

Colorado School of Mines Parking Report: An Analysis of Options



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In cooperation with the Colorado School of Mines Student Council on Sustainability and the Presidential Sustainability Committee with funding provided by the National Wildlife Federation Campus Ecology Fellowship.

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Executive Summary

Currently the Colorado School of Mines (CSM) is following a master plan that anticipates student population growth. As a means of providing for an increase in transportation demand, several parking structures have been included on the master plan. The situation is analogous to challenges that other schools are facing in regards to providing the infrastructure to meet student transportation needs. By looking at other potential solutions and comparing their costs to that of a parking structure a potentially more elegant solution can be found. Appealingly, an alternate solution can also support an underlying goal of the master plan, which is to promote bicycling and walking over driving. A series of alternative options are offered in the last section. These options range from implementing a circulator shuttle to getting students and other users to pay for the full cost of a parking structure. Because the CSM Master Plan is a living document, university leaders seeking to fine-tune it can use this work as a resource.

Introduction and Methodology

Cars have hidden costs that range from the price of street maintenance to air pollution leading to healthcare costs among other things (Daniels, 2003). Government subsidies pay for many of these costs, which range from “\$184 billion to \$997 billion” (Toor and Havlick, 2004) on an annual basis. Parking structures exemplify one such hidden cost.

Often universities own the land they plan to put a parking structure on. Consequently the cost of the structure does not reflect the value of the land, but the university. Nevertheless the university gives something up in exchange for the structure. CU Boulder refers to such an exchange as an “opportunity cost,” meaning that the university devotes the land “to parking rather than academic uses” (Nelson/Nygaard Consulting Associates, 2003). Thus, it is unfortunate for both universities and other institutions when land is used for a parking structure when a better alternative use exists.

For this reason I have researched transportation and parking at CSM and developed alternate scenarios and options for the school to consider in place of a parking structure. I research the background of the site, analyze the current dilemma causing the

integration of parking structures into the campus master plan, and then provide suggestions and alternatives.

This research effort was comprised of a literature review of relevant transportation documents. Information specific to CSM was obtained from government sources and interviews from January through May of 2006. Setting up interviews on the transportation dilemma at CSM has been a straightforward process, as the people I have met with have been supportive to parking structure alternatives and are consequently willing to help. Personal communication was done through email when physical distance was limiting. Site visits enabled me to gain familiarity with the campus, and a hike up South Table Mesa allowed for me to take my own aerial photo.

Background/Site Analysis

This chapter presents background information on transportation at CSM and site analysis. I discuss in detail the results of a survey that analyzes the modes of transportation used by CSM students to get to campus. The complete results of that survey can be found in *Appendix A: Colorado School of Mines Transportation Survey*. I then look more into depth on where CSM students are living, primarily utilizing Google Earth Pro to plot student residence points on a satellite map of the City of Golden.

The Regional Transportation District (RTD) administered a student transportation survey in 2005 as a result of interest expressed by the CSM student body. Of 3,534 students, 26.6% completed a survey. RTD assumed that these 940 students represent the student population, where “accuracy in 19 out of 20 cases would be ± 2.7 percentage points” (RTD, 2005). On the day of the survey, 49% of students drove a car to campus, 37% walked, 4% rode an RTD bus, 4% biked, 2% carpooled or were dropped off, and 4% arrived at campus by some other means (RTD, 2005).

RTD estimates students will only chose to walk when closer then one fourth of a mile (Rynerson, personal communication, 2006). When looking at Figure 1, which illustrates student residences in relation to the CSM campus, it is easy to speculate that those living within the closest cluster to school and on campus are the pedestrians and who live further than a quarter mile are driving since busing or other alternative means of transit demand management are not a convenient option for most students. A more

detailed graphic is located in *Appendix B*. This means that unless there is a bus stop very close to their residence, students will not take the bus. Currently there are four buses that pass through Golden, the GS (Golden/Boulder), the 44 (44th Avenue), the 17 (Jeffco), and the 16 (West Colfax). However, due to a combination of limited routes and frequency they fail to offer CSM students a convenient alternative to driving.

Bob Francisco, the CSM director of student life, claims that between the residence halls, Greek housing, and on campus apartments, there are approximately 1,425 students living on campus (personal communication, March 3, 2006). According to the RTD student transportation survey, 76.9 percent of students live in either the 80401 zip code (Golden, Evergreen, Lakewood) or the 80403 zip code (Golden, Arvada, Black Hawk). The rest live in 80228, 80226, 80227 (all Denver, Lakewood zip codes), 80033 (Lakewood, Denver, and Wheat Ridge), or 80004 (Arvada).

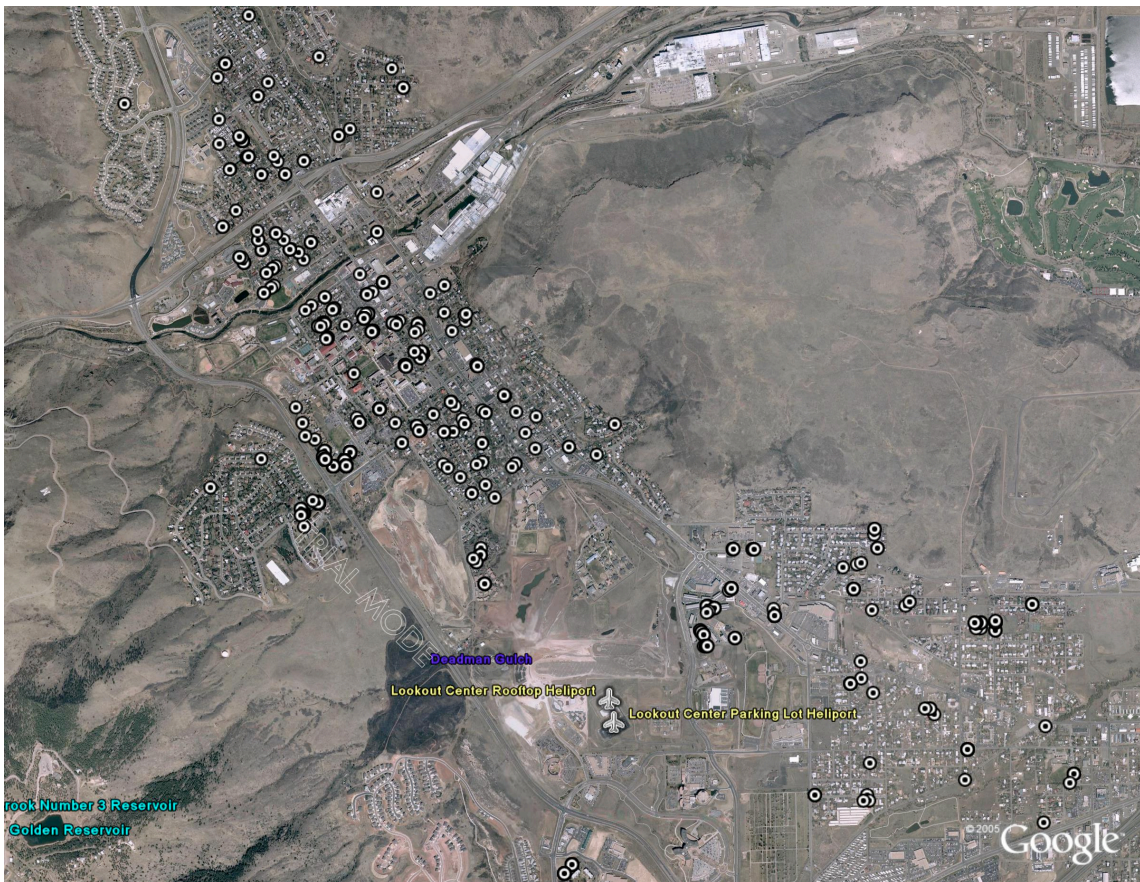


Figure 1: Where CSM students are living.

The RTD student transportation survey clearly shows that about half of CSM students drive to campus. According to Nan Braddock of CSM Public Safety, the group responsible for permit distribution and parking enforcement, there are currently 2,322 parking spaces available on campus (personal communication, February 20, 2006). The school subsidizes none of the parking lot maintenance. In order for a vehicle to park within the CSM campus a parking permit has to be visible, though temporary parking permits are offered to campus visitors. Students pay a \$14.65 mandatory “student assistance fee” per semester and the cost of a parking permit is included in that fee. In the 2004/2005 school year, 659 permits were distributed to freshmen. The permits are reissued on a yearly basis, as needed. The same applies to faculty and staff, who pay \$35 a year for their general parking permits, \$50 per year for unassigned reserve spaces, and \$65 per year for reserved spaces that are very close to buildings. In the 2004/2005 school year, 1,275 permits were issued to faculty and staff, of which 1,126 were for reserved parking spots. Tim Cake, head of Plant Facilities at CSM has pointed out that faculty reserved parking spots will still exist regardless of whether those faculty and staff use an alternate means of transportation. If on any given day a person with a personally reserved space doesn’t drive to school then a prime parking spot remains neglected even if it would benefit others to park there.

If the sample group is representative of the entire CSM student population, that infers that 49% of people do drive to campus. Reserving 1,126 of 2,322 parking spaces for faculty and staff leaves only 1,196 spaces on campus for 1,731 student vehicles to fend for throughout the day. Since 1,196 is clearly 535 spaces short of the total number of student vehicle trips, it is assumed that there is turnover throughout the day and that students park their cars in neighborhoods and parking lots in the downtown Golden area.

Current Dilemma

This section discusses both the current campus situation and present plans for the future. These circumstances support later suggestions in the “Development Solutions” section of this work, and will also explain how my suggestions are informed by CSM’s Master Plan.

The CSM Master Plan shows an awareness that excessive car use can take a toll on the campus. It is a goal and objective in the Facilities Master Plan Guiding Principles to improve campus circulation by promoting “bicycles over motor vehicles whenever possible, embrac[ing] the community bike system, and reduc[ing] the dependency on the motor vehicle” (CSM Master Plan, 2004). Will Toor and Spenser Havlick, authors of *Transportation and Sustainable Campus Communities*, have cited what CSM has already done by establishing “a hierarchy of travel modes with walking and bicycling as the two highest priorities” as the essential first step to creating “efficient land-use patterns” that raise the quality of life on campus (2004).

Keeping with the goal of transportation hierarchy, the central area of the campus will be made more aesthetic and set to a pedestrian scale (CSM Master Plan, 2004). To accomplish this Illinois Street will become a slow traffic zone, eliminating on street parking. On street parking will also be removed from some cross streets to Illinois such as 16th Street. Other areas of campus along Maple will be closed off completely from vehicle traffic. The master plan also infers that many surface parking areas will be prime places to build in the future, especially as the population of the campus grows. According to the data from the Spring 2004 Registrar’s Report, there are currently 3,534 graduate and undergraduate students (RTD Market Research, 2005). The current CSM Campus Master Plan anticipates a total student population of 5, 400 within the next few decades. The campus master plan states “as the campus grows, it will need to consolidate parking into garages to make way for additional academic and student support building space” (CSM Master Plan, 2004).

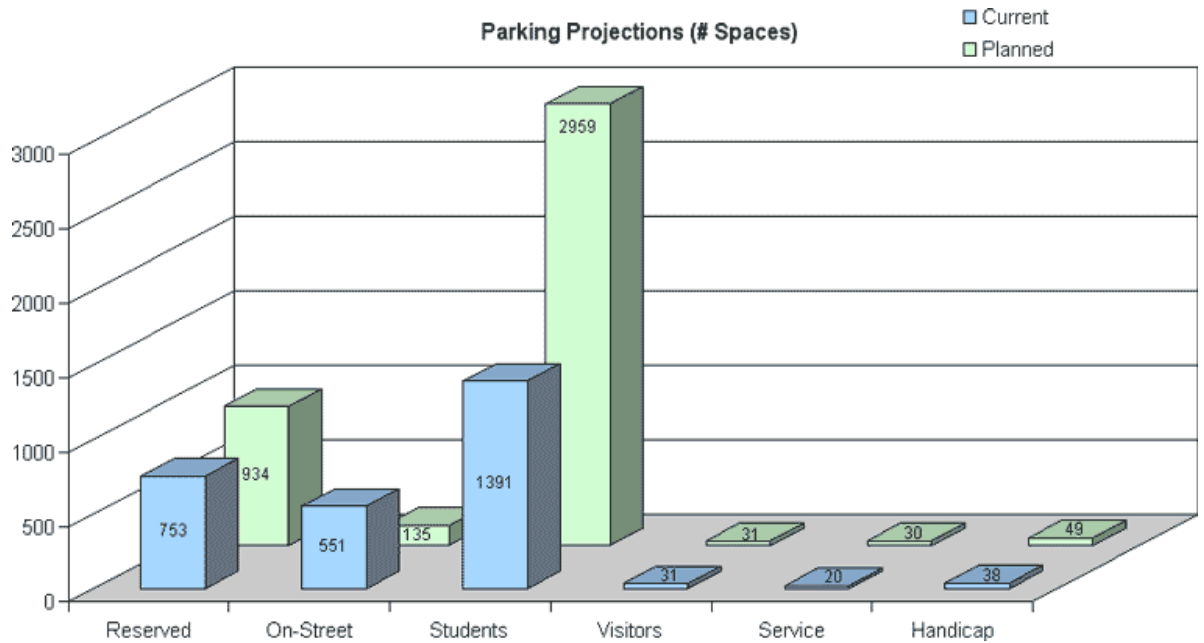


Figure 2: Parking Projections (CSM Master Plan, 2004).

Jeremiah Simpson, a parking consultant with Walker Parking, led the most recent parking study for CSM. The study, completed at the end of 2005, focused on determining the need for additional spaces in the future. Other areas of research, such as transit demand management options may be completed in a later study, funding allowing (Simpson, personal communication, March 8, 2006).

According to the Master Plan, if all planned parking structures are built it will create a total of 1,715 spaces. One specific parking structure to be built between 17th and 18th streets will be four stories and house 490 parking spaces. Currently on that location there is a surface parking lot with 141 parking spaces.

Parking structures exemplify one of the hidden costs of cars. In 1998, parking structures at the University of Colorado at Boulder (CU Boulder) cost the university “\$197/net new space”(Cook, 1999). This cost is difficult or impossible to completely subsidize by student fees. At the University of California at Los Angeles in 1988, a student “would pay \$43/month, which means that the university is subsidizing the parker by \$81/month” (Toor and Havlick, 2004). According to Jeremiah Simpson, \$98,000 per month is the realistic amount of revenue a 490 parking space structure would need in order to break even.

Parking becomes a vicious cycle when schools see a demand for parking, build a parking structure, subsidize student parking permits, and in turn create even more of a reason for students to drive rather than take alternate means of transportation. Shoup (2005) revealed findings that a new parking structure at UCLA did not ease existing parking needs but rather created new ones. From interviews with students it was found that the new parking made drivers out of people who had before been walking, using vanpools, or any other various methods of alternative transportation. The environmental impact report for the above mentioned structure concluded that each parking space is generating “82.6 vehicle trips per month” (Shoup, 2005). In short, traffic engineers have a unique opportunity to make it excruciatingly difficult for people to drive, or to make it exceedingly easy.

Even once the structure is paid for there are remaining complications. CSM’s parking plan shows the realization that a finite amount of land exists to work with, but does not reflect an awareness of exponential population growth. A parking structure will solve the demand for transportation only as long as the population of the university doesn’t grow over a certain amount. Only a comprehensive transportation demand management program provides a sustainable solution to student transportation. A parking structure provides a temporary solution only as long as a sufficient number of parking spaces exist. Additionally, an influx of parking structures is not cohesive with CSM’s goals of improving campus circulation by promoting alternate means of transportation. Jan Gehl speaks in terms of extending an invitation to exert a certain behavior (personal communication, April 7, 2006). People are prompted in part by their environments to act in a certain way. If something is constructed to be conducive to walking then walking will become a consideration. On the contrary, a parking structure creates a friendlier environment for drivers.

Development Solutions

Three options for the site are portrayed in this section. Options A through C are general scenarios for how the site between 17th and 18th streets might potentially be developed. Option A describes a parking structure, Option B describes a transit center supplemented with a major transit demand management effort, and Option C describes a

smaller parking structure wrapped in retail. A very brief overview of each option accompanied by a simple graphic is located in *Appendix C: Modes of Transportation*.

Option A would consist of following the current CSM Master Plan and building a four story 490 parking space structure on the site. The capital construction cost of the parking structure would be around \$14,000 per space, with about an annual \$350 per space for maintenance (Simpson, 2006). That means it will take about \$6.86 million to build the structure and will cost around \$3.43 million for 20 years of maintenance. To pay back the parking structure in 20 years while keeping up on maintenance payments, a sum of 10.29 million would need to be accounted for, not including any interest. Currently funding is anticipated primarily through revenue bonds. It hasn't been determined yet as to whether student prices for parking will be increased with the influx of new structures. However, according to Jeremiah Simpson, when his company does complete the parking management analysis, "raising parking rates is certainly one option [they] will discuss" (Simpson, 2006).

Donald Shoup (2005), a UCLA professor in the Urban Planning Department, suggests that "underpricing creates the parking shortage," and the clear solution is to use pricing strategies. The use of such strategies has been shown to "reduce vehicle trips, and thus daily parking demand, by between 7 and 30 percent or more" (EPA, 2006). Even though everyone on the CSM campus currently pays for a parking permit regardless of whether they have a car, about half of the students might drive on any given day. On the day that RTD administered its transportation survey to CSM, 49% of students drove their car to campus (RTD, 2005). This doesn't include the 2% of students who took a car but carpooled with at least one other student or were dropped off. If students had to pay for a parking permit, that percentage could be reduced. David Cook, the Manager of Transportation and Permits at CU Boulder reveals that only 15% of students buy permits on his campus (Cook, personal communication 2006). Granted CU Boulder students have a bus pass and good bus service, but it is very feasible that CSM will have a student bus pass and more bus options in the future.

If permits at CSM were given out for a price that reflected the 490 space parking structure's true cost, less students would be inclined to buy them. However if for some reason every one of the 3,534 students did buy a parking permit, it would cost each

of them almost \$146 per year. If half of them bought permits it would cost each \$291 per year. When one takes into account that only 15% of CU Boulder students buy permits and CSM students would buy more because they have less alternative transportation resources, 33% is a realistic amount. If 33% of students bought permits they would each have to pay \$436 a year.

Mr. Cook (personal communication, 2006) also warns that as long as the neighborhoods surrounding the school allow students to park students will opt to try and park there rather than buy a permit. This reduces the need for CSM to provide on-campus parking with all its associated costs, however it will not improve CSM's reputation with its neighbors. Parking permits in adjacent neighborhoods will inevitably be enforced but the concern nearby homeowners might have over the issue will remain. Enforcing CSM parking regulations in adjacent neighborhoods that don't want to provide CSM parking can actually be a fairly lucrative endeavor. For instance, according to Toor and Havlick (2004) "parking fines are widely used to fund the transit demand management (TDM) programs at public universities" in California. This situation makes sense because students who didn't think ahead to bus, bike, or walk and instead drive often park in an illegal space because they can find no other and the thought of being late for class pressures them into it. The fines administered to them then go to pay for improving alternative modes of transportation. This way, the student is penalized for parking while alternative modes of transportation are being funded. Consequently the choice to use an alternative mode of transportation becomes increasingly clear.

As a final note, I believe that at the very least the parking structure in question should be constructed so that it can ultimately be converted into classrooms, as has been done recently in Melbourne, Australia according to Jan Gehl (2006).

Option B would be the creation of a small mixed-use development on the site. This would be complimented by modest surface parking, perhaps around 60 parking spaces. Crucial to this option would be the integration of a major transit demand management effort to reduce up to 500 vehicle trips per day to campus. Part of the effort is just not building the parking structure. In Mr. Gehl's words, "if they can't park then they won't drive" (personal communication, April 7, 2006).

Potential uses for the mixed-use development would be a covered bus stop area and lots of bike parking. In addition to the existing GS, 44, 17, and 16 routes, the introduction of a small circulator shuttle will provide a route that circulates around Golden, and to the light rail station at the Jefferson Country Building anticipated to be completed in 2013 (RTD-West Corridor, 2005). Similar circulators have been attempted in Golden before, but never with the factor of an impending light rail station being built about a mile and a half from downtown Golden.

The last attempt was named the Golden Urban Shuttle (GUS Bus), which stopped running on December 31st of 1997 (Rynerson, personal communication). The GUS bus started as an eight-month experiment with an anticipated “medium” amount of success (RTD, 1996). Supporting documents can be found in *Appendix E*. The cost for the project was split between the City of Golden and RTD, each paying \$107,450. Two buses ran from 7:00am to 8:00pm Monday through Saturday. The wait for the GUS bus was 20 minutes, not the ideal time but it was the shortest amount of time possible for two buses doing a 40-minute cycle. One stop on its route was the Golden Community Center. A smaller shuttle bus was able to maneuver the parking lot of the Community Center, while larger buses could not, due to lack of built in design for busses at the site. In fact, according to Robert Rynerson at RTD, the Community Center was about the only place that the GUS bus went that the 17 didn't (personal communication, 2006). A major problem with the GUS bus was that it took riders off the 17 since their routes were so similar, they ran on a similar timeframe, and since the GUS bus was priced cheaper at \$.50.

In the last month of operation, the GUS bus was at 148 riders on an average weekday. Sometime before it ceased operation, the GUS bus drivers were asked for their insights into what might increase ridership. Many suggested running the route through the CSM campus, as they had observed many riders were students and that students particularly liked the day pass option (RTD, 1996). The Board of Directors at RTD have recently revisited the GUS bus file, as Director Karen Benker, now a current member of the Longmont City Council, expressed interest in reviving the route or something similar to it.

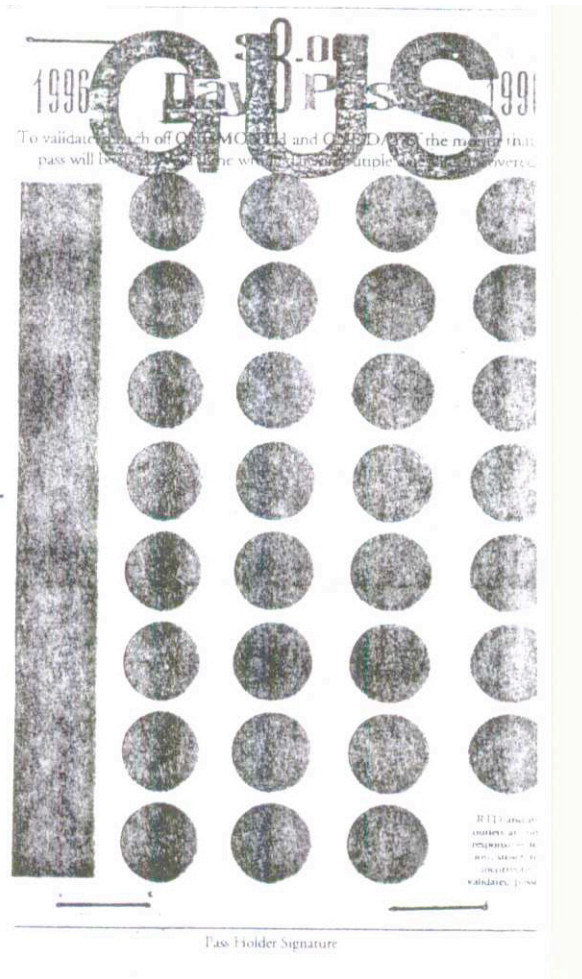


Figure 3: The popular GUS bus day pass.

A bus route that is very similar to the GUS bus, but that is still in existence is the HOP in Boulder. The HOP started as a community shuttle funded by grants through CMAQ funds that were distributed through the Denver Regional Council of Governments (DRCOG). Currently 58% of the Hop's costs are paid for by RTD, while the remainder is split between the City of Boulder and the University of Colorado at Boulder (Roper, personal communication, 2006). The University pays its portion through student fees and the City of Boulder pays for its portion mostly through a transportation sales tax (Jones, personal communication, March 31, 2006). A complete case study of the HOP can be found in *Appendix F*.

The success of the HOP can be attributed to the City of Boulder's willingness to subsidize part of it so that it will run every 15 minutes, detour from its course to drop people off at night, and offer free fare on drinking holidays. All of those attributes mentioned are things that the city thought to be very important, and are main motivators for people to take the HOP. However, some attributes may lead the HOP to not meet RTD's productivity standards.

Robert Rynerson is a Senior Service Planner and Scheduler at RTD for the Western Region, including the City of Golden. He seems very open to the idea of rejuvenating a circulator such as the GUS bus in Golden, particularly if CSM was participating in funding it and there was increased demand due to the anticipated light rail station at the Jefferson County Building (personal communication, 2006). CSM could potentially combine the money they would use on building a parking structure with the City of Golden's money and RTD's to start another circulator in Golden. Or, as was done with the HOP, the preliminary funding could be through grants from DRCOG.

Paying \$28.00 per student per semester will provide student bus passes for the student population. With the inclusion of sky RIDE the cost will be raised to \$33.80 per student per semester. Most likely, this cost will be paid with student fees. The vote for the RTD student bus pass lost by seven votes in March of 2006, and so by slightly increasing the awareness of the student body there should be no problem in getting it to pass in 2007. If CSM were to assume the responsibility of paying for the passes for all students, it would be at a cost of \$98,952 per semester.

Also on the site, a coffee shop and bakeries can serve as a refuge while waiting for the bus and also serve as a meeting place on campus or a central location for a community bike program on campus. The development should in effect be an intermodal transportation center that focuses on "the linking of different transportation networks" (personal communication, October 5, 2005), providing people with options that are pleasant, efficient, and viable alternatives to driving a car. The development should also be a place that people want to go to, an experience that they would like to be part of their daily commute.

In order to ensure the existence of viable alternatives, it might be wise to set aside an area in the development to serve as office space for a transportation coordinator or for

the CSM Sustainability Committee, with the idea that a transportation coordinator could be a part time student position or the work of a transportation sub-committee. The University of Colorado at Boulder has been very successful in their transportation demand management tactics, and this is largely in part due to a transportation program coordinator position at the University of Colorado Environmental Center. Although there is a cost for hourly wages for a transportation program coordinator, it can be miniscule in comparison to the cost of a parking structure. In 1995, the University of Colorado Environmental Center was paying \$2,500 a year for student hourly wages, \$4,000 for advertising, \$1,000 for copying and \$3,000 for printing (Peter Roper, personal communication, March 2006). The student hourly wages went towards paying two part time student staff. A large portion of time and money is spent on advertising because it's important not just to offer alternative transportation options but to "make sure people are aware of these choices and have an incentive to try them" (Toor and Havlick, 2004). In Chicago, designer Kimberly Viviano has started a campaign to cover the city with signage that compares "the personal and environmental benefits of bicycling to the pitfalls of driving" (Manfra, 2006). Using some of her strategies, such as "stenciling incentive messages on existing bike paths," CSM could influence student transportation choices using logic (Manfra, 2006).

The building could also serve as a place for classrooms or as offices for other campus organizations. Campus Architect, Paul Leef, points to the opportunities that the specific zoning of the site creates. Since it is land acquired with non-state funds it "helps the idea that it would be used for auxiliary purposes" (Paul Leef, personal communication, 2006). This means that the school could be justified in renting retail spaces out in order to acquire revenue to pay for the building. Mr. Leef also speculates that the location would be ideal for businesses that form concurrently with the research being done on campus.

Option C would be a smaller parking structure wrapped in retail, as can be seen in Boulder, Colorado at 15th and Pearl or 11th and Spruce. This structure could be 2-3 stories and contain anywhere from 245 to 367 spaces. Similar to Option B, a transit demand management effort would also be needed to reduce around 250 vehicle trips to

campus per day. This could include any of the various bus options mentioned in Option B or parking deterrent methods mentioned in Option A. Types of retail and other alternatives uses mentioned in Option B apply to this option as well.

Parking in this structure could function as “shared parking,” which is where businesses that operate at different hours of the day can share the same parking, so that one business’s parking lot is empty for half the day while the other is empty for the other half (EPA, 2006). This would work well for a parking structure wrapped in retail that is wedged between a school and a business area such as downtown Golden. CSM could monopolize the lot during the weekdays. On the weekends and during the summer, particularly during large events, the lot will provide extra off site parking for the downtown area located only three short blocks away. The most ideal situation perhaps, would be if the roof of the wrapped retail parking structure had a seasonal roof garden and restaurant. In that case, while the lot was primarily filled with student cars, students could frequent the restaurant during lunch hours, or just use the space as a meeting place. After the busiest campus hours had passed community members could utilize the parking structure to visit the restaurant and roof garden for dinner, enjoying a moonlit view of the mesa.



Figure 4: Parking structure wrapped in retail at 11th and Spruce, Boulder, CO.

ESTIMATED 20 YEAR COST FOR EACH OPTION

Option	A	B	C
Parking structure (490 spaces) capital construction and 20 years maintenance	\$10, 290,000		
Bus passes for all students for 20 years		\$3,958,080	\$3,958,080
Splitting cost of circulator with the city of Golden, with RTD paying other half, for 20 years		\$1,611,750	
Paying for student transportation coordinators and marketing for 20 years.		\$210,000	
Parking structure (300 spaces) capital construction and 20 years maintenance.			\$6,300,000
Total	\$10, 290,000	\$5,779,830	\$10,258,080
Paid for by	Revenue bonds	Students will pay for bus passes if they vote to get them next year, some costs will be covered by renting out space to retail/business, and the cost of a circulator may be covered with DRCOG funding for the first few years.	Students will pay for bus passes if they vote to get them next year and renting space out to retail/businesses will cover some costs.

CONCLUSION

The suggestions and options for transportation alternatives are simply provided for the purpose of giving CSM leaders something to mull over, I am by no means insisting that one of my options is the ideal. Perhaps a combination of elements from some of my options combined with the reader's insight will provide an ultimate solution. That said, I have to admit that I find option B or C most reasonable, truly agreeing with Toor and Havlick when they say that "TDM is often a more sustainable and cost-effective approach than simply increasing the supply of auto facilities in order to accommodate increases in student and support staff populations" (Toor and Havlick, 2004). Only I believe that for CSM, TDM is certainly the most sustainable, cost-effective, and the most parsimonious with the stated goals of the master plan. I have only discussed a small portion of what can be done on the CSM campus in order to "reduce the dependency on the motor vehicle," increase the vibrancy of campus life, and to continue the smart land use patterns (CSM Master Plan, 2004). I would be amiss if I didn't admit that for an extensive transit demand management solution it will be necessary to look into other projects, such as organizing community bike programs, maintaining bike paths, offering telecommuting options, and organizing vanpools. Not all of these options will work for CSM, but the correct combination will create an effective solution. The work necessary to implement more transit demand management solutions could be the job of the part time student transportation coordinator, a sustainability coordinator, or a subset of the CSM Sustainability Committee.

Appendix A: Colorado School of Mines Transportation Survey



REGIONAL TRANSPORTATION DISTRICT

Colorado School of Mines
Student Transportation Survey



May 2005

Prepared by:

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COLORADO SCHOOL OF MINES STUDENT TRANSPORTATION SURVEY

MAY 2005

BACKGROUND

The Colorado School of Mines expressed interest to RTD in starting a student transit pass program. With a student transit pass program, students attending the Colorado School of Mines would pay a certain amount per term to RTD allowing them to take unlimited trips on RTD buses and light rail.

The Colorado School of Mines campus is located in Golden between 13th and 19th Streets and West Campus Drive and Washington Street. Nearby bus routes include Local routes 16, 16L, 17, and 44L and Regional route G.

RTD and the Colorado School of Mines decided to survey students to find out how they currently get to campus and if they would be interested in starting a transit pass program for students at the Colorado School of Mines. One main objective of the study was to gauge current travel behavior and transit use, both for travel to campus and for non-school travel. Another goal was to estimate transit use if a student bus pass program became available to students.

METHODOLOGY

RTD designed the survey questionnaire in cooperation with the Colorado School of Mines. For a copy of the survey questionnaire, please refer to Appendix A. The Colorado School of Mines made the survey available to its students online during the months of March and April.

940 surveys were completed by Colorado School of Mines students and returned to RTD for analysis. This represents 26.6% of the total enrollment of 3,534 full-time and part-time undergraduate and graduate students attending the campus. Assuming a random sample of respondents representative of the overall student population, the statistical range of accuracy in 19 out of 20 cases would be ± 2.7 percentage points. Sample tolerances for subgroups would be larger.

KEY FINDINGS

Use of Public Transportation

- Forty-nine percent of all respondents drove to campus alone in a car on the day they took the survey. Four percent said they rode an RTD bus or light rail.
- Ten percent of the survey respondents said they commuted to campus by bus or light rail at least once during the week prior to taking the survey. Respondents who used public transportation did so for an average of 2.9 days that week.
- Twenty-two percent of the respondents said they rode an RTD bus or light rail for a non-school trip at least once during the week prior to taking the survey. Respondents who had used transit had done so for an average of 2.1 days that week.
- Twenty-one percent of the respondents had taken at least one skyRide trip to Denver International Airport during the past twelve months.

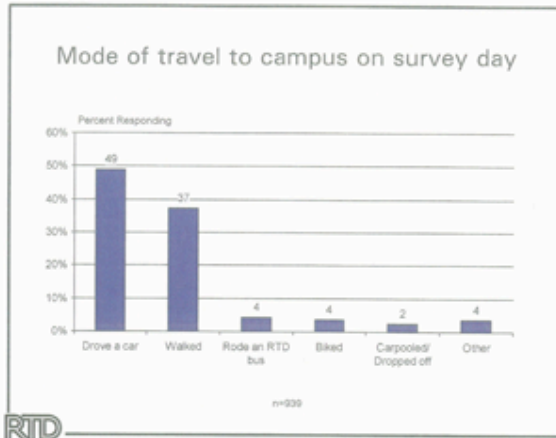
Student Pass Program

- While 10% of the respondents had said they rode an RTD bus or light rail to campus during the week prior to the survey, 73% stated they would support an increase in student fees to fund a student bus pass program. On the other hand, 16% of respondents were against the student pass program, and 11% were undecided.
- Students who support the student bus pass proposal expected to ride an RTD bus or light rail to or from campus an average of 2.4 days per week.

Parking on Campus

- On average, respondents parked a motor vehicle on campus for 3.8 days during the week prior to the survey. Students who parked a car on campus at least once last week did so for an average of 5.0 days that week.

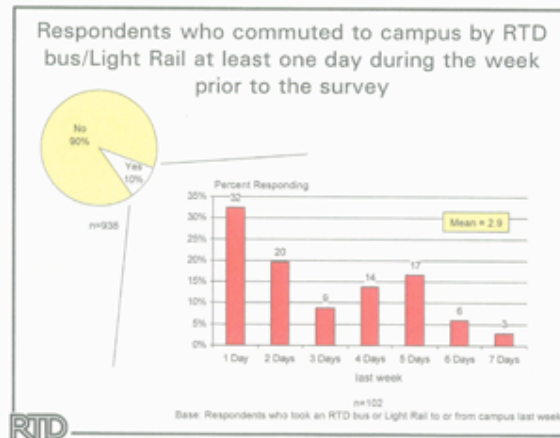
SURVEY RESULTS

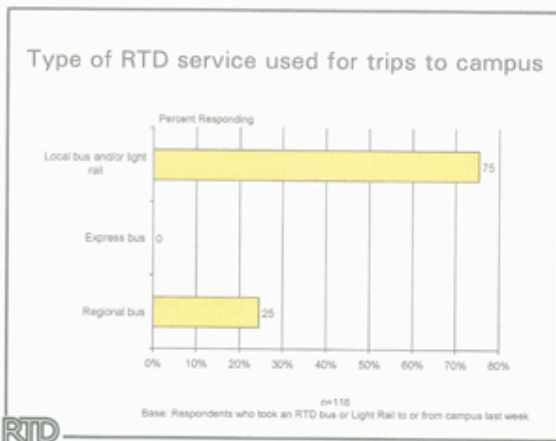


Forty-nine percent of all respondents drove to campus alone in a car on the day they took the survey. Another 37% walked, while 4% said they either rode an RTD bus or light rail, or biked. Two percent of the respondents said they carpooled or were dropped off by someone.

Ten percent of the survey respondents said they commuted to campus by bus or light rail at least once during the week prior to taking the survey.

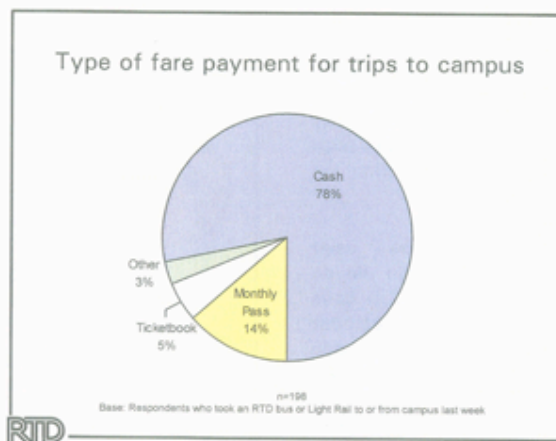
Respondents who used public transportation did so for an average of 2.9 days that week. Fifty-two percent of these respondents rode the bus or light rail two days or less during the previous week, while 26% used transit five days or more.

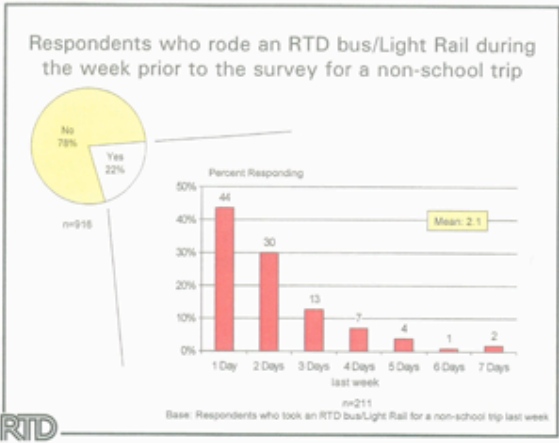




Seventy-five percent of the respondents who rode a bus or light rail to campus at least once during the previous week said they most frequently used Local buses and/or light rail for their travel. The Local bus routes used most frequently included 16/16L - West Colfax (44%), and 17 - Jeffco (15%). Twenty-five percent of the respondents most frequently took Regional buses, mostly Route G - Golden/Boulder (24%). Multiple responses were permitted.

Seventy-eight percent of the respondents who rode transit to campus during the previous week paid their bus fare using cash. Another 14% used monthly passes, while 5% used a ticket from a 10-Ride Ticketbook.

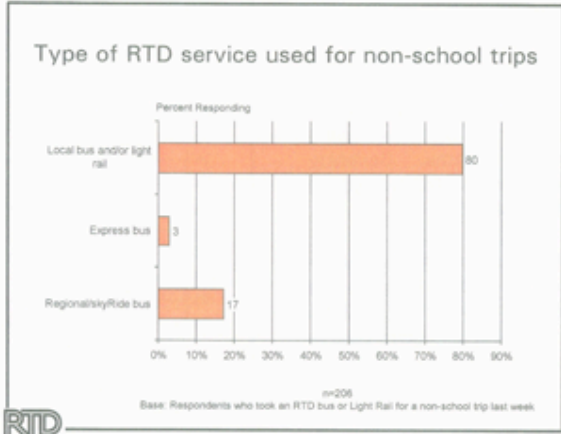


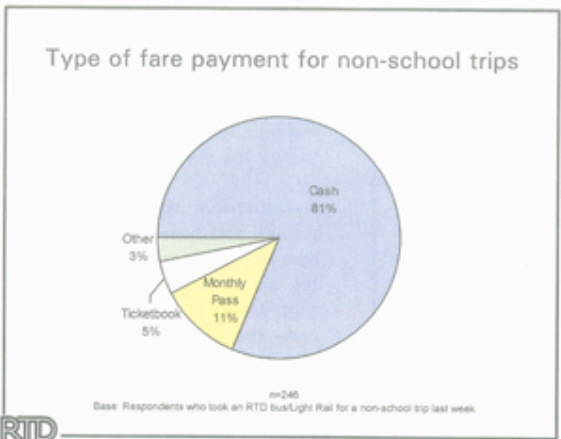


Twenty-two percent of the respondents said they rode an RTD bus or light rail for a non-school trip at least once during the week prior to taking the survey.

Respondents who had used public transportation for a non-school trip had done so for an average of 2.1 days that week. A combined 74% rode the bus or light rail on one or two days during the previous week, while 7% used transit for five or more days.

Eighty percent of the after-school transit riders used Local bus routes and/or light rail. The Local bus route used most often was 16/16L - West Colfax (26%). Forty percent of after-school riders reported riding light rail. Seventeen percent of the respondents most frequently took Regional or skyRide buses, most often Route G - Golden/Boulder (10%). Multiple responses were permitted.

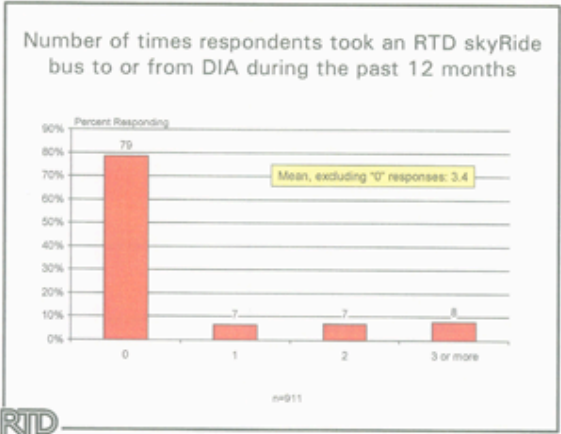




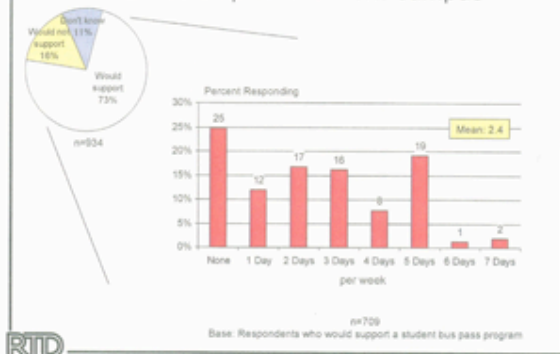
Eighty-one percent of respondents paid their bus or light rail fare for non-school trips using cash. Eleven percent used monthly passes, while 5% paid their fare with tickets from 10-Ride Ticketbooks.

Twenty-one percent of the survey respondents had taken at least one skyRide trip to Denver International Airport during the past twelve months. Seventy-nine percent did not go to DIA on skyRide.

For students who had used the RTD airport service, the average number of skyRide trips during the past twelve months was 3.4.



Support of student referendum and intended RTD ridership to and from campus



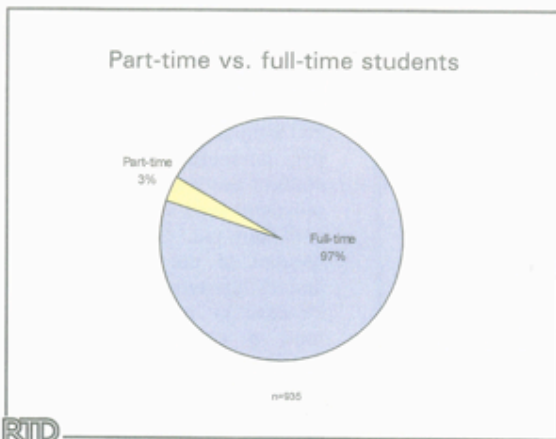
Respondents were asked if they would support an increase in student fees for all students ranging between an estimated \$15 and \$25 per semester to fund a student bus pass program for unlimited trips on RTD buses and light rail. Seventy-three percent of the respondents stated they would support an increase in student fees to fund a student bus pass program. On the other hand, 16% of respondents were against the student pass program, and 11% were undecided.

Students who support the student bus pass proposal expected to ride an RTD bus or light rail to or from campus an average of 2.4 days per week.

On average, all respondents parked a motor vehicle on campus for 3.8 days during the week prior to the survey. Students who parked a car on campus at least once last week did so for an average of 5.0 days that week.

Number of days last week respondents parked a motor vehicle on campus

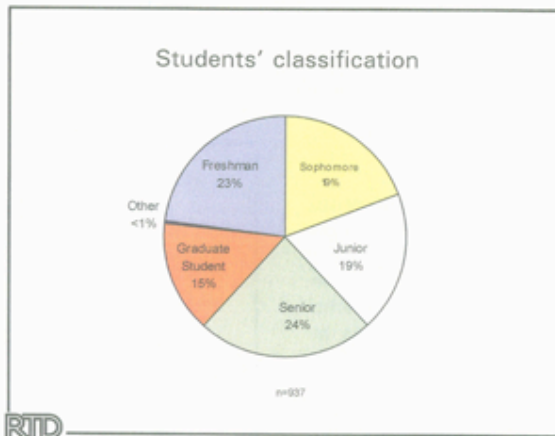




Ninety-seven percent of the students responding to the survey attend the Colorado School of Mines full-time, while only 3% attend school part-time, which is less than 12 credit hours per semester.

Twenty-three percent of the students responding to the survey are Freshmen, and 24% are Seniors. Fifteen percent are Graduate students.

Seventy-six percent of Colorado School of Mines students typically arrive at the campus during the morning peak hours of 6 a.m. through 9 a.m. One percent reported arriving during the evening peak hours of 4 p.m. through 6 p.m. The remaining 23% arrive during other times or did not give a specific time because they live on campus.



Fifty-two percent of the respondents said they usually leave campus during the evening peak hours, while less than 1% leave during the morning peak hours. Fourteen percent typically leave the campus after 6 p.m.

Respondents reside at a variety of zip codes. The table below shows the top seven home zip codes reported:

Home Zip Code	Percentage of Respondents
80401 – Golden/Evergreen/Lakewood	69.7%
80403 – Golden/Arvada/Black Hawk	7.2%
80228 – Denver/Lakewood	2.1%
80226 – Denver/Lakewood	1.4%
80227 – Denver/Lakewood	1.1%
80033 – Wheat Ridge/Denver/Lakewood	0.9%
80004 – Arvada	0.8%

**Appendix A:
Survey Questionnaire**



COLORADO SCHOOL OF MINES STUDENT TRANSIT SURVEY

Dear Student:

The Regional Transportation District (RTD) and Colorado School of Mines are evaluating the feasibility of a Student I.D. Bus/Light Rail Pass Program for Colorado School of Mines students. The information from this survey is important, as it will be used to estimate demand for this program.

1. How did you get to campus today? (Please check only one answer, your main mode of transportation.)
 Walked Rode an RTD bus
 Drove a car Carpoled / Dropped off
 Biked Other: _____

2. **Last week**, did you take an RTD bus or Light Rail for traveling to or from campus?
 Yes No (If no, skip to Question 3.)

2a. If yes, how many days last week did you take an RTD bus or Light Rail to or from campus?
 1 day 2 days 3 days 4 days 5 days 6 days 7 days

2b. If you rode an RTD bus or Light Rail to or from campus, what route(s) did you use most frequently? (Put "LR" for Light Rail.)
Route(s) used to/from campus: _____

2c. How do you typically pay your fare when you board the bus or Light Rail?
 Monthly Pass Ticket Book Cash Other

3. Excluding trips to and from campus, did you ride an RTD bus or Light Rail any day last week for shopping, work, entertainment or some other **non-school** purpose?
 Yes No (If no, skip to Question 4.)

3a. If yes, how many days last week did you ride an RTD bus or Light Rail for a **non-school** purpose?
 1 day 2 days 3 days 4 days 5 days 6 days 7 days

3b. If you rode an RTD bus or Light Rail for non-school purposes, what route(s) did you use most frequently? (Put "LR" for Light Rail.)
Route(s) used for non-school purposes: _____

3c. How do you typically pay your fare when you board the bus or Light Rail?
 Monthly Pass Ticket Book Cash Other

Colorado School of Mines Students

5/3/2005

Bus Pass for LOCAL Service Only - 2005 Fares

Current Revenue Summary

Total number of students	3,534
Annual revenue from trips to/from campus	\$102,341
Annual revenue from non-school trips	\$134,226
TOTAL ANNUAL REVENUE	\$236,567
Annual revenue per student	\$66.94
Semester revenue per student	\$22.31

Colordo School of Mines Students

5/3/2005

Bus Pass for ALL RTD Services, 2005 fares

Current Revenue Summary

Total number of students	3,534
Annual revenue from trips to/from campus	\$152,717
Annual revenue from non-school trips	\$185,099
Annual revenue from skyRide trips	\$20,571
TOTAL ANNUAL REVENUE with skyRide	\$358,387
Annual revenue per student with skyRide	\$101.41
Semester revenue per student with skyRide	\$33.80

skyRide	
% students who took a skyRide bus to/from DIA last year	21.4%
# of students who took a skyRide bus to/from DIA	756
Average number of times students took a skyRide bus to/from DIA last year	3.4
Total number of trips taken on skyRide	2,571
Revenue at \$8 per trip	\$20,571

*Parade
↓
Vote Fall semester '05*

*Allyson Jessop
Vasquez*

2766 undergrads, 768 grads, according to web site www.mines.edu/admin/president/qfdegreespursued.html as of July 04
3534 total

Appendix B: Where Students Are Living



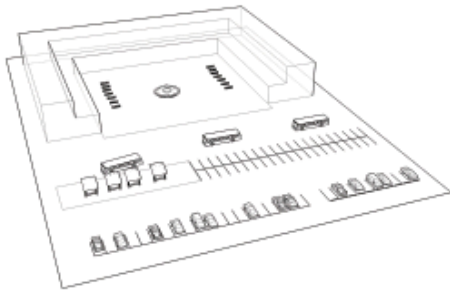
Appendix C: Aerial View of the Site



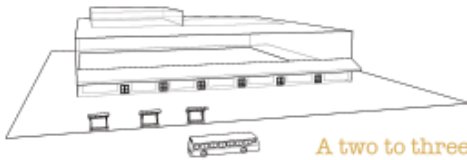
Appendix D: Modes of Transportation

MODES OF TRANSPORTATION

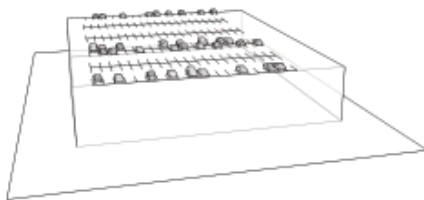
The bus, car, bike, and person are representative of the general ratio of trips to campus a day using each of the particular means of transportation at each of the potential scenarios.



A small mixed-use development that would be complimented by modest surface parking, perhaps around 60 parking spaces. Crucial to this option would be the integration of a major transit demand management effort to reduce up to 500 vehicle trips per day to campus.



A two to three story parking structure containing anywhere from 245 to 367 spaces. A transit demand management effort would also be needed to reduce around 250 vehicle trips to campus per day.



A four story 490 parking space structure.

Appendix E: GUS Bus Supporting Documents

Regional Transportation District



Memorandum

To: Bill Porter
From: Brian Matthews *BM*
Date: November 27, 1996
Subject: GUS Comments

As per your request, Jessie and I talked to the Operators on the GUS regarding how RTD can increase passenger activity on the route. The comments we received are as follows:

Robert Austin

- You could extend the GUS to serve Heritage Square. He'd heard a rumor that RTD would be cutting the service frequency to 30 minutes.

- Lower fares.

"It's hard to predict who will ride this sort of thing (GUS) ... I mean you would have to find a way of getting people out of their cars."

Richard Anderson

- No suggestions

"What more can ya do ... I've seen the flyers in the stores and around. Looks like ridership is going down from where it used to be."

Steve Schumann

- Run route through School of Mines

- Run route to the Jeffco Courthouse

- Run route to Heritage Square. Customers often make this comment. I don't really understand it because every time I have been there the parking lot is empty. Who goes there?

- Passengers prefer the 20 minute headway but if we add new service and change to 30 minute service I don't think the passengers will mind.

- Passengers like the current day pass. I sell lots of them.

Roger Montoya

- Go to the School of Mines

- Passengers like the day pass. Most of the ones I sell are to students.

- Most of my passengers are seniors and students. You can't get people out of their cars in this area - it's too easy to drive.

BM

C: Bob Rynerson, Senior Lead Service Planner/Scheduler; File: GUS



AGREEMENT

CITY OF GOLDEN/RTD

This Agreement made this 25th day of April, 1996, between the REGIONAL TRANSPORTATION DISTRICT, a political subdivision of the state of Colorado organized pursuant to the Regional Transportation District, Act, C.R.S. 32-9-101, et. seq. (hereafter "RTD") and the CITY OF GOLDEN (hereafter "Golden"). The purpose of this Agreement is to provide a special demonstration route as requested by Golden.

1. RTD will operate a special fixed bus route in Golden called the Golden Urban Shuttle hereinafter "G.U.S.", along the route and according to the schedule shown in Exhibit A attached, between May 6, 1996 through December 31, 1996.

2. Implementation of G.U.S. will require the creation of new bus stops in Golden. RTD will confer with Golden officials regarding the creation and location of these stops, and will design, setup and remove these bus stop signs as required.

3. The following fares will apply:

Regular Fare	\$.50
Non-peak Disabled Fare	.25
Medicare/Senior Non-peak	.15
Children 5 and under	Free

All Eco passes and youth, skyRide, Denver Local, Boulder Local, Express and/or Regional monthly passes and transfers will be accepted on this route.

4. RTD and Golden will share equally in the cost of this service. Total cost of service is \$214,900 for the demonstration period, as shown on Exhibit B. Golden's share is \$107,450.

5. Golden will be billed two equal installments of \$53,725 on May 1, 1996 and August 1, 1996, each due and payable within thirty (30) days. Payment shall be a condition of this Agreement.

6. Golden will create an advisory group consisting of merchants, residents, businesses, etc. to assist in planning, monitoring, and marketing the route.

AGREEMENT
CITY OF GOLDEN/RTD
Page 2

7. The ridership goal for this route, in accord with RTD's minimum service standards for a non-radial Local Route, is five (5) passengers per one-way trip. RTD will prepare monthly ridership reports which will be provided to Golden. A ridership evaluation will be conducted on or before September 30, 1996.

8. RTD, at its expense, shall modify three Goshen cutaway vans for use on the route. Each van shall contain a minimum of twelve (12) seats, farebox, radio system, and two wheelchair tie downs. RTD will paint these vehicles in a new paint scheme approved by both parties. RTD shall retain all fares collected as a partial offset for incurring these expenses.

9. RTD and Golden will provide a joint marketing effort prior to and during the service period to promote the shuttle. A description of the marketing plan is attached as Exhibit C. Golden shall not be billed for any direct marketing costs incurred by RTD.

10. RTD reserves the right to modify, alter or suspend service on the route in response to emergencies, acts of God, or unforeseen circumstances. Golden's sole remedy in that event shall be to obtain a refund of amounts paid and credited for any full day's service which is canceled. Golden shall not be entitled to obtain a refund for altered routes or service delayed beyond the hours specified in Exhibit B.

11. Nothing in this Agreement shall be construed to limit RTD's right to establish routes, stops or to perform any function authorized by C.R.S. 32-9-101, et.seq. In no event shall RTD be liable for special, incidental or consequential damage for breach of this Agreement, except for a refund of amounts paid and/or due to be credited for service not provided. Golden expressly waives any and all claims for any damages to its premises, facilities, streets, or rights-of-way, resulting from ordinary use by RTD vehicles pursuant to this Agreement.

12. Neither RTD nor Golden, by this Agreement, waive any privileges and immunities conferred upon it by the Colorado Governmental Immunity Act. Each party will be responsible for any claims, demands, or suits arising out of its own negligence.

13. This Agreement may not be amended or modified except by means of a writing executed by all parties and expressly stating that it is an amendment or modification to this Agreement. Nothing in this Agreement shall be construed to give third-party beneficiary rights to any entity or person not a party to this Agreement.

AGREEMENT
CITY OF GOLDEN/RTD
Page 3

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

REGIONAL TRANSPORTATION DISTRICT

By: Cal Marsella
Clarence W. Marsella
General Manager

APPROVED AS TO LEGAL FORM FOR THE
REGIONAL TRANSPORTATION DISTRICT:

By: MLL
Marfa L. Lien
Associate General Counsel

CITY OF GOLDEN

By: _____
Jan Schenck
Mayor

ATTEST:

By: _____

Name: _____

Title: _____

Approved:

By: _____
Legal Counsel

GOLDEN SHUTTLE

SELECTED DEMONSTRATION PROGRAM

ROUTE: PLEASE SEE ATTACHED MAP

OF BUSES: 2

CYCLE TIME: 40 MINUTES

FREQUENCY: 20 MINUTES

SPAN OF SERVICE: 7:00 A.M.-8:00 P.M., MONDAY-SATURDAY

TIME FRAME: MAY 6 - DECEMBER 31, 1996

COSTS:

RTD	\$107,450
CITY OF GOLDEN	<u>107,450</u>
TOTAL PROJECT	\$214,900

CHANCE OF SUCCESS: MEDIUM

POINTS OF INTEREST: NORTH GOLDEN
COORS BREWERY
SENIOR CENTER HIGH RISE
COMMUNITY CENTER
DOWNTOWN GOLDEN
SCHOOL OF MINES
COUNTY HUMAN RESOURCES AND
JUSTICE CENTER OFFICES
GOLDEN RIDGE APARTMENTS

(4/9/96)

Golden Urban Shuttle - GUS
MARKETING/ADVERTISING PLAN

Background

In March 1996, RTD and the City of Golden entered into an agreement to begin a circulator bus service within Golden operating from May 6 through the end of 1996, on a trial basis, at the end of 1996 this service will be evaluated. The route, called the Golden Urban Shuttle or GUS, will operate Monday through Saturday with a 20-minute frequency, and serve downtown, several residential areas, and other popular destinations. The fare will be \$.50 one-way, and Ten Ride ticketbooks will be sold. Also, as a promotional kick-off, for the month of May, GUS service will be free. Golden's population is approximately 16,000.

Another aspect of this project, is that RTD is contemplating small bus circulator projects in other areas of the District in the future. GUS will be the first venture of this type and will serve as the model for any other circulator routes.

Goal

To inform citizens of Golden about the new GUS service, including GUS' route and schedule of operation and to maximize ridership.

Objectives

- To make Golden residents, employees aware of the new GUS service.
- To generate excitement and ridership for GUS.
- To educate the public about GUS' route, frequency and destinations.
- To meet or exceed the 5 riders per trip goal of the project.

Target Audiences

Overall market segment:

- Golden general public (residents, workers, visitors)

Sub-segments:

- Senior Center residents
- parents and children age 10-15
- new residents of Golden
- Golden Community Center employees and patrons
- School of Mines staff and students
- Coors employees
- City of Golden, County employees
- Visitors and tourists
- downtown businesses—customers and employees

Communication Strategy

Develop a multimedia program which will include general advertising, promotions, Internet, direct mail, public relations, marketing to city employees.

Tactics

1. General Advertising

- Print ads and editorial in local newspapers, newsletters, magazines
- Brochures (map & schedule)
- Posters around Golden
- Painted buses
- Special GUS bus stop signs
- Coupon Book promotion w/merchants
- TIC providing a speed dial number specifically for GUS information
- GUS stickers
- Researching Safeway grocery bag advertising
- RTD News articles

2. Promotions/Special Events

- Kick-off celebration/press event at Golden Community Center 5/4
- Free GUS service on May 4 between 11:00 a.m. and 1:00 p.m. as part of kick-off
- Merchant promotion (GUS ticket giveaways/coupon book ads/posters)
- Possible GUS entry into Buffalo Bill Days or GoldenFest parades
- School promotion (posters)
- Businesses in Golden, School of Mines

3. Direct Mail

- City water bills to include GUS information
- Possible direct mail to Golden households
- Direct mail using local and community groups' mailing lists (Chambers of Commerce, Rotary clubs, etc).

4. Public Relations

- Press Releases
- Speakers at local community clubs
- Generating stories on TV, radio and newspapers
- RTD News
- Create a local advisory group to the project to assist in marketing, public information and rider feedback.

5. Internal Marketing

Golden:

- City of Golden newsletters
- Golden company newsletters
- Golden Chamber of Commerce newsletter
- Golden Merchants Association (downtown merchants)

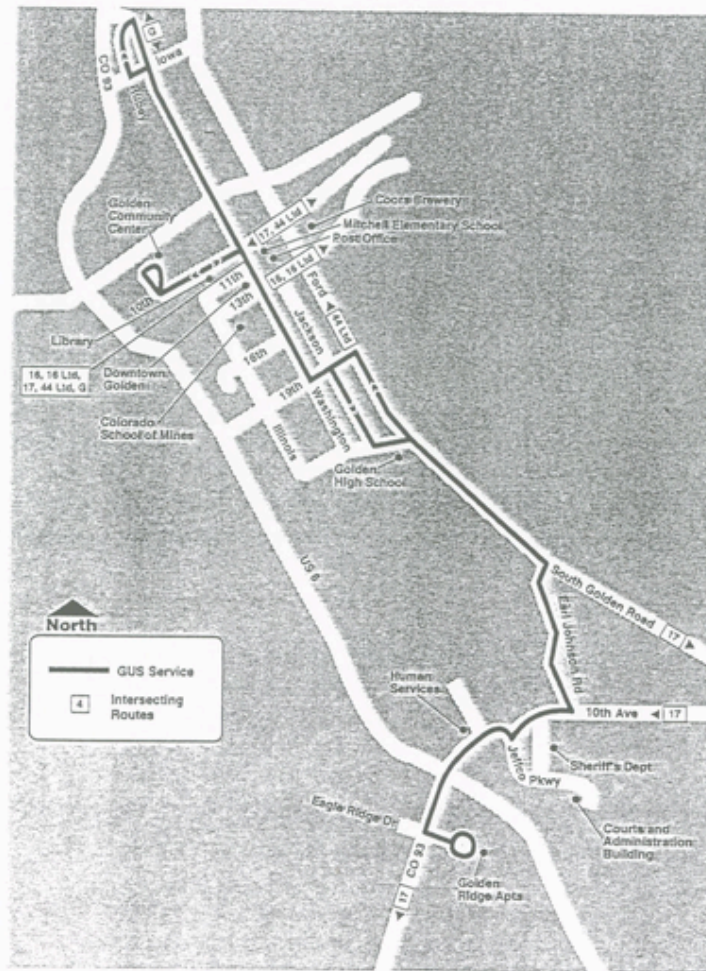
RTD:

- Monday Morning Q
- Inside RTD

Budget: \$10,000 - \$20,000

Golden Urban Shuttle *The "GUS" Bus*

5/96



Monday - Saturday

GUS GOLDEN URBAN SHUTTLE

Southbound

	Rubey/ Washington	Golden Community Center	Washington/ 10th	Washington/ 19th	Golden High School	Earl Johnson/ S. Golden Rd.	10th/ Illinois (Human Resources)	Golden Ridge Apts.
702 AM		706	708	711	712	714	717	720
722		726	728	731	732	734	737	740
742		746	748	751	752	754	757	800
802		806	808	811	812	814	817	820
822		826	828	831	832	834	837	840
842		846	848	851	852	854	857	900
902		906	908	911	912	914	917	920
922		926	928	931	932	934	937	940
942		946	948	951	952	954	957	1000
1002		1006	1008	1011	1012	1014	1017	1020
1022		1026	1028	1031	1032	1034	1037	1040
1042		1046	1048	1051	1052	1054	1057	1100
1102		1106	1108	1111	1112	1114	1117	1120
1122		1126	1128	1131	1132	1134	1137	1140
1142		1146	1148	1151	1152	1154	1157	1200
1202 PM		1206	1208	1211	1212	1214	1217	1220
1222		1226	1228	1231	1232	1234	1237	1240
1242		1246	1248	1251	1252	1254	1257	100
102		106	108	111	112	114	117	120
122		126	128	131	132	134	137	140
142		146	148	151	152	154	157	200
202		206	208	211	212	214	217	220
222		226	228	231	232	234	237	240
242		246	248	251	252	254	257	300
302		306	308	311	312	314	317	320
322		326	328	331	332	334	337	340
342		346	348	351	352	354	357	400
402		406	408	411	412	414	417	420
422		426	428	431	432	434	437	440
442		446	448	451	452	454	457	500
502		506	508	511	512	514	517	520
522		526	528	531	532	534	537	540
542		546	548	551	552	554	557	600
602		606	608	611	612	614	617	620
622		626	628	631	632	634	637	640
642		646	648	651	652	654	657	700
702		706	708	711	712	714	717	720
722		726	728	731	732	734	737	740
742		746	748	751	752	754	757	800 PM

Monday - Saturday

GUS GOLDEN URBAN SHUTTLE

Northbound

Golden Ridge Apts.	10th/ Illinois (Human Resources)	Earl Johnson/ S. Golden Rd.	Ford/ 24th	Washington/ 19th	Washington/ 10th	Golden Community Center	Rubey/ Washington
705 AM	706	708	711	712	715	717	722
725	726	728	731	732	735	737	742
745	746	748	751	752	755	757	802
805	806	808	811	812	815	817	822
825	826	828	831	832	835	837	842
845	846	848	851	852	855	857	902
905	906	908	911	912	915	917	922
925	926	928	931	932	935	937	942
945	946	948	951	952	955	957	1002
1005	1006	1008	1011	1012	1015	1017	1022
1025	1026	1028	1031	1032	1035	1037	1042
1045	1046	1048	1051	1052	1055	1057	1102
1105	1106	1108	1111	1112	1115	1117	1122
1125	1126	1128	1131	1132	1135	1137	1142
1145	1146	1148	1151	1152	1155	1157	1202 PM
1205	1206	1208	1211	1212	1215	1217	1222
1225	1226	1228	1231	1232	1235	1237	1242
1245	1246	1248	1251	1252	1255	1257	102
105	106	108	111	112	115	117	122
125	126	128	131	132	135	137	142
145	146	148	151	152	155	157	202
205	206	208	211	212	215	217	222
225	226	228	231	232	235	237	242
245	246	248	251	252	255	257	302
305	306	308	311	312	315	317	322
325	326	328	331	332	335	337	342
345	346	348	351	352	355	357	402
405	406	408	411	412	415	417	422
425	426	428	431	432	435	437	442
445	446	448	451	452	455	457	502
505	506	508	511	512	515	517	522
525	526	528	531	532	535	537	542
545	546	548	551	552	555	557	602
605	606	608	611	612	615	617	622
625	626	628	631	632	635	637	642
645	646	648	651	652	655	657	702
705	706	708	711	712	715	717	722
725	726	728	731	732	735	737	742
745	746	748	751	752	755	757	802 PM

Appendix F: HOP Case Study

Boulder developed their first transportation master plan in 1989 (Cris Jones, personal communication, March 31, 2006) upon deciding that good alternative transportation would be necessary to maintain the high quality of life that Boulder prides itself on. The result was GO (Great Options) Boulder, which “strives to develop a sustainable and balanced transportation system that supports the quality of life valued by Boulder’s residents, employees and visitors” (GO Boulder, 2006). The HOP was developed with the idea that a community bus should run frequently enough that there wouldn’t be a need for a schedule, should have a radio, should be a smaller and therefore have a very visible yet less obtrusive presence, and have friendlier drivers than the average transit. The HOP also deviates from its course in order to deliver riders closer to home at night. Federal funding was essential in getting the HOP to become a reality. The grant came from CMAQ funds that were distributed through the Denver Regional Council of Governments (DRCOG). The DRCOG is the government entity that collaborates with the “Colorado Department of Transportation (CDOT), the Regional Transportation District (RTD), the Regional Air Quality Council (RAQC), the Colorado Department of Public Health and Environment (CDPHE), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA) to prepare transportation plans and programs” (DRCOG, 2006). According to Cris Jones (personal communication, March 31, 2006), the opportunity to obtain these federally funded transportation grants occur every two years. It is not possible to reapply for the grant with a project that has already received a grant. Thus, while much of the money went to buying the HOP busses, there is not necessarily new revenue to buy more busses.

The HOP made its debut in October of 1994 circulating around Boulder at a frequency so that riders wouldn’t have to wait longer than 10-15 minutes for their bus. Although the service was commissioned by the City of Boulder through Special Transit, a non-profit organization that provides transportation services, it was agreed that they would function in the same way that an RTD bus would. This means that it is possible to use an RTD pass to board the HOP.

At the end of the initial federal funding, it took awhile for RTD to take a role in funding the HOP. An agreement was finally made between the City of Boulder and RTD that they each would pay for half. The City of Boulder then sought out funding from the University of Colorado at Boulder to help pay for their half. Currently, when students pay their student fees, a certain portion goes directly to RTD and another portion is given to the city as funding for the HOP. This symbiotic relationship between RTD, the City of Boulder, and the University of Colorado at Boulder has endured for several years now. Much of the funding from the City of Boulder comes from a transportation sales tax (Jones, personal communication, March 31, 2006). Recently, RTD increased their percentage of funding to 58%. Even now, although the HOP carries around 4,000 riders a day, it doesn't meet the standards of productivity that RTD would require if they were to fund it entirely (personal communication, March 31, 2006). According to RTD standards, the SKIP, carrying 5-6 thousand riders per day, is an example of a successful route. Peter Roper, the transportation program coordinator at the University of Colorado Environmental Center speculates that perhaps the lack of RTD involvement in the HOP is precisely what makes it such an invaluable transportation option in Boulder. If RTD was running the HOP then it might mean the end of free fare days, which the HOP does for events such as the Conference of World Affairs and holidays that promote heavy drinking such as New Years. RTD might also allow busses to run the HOP route that don't have the HOP persona, or "wrap" as it is called. RTD agreed to let the Skip, Jump, Dash, and Bound have wraps, although it isn't uncommon to see an unwrapped bus running one of those routes if a wrapped one isn't available for some reason. Even though busses that have names instead of a number give the appearance of being friendlier, studies have actually been done that show people are more reliant on busses that carry a number and not a name (Motor Coach Age, 1997).

The HOP also runs at the frequency that it does, and the hours that it does because the City of Boulder feels those things are important and is willing to subsidize them. Although the HOP carries riders steadily throughout the day, the busiest time is often in the very late night/early morning between 1:00am and 3:00am, as people exit the bars.

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