IT3 Scenario Results and Implications

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IT3 STRATEGY: KEY FINDINGS

- Over the last several decades, Georgia's population and economy have grown rapidly, and its transportation investments have played a key role in that success
- However, over the last 20 years, Georgia has undermanaged and underinvested in its assets. The lack of improvement to these assets has contributed to performance gaps on the transportation system and put Georgia's future quality of life and economic growth at risk. Scenarios were developed to find the best solutions
- The economic benefits of changing "business as usual" in transportation are compelling: a disciplined, outcome-focused strategy in 3 categories (people mobility in Metro Atlanta, freight and logistics, and people mobility / safety in rest of state) could generate an additional 320,000 jobs over the next 20 years and up to ~$590 billion in economic benefits to Georgia over the next 30 years
  - In Metro Atlanta, by combining demand management, infrastructure investments, and coordinating those investments with development patterns, Georgia could generate an additional 230,000 jobs over 20 years and $306-345 billion in economic benefits over 30 years
  - In medium-sized cities and rural areas, by combining demand management, infrastructure investments, and coordinating those investments with development patterns, Georgia could generate an additional ~90,000 jobs over 20 years and ~$156 billion in economic benefits over 30 years
  - By capturing the freight opportunity, Georgia could generate ~$57-88 billion in economic benefits over 30 years
- The investment costs to achieve these outcomes range from $150-257 billion (in year of expenditure terms) over 20 years. 1/3 to 2/3 of these costs are already covered by existing revenues and the remainder can be addressed through a variety of sources over 20-40 years

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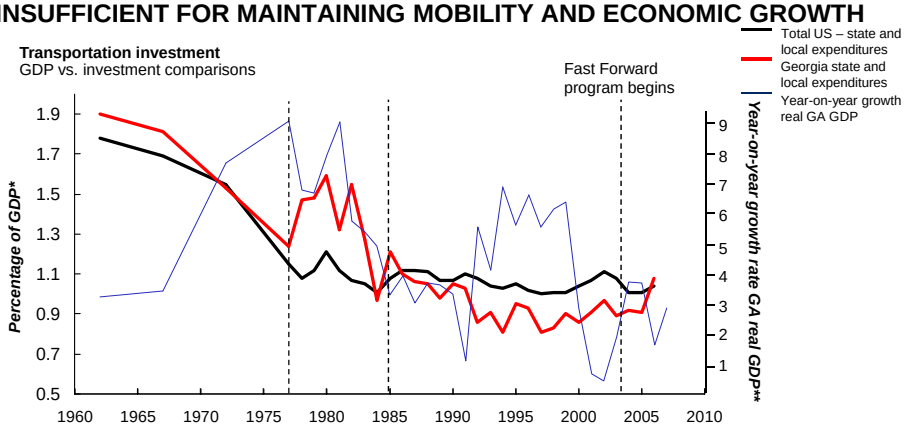
GA'S TRANSPORTATION INVESTMENTS RELATIVE TO GDP HAVE BEEN INSUFFICIENT FOR MAINTAINING MOBILITY AND ECONOMIC GROWTH

Transportation investment
GDP vs. investment comparisons



End of interstate system investment: 1962-1977	Major investment: 1977-1985	Reaping the benefits of past investments: 1985-2004	Future investment?
• Slow growth in lane miles per capita	• "Free the Freeways" • MARTA	• GA investment lower than US investment despite growth • Investment increase after 2004 primarily financed through bonds	• What is the sustainable investment path for the future?

* Used 5-year CAGR to estimate 2001 and 2003 local expenditures data
** GA real GDP growth rate assumptions: 1962-1977 - used 30-year average CPI rate forecasts from 2000-2030 and subtracted from nominal GA GDP growth rate from 1962-1977. 1978-2007 - used GA real GDP growth rate
Source: U.S. Bureau of Economic Analysis, U.S. Census Bureau, Georgia Department of Audits and Reports (FY 2003-06)

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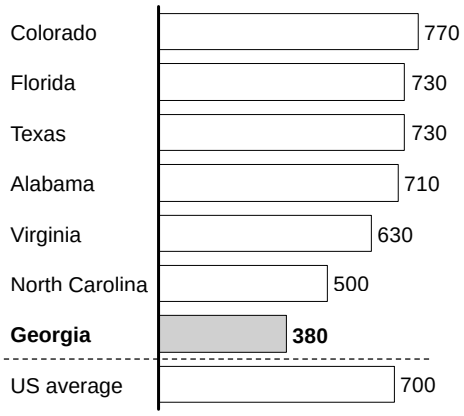
IN RECENT YEARS, GEORGIA HAS INVESTED ~45% LESS IN TRANSPORTATION THAN OTHER US STATES

Total highway and transit resources – 2006*
Dollars per capita



- Georgia has the 2nd lowest transportation resources per person in the U.S.
- Tennessee ranks last, with $354 of transportation revenue per capita

* Latest local resource figures available for other states are from 2005. The 2006 estimates of local resources are based on historical trends. Transit fares and other revenues are included in local receipts. Excludes proceeds from bonds and revenue generated by transportation that isn't spent on transportation
Source: Federal Highway Administration, National Transit Database, U.S. Census Bureau estimates

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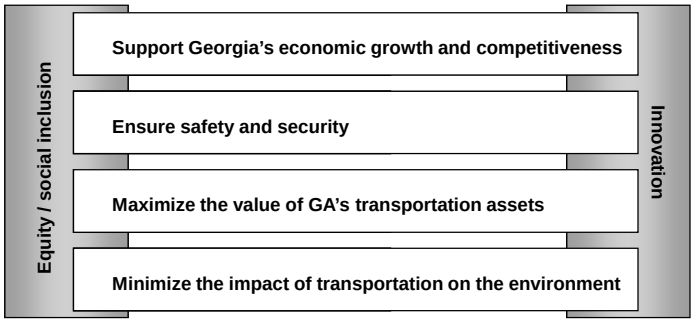
IT3 FOCUSED ON 4 GOALS AND 6 PRIMARY OBJECTIVES TO IMPROVE GA'S TRANSPORTATION NETWORK PERFORMANCE

Georgia's transportation goals:



Georgia's prioritized transportation objectives:

1. Move Georgia's citizens to work, school, and play reliably, affordably, and within an acceptable timeframe
2. Optimize throughput of people and goods in existing network assets
3. Reduce injuries and fatalities on the transportation system
4. Increase the size of GA's talent pools and the accessibility of Georgia's regional employment centers
5. Capture Georgia's growth opportunity in freight and logistics
6. Reduce congestion costs to Georgia's economy below that of competitors

* There were 15 objectives identified as part of IT3, all of which should be measured and tracked. The other 9 objectives are areas where the state either wants to maintain current performance or areas where the best way to improving performance is to change policies and practices

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SCENARIOS ACROSS 3 CATEGORIES WERE DEVELOPED TO DETERMINE WHAT INVESTMENTS BEST SUPPORTED THOSE GOALS

Investment categories	**Cost** 2008 dollars	**Benefit*** 2008 dollars
New capacity:**		
 **1**. Metro Atlanta people mobility	• $26-43B	• $306-345B
 **2**. Medium-sized cities and rural area people mobility	• $15-36B	• $156B
 **3.** Freight	• $18-37B	• $57-88B
Maintenance of existing system	• $27B	• Lifecycle savings
Debt service on current bond issuance	• $5B	• Not applicable
Total	• **$91-148B**	• **$520-590B in economic benefit** • **320,000 jobs**

* Jobs estimated over 20 year period; economic benefit (congestion costs and expected GDP growth) estimated over 30 year period

** Includes O&M costs for new capacity investments. All cost and benefit figures are in 2008 dollars

Source: Kimley-Horn, ARC Travel Demand Model, McKinsey analysis

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FOR METRO ATLANTA, INVESTING $26-$43 BILLION IN NEW CAPACITY COULD DRIVE UP TO $345 BILLION IN BENEFITS

	Incremental investment 2008 Dollars	Incremental returns 2008 Dollars
Demand management	• **$220 million*** (for HOV-HOT conversion, VMT fees or congestion pricing, employer-based initiatives, flex hours, incident mgmt)	• **$40 billion** over 30 years in reduced congestion costs (wasted time and fuel)
Infrastructure investment, uncoordinated with development patterns	• Base package of reliable "connecting" infrastructure: **$26.0 billion** • Doubling down in congested corridors (transit and road): **$17.2 billion**	• **Additional $40 billion** over 30 years in reduced congestion costs • **Additional $10 billion** over 30 years in reduced congestion costs
Investment coordinated with development patterns	• **$0** (if the "right" investments are made and market responds)	• **$39 billion** over 30 years in reduced congestion costs

By improving the value proposition to employers and people, these measures could also add ~$216 billion in additional GDP growth over 30 years**

- Reduction in congestion costs alone ($119-129 billion over 30 years) justifies incremental investment , though GDP benefits are even more substantial
- Capturing full benefit, however, requires more than just investing in infrastructure. Managing demand and coordinating the infrastructure investment with future development patterns are as important as the infrastructure itself

* Cost estimate for demand management reflect the cost of converting existing HOV lanes to HOT lanes. It does not include the cost of implementing a congestion pricing regime. The analysis assumes the cost of a congestion pricing program would be financed out of the revenues the program generates

**Assumes an incremental .25% GDP growth per year over 20 years

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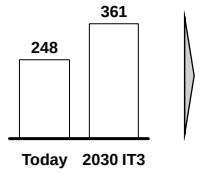
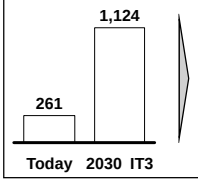
IT3 INVESTMENTS RESULT IN AN ATLANTA REGION THAT IS MORE LIVABLE AND ECONOMICALLY COMPETITIVE

Average number of workers within a 30 minute catchment area of a major employment center*
Thousands of people



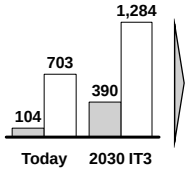
- The typical employment center's catchment area expands 45%

People per day taking reliable trips**
Thousands of people



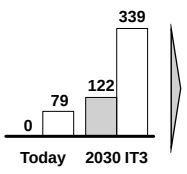
- The number of reliable trips increases by more than 4x

Number of workers that can reach >500,000 jobs by car in <30 or <45 minutes
Thousands of people <30 minutes <45 minutes



- The number of people that can reach >500K jobs in <30 minutes by car nearly triples

Number of workers that can reach >500,000 jobs in <30 or <45 minutes by transit
Thousands of people <30 minutes <45 minutes



- Job access by transit expands dramatically

* Major employment centers include Downtown/Midtown, Buckhead, Cumberland Galleria, Perimeter Center, Gwinnett Place, Fulton Industrial Blvd, Airport, Winward Parkway, and Town Center

** Reliable trips are transit trips and HOT / HOV trips

Source: Bureau of Economic Analysis, Kimley-Horn, Transit Planning Board, GDOT, ARC Travel Demand Model

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FOR MEDIUM-SIZED CITIES AND RURAL AREAS, INVESTING $14-34 BILLION COULD GENERATE ~$156 BILLION

	Incremental investment 2008 Dollars	Incremental returns 2008 Dollars	
1 Current RTP in medium-sized cities	• **$13.6* billion**	• **$44 billion**** in congestion cost reduction for all GA MPOs over a 30 year period – 30-50% of the benefit comes from coordinating investments with development patterns	A real GDP increase of 0.25% per year over 30 years would generate $112 billion in economic benefit
2 Complete GRIP roads	• **$15.6 billion**	***Unclear benefits*** • No measurable benefit in terms of reducing congestion costs • No obvious link statistically between GRIP and GDP, job, or population growth • Would expand the proportion of the rural population that can reach major employment statewide by 3%	
3 Build high speed rail	• **$6 billion** in capital	• Primarily benefits Atlanta, Macon and Savannah by linking the labor markets and making the amenities of each city more available to the others - E.g., Atlanta gains access to a beach in 2 hours, while Savannah and Macon gain access to Atlanta	

* Cost estimates currently being updated by GDOT
** Benefits based on extrapolations from the model results from Augusta, Columbus, Savannah, and Athens to other MPOs
Source: Kimley-Horn, GDOT, regional MPO models, McKinsey analysis

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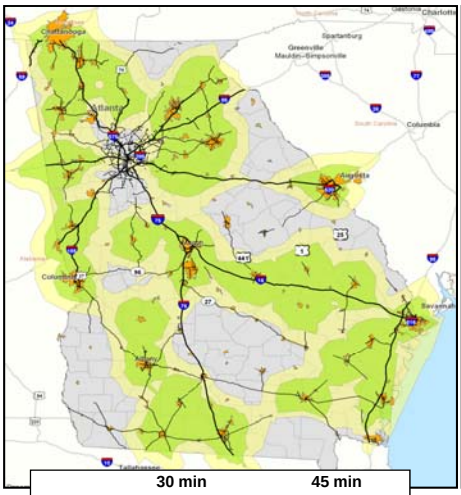
COMPLETED GRIP CORRIDORS WILL INCREASE EMPLOYMENT CENTER ACCESSIBILITY BY ~3%

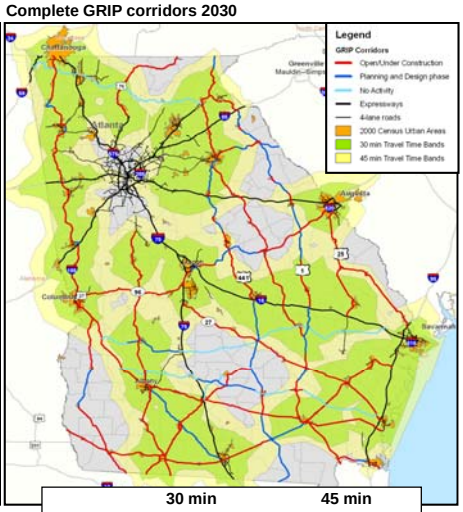
Travel time bands to top regional employment centers

No Build 2030



	30 min	45 min
2030E*	6,113,957 (67%)	8,060,813 (88%)

Complete GRIP corridors 2030



	30 min	45 min
2030E*	6,437,411 (71%)	8,351,469 (91%)

* Population CAGR estimated at ~2% for 2030
Source: ESRI Business Analyst, US Census Bureau

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FOR FREIGHT, INVESTING $19-38 BILLION COULD DRIVE $57-88 BILLION IN ECONOMIC BENEFIT

	Incremental investment 2008 Dollars	Incremental returns 2008 Dollars
1 Address today's most urgent problems	• **$510 million** (for first and last mile connectivity near Port of Savannah and Atlanta intersections)	• **$547 million** in congestion cost reduction over 30 years • Additional safety benefits
2 Getting "ahead of the curve" (priority truck corridors only)	• **$17.6 billion** (new limited access expressways to provide alternative routes)	• **$2 billion** in congestion cost reduction for Atlanta over 30 years (from diverting trucks at peak hour) • **$500 million** in direct benefits to haulers (time savings and fuel savings) • **$54 billion** in potential GDP benefit* over 30 years
3 Perfect connectivity (additional truck corridors)	• **$9.6 billion**	• **$71 million** in time and fuel savings freight haulers • **$31 billion** in potential GDP benefit* over 30 years
4 Freight rail investments	• **$9.7 billion**	• **TBD** (data not yet available)

- "Priority" corridors have ~10X the volume as other potentially significant corridors and higher benefits in terms of time savings and congestion cost reduction
- However, none of the options (except "address today's problems") can be justified on the basis of "reducing congestion costs" or time savings alone - the business case hinges on whether the investments can drive GDP

* GDP benefits assume counties receiving limited access roads have a .25% annual GDP boost per year for 20 years.

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HISTORICALLY, LIMITED ACCESS FACILITIES HAVE BEEN POWERFUL DRIVERS OF ECONOMIC GROWTH IN RURAL AREAS

10-year growth rate: 1990-2000

	Population	Income	Employment
Rural Interstate Counties without GRIP	• 23%	• 87%	• 26%
Rural Non-Interstate Counties with GRIP Roads – Middle GA	• 10%	• 67%	• 11%
Rural Non-Interstate Counties with GRIP Roads - Southern GA	• 13%	• 71%	• 17%

- Presence of a limited access facility like an **interstate is a much stronger driver of economic growth** than a GRIP road
- Data suggests adding new limited access facilities for freight could add an **incremental 1.2-1.3% of GDP** per year over the next 10-20 years in rural areas

Source: "A Study on the Economic Benefits of Governor's Road Improvement Program" – Jeffrey M. Humphreys (University of Georgia)

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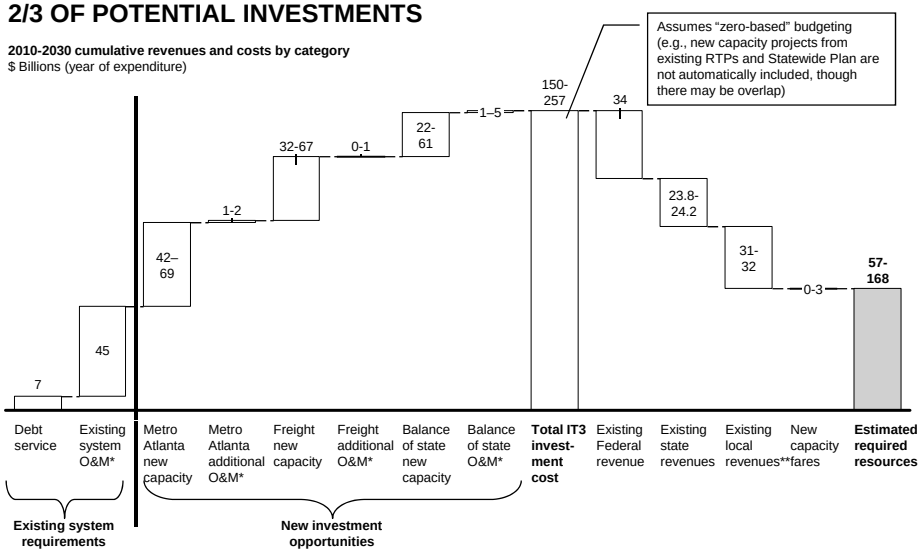
IF WE PRIORITIZE OUR CURRENT RESOURCES, GA CAN COVER UP TO 2/3 OF POTENTIAL INVESTMENTS

2010-2030 cumulative revenues and costs by category
$ Billions (year of expenditure)



* Operations and maintenance
** Local revenues include: MARTA sales tax, MARTA and GRTA transit fares, other urban and rural transit fares, local SPLOSTs, other local revenues, and a portion of local General Fund appropriations spent on highways, streets, and drainage

Source: Georgia SAFETEA-LU, FHWA, FTA, GDOT, GDOT Budget Office, SRTA, GSF&IC, MARTA, GRTA, Metro Atlanta Chamber of Commerce, GMA, ACCG, GA Department of Revenue, Department of Community Affairs, EIA 2008 Projections, CBO Reports, Global Insight, US Bureau of Economic Analysis, expert interviews

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OPTIONS FOR ADDITIONAL TRANSPORTATION RESOURCES

Focus of today's discussion

Potential sources of revenue	Type of funding	Options under evaluation		Number of peer states* using option/lever
Revenue streams	Redirect existing funds	Reallocate transportation-related fees to transportation spend (e.g., motor vehicle fees)	Direct and indirect fees	6/6
		1% motor fuel sales tax ("4th Percent")	Direct fees	2/6
		Reallocate up to 3% motor fuel tax collected by locals		Unknown
		Property tax on vehicles, other transportation-related fees	Indirect fee	Unknown
		Have GA pay GDOT's service debt on GO bonds	Other	NA
		Monetize unused state assets (e.g., surplus property)		NA
	New direct user fees	Tolls		5/6
		Emission fees		1/6
		Parking fees		3/6
		"Pay by the mile" fees		0/7
		Lease fees on state assets		Unknown
		Match peer states' motor fuel tax per gallon		6/6
	New indirect user fees	Rental car fees		2/7
		Encroachment fees		1/7
		Impact fees		3/7
	New taxes	State sales tax		0/7
		Property tax on real estate - % dedicated to transportation		0/7
		Regional / local T-SPLOSTS		1/6
		Local sales taxes		Unknown
Finance mechanisms	Private equity, private debt, public bonds	Tax allocation districts (TADs)		0/7
		Hotel tax		1/7

* Peer states considered: Colorado, Florida, Illinois, North Carolina, Texas, Virginia, and Washington DC

Source: US DOT, FHWA, FTA, GDOT interviews, other state DOT interviews, GRTA research, Department of Revenue, Department of Driver's Services, Department of Community Affairs, ACCG, GMA, GSFIC, National Community Survey, Smith Travel Research's Monthly Lodging Review, Auto Rental News, FCC, ARC, Atlanta Development Authority, Metro Atlanta Chamber of Commerce, EIA 2008 forecasts, US Census Bureau, US Bureau of Economic Analysis, Kimley-Horn, expert interviews

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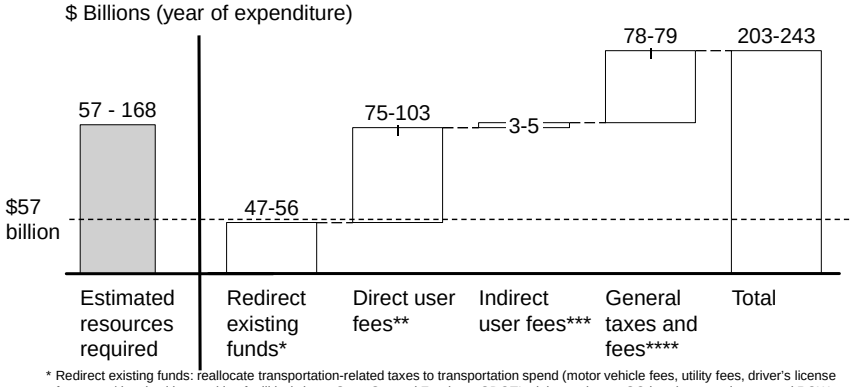
GA COULD RAISE ~$203-$243B THROUGH A MIX OF DIRECT AND INDIRECT USER FEES, NEW TAXES, AND REDIRECTING EXISTING REVENUE

Potential sources of revenue: 2010-2030
$ Billions (year of expenditure)



* Redirect existing funds: reallocate transportation-related taxes to transportation spend (motor vehicle fees, utility fees, driver's license fees, tags/decals, titles, parking facilities), have State General Fund pay GDOT's debt service on GO bonds, monetize unused ROW assets, 1% state motor fuel sales tax, 1-3% local motor fuel tax, and ad-valorem/property taxes on vehicles. The re-direction of the ad valorem property tax on vehicles was not favored or endorsed by the State Transportation Board.

** Direct user fees: tolls, emissions fees, parking fees, "pay by the mile" fees, lease fees on state assets, and increased motor fuel excise tax

*** Indirect user fees: rental car fees, encroachment fees, and impact fees

**** General taxes and fees: hotel taxes, state sales tax, property tax on real estate (% dedicated to transportation), regional/local T-SPLOSTs, local sales taxes, and tax allocation districts (TADs)

Source: US DOT, FHWA, FTA, GDOT interviews, other state DOT interviews, GRTA research, Department of Revenue, Department of Driver's Services, Department of Community Affairs, ACCG, GMA, GSFIC, National Community Survey, Smith Travel Research's Monthly Lodging Review, Auto Rental News, FCC, ARC, Atlanta Development Authority, Metro Atlanta Chamber of Commerce, EIA 2008 forecasts, US Census Bureau, US Bureau of Economic Analysis, Kimley-Horn, expert interviews

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