillar in the area, and the coordination with them on potential transit services is important.
     a. Maybe there can be set pick-up/drop-off times and express routes to those facilities.
     b. Councilman Hicks agreed with this approach.
   - Was pleased with the transportation and land use goal.

vi. Allison Blazosky
   - The goal of inter-jurisdictional coordination is critical and is important to each of the other goals.

vii. General
   - The goals are great and mesh extremely well/are consistent with the MTP goals.
   - Safety is a top priority.
     a. Potential to coordinate with TxDOT safety program.
   - Managing the high growth and its transportation impacts is a great concern; a proactive approach is needed and this study and these goals can set the stage.
   - Transit is also a priority, but need to appropriately match the services with the needs and demands for transit; VIA Link service is a good example of this approach.
   - The existing conditions provided excellent information that the members want to share with their decision-makers and stakeholders.
   - The stakeholder meetings will provide additional opportunities for input on the goals and objectives and all of the input will be brought together to provide the foundation for the project assessment/prioritization.

4. Action Items
   - Send presentation to Allie for distribution to the committee members (Li High)
   - Develop objectives for each of the goals and then distribute for feedback from the committee members (RS&H)
Study Oversight Committee Meeting #3

MINUTES

October 13, 2021
Meeting Minutes

Project Name: AAMPO Subregional Planning Study
Project Number: 115-0015-000
Meeting Date: October 13, 2021
Meeting Time: 2 pm – 4 pm CST
Meeting Place: Zoom Call
Subject: Oversight Committee Meeting #3
Attendees: AAMPO: Sonia Jiménez, Clifton Hall

Oversight Committee: Councilman Joel Hicks (NEP / Guadalupe County), Hyder Salih (JBSA), Abigail Kinnison (VIA), Ivonne De La Rosa (TxDOT), Richard De La Cruz (TxDOT), Michael Sharp (City of Seguin), Lyle Hufstetler (AACOG), Dave Wegmann (Bexar County) Scott Nelson (TxDOT), Garry Ford (City of New Braunfels), Mary Hamman (City of New Braunfels), Darcie Schipull (TxDOT), Chuck Jenigen (JBSA), Nick Samuel (CAMPO)

Consultant Team: Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Rachel Hatcher (RS&H), Brian Powers (RS&H), Bill Loudon (ATG), Sirisha Pillallimari (Transcend), Wade Walker (Kittelson)

Action Item Summary

- Oversight Committee
  - Complete project list review and submit comments to Liz by COB October 20, 2021
- Brian Powers
  - Forward simplified spreadsheet that is sortable to the committee
- Liz High
  - Follow up with Lyle re ART routes in Seguin
  - Coordinate with Hyder to get GIS files for clear zones
  - Send shapefiles to Abigail
  - Send another kmz version to Councilman Hicks
  - Send the PowerPoint presentation to the committee
  - Coordinate with Sonia on scheduling the final oversight committee meeting, probably the first week in January (4th, 5th or 6th)

1. Welcome
   - Sonia Jiménez lead introductions

2. Presentation
3. **Discussion**
   
   ### General Comments
   
   - Committee would like to:
     
     a. Highlight access to schools
     b. Highlight opportunities for cross coordination
     c. Highlight areas for filling gaps in the network
     d. Identify projects need at the MPO vs Local level
     
   - Darcie Schipull (TxDOT) asked for the spreadsheet rather than the pdf
     
     a. [Brian](RS&H) will provide the front sheet that is sortable to the committee
     
   - Darcie: when we looked at projects, did we look at connectivity/gap closure projects and is multimodal only focused on bicycle/pedestrian?
     
     a. The gaps in the active transportation projects were looked at as part of the project development process. Multimodal primarily focused on the bike/ped element since there is not any transit service in the area that could be brought into the analysis
     b. We understand that transit is a critical issue, but with no current service, it was not brought into the analysis with specific transit-related data
     
   - Abigail: What about transit supportive corridors or is the scoring based on what is out there today on?
     
     a. Used bike/ped that could provide connectivity to transit and is transit supportive; both for normal transit as well as micro-transit
     b. Healthy corridors were also recognized through elements that could set the stage for future transit, such as LOS and bicycle/pedestrian, and that would promote future transit service
     c. Seguin does have ART transit, but it falls almost entirely outside of the study area

     i. [Liz](RS&H) to follow up with Lyle Huffstetler (AACOG)
     
   - Sonia: Committee members need to look at the project list and local funding and identify if there are any projects that could be advanced using local funds
     
   - Chuck Jenigen/Hyder Salih (JBSA): Were projects that violate or could violate air space considered?
     
     a. Did not look at ability to violate air space, but did look at the locations and proximity to the base as part of the criteria
     b. Need to de-prioritize the widening of Lower Seguin Road since it will violate the runway clear zone and we need to avoid encouraging any adverse impacts to the zone; in addition, widening Lower Seguin (Project B22) will encourage more traffic and that could impact the clear zone also
     c. In addition, adverse impacts could contribute to BRAC (Base Realignment and Closure)
     d. Reference the Air Installations Compatible Use Zones Study (AICUZS) (linked here)
     e. Would be good to overlay the clear zones on the projects and [Liz] will coordinate with Hyder to get the GIS files
     
   - Liz requested that if a project is underway or already funded, to please identify those for us
     
   - Abigail Kinnison (VIA) requested the GIS files of the projects and [Liz] will forward to her
     
   - Clifton Hall (AAMPO) asked how the weighting was applied; Brian explained the goal rankings were used as the multipliers
     
   - Garry Ford (City of New Braunfels):
     
     a. SH 46 is a major priority, but it is not included in the list and should be there. TXDOT is spending resources on studying the corridor and the types of traffic and it should be included.
     b. Also share the same concern with clear zone for the New Braunfels Airport, particularly FM 758 which could have an impact
     c. The project team needs to identify projects that can be accomplished from the regional perspective; those that are cross-jurisdictional and will form a seamless network
     d. Rachel: one of the elements we will be looking at are implementation strategies and where the project process should occur, whether through the MPO, or local, etc. The strategies will include those projects that can be regionally completed and move forward in the best manner and what strategies will accomplish that.
     
   - Liz asked TXDOT for thoughts on SH 46 that Garry mentioned
a. Scott Nelson (TxDOT): With regard to SH 46, TxDOT has been meeting with reps from all the jurisdictions for several months to formulate a big picture plan on moving it forward to meet the needs of the region; creating a more detailed plan that will go to the public and through environmental; probably looking at big picture addition of capacity as well as multimodal accommodations; plan is not finalized and still working through it to get the details; priorities for the region, it is one of the higher priority projects in the area from TxDOT perspective.
b. Parts of the project will be in place by 2035 or portions of it should be.
c. Will be a large project cost and will need to be broken into smaller pieces.
d. Garry: short term improvements such as operational improvements also being looked at including traffic management; technology; definitely steps that will be pushed forward in the short term that are needed before 2035; can’t just always widen so will need to develop strategies to widen.

- Michael Sharp (City of Seguin):
  a. Agree with Garry that SH 46 is important.
  b. New river trail is also a great project, but a lower scoring project is for a sidewalk where kids walk to school, the signal crossings don’t always work correctly, and it really needs to be improved (INT_G4 and INT_G8); the score is low but should be higher.
  c. RS&H: this is exactly the information we need because we need that local knowledge in addition to the regional data; taking that local knowledge we can input that and reevaluate.

- Darcie: is accessibility inherently part of the tool?
  a. Brian: Not sure if the question is ADA or multimodal related? For ADA, the high-level nature of the analysis and the regional data, ADA compliance in specific projects was not incorporated; however, we did incorporate the accessibility and safety bicyclists and pedestrians.

- From the TxDOT perspective, the high-ranking bike/ped/path projects should be supported by local government and come from a plan or a connectivity perspective and if not, they should rank lower.
- It is very important to review all of the projects and what do we want to support and recognize the funding categories; some of the study area is in non-attainment also which also opens up additional items.

- Wade Walker (Kittelson): Connectivity is important and for the active transportation/trail projects, connecting existing and planned trail facilities, addressing gaps and completing the network.

- Chuck Jenigen: the clear zone is 3000 x 3000 sq ft located off the end of the runway and then followed by accident potential zone (APZ) 1 which is 3,000 x 5000 sq ft. and the followed again by APZ 2 which is 3000 x 7000 sq ft.
  a. The base is located on both sides of the road and owns up to the shoulder of the road, but not the road itself.

- Joel Hicks (Guadalupe County/City of Cibolo): We don’t need to adversely impact RAFB in any way; potentially look at the expansion of 1518 (BG1) rather than Lower Seguin (B22) road to avoid those impacts.
  a. Projects G3 and G4 incorporate bike facilities on FM 78, which transitions from 4 lanes to 2 lanes between Cibolo and Seguin; need to close that 2-lane to 4-lane gap, adding bike lanes is great but also need to widen the road; also a lot of freight/18-wheelers on the road.
  b. On 78, at major intersection (FM 1044) only have flashing lights rather than signals and traffic is increasing with the new development and increased traffic; need to look at ways to get traffic and people moving and in addition to bike lanes need to look at where the road needs to be expanded.
  c. Need to look at G16 and CG 2 and CG 37; these are priorities and are funded in the last letting.

- Chuck Jenigen: there might also be an issue with FM 1518 if the construction dust, etc. could impact visibility for the Base.
  a. 60% of all accidents occur in the clear zone and APZ 1 and 2.

- Joel Hicks: would like to advocate for Evans Rd expansion all the way to 2252; have money for B10 (Evans Rd Sidewalks from Lookout Rd to IH 35 Frontage Rd), but need to finish Evans Rd at least to Veterans High School.

- Abigail Kinnison: supports other comments that projects connecting to schools, community centers and closes gaps in the network should be prioritized.

- Garry Ford: VIA does not serve New Braunfels. Only with AACOG’s ART does but very, very limited and have to pay for it; City of New Braunfels a transit study underway.
  a. Need to work together to figure out the transit piece, how will transit be funded and should there be separate little systems or coordinate with VIA on service.

- Richard De La Cruz (TxDOT) asked about where/how projects were generated.
Darcie explained that every entity involved were asked to submit projects and some were just intersection type improvements and TXDOT submitted projects that were in the planning phase with anticipated funding so wide variety of projects.

- Sonia reiterated any additional input from committee by next Wednesday (10/20)

**Zoom Chat Record**

**Darcie Schipull to Everyone: 03:41 PM**
- Can we get this as a spreadsheet, easier to review believe we got it as a PDF.
- When we looked at projects, did we look at connectivity or gap type projects? I think this would score a project higher.

**Abigail Kinnison to Everyone: 03:42 PM**
- So multimodal is only bike/ped?
- But no transit.

**Chuck Jenigen 502 ABW/CMI to Everyone: 03:46 PM**
- Were projects that violate or could violate airfield criteria considered.

**Lyle Hufstetler to Everyone: 03:46 PM**
- I see that I-10 is part of the Study Area. Alamo Regional Transit provides deviated fixed route service in Seguin. Does that fall just outside the Study Area?

**Hyder Salih to Everyone: 03:47 PM**
- We would like to not prioritize the widening of lower Seguin road as it would encourage additional traffic and it goes through our clear zone.

**Chuck Jenigen 502 ABW/CMI to Everyone: 03:49 PM**
- Strongly agree with Hyder Salih on Project B22.

**Darcie Schipull to Everyone: 03:50 PM**
- It might be good if we could get those zones to overlay the map.

**Darcie Schipull to Everyone: 04:08 PM**
- Looking at projects that provide accessibility is really important. not sure how this goes into the scoring.

**Darcie Schipull to Everyone: 04:15 PM**
- That is great, its hard to see in the map.. Thanks Wade..

**Abigail to Everyone: 04:27 PM**
- I have to hop off, but I just wanted to support other comments related to prioritizing projects which connect to schools/community centers or other planned/existing projects that have a bike/ped component.
Study Oversight

Committee Meeting #4

MINUTES

January 4, 2022
Meeting Minutes

Project Name: AAMPO Subregional Planning Study
Project Number: 115-0015-000
Meeting Date: January 4, 2022
Meeting Time: 1 pm – 3 pm CST
Meeting Place: Zoom Call
Subject: Oversight Committee Meeting #4 (final)
Attendees: AAMPO: Sonia Jiménez, Clifton Hall

Oversight Committee: Richard De La Cruz (TxDOT), Jesse Garcia (Bexar County), Scott Nelson (TxDOT), John Anderson (JBSA), Katie Merry (JBSA), Maricela Diaz-Wells (VIA), Jeff Fincke (Kendall County)

Consultant Team: Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Rachel Hatcher (RS&H), Brian Powers (RS&H), Bill Loudon (ATG), Sirisha Pillallimari (Transcend), Wade Walker (Kittelson)

Action Item Summary

- Review whether to leave on list:  
  - Project #3  
  - Project #4  
  - Project #5  
  - Project #7
- Clarify in Implementation Plan that no road diets are being proposed
- Replace incorrect map on Olympia Parkway Slide (Project #15) with correct one in the final presentation
- Update final presentation with corrected SH 46 (Project #13) cost
- Provide updated Oversight Committee Meeting #4 presentation to Sonia for dispersal to committee
- On Example Implementation slide, highlight in final presentation version and in TAC meeting version that projects need to be ready to move through the MTP and TIP projects and the “hard stuff” needs to be taken care of to be shovel ready for inclusion in the TIP
- Change Step #3 on Example Implementation slide in final presentation version and in TAC meeting version to “develop a call for projects submittal”
- Add steps that local agencies can do to advance projects to Implementation Plan
- In final presentation version and in TAC meeting version, call out more specifically that evaluating project readiness needs to be done before call for projects submittal on Example Implementation slide
1. Welcome
   - Sonia Jiménez lead introductions

2. Presentation
   - Liz High – Study Recap, Implementation Plan, Top 25 Projects
     - Project # 1: SH 123 widening
       - Richard: No funding per TXDOT- funding is only the section from I-10 through Cordova
     - Project # 2: FM 78
       - No comments
     - Project # 3: FM 1518 Widening, etc.
       - Richard: 1518 project is currently funded and is in PS&E; noted that this project is a done deal and is currently funded from FM 78 to I-10
       - [Team] to review whether to leave project on list
     - Project # 4: FM 1103 Widening
       - Richard: already funded from I-35 to Rodeo Parkway and then all the way to 78; project funded includes sidewalks and bike lanes
       - Richard: there is already a project champion and the project is underway
       - [Team] to review whether to leave project on list
     - Project # 5: SL 1604 Frontage Roads
       - No comment
     - Project # 6: FM 1101 Expansion
       - No comments
     - Project # 7: SL 1604 (east side)
       - Richard: this is a completed project; TxDOT converted that piece of 1604 from two lanes to four lanes
       - Liz notes this project is only focused on updating intersection
       - Richard: the project improved the whole intersection on both the east bound and west bound and converted from two lanes to four lanes
       - [Team] to review whether to leave project on list
     - Project # 8: FM 1103
       - No comment
     - Project # 9: Kowald Lane Expansion
       - No comment
     - Project # 10: FM 758 Expansion
       - No comment
     - Project # 11: FM 3009 on street bike lanes
       - No comment
     - Project # 12: Guadalupe River/Lake McQueeney Trail
       - No comment
     - Project # 13: SH 46 Expansion
       - No comment
     - Project # 14: FM 78 On street bike lanes
       - No comment
     - Project # 15: Olympia Parkway Shared Use Path
       - No comment
     - Project # 16: Woodland Oaks Drive on street bikes and shared use path
       - No comment
     - Project # 17: New roadway from IH 35 Frontage Road to FM 1044
       - No comment
     - Project # 18: FM 725 Expansion
       - No comment
     - Project # 19: Common Street Expansion
       - No comment
     - Project # 20: River road on street bike lanes
       - No comment
     - Project # 21: Savannah Drive shared use path
       - No comment
     - Project # 22: SH 1223 Expansion – Cordova to I-10 in Seguin
       - Richard: project is already funded
     - Project # 23: New roadway from Binz Engleman to Pfeil
       - No comment
     - Project # 24: Four Oaks Lane Extension
       - No comment
3. Discussion/Questions

- Sonia:
  - Thanked Richard for his feedback
  - Noted the Board will approve in March as approval is a two step process

- Richard:
  - Question on some of the restriping to bike lanes; don’t understand the intent of that on 3009 and FM 78; there are shoulders out there; what is the type of cross section looking for?
  - Want to be clear that no through lanes will be restriped into a bike lane; all through lanes that are out there and need to stay out there
  - Liz noted that the projects note that it may not be possible to add bike lanes within the existing footprint and additional right of way may be required

- Richard:
  - Spoke with Cibolo representative and know there is an issue on 78 and something needs to be done
  - On 3009 there are existing shoulders so don’t understand the need for bike lanes
  - Not going to restripe to take away any lanes; all through lanes that are there need to stay there
  - 3009 is an issue and on the radar and TxDOT needs to start looking at it

- Liz:
  - Noted that a lot of input from stakeholders was received as well as from existing plans on the need for dedicated bike lanes and it can be an issue to how to fit in
  - Will make sure the meeting notes reflect that no through lanes will be restriped to bike lanes and that any bike lanes will be in addition to the through lanes
  - [Liz] to clarify in Implementation Plan that no road diets are being proposed

- Richard:
  - Olympia Parkway...confusion on the map?
  - Liz noted it is the wrong map and will make sure that it’s replaced with the correct one
  - [Liz] to replace incorrect map with correct on in the final presentation

- Richard:
  - TxDOT did do an operational improvement project from 1103 to county line and looked at all operational improvements along I-35 and would like to know which one it is.
  - Liz noted the recommendation came from New Braunfels and is a city street

- Scott:
  - 46 from I-10 to 35 project is an important project, but has a very low estimate; ongoing planning meetings with the local governments and the cross section is more of a parkway for the preferred concept; the cost is more in the $600-$800 million range
  - Scott will get more detailed costs to Liz
  - [Liz] will update presentation before Friday based on comments received

- Liz does not anticipate going over the individual projects on Friday (TAC meeting) due to time constraints
- Sonia noted the TAC did receive full project list with their agenda packet and could have specific questions
- No additional comments from VIA and JBSA
- Sonia noted the presentation will be sent out to the committee after the updates are completed
  - [Liz] to provide to Sonia for dispersal
4. Post Meeting Debrief

- In the implementation steps, need to highlight how the projects need to be ready to move through the MTP and TIP projects and the “hard stuff” needs to be taken care of to be shovel ready for inclusion in the TIP
  - [Liz] to change in final presentation version and in TAC meeting version

- Sonia: getting the projects into the MTP is key and gives the ability to move the project forward and into the TIP; projects that are already in the MTP can be advanced

- Sonia: Step #3 may be premature on the implementation slide may be premature
  - [Liz] to change in final presentation version and in TAC meeting version – make it “develop a call for projects submittal”

- Clifton: likes the roles/steps identified; the fundamentals make sense; need to identify steps that local agencies can do to advance projects;
  - [Liz] to add to Implementation Plan

- Sonia: meeting #2: evaluate project readiness and that needs to be done before call for projects submittal; the process is captured, but need to call it out more specifically
  - [Liz] to change in final presentation version and in TAC meeting version

- Liz: will make the updates and create the draft TAC presentation and submit to Sonia and Clifton on Thursday for review

- Liz asked that in reviewing the implementation plan, Sonia and Clifton please include any additional items that may be missing from the checklists
Appendix D

Review of Previous Plans
Subregional Planning Study

Summary of Existing Plans and Studies

May 2021
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1.0 Introduction

In order to effectively address the conditions and concerns of the Subregional Planning Study Area, a regional and local literature review was conducted to identify previously documented stakeholder priorities, goals, and planned projects. These 36 plans and studies are described in the following sections.

2.0 Regional Plans

2.1 REGIONAL BICYCLE AND PEDESTRIAN PLANNING STUDY (2016) – AAMPO

Background/Summary

The Alamo Area Metropolitan Planning Organization (AAMPO) has a vision to build a safe, accessible, comprehensive, and seamless bicycle and pedestrian network, which requires establishing a bicycle and pedestrian plan in each community of the AAMPO region. The Regional Bicycle and Pedestrian Planning Study is intended to identify priorities, projects, and activities to improve safety and mobility, and help cities accomplish the region’s bicycling and walking vision and goals.

Concerns and Needs

According to Mobility 2040, the AAMPO Long-Range Plan, the region is anticipated to grow to over 3 million people by 2040 – an addition of 1.5 million people. Most of the population and employment growth is expected to occur in outlying counties, especially Comal and Guadalupe. Regional cities must plan for transportation system enhancements that effectively and efficiently support this rapid growth.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The study provides recommendations for bicycle and pedestrian infrastructure for New Braunfels and Seguin. A study survey indicates that residents are ready for additional transportation options that include walking and bicycling. Public workshop attendees in New Braunfels expressed concerns with the walking and bicycling barrier that IH-35 creates. The study suggests that an on-street bicycle network has the greatest potential immediate benefit to New Braunfels and identifies on-street segments key to building a connected network. Workshops in Seguin revealed that walking and bicycling challenges include sidewalk continuity and lack of right-of-way for improved pedestrian facilities at intersections. Recommendations for the improvement of on-street and off-street bicycle and pedestrian networks within Seguin are provided.

References

2.2 VISION 2040 LONG RANGE PLAN (2016) – VIA

Background/Summary

The VIA Metropolitan System operates 91 bus routes that serve 14 member cities in the greater San Antonio region and unincorporated Bexar County 7 days a week. The broad goal of this Long-Range Plan is to strengthen regional mobility, development, and sustainability, and to provide an outstanding Multimodal Transportation System to the people VIA serves.

Concerns and Needs

Concerns and needs identified in the plan include connection to jobs, education, and other destinations; growth, sustainable communities, and economic vitality; choices for travel; protection of natural resources and the environment; and access to safe routes for pedestrians and bicyclists.

Ongoing Activities

Current projects include the Zarazmora Street Primo, Military Drive Primo, and Real Time Arrival Signs.

Relationship to Subregional Study Area

VIA’s service area only extends into a small portion of the study area. However, there is a strong desire for reliable multimodal options in the study area and VIA has included routes in the study area in this long-range plan.

References

2.3 BIKE SHARE MASTER PLAN (2018) – AAMPO

Background/Summary

The AAMPO commissioned this study to evaluate the role of bike share and other forms of shared mobility in the Greater San Antonio Region including the study area cities San Antonio, New Braunfels, and Seguin. The study looks into expansion or changes to the existing bike share program in San Antonio, planning for new shared mobility options such as electric-assist bikes and electric-powered scooters, and considering shared mobility options suitable for smaller communities in Guadalupe, Comal, and Kendall Counties. The findings of the study are presented in four reports – one for each community (the study evaluates a fourth city, Boerne, which is outside of the study area).

Concerns and Needs

Concerns and needs for the study area cities include evaluating existing shared mobility programs and identifying demand, equity, and public opinion as well as evaluating the feasibility of introducing shared mobility programs into cities that do not currently have them.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

There is currently no bike share or other shared mobility system in New Braunfels. The City is taking proactive steps to improve bicycling conditions with construction of new trails and bike lanes and the addition of city policies to encourage these and other more sustainable modes of transportation. Shared mobility could be used as a way to accelerate this process through the visibility and ridership that these programs bring.

In Seguin, there was significant interest around a bike share program and the concept was well supported in public and stakeholder outreach. Seguin has a number of features that favor bicycle/pedestrian options including a compact downtown and a number of other attractions each separated by about 1 mile, which is reasonable bike or scooter distance.

References

https://www.alamoareampo.org/Studies/docs/BikeShareMasterPlan/ExecutiveSummary_112618.pdf
2.4 REGIONAL THOROUGHFARE PLAN (2018) – AAMPO

Background/Summary

The 2018 Regional Thoroughfare Plan looked at the AAMPO planning area and six additional counties (Blanco, Caldwell, Wilson, Atascosa, Medina, and Bandera) to try to identify regional transportation best practices and move planning in each county and jurisdiction forward with a regional mindset.

Concerns and Needs

- Identify differences between various thoroughfare plans in AAMPO service area.
- Address capacity and connectivity needs to identify high-priority planning areas.
- Provide tools to make thoroughfare planning easier for AAMPO member agencies.
- Establish a common regional thoroughfare organizational structure and vocabulary.
- Strategize better continuity and transitions between jurisdictions.
- Identify regional best practices.
- Create “bridge” to relate individual jurisdictions’ classification systems to regional system.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The RTP identified two important Priority Zones in the study area where it was determined that the largest connectivity and capacity needs were located. These two priority zones encompass New Braunfels and the area to the southeast, as well the area surrounding greater Cibolo.

References

https://www.alamoareampo.org/Studies/docs/Regional-Thoroughfare-Plan-Study/1.0%20Regional%20Thoroughfare%20Plan%20-%20Final%20Report.pdf
2.5 GUIDING GUADALUPE STRATEGIC PLAN (2018) – GUADALUPE COUNTY

Background/Summary

In March of 2018, the Guadalupe County Commissioners Court approved the development of the County’s first-ever strategic plan. This plan is intended to be used as a guide – it communicates a community vision for the future growth of the County and highlights six strategic recommendations that address the pressing issues and anticipated needs of Guadalupe County.

Concerns and Needs

Guadalupe County has most of the ingredients in place for continued growth and prosperity. The overarching challenge is to manage the process (especially as it relates to infrastructure, transportation, and community amenities that serve as key attractors) to make sure that new activity is balanced and distributed throughout the county to maximize the overall level of benefit and sustainability.

Transportation was one of - if not the - most popular topics the project team explored during this strategic planning process. By aggregating information from stakeholder interviews, town halls, the community survey, and city and regional plans, six major transportation concerns emerged: congestion; low water crossings; narrow roadways; need for connections to major roadways; desire for pedestrian walkways; and changing traffic patterns.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

A large portion of the Subregional Study Area (71%) falls within Guadalupe County and recommendations in this strategic plan should be taken into consideration. The plan recommends several strategic opportunities regarding transportation including developing a Long-Term Master Transportation Plan; preparing for pre-construction costs; requiring developers who construct private roads to support their maintenance; and implementing context sensitive solutions in roadway design.

References

2.6 MOBILITY 2045 (2019) – AAMPO

Background/Summary

As the Alamo Area adds an additional 1.5 million people by 2045, policy makers must make important decisions about when and where to invest transportation funding in the region. Mobility 2045 is a living document that sets forth a vision and the policies guiding these decisions over the next four years and also identifies the challenges we face in the coming decades. This plan builds on the national vision set forth by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to create a locally appropriate, regional transportation system that improves quality of life and promotes sustainability by facilitating multimodal transportation, system connectivity, and preservation of existing transportation infrastructure.

Concerns and Needs

Mobility 2045 will meet growing transportation needs while ensuring environmental quality; enhancing the safety of the traveling public; fostering appropriate land use patterns; advancing sustainable modes of transportation; and increasing accessibility of all users.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The Subregional Study area falls within the Mobility 2045 planning area. Goals and recommendations in this plan should be taken into consideration in the Subregional Study efforts. Additionally, the list of fiscally constrained projects identified in the plan should be considered.

References

https://alamoareampo.org/Plans/MTP/docs/Mobility2045/Mobility2045_document.pdf
2.7 FY 2019 – 2022 TRANSPORTATION IMPROVEMENT PROGRAM

Background/Summary

The FY 2019-2022 Transportation Improvement Program (TIP) is the AAMPO’s short-range plan and is required of MPOs as a condition of receiving federal funding. Its goal is to ensure that implementation of the region’s transportation plan is done using an orderly and systematic method.

The TIP includes financially-constrained, federally-assisted transportation projects that will be implemented over a four-year period (in this case, 2019 through 2022). Projects not included in the approved TIP are not eligible to receive federal funding.

Concerns and Needs

Projects included in the TIP should increase safety, mobility, and connectivity throughout the region. They should be projects that can realistically be expected to decrease fatal and serious injury crashes, provide increased travel options, reduce congestion, improve air quality, conserve energy, enhance quality of life, and maintain a regionally-beneficial transportation system. The TIP groups projects into 1-to-4 year time frame categories, and provides realistic estimates of costs and revenues associated with the projects.

Ongoing Activities

See Appendix B.

Relationship to Subregional Study Area

The Subregional Study area falls within the TIP planning area. Goals and recommendations in this plan should be taken into consideration in the Subregional Study efforts. Additionally, the list of fiscally constrained projects identified in the plan should be considered.

References

https://www.alamoareampo.org/Plans/TIP/
2.8 CAPITAL-ALAMO CONNECTIONS STUDY (2019) – TXDOT/AAMPO

Background/Summary

The Austin-San Antonio region has experienced exceptional growth in the past 20 years which is projected to continue well into the future. With that exceptional growth come the challenges associated with increased traffic and congestion and quality of life issues. With the ending of the Lone Star Rail project, an opportunity was presented in late 2016 for the region’s transportation planning partners – the Texas Department of Transportation (TxDOT), the Capital Area Metropolitan Planning Organization (CAMPO), and the AAMPO- to coordinate on other potential solutions to enhance mobility in this developing mega-region. The Capital-Alamo Connections Study (CACS) was initiated in early 2017 and allowed for collaboration on transportation options and approaches to enhance mobility and connectivity between regions.

Concerns and Needs

The Central Texas region is grappling with the effects of population growth, low density development patterns, and the associated increase in traffic/congestion that make coordinated long range planning a necessity to help preserve the economic prosperity and vitality of the region. With the increase in growth and traffic congestion, cooperation on solutions development and alignment of infrastructure investment has become a focus. The purpose of the CACS is to develop a shared vision and path forward for addressing increasing growth and traffic congestion in the region.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The Subregional Study area falls within the CACS planning area and goals and recommendations from this study should be taken into consideration. A major goal from this study includes developing a better-connected transportation network to alleviate congestion along priority corridors such as IH-35. Key study recommendations include improving regional arterials to provide relief to IH-35, as well as promoting interregional bicycle routes.

References

2.9 REGIONAL COMPATIBLE USE PLAN (2021) - JOINT BASE SAN ANTONIO

Background/Summary

The Joint Base San Antonio (JBSA) Regional Compatible Use Plan (RCUP) was conducted by the Alamo Area Council of Governments (AACOG) to identify regional encroachment and compatibility issues related to the ongoing functioning the military facilities. This plan initiated a collaborative stakeholder process and developed strategies for mitigation while preventing future issues. This study took into consideration several nearby military installations.

- JBSA Camp Bullis
- JBSA Lackland
  - Chapman Training Complex
  - Kelly Field
- JBSA Randolph
  - Sequin Auxiliary Airfield (SAAF)
- Martindale Army Heliport (MAHP)

Concerns and Needs

The primary concern for this study was the continued functioning of the military installations with minimal impact to and impact from the local community. The Plan outlines specific strategies for future involvement which includes the 5-mile Military Influence Area (MIA). This MIA represents the area in which coordination is most necessary between the military installations and the local community as development continues.

Ongoing Activities

The intent of this document is to highlight the need for consistent and continued coordination between the military and the local communities. The ongoing opportunities are primarily listed in a series of implementation strategies.

Relationship to Subregional Study Area

JBSA-Randolph Air Force Base is located in the study area and is home and employer to many of the area’s residents. As such, continued cooperation between the local community and the military will be vital for mission success. AAMPO should continue to consider JBSA-Randolph Air Force Base within their future planning efforts and include military stakeholders as appropriate.

References

2.10 HAYS COUNTY TRANSPORTATION PLAN UPDATE (ONGOING) – HAYS COUNTY

Background/Summary

Hays County is updating its Transportation Plan to identify safety improvements, improve regional connections and mobility, and plan for future growth and development. The plan will be a tool to help identify and implement short and long-term projects, preserve right-of-way, and collaborate with regional partners to guide our future transportation over the next 20 years.

Concerns and Needs

The plan is ongoing.

Ongoing Activities

The plan is ongoing.

Relationship to Subregional Study Area

A portion of Hays County falls in the Subregional Study Area and recommendations from the Hays County Transportation Plan Update should be taken into consideration.

References

https://www.haystransportationplan.com/
3.0 Local Plans

3.1 COMPREHENSIVE MASTER PLAN (2016) – CITY OF CIBOLO

Background/Summary

Cibolo is a vibrant and rapidly growing city at a critical point in its growth and development. Since 2000, Cibolo’s population has grown by 733 percent and households have grown from 1,176 in 2000 to 6,827 in 2013. Growth in the city and the region is expected to continue. As the community continues to grow and change, city leaders use comprehensive plans as a guide to a city’s future. It looks at where the city is today and describes what it may look and feel like in the future. A comprehensive master plan becomes a document that guides decisions made by city leaders. The Cibolo Comprehensive Plan includes an assessment of the existing conditions, future needs, public input, and provides recommendations for improvements.

Concerns and Needs

Cibolo has experienced high levels of growth, increasing 733 percent since 2000. Transportation issues include a lack of internal north-south connections and active transportation options. Plan goals include providing adequate infrastructure to support projected growth and providing additional trail connectivity to important destinations.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Cibolo falls entirely within the Subregional Study Area and recommendations included in this comprehensive plan should be taken into consideration. Transportation recommendations include coordinating with local and regional partners to improve the city’s thoroughfares, implementing the city’s thoroughfare plan, improving the existing roadways, offering enhanced alternate mobility options, and prioritizing the FM 78 corridor improvements.

References

3.2 FM 78 CORRIDOR PLAN (2016) – CITY OF CIBOLO

Background/Summary

The FM 78 Corridor Plan is intended to develop a proactive vision and action strategy for one of Cibolo’s priority corridors. Although the City has been experiencing exponential growth for over a decade, this stretch of Farm-to-Market 78 (FM 78), from Dietz Creek to Pfannstiel Lane, is largely undeveloped. Due to its close proximity to San Antonio, Interstates 10 and 35 (the NAFTA Superhighway), and since the area serves the highly coveted Schertz-Cibolo-Universal City Independent School District, this area is poised for continued growth in the years to come. The FM 78 Corridor Plan will serve as a planning document that provides a series of goals, strategies, and potential projects and other actions that describe a “vision” for the physical and economic development of the FM 78 corridor. The main purpose of the FM 78 Corridor Plan is to facilitate economic and visual growth, and development and redevelopment of the corridor.

Concerns and Needs

Stakeholder meetings helped provide a general understanding of the most important concerns and needs for the FM 78 corridor. Some of the key needs include major east-west thoroughfares, increased residential and commercial development, additional connections to downtown Cibolo, and alternative routes for public safety services. Key concerns for the corridor include increased railroad traffic and noise, connectivity issues, and high cost of impact fees.

Ongoing Activities

Progress has been made in the way of infrastructure and public facilities since the adoption of the FM 78 Corridor Study in 2016. Additionally, single-family residential, multi-family residential, and several commercial businesses have been built or are in the process of being built around the corridor. As such, an update to the Study is necessary to account for the successes already achieved and re-evaluate future implementation practices to build on the growing successes of the area. The City of Cibolo Economic Development Corporation solicited consulting firms to provide an update/amendment to the city’s 2016 FM 78 Corridor Plan.

Relationship to Subregional Study Area

FM 78 runs through the Subregional Study Area and recommendations included in this corridor plan and the ongoing FM 78 should be taken into consideration. Recommendations from the 2016 FM 78 Corridor Plan include improving street and bicycle and pedestrian connectivity through the FM 78 study area.

References

3.3 IH-10 CORRIDOR STUDY (ONGOING) – CITY OF CIBOLO

Background/Summary

The City of Cibolo Economic Development Corporation requested proposals from consulting firms to conduct the IH-10 Corridor Study. The study will involve an assessment of existing land use and transportation conditions along the IH-10 corridor study area. This area is one of the city's main commercial and industrial corridors. Components of the Study will result in recommendations and an implementation strategy for the corridor.

Concerns and Needs

The main purpose of the Study is to facilitate economic and visual growth, development, and redevelopment of the corridor. Considering the corridor is relatively undeveloped, one of the objectives of the study is to analyze various land use scenarios and roadway configurations within the subject area. The area includes all future residential, commercial, industrial, and public facility properties located on both sides of the roadway within the city limits and Cibolo Extraterritorial Jurisdiction (ETJ).

Ongoing Activities

The study is ongoing.

Relationship to Subregional Study Area

IH-10 runs through the Subregional Study Area and recommendations from the IH-10 Corridor Study should be taken into consideration.

References

3.4 RECREATIONAL VISION STUDY (2016) – CITY OF CONVERSE

Background/Summary
The City of Converse Recreation Vision Study assesses the existing park assets and makes proposals to the existing park system.

Concerns and Needs
The Recreation Vision Study will assist the city in improving its existing park system and in acquiring funds for additional studies and improvements.

Ongoing Activities
None identified.

Relationship to Subregional Study Area
The City of Converse is partially located in the Subregional Study Area and recommendations from the Recreational Vision Study should be taken into consideration. Recommendations relevant to transportation include developing a 17-mile hike-and-bike trail using the drainage ways of Salitrillo and West Salitrillos Creeks.

References
3.5 CITY OF CONVERSE STRATEGIC PLAN (2019) – CITY OF CONVERSE

Background/Summary

The *City of Converse Strategic Plan* is a guiding document that has clear vision and measurable goals to guide the city over the next five years and provides direction for staff as Converse grows. It reflects and identifies milestones to be achieved, delineates initiatives each department must make in order to achieve goals that are set forth, sustains organizational excellence, and empowers residents to help shape the city’s future.

Concerns and Needs

The City of Converse is experiencing phenomenal growth in both retail and residential development. Population has also increased by 37 percent from the 2010 census and is estimated at 25,000 residents. The plan’s vision includes a well-planned community, strong local economy, safe living environment, responsible growth, sound infrastructure, and a responsible city government.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Converse is partially located in the Subregional Study Area and recommendations from the *Strategic Plan* should be taken into consideration. Recommendations relevant to transportation include continue implementation of sidewalk master plan, study street light needs, and continue with the next phase of the master plan.

References

3.6 LIVE OAK 2040 COMPREHENSIVE PLAN (2020) – CITY OF LIVE OAK

Background/Summary

Through the vision of the Live Oak Comprehensive Plan and its recommendations, the leaders of Live Oak can continue to shape the future of the city by reviewing future development proposals, attracting future businesses, allocating capital improvements funding, planning for public services and facilities, creating new policies and programs, and many other applications. After consideration of the city’s current demographic trends, existing conditions, and public input, big ideas and issues shaped the focus of the planning process. This plan builds upon the city’s past and acknowledges its present to position the community toward its desired future. This plan is also meant to establish a 20-year framework for the city’s future that will inform current and future decision-makers about where the city has come from, where it is today, where it wants to go, and how it intends to get there.

Concerns and Needs

Public input gathered during the plan process identified concerns and needs for the city. Transportation related needs included a public transit service, a pedestrian and bicycle trail network system. Concerns included increasing regional congestion and impacts on quality of life as well as the impacts on safety, connectivity, and economic health resulting from expansions of I-35 and State Loop 1604.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Live Oak is partially located in the Subregional Study Area and recommendations from the Comprehensive Plan should be taken into consideration. Recommendations relevant to transportation include prioritizing complete streets for improvements, updating roadway cross-sections, and making strategic investments such as public transit.

References

3.7 MARION COMPREHENSIVE PLAN (2015) – CITY OF MARION

Background/Summary

The 2015 Marion Comprehensive Plan is intended to provide guidance for the city’s future. Community goals and objectives guide the actions recommended throughout the Comprehensive Plan. Marion residents’ goals and objectives were developed through public hearings, presentations, and interviews.

Concerns and Needs

The plan identified that the overall quality of Marion’s street system was in fair to poor condition and most streets needed extensive repair or reconstruction.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Marion falls within the Subregional Study area and recommendations found in this plan should be taken into consideration. Table 8C outlines a specific set of actions and improvement projects to achieve a functional street system that improves the quality of life in Marion.

References

3.8 NEW BRAUNFELS PARKS AND RECREATION STRATEGIC MASTER PLAN (2017) – CITY OF NEW BRAUNFELS

Background/Summary

This Strategic Master Plan presents the overall analysis, findings, and recommendations of the consulting team related to the areas outlined in the scope of services. The study begins with an Executive Summary that provides an overview, and the following sections respond to the desired categories outlined in the study scope to reveal findings, determine needs and to offer operational and capital improvement recommendations.

Concerns and Needs

The city’s population is increasing and is projected to experience 41% population growth over the next 15 years. With a growing population, park and recreation services must continue to grow to keep up with the population. Additionally, development will continue over the next 15 years and the parks and recreation system will need to strategically invest, develop, and maintain facilities in relation to housing development areas.

The Parks and Recreation Strategic Master Plan includes a system-wide approach for accomplishing short and long-term goals, initiatives, tactics and measurements to ensure that as the city grows in population that the department does so as well – effectively, efficiently and sustainably – while providing world-class services, programs, parks, and facilities to the community for many years to come.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of New Braunfels falls in the Subregional Study Area and recommendations included in this study should be taken into consideration. The study’s needs assessment identified walking and biking trails as a high priority. Recommendations related to transportation include establishing connectivity between parks and greenways that is accessible by pedestrians, bikes and parks and open space in New Braunfels. Strategies include working with other city departments to identify and connect sidewalk and bike lanes to trails, prioritizing greenway system investments, and encouraging trails to be funded and built in appropriate areas of the city.

References

https://www.nbtexas.org/2546/Parks-Recreation-Strategic-Master-Plan
3.9 ENVISION NEW BRAUNFELS COMPREHENSIVE PLAN (2018) – CITY OF NEW BRAUNFELS

Background/Summary

Envision New Braunfels, as officially adopted by the Planning Commission and City Council, is a comprehensive plan that establishes a vision and framework for the future of New Braunfels.

A comprehensive plan is a long-range “guidebook” for a community’s growth. In addition to setting out policies and direction for the land uses, development, redevelopment, and the protection of land, a comprehensive plan sets forth goals for the social, economic, and natural environment of New Braunfels.

Concerns and Needs

Transportation needs include additional bicycle amenities, improving and connecting existing sidewalks, providing a citywide transit program, providing more crossings and safer intersections, and providing complete streets. The State Highway 130 Southern connector will also help accommodate mobility between Austin and San Antonio.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of New Braunfels falls in the Subregional Study Area and recommendations included in this study should be taken into consideration. Recommended strategies to support the goals of the study include innovating in parks and public spaces, coordinating community investments, and adopting a complete streets policy.

References

https://www.nbtexas.org/DocumentCenter/View/16593/Envision-New-Braunfels-Final
3.10 TRANSPORTATION DEMAND MANAGEMENT PLAN (2015) – CITY OF SAN ANTONIO

Background/Summary

For two years, the San Antonio district office of TxDOT undertook an effort to educate major employers in San Antonio about travel options that are available to relieve congestion and reduce the cost of commuting. The goal of this project was to educate and encourage employees to consider travel options and strategies that would benefit them and ultimately benefit the roadway system by reducing congestion.

Concerns and Needs

The goal of the San Antonio Transportation Demand Management Plan is to develop tailored strategies for San Antonio that aim to reduce traffic congestion in the present and future. To accomplish this, the study focused on increasing travel choices for employers and employees. The intent is to connect traditional Transportation Demand Management (TDM) programs with strategies that emphasize livability, sustainability, transit, walking and biking, transportation and land use planning, systems operations, economic development and air quality. It is also intended to maximize the use of the existing transportation system/infrastructure rather than relying only on the strategy of network expansion in our system. Promoting TDM strategies is important to combat traffic congestion in a sprawling area where the ownership and usage of the personal automobile is encouraged by the historical roadway infrastructure.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of San Antonio falls in the Subregional Study Area and findings from this study should be taken into consideration. Congestion in San Antonio is generally experienced during AM and PM peak driving times. The goal of this study was to explore ways to reduce congestion on the major roadways and highways, by providing information about travel options to area commuters. The Project Team identified vehicle trip reduction best practices that work - many researched by the Texas A&M Transportation Institute (TTI) - and encouraged their implementation by employers in the region. The study identified existing programs that the City of San Antonio, AACOG, VIA, and the private sector have in place with the goal of leveraging them where practical to reduce congestion in the congested corridors.

References

https://www.alamoareampo.org/Studies/
3.11 SA TOMORROW COMPREHENSIVE PLAN (2016) – CITY OF SAN ANTONIO

Background/Summary

SA Tomorrow is the city’s innovative, three-pronged planning effort established to implement the SA2020 vision through 2020 and beyond, and includes three concurrent and complementary plans: the updated Comprehensive Plan, a Sustainability Plan, and a Multimodal Transportation Plan. These plans all work in concert to guide the city toward smart, sustainable growth. All of these efforts focused on addressing the challenges and opportunities associated with adding over 1 million people to our region by 2040.

Concerns and Needs

Over the past ten to fifteen years, San Antonio’s economy has grown steadily and is predicted to continue this course. This economic growth will drive demand for housing and employment. Despite the numerous assets, San Antonio lacks some key features and faces challenges that impact the future growth and health of the economy. These include unchecked expansion, development capacity, auto-oriented city form, congestion, mobility and access, social equity and affordable housing, declining neighborhoods, and environmental sustainability.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of San Antonio falls in the Subregional Study Area and recommendations included in this study should be taken into consideration. The city supports the creation of walkable, bikeable and transit-oriented places. The Comprehensive Plan identifies eight transportation and connectivity goals and provides the framework for the policies and actions the city will take. Transportation and connectivity policies address planning and investment, multimodal transportation, safety and comfort, land use and transit supportive development, regional transportation, and technology and innovation.

References

https://sacompplan.com/
3.12 SA TOMORROW MULTIMODAL TRANSPORTATION PLAN (2016) – CITY OF SAN ANTONIO

Background/Summary

The City of San Antonio is anticipated to experience tremendous growth resulting in an additional 1 million people by year 2040. This increase will be accompanied by an increase in housing, employment, more vehicles on our roadways, and greater demands on public transit and on our infrastructure in general. The City initiated SA Tomorrow, an unprecedented, multifaceted planning initiative to accommodate this growth while preserving what makes San Antonio a great place to live. The SA Tomorrow Multimodal Transportation Plan (Multimodal Plan) is formed around the Transportation & Connectivity goals and policies framed by the Comprehensive Plan. It provides policy guidance creating a roadmap to transform our current transportation system into one that is sustainable, safe, convenient and efficient, inclusive of all modes and providing our residents with transportation options in 2040.

Concerns and Needs

Growth in San Antonio has generally moved outwards from the center city, challenging the city’s ability to keep pace with infrastructure and other services. Challenges the city faces as it approaches the future include an anticipated increase in population of over 1 million additional residents in Bexar County by 2040; continuously increasing demand for an already limited water supply; a strained city budget due to maintaining and improving infrastructure in an expanding geographic area; maintaining the city’s AAA Bond rating; planning for and addressing air quality compliance as the region approaches nonattainment status, and; informing and educating the community about the benefits of alternative modes of transportation to encourage a shift in views on using and investing in transit, light rail, streetcar, bike, and pedestrian facilities.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of San Antonio falls in the Subregional Study Area and recommendations included in this study should be taken into consideration. The Multimodal Transportation Plan includes a 5-year action plan with policies and practices to implement multimodal transportation goals. The policies are grouped into similar categories that include funding and prioritization, multimodal transportation, encouraging other modes, ridesharing/telecommuting, parking, land use, efficient and sustainable regional transportation, technology and innovation, safety and comfort, and freight.

References

https://www.satransportationplan.com/app_pages/view/394

Background/Summary

In 2010, the City of San Marcos put forth a *Parks, Recreation, and Open Space Master Plan*, which was intended to direct municipal decisions and actions from 2010 to 2020, with an update to occur approximately five years from its adoption. The goal of this planning effort is to design a community vision, as well as recognize goals and strategies that actively maintain high standards for parks, recreation, and open space areas in San Marcos. Information obtained during this process will help to identify potential land for acquisition, and also set forth a projected time frame for critical city decisions. Based on community input and the recommendations of this Plan, the city will be better informed when establishing priorities and making budgetary decisions for the projects identified within.

Concerns and Needs

Needs identified from the public included expanded trails to connect housing to important city destinations and developing trails throughout the city as an alternative means of transportation.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

A small part of the San Marcos city limits falls in the Subregional Study area. Recommendations and findings from this study should be taken into consideration. Transportation related recommendations include expanding and improving the trail system. Specific actions include collaborating with local and regional partners to develop a regional trail and adding a green belt loop around the city to increase connectivity.

References

3.14 SAN MARCOS TRANSPORTATION CORRIDOR STUDY (ONGOING) – CITY OF SAN MARCOS

Background/Summary

The City of San Marcos and CAMPO are working together to conduct the San Marcos Platinum Planning Study. The study focuses on land use and development strategies for corridors and centers. The Corridors portion of the study will generate potential transportation concepts and strategies for Guadalupe Street (SH 123), Hopkins Street (SH 80), and a future north/south corridor east of IH-35. These corridors will be examined to provide connections between activities that include safe, high-quality transportation options with supportive land-uses to connect key activity centers.

Concerns and Needs

San Marcos and the surrounding areas are growing rapidly and need to plan in ways that promote sustainable, equitable growth, and provide multimodal transportation options in the future.

Ongoing Activities

The study is ongoing. The first round of public involvement occurred from August 2020 to October 2020 via a virtual public meeting. A second round of public input is anticipated for April 2021 to gather feedback on potential ideas, concepts, and improvements for the activity corridors and transportation corridors.

Relationship to Subregional Study Area

The North-South Connector in the San Marcos Transportation Corridor Study falls in the Subregional Study area. Recommendations and findings from this study should be taken into consideration.

References

https://smtxstudy.com/
3.15 VISION SAN MARCOS COMPREHENSIVE PLAN REWRITE (ONGOING) – CITY OF SAN MARCOS

Background/Summary

The Vision San Marcos update will revise the current comprehensive plan to create a visionary policy document that guides long-term decision-making for key components in San Marcos such as housing, the environment, transportation, and land use. The update will include significant public engagement plan to obtain input from the public, stakeholders, and organizations in San Marcos throughout the planning process.

Concerns and Needs

The plan is ongoing.

Ongoing Activities

The plan is ongoing. A virtual community workshop was held on February 25, 2021 and a virtual open house was available for public participation between February 26, 2021 to March 19th, 2021.

Relationship to Subregional Study Area

A small part of the San Marcos city limits falls in the Subregional Study area. Recommendations and findings from this study should be taken into consideration.

References

https://www.visionsmtx.com/comprehensive-plan/
3.16 SANTA CLARA MASTER PLAN (2013) – CITY OF SANTA CLARA

Background/Summary

The Santa Clara Master Plan is a 5-year plan for the community (2013-2017), with some long-term components. The plan serves as a guide and vision for policy decisions about the economic and physical development of Santa Clara. The plan identifies community issues and needs and recommends strategic goals, objectives, policies, and implementation actions to resolve the issues and needs. The plan also serves to summarize how the city functions.

Concerns and Needs

Transportation needs include ensuring that vehicle and pedestrian safety standards are maintained and conform to City, County, and State repair codes; that streets, roads, bridges, signs, culverts, and bar ditches are maintained according to standards established by the city; and that road repairs follow the city’s road repair priority listing.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The plan presents a general guide and vision for the city – the most useful relationship to the subregional plan will likely be coordination with the city.

References

3.17 SCHERTZ COMPREHENSIVE LAND PLAN (2002) – CITY OF SCHERTZ

Background/Summary

The Schertz Comprehensive Land Plan is a policy document that serves as a guide for decisions relating to the physical, social, and economic growth of the city. The plan includes goals, objectives, and actions in the following development related categories: Land Use, Transportation, Public Facilities, Parks and Recreation, Community Enhancement, Growth Capacity, and Implementation. City staff uses the Comprehensive Land Plan as a guiding document when evaluating development applications.

Concerns and Needs

Schertz’s challenges include controlling and managing growth; City, County, and State infrastructure and streets; acquiring right-of-way; lack of trails; intercity coordination and cooperation; and Main Street. Goals relating to transportation include providing residents, employees, and visitors to the community a safe, efficient, and convenient access to all areas of Schertz through a variety of means including streets, rail, trails, and sidewalks.

Ongoing Activities

In regard to transportation, a list of 62 actions were presented to meet the stated transportation goals and objectives.

Relationship to Subregional Study Area

Schertz is interested in multimodal transportation and connectivity, as well as planning for quality growth within their city. Figure 5.2 displays the Thoroughfare Master Plan, which should be incorporated in subregional plans where possible.

References

3.18 SCHERTZ SECTOR PLAN AMENDMENT (2013) – CITY OF SCHERTZ

Background/Summary

The Schertz Sector Plan was adopted as an update to the Comprehensive Land Use Plan to address the increased growth in the northern and southern regions of the city. It includes the North Sector Plan and South Sector Plan as well as recommendations for the historic downtown. The plan’s focus is to create a vision for the future of Schertz that takes advantage of its location and assets to attract its fair share of growth in the San Antonio metro area. Key issues analyzed and presented are the prevalence of floodways, right sizing infrastructure to meet projected demand, transportation access, and recommended revisions to existing zoning and development standards validated through a market analysis.

Concerns and Needs

Character/land use areas were identified for the north and south sectors. In addition, updated transportation networks were shown to correspond with the character areas to provide a more predictable and desired development environment which is to be an amendment to the city’s official Master Thoroughfare Plan. A connecting mass transit system (i.e. buses) should also be considered to link any future Lone Star Rail station with the rest of the city. Open space/greenway linkages were also proposed, and zoning recommendations were made for the historic downtown.

Ongoing Activities

Various implementation strategies were recommended and Appendices 1 and 2 depict the North Schertz and South Schertz Framework Maps.

Relationship to Subregional Study Area

Recommended transportation networks were mapped and recommended to be included in the Master Thoroughfare Plan. In addition, a bus system was recommended to be considered to link any future Lone Star Rail station with the rest of the city.

References

3.19 PARKS AND RECREATION MASTER PLAN (2014) – CITY OF SCHERTZ

Background/Summary

Schertz’s Parks and Recreation Master Plan sets the vision for the growth and expansion of the city’s parks and open spaces, as well as plan for the maintenance and improvement of existing parks and facilities. The plan carries forward the goals and objectives of the city’s Land Plan and is aligned with the city’s Sector Plan.

Concerns and Needs

As Schertz continues to grow, it is an opportune time to revitalize the parks and recreation programs to further enhance Schertz’s quality of life, build tax revenue, and promote community pride and identity. Survey respondents indicated that the highest need was for more hike and bike trails, followed by additional natural or open spaces. The recreation activities that scored the highest interest include hiking with 89.9%, biking with 87.5%, and health/wellness programs with 86%.

Ongoing Activities

New projects on the horizon include the development of a dedicated dog park, a skate park, renovation of the Schertz Ballpark Complex, renovation of the Schertz Soccer Complex, addition of a city natatorium, and a park plaza dedicated as a veterans’ memorial.

Relationship to Subregional Study Area

The component of this plan most relevant to the subregional planning study area is Schertz’s desire to support bike/ped connectivity by building and connecting trails throughout the city to link parks, facilities, schools, and greenbelts.

References

3.20 SCHERTZ MASTER THOROUGHFARE PLAN (2017) – CITY OF SCHERTZ

Background/Summary

The City of Schertz Master Thoroughfare Plan (MTP) is designed to more specifically guide the development of a transportation network outlined in the city’s Comprehensive Plan. The Schertz MTP identifies future transportation needs for the area, goals and policies, and short- and long-term capital investments for improvements to existing roads, construction of new roads, bicycle, pedestrian, and transit supporting facilities.

Concerns and Needs

The city’s transportation system needs include improvements to the three major highways within the region such as IH-35, IH-10, and State Loop 1604. Other needs include improving North-South and East-West connectivity on arterial roadways. Goals for the MTP include improving access and mobility; local context and character preference; preserving existing infrastructure; and fiscal stewardship.

Ongoing Activities

A list of short-, medium-, and long-range needs and general timing of system improvements is included in Appendix B.

Relationship to Subregional Study Area

The plan’s Figure 12 illustrates Schertz’s recommended MTP network, which should be incorporated in subregional plans where possible.

References

3.21 SEGuin COMPREHENSIVE PLAN (2008) – CITY OF SEGuin

Background/Summary

The Seguin Comprehensive Master Plan components were organized by major project phases, which included Assessments, the Planning Framework, Plan Elements, and Implementation Strategies. The six plan elements developed included: the Future Land Use Plan, the Public Open Space Plan, the Thoroughfare Plan, the Infrastructure Plan, the Housing Plan, and the Public Facilities Plan.

Concerns and Needs

As Seguin grows, the existing city grid will continue to experience greater congestion because of internal discontinuities; the transference of internally generated and incoming traffic volumes to limited through streets; the lack of needed cross town movement; older and undersized streets; and convergence of regional roadways onto a fewer number of through town corridors.

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The Thoroughfare Plan and Public Open Space Plan have the most relevance to subregional planning. The plan’s Figures 7-9 illustrate Seguin’s recommended Thoroughfare Plan, and Figure 15 depicts Seguin’s Open Space Plan - these should be incorporated in subregional plans where possible.

References

https://www.seguintexas.gov/departments/planning_codes/planning.php
3.22 SEGUIN MASTER THOROUGHFARE PLAN (2017) – CITY OF SEGUIN

Background/Summary

The City of Seguin’s Master Thoroughfare Plan (MTP) serves as the primary tool to enable the city to preserve future corridors and the necessary right-of-way to establish appropriate thoroughfare corridors as development occurs and to improve the existing street system as the need arises. The MTP locates and classifies major streets by needed capacity for through traffic, access to adjacent land uses, and compatibility with each street’s development character. Street design guidance in the plan provides the ability to better integrate networks of other mode choices, including walking, bicycling, and transit. The plan guides future investments and provides the public and the development community with information about the long-term plan for the road network.

Concerns and Needs

This 2017 MTP is intended to build upon the past efforts and momentum of the 2008 Comprehensive Master Plan, with the primary goals of refining the alignments of proposed thoroughfares based on feasibility, refining transportation concepts, and establishing improved and flexible roadway design guidelines, to better serve the community both in terms of a comprehensive vision and in its day-to-day use. The plan also includes bicycle and pedestrian goals for Seguin as defined in the AAMPO Regional Bicycle & Pedestrian Planning Study.

Ongoing Activities

The plan’s Figure 4-1 identifies the prioritization of transportation needs into 4 tiers:

- Tier 1 – Transportation projects that are funded or have anticipated near-term funding
- Tier 2 – Transportation projects that are current needs with no funding identified
- Tier 3 – Development-driven transportation projects or unidentified needs
- Tier 4 – Includes all other projects in the MTP that are not current or near-term needs

Relationship to Subregional Study Area

The plan’s Figures 2-1, 4-1, and 4-2 illustrate Seguin’s MTP, MTP prioritization, and Bicycle & Pedestrian Plan Update. The appendix (pg. 47) also provides a MTP Prioritization Table. These projects should be incorporated in subregional plans where possible. The MTP was amended in January 2020, and the latest map can be found here: https://cms5.revize.com/revize/seguintx/ThoroughfareMap36x36_Jan2020.pdf

References

3.23 COMPREHENSIVE DEVELOPMENT PLAN (2017) – CITY OF SELMA

Background/Summary

Due mainly to its location along the IH-35 corridor, the City of Selma has seen tremendous growth since 2000. A strong regional economy is driving the need for city services and facilities. This Comprehensive Development Plan (CDP) updates the previous 2005-2020 CDP.

Concerns and Needs

Goals and objectives were provided in the following categories within the CDP:

- Land Use
- Development Guidelines Updates and Asset Management
- Public (city-owned) Property
- Street System
- Street Inventory and Maintenance
- Water System
- Wastewater System
- Storm Drainage System

Street system goals include the following:

- Provide all residents with adequate access to the community’s street system
- Ensure that the community street system is safe for resident travel

Ongoing Activities

The plan’s Appendix 12A provides a prioritized list of capital improvements that meet the goals and objectives identified in the CDP.

Relationship to Subregional Study Area

The plan’s Appendix 7A depicts potential street expansions and extension projects that should be incorporated in subregional plans where possible.

References

3.24 SELMA TRAILS AND BRANDING MASTER PLAN (2018) – CITY OF SELMA

Background/Summary

The City of Selma Trails & Branding Master Plan provides a basic framework to develop a comprehensive network of trails and bikeways across Selma. Specifically, the plan establishes the goals and objectives of a trail and bikeway system, identifies the needs of different types of trail and bikeway users, analyzes opportunities and constraints, recommends specific trail and bikeway alignments throughout the city and beyond, describes features associated with trails and bikeways, suggests imaging/branding for Selma, determines the cost for implementation, and recommends funding sources.

Concerns and Needs

The following goals were established for trails and bikeways in Selma:

- Establish a system of loops and interconnecting trails and bikeways for recreation and transportation uses;
- Develop trails and bikeways that are comfortable and easy to use;
- Establish policies that support the use of trails and bikeways, including education and enforcement.

Each of these goals were further subdivided into a series of specific objectives.

Ongoing Activities

The city proposes five trail loop segments, a nature trail along Cibolo Creek, and on-street bike routes.

Relationship to Subregional Study Area

Exhibits 1-6 in the plan depict the various trails and bikeways proposed for Selma – these should be incorporated in subregional plans where possible.

References

3.25 UNIVERSAL CITY COMPREHENSIVE PLAN (2017) – CITY OF UNIVERSAL CITY

Background/Summary

The purpose of a comprehensive plan is to provide a clear picture of a city’s future direction. The Universal City Comprehensive Plan 2018-2022 sets out a vision of where the community wants to be five years from now; identifies the milestones to be achieved over that period; and delineates the initiatives that each department must make to achieve the goals identified.

Concerns and Needs

Part of the city’s vision is to provide citizens and businesses with reliable and affordable infrastructure. Related challenges identified in this plan include the following:

- Coordination of traffic lights on Pat Booker Road and State Loop 1604 intersection
- Deterioration of streets and city parks
- Lighting on walking trails in the parks
- More lighting on Pat Booker Road

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Universal City falls partly within the Subregional Study area. Although no specific recommendations are found in this study, the city’s vision and challenges related to infrastructure should be considered in the Subregional Study.

References

3.26 PARKS, RECREATION, AND OPEN SPACE MASTER PLAN (2013) – CITY OF UNIVERSAL CITY

Background/Summary

As part of the development of this Parks, Recreation, and Open Space Master Plan, the City of Universal City wanted to ensure that residents and visitors had excellent park, leisure, and recreational experiences. The Texas Parks & Wildlife Department (TPWD) provides cities with grant monies for park acquisition and development and recommends that a new Parks, Recreation, and Open Space Master Plan be developed every five years.

Concerns and Needs

A study survey identified the following high priorities for outdoor recreational facilities:

- Trails to serve the entire population
- Playscapes/Playgrounds
- Pavilions/Shelters
- Dog Park
- Baseball Fields/Softball Fields
- Basketball Courts
- Disc Golf
- Miscellaneous Park Maintenance Improvements

Ongoing Activities

None identified.

Relationship to Subregional Study Area

The City of Universal City falls partly within the Subregional Study area and recommendations and findings from this plan should be considered. This plan recommends providing trail (softscape) and paths (hardscape) connectivity to cultural amenities within the city to parks, the library, and City Hall, and investigating powerline easements for potential trail corridors.

References

3.27 RANDOLPH AND SEGUIN AUXILIARY AIRFIELD, TEXAS: AIR INSTALLATIONS COMPATIBLE USE ZONES STUDY (2017) - JOINT BASE SAN ANTONIO

Background/Summary

This Air Installations Compatible Use Zones Study represents an update to the previous study conducted within 2008. As such, noise contours, clear zones (CZs), accident protection zones (APZs), and flight clearance requirements of the military installations have been updated to be included with local planning efforts. These boundaries have been established to limit development encroachment that would hinder the military’s mission or the community’s continued development. This document is specifically related to JBSA-Randolph and Seguin Auxiliary Airfield and the nearby communities.

Concerns and Needs

The overall intent of this document is to identify the surfaces and safety areas related to the operations of the airfields at these locations and the potential encroachments into these areas.

- Aircraft Noise and Operations
  - Changes in operations
  - Noise Contours
- Community and Aircraft Safety
  - Clear Zones
  - Accident Potential Zones
- Land Use Compatibility Analysis

Ongoing Activities

This is a regularly updated analysis of the nearby conditions surrounding the military bases, and the planned operations at these installations. Future developments nearby the military installations should be coordinated with the military as necessary to reduce the development of additional incompatible land uses, especially those nearby and within the designated airfield safety areas.

Relationship to Subregional Study Area

JBSA-Randolph Air Force Base is located in the study area. It is home and employer to many of the area’s residents and should be considered during planning and transportation updates. The development of increased transportation facilities nearby Randolph Air Force Base has the potential to increase development, which could encroach into the protected zones associated with its facilities. The military should be included as a stakeholder within regional planning and transportation efforts.

References

Appendix E

Study Area Safety Analysis
MEMORANDUM

DATE: Revised May 20, 2021
TO: Nick Arnio, PE, PTOE, PMP
CC: Elizabeth High, GISP
FROM: William Loudon, PhD, PE
RE: AAMPO Subregional Planning Study Safety Analysis

Introduction

Alliance Transportation Group, Inc. (ATG) performed a crash analysis as part of the Alamo Area Metropolitan Planning Organization (AAMPO) Subregional Planning Study, focused on the I-35 corridor connecting northeastern Bexar County, southeastern Comal County, western Guadalupe County, and southern Hays County (Figure 1). The 288-square mile study area is bound by I-35, FM 125, I-10, and Loop 1604.

Crashes were analyzed by total, year, five-year average, roadway classification, location, type, time of day, and severity to identify trends in the study area. As part of this analysis, crash rates were determined for the study area, roadway classifications, and top crash locations per 100 million vehicle miles and compared to statewide average rates to ascertain safety risk and identify potential causes of the crashes. The analysis will serve to determine potential mitigation measures aimed at reducing the number of crashes occurring within the study area in future planning efforts.

Data Overview

The data used in this analysis was obtained from the Crash Records Information System (CRIS) and covers a five-year period (2015 - 2019) of data most representative of traffic conditions prior to the COVID-19 pandemic. CRIS is maintained by the Texas Department of Transportation (TxDOT) and is a database that contains a collection of records regarding motor vehicle traffic crashes as submitted by law enforcement officers through a standardized crash report. These reports are processed to exclude personal information but include other crash details relevant to analysis, such as crash severity, contributing factors, time of day, location, and roadway condition. The summaries and figures in this analysis provide illustrations to better understand regional crash trends in the study area, including total crashes regionwide, crash rates, crashes by severity, crash types, crash times, and crashes involving pedestrians or bicyclists.
Crash Trends

Total Crashes
Between 2015 and 2019, a total of 20,807 crashes occurred within the study area. Over this five-year period, the total number of crashes per year has remained between the range of 3,500 to 4,500, with the largest single-year total (4,424) occurring in 2019. The region experienced a 20% increase between 2015 and 2016 and a 5% decrease in the total number of crashes between 2017 and 2018. Overall, the study area has experienced a 24% increase in total crashes from 2015 to 2019. Figure 2 summarizes the annual number of reported crashes in the region between 2015 and 2019.

![Figure 2: Total Crashes (2015-2019)](image)

Figure 3 summarizes the total crashes by roadway classification, highlighting roadway types that experience a higher number of crashes. Notably, Interstate and US/State Highway classifications experienced the most total crashes over the five-year period at 43% and 25% of total study area crashes, respectively. Farm to Market (FM) and City Street classifications both experienced a similar threshold of total crashes from 2015 to 2019 and made up 16% and 14% of total study area crashes, respectively. County Road classifications experienced the least number of crashes with approximately 2% of the study area’s total crashes.
Total Crash Rates

Crash rate is a metric that illustrates the ratio of crashes that occur per vehicle miles traveled (VMT) within the region. This provides a method to normalize the gross crash count by including a consideration of roadway usage (i.e., VMT). To calculate study area crash rates, the AAMPO Travel Demand Model (model) roadway network was used as a base, and a 2017 scenario run was used to generate total vehicle miles traveled (VMT) for the study area. Regional 2017 VMT was collected for roadways classified as collector or higher, to best match the CRIS point data with the model roadway network. This 2017 VMT total was used throughout the analysis to generate crash rates against CRIS crash point totals and five-year averages.

Crash rates over the five-year period largely remain consistent, with a gradual increase from 2015 to 2017 and a gradual decrease from 2017 to 2019. This pattern is like the study area’s total crashes over the five-year period. Figure 4 shows the crashes per 100 million vehicle miles traveled for the region between 2015 and 2019.
To better understand safety conditions by study area roadway classification, crash rates were calculated for each roadway type and compared to TxDOT statewide traffic crash rates (Table 1). 2017 VMT outputs were used to calculate crash rates for roadway classifications (using five-year averages per classification). TxDOT statewide traffic crash rates were obtained for the same five-year period (2015 – 2019) and averaged for comparison. Due to roughly 75% of study area roadways being classified as “Urban” in the CRIS dataset, TxDOT comparisons were referenced from highway system tables by urban classifications; only the “County Road” classification used road type tables by rural classifications. Finalized measures provide a scale relative to the study area to better understand the frequency of crash occurrences by roadway classification.

Table 1: Study Area & Statewide 5-Year Average Crash Rate Comparison by Roadway Classification

<table>
<thead>
<tr>
<th>Roadway Classification</th>
<th>Study Area Crash Rate – 5-Yr. Avg.</th>
<th>TxDOT Crash Rate – 5-Yr. Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>91.7</td>
<td>139.0</td>
</tr>
<tr>
<td>US &amp; State Highways</td>
<td>219.2</td>
<td>228.2</td>
</tr>
<tr>
<td>Farm to Market</td>
<td>175.9</td>
<td>255.9</td>
</tr>
<tr>
<td>County Road</td>
<td>31.9</td>
<td>102.0</td>
</tr>
</tbody>
</table>

Table 1 displays that five-year average crash rates for each roadway classification in the study area are lower than the average TxDOT statewide traffic crash rates for the five-year period. US and state highway classifications display the five-year average crash rate closest to the Texas five-year average, suggesting this roadway type is close to matching statewide levels.
Crash Hotspots
Crash hotspots were identified within the study area through spatial analysis of intersections and roadway segments that experienced the highest number of crashes over the five-year period. Total crashes - crashes involving pedestrians, crashes involving bicyclists, and crashes resulting in serious injury or fatality - are all considered in this analysis. Figure 5 displays crash hotspots for all roadway classifications identified through geolocation of the collected crash data.

Figure 5: Regional Crash Hotspots, All Roadway Classifications (2015 - 2019)
Top Crash Locations

CRIS crash point data was used to calculate total crashes for individual study area roadways, displayed in Table 2, which shows roughly 31% of study area crashes occurred along the I-35 corridor over the five-year period. Further, data suggests that 76% of total study area crashes from 2015 to 2019 occurred within these 10 corridors.

The table also presents crashes per lane mile and crash rates based on five-year averages of total crashes and combined fatal and serious injury crashes for each corridor to provide normalized measures for comparison. Crash rates were attributed to corridors using similar methods as previously discussed for roadway classification rates, however, used the regional VMT total to calculate final crash rates. The AAMPO model roadway network segment length (mi) and lane number attributes were used to calculate mileage per corridor. While major interstate corridors present the highest crash totals, other roadway classifications (i.e., state highways, FM roads) displayed higher crashes per lane mile and crash rates, suggesting worse overall safety conditions over the five-year period. This includes SH 218, FM 1103, and FM 3009, which all share similarities to some extent regarding posted speed (40 to 45 mph), center turn lanes, commercial land uses, high number of access points, and minimal shoulder widths.

Table 2: Roadways with Highest Crash Totals (2015 - 2019)

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Crash Count - Total</th>
<th>% of Total Study Area Crashes</th>
<th>Crashes per Lane Mile – 5-Yr. Avg.</th>
<th>Total Crash Rate – 5-Yr. Avg.</th>
<th>F/S* Crash Rate – 5-Yr. Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-35</td>
<td>6,439</td>
<td>31%</td>
<td>4.1</td>
<td>96.4</td>
<td>3.0</td>
</tr>
<tr>
<td>I-10</td>
<td>2,295</td>
<td>11%</td>
<td>2.3</td>
<td>75.8</td>
<td>3.0</td>
</tr>
<tr>
<td>SL 1604</td>
<td>2,027</td>
<td>10%</td>
<td>9.4</td>
<td>244.1</td>
<td>5.7</td>
</tr>
<tr>
<td>SH 218</td>
<td>1,064</td>
<td>5%</td>
<td>15.3</td>
<td>590.8</td>
<td>22.8</td>
</tr>
<tr>
<td>FM 78</td>
<td>1,008</td>
<td>5%</td>
<td>3.2</td>
<td>178.7</td>
<td>6.9</td>
</tr>
<tr>
<td>SH 46</td>
<td>890</td>
<td>4%</td>
<td>3.6</td>
<td>126.2</td>
<td>6.8</td>
</tr>
<tr>
<td>FM 3009</td>
<td>706</td>
<td>3%</td>
<td>7.1</td>
<td>304.8</td>
<td>7.3</td>
</tr>
<tr>
<td>FM 1103</td>
<td>505</td>
<td>2%</td>
<td>8.7</td>
<td>408.0</td>
<td>10.5</td>
</tr>
<tr>
<td>FM 725</td>
<td>409</td>
<td>2%</td>
<td>2.9</td>
<td>161.2</td>
<td>8.7</td>
</tr>
<tr>
<td>SH 123</td>
<td>396</td>
<td>2%</td>
<td>1.5</td>
<td>130.0</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Roadways Total</strong></td>
<td><strong>15,739</strong></td>
<td><strong>75%</strong></td>
<td><strong>--</strong></td>
<td><strong>--</strong></td>
<td><strong>--</strong></td>
</tr>
</tbody>
</table>

*Crash rate for five-year average of combined fatal and serious injury crashes
Crashes by Severity

Crash severity is a crucial aspect of each reported crash, as those that result in fatalities or serious injuries represent a higher risk to life and safety and understanding where there are concentrations of these types of crashes can illuminate opportunities for operational or design improvements. The following section reviews crash data in three different ways – the number and rate of total crashes, the number and rate of crashes involving a fatality and the number and rate of crashes involving a serious injury. Each of these is compared to statewide averages. Statewide values were obtained from the 2021 Texas Strategic Highway Safety Plan. The data represented in Table 3 demonstrates that, on average, 3% of crashes in the region resulted in a serious injury, and 0.5% resulted in a fatality. Table 4 compares the study area five-year average to the statewide average.

### Table 3: Study Area Crash Totals by Year and 5-Yr. Average (Collector & Above)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>3,052</td>
<td>3,706</td>
<td>3,834</td>
<td>3,579</td>
<td>3,720</td>
<td>3,578</td>
<td>100%</td>
</tr>
<tr>
<td>Total Crashes per 100 million VMT</td>
<td>99.1</td>
<td>120.3</td>
<td>124.5</td>
<td>116.2</td>
<td>12.8</td>
<td>116.2</td>
<td>--</td>
</tr>
<tr>
<td>Crashes with Fatalities</td>
<td>19</td>
<td>22</td>
<td>16</td>
<td>22</td>
<td>14</td>
<td>19</td>
<td>0.5%</td>
</tr>
<tr>
<td>Crashes with Fatalities per 100 million VMT</td>
<td>0.6</td>
<td>0.7</td>
<td>0.5</td>
<td>0.7</td>
<td>0.45</td>
<td>0.60</td>
<td>--</td>
</tr>
<tr>
<td>Crashes with Serious Injuries</td>
<td>102</td>
<td>141</td>
<td>119</td>
<td>89</td>
<td>92</td>
<td>109</td>
<td>3%</td>
</tr>
<tr>
<td>Crashes with Serious Injuries per 100 million VMT</td>
<td>3.3</td>
<td>4.6</td>
<td>3.9</td>
<td>2.9</td>
<td>3.0</td>
<td>3.5</td>
<td>--</td>
</tr>
</tbody>
</table>

### Table 4: Study Area & State Comparison; 5-Yr. Average (Collector & Above)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Study Area 2019 5-Yr. Average</th>
<th>TX 5-Yr. Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>3,578</td>
<td>626,172</td>
</tr>
<tr>
<td>Total Crashes per 100 million VMT</td>
<td>116.2</td>
<td>124.5</td>
</tr>
<tr>
<td>Crashes with Fatalities</td>
<td>19</td>
<td>3,363</td>
</tr>
<tr>
<td>Crashes with Fatalities per 100 million VMT</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Crashes with Serious Injuries</td>
<td>120</td>
<td>13,836</td>
</tr>
<tr>
<td>Crashes with Serious Injuries per 100 million VMT</td>
<td>3.5</td>
<td>6.0</td>
</tr>
</tbody>
</table>

The average five-year total crash rate within the study area was 116.2 per 100 million VMT from 2015 to 2019. For fatal crashes, the five-year average rate was 0.6 per 100 million VMT and 3.5 per 100 million VMT for serious injury crashes. A comparison to the statewide five-year average of total crashes (124.5), fatal crashes (1.4), and serious injury crashes (6.0) indicates that fewer crashes in the region have resulted in fatality or serious injury compared to the rest of the state over the five-year period.
Figure 6 displays crash rate trends for fatality and serious injury crashes over the five-year period. While serious injury crashes saw an increase in crash rate in 2016, the study area has experienced a decline in crashes per 100 million VMT. Similarly, fatal crashes per 100 million VMT have also declined since 2015.

Figure 6: Fatality & Serious Injury Crash Rate Trends (2015 - 2019); Collector & Above

Figure 7 maps the location of all crashes resulting in fatality or serious injury between 2015 and 2019. Fatalities occurred primarily on major interstate and highway corridors (e.g., I-35, I-10, N Loop 1604) within the study area. Similarly, crashes resulting in serious injury also occurred along interstate and highways corridors, with major clusters near interchanges/connections to study area cities (e.g., New Braunfels, Seguin). Roads providing local accessibility and connectivity between I-10 and I-35 also contain significant concentrations of severe crashes, including but not limited to FM 78, FM 725, SH 46, and SH 123.

The map also displays significant crash activity in the northwestern portion of the study area (i.e., Live Oak, Universal City, and Schertz). This includes roadways such as FM 218, Schertz Pkwy, Roy Richard Dr, and FM 1103.
Figure 7: Study Area Crashes by Resulting Severity (2015 – 2019)
Crash Type

Crash types were developed from several categories identified in the TXDOT CRIS data including first harmful event, manner of collision, facility type, and other factors, and were defined and grouped using guidance from the 2015 Highway Safety Improvement Program Manual. Maps for each crash type can be found in Appendix A.

Figure 8 displays the different types of crashes that occurred within the study area from 2015 to 2019 as a percentage of total crashes. Sideswipe (48%) and single vehicle (25%) crash types were most prevalent along the corridor, accounting for 63% of the total crashes combined. The next most common crash type was angle collisions (15%).
Table 5 presents five-year average crash totals by crash type and CRIS roadway classification; accordingly, this highlights crash types that occurred most often by roadway classification over the five-year period. Further, this helps suggest what types of operational and/or design improvements may be more likely to mitigate crashes based on roadway classification. Cells highlighted red represent crash types that accounted for equal to or greater than 25% of the roadway classification’s total crashes.

<table>
<thead>
<tr>
<th></th>
<th>City St</th>
<th>County Rd</th>
<th>FM</th>
<th>Highways</th>
<th>Interstate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
</tr>
<tr>
<td>Angle</td>
<td>162.6</td>
<td>28%</td>
<td>6.8</td>
<td>8%</td>
<td>123.8</td>
</tr>
<tr>
<td>Head On</td>
<td>11.6</td>
<td>2%</td>
<td>3.2</td>
<td>4%</td>
<td>16.8</td>
</tr>
<tr>
<td>Other</td>
<td>80.4</td>
<td>14%</td>
<td>4.2</td>
<td>5%</td>
<td>105.6</td>
</tr>
<tr>
<td>Rear End</td>
<td>0.2</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0.4</td>
</tr>
<tr>
<td>Sideswipe</td>
<td>95.4</td>
<td>16%</td>
<td>6.2</td>
<td>7%</td>
<td>314.2</td>
</tr>
<tr>
<td>Single Vehicle</td>
<td>232</td>
<td>40%</td>
<td>69.2</td>
<td>77%</td>
<td>105</td>
</tr>
<tr>
<td>Total Avg.</td>
<td>582.2</td>
<td>100%</td>
<td>89.6</td>
<td>100%</td>
<td>665.8</td>
</tr>
</tbody>
</table>

Table 6 represents the same data represented in the previous data for the top four highest crash rate roadways. Among the four high crash rate roadways (SL 1604, SH 218, FM 3009, and FM 1103), sideswipes were the most common crash type, making up 43-60% of the crashes. The frequency of the other five crash types showed a weaker correlation across the four roadways. Crash types for all ten of the highest crash total roadways can be found in the appendix (Table 10).

<table>
<thead>
<tr>
<th>Roadway</th>
<th>SL 1604</th>
<th>SH 218</th>
<th>FM 3009</th>
<th>FM 1103</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
</tr>
<tr>
<td>Angle</td>
<td>35.8</td>
<td>9%</td>
<td>52.4</td>
<td>25%</td>
</tr>
<tr>
<td>Head On</td>
<td>2.8</td>
<td>1%</td>
<td>1.0</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>12.2</td>
<td>3%</td>
<td>52.8</td>
<td>25%</td>
</tr>
<tr>
<td>Rear End</td>
<td>0.2</td>
<td>0%</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>Sideswipe</td>
<td>243.0</td>
<td>60%</td>
<td>91.2</td>
<td>43%</td>
</tr>
<tr>
<td>Single Vehicle</td>
<td>111.4</td>
<td>27%</td>
<td>15.4</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>405.4</td>
<td>100%</td>
<td>212.8</td>
<td>100%</td>
</tr>
</tbody>
</table>

Crash Time
The time at which each crash on the corridor occurred was analyzed to identify trends in the time-of-day crashes occur and potential mitigation strategies. Figure 9 presents the frequency of crashes in four-
hour intervals for the corridor by interstate and non-interstate roadways. Crashes within the study area are shown to most frequently occur from 4:00 PM and 8:00 PM for both roadway classifications.

![Figure 9: Crash Time of Day Frequency (2015 – 2019)](image)

While most crashes occurred during PM peak period travel times, significant amounts of crashes occurred during both daylight and dark conditions. Because of this, further analysis was performed on the reported light condition at the time of the crashes occurring in the study area. Crashes analyzed were limited to non-interstate roadways as light conditions are more likely to impact off-system roadways.

**Figure 10** displays percentage of total crashes based on light condition. Majority of study area crashes occur during daylight (71%), while 11% of total crashes occur in dark, not lighted conditions. Overall, roughly 29% of crashes occur in dark conditions.
Bicyclist & Pedestrian Crash Trends

Of the 20,807 (Table 7) crashes that occurred during the five-year period, a total of 165 crashes were categorized as either bicyclist or pedestrian crashes, accounting for roughly 1% of the total number of crashes for the study area. However, compared to overall study area fatalities, bicyclist and pedestrian crashes comprise 36% of all fatal crashes. It must be noted that research suggests, due to the nature of crash reporting, bicyclist and pedestrian crash statistics tend to be underreported. This underreporting can potentially be attributed to variations in definitions of reporting level, periods of study, study locations, and user input error.¹ Accordingly, the crash results presented in this memorandum represent the most accurate and up-to-date data provided by CRIS but the actual number of crashes may be significantly higher.

**Table 7: Comparison of Five-Year Crash Totals; Bicyclist & Pedestrian vs. All Crashes (2015 – 2019)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total Study Area Crashes</th>
<th>Crashes Involving a Bicyclist or Pedestrian</th>
<th>% of Total Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crash Count</td>
<td>20,807</td>
<td>165</td>
<td>1%</td>
</tr>
<tr>
<td>Fatalities</td>
<td>96</td>
<td>35</td>
<td>36%</td>
</tr>
<tr>
<td>Serious Injuries</td>
<td>600</td>
<td>21</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 8 further breaks down bicyclist and pedestrian crashes for the five-year period within the study area, showing that out of all bicyclist/pedestrian crashes, 62% involved pedestrians while the remaining 38% involved bicyclists.

**Table 8: Bicyclist & Pedestrian Crash Totals and % of Total (2015 - 2019)**

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Crash Count - Total</th>
<th>% of Crashes Involving a Bicyclist or Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crashes Involving Pedestrians</td>
<td>102</td>
<td>62%</td>
</tr>
<tr>
<td>Crashes Involving Bicyclists</td>
<td>63</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
</tr>
</tbody>
</table>

¹ Sarah Doggett, David R. Ragland, and Grace Felschundneff, *Evaluating Research on Data Linkage to Assess Underreporting of Pedestrian and Bicyclist Injury in Police Crash Data* (University of California, Berkeley, 2018), 2-11
Table 9 shows the severity of bicyclist and pedestrian crashes based on five-year averages. Reviewing crash severity for non-motorized users, 67% of fatalities occurred on interstate roadways. Additionally, the five-year average indicates that approximately 80% of serious injuries occurred on non-interstate facilities.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Interstate</th>
<th>% of Avg. Total</th>
<th>Non-Interstate</th>
<th>% of Avg. Total</th>
<th>Total 5-Yr. Avg.</th>
<th>% of Avg. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 5-Yr. Avg.</td>
<td>4.0</td>
<td>39%</td>
<td>6.2</td>
<td>61%</td>
<td>10.2</td>
<td>100%</td>
</tr>
<tr>
<td>5-Yr. Avg. Crashes Resulting in Fatality</td>
<td>2.8</td>
<td>67%</td>
<td>1.4</td>
<td>33%</td>
<td>4.2</td>
<td>100%</td>
</tr>
<tr>
<td>5-Yr. Avg. Crashes Resulting in Serious Injury</td>
<td>1.2</td>
<td>20%</td>
<td>4.8</td>
<td>80%</td>
<td>6.0</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 11 shows the location of crashes involving bicyclists and pedestrians throughout the region between 2015 and 2019. Figure 12 displays bicyclist and pedestrian crashes by severity.
Figure 11: Study Area Crashes Involving Bicyclists & Pedestrians (2015 – 2019)
Figure 12: Study Area Bicyclist & Pedestrian Crashes by Resulting Severity (2015-2019)
Conclusion

Some of the notable conclusions from the AAMPO Subregional Planning Study safety analysis include the following:

- Total crashes for all roadway types increased over the five-year period by 24%, while total crash rates increased by 22%.
- Five-year average crash rates by roadway classification for the study area are lower than statewide five-year average crash rates.
- Top crash locations display interstates to experience the most total crashes, however, lower mobility roadway classifications (i.e., state highways, farm to market roads) display higher crashes per lane mile and crash rates, suggesting worse safety conditions along these corridor types. Roadways highlighted for further investigation include SH 218, FM 1103, and FM 3009.
- Five-year average crash rates for all crashes, crashes involving a fatality, and crashes involving a serious injury are all lower than the Texas statewide average.
- The five-year average crash rates for crashes involving a fatality or serious injury both decreased over the five-year period, possibly reflecting a positive trend.
- Fatal crashes involving bicyclists and pedestrians comprise 36% of all study area fatalities. In addition, 67% of the fatalities occurred on interstate facilities. It must be noted that CRIS data does not differentiate interstate main lanes with frontage and access roads; therefore, it may be assumed that these fatalities are potentially occurring along frontage/access roadway facilities.

The AAMPO subregion contains regionally and nationally significant roadway infrastructure, as well as local communities with diverse needs, and although some segments may be viewed as having higher crash rates than others, all crash hotspots within the region should be reviewed to determine proper safety improvements moving forward. The analysis of observed crash hotspots and overall safety trends is intended to help AAMPO, and its planning partners prioritize projects and safety improvement strategies based on a data driven approach to address regional safety and mobility. This information is also intended to help the MPO’s planning partners identify factors that contribute to crash prevalence and severity (including speed, lack of pedestrian and bicycle facilities, and geometric design issues) that can be used to inform future planning efforts and project identification moving forward in future efforts.
Figure 13: Angle Crash Type Locations
Figure 14: Head On Crash Type Locations
Figure 15: Other Crash Type Locations
Figure 16: Rear End Crash Type Locations
Figure 17: Sideswipe Crash Type Locations
Figure 18: Single Vehicle Crash Type Locations
Table 10: Crash Types of High Crash Rate Roadways

<table>
<thead>
<tr>
<th>Roadway</th>
<th>I-35</th>
<th>I-10</th>
<th>SL 1604</th>
<th>SH 218</th>
<th>FM 78</th>
<th>SH 46</th>
<th>FM 3009</th>
<th>FM 1103</th>
<th>FM 725</th>
<th>SH 123</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
<td>5-Yr. Avg.</td>
<td>%</td>
</tr>
<tr>
<td>Angle</td>
<td>112.4</td>
<td>9%</td>
<td>45.6</td>
<td>10%</td>
<td>35.8</td>
<td>9%</td>
<td>52.4</td>
<td>25%</td>
<td>36.8</td>
<td>18%</td>
</tr>
<tr>
<td>Head On</td>
<td>5.4</td>
<td>0%</td>
<td>2.6</td>
<td>1%</td>
<td>2.8</td>
<td>1%</td>
<td>1.0</td>
<td>0%</td>
<td>4.0</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>92.0</td>
<td>7%</td>
<td>27.4</td>
<td>6%</td>
<td>12.2</td>
<td>3%</td>
<td>52.8</td>
<td>25%</td>
<td>41.8</td>
<td>21%</td>
</tr>
<tr>
<td>Rear End</td>
<td>-</td>
<td>0%</td>
<td>0.4</td>
<td>0%</td>
<td>0.2</td>
<td>0%</td>
<td>-</td>
<td>0%</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>Sideswipe</td>
<td>812.0</td>
<td>63%</td>
<td>222.6</td>
<td>48%</td>
<td>243.0</td>
<td>60%</td>
<td>91.2</td>
<td>43%</td>
<td>96.6</td>
<td>48%</td>
</tr>
<tr>
<td>Single Vehicle</td>
<td>266.0</td>
<td>21%</td>
<td>160.4</td>
<td>35%</td>
<td>111.4</td>
<td>27%</td>
<td>15.4</td>
<td>7%</td>
<td>22.4</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>1,287.8</td>
<td>100%</td>
<td>459</td>
<td>100%</td>
<td>405.4</td>
<td>100%</td>
<td>212.8</td>
<td>100%</td>
<td>201.6</td>
<td>100%</td>
</tr>
</tbody>
</table>
Appendix F

Stakeholder Meeting

Presentations
AAMPO Subregional Planning Study Stakeholder Engagement

JUNE 8/17/22, 2021
MEETING AGENDA

- SAFETY MOMENT
- ALAMO AREA MPO BACKGROUND
- STUDY OVERVIEW
- EXISTING CONDITIONS
- STUDY GOALS
- NEXT STEPS
- QUESTIONS AND DISCUSSION

RS&H
SAFETY MOMENT
The Alamo Area Metropolitan Planning Organization (AAMPO) is a federally-mandated agency that guides regional transportation planning, including the allocation of federal money on transportation projects in the Alamo Area.

AAMPO also administers programs that improve mobility, air quality and safety. It is guided by the Transportation Policy Board, made up of elected and appointed officials.
The 3-C Planning Process

Cooperative
No single agency is responsible for the entire transportation system

Comprehensive
Encompassing all transportation modes, as well as local land use and economic development plans

Continuous
Ongoing planning to address short, mid and long term vision
STUDY OVERVIEW
STUDY AREA
**STUDY OVERVIEW**

Why are we conducting the Subregional Planning Study?

- Refine regional planning strategies recommended by previous local and regional planning studies.

What will we have accomplished by the end of the study?

- A prioritized menu of short-term (0-5 years) and mid-term (5-10 years) multimodal projects and programs to improve regional and subregional connectivity.
### Schedule

<table>
<thead>
<tr>
<th>Project Tasks</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Goals and Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder Outreach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prioritized Projects and Programs List</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Analysis &amp; Implementation Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draft Final Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation to Transportation Policy Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver Final Documents and Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oversight Committee Meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder Meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 2022 Transportation Policy Board Meeting</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*We are HERE!*
EXISTING CONDITIONS
Study Area
Existing Conditions - Population

2015

2045 (Projected)
Existing Conditions - Employment

2015

2045 (Projected)
Existing Conditions - Congestion

2015

2045 (Projected)

RS&H
Transportation Equity:
Block Groups / Tracts by Equity / EJ Characteristics

RS&H
## Transportation Equity:
### Block Groups by Characteristics

<table>
<thead>
<tr>
<th>Category</th>
<th>AAMPO Regional Average</th>
<th>Study Area Block Groups* / Tracts** Percent Above Regional Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial minorities (non-white)*</td>
<td>19%</td>
<td>59%</td>
</tr>
<tr>
<td>Hispanic*</td>
<td>59%</td>
<td>14%</td>
</tr>
<tr>
<td>Elderly (age 65 and over)*</td>
<td>14%</td>
<td>33%</td>
</tr>
<tr>
<td>Poverty*</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Households without access to an automobile*</td>
<td>7%</td>
<td>18%</td>
</tr>
<tr>
<td>Limited English Proficiency*</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Disabilities**</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>Ambulatory Disabilities**</td>
<td>7%</td>
<td>22%</td>
</tr>
</tbody>
</table>

» 20,807 total crashes
  – Crashes per year average 3,500 to 4,500
  – Largest single year: 4,424 in 2019
  – Total crashes increased by 24% from 2015 to 2019
Crashes by Roadway Type (2015 – 2019)

- Interstate 43%
- Farm to Market 16%
- US & State Highways 25%
- City Street 14%
- County Road 2%
Crash Rate* (2015 – 2019)

- Ratio: number of crashes per 100 million vehicle-miles-traveled (VMT)
- Normalizes crash count

*CRASH RATES PER 100 MILLION VMT
Crash Rate* (2015 – 2019): Study Area vs Statewide

- **Interstate**
  - Study Area: 91.7
  - Statewide: 139.0

- **US/State Highway**
  - Study Area: 219.2
  - Statewide: 228.2

- **FM Roads**
  - Study Area: 175.9
  - Statewide: 255.9

- **County Roads**
  - Study Area: 31.9
  - Statewide: 102.0

*CRASH RATES PER 100 MILLION VMT
Rate of Fatal and Serious Injury Crashes

Rate of Fatalities per 100 Million VMT

Rate of Serious Injuries per 100 Million VMT
Fatal and Serious Injury Crashes
Crash Hot Spots

» SL 1604
  – Live Oak
  – Universal City
  – @ IH-35
  – @ IH-10

» IH-35
  – New Braunfels
  – Schertz

» SH-46
  – New Braunfels
  – Seguin

Legend
- Study Area
- Sparsest
- Densest

0 2.5 5 Miles
Crashes by Type

- Sideswipe: 48%
- Single Vehicle: 25%
- Angle: 15%
- Head On: 1%
- Other: 11%
- Rear End: 0%
Existing Conditions: Bike/Ped Crashes
# Bike/Ped Crashes

» Pedestrian crashes outnumber bicycle crashes

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Crash Count - Total</th>
<th>% of Crashes Involving a Bicyclist or Pedestrian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crashes Involving Pedestrians</td>
<td>102</td>
<td>62%</td>
</tr>
<tr>
<td>Crashes Involving Bicyclists</td>
<td>63</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>100%</td>
</tr>
</tbody>
</table>
Bike/Ped Injury Risk by Vehicular Speed

---

RS&H
STUDY GOALS
Goal 1: Provide a safe multimodal transportation network

» OBJECTIVES:

• Identify safety measures for bicycle and pedestrian crash hot spots

• Coordinate with TxDOT Safety Program

• Continue to implement safety projects to maintain crash rate below statewide average
Goal 2: Enhance transportation options with an integrated and connected multimodal network

OBJECTIVES:

- Identify and address gaps in the bicycle and pedestrian networks
- Provide multimodal connections to employment and activity centers
- Provide safe multimodal access to schools and community resources
Goal 3: Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility

OBJECTIVES:

- Research the use of technology to improve/address congestion
- Identify operational enhancements to address corridor and intersection congestion
- Identify areas for inter-jurisdictional coordination to improve congestion
**Goal 4:** Identify opportunities for increased and enhanced transit services within the area, as well as connecting to major employment and activity centers outside of the area

**OBJECTIVES:**

- Ensure that potential transit services match transit demands and needs
- Work with major industries/employers to determine transit needs and interest
- Coordinate with existing transit and human services to identify opportunities to meet mobility needs
Goal 5: Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally

OBJECTIVES:

- Foster collaboration with planning partners and jurisdictions within the study area
- Coordinate with planning agencies outside of the AAMPO area where growth trends indicate mobility interrelationships
- Develop ongoing strategies for continued coordination on planning and implementation of projects

RS&H
Goal 6: Coordination between transportation and land use to proactively address mobility issues associated with future growth

» Objectives:

• Understand the mobility impacts fostered by high growth rates

• Coordination among jurisdictions on transportation and land use decisions

• Develop ongoing strategies for continued coordination on planning and implementation of projects

RS&H
NEXT STEPS

• Complete Stakeholder Engagement Process

• Review Stakeholder Input with AAMPO and Oversight Committee
QUESTIONS?
Study Goals: Discussion

» PROVIDE A SAFE MULTIMODAL TRANSPORTATION NETWORK

» PROVIDE AN INTEGRATED AND CONNECTED MULTIMODAL NETWORK

» ADDRESS CONGESTION AND PROVIDE FOR MULTIMODAL MOBILITY

» INCREASED AND ENHANCED TRANSIT SERVICES WITHIN AND CONNECTING TO STUDY AREA

» JURISDICTIONAL AND AGENCY COORDINATION REGIONALLY AND INTER-REGIONALLY

» COORDINATION BETWEEN TRANSPORTATION AND LAND USE AS GROWTH CONTINUES
Appendix G
Stakeholder Meeting Minutes
Stakeholder Engagement
Meeting #1
MINUTES
June 8, 2021
Meeting Minutes

Project Name: AAMPO Subregional Planning Study

Project Number: 115-0015-000

Meeting Date: June 8, 2021

Meeting Time: 11 am – 12 pm CST

Meeting Place: Zoom Call

Subject: Stakeholder Meeting #1

Attendees: Stakeholders: Chuck Jenigen (JBSA), Joey Pawlik (AAMPO), Robert Lee (NB Airport), Sherry Pifer (TxDOT), Jayasree Korukonda (TxDOT), Tom Hornseth (Comal County), Clayton Ripps (TxDOT).

Oversight Committee: Allison Blazosky (AAMPO), Clifton Hall (AAMPO), David Rabago (City of Seguin), Katie Merry (JBSA), Dave Wegmann (Bexar County), Kammy Horne (VIA), Stella Garcia (AACOG), Greg Reininger (CoSA).

Consultant Team: Nick Arnio (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Bill Loudon (ATG).

1. Introductions
   - Allie Blazosky introduced people who haven’t attended an Oversight Committee meeting
     i. Chuck Jenigen – JBSA 502 Air Base Office of Community Initiatives
     ii. Sherry Pifer – Freight Systems Branch Manager TxDOT Austin
     iii. Robert Lee – Director. NB Regional Airport
     iv. Jayasree Korukonda – Planning Intern at TxDOT
   - Nick Arnio introduced consultant team members

2. Presentation

3. Discussion
   - Robert Lee
     i. NB airport becoming national airport
     ii. Foresee increased cargo throughput
     iii. There is increased passenger activity already
     iv. Runways are going to increase in length – then they can get heavier planes in
     v. NB master plan is available on the CoNB’s website
     vi. San Marcos is expanding their freight runway which will be feeding Amazon
     vii. Continent AG opening manufacturing facility between FM 1101 and I-35
• Chuck Jenigen
  i. Seguin Auxiliary field – used for air force training and emergency distribution for FEMA
  ii. Main highway into that is I-10
  iii. Kelly Airfield currently supports Amazon cargo

• Sherry Pifer
  i. TPP recently did a statewide analysis of trade corridors
  ii. 35 huge trade corridor
  iii. Trucks can be frowned upon in municipalities, but they bring us everything we need
  iv. Important to engage that industry to get perspective from users who are operating in these corridors
  v. Will send us some of the economic freight information
  vi. Need to consider truck parking
     1. TxDOT currently trying to expand parking footprint for parking and are working on a truck availability system statewide
     2. Not much truck parking available between San Antonio and Austin
Stakeholder Engagement
Meeting #2
MINUTES
June 17, 2021
Meeting Minutes

**Project Name:** AAMPO Subregional Planning Study

**Project Number:** 115-0015-000

**Meeting Date:** June 17, 2021

**Meeting Time:** 10 am – 11 am CST

**Meeting Place:** Zoom Call

**Subject:** Stakeholder Meeting #2

**Attendees:**

- **Stakeholders:** Jean Drew (City of New Braunfels Planning), David Bemporad (Activate SA and Great Springs Project), Brigida Gonzalas (TxDOT TPP MPO Coordinator for CAMPO), Joey Pawlik (AAMPO Active Transportation), Clayton Ripps (TxDOT SAT TP&D), Robert Lee (NB Airport Director), Sean Scott (AACOG), Mark Mosley (TxDOT), Tom Hornseth (Comal County Engineer).

  - **Oversight Committee:** Allison Blazosky (AAMPO), Clifton Hall (AAMPO), Greg Reininger (CoSA), Stella Garcia (AACOG).

- **Consultant Team:** Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Wade Walker (Kittelson), Sirisha Pillalamari (Transcend).

1. **Introductions**
   - Liz High introduced team, OS committee, and Stakeholders
   - Stakeholders present:
     i. Chuck Jenigen – JBSA 502 Air Base Office of Community Initiatives
     ii. Robert Lee – Director. NB Regional Airport
     iii. Jean Drew - City of New Braunfels Planning
     iv. David Bemporad - Activate SA and Great Springs Project
     v. Brigida Gonzalas - TxDOT TPP MPO Coordinator for CAMPO
     vi. Joey Pawlik - AAMPO Active Transportation
     vii. Clayton Ripps - TxDOT SAT TP&D
     viii. Sean Scott -AACOG
     ix. Mark Mosley - TxDOT
     x. Tom Hornseth - Comal County Engineer

2. **Presentation**

3. **Discussion**
   - Clayton Ripps
     - TxDOT Projects to consider
       1. Loop 1604 from I-35 to FM 78 (not listed)
       2. Loop 1604 from FM 78 to I-10 (not listed)
3. FM 1518 from FM 78 to I-10 (listed)
4. I-10 from Loop 1604 to SH 130 (not listed)
5. FM 1103 from I-35 to Rodeo Way (partially listed)
6. FM 1103 from Rodeo Way to FM 78 (not listed)
7. FM 3009 at FM 78 (listed)
8. I-35 NEX Base (to FM 3009) (not listed)
9. I-35 NEX DWC North (FM 3009 to FM 1103) (not listed)
10. FM 725 from Zipp to County Line (not listed)
11. FM 725 from Zipp to FM 78 (not listed)
12. SH 46 from I-35 to I-10E (not listed)
13. I-35 at Walnut (not listed)
14. I-35 from Guadalupe River to Comal/Hays CL (not listed)
15. I-35 from FM 1103 to Guadalupe River (not listed)
16. SH 123 from Cordova to I-10E (not listed)
17. SH 123 from Cordova to Gleinewenkel (not listed)

- Robert Lee
  - It is expected that the NB airport will be receiving additional cargo shipments as new developments are completed such as the Tesla Gigafactory and new Amazon warehouses.
    i. 2 new hangars and 63 t hangers; drainage work on SE side
    ii. Moving up master plan date; move main entry to airport off of Saur. Not in good shape
    iii. Plans to widen/realign and hopefully will benefit hanger on that side
    iv. Reclassification as national airport, one of 92 in the country
  - Concern: as New Braunfels grows, airport will get busier and access is crucial to maintain growth
  - TESLA 7 m sq ft facility outside of Austin; Amazon 3 m sq. ft facility in the area; potential NB will be growing from cargo perspective
  - Biggest hiccup right now is access issues: 36 and feeder from Barbarosa to Saur.

- David Bemporad
  - The City of New Braunfels just funded the first phase of the Dry Comal Creek Trail (north of the study area) which is a big segment of trail. All info is on city website. There is a lot of trail planning going on. The study area has developed mostly in a suburban sprawl manner. Cycle tracks and multiuse trails are very successful in suburban areas because of the available space.
  - Schertz – great northern trail, extends s. of 35 from Selma and Cibolo Creek to south of 35 – in the area and need to recognize
  - Multiuse paths and cycle tracks should be a focus for the plan
  - Development will cause flooding concerns, particularly around Cibolo Creek and tributaries...go big on planned infrastructure facility
  - Follow up by Wade: starting to see “mega trails”; looking a other large trails already in place that are good examples; monitoring Piedmont Trail in NC; Minuteman Trail in New England/Vermont...good example of trail connectivity; just outside of Cleveland is another trail to look at

- Chuck Jenigen
  i. Suggested we read the Ports Expansion Plan of the Kelly Airfield that was just completed.
  ii. Working on port’s expansion plans at Kelly airfield; port of san Antonio now. Expansion and completed planning document; Boeing and Lockheed martin; Amazon also has a facility and other carriers (air traffic) coming in and out; ground transportation to and from facilities in the Schertz area.
  iii. Look at everything outside of military installations that may have impact on the installations themselves

- Joey Pawlik
  i. Is interested in how to provide a safer connection between Seguin and New Braunfels for active transportation.
  ii. Past planning sessions...safer and better connectivity between Seguin and New Braunfels...want to focus on safety for active transportation
  iii. Active Transportation projects: walkable community workshop with Schertz; held on in New Braunfels
Tom Hornseth

i. Informed the group that there is a lot of residential development happening in study area and especially along SH 46 corridor.

ii. This new development is mostly high density single family homes and speculated that the primary form of transportation for the new development will be the automobile.

iii. Seen a lot of changes; so much residential activity happening esp. in 46 corridor; get Seguin and New Braunfels planning to find out what’s going on; lots of Single family activity growth

iv. Heard a lot of emphases on bike/ped/transit; horizon 2035...all subdivisions are expecting to drive a car and that’s the reality of the transportation for at least to the end of the horizon of the plan

v. Transit/bike/ped not important to those people and new residents

vi. Look at how the residential development is happening.
Stakeholder Engagement
Meeting #3
Minutes
June 22, 2021
Meeting Minutes

Project Name: AAMPO Subregional Planning Study

Project Number: 115-0015-000

Meeting Date: June 22, 2021

Meeting Time: 11 am – 12 pm CST

Meeting Place: Zoom Call

Subject: Stakeholder Meeting #3

Attendees:

Stakeholders: David Bemporad (Activate SA and Great Springs Project), Ryan Johnson (Great Springs Project), Joey Pawlik (AAMPO Active Transportation), Pam Centeno (City of Seguin Planning), Robert Lee (NB Airport Director), Scott Nelson (TxDOT), Tom Hornseth (Comal County Engineer), Nancy Pappas (New Braunfels Utilities Headwaters of the Comal), Lorena Echeverria-deMisi (TxDOT), John Gianotti (TxDOT Transguide).

Oversight Committee: Allison Blazosky (AAMPO), Clifton Hall (AAMPO), Greg Reininger (CoSA), Stella Garcia (AACOG), Darcie Schipull (TxDOT).

Consultant Team: Nick Arnio (RS&H), Bev Davis (RS&H), Elizabeth High (RS&H), Marcela Aguirre (RS&H), Wade Walker (Kittelson), Sirisha Pillalamari (Transcend).

---

1. Introductions
   - Allie Blazosky introduced team, OS committee, and Stakeholders
   - Stakeholders present:
     i. David Bemporad (Great Springs Project)
     ii. Joey Pawlik (AAMPO Active Transportation Planner)
     iii. John Gianotti (TxDOT TransGuide)
     iv. Lorena Echeverria-deMisi (TxDOT)
     v. Nancy Pappas (New Braunfels Utilities Headwaters of the Comal Director)
     vi. Pam Centeno (City of Seguin Planning Director)
     vii. Robert Lee (New Braunels National Airport Director)
     viii. Ryan Johnson (Great Springs Project)
     ix. Scott Nelson (TxDOT)
     x. Tom Hornseth (Comal County Engineer)

2. Presentation

3. Discussion
   - Pam Centeno:
     o Starting comprehensive plan update for Seguin; just awarded contract and also a downtown master plan will be underway
- Transportation plan led by engineering department will be starting after the comprehensive plan gets underway; project funding is included in the budget.
- Transportation planning is very active due to growth with much of it north of I-10 between Sequin and New Braunfels along 46 and 123.

**David Bemporad**
- Serves as a resource with trail expertise to participants and the study
- Work with stakeholders on trails and trail connectivity
- Trails are an amazing transportation element and not just a recreational amenity
- This plan is a good opportunity to increase the presence of that element
- Suburban sprawl development patterns provide a great opportunity for trails and fully buffered facilities which are really critical for safety and the development patterns allow the separate and buffered trails more easily
- Reiterate the need for facilities to be fully separated facilities

**Nancy Pappas**
- Agree with David
- Dry Comal Creek Trail might be along edge of planning area and is important to make sure it is included in the study
- Other one that’s important is the Alligator Creek trail that can connect Seguin with New Braunfels and would provide a good transportation connection
- A lot of the efforts is occurring west of the planning area

**Joey Pawlik**
- Upcoming area neighborhood planning workshops to focus on walkability and bikeability with one coming up soon in Schertz
- Recently conducted one in New Braunfels
- Working with agencies, planning partners, and other stakeholders to make sure active transportation accommodations are incorporated and facilities are connected and safe
- Active transportation modes such as e-bikes are also a big part of the active transportation focus and connections will benefit from those types of modes

**Tom Hornseth**
- Repeated the perspective regarding the growth and the region
- While there is emphasis on bike and ped facilities, the reality is that car-oriented subdivisions being built and people will be driving
- Cars are huge component and vehicular congestion is the reality
- Nick question for Tom: status of the study for new connector from 46 to 35?
  - Comal Co looking at connection and is ~ $800,000 study to investigate feasibility and cost to bring forward a real project providing that connection for increased mobility

**John Gianotti**
- Construction projects on 35 and 10, but deal primarily with HERO program;
- Service is already on 35 up to New Braunfels and looking to expand all the way to Seguin on I-10 due to increased congestion, as well as the construction project which will increase the need for services

**Scott Nelson**
- John mentioned a few projects; probably have more projects than can review but big ones are I-35 capacity expansion and some through New Braunfels on I-35
  - I-10 capacity expansion past Seguin
  - Additional capacity on other roadways: 1103; 1518; 123; 46 and 1604; 3009 @ 78; also including some bike/Ped within those projects
- Will provide the project list after the meeting

**Nancy Pappas**
- Appreciate the congestion but if we’re only putting in lanes then we are forcing people to drive;
- Other places have variety of modes and appreciate the discussion of multimodal in the planning
- Bike and ped advocates typically don’t have the funding to push the way some other groups do, but there is a growing recognition and need for bike and ped facilities
- People currently don’t walk or ride because there are not any good options present, but the desire is there and there need to be safe options
- Allie Blazosky
  - AAMPO working with team to move forward with project identification for prioritization
  - Will keep participants updated on study progress
  - Will be additional opportunities for input and will be happy to meet one on one if needed
  - Also meeting with other groups/agencies, such as New Braunfels Chamber Transportation Committee next week
Stakeholder Engagement
Meeting - JBSA
MINUTES
August 4, 2021
Meeting Minutes

Project Name: AAMPO Subregional Planning Study
Project Number: 115-0015-000
Meeting Date: August 4, 2021
Meeting Time: 9:30 am – 10:30 pm CST
Meeting Place: Zoom Call
Subject: Stakeholder Meeting with JBSA Staff

Attendees: **JBSA Staff:** John Anderson (502nd Community Initiatives Director), Curtis Robertson (Director of Community Initiatives / Mission Sustainment at 12th Flying Training Wing), Sam Meta, Val Ramirez, Rich King, Katie Merry, Jill Herring, Chuck Jenigen.

**Oversight Committee:** Allison Blazosky (AAMPO).

**Consultant Team:** Nick Arnio (RS&H), Elizabeth High (RS&H).

1. **Introductions**
   - Attendees introduced themselves

2. **Overview**
   - Allie presented background information on the study
   - Provided slide showing Oversight Committee’s goals

3. **Discussion**
   - John Anderson:
     - John’s purview is over all of JBSA (not just Randolph)
     - Curtis is the best person to talk to about Randolph-specific projects and concerns
     - Current main concern is transportation connection between JBSA installations (Lackland AFB, Ft. Sam, Randolph AFB, and Camp Bullis)
       - There is a lot of congestion
       - Ideally, they would be able to have a standardized time that they know it takes to get from one installation to another
     - Would transit options help?
       - Transit would help with gate-to-gate issues (installation to installation), but not door-to-door (how to get people to the place within the base they need to get once they’re in the gate.
     - Are emergency services impacted by traffic issues?
       - Emergency responders are aware of the typical traffic issues and so they have back-up routes to get into the base
         - However, this may increase their response time
     - What is the best-case scenario to fix traffic issues around RAFB?
       - Standardized time to get from one installation to another
- Make sure that, during peak times, they can successfully address forced protection issues
  - When there are long lines of cars waiting outside the gate to get in, those cars become a “soft target.”
- Would flyovers help?
  - In support of flyovers, but flyovers too close to the base provide an issue for forced protection (preventive measures taken to mitigate hostile actions against DOD)
    - It provides a higher place for someone to stand if they wanted to shoot into the base
- Does JBSA have an approximate number of people travelling between installations each day
  - Hard to get exact numbers
  - Typically includes senior leadership and mid-level management

- Curtis Robertson
  - They have traffic issues at five entry points:
    - Main Gate (open 24-hr)
    - West Gate (open 12-hr)
    - South Gate (open 12-hr)
      - This is the commercial gate where deliveries come in
    - East Gate (open during peak AM and PM hours)
    - High School Gate (open for high school-related activities only)
      - Obviously worse during school year
      - There are students who live off-base who access it daily
      - If there are sports games, traffic comes through here
  - Two major roads where they have traffic issues:
    - FM 78
    - Lower Seguin Road (queuing at the South gate causes traffic to back up all the way down this road)
  - There is a UP train track that runs parallel to FM 78
    - Train can cause traffic issues depending on its schedule and the time of day, particularly if there are special events/meetings happening at the base or people are trying to leave the base to go to another installation for special events/meetings.
    - To the best of Curtis’s and John’s knowledge, JBSA has not coordinated with UP to try to mitigate these issues
      - Would be difficult for UP because JBSA’s specific needs aren’t as predictable as the train’s (e.g. if there is a special event)
  - When traffic backs up, non-moving vehicles are stuck in the airfields’ clear zone
  - Universal City is working on a large project East Aviation Boulevard
    - Includes roadway improvements, sidewalks, lighting upgrades, etc
    - Having to close roads during work
    - Makes coming into RAFB from Pat Booker Road difficult
  - Would road-widening help?
    - Entry point is already offset from FM 78
    - TxDOT is working on widening FM 1518 from 2 lanes to 4 lanes
    - TxDOT has talked about doing a flyover by the school
  - Are emergency services impacted by traffic issues?
    - Not aware of any issues
  - Would flyovers help?
    - The higher you go with a flyover the more problematic it becomes for the airstrip (visual and physical impediment to flyers)
Appendix H

Written Stakeholder Input
Liz,

Thanks again for taking the time this morning to present to our group. Chester will send yours and Allie’s contact information out, hopefully you get some feedback.

Back to my comment this morning about another Guadalupe River crossing here in New Braunfels, south of IH-35 between FM 725 and SH 46. It’s been talked about off and on for several years, but it never seems to pick up any steam. Congestion along both 46 and 725 has steadily increased. TxDOT does have plans to improve both roadways, however having a central cross-connection would be extremely useful, especially with the amount of develop that’s occurring between New Braunfels/Seguin/McQueeney.

Let me know if you have any questions or if I could be of any help.

David

David Kneuper, P.E.
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Utility Engineering Group, PLLC
Texas Engineering Firm No. 18712
191 N. Union Avenue
New Braunfels, Texas 78130
(512) 699-8607 (Cell)
(830) 214-0521 (Office)
Hi, guys –

Here’s a summary of a comment from Tom Hornseth received today to follow up from the stakeholder meeting. Tom joined a couple minutes late, so I wasn’t able to introduce him, but he is the Comal County Engineer and sits on our TAC.

He expressed concern about the emphasis on transit as a menu item between now and 2035 because he doesn’t think of it as an “honest and fair” short- to mid-term improvement needed in the study area.

I filled him in on a similar question Joel Hicks (OS Committee member representing the NE Partnership) raised about transit and how Kammy acknowledged that investment needs to be realistic about the type of transit in order for it to be successful in different communities.

Anyhow, Tom suggested (encouraged?) having a sit down meeting with the two planning directors of New Braunfels and Seguin about the growth they’re expecting to see in the next 10 years. His specific corridor of concern is SH 46 from 35 to 10, which he sees exploding with single-family subdivision where people are moving in expecting to use cars. He acknowledged that the maps of the study area do show that expected growth and congestion.

While Tom’s concern is not a surprise, improving public transportation options did rank highly in our OS Committee meetings. I did appreciate his point about having a sit down with the planning directors, so I reached out to them just now about their interest in doing that in June in addition to or in place of the remaining two group stakeholder meetings.

I’ll let you know if I hear anything back. Thank you!
Elizabeth,

It was a pleasure to meet you this morning. As discussed, I concur with the comments made by Mike Meek regarding the importance of future southern connections between IH-35 and SH-130. A viable path between the highways will provide an opportunity to alleviate traffic on IH-35, which would be a good thing in light of the crazy increases in traffic over the coming decades highlighted in your presentation. I believe the study area should be extended east to include SH-130 so these connections can be evaluated.

One of the potential connections is in northern Comal County. The City of New Braunfels Regional Transportation Plan (see below) shows a future 200’ wide East-West Connector for this purpose. TxDOT is currently constructing an IH-35 overpass to accommodate this future connector. Furthermore, the Mayfair development is a 1,900-acre masterplanned community approved by the New Braunfels City Council this past Monday along this alignment that sets aside this thoroughfare (see below).

I hope this information is helpful. Don’t hesitate to let me know if you have any follow-up questions.

Sincerely,
Todd
Plan 3-1 Mayfair Master Framework Plan

Todd Blackmon, P.E., LEED AP BD+C | Managing Vice President, New Braunfels
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From: High, Elizabeth <Elizabeth.High@rsandh.com>
Sent: Thursday, July 1, 2021 11:48 AM
To: Todd Blackmon @PD <TBlackmon@pape-dawson.com>
Subject: Great to Meet You (and Contact Info!)
Hi Todd – so great to meet and chat with you this morning at the NB Chamber of Commerce Transportation Committee meeting! Just wanted to make sure you have all my contact info (below) so that you can share the comments you made today, as well as send me any thoughts or concerns for the Subregional Planning Study area that you think of later.

I really appreciate you engaging in our discussion today and being so welcoming to me and Allie!

All the best,
Liz High

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RS&H
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Prioritization Tool
Methodology Memo
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AAMPO Subregional Planning Study // 2021
1.0 Introduction

This document describes the functions and methodology used in data collection and analysis for the development of the performance based ranking tool (Tool) used to prioritize multimodal transportation projects reviewed for the 2021/2022 Alamo Area Metropolitan Planning Organization (AAMPO) Subregional Planning Study.

There are seventeen (17) overall factors that contain the information used to develop the performance ranking. These sections include:

- Flow Chart
- Goal Weighting
- Ranking Summary
- County
- AADT
- Historic
- Natural Resources
- Defense
- Freight
- Airport
- Multimodal
- Tourism
- Volume to Capacity and Level of Service
- Transit
- Schools
- Aircraft Protection Zone
- Safety

For each of these variables (apart from the Flow Chart, Goal Weighting, and Ranking Summary) Geographic Information Systems (GIS) and local stakeholder data was utilized to determine the underlying performance of the roadway network in both the base year and future year conditions. These key variables were then used to develop project rankings which are contained within the Ranking Summary. As applicable, GIS files highlighted within this methodology have been included within the Study Data Compendium. These variables are found in the sections described above and in the table of contents. Each variable used in this analysis contains a brief description of:

- What each section describes, and/or its purpose
- How the data was analyzed
- How the data was scored for the ranking summary, if applicable

2.0 Flow Chart

The Flow Chart highlights the prioritization process by depicting the needed data and the steps in which the data was analyzed within this performance analysis. The workflow for this project is described as follows: First, data inputs are housed on individual tabs and are referenced to projects by the project number. This data is comprised of the project inputs, and the list of projects to analyze. This project input and list of
projects in the area were identified by the team. Next, the project performance assessment is conducted, which compiles data points for each of the projects. This represents a qualitative and quantitative summary of the various data points for the creation of a score-based ranking. This data summary was converted into an individualized scoring methodology (explained for each metric within this report) to derive base analysis results without weighting. Then, with Oversight Committee review, a priority weighting analysis was conducted using the prioritized Oversight Committee goals to add weight to metrics. These scores represent a list of projects prioritized outside of cost constraints. A Benefit-Cost Analysis (BCA) was developed following prioritization.

Figure 1: Prioritization Flowchart

3.0 Goal Weighting

The Oversight Committee identified six (6) goals in the planning process to identify regional priorities when considering the planned projects. These goals, in order of their rank/importance, are as follows:

1. Develop projects and innovative methods to address congestion and provide for efficient, multimodal mobility
2. Provide an integrated and connected multimodal network that enhances transportation options
3. Identify opportunities for increased and enhanced transit services within the area, as well as connecting to major employment and activity centers outside of the area
4. Coordination between transportation and land use to proactively address mobility issues associated with future growth
5. Continue coordination between jurisdictions and agencies within the area, as well as regionally and inter-regionally

6. Provide a safe multimodal transportation network

These goals listed above are prioritized in order to apply weights to help develop the ranking summary for the list of projects. The weighting is used as a multiplier for the rankings, and so the higher the weight equates to the greater the point value in the ranking. Table 1 shows these goals and their priority rank, with the greatest priority on the first-listed goal with a priority rank of six (6) to the least prioritized goal having a rank of one (1). By incorporating a weighted score into the analysis, the project list can be ranked using local priorities and feedback. This allows for an overall customization of the ranks based on perceived regional needs. The table further shows which data points were given a multiplier per the applicable goal. Within the table, the column “Application to Data Points” identifies the features for which the goal applied and subsequently that received the multiplier from the priority ranking.

**Table 1: Goal Prioritization and Applicable Data Points**

<table>
<thead>
<tr>
<th>Goal Number</th>
<th>Priority Rank</th>
<th>Application to Data Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>V/C, Bike Ped</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Airport, Freight, Defense, Tourism, Clear Zones</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Transit</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Historic/Cultural/Environmental/Schools</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Multiple Jurisdictions</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Safety Score</td>
</tr>
</tbody>
</table>

**4.0 Ranking Summary**

The Ranking Summary is a cumulation of the data sets that work together to showcase data points and applicable scoring. The overall rank is attributed to each project with an unweighted score and weighted score. The data points used to create the weighted and unweighted scores are as follows:

- **Volumes** – Top 50% truck
  - Truck volumes over the median value
- **Reliability** – Top 50% base V/C (volume to capacity)
  - Base year V/C over the median value
- **Reliability** – Top 50% future V/C
  - Future year V/C over the median value
- **Safety** – Total safety score
  - Number of bicycle/pedestrian injuries and fatalities
  - Number of fatalities
  - Crash rate quartile score based in relation to the other projects
Higher percentile of crashes indicated higher need

- Economic Development/freight – Supports freight movement
  - Proximity to freight route or Strategic Highway Network (STRAHNET)
- Economic Development/freight – Supports defense access
  - Proximity to STRAHNET or military installation
- Travel and Tourism – Supports access to tourism
  - Support of known tourism areas and interstate highway access
- Multimodal – Planned bicycle/pedestrian facilities
  - Support of bicycle, pedestrian, and multimodal movement
- Multimodal – Supports improved access to public airport
  - Support access to a public airport
- Multimodal – Recommended or support of transit
  - Support of existing of future transit
- Environment and quality of life – Impacts historic resources
  - Proximity to historic/cultural resources
- Environment and quality of life – Impacts environmental resources
  - Proximity to wetlands and waterways/water bodies
- Environment and quality of life – School proximity
  - Proximity to schools
- Environment and quality of life – Runway clear zone impact
  - Proximity to the military runway clear zones
- Multiple jurisdiction
  - Project crosses county/city boundaries

These variables form overall scores for each project. Variable categories are then used to determine unweighted scores for each project. For each of the metrics identified above, a higher point value is indicative of a higher perceived need. Therefore, a project with ten (10) points would have a higher regional need than a project with five (5) points.

5.0 County

The Subregional Planning Study Area is located in Greater San Antonio, Texas. The Study Area’s counties include:

- Bexar
- Comal
- Guadalupe
- Hays

Bexar, Comal, and Guadalupe Counties are part of the AAMPO Planning Area, while Hays County is in the Capital Area (Greater Austin) MPO (CAMPO) Planning Area [Note: a representative from CAMPO was included on the study’s Oversight Committee and the results of the study will be shared with CAMPO]. The counties were included for informational purposes and were not used to rank the projects. Table 2 identifies
the percentage and number of projects that fall within each county. **Table 3** highlights the percentage of projects that fall within one county versus those that are located in two or more counties. **Table 2** shows the projects that are completely within one of the three (3) counties, and the “Multiple Counties” row highlights those projects found in two (2) counties or more. Projects that crossed county boundaries were only recorded in that row and not recorded with the other counties listed in the table. This row also includes Hays County, TX which shares one project location with Guadalupe County, TX.

**Table 2: Project Location Counties and Number of Projects**

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Projects</th>
<th>Rounded Percentage (%) of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bexar</td>
<td>40</td>
<td>33%</td>
</tr>
<tr>
<td>Comal</td>
<td>22</td>
<td>18%</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>47</td>
<td>39%</td>
</tr>
<tr>
<td>Multiple counties</td>
<td>12</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Table 3: Projects in Multiple Counties**

<table>
<thead>
<tr>
<th>Project County Description</th>
<th>Number of Projects</th>
<th>Rounded Percentage (%) of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Located in one county</td>
<td>109</td>
<td>90%</td>
</tr>
<tr>
<td>Located in multiple counties</td>
<td>12</td>
<td>10%</td>
</tr>
</tbody>
</table>

### 6.0 AADT

Average Annual Daily Traffic (AADT) was gathered to estimate corridor conditions and to aid in the development of Level of Service (LOS) for certain projects. Neither base year nor future year AADT values were used directly within the ranking process, however, Volume to Capacity (V/C) calculations were considered. The file was downloaded from the TxDOT Open Data Portal in September 2021 and was used to determine current year AADTs for the projects in this study. The file used from the TxDOT Open Data Portal for current AADTs is the “TxDOT_RoadwayInventory_Clip”, and the field of interest is the “ADT_CUR” field. The file used to determine future roadway volumes was “FY2045TrafficForecasts_Clip” using the “TOTVOL45” field. Descriptive statistics for both of these metrics included the:
• Median
• Quantity
• Average

For areas in which data was not available, assumptions were made to estimate probable conditions within the project areas. These assumptions included reference to nearby corridors as applicable.

To help determine the future AADT, data gaps were filled using an assumed growth formula from the base year (2017) AADT, using a linear growth formula (assuming a 2% annual growth). The gaps assumed continuation of existing data or adjacent roadway.

7.0 Volume to Capacity and Level of Service

Volume to capacity (V/C) is a metric to determine the relationship of the roadway to accommodate the existing and projected traffic volumes. Each of the projects were examined for the base year (2017) and future year (2045). The V/C for each project was used to determine the approximate Level of Service (LOS) for each project (Table 4). To determine V/C, the team used the Florida Department of Transportation (FDOT) Generalized Annual Average Daily Volume and LOS tables, which are the nationally recognized standard. The RS&H team regularly uses them for MPO and state DOT traffic assessments not only in Florida and Texas, but in Georgia, South Carolina, North Carolina, and Maryland. For planning studies, the FDOT tables provide a sound generalized LOS that is more granular and refined than the local Travel Demand Model (TDM) as they are based both on detailed facility type and information.

Table 4: FDOT Derived V/C to LOS Table

<table>
<thead>
<tr>
<th>Level of Service (LOS) Grade</th>
<th>Volume to Capacity (V/C) Low-End Score</th>
<th>V/C High-End Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.0</td>
<td>0.26</td>
</tr>
<tr>
<td>B</td>
<td>0.261</td>
<td>0.4</td>
</tr>
<tr>
<td>C</td>
<td>0.41</td>
<td>0.6</td>
</tr>
<tr>
<td>D</td>
<td>0.61</td>
<td>0.8</td>
</tr>
<tr>
<td>E</td>
<td>0.81</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>1.0</td>
<td>&gt;1.0</td>
</tr>
</tbody>
</table>

Similar to other metrics used in this ranking analysis, data gaps were filled using assumptions based on existing or applicable data sources. Data gaps were filled using the FDOT LOS tables. The generalized LOS

tables were used in conjunction with the traffic volumes to generate an assumed LOS for the existing and future years. The files used to determine future V/C were developed from the AAMPO TDM volume data. This process used the “AAMPO_2045_VolVC_042821” file which contributed to the 2045 V/C, based on the field of the same name, and the existing V/C using the “AAMPO_2017_VolVC_042821 file” with field: “2017 VC”. The V/C averages were determined based on the AADT. In other words, the sum of AADT divided by the number of sections derived the V/C averages. If there was not data estimated for future V/C, and therefore future LOS levels, a linear growth model was employed. Similar to the freight section, those projects in the top two quartiles (top 50%) received one (1) point and the bottom two quartiles (bottom 50%) did not receive any points. There were no half-points awarded in this category. This translates to the following: if the V/C was greater than a 0.66 (the median for 2017) one (1) point was awarded, and if it was lower, then there was a zero (0) awarded for the project. The same applied for the future, but with 1.08 as opposed to 0.66.

8.0 Historic

Historic and cultural sites were identified within the study area, and those projects which were likely to impact these areas were noted. The data for this analysis was sourced from data used in the existing conditions report and supplemented with additional data from the Texas Historical Commission’s Texas Historic Sites Atlas’s Downloads. The data was found at: Home - Atlas | Texas Historical Commission (state.tx.us). The additional data was utilized to supplement the existing data to develop a more comprehensive picture of the historic and cultural landmarks of the region. The data downloaded from the Texas Historical Commission contained all data points found in the original existing data. The files referencing historic and cultural features are as follows:

- Clip_OutfeatureClass_RRC_Cem_Select
- HistoricalMarkers_Study Area
- Museums_Study Area
- National_RegisterPY_Study Area
- NationalRegisterPt
- StateHistoricSites
- Cemeteries

The historic variables in consideration for this study include:

- Cemeteries
- Texas Historical Commission’s (THC) Historical Markers
- The Pecan Museum of Texas
- National Register of Historic Places
This field utilizes negative point values for project overall scores. The use of negative points for scoring these projects highlights the possible negative impacts associated with development near historical and cultural sites. Table 5 highlights how each project was scored along this variable.

Table 5: Historical Marker Variable on Project

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project more than 500 feet away from at least one of the listed historic/cultural sites</td>
<td>No</td>
</tr>
<tr>
<td>-0.5</td>
<td>Project is between 100 feet and 500 feet from at least one of the listed historic/cultural sites</td>
<td>Somewhat</td>
</tr>
<tr>
<td>-1</td>
<td>Project is within 100 feet from at least one of the listed historic/cultural sites</td>
<td>Yes</td>
</tr>
</tbody>
</table>

9.0 Natural Resources

Proximity to natural resources is a key variable that was also analyzed in this study. The proximity to known wetlands and waterways/water bodies was also considered due to their potential impact on project development. The data was sourced from [www.atlas.thc.state.tx.us/Data/GISData](http://www.atlas.thc.state.tx.us/Data/GISData), and the file was named “ECR_Fig_19_Env_Hydro”. The data examined included:

- WETLAND_TY: Freshwater Emergent Wetland
- WETLAND_TY: Freshwater Forested/Shrub Wetland
- WETLAND_TY: Freshwater Pond
- WETLAND_TY: Lake
- WETLAND_TY: Riverine
- NHD_Study_Area_Select: River/Stream

The NHD_Study_Area_Select was utilized as a secondary resource to determine project distance that may not have been a wetland but still within 100 and/or 500 feet from a river and/or stream. Similar to section 7.0 Historic, scoring for this section utilizes negative numbers. This negative score highlights potential complications related to development that impacts environmental resources. Table 6 depicts the scoring procedures for this variable:
Table 6: Environment/Natural Resources Variable on Project

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project more than 500 feet away from at least one of the listed environmental/natural resources</td>
<td>No</td>
</tr>
<tr>
<td>-0.5</td>
<td>Project is between 100 feet and 500 feet from at least one of the listed environmental/natural resources</td>
<td>Somewhat</td>
</tr>
<tr>
<td>-1</td>
<td>Project is within 100 feet from at least one of the listed environmental/natural resources</td>
<td>Yes</td>
</tr>
</tbody>
</table>

10.0 Defense

The defense variable concerned the proximity to military facilities or if a project connected to a Strategic Highway Network (STRAHNET) Corridor. A STRAHNET Corridor is the designation given to roads that provide “defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war”.

The methodology for scoring projects concerning the defense variable is shown in Table 7.

Table 7: Defense Variable Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project is not at a STRAHNET corridor intersection nor at an intersection near a military facility</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project is at an intersection near a military facility</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project is at a STRAHNET Corridor intersection</td>
<td>YES</td>
</tr>
</tbody>
</table>

11.0 Freight

The freight variable in this study focused similarly to the way in which defense impacts were conducted. Anything along the STRAHNET corridor was included, in addition to any projects along a TxDOT freight route. Table 8 highlights how the point breakdown was determined:

Table 8: Freight Variable Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project does not touch the TxDOT designated freight route or does not intersect/has the potential to impact the freight route</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project intersects a freight route, or the project has the potential to impact the freight route</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project is along a freight route or STRAHNET Corridor</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Other variables considered include the proximity of freight-based development (commercial and retail buildings) qualitatively determined by examining satellite imagery to observe roadway conditions. Though not used within the final ranking summary, this metric was gathered as a potential factor for freight scoring. An answer of “Yes” correlated to a greater proportion of trucks that would be involved in the area, “Somewhat” would be if a greater proportion of trucks may be involved in the area, and “No” if it appeared that trucks would not be involved in the area.

The truck percentage identified along the corridor was also considered as part of the overall freight analysis. Any percentage above 10% would be given a “Yes” response to the question of if there is a high truck percentage and any percentage below 10% would be given a “No”. The presence of a “Somewhat” score was absent from this sub-variable. Similar to the freight-based development, this yes/no metric was not utilized directly within the final ranking summary.

The percent of truck volume for each corridor was used to modify the ranking summary. This was factored into the base percent truck variable. The top 50% truck variable in the ranking summary was determined from this base percentage truck factor. The top 50% of the corridors with the highest truck percent of AADTs (greater than the 3.2% median value for all projects) received one point and the bottom 50% did not receive a point. The score of “0.5” was not considered for this variable.
12.0 Airport

The airport variable in this study focused on whether a project connects to the airport or supports a connection to the airport. The airport scoring for this metric was based on the proximity to the New Braunfels Municipal Airport in New Braunfels, TX. This airport is located in both Comal and Guadalupe counties but is predominantly in Guadalupe County. The airport access variable scoring criteria is shown in Table 9.

Table 9: Airport Access Variable Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project is not adjacent or providing direct nor indirect access to the New Braunfels Municipal Airport</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project is providing indirect access to the New Braunfels Municipal Airport</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project is adjacent to or provides direct access to the New Braunfels Municipal Airport</td>
<td>Yes</td>
</tr>
</tbody>
</table>

13.0 Multimodal

The overall score in the multimodal category was determined by whether the project had planned bike enhancements, pedestrian enhancements, and if the project supports regional multimodal travel. The overall score is the sum of whether a project description included bike enhancements, a project description included pedestrian enhancements, and if a project supports regional multimodal initiatives. The multimodal support scoring criteria is shown in Table 10.

Table 10: Multimodal Variable Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project does not support regional multimodal initiatives</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project is yet to be determined to support multimodal initiatives</td>
<td>TBD</td>
</tr>
<tr>
<td>1</td>
<td>Project will improve multimodal initiatives</td>
<td>Yes</td>
</tr>
</tbody>
</table>
14.0 Tourism

The possibility of a project supporting tourism and interstate highways within the area was also considered as a scoring metric within the ranking summary. If the project was determined to support tourism, it would score one (1) point for "Yes", zero (0) points for "No", and one-half (0.5) point for "Somewhat". This can be seen in Table 11.

Table 11: Tourism Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project does not support known tourism areas and supporting interstate highways</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project somewhat supports known tourism areas and supporting interstate highways</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project supports known tourism areas and supporting interstate highways</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Many of these known tourism areas are trails that serve as considerable economic drivers of areas. The interstate highways that these projects support are IH-35 and IH-10.

15.0 Transit

The possibility to benefit transit in the area was another variable by which projects were measured. These projects were identified by the Oversight Committee and are likely to benefit the development of transit in the area. Table 12 shows the scoring criteria for the projects that the Oversight Committee identified as benefitting transit.
Table 12: Transit Benefitting Projects

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project will not support or benefit transit</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project could possibly support transit</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project will support/benefit transit</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Overall, there were seven (7) projects identified that would support/benefit transit related modes, and twenty-seven (27) projects that could possibly support transit.

16.0 Schools

Schools in the area were studied to observe project proximity to educational facilities in the area. The file used to identify projects in close proximity to a school is the “Schools_Study_Area_Select”. Additionally, projects identified by the Oversight Committee as having the potential to benefit the accessibility and safety of school-aged children also received points. The scoring methodology for schools is shown in Table 13.

Table 13: Area School Proximity Scoring

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project is not within one-half or one-quarter of a mile from a school</td>
<td>No</td>
</tr>
<tr>
<td>0.5</td>
<td>Project is located within one-half mile from a school</td>
<td>Somewhat</td>
</tr>
<tr>
<td>1</td>
<td>Project is located within one-quarter mile of a school</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Overall, fifteen (15) projects scored one-half (0.5) point and are therefore located between one-quarter (0.25) to one-half (0.5) mile away from a school, and fourteen (14) projects scored one (1) point, which places them within one-quarter mile from a school.

17.0 Aircraft Protection Zone

The Oversight Committee highlighted the importance of identifying any projects that would be within the military’s runway safety zones. The only project that was determined to impact this zone is Project B22, which received a score of negative five (-5) points. This metric was a shared concern among the Oversight Committee and heavy preference was given to reduce the favorability of any project that would decrease safety in relation to the airfield and the possibility to negatively impact the current operations. The scoring criteria for this variable is shown in Table 14.

Table 14: Aircraft Protection Zone Project Scoring Table

<table>
<thead>
<tr>
<th>Score / Number of Points</th>
<th>Description of Score</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Project will not be within or impact an identified military airfield protection area</td>
<td>No</td>
</tr>
<tr>
<td>-1</td>
<td>Project has the potential to impact an identified military airfield protection area</td>
<td>Potential to Impact</td>
</tr>
<tr>
<td>-5</td>
<td>Yes, it will impact an identified military airfield protection area</td>
<td>Yes</td>
</tr>
</tbody>
</table>

18.0 Safety

The safety scoring methodology is comprised of a series of metrics which emphasize differing safety statistics related to the projects. For comparison of the projects, the five (5) year safety data was gathered within the area. The following criteria were used to generate the overall safety score:
• Number of Bicycle/Pedestrian Injuries and Fatalities
• Number of Fatalities
• Crash rate quartile score based in relation to the other projects

1.1 NUMBER OF CRASHES
For bicycle, pedestrian and fatality crashes, the raw number of crashes were included into the overall score for the project. The raw count for these metrics were included to highlight the importance of these crash types and severity within the region. For example: A project which experiences two (2) bicycle crashes and three (3) fatalities over the 5-year period would then receive five (5) points.

2.1 CRASH RATE
The crash rate comparison was conducted in two (2) separate analyses: one for corridor projects and the other for intersection projects. The safety variable represents a cumulation of the data from the following categories:

• Project Corridors and Roadway Segments – Within 100 feet of the project
  o Total Crash Segment
  o Fatal Crash Segment
  o Injury Crash Segment
  o Bike-Pedestrian Crash Segment
  o Fatal Bike-Pedestrian Crash Segment
  o Injury Bike-Pedestrian Crash Segment

• Project Intersections – Within 500 feet of the project
  o Intersection Crashes
  o Intersection Fatalities
  o Intersection Injuries
  o Intersection Bike-Pedestrian Crashes
  o Intersection Bike-Pedestrian Fatal Crashes
  o Intersection Bike-Pedestrian Injury Crashes

• Length-Miles – Used to determine crash rates for corridor projects

The safety variable is determined based on the rate of crashes. The projects in the top 25% of crash rates (per 100 million Vehicle Miles Traveled (HMVMT)) are awarded a score of four (4). The top 50-75% are awarded a score of three (3). Projects between 25 and 50% are awarded a two (2), and the bottom 25% (0-25%) are awarded one (1) point (Table 15).

The HMVMT crash rate is calculated differently for project segments and project intersection projects because project segments use the number of crashes within 100 feet and intersections use the number of crashes within 500 feet.
Project segments HMVMT crash rate formula:
(100,000,000 * Total Crashes) / (365 * 5 * AADT Base Year * Project Length in Miles)

Project intersections HMVMT crash rate formula:
(100,000,000 * Total Crashes) / (365 * 5 * AADT Base Year)

Table 15: Quartile Safety Point Awards

<table>
<thead>
<tr>
<th>Quartile</th>
<th>Percent Equivalent</th>
<th>Point Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 – 25%</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>25.1-50%</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>50.1%-75%</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>75.1% - 100%</td>
<td>4</td>
</tr>
</tbody>
</table>

19.0 Summary

As detailed above, the available regional data resources have been analyzed to prioritize projects based on regional goals. This analysis did not consider cost as a factor for prioritization; however, a separate BCA was developed for the top 25 ranked projects.

The data inputs utilized within the prioritization and performance assessment have been included within the Study Data Compendium located. This Data Compendium is a resource for project related GIS files and data that was used in this process and the overall regional study. The performance assessment tool is included in a Microsoft Excel format at this location and will be submitted to the AAMPO with all project files.
Alamo Area Metropolitan Planning Organization
825 South Saint Mary's Street
San Antonio, TX 78205
210-227-9321

alamoareampo.org
Appendix J
Project Sheets for Non-MTP/TIP-Sourced Projects
**Project Name:** Agora Parkway On-Street Bike Lanes  
**Project ID:** B1  
**Project Rank:** 67/116

**Project Description:**  
Add bike lanes to existing roadway  

**Estimated Cost:** $80,000  
**County:** Bexar  
**City:** Selma, Live Oak  
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>2017 Average Daily Traffic Volumes</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.39</td>
<td>2</td>
<td>NA</td>
<td>390</td>
<td>608</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045</td>
<td>608</td>
</tr>
</tbody>
</table>

**Project Phase:**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**Project Cost:**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**Project Location:**

![Map of Project B1](image-url)
### Project Name: Chippewa Boulevard On-Street Bike Lanes

#### Project ID: B2

#### Project Rank: 103/116

#### Project Description:
Add bike lanes to existing roadway

Estimated Cost: $40,000  
County: Bexar  
City: Selma  
Project Type: Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.74</td>
<td>2</td>
<td>NA</td>
<td>2017: 390</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 608</td>
</tr>
</tbody>
</table>

#### Project Phase

Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):

#### Project Cost

Federal Cost ($):  
State Cost ($):  
Local Cost ($):

#### Project Location

[Map of Project B2 showing bicycle/pedestrian project limits]
**PROJECT NAME:** Evans Road On-Street Bike Lanes

**PROJECT ID:** B3

**PROJECT RANK:** 114/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $50,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.81

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,635</td>
<td>9,329</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
<th>FY2022-2027 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project B3 in Alamo Area showing Selma and the surrounding area.](image-url)
### Project Name: Gateway Boulevard On-Street Bike Lanes

### Project ID: B4

### Project Rank: 81/116

### Project Description:
Add bike lanes to existing roadway

#### Estimated Cost:
$50,000

#### County:
Bexar

#### City:
Live Oak

#### Project Type:
Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.82</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>390</td>
<td>608</td>
</tr>
</tbody>
</table>

### Project Phase

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Cost

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Location

![Map of Gateway Boulevard On-Street Bike Lanes]

Legend:
- **Study Area**
- **Project Limits**
- **Bicycle/Pedestrian**

[Map Image]
**PROJECT NAME:** Old Austin Road On-Street Bike Lanes

**PROJECT ID:** B5

**PROJECT RANK:** 112/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $50,000

**County:** Bexar

**City:** Selma, Live Oak

**Project Type:** Bike/Ped

**Length (Miles):** 0.8

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>329</td>
<td>7,331</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project B5

[Map of the project location]
**PROJECT NAME:** Olympia Parkway On-Street Bike Lanes  

**PROJECT ID:** B6  

**PROJECT RANK:** 57/116  

**PROJECT DESCRIPTION:**  
Add bike lanes to existing roadway  

**Estimated Cost:** $25,000  
**County:** Bexar  
**City:** Selma  
**Project Type:** Bike/Ped  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>2017:</th>
<th>2045 (Projected):</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.43</td>
<td>2</td>
<td>NA</td>
<td>8,762</td>
<td>11,236</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**  

**PROJECT PHASE**  

Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):  

**PROJECT COST**  

Federal Cost ($):  
State Cost ($):  
Local Cost ($):  

**PROJECT LOCATION**  

Project B6
**PROJECT NAME:** Pasatiempo On-Street Bike Lanes

**PROJECT ID:** B7

**PROJECT RANK:** 90/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $10,000
**County:** Bexar
**City:** Selma
**Project Type:** Bike/Ped

**Length (Miles):** 0.17
**# of Existing Lanes:** 2
**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Trains</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
</tr>
<tr>
<td>State Cost ($)</td>
</tr>
<tr>
<td>Local Cost ($)</td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project B7](image)
## Project Information

**Project Name:** Retama Parkway On-Street Bike Lanes  
**Project ID:** B8  
**Project Rank:** 115/116

### Project Description
Add bike lanes to existing roadway

### Estimated Cost
- **$75,000**

### Location Details
- **County:** Bexar  
- **City:** Selma  
- **Project Type:** Bike/Ped

### Traffic Volumes
- **2017:** 1,826  
- **2045 (Projected):** 5,564

### Project Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Location

**Project B8**

[Map of Project B8 with selected location highlighted]

### Map Legend
- **Study Area**  
- **Project Limits**  
- **Bicycle/Pedestrian**

[Map showing the project limits and a bicycle/pedestrian path]
**PROJECT NAME:** New Roadway from Binz Engleman to Pfeil Road

**PROJECT ID:** B9

**PROJECT RANK:** 23/116

**PROJECT DESCRIPTION:** Construct new 4 lane divided roadway with sidewalks

**Estimated Cost:** $21,000,000

**County:** Bexar

**City:** Schertz, San Antonio

**Project Type:** Roadway

**Length (Miles):** 2.61

**# of Existing Lanes:** NA

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NA</td>
<td>No Data (new road)</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Map showing the location of Project B9.
**PROJECT NAME:** Evans Road Shared Use Path  
**PROJECT ID:** B10  
**PROJECT RANK:** 109/116

**PROJECT DESCRIPTION:**  
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**Estimated Cost:** $850,000  
**County:** Bexar  
**City:** Selma  
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.81</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017:</th>
<th>2045 (Projected):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,635</td>
<td>9,329</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):  
- State Cost ($):  
- Local Cost ($):

**PROJECT LOCATION**

![Project B10 Map](image-url)
### Alamo Area Metropolitan Planning Organization
**2021/2022 Subregional Planning Study**

**PROJECT NAME:** IH 35 Frontage Road Shared Use Path - I  
**PROJECT ID:** B11  
**PROJECT RANK:** 106/116

**PROJECT DESCRIPTION:**
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

<table>
<thead>
<tr>
<th>Estimated Cost</th>
<th>$500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>Bexar</td>
</tr>
<tr>
<td>City</td>
<td>Selma</td>
</tr>
<tr>
<td>Project Type</td>
<td>Bike/Ped</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th>0.52</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Existing Lanes</td>
<td>2</td>
</tr>
<tr>
<td># of Lanes Planned</td>
<td>NA</td>
</tr>
</tbody>
</table>

| Average Daily Traffic Volumes | 2017: 11,951 | 2045 (Projected): 11,640 |

### PROJECT PHASE
- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

### PROJECT COST
- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

### PROJECT LOCATION

**Project B11**

[Map of the project location with route highlighted in green]
## Project B12

**Project Name:** Retama Parkway Shared Use Path - I

**Project Description:**
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

**Length (Miles):** 0.87  
**# of Existing Lanes:** 4

**Average Daily Traffic Volumes**
- **2017:** 1,826
- **2045 (Projected):** 5,564

**Estimated Cost:** $900,000  
**County:** Bexar  
**City:** Selma  
**Project Type:** Bike/Ped

### Project Phase

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

### Project Cost

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

### Project Location

![Map of the project location](image-url)
**PROJECT NAME:** Olympia Parkway Shared Use Path - 1  

**PROJECT ID:** B13  

**PROJECT DESCRIPTION:**  
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer  

**Estimated Cost:** $380,000  
**County:** Bexar  
**City:** Selma  
**Project Type:** Bike/Ped  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.36</td>
<td>2</td>
<td>NA</td>
<td>2017: 7,714</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 14,014</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  
- Preliminary Engineering (PE):  
- Right-of-Way (ROW):  
- Construction (CST):  

**PROJECT COST**  
- Federal Cost ($)  
- State Cost ($)  
- Local Cost ($)  

**PROJECT LOCATION**

---

Project B13
### Project Name: Winged Foot Shared Use Path

#### Project Description:
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer.

#### Estimated Cost: $300,000

### Project Details:
- **County:** Bexar
- **City:** Selma
- **Project Type:** Bike/Ped
- **Length (Miles):** 0.3
- **# of Existing Lanes:** 2
- **# of Lanes Planned:** NA
- **Average Daily Traffic Volumes:**
  - 2017: 390
  - 2045 (Projected): 608

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Location

*Map showing the project location in the Alamo Area.*

---

**Legend:**
- Study Area
- Project Limits
- City Limit
- Bicycle/Pedestrian

**Scale:**
- 0 to ½ Miles
### Project Details

**Project Name:** Agora Parkway Shared Use Path  
**Project ID:** B15  
**Project Rank:** 34/116  
**Estimated Cost:** $600,000  
**County:** Bexar  
**City:** Selma, Live Oak  
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.59</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

### Project Phase

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

### Project Cost

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

### Project Location

The project location is shown on the map, which includes Agora Parkway and its surroundings. The map highlights the project area with dotted lines, and the project limits are marked in green. The legend indicates the study area, project limits, and bicycle/pedestrian areas.

Legend:
- Study Area
- Project Limits
- City Limit
- Bicycle/Pedestrian

Scale: 0 to 0.5 Miles
Alamo Area Metropolitan Planning Organization
2021/2022 Subregional Planning Study

PROJECT NAME: Brightleaf Drive Shared Use Path

PROJECT ID: B16

PROJECT RANK: 35/116

PROJECT DESCRIPTION:
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

Estimated Cost: $300,000
County: Bexar
City: Selma
Project Type: Bike/Ped

Length (Miles): 0.27 # of Existing Lanes: 2
# of Lanes Planned: NA

Average Daily Traffic Volumes
2017: 390
2045 (Projected): 608

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):

FY2022-2027
Median Cost

FY2028-2035
Median Cost

PROJECT LOCATION

Project B16
**PROJECT NAME:** Mount Crest Drive Shared Use Path

**PROJECT ID:** B17

**PROJECT DESCRIPTION:** Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

**Estimated Cost:** $400,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.35</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 390</td>
</tr>
<tr>
<td>2045 (Projected): 608</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

[Map of Project B17 showing the location and vicinity of the project.]
**PROJECT NAME:** Retama Parkway Shared Use Path - II  

**PROJECT ID:** B18  

**PROJECT RANK:** 110/116  

**PROJECT DESCRIPTION:**  
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer  

**Estimated Cost:** $400,000  
**County:** Bexar  
**City:** Selma  
**Project Type:** Bike/Ped  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.37</td>
<td>4</td>
<td>NA</td>
<td>2017: 1,826</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  
**Federal Cost ($):**  
**State Cost ($):**  
**Local Cost ($):**  

**PROJECT LOCATION**  

---

### Project B18

Legend:  
- Study Area  
- Project Limits  
- Bicycle/Pedestrian  

[Map of Project B18]
**PROJECT NAME:** Old Austin Road Shared Use Path

**PROJECT ID:** B19

**PROJECT RANK:** 111/116

**PROJECT DESCRIPTION:**
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

**Estimated Cost:** $400,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.38

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

| 2017:  | 2045 (Projected): | 4,630 |

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027</th>
<th>FY2028-2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Cost</td>
<td>Median Cost</td>
</tr>
</tbody>
</table>

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

Project B19
**PROJECT NAME:** Graytown Road Expansion

**PROJECT ID:** B21

**PROJECT RANK:** 91/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 4 lanes and add sidewalks.

- **Estimated Cost:** $3,500,000
- **County:** Bexar
- **City:** San Antonio
- **Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.57</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 175</td>
</tr>
<tr>
<td>2045 (Projected): 6,729</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

---

Legend:
- Study Area
- Project Limits
- Roadway

0 Miles
**PROJECT NAME:** Lower Seguin Road Expansion - II

**PROJECT ID:** B22

**PROJECT RANK:** 116/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 4 lanes and add sidewalks.

**Estimated Cost:** $18,000,000

**County:** Bexar

**City:** Schertz, Converse

**Project Type:** Roadway

| Length (Miles) | 2.9 |
| # of Existing Lanes | 2 |
| # of Lanes Planned | 4 |

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3,029</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>9,944</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

| Federal Cost ($) | | |
| State Cost ($) | | |
| Local Cost ($) | | |

**PROJECT LOCATION**

---

Project B22

---

**Legend**
- Study Area
- Project Limits
- City Limit
- Roadway

---

0 1/4 Miles
### Alamo Area Metropolitan Planning Organization
#### 2021/2022 Subregional Planning Study

**PROJECT NAME:** IH 35 Frontage Road Shared Use Path - II

**PROJECT ID:** B24

**PROJECT DESCRIPTION:**
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**PROJECT RANK:** 77/116

**Estimated Cost:** $400,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.39</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,783</td>
<td>10,327</td>
</tr>
</tbody>
</table>

#### PROJECT PHASE

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PROJECT COST

<table>
<thead>
<tr>
<th>Cost Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

#### PROJECT LOCATION

[Map depicting the location of Project B24]

Legend:
- Study Area
- Project Limits
- Bicycle/Pedestrian

[Distance scale: 0 to ½ Miles]
### Project B25

#### Project Description:
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer.

#### Project Details:
- **Estimated Cost:** $300,000
- **County:** Bexar
- **City:** Selma
- **Project Type:** Bike/Ped
- **Length (Miles):** 0.3
- **# of Existing Lanes:** 2
- **Average Daily Traffic Volumes:**
  - 2017: 299
  - 2045 (Projected): 12,419
- **# of Lanes Planned:** NA

#### Project Phase:
- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

#### Project Location

![Map of the project location](image)

- **Legend:**
  - Study Area
  - Project Limits
  - Bicycle/Pedestrian

- **Distance:** 0 to 0.5 Miles
**PROJECT NAME:** Alton Boulevard Shared Use Path

**PROJECT ID:** B27

**PROJECT RANK:** 59/116

**PROJECT DESCRIPTION:**
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

**Estimated Cost:** $500,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.46

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>390</td>
<td>608</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Project B27 Map](image-url)
**PROJECT NAME:** Bluffside Boulevard Shared Use Path

**PROJECT ID:** B28

**PROJECT RANK:** 46/116

**PROJECT DESCRIPTION:**
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**Estimated Cost:** $500,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.43

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027</th>
<th>FY2028-2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Cost</td>
<td>Median Cost</td>
</tr>
</tbody>
</table>

Preliminary Engineering (PE):

Right-of-Way (ROW):

Construction (CST):

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

**PROJECT LOCATION**

[Map of the project location]
**PROJECT NAME:** IH 35 Frontage Road On-Street Bike Lanes

**PROJECT ID:** B30

**PROJECT RANK:** 86/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $30,000

**County:** Bexar

**City:** Live Oak, Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.48

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017:</th>
<th>2045 (Projected):</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,156</td>
<td>10,036</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

![Project B30 Map](image-url)
**Project Name:** Forum Parkway On-Street Bike Lanes

**Project ID:** B31

**Project Rank:** 69/116

**Project Description:**
Add bike lanes to existing roadway

**Estimated Cost:** $10,000

**County:** Bexar

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.12

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

**Project Phase**

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

**Project Cost**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2022-2027</td>
<td></td>
</tr>
<tr>
<td>FY2028-2035</td>
<td></td>
</tr>
</tbody>
</table>

**Federal Cost ($):**

**State Cost ($):**

**Local Cost ($):**

**Project Location**

![Map showing the location of Project B31](image-url)
**PROJECT NAME:** Evans Road Expansion  
**PROJECT ID:** B32  
**PROJECT RANK:** 74/116

**PROJECT DESCRIPTION:**  
Extend roadway from current northern terminus to FM 2252

**Estimated Cost:** $12,000,000  
**County:** Bexar  
**City:** San Antonio, Selma  
**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th>1.47</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Existing Lanes</td>
<td>NA</td>
</tr>
<tr>
<td># of Lanes Planned</td>
<td>2</td>
</tr>
</tbody>
</table>

| Average Daily Traffic Volumes | 2017: 3,559 | 2045 (Projected): 9,407 |

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT COST</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project B32
**PROJECT NAME:** Lower Seguin Road Expansion - I

**PROJECT ID:** BG1

**PROJECT RANK:** 98/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 4 lanes and add sidewalks.

**Estimated Cost:** $11,000,000

**County:** Bexar, Guadalupe

**City:** Schertz

**Project Type:** Roadway

**Length (Miles):** 1.79

**# of Existing Lanes:** 2

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>696</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>9,163</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal ($)</td>
</tr>
<tr>
<td>State ($)</td>
</tr>
<tr>
<td>Local ($)</td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project BG1
**PROJECT NAME:** New North-South Connector from Schaefer Road to FM 78

**PROJECT ID:** BG3

**PROJECT RANK:** 39/116

**PROJECT DESCRIPTION:**
Construct new 4 lane divided roadway with sidewalks

**Estimated Cost:** $14,000,000

**County:** Bexar, Guadalupe

**City:** Schertz

**Project Type:** Roadway

**Length (Miles):** 1.76

**# of Existing Lanes:** NA

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>No Data (new road)</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

| Preliminary Engineering (PE): |
| Right-of-Way (ROW): |
| Construction (CST): |

**PROJECT COST**

| FY2022-2027 Median Cost |
| FY2028-2035 Median Cost |

| Federal Cost ($) |
| State Cost ($) |
| Local Cost ($) |

**PROJECT LOCATION**

![Project BG3 Map](image-url)
**PROJECT NAME:** FM 3009 On-Street Bike Lanes

**PROJECT ID:** C1

**PROJECT RANK:** 11/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $160,000

**County:** Comal

**City:** Schertz

**Project Type:** Bike/Ped

**Length (Miles):** 2.82

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>34,172</td>
<td>23,906</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project C1
## Project Overview

**Project Name:** Corporate Drive On-Street Bike Lanes  
**Project ID:** C2  
**Project Rank:** 89/116

**Project Description:** Add bike lanes to existing roadway

**Estimated Cost:** $300,000  
**County:** Comal  
**City:** Selma  
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.66</td>
<td>2</td>
<td>NA</td>
<td>2017: 3,353</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 5,231</td>
</tr>
</tbody>
</table>

### Project Phase

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

### Project Cost

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

### Project Location

![Project C2 Map](image-url)
# Alamo Area Metropolitan Planning Organization
## 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>Common Street Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT ID:</td>
<td>C3</td>
</tr>
<tr>
<td>PROJECT RANK:</td>
<td>19/116</td>
</tr>
<tr>
<td>PROJECT DESCRIPTION:</td>
<td>Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks. Additionally, develop intersection improvements at SH 46 and FM 306.</td>
</tr>
<tr>
<td>Estimated Cost:</td>
<td>$12,000,000</td>
</tr>
<tr>
<td>County:</td>
<td>Comal</td>
</tr>
<tr>
<td>City:</td>
<td>New Braunfels</td>
</tr>
<tr>
<td>Project Type:</td>
<td>Roadway</td>
</tr>
<tr>
<td>Length (Miles):</td>
<td>1.9</td>
</tr>
<tr>
<td># of Existing Lanes:</td>
<td>2</td>
</tr>
<tr>
<td># of Lanes Planned:</td>
<td>4</td>
</tr>
<tr>
<td>Average Daily Traffic Volumes</td>
<td></td>
</tr>
<tr>
<td>2017:</td>
<td>8,647</td>
</tr>
<tr>
<td>2045 (Projected):</td>
<td>21,374</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## PROJECT COST

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

## PROJECT LOCATION

Project C3

![Map of Project C3](image-url)
**PROJECT NAME:** Kohlenberg Road Expansion

**PROJECT ID:** C4

**PROJECT RANK:** 38/116

**PROJECT DESCRIPTION:**
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks

**Estimated Cost:** $5,300,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.85</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

| Average Daily Traffic Volumes | 2017: 1,474 | 2045 (Projected): 16,432 |

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

<table>
<thead>
<tr>
<th>PROJECT COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
</tr>
<tr>
<td>State Cost ($)</td>
</tr>
<tr>
<td>Local Cost ($)</td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Kohlenberg Road Expansion Project C4 in the Alamo Area](image-url)
**PROJECT NAME:** Kowald Lane Expansion  

**PROJECT ID:** C5  

**PROJECT RANK:** 9/116  

**PROJECT DESCRIPTION:**  
Expand road from 2 to 3 lanes and add sidewalks.  

**Estimated Cost:** $3,100,000  

**County:** Comal  

**City:** New Braunfels  

**Project Type:** Roadway  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.77</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**  

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2,342</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>20,030</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  

- Preliminary Engineering (PE):  
- Right-of-Way (ROW):  
- Construction (CST):  

**PROJECT COST**  

- Federal Cost ($):  
- State Cost ($):  
- Local Cost ($):  

---

**PROJECT LOCATION**  

![Project C5 Map](image)
## Project C6

**Project Name:** New roadway from IH 35 Frontage Road to FM 1044  

**Project ID:** C6  

**Project Rank:** 17/116  

**Project Description:**  
Construct new 4 lane divided roadway with sidewalks  

**Estimated Cost:** $20,000,000  

**County:** Comal  

**City:** New Braunfels  

**Project Type:** Roadway  

**Length (Miles):** 2.59  

**# of Existing Lanes:** NA  

**# of Lanes Planned:** 4  

**Average Daily Traffic Volumes**  

<table>
<thead>
<tr>
<th>Year</th>
<th>NA</th>
<th>2045 (Projected): No Data (new road)</th>
</tr>
</thead>
</table>

### Project Phase

- **Preliminary Engineering (PE):**  
- **Right-of-Way (ROW):**  
- **Construction (CST):**

### Project Cost

- **Federal Cost ($):**  
- **State Cost ($):**  
- **Local Cost ($):**

### Project Location

A map showing the project location is provided, with the route marked in yellow. The map includes symbols for Study Area, Project Limits, City Limit, and Roadway. A legend is also included, detailing the various symbols and their meanings.
**PROJECT NAME:** Orion Drive Expansion

**PROJECT ID:** C7

**PROJECT RANK:** 75/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 3 lanes and add sidewalks.

**Estimated Cost:** $2,700,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Roadway

**Length (Miles):** 0.66

**# of Existing Lanes:** 2

**# of Lanes Planned:** 3

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>185</td>
<td>4,863</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

Preliminary Engineering (PE):

Right-of-Way (ROW):

Construction (CST):

**PROJECT COST**

Federal Cost ($):

State Cost ($):

Local Cost ($):

**PROJECT LOCATION**

---

[Map of Project C7]

Legend

- **Study Area**
- **Project Limits**
- **City Limit**
- **Roadway**

0 ½ Miles
**PROJECT NAME:** Conrads Lane Expansion

**PROJECT ID:** C8

**PROJECT RANK:** 93/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 3 lanes and add sidewalks.

**Estimated Cost:** $3,800,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.95</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,636</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>2,552</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

<table>
<thead>
<tr>
<th>Fiscal Year (FY)</th>
<th>Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2022-2027</td>
<td></td>
</tr>
<tr>
<td>FY2028-2035</td>
<td></td>
</tr>
</tbody>
</table>

**Federal Cost ($)**

**State Cost ($)**

**Local Cost ($)**

**PROJECT LOCATION**

*Project C8*
**PROJECT NAME:** FM 1101 Expansion  

**PROJECT ID:** C9  

**PROJECT RANK:** 6/116

**PROJECT DESCRIPTION:**  
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks

**Estimated Cost:** $12,000,000  
**County:** Comal  
**City:** New Braunfels  
**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.87</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8,948</td>
<td>12,355</td>
</tr>
</tbody>
</table>

### PROJECT PHASE

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

### PROJECT COST

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

### PROJECT LOCATION

[Map of project location showing route FM 1101Expansion and Study Area limits]
# Alamo Area Metropolitan Planning Organization
## 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>New Roadway from FM 1044 to County Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT ID:</td>
<td>C10</td>
</tr>
<tr>
<td>PROJECT RANK:</td>
<td>66/116</td>
</tr>
</tbody>
</table>

**PROJECT DESCRIPTION:**
Construct new 4 lane divided roadway with sidewalks

**Estimated Cost:** $23,000,000
**County:** Comal
**City:** New Braunfels
**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles):</th>
<th>2.88</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Existing Lanes:</td>
<td>NA</td>
</tr>
<tr>
<td># of Lanes Planned:</td>
<td>4</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**
- **2017:** NA
- **2045 (Projected):** No Data (new road)

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT COST</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Cost ($):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Cost ($):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## PROJECT LOCATION

### Project C10

[Map of Project C10 showing the road from FM 1044 to County Line, marked with yellow line.]

**Legend**
- Study Area
- Project Limits
- Roadway

**Scale:** 0 to ¼ Miles
**PROJECT NAME:** FM 482 Expansion

**PROJECT ID:** C11

**PROJECT RANK:** 71/116

**PROJECT DESCRIPTION:**
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks

**Estimated Cost:** $45,000,000

**County:** Comal

**City:** Schertz, New Braunfels

**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>2</td>
<td>4</td>
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</tbody>
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**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volume (Vehicles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2,966</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>6,106</td>
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</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Median Cost ($)</th>
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<tbody>
<tr>
<td>FY2022-2027</td>
<td></td>
</tr>
<tr>
<td>FY2028-2035</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project C11](image)
**PROJECT NAME:** FM 1102 Expansion

**PROJECT ID:** C13

**PROJECT RANK:** 60/116

**PROJECT DESCRIPTION:**
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks and bike lanes. Additionally, develop intersection improvements at FM 306 and Watson Lane.

**Estimated Cost:** $29,000,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.53</td>
<td>2</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5,127</td>
<td>6,464</td>
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**PROJECT PHASE**

<table>
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<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
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<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

**PROJECT LOCATION**

![Project C13 Map](image-url)
**PROJECT NAME:** River Road On-Street Bike Lanes

**PROJECT ID:** C14

**PROJECT RANK:** 20/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $170,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Bike/Ped

**Length (Miles):** 3.11

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017</th>
<th>2045 (Projected)</th>
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<tr>
<td>2,298</td>
<td>15,787</td>
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**PROJECT PHASE**

<table>
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<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project C14

Legend
- Study Area
- Project Limits
- City Limit
- Bicycle/Pedestrian

[Map showing the project location]
**PROJECT NAME:** San Antonio Street On-Street Bike Lanes

**PROJECT ID:** C15

**PROJECT RANK:** 26/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $25,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Bike/Ped

**Length (Miles):** 0.43

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>8,654</td>
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<tr>
<td>2045 (Projected)</td>
<td>16,561</td>
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**PROJECT PHASE**

<table>
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<tr>
<th>Phase</th>
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<th>FY2028-2035 Median Cost</th>
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<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
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<tr>
<td>Construction (CST):</td>
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<td></td>
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</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Project C15 Map](image-url)
**PROJECT NAME:** Union Avenue On-Street Bike Lanes

**PROJECT ID:** C16

**PROJECT RANK:** 61/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

- **Estimated Cost:** $40,000
- **County:** Comal
- **City:** New Braunfels
- **Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>2</td>
<td>NA</td>
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<table>
<thead>
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<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1,674</td>
<td>17,405</td>
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</table>

### PROJECT PHASE

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

### PROJECT COST

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

### PROJECT LOCATION

**Project C16**
**PROJECT NAME:** Torrey Street On-Street Bike Lanes

**PROJECT ID:** C17

**PROJECT RANK:** 96/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $20,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
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</thead>
<tbody>
<tr>
<td>0.31</td>
<td>2</td>
<td>NA</td>
<td>2017: 1,221</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 9,030</td>
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**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
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</thead>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

**PROJECT LOCATION**

![Project C17 Map](image)
**PROJECT NAME:** Lakeview Boulevard On-Street Bike Lanes

**PROJECT ID:** C18

**PROJECT RANK:** 97/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $10,000

**County:** Comal

**City:** New Braunfels

**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.17</td>
<td>2</td>
<td>NA</td>
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**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,052</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>5,566</td>
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**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
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</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027</th>
<th>FY2028-2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Project C18 Map](image-url)
PROJECT NAME: Corporate Drive Shared Use Path

PROJECT DESCRIPTION: Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

PROJECT ID: CBG1

PROJECT RANK: 51/116

Estimated Cost: $2,300,000
County: Guadalupe, Comal, Bexar
City: Selma
Project Type: Bike/Ped

Length (Miles): 1.24
# of Existing Lanes: 2
# of Lanes Planned: NA

Average Daily Traffic Volumes

2017: 3,353
2045 (Projected): 5,231

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT LOCATION

Project CBG1

Legend
- Study Area
- Project Limits
- City Limit
- Bicycle/Pedestrian

Miles
**PROJECT NAME:** Schertz Parkway Shared Use Path  

**PROJECT ID:** CG1  

**PROJECT RANK:** 94/116

**PROJECT DESCRIPTION:**  
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**Estimated Cost:** $750,000  
**County:** Guadalupe, Comal  
**City:** Schertz  
**Project Type:** Bike/Ped

**Length (Miles):** 0.72  
**# of Existing Lanes:** 2  
**# of Lanes Planned:** NA  

**Average Daily Traffic Volumes**  
<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>5,508</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>5,397</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**  

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):  

**PROJECT LOCATION**

---

**Project CG1**

[Map of the project area with project limits highlighted]
**PROJECT NAME:** FM 1103 Expansion - I

**PROJECT ID:** CG2

**PROJECT RANK:** 4/116

**PROJECT DESCRIPTION:**
Expand road from 2 to 4 lanes and add sidewalks.

**Estimated Cost:** $20,000,000

**County:** Guadalupe, Comal

**City:** Schertz, Cibolo

**Project Type:** Roadway

**Length (Miles):** 3.24

**# of Existing Lanes:** 2

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Volumes</td>
<td>19,463</td>
<td>27,765</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):
# Corporate Drive Extension

## Project Description
Extend roadway from current northern terminus over Lookout Rd to train tracks.

## Project Information

<table>
<thead>
<tr>
<th>Project ID:</th>
<th>CG3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Rank:</td>
<td>56/116</td>
</tr>
<tr>
<td>Estimated Cost:</td>
<td>$5,200,000</td>
</tr>
<tr>
<td>County:</td>
<td>Guadalupe, Comal</td>
</tr>
<tr>
<td>City:</td>
<td>Selma</td>
</tr>
<tr>
<td>Project Type:</td>
<td>Roadway</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th>0.65</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Existing Lanes</td>
<td>NA</td>
</tr>
<tr>
<td># of Lanes Planned</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,353</td>
<td></td>
<td>5,231</td>
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</tbody>
</table>

## Project Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
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</tbody>
</table>

## Project Cost

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Project Location

### Map
The map shows the location of the project with the roadway marked in yellow. The map highlights the study area and project limits, with a legend indicating these features. The project is located in the vicinity of Selma, with proximity to other cities such as Garden Ridge, San Antonio, and Schertz.
PROJECT NAME: Alamo Parkway Extension

PROJECT ID: CG4

PROJECT RANK: 45/116

PROJECT DESCRIPTION:
Extend roadway from current northern terminus to Lookout Rd

Estimated Cost: $3,200,000
County: Guadalupe, Comal
City: Selma
Project Type: Roadway

Length (Miles): 0.4
# of Existing Lanes: NA
# of Lanes Planned: 2

Average Daily Traffic Volumes
2017: 390
2045 (Projected): 608

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):

FY2022-2027 Median Cost
FY2028-2035 Median Cost

PROJECT LOCATION

Project CG4

Legend
- Study Area
- Project Limits
- Roadway

Scale: 0 to ½ Miles

Maps and information are ©2021 City of San Antonio, Texas.
**PROJECT NAME:** New North-South Connector from IH 35 Frontage Road to Old Wiederstein Road

**PROJECT ID:** CG5

**PROJECT RANK:** 40/116

**PROJECT DESCRIPTION:** Construct new 4 lane divided roadway with sidewalks

**Estimated Cost:** $6,200,000

**County:** Guadalupe, Comal

**City:** Schertz

**Project Type:** Roadway

**Length (Miles):** 0.77

**# of Existing Lanes:** NA

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>No Data (new road)</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

![Map of Project CG5](image-url)
**PROJECT NAME:** Ron Rd On-Street Bike Lanes

**PROJECT ID:** CG6

**PROJECT RANK:** 76/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $70,000

**County:** Guadalupe, Comal

**City:** New Braunfels

**Project Type:** Bike/Ped

**Length (Miles):** 1.21

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
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**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
</tbody>
</table>

---

**PROJECT LOCATION**

[Map of Project CG6]
### Alamo Area Metropolitan Planning Organization
2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th><strong>PROJECT NAME</strong>: SH 46 Expansion</th>
<th><strong>PROJECT ID</strong>: CG7</th>
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</thead>
<tbody>
<tr>
<td><strong>PROJECT DESCRIPTION</strong>: Expand from 4 to 6 lanes</td>
<td><strong>PROJECT RANK</strong>: 13/116</td>
</tr>
<tr>
<td><strong>Estimated Cost</strong>: $600,000,000</td>
<td><strong>County</strong>: Guadalupe, Comal</td>
</tr>
<tr>
<td><strong>City</strong>: New Braunfels, Seguin</td>
<td><strong>Project Type</strong>: Roadway</td>
</tr>
<tr>
<td><strong>Length (Miles)</strong>: 10.14</td>
<td><strong># of Existing Lanes</strong>: 4</td>
</tr>
<tr>
<td><strong># of Lanes Planned</strong>: 6</td>
<td><strong>Average Daily Traffic Volumes</strong>:</td>
</tr>
<tr>
<td><strong>2017</strong>: 23,602</td>
<td><strong>2045 (Projected)</strong>: 67,306</td>
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</table>

#### PROJECT PHASE

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PROJECT COST

| Federal Cost ($): | | |
| State Cost ($): | | |
| Local Cost ($): | | |

### PROJECT LOCATION

**Project CG7**

![Map of Project CG7](image_url)
**PROJECT NAME:** Marion Road On-Street Bike Lanes

**PROJECT ID:** G1

**PROJECT RANK:** 100/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $90,000
**County:** Guadalupe
**City:** Santa Clara
**Project Type:** Bike/Ped

**Length (Miles):** 1.55  **# of Existing Lanes:** 2  **# of Lanes Planned:** NA

**Average Daily Traffic Volumes**
- **2017:** 755
- **2045 (Projected):** 15,535

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

![Project G1 Map](image-url)
**PROJECT NAME:** Guadalupe River/Lake McQueeney Trail

**PROJECT ID:** G2

**PROJECT RANK:** 12/116

**PROJECT DESCRIPTION:** Construct a wide 10’ to 12’ shared-use bicycle/pedestrian trail

**Estimated Cost:** $3,500,000

**County:** Guadalupe

**City:** Seguin

**Project Type:** Bike/Ped

**Length (Miles):** 6.74

**# of Existing Lanes:** NA

**# of Lanes Planned:** NA

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017: -</th>
<th>2045 (Projected): -</th>
</tr>
</thead>
</table>

**PROJECT PHASE**

| Preliminary Engineering (PE): |
| Right-of-Way (ROW): |
| Construction (CST): |

**PROJECT COST**

| Federal Cost ($) | |
| State Cost ($) | |
| Local Cost ($) | |

**PROJECT LOCATION**
### Alamo Area Metropolitan Planning Organization
#### 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th><strong>PROJECT NAME:</strong></th>
<th>FM 78 On-Street Bike Lanes - II</th>
<th><strong>PROJECT ID:</strong></th>
<th>G3</th>
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<tbody>
<tr>
<td><strong>PROJECT ID:</strong></td>
<td></td>
<td><strong>PROJECT RANK:</strong></td>
<td>2/116</td>
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<tr>
<td><strong>PROJECT DESCRIPTION:</strong></td>
<td>Add bike lanes to existing roadway</td>
<td><strong>Estimated Cost:</strong></td>
<td>$425,000</td>
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<tr>
<td><strong>Length (Miles):</strong></td>
<td>7.72</td>
<td><strong>County:</strong></td>
<td>Guadalupe</td>
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<tr>
<td><strong># of Existing Lanes:</strong></td>
<td>2 to 4</td>
<td><strong>City:</strong></td>
<td>Cibolo, Schertz</td>
</tr>
<tr>
<td><strong># of Lanes Planned:</strong></td>
<td>NA</td>
<td><strong>Project Type:</strong></td>
<td>Bike/Ped</td>
</tr>
<tr>
<td><strong>Average Daily Traffic Volumes</strong></td>
<td></td>
<td><strong>2017:</strong></td>
<td>17,883</td>
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<tr>
<td></td>
<td></td>
<td><strong>2045 (Projected):</strong></td>
<td>35,556</td>
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<table>
<thead>
<tr>
<th><strong>PROJECT PHASE</strong></th>
<th><strong>FY2022-2027 Median Cost</strong></th>
<th><strong>FY2028-2035 Median Cost</strong></th>
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<tr>
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<td>Right-of-Way (ROW):</td>
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<td></td>
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<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th><strong>PROJECT COST</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

### PROJECT LOCATION

**Project G3**

![Map showing the location of Project G3](image)
**PROJECT NAME:** FM 78 On-Street Bike Lanes - I

**PROJECT ID:** G4

**PROJECT RANK:** 14/116

**PROJECT DESCRIPTION:** Add bike lanes to existing roadway

**Estimated Cost:** $300,000

**County:** Guadalupe

**City:** None

**Project Type:** Bike/Ped

**Length (Miles):** 5.24  
**# of Existing Lanes:** 2 to 4  
**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>8,275</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>15,397</td>
</tr>
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</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($): [Blank]
- State Cost ($): [Blank]
- Local Cost ($): [Blank]

**FY2022-2027 Median Cost**

- [Blank]

**FY2028-2035 Median Cost**

- [Blank]

**PROJECT LOCATION**

[Map of Project G4]
## Project Information

**Project Name:** Elbel Rd On-Street Bike Lanes  
**Project ID:** G5  
**Project Rank:** 104/116  
**Estimated Cost:** $120,000  
**County:** Guadalupe  
**City:** Schertz  
**Project Type:** Bike/Ped  

### Project Details
- **Length (Miles):** 0.97  
- **# of Existing Lanes:** 4  
- **Average Daily Traffic Volumes:**  
  - **2017:** 9,973  
  - **2045 (Projected):** 13,555  
- **# of Lanes Planned:** NA

### Project Phase Cost

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
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<td></td>
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<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Project Cost

- **Federal Cost ($):**  
- **State Cost ($):**  
- **Local Cost ($):**

---

## Project Location

[Map of Project G5 showing the route of Elbel Rd On-Street Bike Lanes in Schertz, Guadalupe County.]
**PROJECT NAME:** FM 1518 On-Street Bike Lanes

**PROJECT ID:** G6

**PROJECT RANK:** 47/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $200,000
**County:** Guadalupe
**City:** Selma, Schertz
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.65</td>
<td>2 to 4</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 8,573</td>
</tr>
<tr>
<td>2045 (Projected): 11,864</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**
- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**
- Federal Cost ($): NA
- State Cost ($): NA
- Local Cost ($): NA

**PROJECT LOCATION**

*Map of FM 1518 On-Street Bike Lanes in the Alamo Area*
| PROJECT NAME: Savannah Drive On-Street Bike Lanes | PROJECT ID: G7 |
| PROJECT DESCRIPTION: Add bike lanes to existing roadway | PROJECT RANK: 62/116 |
| Estimated Cost: $35,000 | County: Guadalupe |
| City: Selma, Schertz | Project Type: Bike/Ped |
| Length (Miles): 0.63 | # of Existing Lanes: 2 |
| # of Lanes Planned: NA | Average Daily Traffic Volumes 2017: 10,110 |
| 2045 (Projected): 15,772 |

| PROJECT PHASE | FY2022-2027 Median Cost | FY2028-2035 Median Cost |
| Preliminary Engineering (PE): |  |
| Right-of-Way (ROW): |  |
| Construction (CST): |  |

| PROJECT COST |  |
| Federal Cost ($) |  |
| State Cost ($) |  |
| Local Cost ($) |  |

**PROJECT LOCATION**

Project G7
**PROJECT NAME:** Wiederstein Road On-Street Bike Lanes

**PROJECT ID:** G8

**PROJECT RANK:** 82/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $40,000

**County:** Guadalupe

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.73

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017:</th>
<th>2045 (Projected):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10,110</td>
<td>15,772</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
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</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
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<td></td>
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<tr>
<td>Construction (CST):</td>
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<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
<td></td>
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<tr>
<td>State Cost ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project G8 in Selma, Texas]
**PROJECT NAME:** Country Club Boulevard Roadway Extension

**PROJECT ID:** G9

**PROJECT RANK:** 65/116

**PROJECT DESCRIPTION:**
Extend roadway from its existing terminus to Schertz city line

**Estimated Cost:** $2,900,000

**County:** Guadalupe

**City:** Schertz

**Project Type:** Roadway

**Length (Miles):** 0.36

**# of Existing Lanes:** NA

**# of Lanes Planned:** 2

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>4,400</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>6,864</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

![Project G9 Map](image_url)
## Project G10

### Project Name: Live Oak Road Roadway Extension

### Project ID: G10

### Project Rank: 101/116

### Project Description:
Extend roadway from Schertz Pkwy to Maske Rd

### Estimated Cost: $5,000,000

### County: Guadalupe

### City: Schertz

### Project Type: Roadway

### Length (Miles): 0.63

### # of Existing Lanes: NA

### # of Lanes Planned: 2

### Average Daily Traffic Volumes
- **2017:** 4,101
- **2045 (Projected):** 12,882

### Project Phase
- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

### Project Cost
- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

### Project Location

[Map of Project G10 showing roadways and project limits]
**PROJECT NAME:** Old Wiederstein Road Roadway Extension  

**PROJECT ID:** G11  

**PROJECT RANK:** 80/116  

**PROJECT DESCRIPTION:** Extend roadway from Cibolo Valley Drive to FM 3009  

**Estimated Cost:** $7,000,000  
**County:** Guadalupe  
**City:** Schertz, Cibolo  
**Project Type:** Roadway  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th>0.86</th>
<th># of Existing Lanes</th>
<th>NA</th>
<th># of Lanes Planned</th>
<th>2</th>
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<tbody>
<tr>
<td>Average Daily Traffic Volumes</td>
<td>2017: 1,852</td>
<td>2045 (Projected): 5,135</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**PROJECT PHASE**  

Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):  

**PROJECT COST**  

Federal Cost ($):  
State Cost ($):  
Local Cost ($):  

**PROJECT LOCATION**
**PROJECT NAME:** FM 1518 Shared Use Path - I

**PROJECT DESCRIPTION:**
Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer

**PROJECT ID:** G12

**PROJECT RANK:** 42/116

**Estimated Cost:** $500,000

**County:** Guadalupe

**City:** Selma

**Project Type:** Bike/Ped

**Length (Miles):** 0.48

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>15,039</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>14,795</td>
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**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Median Cost</th>
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</thead>
<tbody>
<tr>
<td>FY2022-2027</td>
<td></td>
</tr>
<tr>
<td>FY2028-2035</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

- Federal Cost ($): 
- State Cost ($): 
- Local Cost ($): 

**PROJECT LOCATION**

![Project G12 Map](image-url)
**PROJECT NAME:** Wiederstein Road Shared Use Path

**PROJECT ID:** G13

**PROJECT RANK:** 48/116

**PROJECT DESCRIPTION:**
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

Estimated Cost: $800,000

County: Guadalupe

City: Selma

Project Type: Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.76</td>
<td>2</td>
<td>NA</td>
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</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>10,110</td>
<td>15,772</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
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</thead>
<tbody>
<tr>
<td></td>
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</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project G13]
**PROJECT NAME:** Savannah Drive Shared Use Path

**PROJECT ID:** G14

**PROJECT RANK:** 21/116

**PROJECT DESCRIPTION:**
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**Estimated Cost:** $650,000

**County:** Guadalupe

**City:** Selma, Schertz

**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.63</td>
<td>2</td>
<td>NA</td>
</tr>
</tbody>
</table>

| Average Daily Traffic Volumes | 2017: 10,110 | 2045 (Projected): 15,772 |

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
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<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
</tr>
<tr>
<td>Construction (CST):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT COST</th>
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</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
</tr>
<tr>
<td>State Cost ($)</td>
</tr>
<tr>
<td>Local Cost ($)</td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

---

**Legend**
- Study Area
- Project Limits
- Bicycle/Pedestrian
- City Limit

---

Project G14
PROJECT NAME: FM 1518 Shared Use Path - II

PROJECT DESCRIPTION:
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

Estimated Cost: $500,000
County: Guadalupe
City: Selma
Project Type: Bike/Ped

Length (Miles): 0.49
# of Existing Lanes: 2
# of Lanes Planned: NA

Average Daily Traffic Volumes
2017: 12,575
2045 (Projected): 12,612

PROJECT PHASE
Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST
Federal Cost ($):
State Cost ($):
Local Cost ($):

PROJECT LOCATION

Project G15
PROJECT NAME: FM 1518 Expansion - II

PROJECT ID: G16

PROJECT RANK: 58/116

PROJECT DESCRIPTION: Expand road from 2 to 4 lanes and add sidewalks.

Estimated Cost: $11,000,000
County: Guadalupe
City: Schertz
Project Type: Roadway

Length (Miles): 1.73
# of Existing Lanes: 2
# of Lanes Planned: 4

Average Daily Traffic Volumes
2017: 6,475
2045 (Projected): 10,212

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($): 
State Cost ($):
Local Cost ($):

FY2022-2027 Median Cost
FY2028-2035 Median Cost

PROJECT LOCATION

Project G16

Legend
Study Area
City Limit
Roadway

Miles
# Project Name
Four Oaks Lane Extension

## Project Description
Extend roadway from current eastern terminus to Cibolo Valley Drive

## Estimated Cost
$4,000,000

## County
Guadalupe

## City
Schertz

## Project Type
Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.53</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

## Average Daily Traffic Volumes

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,944</td>
</tr>
<tr>
<td>2045</td>
<td>5,733</td>
</tr>
</tbody>
</table>

## Project Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
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<td></td>
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<tr>
<td>Right-of-Way (ROW):</td>
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<td></td>
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<tr>
<td>Construction (CST):</td>
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## Project Cost

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Project Location

![Project G17 Map](image-url)
### Project Information

**Project Name:** New East-West Connector from Schertz Parkway to Alamo Parkway  
**Project ID:** G18  
**Project Rank:** 84/116

**Project Description:** Construct new 4 lane divided roadway with sidewalks  
**Estimated Cost:** $2,400,000  
**County:** Guadalupe  
**City:** Selma, Schertz  
**Project Type:** Roadway

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
</table>
| 0.3            | NA                 | 4                 | 2017: NA  
2045 (Projected): No Data (new road) |

#### Project Phase

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Project Cost

- **Federal Cost ($):**  
- **State Cost ($):**  
- **Local Cost ($):**

#### Project Location

**Project G18**

![Project G18 map]
**PROJECT NAME:** FM 1518 Shared Use Path - III  
**PROJECT ID:** G19  
**PROJECT RANK:** 31/116  
**PROJECT DESCRIPTION:** Construct a wide 10' to 12' trail parallel to existing roadway and include a 6' wide tree buffer  
**Estimated Cost:** $200,000  
**County:** Guadalupe  
**City:** Selma, Schertz  
**Project Type:** Bike/Ped  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.18</td>
<td>2</td>
<td>NA</td>
<td>2017: 15,039, 2045 (Projected): 12,612</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  
Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):  

**PROJECT COST**  
Federal Cost ($):  
State Cost ($):  
Local Cost ($):  

**PROJECT LOCATION**

![Map of Project G19](image-url)
### Project G20

**Project Name:** Ike Lane Shared Use Path

**Project Description:** Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer

**Estimated Cost:** $150,000

**County:** Guadalupe

**City:** Schertz

**Project Type:** Bike/Ped

**Length (Miles):** 0.12

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>390</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>608</td>
</tr>
</tbody>
</table>

**Project Phase**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**Project Cost**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**Project Location**

![Project G20 Map](image-url)
**PROJECT NAME:** Rustic Willow Shared Use Path  

**PROJECT ID:** G21  

**PROJECT RANK:** 36/116  

**PROJECT DESCRIPTION:**  
Construct a wide 10’ to 12’ trail parallel to existing roadway and include a 6’ wide tree buffer  

**Estimated Cost:** $800,000  

**County:** Guadalupe  

**City:** Selma  

**Project Type:** Bike/Ped  

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.73</td>
<td>2</td>
<td>NA</td>
<td>2017: 390</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 9,958</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  

Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):  

**PROJECT COST**  

Federal Cost ($):  
State Cost ($):  
Local Cost ($):  

**PROJECT LOCATION**  

![Project G21 Map]
**PROJECT NAME:** Drainage Channel Shared Use Path - I

**PROJECT DESCRIPTION:**
Construct a wide 10-ft to 12-ft trail along drainage ditch that runs behind Kensington Ranch subdivision

**PROJECT ID:** G22

**PROJECT RANK:** 55/116

**Estimated Cost:** $180,000

**County:** Guadalupe

**City:** Schertz

**Project Type:** Bike/Ped

**Length (Miles):** 0.16

**# of Existing Lanes:** NA

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

- **Project G22**

Legend:
- Study Area
- Project Limits
- Bicycle/Pedestrian

Scale: 0 to 1/4" = 1 mile
### Project G23

**Project Name:** Drainage Channel Shared Use Path - II  
**Project ID:** G23  
**Estimated Cost:** $400,000

**Project Description:** Construct a wide 10-ft to 12-ft trail along drainage ditch that runs behind Kensington Ranch subdivision.

**County:** Guadalupe  
**City:** Schertz  
**Project Type:** Bike/Ped

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.36</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>-</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Project Phase

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

#### Project Cost

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

#### Project Location

![Project G23 Map](image-url)
### Alamo Area Metropolitan Planning Organization
#### 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th><strong>PROJECT NAME:</strong> Saur Road Reconstruction</th>
<th><strong>PROJECT ID:</strong> G32</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROJECT DESCRIPTION:</strong> Reconstruction of 2 lane road with improved horizontal curves</td>
<td><strong>PROJECT RANK:</strong> 29/116</td>
</tr>
<tr>
<td>Estimated Cost: $6,000,000</td>
<td>County: Guadalupe</td>
</tr>
<tr>
<td>City: New Braunfels</td>
<td>Project Type: Roadway</td>
</tr>
<tr>
<td>Length (Miles): 1.01</td>
<td># of Existing Lanes: 2</td>
</tr>
</tbody>
</table>
| # of Lanes Planned: 2 | **Average Daily Traffic Volumes**
| 2017: 1,762 | 2045 (Projected): 21,536 |

#### PROJECT PHASE
- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

#### PROJECT COST
- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

#### PROJECT LOCATION

![Project G32 Map](image-url)
**PROJECT NAME:** Green Valley Road Expansion

**PROJECT ID:** G33

**PROJECT RANK:** 99/116

**PROJECT DESCRIPTION:**
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes and adding sidewalks

**Estimated Cost:** $24,000,000

**County:** Guadalupe

**City:** Schertz, Cibolo

**Project Type:** Roadway

**Length (Miles):** 3.83

**# of Existing Lanes:** 2

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>609</td>
<td>19,922</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project G33](image-url)
PROJECT NAME: New North-South Connector - Weltner Road Parkway

PROJECT ID: G34

PROJECT RANK: 33/116

PROJECT DESCRIPTION:
Construct new 6-lane regional arterial roadway and Guadalupe River crossing with sidewalks

Estimated Cost: $30,000,000
County: Guadalupe
City: New Braunfels
Project Type: Roadway

Length (Miles): 2.41
# of Existing Lanes: NA
# of Lanes Planned: 6

Average Daily Traffic Volumes
2017: NA
2045 (Projected): No Data (new road)

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):

FY2022-2027 Median Cost
FY2028-2035 Median Cost

PROJECT LOCATION

Project G34

Legend
- Study Area
- Project Limits
- Roadway

0 ⅛ Miles
**PROJECT NAME:** FM 758 Expansion

**PROJECT ID:** G35

**PROJECT RANK:** 10/116

**PROJECT DESCRIPTION:**
Upgrade to regional arterial roadway by expanding from 2 to 4 lanes.

**Estimated Cost:** $20,000,000

**County:** Guadalupe

**City:** New Braunfels

**Project Type:** Roadway

**Length (Miles):** 3

**# of Existing Lanes:** 2

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3,362</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>15,279</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
</table>

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

![Map of Project G35](image-url)
**PROJECT NAME:** Weil Road On-Street Bike Lanes

**PROJECT ID:** G36

**PROJECT RANK:** 83/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $90,000

**County:** Guadalupe

**City:** Santa Clara

**Project Type:** Bike/Ped

**Length (Miles):** 1.54

**# of Existing Lanes:** 2

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
</table>
| **# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

- **2017:** 1,155
- **2045 (Projected):** 13,427

**PROJECT PHASE**

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

*Map of Project G36 with study area, project limits, and bicycle/pedestrian paths marked.*
**PROJECT NAME:** Green Valley Road - On Street Bike Lanes

**PROJECT ID:** G38

**PROJECT RANK:** 113/116

**PROJECT DESCRIPTION:**
Add bike lanes to existing roadway

**Estimated Cost:** $100,000

**County:** Guadalupe

**City:** None

**Project Type:** Bike/Ped

**Length (Miles):** 1.92

**# of Existing Lanes:** 2

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>922</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>8,144</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

[Map showing project location with study area, project limits, city limit, and bicycle/pedestrian pathways labeled.]
**PROJECT NAME:** SL 1604 Frontage Road Intersection Improvements - III  

**PROJECT ID:** INT B1  

**PROJECT RANK:** 63/116  

**PROJECT DESCRIPTION:** Review and adjust timing phasing of signals in vicinity that affect flow of traffic onto direct connectors  

**Estimated Cost:** $60,000

**County:** Bexar  
**City:** Live Oak  
**Project Type:** Intersection Improvements

<table>
<thead>
<tr>
<th>Length (Miles): NA</th>
<th># of Existing Lanes: NA</th>
<th># of Lanes Planned: NA</th>
</tr>
</thead>
</table>

| Average Daily Traffic Volumes | 2017: 87,086 | 2045 (Projected): 28,005 |

**PROJECT PHASE**  
Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):

**PROJECT COST**  
Federal Cost ($):  
State Cost ($):  
Local Cost ($):

**PROJECT LOCATION**

![Map of Alamo Area Metropolitan Planning Organization 2021/2022 Subregional Planning Study](image-url)
PROJECT NAME: IH 35 Frontage Road Intersection Improvements

PROJECT ID: INT B2

Estimated Cost: $40,000
County: Bexar
City: Live Oak
Project Type: Intersection Improvements

PROJECT RANK: 64/116

PROJECT DESCRIPTION:
Review and adjust timing phasing of signals in vicinity that affect flow of traffic onto direct connectors

Length (Miles): NA
# of Existing Lanes: NA
# of Lanes Planned: NA

Average Daily Traffic Volumes
2017: 38,038
2045 (Projected): 34,275

PROJECT PHASE
Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST
Federal Cost ($):
State Cost ($):
Local Cost ($):

PROJECT LOCATION

Project INT B2
**PROJECT NAME:** Pat Booker Road Intersection Improvements - I  

**PROJECT ID:** INT B3  

**PROJECT RANK:** 87/116  

**PROJECT DESCRIPTION:** Develop intersection improvements including adding dedicated left turn lane(s), update signal timing, and lengthening existing turn bays  

**Estimated Cost:** $510,000  

**County:** Bexar  

**City:** Universal City  

**Project Type:** Intersection Improvements  

<table>
<thead>
<tr>
<th>Length (Miles):</th>
<th>NA</th>
<th># of Existing Lanes:</th>
<th>NA</th>
<th># of Lanes Planned:</th>
<th>NA</th>
</tr>
</thead>
</table>

| Average Daily Traffic Volumes | 2017: | 16,810 | 2045 (Projected): | 24,810 |

**PROJECT PHASE**  

| Preliminary Engineering (PE): | | |
| Right-of-Way (ROW): | | |
| Construction (CST): | | |

**PROJECT COST**  

| Federal Cost ($) | | |
| State Cost ($) | | |
| Local Cost ($) | | |

**PROJECT LOCATION**  

[Map of Project INT B3]
**PROJECT NAME:** Pat Booker Road Intersection Improvements - II

**PROJECT ID:** INT B4

**PROJECT RANK:** 72/116

**PROJECT DESCRIPTION:**
Develop intersection improvements including adding dedicated left turn lane(s), update signal timing, increase and lengthening existing turn bays

**Estimated Cost:** $510,000

**County:** Bexar

**City:** Live Oak

**Project Type:** Intersection Improvements

<table>
<thead>
<tr>
<th>Length (Miles):</th>
<th>NA</th>
<th># of Existing Lanes:</th>
<th>NA</th>
<th># of Lanes Planned:</th>
<th>NA</th>
</tr>
</thead>
</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19,177</td>
<td>18,114</td>
</tr>
</tbody>
</table>

### PROJECT PHASE

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

### PROJECT COST

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

### PROJECT LOCATION

**Project INT B4**

[Map of the project location with markers indicating the specific intersection improvement location.]

**Legend**
- Study Area
- City Limit
- Intersection Improvement

[Scale bar and map projections are visible on the map, indicating longitude and latitude alongside distance measurement in miles.]
**PROJECT NAME:** FM 78 Intersection Improvements - I  

**PROJECT ID:** INT B5  

**PROJECT DESCRIPTION:** Develop intersection improvements including adding dedicated left turn lane(s) and updating signal timing  

**Estimated Cost:** $260,000  
**County:** Bexar  
**City:** Converse  
**Project Type:** Intersection Improvements  

<table>
<thead>
<tr>
<th>Length (Miles): NA</th>
<th># of Existing Lanes: NA</th>
<th># of Lanes Planned: NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Traffic Volumes</td>
<td>2017: 15,448</td>
<td>2045 (Projected): 23,594</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  

- Preliminary Engineering (PE):  
- Right-of-Way (ROW):  
- Construction (CST):  

**PROJECT COST**  

- Federal Cost ($):  
- State Cost ($):  
- Local Cost ($):  

**PROJECT LOCATION**  

Project INT B5
**PROJECT NAME:** FM 78 Intersection Improvements - II

**PROJECT DESCRIPTION:**
Develop intersection improvements including updating signal timing and increasing length of turn bays

**Estimated Cost:** $260,000  
**County:** Bexar  
**City:** Converse  
**Project Type:** Intersection Improvements

**Length (Miles):** NA  
**# of Existing Lanes:** NA  
**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13,906</td>
<td>23,041</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- **Preliminary Engineering (PE):**
- **Right-of-Way (ROW):**
- **Construction (CST):**

**PROJECT COST**

- **Federal Cost ($):**
- **State Cost ($):**
- **Local Cost ($):**

**PROJECT LOCATION**

![Map of Project INT B6](image)
PROJECT NAME: SL 1604 Frontage Road Intersection Improvements - I

PROJECT DESCRIPTION: Develop intersection improvements including updating signal timing and increasing length of turn bays

Length (Miles): NA  # of Existing Lanes: NA

Average Daily Traffic Volumes 2017: 8,603

Estimated Cost: $260,000
County: Bexar
City: San Antonio
Project Type: Intersection Improvements

# of Lanes Planned: NA

Length (Miles): NA  # of Existing Lanes: NA

Average Daily Traffic Volumes 2045 (Projected): 13,843

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):
### Alamo Area Metropolitan Planning Organization
#### 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>SL 1604 Frontage Road Intersection Improvements - II</th>
<th>PROJECT ID:</th>
<th>INT B8</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT RANK:</td>
<td>5/116</td>
<td>Estimated Cost:</td>
<td>$260,000</td>
</tr>
<tr>
<td>PROJECT DESCRIPTION:</td>
<td>Develop intersection improvements including updating signal timing and increasing length of turn bays</td>
<td>County:</td>
<td>Bexar</td>
</tr>
<tr>
<td>County:</td>
<td>San Antonio</td>
<td>City:</td>
<td>San Antonio</td>
</tr>
<tr>
<td>Project Type:</td>
<td>Intersection Improvements</td>
<td>Length (Miles):</td>
<td>NA</td>
</tr>
<tr>
<td>Average Daily Traffic Volumes:</td>
<td></td>
<td># of Existing Lanes:</td>
<td>NA</td>
</tr>
<tr>
<td><strong>2017:</strong></td>
<td>16,502</td>
<td># of Lanes Planned:</td>
<td>NA</td>
</tr>
<tr>
<td><strong>2045 (Projected):</strong></td>
<td>27,686</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PROJECT PHASE

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

#### PROJECT COST

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

#### PROJECT LOCATION

![Project INT B8](image-url)
**PROJECT NAME:** Spur Street Intersection Improvements  

**PROJECT ID:** INT C2  

**PROJECT RANK:** 41/116  

**PROJECT DESCRIPTION:** Develop intersection improvements including adding dedicated left turn lane(s), update signal timing, and lengthening existing turn bays  

**Estimated Cost:** $510,000  

**County:** Comal  

**City:** New Braunfels  

**Project Type:** Intersection Improvements  

**Length (Miles):** NA  

**# of Existing Lanes:** NA  

**# of Lanes Planned:** NA  

**Average Daily Traffic Volumes**  

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6,344</td>
<td>19,138</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**  

- Preliminary Engineering (PE):  
- Right-of-Way (ROW):  
- Construction (CST):  

**PROJECT COST**  

- Federal Cost ($):  
- State Cost ($):  
- Local Cost ($):  

**PROJECT LOCATION**  

---

**Legend**  

- Study Area  
- City Limit  
- Intersection Improvement  

0  

Miles
Project INT C3

Rueckle Rd Intersection Improvements

Estimated Cost: $510,000
County: Comal
City: New Braunfels
Project Type: Intersection Improvements

Length (Miles): NA
# of Existing Lanes: NA
# of Lanes Planned: NA
Average Daily Traffic Volumes 2017: 87,237
2045 (Projected): 95,792

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):

FY2022-2027 Median Cost
FY2028-2035 Median Cost

PROJECT LOCATION

New Braunfels

Legend
Study Area
City Limit
Intersection Improvement

0 ½ Miles
Alamo Area Metropolitan Planning Organization
2021/2022 Subregional Planning Study

PROJECT NAME: Solms Road Intersection Improvements

PROJECT ID: INT C4

PROJECT RANK: 49/116

PROJECT DESCRIPTION: Develop intersection improvements including adding dedicated left turn lane(s) and updating signal timing

Estimated Cost: $260,000
County: Comal
City: New Braunfels
Project Type: Intersection Improvements

Length (Miles): NA
# of Existing Lanes: NA
# of Lanes Planned: NA

Average Daily Traffic Volumes

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2045 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>92,060</td>
<td>82,023</td>
</tr>
</tbody>
</table>

Average Daily Traffic Volumes

PROJECT PHASE

Preliminary Engineering (PE):
Right-of-Way (ROW):
Construction (CST):

PROJECT COST

Federal Cost ($):
State Cost ($):
Local Cost ($):

PROJECT LOCATION

Project INT C4

Legend
- Study Area
- City Limit
- Intersection Improvement

Miles

0 ½
**PROJECT NAME:** FM 3009 Intersection Improvements - II  
**PROJECT ID:** INT G1  
**PROJECT RANK:** 27/116

**PROJECT DESCRIPTION:**  
Develop intersection improvements including updating signal timing and increasing length of turn bays

**Estimated Cost:** $260,000  
**County:** Guadalupe  
**City:** Schertz  
**Project Type:** Intersection Improvements

<table>
<thead>
<tr>
<th>Length (Miles)</th>
<th># of Existing Lanes</th>
<th># of Lanes Planned</th>
<th>Average Daily Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2017: 33,993</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2045 (Projected): 26,066</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

Preliminary Engineering (PE):  
Right-of-Way (ROW):  
Construction (CST):

**PROJECT COST**

Federal Cost ($):  
State Cost ($):  
Local Cost ($):

**PROJECT LOCATION**

---

Project INT G1

---

![Map of project location](image-url)
**PROJECT NAME:** FM 3009 Intersection Improvements - 1  

**PROJECT ID:** INT G2

**PROJECT RANK:** 28/116

**PROJECT DESCRIPTION:**  
Develop intersection improvements including adding dedicated left turn lane(s) and updating signal timing

**Estimated Cost:** $260,000

**County:** Guadalupe

**City:** Schertz

**Project Type:** Intersection Improvements

**Length (Miles):** NA  
**# of Existing Lanes:** NA  
**# of Lanes Planned:** NA

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017:</th>
<th>2045 (Projected):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29,667</td>
<td>26,164</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

---

![Map of Project INT G2](image-url)
**PROJECT NAME:** FM 3009 and FM 78 Grade Separation

**PROJECT ID:** INT G3

**PROJECT RANK:** 88/116

**PROJECT DESCRIPTION:**
Elevate FM 78 over FM 3009 (grade separation)

**Estimated Cost:** $5,000,000

**County:** Guadalupe

**City:** Schertz

**Project Type:** Grade Separation

**Length (Miles):** NA

**# of Existing Lanes:** 4

**# of Lanes Planned:** 4

**Average Daily Traffic Volumes**

- **2017:** 19,927
- **2045 (Projected):** 44,149

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
<th>FY2022-2027 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Map of Project INT G3](image-url)
**PROJECT NAME:** Heideke St at US 90 Intersection Improvements - I

**PROJECT ID:** INT G4

**PROJECT RANK:** 108/116

**PROJECT DESCRIPTION:**
Add left turn lanes at intersection with US 90

**Estimated Cost:** $250,000

**County:** Guadalupe

**City:** Seguin

**Project Type:** Intersection Improvements

**Length (Miles):** NA

**# of Existing Lanes:** NA

**# of Lanes Planned:** NA

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>813</td>
</tr>
<tr>
<td>2045 (Projected)</td>
<td>10,927</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Cost ($)</td>
<td></td>
</tr>
<tr>
<td>State Cost ($)</td>
<td></td>
</tr>
<tr>
<td>Local Cost ($)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

![Project INT G4 Map](map.png)
## Alamo Area Metropolitan Planning Organization
### 2021/2022 Subregional Planning Study

<table>
<thead>
<tr>
<th><strong>PROJECT NAME:</strong> Vaughan Street at US 90 Intersection Improvements</th>
<th><strong>PROJECT ID:</strong> INT G5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROJECT DESCRIPTION:</strong> Add left turn lanes at intersection with US 90</td>
<td><strong>PROJECT RANK:</strong> 107/116</td>
</tr>
<tr>
<td><strong>Estimated Cost:</strong> $250,000</td>
<td><strong>County:</strong> Guadalupe</td>
</tr>
<tr>
<td><strong>City:</strong> Seguin</td>
<td><strong>Project Type:</strong> Intersection Improvements</td>
</tr>
<tr>
<td><strong>Length (Miles):</strong> NA</td>
<td><strong># of Existing Lanes:</strong> NA</td>
</tr>
<tr>
<td><strong># of Lanes Planned:</strong> NA</td>
<td><strong>Average Daily Traffic Volumes</strong></td>
</tr>
<tr>
<td><strong>2017:</strong> 910</td>
<td><strong>2045 (Projected):</strong> 28,297</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PROJECT PHASE</strong></th>
<th><strong>FY2022-2027 Median Cost</strong></th>
<th><strong>FY2028-2035 Median Cost</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering (PE):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PROJECT LOCATION</strong></th>
</tr>
</thead>
</table>

### Project INT G5

![Map of Project INT G5](image_url)
**PROJECT NAME:** Saengerhalle Rd Intersection Improvements  
**PROJECT ID:** INT G6  
**PROJECT RANK:** 30/116

**PROJECT DESCRIPTION:** Develop intersection improvements including adding dedicated left turn lane(s) and updating to standard signal

<table>
<thead>
<tr>
<th>Length (Miles):</th>
<th>NA</th>
<th># of Existing Lanes:</th>
<th>NA</th>
<th># of Lanes Planned:</th>
<th>NA</th>
</tr>
</thead>
</table>


**PROJECT PHASE**

- Preliminary Engineering (PE):
- Right-of-Way (ROW):
- Construction (CST):

**PROJECT COST**

- Federal Cost ($):
- State Cost ($):
- Local Cost ($):

**PROJECT LOCATION**

Project INT G6
**PROJECT NAME:** Mary Boulevard Intersection Improvements

**PROJECT ID:** INT G7

**PROJECT RANK:** 44/116

**PROJECT DESCRIPTION:**
Develop intersection improvements including adding dedicated left turn lane(s) and updating to standard signal

**Estimated Cost:** $400,000
**County:** Guadalupe
**City:** New Braunfels
**Project Type:** Intersection Improvements

<table>
<thead>
<tr>
<th>Length (Miles):</th>
<th>NA</th>
<th># of Existing Lanes:</th>
<th>NA</th>
<th># of Lanes Planned:</th>
<th>NA</th>
</tr>
</thead>
</table>

**Average Daily Traffic Volumes**

<table>
<thead>
<tr>
<th>2017:</th>
<th>17,171</th>
</tr>
</thead>
<tbody>
<tr>
<td>2045 (Projected):</td>
<td>45,860</td>
</tr>
</tbody>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT LOCATION**

Project INT G7
**PROJECT NAME:** Heideke St at US 90 Intersection Improvements - II

**PROJECT ID:** INT G8

**PROJECT RANK:** 105/116

**PROJECT DESCRIPTION:**
Add signal to intersection

**Estimated Cost:** $150,000

**County:** Guadalupe

**City:** Seguin

**Project Type:** Intersection Improvements

<table>
<thead>
<tr>
<th>Length (Miles): NA</th>
<th># of Existing Lanes: NA</th>
<th># of Lanes Planned: NA</th>
</tr>
</thead>
</table>

**Average Daily Traffic Volumes**

| 2017: 6,825 | 2045 (Projected): 21,499 |

**PROJECT PHASE**

| Preliminary Engineering (PE): |
| Right-of-Way (ROW): |
| Construction (CST): |

**PROJECT COST**

<table>
<thead>
<tr>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
</table>

**PROJECT LOCATION**

Project INT G8
**PROJECT NAME:** Weltner Rd Intersection Improvements  

**PROJECT ID:** INT G9  

**PROJECT DESCRIPTION:** Add turn lanes on Weltner and add signal at intersection  

**Estimated Cost:** $400,000  

**County:** Guadalupe  

**City:** New Braunfels  

**Project Type:** Intersection Improvements  

**Length (Miles):** NA  

**# of Existing Lanes:** NA  

**# of Lanes Planned:** NA  

<table>
<thead>
<tr>
<th>Average Daily Traffic Volumes</th>
<th>2017: 13,482</th>
<th>2045 (Projected): 63,433</th>
</tr>
</thead>
</table>

**PROJECT PHASE**

<table>
<thead>
<tr>
<th>Preliminary Engineering (PE):</th>
<th>FY2022-2027 Median Cost</th>
<th>FY2028-2035 Median Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way (ROW):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction (CST):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT COST**

<table>
<thead>
<tr>
<th>Federal Cost ($)</th>
<th>State Cost ($)</th>
<th>Local Cost ($)</th>
</tr>
</thead>
</table>

**PROJECT LOCATION**

Project INT G9
Appendix K

Benefit-Cost Analysis
MEMORANDUM

DATE: December 20, 2021
TO: Nick Arnio, PE, PTOE, PMP
CC: Elizabeth High, GISP
FROM: William Loudon, PhD, PE, and Emma Martinez
RE: AAMPO Subregional Planning Study - Benefit-Cost Analysis

Introduction

This memorandum describes the methodology and results for an analysis of the Benefit/Cost ratio for the highest-priority project identified in the Alamo Area Metropolitan Planning Organization (AAMPO) Subregional Planning Study. This effort was part of a multidimensional evaluation of potential projects for the study.

Methodology

The Benefit-Cost Analysis methodology was derived from a methodology developed by the Houston-Galveston Area Council (H-GAC) for the evaluation of Transportation Improvement Program (TIP) applications in 2018. The Benefit-Cost scoring for that methodology was developed by calculating the expected monetary value of benefits over the life of the project in three categories: Delay, Safety, and Emissions. Different benefit estimation spreadsheets were used for roadway project and active transportation projects. The RS&H Team developed a planning-level estimate of the implementation cost for each project, and a Benefit/Cost ratio was developed by summing the monetary benefits over the three categories then dividing by the cost estimate.

Project benefits were calculated using spreadsheet templates for the three benefit areas. The template for Delay Benefit is shown in Figure 1. The template called for project identification and information about the proposed improvement; for the project shown in the example, the type of improvement is “Bottleneck Removal.”

![Figure 1: Sample Delay Benefit Calculation - Inputs](image-url)
The RS&H Team also provided information about the expected opening year and service life, and benefits would only be calculated for that time span. The improvement type was selected from a pull-down list, and the selection determined the Percent Delay Reduction. A 2018 Annual Average Daily Traffic (AADT) value from an available count source was also required. The values in the green cells were populated by runs of the AAMPO model designed to estimate the effect of the project on traffic volume and speed on the study area network. All of this information was used by a complex but transparent set of relationships in other sheets of the template to produce some intermediate values used in the benefit calculation, which are shown in beige.

These were used to develop the Interim Calculations for the Delay Reduction and VHT Improvements shown in Figure 2. These were then used to calculate the Discounted Delay Benefit in 2018 dollars over the life of the project. Again, monetary values of benefit were also developed for Safety and Emissions and the sum was divided by the estimated cost to get the Benefit/Cost ratio. All costs and monetary benefits were estimated in 2018 dollars.

![Figure 2: Sample Delay Benefit Calculation - Results](image)

One of the features of the HGAC templates was the amount of research that went behind the internal calculation. Much of this research was provided by the Texas Transportation Institute. Figure 3 shows a sample of the many delay-reduction factors that corresponded with the improvement type. Similar factors were provided for crash-reduction benefit and emissions-reduction benefit.

![Figure 3 Delay Benefits Calculation – Sample Look-up Tables](image)
Results

A total of 118 potential projects were identified by the RS&H Team. From these, 25 were identified as the highest priority by the team using a methodology developed by RS&H. These top 25 highest-priority projects were then evaluated in terms of their Benefit-Cost (B/C) ratios using the methodology described above. B/C ratios could not be developed for two of the projects because data needed for an analysis could not be developed:

- **G2 - Guadalupe River/Lake McQueeney Trail** – An off-road, recreational bicycle and pedestrian trail for which there is no parallel roadway from which traffic could be relieved.
- **B9 - New Roadway from Binz Engleman Road to Pfeil Road** – A new road for which there is no parallel roadway from which traffic could be relieved.

B/C ratios were calculated for the remaining 23 projects. They are listed in Table 1 in order of B/C ratio. The B/C ratios for the projects ranged from 0.16 to 74.8 with fourteen projects having a B/C ratio of 1.0 or greater. Of those, seven had a ratio between 1.0 and 3.0 and seven were over 3.0. Ten of the fourteen projects with B/C ratio greater than 1.0 were on the TxDOT state highway system.

The fourteen projects with a B/C ratio greater than 1.0 had the following distribution by project type:

<table>
<thead>
<tr>
<th>Project Types</th>
<th>Projects with B/C Ratio Greater than 1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersection Improvements</td>
<td>2</td>
</tr>
<tr>
<td>Bicycle and Pedestrian Improvements</td>
<td>6</td>
</tr>
<tr>
<td>Roadway Capacity Improvements</td>
<td>6</td>
</tr>
</tbody>
</table>

The six highest B/C ratios were for either **Intersection Improvements** or **Bicycle and Pedestrian Improvements**, and none had an estimated cost of more than $500,000. Only one project with an estimated cost of less than $500,000 had a B/C ratio of less than 1.0. It was **B13 - Olympia Parkway Shared Use Path**. It had a length of only 0.72 miles which limited the extent of delay and safety benefits for the project. Two other projects will lengths less than one mile also had B/C ratios of less than 0.5.

**Delay Benefits** and **Safety Benefits** were by far the most important contributors to higher B/C ratios. Only seven projects had positive **Emissions Benefits**, and those were almost negligible compared to the **Delay** and **Safety Benefits**.

The **Roadway Capacity Improvement** projects that had the highest B/C ratios were those that would relieve exiting or predicted future congestion on the roadways. These projects produced much higher **Delay** and **Safety Benefits** than those that did not relieve congestion. Some of the projects that did not relieve congestion on the roads on which they were to be implemented provided additional connectivity in the network, but that benefit was not as clearly recognized in the benefit-estimation methodology.
<table>
<thead>
<tr>
<th>Project Identifier</th>
<th>Project Name</th>
<th>Roadway</th>
<th>Type of Work</th>
<th>Project Length (mi)</th>
<th>Estimated Cost</th>
<th>Delay Benefits</th>
<th>Emissions Benefits</th>
<th>Safety Benefits</th>
<th>Cost-Benefit Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT_B8</td>
<td>SL 1604 Frontage Road Intersection Improvements - II</td>
<td>SL 1604 frontage road intersection improvements</td>
<td>2.0</td>
<td>$260,000</td>
<td>$5,771,424</td>
<td>(1,059)</td>
<td>13,687,342</td>
<td>74.84</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>FM 3009 On-Street Bike Lanes</td>
<td>FM 3009</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>5.64</td>
<td>$160,000</td>
<td>$4,554,433</td>
<td>1,567</td>
<td>1,141,290</td>
<td>35.61</td>
</tr>
<tr>
<td>INT_B7</td>
<td>SL 1604 Frontage Road Intersection Improvements - I</td>
<td>SL 1604 frontage road intersection improvements</td>
<td>2.0</td>
<td>$260,000</td>
<td>-</td>
<td>-</td>
<td>6,982,196</td>
<td>26.85</td>
<td></td>
</tr>
<tr>
<td>G4</td>
<td>FM 78 On-Street Bike Lanes - I</td>
<td>FM 78 east</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>10.48</td>
<td>$300,000</td>
<td>2,048,272</td>
<td>678</td>
<td>489,841</td>
<td>8.46</td>
</tr>
<tr>
<td>C14</td>
<td>River Road On-Street Bike Lanes</td>
<td>River Road</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>6.22</td>
<td>$170,000</td>
<td>870,559</td>
<td>124</td>
<td>104,988</td>
<td>5.74</td>
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<tr>
<td>G3</td>
<td>FM 78 On-Street Bike Lanes - II</td>
<td>FM 78 west</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>15.44</td>
<td>$425,000</td>
<td>617,588</td>
<td>2,219</td>
<td>1,472,097</td>
<td>4.92</td>
</tr>
<tr>
<td>CG7</td>
<td>SH 46 Expansion</td>
<td>SH 46</td>
<td>Roadway - Added Capacity</td>
<td>10.14</td>
<td>$64,000,000</td>
<td>68,522,447</td>
<td>(4,673)</td>
<td>124,354,824</td>
<td>3.01</td>
</tr>
<tr>
<td>G35</td>
<td>FM 758 Expansion</td>
<td>FM 758</td>
<td>Roadway - Added Capacity</td>
<td>3.00</td>
<td>$20,000,000</td>
<td>22,719,270</td>
<td>(9,993)</td>
<td>13,011,044</td>
<td>1.79</td>
</tr>
<tr>
<td>G29</td>
<td>Woodland Oaks Drive On-Street Bike Lanes and Shared Use Path</td>
<td>Woodland Oaks Dr</td>
<td>Bicycle/Pedestrian (on and off street)</td>
<td>3.96</td>
<td>$1,158,266</td>
<td>1,409,917</td>
<td>194</td>
<td>451,900</td>
<td>1.61</td>
</tr>
<tr>
<td>CG2</td>
<td>FM 1103 Expansion - I</td>
<td>FM 1103</td>
<td>Roadway - Added Capacity</td>
<td>3.24</td>
<td>$20,000,000</td>
<td>934,106</td>
<td>(8,215)</td>
<td>30,116,477</td>
<td>1.55</td>
</tr>
<tr>
<td>C3</td>
<td>Common Street Expansion</td>
<td>Common Street</td>
<td>Bicycle/Pedestrian (on and off street)</td>
<td>1.90</td>
<td>$12,000,000</td>
<td>5,297,677</td>
<td>(1,517)</td>
<td>11,665,217</td>
<td>1.41</td>
</tr>
<tr>
<td>G30</td>
<td>Savannah Drive On-Street Bike Lanes and Shared Use Path</td>
<td>Savannah Drive</td>
<td>Bicycle/Pedestrian (on and off street)</td>
<td>7.04</td>
<td>$1,426,966</td>
<td>1,485,269</td>
<td>63</td>
<td>451,900</td>
<td>1.36</td>
</tr>
<tr>
<td>G26</td>
<td>FM 725 Expansion</td>
<td>FM 725</td>
<td>Roadway - Added Capacity</td>
<td>6.11</td>
<td>$32,791,000</td>
<td>-</td>
<td>-</td>
<td>40,452,208</td>
<td>1.23</td>
</tr>
<tr>
<td>GH1</td>
<td>SH 123 Widening</td>
<td>SH 123</td>
<td>Roadway - Widening</td>
<td>12.46</td>
<td>$60,950,000</td>
<td>5,778,551</td>
<td>(132,003)</td>
<td>56,390,297</td>
<td>1.02</td>
</tr>
<tr>
<td>G25</td>
<td>SH 123 Expansion</td>
<td>SH 123</td>
<td>Roadway - Added Capacity</td>
<td>2.30</td>
<td>$19,748,000</td>
<td>2,867,390</td>
<td>(19,383)</td>
<td>16,763,538</td>
<td>0.99</td>
</tr>
<tr>
<td>G27</td>
<td>FM 1103 Expansion - II</td>
<td>FM 1103</td>
<td>Roadway - Added Capacity</td>
<td>1.84</td>
<td>$30,286,000</td>
<td>6,589,399</td>
<td>(13,507)</td>
<td>18,469,144</td>
<td>0.83</td>
</tr>
<tr>
<td>C9</td>
<td>FM 1101 Expansion</td>
<td>FM 1101</td>
<td>Roadway - Added Capacity</td>
<td>1.87</td>
<td>$12,000,000</td>
<td>572,590</td>
<td>(1,006)</td>
<td>8,357,554</td>
<td>0.74</td>
</tr>
<tr>
<td>B29</td>
<td>FM 1518 Expansion - III</td>
<td>FM 1518</td>
<td>Roadway - Added Capacity</td>
<td>5.41</td>
<td>$65,020,000</td>
<td>10,894,394</td>
<td>(4,200)</td>
<td>24,010,287</td>
<td>0.54</td>
</tr>
<tr>
<td>B13</td>
<td>Olympia Parkway Shared Use Path - I</td>
<td>Olympia Pkwy</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>0.72</td>
<td>$380,000</td>
<td>126,362</td>
<td>-</td>
<td>36,332</td>
<td>0.43</td>
</tr>
<tr>
<td>C6</td>
<td>New roadway from IH 35 Frontage Road to FM 1044</td>
<td>New roadway</td>
<td>Roadway - New Construction</td>
<td>2.59</td>
<td>$20,000,000</td>
<td>852,439</td>
<td>(1,279)</td>
<td>7,043,261</td>
<td>0.39</td>
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<tr>
<td>C5</td>
<td>Kowald Lane Expansion</td>
<td>Kowald Lane</td>
<td>Bicycle/Pedestrian (on street)</td>
<td>0.77</td>
<td>$3,100,000</td>
<td>-</td>
<td>-</td>
<td>1,014,865</td>
<td>0.33</td>
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<tr>
<td>G14</td>
<td>Savannah Drive Shared Use Path</td>
<td>Savannah Drive</td>
<td>Bicycle/Pedestrian (off street)</td>
<td>1.26</td>
<td>$650,000</td>
<td>115,874.34</td>
<td>118.26</td>
<td>72,327.76</td>
<td>0.29</td>
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<tr>
<td>G17</td>
<td>Four Oaks Lane Extension</td>
<td>Four Oaks Lane</td>
<td>Roadway - Extension</td>
<td>0.53</td>
<td>$4,000,000</td>
<td>47,233</td>
<td>(29)</td>
<td>590,003</td>
<td>0.16</td>
</tr>
</tbody>
</table>
Appendix L
Potential Funding Sources
Memo
INTRODUCTION

This memorandum provides an inventory of potential funding sources for projects that are identified as part of the AAMPO Subregional Study and describes the methodology used to evaluate eligibility for each of the potential sources. This includes funding sources from local jurisdictions (cities, counties, or special districts), state sources, federal sources, and funding from private non-profit organizations. For each potential source, the description identifies the eligibility requirements and how funding decisions are made. The memorandum also provides a summary of the observations that could be made about funding eligibility after the Funding Eligibility Tools was applied to the 116 projects considered.

FUNDING ELIGIBILITY EVALUATOR

The Funding Eligibility Evaluator applies a set of decision rules to determine whether a project would be eligible for one of the local, state, federal, or private funding sources. The tool determines eligibility based on a set of thirty-eight characteristics:

1. Major project type (safety, road capacity, intersection, bridge, transit, active transportation, railroad, new road, road extension)
2. Total estimated cost
3. National or regional significance
4. Includes highway maintenance or rehabilitation
5. Increases roadway capacity
6. Will reduce roadway delay
7. Improves facilities for active transportation
8. Achieves trail development goals for the community
9. Produces benefits that help the community become more livable and healthier for residents
10. Improves safety of the transportation system
11. Is on the Texas Highway Freight Network or the National Highway Freight Network
12. Improves a bridge
13. Improves a deficient bridge
14. Affects a railroad
15. Includes a railroad grade separation
16. Supports a Railroad Intermodal Facility
17. Includes a significant Intelligent Transportation System component
18. Provides transit capital, operating assistance, or transit-related planning
19. Involves replacing, rehabilitating, or purchasing buses or related equipment or bus-related facilities
20. Supports private nonprofit groups in meeting transportation needs of the elderly and persons with disabilities
21. Is a physical project (Not just a study)
22. Is shovel ready
23. Is within the boundaries of a Metropolitan Planning Organization (MPO)
24. Is within a Transportation Management Area (TMA) (MPO Area with a least 200,000 in population)
25. Is in an area classified as Rural
26. Is in an Air Quality Non-Attainment Area (in Bexar County only)
27. Is on the Texas State Highway System
28. Allows public access (Not a restricted area)
29. In a community with a local sales tax
30. Will have a source of user fees
31. In a Special Assessment District or have the potential to be
32. In a city or county with a Traffic or Development Impact Fee
33. In a Tax Increment Reinvestment Zone
34. In a jurisdiction with an Economic Development Corporation
35. Will help lead to new and expanded business enterprises in the local community
36. In an Advanced Transportation District (currently only Bexar County)
37. Will support VIA, City of San Antonio, or the Texas Department of Transportation (TxDOT) infrastructure or services
38. Capable of generating revenue or substantial benefit for a private partner

All but the first two of these are “yes” or “no” characteristics that can be answered based on the project description.

Exhibit 1 identifies the decision rules that are used to identify potential funding eligibility. These decision rules do not guarantee eligibility for any specific funding category, but instead provide an indication of the categories for which the projects are potentially eligible and further investigation might be warranted.

**Exhibit 1 Funding Eligibility Decision Rules**

<table>
<thead>
<tr>
<th>Local Sources</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Tax</td>
<td>All projects are potentially eligible</td>
</tr>
<tr>
<td>General Sales Tax</td>
<td>If “In Community with Local Sales Tax”</td>
</tr>
<tr>
<td>Bond Issues</td>
<td>All projects are potentially eligible</td>
</tr>
<tr>
<td>User Fees</td>
<td>If “Will have Source of User Fees”</td>
</tr>
<tr>
<td>Special Assessments</td>
<td>If “In Special Assessment District”</td>
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</table>
### State Funding Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic or Development Impact Fees</td>
<td>If “In Community with Traffic or Development Impact Fee” and “Increases Capacity”</td>
</tr>
<tr>
<td>Tax Increment Reinvestment Zone</td>
<td>If &quot;In a Tax Reinvestment Zone&quot;</td>
</tr>
<tr>
<td>Economic Development Corporation</td>
<td>If &quot;In Community with Economic Development Corporation” and “Will Lead to Expanded Business Enterprises”</td>
</tr>
<tr>
<td>Advanced Transportation District</td>
<td>If &quot;In an Advanced Transportation District” and “Will support VIA, City of San Antonio or TxDOT&quot;</td>
</tr>
<tr>
<td>Public Private Partnerships</td>
<td>If &quot;Can Generate Revenue for a Private Partner&quot;</td>
</tr>
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</table>

#### Federal Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA Section 5307</td>
<td>If &quot;Provides Transit Capital, Operating, or Planning&quot; and not “Rural”</td>
</tr>
<tr>
<td>FTA 5339</td>
<td>If “Purchasing, Replacing, or Rehabilitating Buses” or “Purchasing, Replacing, or Rehabilitating Facilities”</td>
</tr>
<tr>
<td>FTA 5310</td>
<td>If “Supports Private Non-profit Mobility Goals for Elderly”</td>
</tr>
<tr>
<td>Funding Source</td>
<td>Conditions</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>FTA 5311</td>
<td>If “Provides Transit Capital, Operating, or Planning” and “Rural”</td>
</tr>
<tr>
<td>RAISE</td>
<td>If “Physical Project” and “Shovel-Ready”</td>
</tr>
<tr>
<td>INFRA</td>
<td>If “Of Regional, State, or National significance” and “Increases Capacity”</td>
</tr>
<tr>
<td>TIFIA</td>
<td>If “Cost Estimate” greater than or equal to $50 million</td>
</tr>
<tr>
<td>RRIF</td>
<td>If (“Affects Railroad” or “RR Grade Separation”) and “Physical Project”</td>
</tr>
<tr>
<td>Private Non-Profits</td>
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<tr>
<td>Rails to Trails</td>
<td>If “Supports Trail Development”</td>
</tr>
<tr>
<td>AARP Community Challenge</td>
<td>If “Improves Community Health”</td>
</tr>
<tr>
<td>Blue Cross Blue shield</td>
<td>If “Improves Community Health”</td>
</tr>
<tr>
<td>CIGNA</td>
<td>If “Improves Community Health”</td>
</tr>
<tr>
<td>Robert Wood Johnson</td>
<td>If “Improves Community Health”</td>
</tr>
</tbody>
</table>
OBSERVATIONS FROM THE FUNDING ELIGIBILITY ANALYSIS

The full list of 116 potential projects from the AAMPO Subregional Planning Study was evaluated using the Funding Eligibility Evaluator using data for the 38 project characteristic generated by the RS&H Team. The results suggest there are numerous potential sources that should be considered for each of the projects on the list and these potential sources are in all four of the major categories for many of the projects:

- Local Sources
- State Sources
- Federal Sources
- Non-Governmental Sources

Although the Funding Eligibility Evaluator provides an indication of whether a particular source has the potential to provide funds for an individual project, it does not guarantee that funds would be available from the source. The evaluation conducted with the tool is intended to identify those potential sources that might be worth exploring given the nature of a project, where it would be located, and the status of the project’s development process. The sections below provide some of the major observations from the results of the Funding Eligibility Evaluator application for the AAMPO Subregional Planning Study.

POTENTIAL LOCAL FUNDING SOURCES

All projects on the list are eligible for Property Tax revenue, the most likely source of funding for projects that are not in the TxDOT system. All projects—excluding projects G4 and INT_G9—are also in jurisdictions with a local sales tax and are eligible for General Sales Tax revenue. All projects could also potentially be included in a city or county Bond Program for use of property or general sales tax revenues if the projects were packaged together and received voter approval.

Because all of the projects would be open to the public at no charge, none of them would be appropriate for special User Fees. No toll facilities or other services for which users would be charged are proposed. Similarly, no projects are expected to produce a revenue stream that would support a Public-Private Partnership.

Of the projects evaluated, 53 are in communities with a Special Assessment District and could potentially be eligible for Special Assessment revenue if the project is allocated within such a district and the project type is allowed under the conditions of the district. These districts are in New Braunfels, San Antonio, Seguin, and Schertz.

Of the projects evaluated, 45 are in communities with a Traffic or Development Impact Fee and could potentially be eligible for revenue from the impact fees. Eligibility depends on location of the project relative to new development and whether the improvement represented by the project is identified as...
necessary to mitigate the impact of expected future development. Communities with Traffic or Development Impact Fee programs include Cibolo, New Braunfels, Seguin, and Schertz.

Of the projects evaluated, 97 are in communities with a Tax Increment Reinvestment Zone and could potentially be eligible for revenue from the source. Tax Increment Reinvestment Zones must be economically depressed and have a deleterious effect on the economic future of the community. To be eligible for this source, the project sponsor must be able to demonstrate that the project offsets the existing deleterious effect of the zone. Communities with Tax Reinvestment Zones include Converse, Live Oak, Selma, New Braunfels, San Antonio, and Schertz.

Although many are in communities with Economic Development Districts, only two (B32 and CG7) would lead to expanded business and are potentially eligible for Economic Development Grants. More review of the economic development potential of the projects may be necessary. Cibolo, New Braunfels, Schertz, and Seguin all have Economic Development Districts.

Only 11 of the projects evaluated are within the Advanced Transportation District. These projects are in San Antonio, Schertz, and Converse and will support VIA, City of San Antonio, or TxDOT. More review of the purpose of the projects may be necessary.

POTENTIAL STATE FUNDING SOURCES
Although there are twelve categories of TxDOT funding for transportation funding in Texas, three of them are strategic and discretionary funding categories allocated for specially defined uses by the Texas Transportation Commission or the TxDOT Districts and are not generally used to fund local projects:

- Category 10: Supplemental Transportation Programs
- Category 11: District Discretionary
- Category 12: Strategic Priority

Only the remaining nine TxDOT funding categories (Categories 1-9) were considered as potential funding sources for the Subregional Planning Study. There are 43 projects on the list that are on TxDOT facilities, which will provide additional opportunity for state funding. While most of the nine state sources evaluated are not restricted to projects on the TxDOT state system, most of the decisions about the state sources are made by TxDOT Districts and projects on the state system have a better chance for funding.

Four of the TxDOT funding categories (Categories 2, 5, 7 and 9) are distributed within urbanized areas by the MPO.

No projects were thought to be preventive maintenance or rehabilitation and therefore ineligible for Category 1 – Preventive Maintenance and Rehabilitation.

Of the projects evaluated, 42 were thought to be potentially eligible for Category 2 – Metropolitan and Urban Area Corridors because they are on TxDOT facilities. Category 2 addresses mobility and added capacity projects on urban corridors to mitigate traffic congestion, as well as increasing traffic safety and improving roadway maintenance or rehabilitation. Projects must be located on the state highway system.
All projects were considered for Category 3 - Non-Traditional, which includes all non-TxDOT funding sources. Those sources are covered in the Local and Non-Governmental categories in this memorandum.

There are 28 projects eligible for Category 4 – Statewide Connecting Corridors. These are general projects on major state highway system corridors that provide statewide connectivity between urban areas and other statewide corridors, helping to create a highway connectivity network. They are generally projects on the National Highway System (NHS) or the Texas Highway Freight System (THFN).

Projects that could reduce vehicle traffic and pollutant emission and are in the Non-attainment area (Bexar County) would be eligible for Category 5 – Congestion Mitigation and Air Quality Improvement (CMAQ). Eligible projects must reduce pollutant emissions and help address the non-attainment status. There are 26 potentially eligible projects for this source of funding if an emission reduction benefit can be demonstrated.

None of the projects considered are related to bridge or structure rehabilitation or replacement. As a result, none are eligible for Category 6 – Structure Rehabilitation and Replacement.

Projects that address transportation needs within the boundaries of a TMA or transportation management area (areas with populations of 200,000 or more) are eligible for Category 7 Metropolitan Mobility and Rehabilitation. The study area is within a TMA, so all projects would be eligible for this category of funding. Projects are selected by MPOs, such as AAMPO, operating in transportation management areas in consultation with TxDOT. The MPOs use a performance-based prioritization process that assesses mobility needs within the MPO boundaries.

All projects that would improve safety are eligible for Category 8 - Safety, but these projects generally have to be in TxDOT’s Highway Safety Improvement Program (HSIP) and are generally on TxDOT facilities. These funds are allocated by the TxDOT. Of the projects being considered, 80 would potentially be eligible for this category of funding.

All 57 active transportation projects would be eligible for Category 9 – Transportation Alternatives (TA). For urbanized areas with populations over 200,000, the MPO selects TA projects through a competitive process in consultation with TxDOT. All projects are selected using a performance-based prioritization process that assesses local transportation needs, including bicycle and pedestrian access.

**POTENTIAL FEDERAL FUNDING SOURCES**

The opportunities for specialized federal funds for the Subregional Planning Study projects may be fairly limited outside of the federal funds distributed through TxDOT funding categories. These include the National Highway Performance Program (NHPP), the Surface Transportation Block Grant (STBG) Program, the Highway Safety Improvement Program (HSIP), the Transportation Alternatives Program (TAP), and the Congestion Mitigation and Air Quality (CMAQ) Program.

One of the largest federal funding programs outside of those included in the TxDOT funding categories are the series of Federal Transit Administration (FTA) Grant Programs for transit. There are no transit projects in the Subregional Planning Study projects list so none would be eligible for FTA funds.

Three other major federal programs could potentially be applicable but the previous versions of these programs have had restrictions that might eliminate the Subregional Planning Study projects. The Rebuilding American Infrastructure With Sustainability And Equity (RAISE) Grants, formerly known as
BUILD and TIGER, have awarded over $8.935 billion to projects in all 50 states, the District of Columbia, and Puerto Rico since 2009. Projects for RAISE funding are evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, USDOT gives priority to projects that can demonstrate improvements to racial equity, reduce impacts of climate change, and create good-paying jobs. In the past, RAISE projects have had to be “shovel ready” and none on the Subregional Planning Study list not already funded appear to be. However, once the projects reach a “shovel-ready” status, there are several that will likely be eligible.

The **Infrastructure For Rebuilding America (INFRA) Grant Program** provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. Of the Subregional Planning Study projects, only one of the projects (CG7) was considered to be of regional, state, or national significance and was considered eligible.

The **Transportation Infrastructure Finance And Innovation Act (TIFIA) Program** provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. Projects eligible for TIFIA must have capital costs of $50 million or more ($15 million for ITS projects). Two of the Subregional Planning Study projects (CG7 and GH1) were considered to be of regional, state, or national significance and meet the size requirement. As a result, these two projects were considered eligible.

The **Railroad Rehabilitation and Improvement Financing (RRIF) Program** provides direct loans and loan guarantees for projects that acquire, improve, rehabilitate, or build intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, and shops. RRIF loans have to go to projects that affect a railroad or a railroad/highway grade separation of which there are 16 projects. However, none of the projects on the list are for the specific purposes defined in the program requirements. It is highly unlikely that any of the Subregional Planning Study projects could be receive RRIF loans.

**POTENTIAL NON-GOVERNMENTAL FUNDING SOURCES**

Numerous non-governmental organizations also provide funding for grants to achieve specific goals in transportation development. Five specific grant programs were considered:

- Rails To Trails Conservancy
- AARP Community Challenge Grant Program
- Blue Cross Blue Shield Grant Program
- Cigna Grant Programs
- Robert Wood Johnson Foundation Grant Program

This list above is not exhaustive but provides a sampling of the private grant programs available.

The main criteria for the four programs reviewed is that the projects improve the health and well-being of the communities in which they are implemented. All 57 active transportation projects on the Subregional Planning Study list were considered potentially eligible.
DETAILED DESCRIPTION OF POTENTIAL FUNDING SOURCES

The section below provides descriptions of the funding categories in the Funding Eligibility Tool. Not all selection criteria are explicitly stated in the documentation or included in the decision rules. One example is whether a “study” is eligible for funding. The TxDOT funding categories do not explicitly exclude studies, but the practice for many of the categories has been to apply the categories only to actual construction projects.

POTENTIAL LOCAL FUNDING SOURCES

It is typically the responsibility of the local government jurisdictions (cities and counties) to cover any costs not covered by state and federal programs. Local funding can come from a variety of sources including property taxes, sales taxes, user fees, special assessments, and impact fees. Match requirements make local funds critical to maintain eligibility for several federal and state funding sources, which is typically around 20% of total project costs for federal funding sources.

PROPERTY TAXES

Property taxation has historically been the primary source of funding for local governments in the United States. Property taxes account for more than 80% of all local tax revenues. Property is not subject to federal government taxation and is a significant generator of tax revenue within the state of Texas given the lack of state and local-option income taxes.

GENERAL SALES TAXES

The general sales and use taxes are also an important funding source for local governments. The most commonly known form of the general sales tax is the retail sales tax. The retail sales tax is imposed on a wide range of commodities, and the rate is usually a uniform percentage of the selling price.

BOND ISSUES

Property tax and sales tax funds can be used on a pay-as-you-go basis, or the revenues from these taxes can be used to repay general obligation or revenue bonds. These bonds are issued by local governments upon approval of the voting public.

USER FEES

User fees are fees collected from those who use a service or facility. The fees are collected to pay for the cost of a facility, finance the cost of operations, and/or generate revenue for other uses. User fees are commonly charged for public parks, water and sewer services, transit systems, toll roads, express lanes, and solid waste facilities. The theory behind the user fee is that those who directly benefit from these public services pay for the costs.

SPECIAL ASSESSMENTS

Special assessment is a method of generating funds for public improvements, whereby the cost of a public improvement is collected from those who directly benefit from the improvement. Areas in which this scenario occurs are often called “Special Assessment Districts.” Within these districts, property owners—typically business owners—will vote to dedicate a portion of their sales tax or property tax to fund some improvement or service that benefits the district. In many instances, new streets are financed by special assessment. The owners of property located adjacent to the new streets are assessed a portion of the cost of the new streets based on the amount of frontage they own along the
new streets. There are Special Assessment Districts in New Braunfels, San Antonio, Seguin, and Schertz but the zones do not cover the entire city.

TRAFFIC OR DEVELOPMENT IMPACT FEES
Traffic or Development Impact Fees have been generally well received in other states and municipalities in the United States and have gained in popularity in Texas in recent years. New developments create increased traffic volume on the streets around them, and development impact fees are a way of attempting to place a portion of the burden of funding improvements on developers who are creating or adding to the need for improvements. In the AAMPO study area, the Cities of Cibolo, New Braunfels, Schertz, and Seguin have Development Impact Fees.

TAX INCREMENT REINVESTMENT ZONE (TIRZ)
One of the tools many states use to obtain funds not provided by federal and state funding is through a Tax Increment Financing Zone (TIFZ), which is a public financing method used for redevelopment and community improvement projects. A tax increment reinvestment zone (TIRZ) is a political subdivision of a municipality or county in the state of Texas created to implement tax increment financing. They may be initiated by the city or county or by petition of owners whose total holdings in the zone consist of a majority of the appraised property value. For the existing tax-collecting entities (cities, counties, water districts, etc.) the assessed values of properties within the new TIRZ are frozen. It is assumed that property values will increase over the lifetime of the TIRZ; the property taxes collected on this increase constitute the "increment". A TIRZ may not simply be created without justification. In its current state, the area must have a deleterious effect on the economic future of the creating body. To be eligible for funding, the project sponsor must be able to show that the project offsets the deleterious effect. Communities with Tax Reinvestment Zones include Converse, Live Oak, Schertz, Selma, New Braunfels, San Antonio, and Schertz.

ECONOMIC DEVELOPMENT CORPORATION
The Development Corporation Act of 1979 gives cities the ability to finance new and expanded business enterprises in their local communities through economic development corporations (EDCs). Chapters 501, 504, and 505 of the Local Government Code outline the characteristics of Type A and Type B EDCs, authorize cities to adopt a sales tax to fund the corporations and define projects EDCs are allowed to undertake. Cibolo, New Braunfels, San Antonio, Schertz, and Seguin all have Economic Development Corporations.

ADVANCED TRANSPORTATION DISTRICT
Legislation authorizing the creation of Advanced Transportation Districts and authorization of a local sales tax for advanced transportation was enacted by the Texas Legislature during the 76th session in 1999. Advanced transportation as defined in the legislation includes light rail, commuter rail, fixed guideways, traffic management systems, busways, bus lanes, technologically advanced bus transit vehicles and systems, bus rapid transit vehicles and systems, passenger amenities, transit centers, stations, electronic transit-related information, fare, and operating systems, high occupancy vehicle lanes, traffic signal prioritization and coordination systems, monitoring systems, and other advanced transportation facilities, equipment, operations, systems, and services, including planning, feasibility studies, operations, and professional and other services in connection with such facilities, equipment, operations, systems, and services. Locally, VIA ordered an election for November 2, 2004. Voters in San Antonio approved the sales tax increase at the rate of one-fourth of one percent. Half of the revenue
generated from this sales tax is allocated to VIA Metropolitan Transit to fund transit projects, with the remainder equally divided between the City of San Antonio and TxDOT (Bexar County) to fund streets, roads, and interstate projects.

PUBLIC-PRIVATE PARTNERSHIPS IN TEXAS
A Public-Private Partnership (P3) is a contractual agreement between a public agency (federal, state, or local) and a private entity for a long-term, performance-based approach to procuring public infrastructure. The private entity assumes the major share of the risk in terms of financing, constructing, and the performance of the project in return for the right to collect revenue from the project over a set period of time. In Texas, the program was used effectively to expand transportation infrastructure such as the Dallas LBJ Expressway and the North Tarrant Express toll roads. Recent referenda, passed by the Texas Legislature and affirmed by the public, restrict the use of certain public funds for free highways (limiting the options for P3s across the state). P3 projects can still be pursued through individual legislative bills on a one-off basis, provided they are politically and economically viable.

POTENTIAL STATE FUNDING SOURCES
The State of Texas maintains categorized funding programs that coincide with Federal funding programs. Traditionally this funding is used to match federal sources and to fund the operations of the state Department of Transportation. The primary funding source for the Texas state program comes from motor fuels taxes allocations, motor vehicle registration fees, severance taxes allocations, and many other revenue sources and fees, including voter approved constitutional amendments Proposition 1 and Proposition 7, which redirect funding from the general fund to be spent on transportation projects. Categories 1-9 of the Texas Unified Transportation Program (UTP) are federal and state programmatic funding categories, while categories 10, 11, and 12 are strategic and discretionary funding categories. TxDOT’s 2021 UTP provides the following definitions and criteria for each funding category.

CATEGORY 1: PREVENTATIVE MAINTENANCE AND REHABILITATION
Category 1 deals with preventative maintenance and rehabilitation of the existing highway system, which includes pavement, signs, traffic signalization, and other assets that can be considered part of the highway infrastructure. Preventative maintenance works to preserve, rather than improve the structural integrity of current pavements and structures. Rehabilitation focuses on repairing (which can also be considered modernizing) existing main lanes, structures, frontage roads, and other infrastructure assets. Projects are selected by TxDOT districts using a performance-based prioritization process that assesses district-wide maintenance and rehabilitation needs. The Texas Transportation Commission allocates funds through a formula allocation program.

CATEGORY 2: METROPOLITAN AND URBAN AREA CORRIDOR PROJECTS
Category 2 addresses mobility and added capacity projects on urban corridors to mitigate traffic congestion, as well as increasing traffic safety and improving roadway maintenance or rehabilitation. Projects must be located on the state highway system. Roadway widening (both freeway and non-freeway), interchange improvements, and roadway operational improvements are common within Category 2. Projects are selected by MPOs in consultation with TxDOT using a performance-based prioritization process that assesses mobility needs within the MPO boundaries. Project funds must be authorized by the Texas Transportation Commission by formula.
CATEGORY 3: NON-TRADITIONALLY FUNDED TRANSPORTATION PROJECTS
This category includes transportation-related projects that qualify for funding from sources not traditionally part of the state highway fund, including state bond financing under programs such as Proposition 12 (General Obligation Bonds), Texas Mobility Fund, pass-through toll financing, unique federal funding, regional toll revenue, and local participation funding. New-location roadways, roadway widening, and interchange improvements are common project types that receive Category 3 funds. Projects are determined by legislation, Texas Transportation Commission approved Minute Order, or local government commitments.

CATEGORY 4: STATEWIDE CONNECTIVITY CORRIDOR PROJECTS
Category 4 funds are used for mobility and added-capacity projects on major state highway system corridors that provide statewide connectivity between urban areas and other statewide corridors, to create a highway connectivity network composed of the Texas Highway Trunk System, NHS, National Freight Network, hurricane evacuation routes, and connections to major ports of entry on international borders and Texas water ports. Corridors are selected by the Texas Transportation Commission based on engineering analyses of three corridor types: mobility, connectivity, and strategic. Funds are allocated by the Commission to TxDOT districts. Districts select projects along approved corridors in consultation with MPO’s, the Transportation Planning and Programming Division (TPP), and TxDOT Administration using a performance-based evaluation.

CATEGORY 5: CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ)
Congestion Mitigation and Air Quality improvement projects address attainment of a national ambient air quality standard in non-attainment areas of the state. Projects that reduce pollutant emissions and help address the non-attainment status may also be eligible for CMAQ funds. Projects are selected by MPOs in consultation with TxDOT. The Texas Transportation Commission allocates funds distributed by population and weighted by air quality severity to non-attainment areas. Nonattainment areas are designated by the EPA. To be eligible for CMAQ funds, projects must meet the following three criteria: be a transportation project; contribute to emission reductions; and be located in or benefit a nonattainment or maintenance area for ozone, carbon monoxide, and particulate matter. The AAMPO area is currently a non-attainment area for ozone and is eligible for CMAQ funds.

CATEGORY 6: STRUCTURES REPLACEMENT AND REHABILITATION (BRIDGE)
Category 6 funds are used for replacement and rehabilitation of deficient existing bridges located on public highways, roads, and streets in the state; construction of grade separations at existing highway and railroad grade crossings; and rehabilitation of deficient railroad underpasses on the state highway system. Projects are selected by the Bridge Division (BRG) based on a listing of eligible bridges prioritized first by deficiency categorization (structurally deficient followed by functionally obsolete) and then by sufficiency ratings. Railroad grade separation projects are selected based on a cost-benefit index rating. Projects in the Bridge Management and Improvement Program (BMIP) are selected statewide based on identified bridge maintenance and improvement needs to aid in ensuring the management and safety of the state’s bridge assets. The Texas Transportation Commission allocates funds through the Statewide Allocation Program.

CATEGORY 7: METROPOLITAN MOBILITY AND REHABILITATION
Category 7 funds are available to projects that address transportation needs within the boundaries of designated metropolitan planning areas of metropolitan planning organizations located in a
transportation management area (areas with populations of 200,000 or more). Projects are selected by MPOs, such as AAMPO, operating in transportation management areas, in consultation with TxDOT. The MPOs use a performance-based prioritization process that assesses mobility needs within the MPO boundaries.

CATEGORY 8: SAFETY
Projects eligible for Category 8 funding include safety-related projects both on and off the state highway system including the federal Highway Safety Improvement Program, Safety Bond Program, Systemic Widening Program, Federal Railway Set-Aside, and Road to Zero (RTZ). Projects are selected statewide by federally mandated safety indices and a prioritized listing. Projects selected in each program are evaluated by relevant safety or railroad factors and indices. The Texas Transportation Commission allocates funds through the Statewide Allocation Program. TxDOT initiated the Road to Zero program to work toward the goal of reducing the number of deaths on Texas roadways by half by the year 2035 and to zero by the year 2050. TxDOT has allocated $600 million to Road to Zero projects in Category 8 funding with $120 million focused on intersection improvements.

CATEGORY 9: TRANSPORTATION ALTERNATIVES SET-ASIDE PROGRAM
Category 9 is designed to provide funding for transportation-related activities that promote the use of modes other than the automobile such as on- and off-road pedestrian and bicycle facilities, and infrastructure projects for improving access to public transportation. For urbanized areas with populations over 200,000, the MPO selects TA projects through a competitive process in consultation with TxDOT. All projects are selected using a performance-based prioritization process that assesses local transportation needs, including bicycle and pedestrian access.

CATEGORY 10: SUPPLEMENTAL TRANSPORTATION PROGRAMS
Category 10 can fund transportation-related projects that do not qualify for funding in other categories, including landscape and aesthetic improvement, erosion control and environmental mitigation, construction and rehabilitation of roadways within or adjacent to state parks, fish hatcheries, and similar facilities, replacement of railroad crossing surfaces, maintenance of railroad signals, construction or replacement of curb ramps for accessibility to pedestrians with disabilities, and miscellaneous federal programs.

CATEGORY 11: DISTRICT DISCRETIONARY
Category 11 includes projects eligible for federal or state funding selected at the TXDOT District Engineer’s discretion. Additionally, Category 11 addresses transportation needs that may impact the Energy Sector and Border Infrastructure (Rider 11(b)). Projects are selected by districts. The Texas Transportation Commission allocates funds through a formula allocation program. A minimum $2.5 million allocation goes to each district per legislative mandate. The Commission may supplement the funds allocated to individual districts on a case-by-case basis to cover project cost overruns, as well as energy sector initiatives. Rider 11 (b) projects are also selected by the Commission dependent on the number of land border ports of entry, incoming commercial freight traffic, incoming personal motor vehicles and buses, and the weight of incoming cargo by commercial trucks.

CATEGORY 12: STRATEGIC PRIORITY
Category 12 is intended to fund projects with specific importance to the state, including those that generally improve congestion and connectivity, energy sector access, and border and port connectivity,
promote economic opportunity, increase efficiency on military deployment routes or retain military assets in response to the federal military base realignment and closure reports, and maintain the ability to respond to both manmade and natural emergencies. The Texas Transportation Commission selects projects statewide using a performance-based prioritization process.

**POTENTIAL FEDERAL FUNDING SOURCES**

In late 2015, the federal government enacted the Fixing America’s Surface Transportation Act (FAST Act), which provides funds for surface transportation activities. The FAST Act provided just over $300 billion dollars for surface transportation projects through the fiscal years of 2016 to 2020. The FAST Act builds upon the Moving Ahead for Progress in the 21st Century Act (MAP-21), which was enacted in 2012, by expanding its scope to include improving highway mobility, supporting economic growth by creating jobs, and accelerating project delivery and promoting innovation. MAP-21 set out to make surface transportation projects streamlined, performance based, and multimodal, while improving safety, maintaining infrastructure, reducing traffic congestion, improving efficiency, protecting the environment, and expediting project delivery.

**NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)**

Every year, the FAST Act provides a little over $23 billion for the NHPP to preserve the condition and performance of the National Highway System (NHS). NHPP funds can also be used to construct new NHS facilities and ensure that projects are making progress toward performance goals set out in each state’s asset management plan. NHPP provides funding for improvements to rural and urban roads that are part of the NHS, including the Interstate System and designated connections to major intermodal terminals. Under certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors. NHPP funds are distributed under Categories 1, 4, and 12 of TxDOT funding.

**SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM**

Previously titled the Surface Transportation Program (STP) The STBG is a block grant funding program with subcategories for states and urban areas. STBG funding may be used for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge, and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. These funds can be used for any road, including an NHS roadway, that is not functionally classified as a local road or rural minor collector. The state portion can be used on roads within (or outside) an urbanized area, while the urban portion can only be used on roads within an urbanized area. The funding ratio is 80/20 (federal/local). For urban areas with a population of greater than 200,000 people (such as the AAMPO area), the MPO is the lead agency for funding allocation in consultation with the State. In urban areas with a population of less than 200,000 people, the State is the leading agency for fund allocation in consultation with the MPO. STBG funds are distributed under Categories 2 and 7 of TxDOT funding.

**HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)**

The purpose of the HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. States are required to allocate HSIP using a safety data system to perform problem identification and countermeasure analysis on all public roads, adopt strategic and performance-based goals, advance data collection, analysis, and integration capabilities, determine priorities for the correction of identified safety problems, and establish evaluation procedures. HSIP funds are distributed under Category 8 of TxDOT funding.
FTA FUNDING PROGRAMS
Several FTA grant programs could potentially provide funding for public transportation service improvements, facilities or equipment. These include:

- **Section 5307 - Urbanized Area Formula Grants**: Makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more.

- **Section 5339 - Grants for Buses and Bus Facilities**: Provides funding to states and transit agencies through a statutory formula to replace, rehabilitate and purchase buses and related equipment, and to construct bus-related facilities.

- **Section 5310 - Enhanced Mobility of Seniors and Individuals with Disabilities**: Formula funding to states for the purpose of assisting private nonprofit groups in meeting transportation needs of the elderly and persons with disabilities.

- **Section 5311 – The Formula Grants for Rural Areas Program**: Formula funding to states for the purpose of providing capital, planning, and operating assistance for public transportation providers in rural areas with populations of less than 50,000. Additionally, the program provides funding for training and technical assistance under the Rural Transportation Assistance Program.

TRANSPORTATION ALTERNATIVES (TA) PROGRAM
The FAST Act replaced the MAP-21 Transportation Alternatives (TA) Program with a set-aside of STBG program funding for Transportation Alternatives (TA) to provide funding for a variety of alternative transportation projects that were previously eligible activities. Eligible activities include:

- Facilities for pedestrians, bicyclists, and other non-motorized forms of transportation
- Safe routes for non-drivers
- Conversion and use of abandoned railroad corridors for trails
- Community improvement activities

States and MPOs (for urbanized areas with more than 200,000 people) conduct a competitive application process for use of the sub-allocated funds. Other than a recreational trails set-aside, states are given broad flexibility to use these funds. A 20% local funding match is required for most projects. TA funds are distributed under Category 9 of TxDOT funding.

CONGESTION MITIGATION AND AIR QUALITY (CMAQ)
Urban areas that do not meet ambient air quality standards are designated as non-attainment areas by the U.S. Environmental Protection Agency (EPA). CMAQ funds are apportioned to those urban areas for use on projects that contribute to the reduction of mobile source air pollution through reducing vehicle miles traveled, fuel consumption, or other identifiable factors. Both roadway and transit projects are
eligible for CMAQ funds. Funds available to Texas are distributed to eligible MPOs by TxDOT under Category 5 funding.

**REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE) GRANTS**
The U.S. Department of Transportation (USDOT) published a Notice of Funding Opportunity for $1 billion in Fiscal Year (FY) 2021 discretionary grant funding through the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants. RAISE, formerly known as BUILD and TIGER, has awarded over $8.935 billion in grants to projects in all 50 states, the District of Columbia and Puerto Rico since 2009. Projects for RAISE funding are evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, USDOT will prioritize projects that can demonstrate improvements to racial equity, reduce impacts of climate change, and create good-paying jobs. For FY 2021 of RAISE grants, the maximum grant award is $25 million, and no more than $100 million can be awarded to a single State, as specified in the appropriations act. Up to $30 million will be awarded to planning grants, including at least $10 million to Areas of Persistent Poverty. To ensure that the benefits of infrastructure investments benefit communities large and small the Department will award an equitable amount, not to exceed half of funding, to projects located in urban and rural areas, respectively.

**INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA) GRANT PROGRAM**
The U.S. Department of Transportation (USDOT) provides the Infrastructure for Rebuilding America (INFRA) discretionary grant program to fund transportation projects of national and regional significance that are in line with the Biden Administration’s principles for national infrastructure projects that result in good-paying jobs, improve safety, apply transformative technology, and explicitly address climate change and racial equity. The funding available for FY 2021 grants totaled approximately $889 million. USDOT seeks projects that apply innovative technology, delivery, or financing methods with proven outcomes to deliver projects in a cost-effective manner. Eligible INFRA project costs may include reconstruction, rehabilitation, acquisition of property (including land related to the project and improvements to the land), environmental mitigation, construction contingencies, equipment acquisition, and operational improvements directly related to system performance.

**TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA) PROGRAM**
The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments. TIFIA can help advance qualified large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Transportation Projects eligible for federal assistance through existing transportation programs are eligible for the TIFIA credit program. Eligible projects must be included in the State Transportation Improvement Program (STIP) and have a capital cost of at least $50 million, except ITS projects which have a $15 million eligibility requirement. TIFIA financing should attract public and private investment; result in a project proceeding earlier and/or more efficiently; and reduce use of federal grant assistance to the project.

**RAILROAD REHABILITATION AND IMPROVEMENT FINANCING (RRIF) PROGRAM**
The Railroad Rehabilitation and Improvement Financing (RRIF) Program authorizes the Federal Railroad Administration (FRA) Administrator to provide direct loans and loan guarantees for projects that
acquire, improve, rehabilitate or build intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, and shops. Up to $35 billion per year of financing is available, with at least $7 billion reserved for projects not on Class I railroads. Since 2002, 39 loan agreements totaling $6.2 billion have been executed (with an average of $159 million per agreement). Financing can be provided for up to 100% of project costs with repayment periods of up to 35 years. Recipients benefit from interest rates that are equal to the cost of borrowing to the government. The FAST Act also authorized the USDOT to enter into Master Credit Agreements. These agreements include one or more loans to be made in the future on a program of related projects. State and local governments; government-sponsored authorities and corporations, and railroads are all eligible to borrow under RRIF.

POTENTIAL NON-GOVERNMENTAL FUNDING SOURCES
Numerous non-governmental organizations also provide funding for grants to achieve specific goals in transportation development. The list below is not exhaustive but provides a sampling of the private grant programs available.

RAILS TO TRAILS CONSERVANCY
Through their Trail Grants Program, Rails-to-Trails Conservancy (RTC) emphasizes strategic investments that support significant regional and community trail development goals. Many of their funded projects are small in scope and scale and can be hard to finance within traditional funding streams. These projects help build, maintain and manage trails for recreation, transportation and economic vitality.

AARP COMMUNITY CHALLENGE GRANT PROGRAM
The AARP Community Challenge provides small grants to fund "quick-action" projects that can help communities become more livable for people of all ages. Applications have been accepted for projects to improve housing, transportation, public space, technology ("smart cities"), and civic engagement to keep communities safe and healthy. Grants can range from several hundred dollars for smaller, short-term activities to tens of thousands of dollars for larger projects. Grant recipients are selected by an AARP panel of experts on aging, community development, and livable communities. Projects are judged on the degree to which their goals make an immediate change that leads to longer-term impact in a manner that meets all other selection criteria.

BLUE CROSS BLUE SHIELD GRANT PROGRAM
For more than ninety years, Blue Cross and Blue Shield of Texas (BCBSTX) has formed alliances with private and public organizations to improve the health of all Texans. Their charitable contributions allow them to connect with community partners, local leaders, and policymakers interested in making Texas a healthier state. Each year, BCBSTX supports more than 300 Texas organizations through grants such as the Healthy Kids, Healthy Family Grants that support physical activity and safe environments.

CIGNA GRANT PROGRAMS
Established more than fifty years ago, the Cigna Foundation has provided charitable grants to nonprofit organizations whose work enhances the health of individuals and families and the well-being of communities. Their Healthier Kids for Our Future Grants are designed to improve the health and well-being of children.
ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation’s Pioneering Ideas: Exploring the Future to Build a Culture of Health provides grant to influence health and health equity in a variety of ways including transportation. They are interested in projects like active transportation that offer unique approaches to advancing health equity and make progress toward a culture of health.
Appendix M

Multi-Jurisdiction Implementation for Active Transportation Projects Memo
MEMORANDUM

December 20, 2021

To: Elizabeth High, GISP

From: G. Wade Walker, PE, Hon. ASLA; Scott Curry; Riva Heinrich

RE: AAMPO Subregional Planning Study: Multi-Jurisdiction Implementation for Active Transportation Projects

Introduction

As the Alamo Area Metropolitan Planning Organization (Alamo Area MPO or AAMPO) Subregional Planning Study included several cities as well as unincorporated areas, the Study yielded several projects that crossed multiple jurisdictional boundaries. AAMPO has not traditionally played a significant role in administering or advancing these type of large-scale active transportation projects, so this facet of the Plan looks at the challenges that AAMPO may have with current processes, investigates a sampling of peer regional agencies to understand how they advance multi-jurisdictional active transportation projects, and provides an overview of some of the nuances associated with funding for large scale active transportation projects that cross jurisdictional boundaries.

AAMPO Issues and Challenges

Rapid growth in the greater San Antonio region has created pressure for more collaboration in regional planning and more/faster delivery of pedestrian and bicycle infrastructure. The Alamo Area MPO serves this 4-county region (Bexar, Guadalupe, Comal, and (a portion of) Kendall Counties), and as the federally designated metropolitan planning organization, AAMPO is positioned to play a key role in encouraging alignment of active transportation planning and project delivery across the region.

An interview with AAMPO staff (October 27, 2021) revealed several key issues and challenges that AAMPO currently faces when it comes to managing multi-jurisdictional active transportation projects.

- **A need to cultivate more regionalism.** Individual municipalities have unique, sometimes competing, goals and priorities. Large institutions and stakeholders (like the U.S. Military, major employers, and large landowners) also have a significant presence in the region, generating their own transportation needs and challenges. A key goal, and an ongoing challenge, for AAMPO will be encouraging individual municipalities and stakeholders to act as a region.
• **Lack of consistency in active transportation plans and guidelines.** AAMPO serves a wide variety of member jurisdictions, from a major urban center, to growing suburbs, to smaller towns, to rural areas. That jurisdictional breadth results in a lack of consistency among member jurisdictions in terms of active transportation plans and guidelines. This can impact everything from trail/bikeway design to where bike racks are located. Complete uniformity across the entire AAMPO area is not a prerequisite for success; however, some level of consistency and coordination in treatments, wayfinding, and approach is necessary for active transportation projects that cross jurisdictional boundaries.

• **Staff capacity.** The wide variety of member jurisdictions also mean there are sometime large discrepancies in staff resources dedicated to transportation planning and project management at different jurisdictions. Many jurisdictions are equipped with staff to sponsor and manage active transportation projects with little support from AAMPO. Others are not.

• **Rapid growth.** Like other rapidly growing large metro areas, there is increasing demand in greater San Antonio for regional active transportation networks as a critical tool for supporting and managing growth by providing alternative transportation choices and preserving quality of life for residents (new and old). In growing regions, incrementalism can be an incredibly valuable and productive tool for achieving connected ped/bike networks, but it requires someone collaborating across municipal boundaries to ensure that incremental growth in different places adds up to a connected network. It also requires land development parameters that ensure new growth provides appropriate active transportation choices.

The Peer Agency Interviews and Best Practices that follow contain lessons from across the country that may be usefully applied to the Alamo Area MPO. These profiles include best practices that can equip AAMPO staff to more effectively manage multi-jurisdictional active transportation projects.

**Peer Agency Interviews and Best Practices**

Three peer organizations were interviewed to identify common best practices, lessons learned, and anticipatory constraints AAMPO should consider while planning and executing projects at this scale. The following peer agencies were interviewed for this purpose:

• Atlanta Regional Commission (ARC)
• Charlotte Regional Transportation Planning Organization (CRTPO)
• Denver Regional Council of Governments (DRCOG)

These interviews asked an informal series of open-ended questions to yield candid and informative answers. The questions asked are listed below:
- Do you have a Ped/Bike Workgroup? How does it work? What would you do differently?
- What is your experience managing multi-jurisdictional studies?
- What role does your agency play?
- Have you seen other peer agencies complete plans that you would like to model?
- Has there ever been any role for private entities funding active transportation projects across jurisdictions?

ATLANTA REGIONAL COMMISSION (ARC)

ARC serves as the MPO for the Atlanta region, as well as the regional commission with multiple responsibilities in addition to transportation planning. The ARC hosts a number of regional committees and sub-committees that help coordinate regional active transportation planning and implementation. These committees include the Regional Safety Task Force, Regional Trail Round Table, the Livable Centers Initiative, and the former Bike/Ped Advisory Committee. The Regional Trails Roundtable focuses primarily on the connectivity and regional coordination of trail planning and is responsible for the 2020 Regional Trail Update. The update introduced the cross-sectoral idea of trail junctions-areas that need added coordination and multi-jurisdictional collaboration.

The commission has recently taken over procurement for the Chattahoochee River Lands trail plan, a collaborative effort between Cobb County and the Trust for Public Lands. ARC serves as the official project management arm for the planning and feasibility study because of the regional scale of the project. ARC was also the grantee of record on portions of the Atlanta Beltline, working to administer funds and coordinate with surrounding agencies.

There are currently 20 counties within the ARC member region, with only a few projects funded across the entire region. The commission works to advise small municipalities on funding and planning, while facilitating relationships across municipalities. The main role for the agency is to administer the Transportation Improvement Program (TIP) and create the Comprehensive Transportation Plan for funding local projects.

In terms of aspirational and ongoing plans, the ARC has a corridor study program to encourage regionalism and collaboration across jurisdictions, supporting its members to conduct feasibility studies and scope projects. The commission cited the Dallas-Fort Worth MPO and the North Central Texas Council of Governments (NCTCOG) as organizations with innovative approaches to funding and managing active Transportation projects. One item the commission liked from NCTCOG was the swapping of federal for state toll funds to allow for flexibility in spending.
ARC also noted the role of community improvement districts (CIDs) and non-governmental organizations (NGO) to raise private funds in support of multi-jurisdictional active transportation projects. While CIDs are funded through self-imposed taxes/assessments on the business/commercial entities within the districts, CIDs can also solicit private funds to assist with projects in ways that local governments typically can’t. The PATH Foundation was mentioned as a NGO founded to build multi-use paths via fundraising. Developers will also occasionally participate in a project and assist with filling a gap in a trail system.

Key Takeaways

- MPOs often take on the primary role of collaboration, facilitation, and relationship building between its jurisdictional municipalities. ARC plays host to a range of committees and subcommittees where final planning documents and suggestions are vetted for the entire region.
- ARC has the ability to work as the project management arm for regional projects because of its position as an agency. This allows the commission to work across sectors (public and private) and multi-dimensionally with differing right-of-way (ROW) owning entities.
- The commission can work primarily in an advisory role and may not see many projects traverse across the region. Being nimble in the changing scale of projects is key.

CHARLOTTE REGIONAL TRANSPORTATION PLANNING ORGANIZATION (CRTPO)

The Charlotte Regional Transportation Planning Organization (CRTPO) is the federally designated MPO for the Charlotte, NC Urbanized Area. The CRTPO planning area covers three counties (Mecklenburg, Iredell, and a portion of Union County) and includes 24 separate municipal jurisdictions. The City of Charlotte is the 16th largest city in the country, and one of the fastest growing large cities in the country (US. Census Bureau. 2020). Like many fast-growing large cities, the Charlotte region is in the midst of several mobility planning efforts with a focus on expanding active transportation and public transit choices. CRTPO is leading several of those efforts (including the Beyond 77 Corridor Study and The Seam Trail Advancement Study) and supporting others (CONNECT Beyond Regional Mobility Initiative and the Great Trails State Plan).

CRTPO facilitates a Ped/Bike Workgroup which includes the Pedestrian Focus Area representative and the Bicycle Focus Area representative from their Technical Coordination Committee, as well as staff reps from member jurisdictions. The Ped/Bike Workgroup serves as an information clearinghouse for funding availability, a venue for
conversation about project scoring methodology for ped/bike funding, and a place for staff from different jurisdictions to collaborate and develop a healthy working rapport.

In 2018/2019 CRTPO launched a program that combined all of the discretionary funding streams into one call for projects and one evaluation process. This reduced multiple calls for projects and redundant evaluations for projects under different, but similar, funding streams. It is a less confusing, more user-friendly process for member jurisdictions. CRTPO has also set a minimum target of 20% of discretionary funding to be allocated to active transportation.

CRTPO staff has found that coordination across MPO boundaries can be especially challenging, particularly when there’s a perception of an MPO over a major metro area “dictating” to the four adjacent smaller MPOs and the Centralina Regional Council, which is the organization dedicated to addressing regional issues and opportunities for the nine urban and rural counties in the region.

Key Takeaways

- MPOs can play a key role in encouraging regional collaboration on multi-jurisdictional active transportation efforts by convening a Ped/Bike Workgroup comprised of capital planning staff from member jurisdictions. With regular meetings and effective facilitation, a regional Ped/Bike Workgroup can become a key venue for interagency collaboration in developing projects with scope/schedule/limit parameters that are coordinated across jurisdictional boundaries. Even if specific project limits are constrained within the boundaries of a single “sponsoring jurisdiction,” Ped/Bike Workgroups can help member jurisdictions to “act as a region” and link active transportation project development across boundaries.

- Instead of issuing multiple calls for funding throughout the year, each with different applicability, evaluation criteria, and application processes, MPOs can help streamline funding cycles for active transportation (and other) projects by issuing a combined call for funding once a year. This is especially helpful for smaller cities and towns. Smaller jurisdictions typically have staff resources which are too limited to track multiple calls for funding with separate application procedures and evaluation processes. Smaller jurisdictions also often have higher turnover among DOT and capital planning staff, meaning there is an ongoing learning curve for new municipal staff to understand funding availability/applicability. For these reasons, a combined call for funding applications, with consistent application and evaluation procedures, issued on an annual basis, provides a more accessible, intuitive, and equitable way for member jurisdictions to apply for active transportation (and other) funds.

- Effective MPOs understand that different member jurisdictions have different priorities, staff resources, and political climates. Helping member jurisdictions to
recognize and balance competing priorities is one of the most important roles for MPO staff. This is especially true in metropolitan planning areas that are dominated by one large city where there can be a perception of that city “dictating” to smaller jurisdictions or to other adjacent MPOs. As a CRPTO staff member put it, “We don’t necessarily need uniformity, we just need to respect the priorities of the member jurisdictions and put forth recommendations that work for everyone.”

- Focus discretionary funding on active transportation. In North Carolina, the State General Assembly has adopted a funding formula for distributing transportation funds that severely limits the resources available for implementing ped/bike projects. In response, CRTPO has set a target of allocating a minimum of 20% of their discretionary funding sources to active transportation, and there has been some conversation about increasing that target.

**DENVER REGIONAL COUNCIL OF GOVERNMENTS (DRCOG)**

The Denver Regional Council of Governments (DRCOG) covers a 10-county region with 59 member governments. DRCOG combines several functions that, in other metro areas, are sometimes split into distinct organizations. In addition to serving as the MPO for the region, DRCOG also functions as the Regional Planning Commission and the federally-designated Area Agency on Aging. DRCOG covers a wide variety of communities, from large cities (like Denver, Aurora, Lakewood, and Boulder) to small towns.

The council has worked to identify priority corridors for active transportation projects, deemed, “Active Transportation Corridors.” These corridors may be in concert with Bus Rapid Transit (BRT), or other transit planning, and identifying the cost-benefit of funding and implementation. They also identify “Short Trip Opportunity Zones” as a planning tool, where the average trip length is set at 1.7 miles. Both of these endeavors are examples of how the council works across the entire region.

DRCOG works to coordinate project alignments across the region when planning, an activity which includes data sharing and management for all localities in their jurisdiction. This is especially needed for the management of shared e-scooters and e-bikes. These groups are significant due to the challenges that are presented with shared e-vehicle systems across multiple jurisdictions. The agency also cited relationship and trust building as integral to their overall processes, coupled with technical planning support for member government employees.

A micromobility working group was formed to develop regional policy around micromobility and shared mobility in the region. Other working groups work on community mobility planning and implementation, including a TIP Set-Aside that forms into a small-scale funding program for planning or design work. The council also facilitates a regional Travel Demand Modeling (TDM) Program with quarterly outreach meetings and monthly
engagement. Active transportation projects are also awarded additional points in the DRCOG TIP process for coordinating across municipal boundaries. Aspirational programs for other MPOs include the US Bike Route System for long distance bicycle transportation/tourism.

**Key Takeaways**

- Having coordinated systems in place for collaboration and unified set of standards can assist with managing the scale of cross-jurisdictional projects.
- Hosting multiple working groups that address the poignant problems at the regional level is essential to the planning process.
- Data and information sharing is a large part of managing project alignments when they operate regionally.

**Project Funding Opportunities and Considerations**

Funding for active transportation projects can take a myriad of forms, and with the new Infrastructure Investment and Jobs Act (IIJA) passed in November 2021, there are new avenues and criteria for active transportation projects to be funded. Table 1 lists potential federal funding avenues that would be applicable for active transportation projects; some of these are typical funding sources that would channel through the state and could be used for general work program projects that would be included in a five-year work program. Others, such as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) and Federal Lands Access Program (FLAP) programs are discretionary grant programs that have been historically used to advance larger scale active transportation projects and would be particularly attractive for projects that passed through multiple jurisdictions. Some key items to note when considering these grant programs are listed below:

- RAISE and FLAP grants are highly competitive but very attractive for large scale active transportation projects. An example of a multi-jurisdictional project funded through TIGER (the former name of the RAISE program) is Big River Crossing, a series of trails in Memphis, TN and Crittenden County, AR that included a pedestrian and bike path on the Harahan Bridge across the Mississippi River;
- As with most federal funding opportunities these grant programs require a 20% local match;
- Key to the competitiveness of a potential project is the ability of that project to offer return on economic investment in terms of job creation (short and long term). However, active transportation projects can show health benefits which, when quantified into health benefits, can factor into the benefit/cost ration (BCR);
- In addition to economic metrics related to return on investment, the rounds of RAISE grants (which were formerly TIGER and BUILD) introduced evaluation metrics for a project’s contribution toward reduction in greenhouse gasses and positive impacts on equity (focusing on racial equity). Active transportation projects are very competitive with these metrics;
- These grant programs are also favorable to projects that touch multiple jurisdictions, so commitments from all jurisdictions in the form of letters of support up to match funding contributions will score favorably; and finally,
- As with all federal grants, evaluation criteria can change from cycle to cycle so make sure to read the Notice of Funding Opportunity (NOFO) in detail when it becomes available.

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<th>Source</th>
<th>Eligibility/Requirements/Purpose</th>
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| TRANSPORTATION ALTERNATIVES                | • Funds may be used for a variety of pedestrian, bicycle, and streetscape projects including sidewalks, bikeways, side paths, and rail-trails.  
• TA funds may also be used for selected education and encouragement programming such as Safe Routes to School |
| SURFACE TRANSPORTATION BLOCK GRANT PROGRAM | • Provides states with flexible funds which may be used for a variety of highway, road, bridge, and transit projects.  
• Eligible projects include including trails, sidewalks, crosswalks, pedestrian signals, and ADA upgrades to sidewalks.  
• Unlike most highway projects, STP-funded pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. |
| CONGESTION MITIGATION/AIR QUALITY PROGRAM   | • Funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions  
• Can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Purely recreational facilities generally are not eligible. |
| SAFE ROUTES TO SCHOOL (SRTS) PROGRAM       | • Eligible SRTS projects include sidewalks or a shared-use path. However, intersection improvements (i.e., signalization, marking/upgrading crosswalks, etc.), on street bicycle facilities (bike lanes, wide paved shoulders, etc.), or off street shared-use paths. |
| RAISE TRANSPORTATION DISCRETIONARY GRANT PROGRAM | • Previously known as BUILD or TIGER grants  
• Requires 20% match  
• Larger awards possible (in the tens of millions) for large scale projects, highly competitive  
• Typically, the Notice of Funding Opportunity (NOFO) is issued each spring and awards are issued in the late fall of each calendar year |
| FEDERAL LANDS ACCESSIBILITY PROGRAM (FLAP)  | • Projects that connect to federal lands (national parks, monuments, historic sites) are eligible  
• Awards typically less than $10 million  
• Each state administers on their own schedule – typically offered every 3 years |
| ACTIVE TRANSPORTATION INFRASTRUCTURE INVESTMENT PROGRAM | • New program dedicated to construction of safe and connected active transportation facilities  
• Funds projects that provide substantial walking and biking support, have community support, advance safety, and keep equity front and center |
In addition to federal funding, many active transportation projects around the country are being funded in part or in whole by private or non-profit entities. Table 2 shows a sampling of better known sources for this type of funding.

**Table 2** Potential Funding Strategies: Private/Non-Profit

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<th>Source</th>
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<td>THE ROBERT WOOD JOHNSON FOUNDATION</td>
<td>• Largest U.S. foundation devoted to improving the health and health care of all Americans.&lt;br&gt;• Grant making is concentrated in four areas: (1) To ensure that all Americans have access to basic health care at a reasonable cost, (2) To improve care and support for people with chronic health conditions, (3) To promote healthy communities and lifestyles and (4) To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs</td>
</tr>
<tr>
<td>NATIONAL TRAILS FUND</td>
<td>• Eligible projects include: (1) Securing trail lands, including acquisition of trails and trail corridors, and the costs associated with acquiring conservation easements; (2) Building and maintaining trails which will result in visible and substantial ease of access, improved hiker safety, and/or avoidance of environmental damage; and (3) Constituency building surrounding specific trail projects - including volunteer recruitment and support.</td>
</tr>
</tbody>
</table>

In addition to publicly advertised sources such as these, many major corporations and health care entities have grant and funding programs that can be tapped for active transportation projects or for matching funds to apply for federal grants. AAMPO and its member jurisdictions should have conversations with major employers and health care systems in the region to determine availability and interest in assisting with funding for multi-jurisdictional active transportation projects.
Appendix N

Implementation Checklists
**AGENCY COORDINATION CHECKLIST**

- Consider developing Memoranda of Understanding (MOU) or other agreements with TxDOT and adjacent municipalities to facilitate planning, funding, execution, and maintenance.
- Obtain letters of commitment for local match from potential Project Partners.
- Identify potential collaboration opportunities with already-planned projects e.g. including bike lanes in a County re-striping project.

**COLLABORATION WITH DEVELOPERS & INTEREST GROUPS CHECKLIST**

- Project partners review plans for development in vicinity of project.
- Project partners reach out to developers to help fund projects that benefit all residents:
  - Greenways
  - Bike lanes
  - Shared use paths
- Consider implementing policies to encourage mixed use developments and encourage transit-oriented developments.
- Reach out to interest groups like The Great Springs Project to identify opportunities for project collaboration.

**AAMPO STAFF LIASON & CHECK-IN PROGRAM CHECKLIST**

- AAMPO identify staff liaison based on project:
  - Director or Deputy Director: Regionally significant project liaison.
  - Regional Transportation Planner: Roadway extensions, widenings, and intersection projects.
  - Active Transportation Planner: Bike/ped projects.
  - Commute Solutions Planner: Transit or transit adjacent projects.
- AAMPO Staff Liaison check in with Project Champion and Project Advancement Committee regarding project progress at a minimum of once per quarter.

**SPECIAL FUNDING CHECKLIST**

- Identify which projects on the Subregional Planning Study list that may be eligible for Congestion Mitigation and Air Quality Improvement (CMAQ) funding:
  - Bexar County projects:
    - Intersection improvements that reduce idling and congestion.
    - Bike/ped facilities.
    - Capacity-increasing projects that may reduce congestion.
- Identify projects on the Subregional Planning Study list that may be eligible for Surface Transportation Program (STP) funding. Examples include:
  - New roadway construction.
  - Bridge construction.
  - Transit research and development.
  - Intersection Safety Improvements.

**PROJECT ADVANCEMENT COMMITTEES CHECKLIST**

- Establish a committee comprised of representatives from the Project Partners.
- Identify a committee leader who will also be the Project Champion, taking accountability for moving the project planning process forward.
- Include a member of an appropriate AAMPO committee, such as a Technical Advisory Committee (TAC) member for roadway projects and an Active Transportation Advisory Committee (ATAC) member for bike/ped projects.
- Meet regularly to identify appropriate stakeholders, develop project scopes, ensure eligibility for federal funds, and support the completion of future planning studies (as applicable).
- Help to integrate local maintenance plans into the project advancement process to streamline efforts and find ways to maximize limited funding resources.

**ENHANCED FEDERAL FUNDING OPPORTUNITIES CHECKLIST**

- Project partners evaluate project’s eligibility for Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program and other federal discretionary grant opportunities.
- Project Partners monitor Infrastructure Investment and Jobs Act (IIJA) law and potential new project funding programs, including:
  - Safe Streets and Roads for All (Section 24112).
  - Local and Regional Project Assistance (Section 21202).
  - Railroad Crossing Elimination Program (Section 22104).

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*AAMPO Subregional Planning Study // 2022*
Keep Project Implementation Moving!

Project Name: __________________________________________________________

Project County: _________________________________________________________

Project City(ies): _______________________________________________________

Project Partners: ________________________________________________________

Project Champion: _______________________________________________________

AAMPO Staff Liaison: _____________________________________________________

Project Advancement Committee Members: __________________________________

Months 1 - 3

☐ Identify a Project Champion from one of the Project Partners
☐ Identify an AAMPO Staff Liaison
☐ Convene a Project Advancement Committee
☐ Determine goal implementation date/goal Call for Projects
☐ Explore options for preserving ROW that accommodates the proposed improvements

Months 4 - 6

☐ Project Advancement Committee Meeting #2
☐ Develop cost estimates
☐ Identify applicable funding sources
☐ Identify if other funding sources can be obtained (e.g. grants)
☐ Determine how to apply for funding

Months 7 - 9

☐ Project Advancement Committee Meeting #3
☐ Identify likely major environmental and community concerns/right-of-way acquisition/utility relocation/railroad coordination/
☐ Identify stakeholders that may be impacted
☐ Identify local match (if applicable)

Months 10 - 12

☐ Project Advancement Committee Meeting #4
☐ Determine status of funding requests
☐ Project sponsor(s) develop call for projects application
Get the Transit Conversation Started in Your Community

First Year of Planning

Community Name: _________________________________________________________________________________

County(ies): ________________________________________________________________________________________

City(ies): ____________________________________________________________________________________________

Partnering Transit Agency(ies): _____________________________________________________________________

Transit Champion ___________________________________________________________________________________

AAMPO Staff Liaison: ______________________________________________________________________________

Transit Agency Liaison: ______________________________________________________________________________

Transit Advancement Committee Members: ______________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

Months 1 - 3

☐ Identify a Transit Champion, a key stakeholder who will keep the transit conversation going

☐ Identify a partnering transit agency(ies): VIA and/or Alamo Regional Transit

☐ Identify an AAMPO Staff Liaison

☐ Begin planning for public engagement

Months 4 - 6

☐ Convene a Transit Implementation Committee

☐ Determine goal implementation date

☐ Conduct citizen surveys to gauge interest in transit commuter options

☐ Plan and hold first meeting of committee with transit agency

Months 7 - 9

☐ Develop cost estimates

☐ Identify applicable funding sources

☐ Identify if other funding sources can be obtained (e.g. grants)

☐ Determine how to apply for funding

☐ Plan and hold second meeting of committee with transit agency

Months 10 - 12

☐ Plan and hold third meeting of committee with transit agency

☐ Identify next steps required for transit implementation, including public engagement, funding, and policy recommendations
Alamo Area Metropolitan Planning Organization
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