



Summary Comparison of Alternatives Considered

Table S-1

| | No-Build | HOV/TOL | HOV/TOL/TSM | HOV/TOL/BRT | HOV/TOL/ Reduced BRT |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HIGHWAY | | | | | |
| HOV Lanes on I-75 and I-575 | No | Yes | Yes | Yes | Yes |
| Truck-Only Lanes on I-75 | No | Yes | Yes | Yes | Yes |
| TRANSIT | | | | | |
| Transit Service | • Planned services | • Planned services | • Planned services • Expanded local and express | • Planned services • Expanded local and new BRT services | • Planned services • Expanded local and new BRT services |
| MARTA Arts Center Station Expansion | No | No | • New bus bays | • New bus bays | • New bus bays |
| BRT Stations | No | No | No | • Town Center • Marietta • Franklin • Terrell Mill • Cumberland | • Town Center • Marietta • Franklin |
| Transit Centers | • Marietta • Cumberland | • Marietta • Cumberland | • Town Center • Marietta • Franklin • Cumberland | • Marietta | • Marietta • Cumberland |
| Park & Ride Lots (spaces) | • Acworth (262) • Town Center (364) • Johnson Ferry (10) • Marietta (414) • New Cumberland (417) | • Acworth (262) • Town Center (364) • Johnson Ferry (10) • Marietta (371) • Franklin (60) • Cumberland (576) | • Acworth (262) • Town Center (883) • Johnson Ferry (10) • Marietta (287) • Franklin (77) • Terrell Mill (694) • Cumberland (199) • Piedmont (100) • Austell (100) • E-W Connector (242) | • Acworth (262) • Town Center (1,309) • Johnson Ferry (10) • Marietta (23) • Marietta BRT (586) • Franklin (60) • Terrell Mill (181) • Cumberland (328) • Piedmont (100) • Austell (100) • E-W Connector (259) | • Acworth (262) • Town Center (676) • Johnson Ferry (10) • Marietta (287) • Marietta BRT (1,129) • Franklin (60) • Cumberland (247) • Piedmont (100) • Austell (100) • E-W Connector (265) |
| Total Number of Parking Spaces | • 1,467 spaces | • 1,643 spaces | • 2,854 spaces | • 3,218 spaces | • 3,136 spaces |
| Transit Fleet | • Local: 8 artic, 56 std. • Express: 25 artic, 60 std. • Total: 149 | • Local: 8 artic, 56 std. • Express: 25 artic, 52 std. • Total: 141 | • Local: 80 std. • Express: 71 artic, 104 std. • Total: 255 | • Local: 80 std. • Express: 65 artic, 92 std. • Total: 237 | • Local: 72 std. • Express: 37 artic, 112 std. • Total: 221 |
| Vehicle Maintenance Facility | • Existing | • Existing | • Existing • New facility | • Existing • New facility | • Existing • New facility |



Summary of Environmental Impacts

Table S-2

| Impact Area | No Build Alternative | HOV/TOL Alternative | HOV/TOL/TSM Alternative | HOV/TOL/BRT Alternative | HOV/TOL/Reduced BRT |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acquisitions and Displacements | <ul style="list-style-type: none"> No impact | <ul style="list-style-type: none"> 93 full and 197 partial acquisitions, totaling 290 294 residential, 46 business, and one other displacement, totaling 341 | <ul style="list-style-type: none"> 95 full and 195 partial acquisitions, totaling 290 302 residential, 46 business, and one other displacement, totaling 349 | <ul style="list-style-type: none"> 109 full and 195 partial acquisitions, totaling 304 328 residential, 49 business, and one other displacement, totaling 378 | <ul style="list-style-type: none"> 111 full and 190 partial acquisitions, totaling 301 328 residential, 49 business, and one other displacement, totaling 378 |
| Land Use | <ul style="list-style-type: none"> Not fully supportive of ARC planning policies and local plans/policies | <ul style="list-style-type: none"> Supportive of ARC planning policies and local plans/policies | <ul style="list-style-type: none"> Supportive of ARC planning policies and local plans/policies | <ul style="list-style-type: none"> Supportive of ARC planning policies and local plans/policies Potential to encourage station area development | <ul style="list-style-type: none"> Same as HOV/TOL/BRT Alternative |
| Population and Employment | <ul style="list-style-type: none"> No impact | <ul style="list-style-type: none"> Enhanced access and reduced travel times would attract population to the corridor and increase employment | <ul style="list-style-type: none"> Same | <ul style="list-style-type: none"> Enhanced access and reduced travel times would attract population to the corridor and increase employment | <ul style="list-style-type: none"> Enhanced access and reduced travel times would attract population to the corridor and increase employment |
| Economic Impacts | <ul style="list-style-type: none"> Lower capital expenditure than the build alternatives would result in reduced economic benefit in this corridor | <ul style="list-style-type: none"> Construction spending would generate 22,300 person years of employment 99 employee displacements \$5,687,500 reduction in property taxes due to acquisitions Roswell Road Interchange Alignment Option: an additional \$3,500 reduction in property taxes Allgood Flyover Option: an additional \$6,600 reduction in property taxes | <ul style="list-style-type: none"> Construction spending would generate 20,600 person years of employment 99 employee displacements Approximately \$5,687,000 reduction in property taxes due to acquisitions | <ul style="list-style-type: none"> Construction spending would generate 27,700 person years of employment 121 employee displacements \$5,808,000 reduction in property taxes due to acquisitions | <ul style="list-style-type: none"> Construction spending would generate 24,400 person years of employment 121 employee displacements Approximately \$5,645,000 reduction in property taxes due to acquisitions |



Summary of Environmental Impacts

Table S-2 (continued)

| Impact Area | •No Build Alternative | •HOV/TOL Alternative | •HOV/TOL/TSM Alternative | •HOV/TOL/BRT Alternative | •HOV/TOL/Reduced BRT |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Neighborhoods and Community Facilities | •No impact | •Access and circulation would be impacted in six neighborhoods •Community cohesion would be affected in seven neighborhoods | •Same as HOV/TOL Alternative | •Access and circulation would be impacted in six neighborhoods •Community cohesion would be affected in seven neighborhoods •Displacement of the Gospel Light Community Church | •Same as HOV/TOL/BRT Alternative |
| Environmental Justice | •No adverse, disproportionate impacts on low-income, minority, or other special populations •No disproportionate benefits to these populations | •274 displacements in low-income and minority block groups | •282 displacements in low-income and minority block groups | •306 displacement in low-income and minority block groups •Enhanced transit access | •Same as HOV/TOL/BRT Alternative |
| Visual Quality and Aesthetics | •No impact | •Substantial visual changes for neighborhoods adjacent to roadway project | •Similar to HOV/TOL Alternative | •Substantial visual changes for neighborhoods adjacent to roadway project and transit stations | •Similar to HOV/TOL/BRT Alternative |
| Air Quality | •No impact | •Part of approved, conforming TIP •Would not cause or exacerbate violation of NAAQS •Slight increase in NO _x , PM ₁₀ and PM _{2.5} . •Slight reduction in CO and VOC. | •Part of approved, conforming TIP •Would not cause or exacerbate violation of NAAQS •Slight reduction in CO and VOC •Slight increase in PM _{2.5} . | •Part of approved, conforming TIP •Would not cause or exacerbate violation of NAAQS •Slight reduction in CO, VOC, NO _x , and PM ₁₀ •Slight increase in PM _{2.5} . | •Part of approved, conforming TIP •Would not cause or exacerbate violation of NAAQS •Slight reduction in CO and VOC •Slight increase in NO _x , PM ₁₀ and PM _{2.5} . |
| Noise | •No impact | •Road traffic would affect 686 Category B properties and 55 Category C properties •Severe impacts at four residential sites | •Same | •Same | •Same |
| Ecosystems | •No impact | •No adverse effect | •Same | •Same | •Same |



Summary of Environmental Impacts

Table S-2 (continued)

| Impact Area | •No Build Alternative | •HOV/TOL Alternative | •HOV/TOL/TSM Alternative | •HOV/TOL/BRT Alternative | •HOV/TOL/Reduced BRT |
|---------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Water Resources | •No impact | •16,182 linear ft. of surface waterways impacted •4.2 acres of wetlands impacted •52.98 acres of 100-year floodplain impacted | •16,182 linear ft. of surface waterways impacted •4.35 acres of wetlands impacted •52.98 acres of 100-year floodplain impacted | •16,353 linear ft. of surface waterways impacted •4.35 acres of wetlands impacted •53.28 acres of 100-year floodplain impacted | •16,182 linear ft. of surface waterways impacted •4.2 acres of wetlands impacted •53.08 acres of 100-year floodplain impacted |
| Historic and Archaeological Resources | •No impact | •No Impact | •Same | •Same | •Same |
| Parklands and Other Section 4(f) Properties | •No impact | •No Impact | •Same | •Same | •Same |
| Geology and Soils | •No impact | •No Impact | •Same | •Same | •Same |
| Hazardous Materials | •No impact | •22 sites could be affected | •24 sites could be affected | •26 sites could be affected | •24 sites could be affected |
| Safety and Security | •No impact | •Emergency response times would improve | •Same | •Same | •Same |
| Construction Impacts | •No impact | •Short-term impacts related to noise, visual quality, dust, vehicular access, and water quality | •Same | •Same | •Same |
| Secondary and Cumulative Effects | •No impact | •Accelerated rate of non-transit supportive development | •Similar to HOV/TOL | •Increased development at station areas | •Similar to HOV/TOL/Reduced BRT |

Notes:

VOC = Volatile Organic Compounds

CO = Carbon Monoxide

NOx = Nitrogen Oxide

PM = Particulate Matter

TIP = Transportation Improvement Program

NAAQS = National Ambient Air Quality Standards



2030 Daily Regional Transit System Impacts

Table 4-5

| Measure | No-Build | HOV/TOL | HOV/TOL/ TSM | HOV/TOL/ BRT | HOV/TOL/ Reduced BRT |
|---------------------------------------|----------|---------|--------------|--------------|-------------------------|
| Vehicle Miles of Travel | | | | | |
| Total | 272,800 | 273,000 | 311,200 | 311,400 | 303,900 |
| Change from No Build | – | +200 | +38,400 | +38,600 | +31,100 |
| Vehicle Hours of Travel | | | | | |
| Total | 10,200 | 10,200 | 11,600 | 11,600 | 11,400 |
| Change from No Build | – | 0 | +1,400 | +1,400 | +1,200 |
| Average Speed (mph) | | | | | |
| Total | 26.7 | 26.8 | 26.8 | 26.8 | 26.7 |
| Change from No Build | – | +0.1 | +0.1 | +0.1 | 0 |
| Transit Ridership (passengers) | | | | | |
| Total | 623,200 | 621,200 | 635,400 | 639,700 | 634,600 |
| Change from No Build | – | -1,900 | +12,300 | +16,600 | +11,500 |



2030 Arterial Average Daily Traffic Volumes under Build Alternatives and Allgood Flyover Option

Table 4-10

| Arterial | Direction | Build Alternatives | Allgood Flyover Option |
|---------------------------------|------------|--------------------|------------------------|
| North of Terrell Mill Rd | | | |
| US-41 | Southbound | 24,520 | 24,890 |
| | Northbound | 24,270 | 24,510 |
| Powers Ferry Rd | Southbound | 14,000 | 13,280 |
| | Northbound | 13,870 | 13,850 |
| North of N Marietta Pkwy | | | |
| US-41 | Southbound | 22,330 | 22,810 |
| | Northbound | 22,170 | 22,760 |
| North of I-75/I-575 | | | |
| US-41 | Southbound | 29,960 | 29,810 |
| | Northbound | 27,900 | 28,570 |
| Bells Ferry Rd | Southbound | 8,170 | 8,210 |
| | Northbound | 7,670 | 7,570 |
| Canton Rd | Southbound | 28,400 | 28,000 |
| | Northbound | 28,660 | 28,920 |



| Location | Vehicle Throughput | | | Person Throughput | | |
|-------------------------------|--------------------|-------------------|-----------------|-------------------|-------------------|-----------------|
| | No-Build | Build Alternative | HOT Lane Option | No-Build | Build Alternative | HOT Lane Option |
| Both Directions | | | | | | |
| S. of Hickory Grove Rd | | | | | | |
| AM Period | 32,200 | 34,600 | 37,300 | 33,400 | 38,200 | 40,600 |
| PM Period | 39,000 | 42,500 | 45,000 | 41,300 | 49,200 | 51,100 |
| Total Daily | 139,900 | 151,800 | 160,200 | 146,800 | 170,500 | 177,600 |
| S. of Chastain Rd | | | | | | |
| AM Period | 36,000 | 39,000 | 41,900 | 39,200 | 45,400 | 47,700 |
| PM Period | 42,000 | 46,700 | 47,700 | 47,400 | 58,800 | 58,600 |
| Total Daily | 159,200 | 168,500 | 176,300 | 179,300 | 203,400 | 208,900 |
| S. of I-575 | | | | | | |
| AM Period | 60,600 | 72,300 | 75,800 | 68,100 | 86,600 | 89,200 |
| PM Period | 74,200 | 91,100 | 93,200 | 87,600 | 118,700 | 119,300 |
| Total Daily | 269,200 | 315,200 | 324,600 | 314,500 | 395,100 | 401,400 |
| S. of Delk Rd | | | | | | |
| AM Period | 76,400 | 86,400 | 90,600 | 86,600 | 103,900 | 106,800 |
| PM Period | 93,400 | 110,200 | 111,000 | 112,200 | 143,700 | 142,400 |
| Total Daily | 347,700 | 390,100 | 399,000 | 412,500 | 490,800 | 495,100 |
| Southbound Direction | | | | | | |
| S. of Hickory Grove Rd | | | | | | |
| AM Period | 18,700 | 20,400 | 22,100 | 19,600 | 23,100 | 24,500 |
| PM Period | 17,200 | 18,500 | 19,500 | 18,000 | 21,000 | 21,900 |
| Total Daily | 69,700 | 75,300 | 79,800 | 73,200 | 84,400 | 88,400 |
| S. of Chastain Rd | | | | | | |
| AM Period | 21,000 | 23,200 | 25,000 | 23,000 | 27,800 | 29,100 |
| PM Period | 19,700 | 20,300 | 21,200 | 22,400 | 24,900 | 25,500 |
| Total Daily | 81,300 | 84,100 | 88,300 | 91,900 | 101,000 | 104,200 |
| S. of I-575 | | | | | | |
| AM Period | 34,700 | 44,000 | 46,400 | 39,200 | 53,800 | 55,600 |
| PM Period | 34,400 | 39,700 | 41,700 | 40,800 | 50,300 | 52,100 |
| Total Daily | 136,300 | 159,600 | 166,600 | 159,500 | 198,600 | 204,400 |
| S. of Delk Rd | | | | | | |
| AM Period | 40,800 | 48,400 | 51,200 | 46,400 | 59,500 | 61,300 |
| PM Period | 44,100 | 50,100 | 51,600 | 53,100 | 64,700 | 65,500 |
| Total Daily | 171,500 | 192,600 | 200,000 | 202,800 | 242,200 | 247,400 |
| Northbound Direction | | | | | | |
| S. of Hickory Grove Rd | | | | | | |
| AM Period | 13,500 | 14,200 | 15,200 | 13,800 | 15,100 | 16,100 |
| PM Period | 21,800 | 24,000 | 25,500 | 23,300 | 28,200 | 29,300 |
| Total Daily | 70,200 | 76,500 | 80,400 | 73,600 | 86,100 | 89,200 |
| S. of Chastain Rd | | | | | | |
| AM Period | 15,100 | 15,700 | 16,900 | 16,100 | 17,600 | 18,600 |
| PM Period | 22,300 | 26,300 | 26,400 | 25,000 | 33,900 | 33,100 |
| Total Daily | 77,900 | 84,400 | 88,000 | 87,400 | 102,500 | 104,700 |
| S. of I-575 | | | | | | |
| AM Period | 25,900 | 28,400 | 29,400 | 28,900 | 32,700 | 33,600 |
| PM Period | 39,800 | 51,500 | 51,500 | 46,800 | 68,400 | 67,300 |
| Total Daily | 132,900 | 155,600 | 158,000 | 155,000 | 196,500 | 197,100 |
| S. of Delk Rd | | | | | | |
| AM Period | 35,600 | 38,000 | 39,400 | 40,200 | 44,400 | 45,500 |
| PM Period | 49,300 | 60,100 | 59,400 | 59,100 | 79,000 | 76,900 |
| Total Daily | 176,300 | 197,500 | 199,000 | 209,700 | 248,600 | 247,700 |

Table 4-10

2030 Vehicle and Person Throughput on I-75



2030 Average Travel Times by Mode for Travel to Activity Centers

Table 7-3

| Representative Trips from the Study Area to Activity Centers | | Build Alternatives | | | | | | | | |
|--------------------------------------------------------------|------------------|----------------------|-----|-----|-------------------|-------------|------|------|---------------|------|
| | | No-Build Alternative | | | All Transit Modes | | | | Highway Modes | |
| | | Transit | SOV | HOV | HOV/TOL | Reduced BRT | TSM | BRT | SOV | HOV |
| Downtown | Time in Minutes | 77 | 40 | 36 | 73 | 59 | 61 | 56 | 39 | 32 |
| | % Change from NB | - | - | - | -5% | -23% | -21% | -27% | -3% | -11% |
| Midtown | Time in Minutes | 70 | 38 | 33 | 65 | 51 | 54 | 48 | 37 | 29 |
| | % Change from NB | - | - | - | -7% | -27% | -23% | -31% | -3% | -12% |
| Perimeter Center | Time in Minutes | 92 | 38 | 38 | 89 | 65 | 67 | 64 | 37 | 34 |
| | % Change from NB | - | - | - | -3% | -29% | -27% | -30% | -3% | -11% |
| Buckhead | Time in Minutes | 85 | 42 | 41 | 81 | 67 | 68 | 63 | 41 | 37 |
| | % Change from NB | - | - | - | -5% | -21% | -20% | -26% | -2% | -10% |
| Cumberland-Galleria | Time in Minutes | 55 | 23 | 23 | 53 | 37 | 41 | 33 | 22 | 18 |
| | % Change from NB | - | - | - | -4% | -33% | -25% | -40% | -4% | -22% |
| Town Center | Time in Minutes | 65 | 22 | 22 | 67 | 49 | 53 | 48 | 21 | 21 |
| | % Change from NB | - | - | - | 3% | -25% | -18% | -26% | -5% | -5% |



2030 Change in Average Highway Travel Times to Activity Centers by User Groups Compared to No-Build Alternative

Table 7-4

| User Group | SOV | HOV |
|-------------------------------------------------|-----|------|
| Entire Benefit Area | -5% | -20% |
| All Disadvantaged Neighborhoods | -4% | -19% |
| Disadvantaged Neighborhoods with Displacements | -4% | -19% |
| Neighborhoods with Transit-Dependent Households | -3% | -4% |



2030 Change in Average Transit Travel Times to Activity Centers by User Groups Compared to No-Build Alternative

Table 7-5

| User Groups | Transit – Walk Access | | | | Transit – Drive Access | | | |
|--------------------------------------------------|-----------------------|--------------|--------------|-------------------------|------------------------|--------------|--------------|-------------------------|
| | HOV/TOL | HOV/TOL/ TSM | HOV/TOL/ BRT | HOV/TOL/ Reduced BRT | HOV/TOL | HOV/TOL/ TSM | HOV/TOL/ BRT | HOV/TOL/ Reduced BRT |
| Benefit Area | -4% | -23% | -30% | -26% | -12% | -23% | -25% | -23% |
| All Disadvantaged Neighborhoods | -2% | -21% | -28% | -24% | -10% | -22% | -24% | -21% |
| Disadvantaged Neighborhoods with Displacements | -3% | -18% | -33% | -31% | -28% | -37% | -40% | -38% |
| Neighborhoods with Transit- Dependent Households | 0% | -14% | -16% | -12% | -1% | -12% | -17% | -10% |