Project #: K-10-809
Center #: T5175-0A0
Contract#: FC-3863-88
Prime #:
Subprojects #: N
Main project #:

Sponsor/division names: CITY, OF - ATLANTA
Sponsor/division codes: 300
Award period: 880201 to 881031 (performance) 881031 (reports)

Sponsor amount
Contract value 11,851.00
Funded 11,851.00
Cost sharing amount 0.00

Does subcontracting plan apply #: N

Title: THE CITY OF ATLANTA ACCESSIBLE PLAYGROUND

PROJECT ADMINISTRATION DATA

OCA contact: Brian J. Lindberg
Sponsor technical contact

MS. HARRIET SANFORD, DIRECTOR
(404)653-7101
CITY OF ATLANTA BUR. OF CULTURAL AFF
236 FORSYTH STREET, S.W., SUITE 402
ATLANTA, GA 30303

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Security class (U,C,S,TS) : U
Defense priority rating : N/A
Equipment title vests with: Sponsor

NONE

ONR resident rep. is ACO (Y/N): N
N/A supplemental sheet

Administrative comments -
INITIATION - FOLLOW-ON TO K-10-805. K-10-805 HAS 0% INDIRECT COST.
NOTICE OF PROJECT CLOSEOUT

Date 5/9/89

Project No. K-10-809  Center No. T5175-0A0

Project Director E. Wittner  School/Lab OIP / Arch. College

Sponsor City of Atlanta

Contract/Grant No. FC-3863-88  GTRC XX  GIT

Prime Contract No.

Title The City of Atlanta Accessible Playground

Effective Completion Date 10/31/88 (Performance) 10/31/88 (Reports)

Closeout Actions Required:

- None
- Final Invoice or Copy of Last Invoice
- Final Report of Inventions and/or Subcontracts—Patent questionnaire sent to P/I.
- Government Property Inventory & Related Certificate
- Classified Material Certificate
- Release and Assignment
- Other

Includes Subproject No(s). ____________________________

Subproject Under Main Project No. ____________________________

Continues Project No. ____________________________ Continued by Project No. ____________________________

Distribution:

- Project Director
- Administrative Network
- Accounting
- Procurement/GTRI Supply Services
- Research Property Management
- Research Security Services

- Reports Coordinator (OCA)
- GTRC
- Project File
- Contract Support Division (OCA)
- Other

 ____________________________
June 22, 1988

Ms. Harriet Sanford  
Ms. Barbara Bowser  
Bureau of Cultural Affairs  
City of Atlanta  
Suite 402  
236 Forsythe Street  
Atlanta, Georgia 30303

Subject: Project K-10-809 (City of Atlanta Playground Project)

Dear Ms. Sanford and Ms. Bowser:

The following information is a current update on the above-referenced project. Based on the model constructed of the Numbers One through Four as they would be positioned on the site, we are producing dimensioned plans and elevations. Simultaneously, we are generating concepts for details which will be incorporated into these sites. The majority of these details originated in the first phase of the design from the concept drawings with which you are already familiar. Details include designs for play equipment specific to each site and for standard elements to be used throughout the playground, such as columns, paths, bridges, edging, etc.

In order to produce construction drawings, we will need to have a medical review of the play equipment concepts and overall site layout. Based on the input from the Physical and Occupational Therapists, we will establish the final designs, determine how they will be constructed, and the materials which will be used for construction.

At the onset of the Playground Project, we met with a Physical Therapist, Dave Rohe, and an Occupational Therapist, Mike Ferst, at the Medical College of Georgia in Augusta. Also present were Ezra Wittner, Professor Richard Martin, and me. We reviewed some drawings of accessible play equipment and the discussions we had about this equipment helped to create a foundation for our design concepts. Enclosed is a report of this meeting for your files. Also enclosed is a list of design criteria abstracted from the report. A report of our next meeting with medical experts will be sent to you as soon as possible.
If you need any additional information, please do not hesitate to contact me at 894-4960.

Sincerely,

Ms. Teel M. Cook
TMC/jmm
Attachments

cc: Project Files
    Brian Lindberg, OCA
ACCESSIBLE PLAYGROUND MEETING AT GEORGIA MEDICAL COLLEGE

RE: Playground Device Review with Physical Therapy personnel of Georgia Medical College

ACTIVITY

Meeting convened in the conference room of the Medical Library of Georgia Medical Center at 1:30 PM on Friday 22, August 1986. Present were Professor Dick Martin of Georgia Tech, Teel Montague Cook and Mr. Ezra Wittner as well as the two representatives of Georgia Medical Center, namely Dave Rohe and Mike Ferst. Discussed were the organizational and administrative mechanisms for launching a joint effort between CRT-GT and CRT-GMC. Professor Martin pointed out that Dr. Greenbaum being a member of CRT-GT board, in fact, by this office, established CRT at MCG. After some discussion between Professor Martin, et al. and Dave and Mike concerning the logistics of joint work, the meeting settled into a relatively detailed discussion of the booklet prepared by Teel Cook for review. The booklet contained 46 drawings, prepared by Community Design Center and a few prepared by Teel and Ezra. Discussed in detail were drawings numbers 1 through 5, 10, and additional ideas not found in the booklet. The purpose of discussing these generic ideas was for finding out how a designer's thoughts concerning devices for the disabled in a play situation lived up to the physical qualities of mild to severe handicaps. For the most part, the ideas were seen as ok, and received some highly favorable responses from Dave and Mike along with some suggestions.

At the onset of the discussion of the designs, Dave suggested that we be aware of the fact that in many situations the parent is disabled and wheel chair ridden and must be able to supervise able bodied children. He suggested that raised sandboxes would allow for ease of access by wheel chairs. Likewise observation areas should not prohibit disabled parents from reaching their children quickly. In response to our stated desire to have interactive play between abled and disabled people, Dave pointed out that attitudes towards handicapped people and their equipment are predominantly formed between the ages of 2 and 4 years. He said abled and disabled children should, during this time, be encouraged to play together.

At this point, we proceeded to discuss the drawings. Drawing #1 shows an observation deck overlooking a landscape of concrete pipes. Originally the deck was to be 8'-0" above the ground, but Dick said that parents of smaller children and retarded adults had objected to such heights,
therefore it is thought of as about 4'-0" above ground. Other points made by Dave and Mike concerning drawing #1 were as follows:

The floor of an observation deck could be metal mesh or some other material that allows people on deck to see to the ground below.

In response to our question concerning a way for paraplegics to pull themselves up to the deck, Mike informed us that paraplegics do not want to risk their lower extremities and will avoid dragging them and bumping them because they bruise and tear easily due to poor circulation. Mike then pointed out that paraplegics with spina bifida would be of the group who would be especially wary of this activity. He also noted that people with cerebral palsy can use their arms in an activity, but not their legs. At this point, we proceeded to discuss drawing number 2.

Number 2 shows a platform, a tire and three animal forms each mounted separately on large springs in a shallow sand box. Of the five "Spring Toys," Dave and Mike were most interested in the platform. They noted that it was good for developing a sense of balance. Also that it could be made safer if loops were provided for holding on to. The negative points they brought up were that, this activity could not be shared by more than one person on a platform, nor could platforms be placed close together because of the risk of getting pinched between them. Also this activity would be inappropriate for the disabled without a sense of depth perception. Otherwise this is a good idea. Design suggestions made by Mike were that an attachable trunk support for those with incapacitated hip bones and muscles should be provided on many of the suggested items of play. Mike said that the spring supported platform might be divided into 4 parts. This would either add a dimension of challenge to the item or might allow more than one person aboard. This is not a clear direction, and further research is necessary. In addition it was discussed that the area of ground around this item should provide some cushioning in the event of a fall. Discussed was a variation on the spring platform suggested by Wittner was immediately seen as a terribly difficult event for even the able bodied. However it was suggested that perhaps as a challenge for the able bodied, it be considered. The idea was a spring loaded, raised foot path of wood or the like. The participant would walk from pad to pad above the ground having to contend with jiggling motion as well as moving in an upright position from one step to the next.

Drawing number 3 shows multiple slides. At first Dave and Mike thought that narrow slides would give support. Finally
after Wittner suggested that it be one large surface, Dave agreed that since many disabled people need to assume fetal like positions or turn sideways or lay in otherwise strange positions, a large undivided slide would be advantageous. It was discussed that ropes might bring people back to the top of the sliding board so they could slide again. This writer can not recall if this applied to able bodied, disabled or both. It seems that if certain groups of disabled people, as were described, can not feel their legs, then this rope climb may be considered dangerous because of concern for leg wounds and their painfully slow healing processes as discussed previously.

In drawings 3 and 4, return ramps are shown for getting to the top of the slides. In response to our question concerning the grade a wheelchair can safely climb, Dave said that it cannot exceed 1' rise to a 12' run. Mike added that since it will take a significant amount of time to get to the top of the slide, we should produce mobiles and other participatory activities on the climb.

During the meeting, ideas generated exclusively by CRT were introduced as additional thinking. One was the wheelchair paddle boat. It was described as a system in which the user of the boat would use the wheels of the chair to operate the paddle thus making the boat mobile. Mike said that it was really a hot idea. Dave said it was more important to draw skills out of them and to not sell them short. Mike said further that he liked the paddle boat idea because it was wheelchair exclusive. Dave said that we must challenge the abilities of the disabled.

We showed them the concept of a climbing wall. They said it was a good idea but that the projecting steps should be fixed, not pivotal. A further illumination of this point was that some steps would be fixed while others were retractable or foldable as long as they were not spring loaded.

Another idea we presented was the feel pole. Here a blind person could walk alongside a continuous horizontal rail made up of changing shapes. He could also read about those changes on an adjacent continuous braille tablet. Mike thought it ought to be compressed into a smaller area than that described. Mike emphasized causality and importance of having the disabled make something happen, as in making a mobile turn, or a tone of music sound.

Drawing number 5: Flatly and clearly Dave and Mike nixed seesaws. Because of its dangers even for the able bodied. This is under consideration. They said that falling was a problem, and that getting on was a problem. It would be
required that for getting on the seesaw one would have to
lock it in place. After discussing Mr. Martin's idea of
swings in a circle so that people who were retarded could
observe other people swinging, rather than the standard line
up of swings where the participants learn little from
observing each other swinging, it was suggested that the
device in drawing 10 be arranged in a similar fashion.

Drawing 10 shows swing bars in a linear arrangement with
different heights for those in wheelchairs, those with
crutches, and people of different heights to use. Mike
suggested that we use a circular arrangement with resting
stations so that those in wheelchairs and crutches could
return to their mobility aids upon completion of the
exercise. Then a discussion ensued concerning the
eventuality of losing access to ones mobility aid. It was
at first thought that, like the Japanese System of multiple
bikes available to anyone in a given city, multiple wheel
chairs be available everywhere in the park, i.e., when a
person came to the end of an event, there would be an
available wheelchair with which they could proceed to the
next event. Dave pointed out that wheelchairs were very
personal vehicles and that extended use of a strange
wheelchair would be undesirable. However, he conceded that
short term usage of a strange chair would possibly be
acceptable. It is obvious that multiple wheelchairs were not
feasible due to lack of funding and scruples on the part of
the public. Further study will be required to determine
transport of mobility aids through play activities.

At this point, additional matters were discussed. The
radius necessary for a wheelchair to turn on the monkey bars
(shown in Drawing #14), which Mike and Dick believed to be
5' diameter, and the dangers of the pivoting ramp (shown in
drawing #9), Mike suggested the possibility of a trunk
supported cable ride to bring participants back to mobility
aids. Mike emphasized the importance of a very secure
harness.

In conclusion to the meeting, we determined that Mike and
Dave would continue to review the drawings in the booklet
and make any comments, suggestions and drawings, they deemed
necessary to enable us to continue our design activities
responsibly. They will return these booklets to us via
mail, and we will thus proceed. The meeting adjourned at
5:20 p.m.
CRITERIA FOR ACCESSIBLE PLAYGROUND:

Activities must be accessible from a wheelchair, paths must be wide enough, height low enough.

Wheelchair must be accessible at the end of activity if activity involves leaving the wheelchair.

All surfaces that contact any nerve dead tissue must not cause injury.

Trunk support must be provided for some wheelchair bound in activities out of the wheelchair.

Means to affix chair to equipment must be provided where required.

Activities must be stimulating mentally if not physically to be therapeutic.

Exit points must be provided before each level of increased difficulty.

Resting stations must be provided along strenuous activity.

Materials used should be nonsplintering.

Surfaces to be walked on, must have friction.

Ramps must not exceed 1 to 12 ratio.

Access to equipment user must be provided in case user needs help.

Precautions must be taken to keep from having collisions at intersections, or in activity.

In group activities abled and disabled should work together where possible.

Soft surface must surround any activity where possibility of falling exists.

Indicate changes in paths or activities through change in textures for blind.

Unstable base activities must have hand holds provided.
Surfaces that wheelchairs travel on must be easy to manipulate on.

Padding provided where bruising is a possibility.

Prevent disabled with vestibular problems from being subjected to spinning.

Where possible wheelchair user should be able to return to wheelchair without assistance.

Paths need to be 5' wide to provide for wheelchair to turn around.

Realize the needs of wheelchair bound parents in design of activities.
MEMO

November 15, 1988

TO: Brian Lindberg
FROM: Carol Whitescarver
RE: K10-809, City of Atlanta Playground Project

I am forwarding to Mary Wolfe two copies of the final report submitted to the City of Atlanta in fulfillment of our contract with the City to design an accessible playground for Grant Park. The project was completed on October 31, 1988.

We are currently in contact with the office of the Commissioner of Cultural Affairs (Parks and Recreation) to determine a time convenient for the Commissioner to receive the report and other deliverables called out by the contract.

The report includes:
- verbal descriptions of the playground and its elements,
- a report summarizing physical and occupational therapists’ recommendations,
- a proposed sequence of follow-up activities for the City,
- engineering proposals and cost estimates for engineering services.

In addition to the report, we will deliver:
- a topographical map of the Grant Park site,
- a conceptual model of the playground,
- working models of several playground elements, and
- 2 sets of architectural blueprints describing the playground and its elements.

These deliverables complete our obligation to the City of Atlanta for the K10-809 contract.

cc: Mary Wolfe
AN ACCESSIBLE PLAYGROUND
FOR
THE CITY OF ATLANTA
Betsy C. Baker, Commissioner
Department of Parks Recreation and Cultural Affairs
236 Forsyth Street, S.W.
Suite 500
Atlanta, Georgia 30303

Dear Commissioner Baker:

The attached packet is submitted in fulfillment of CRT's obligation to provide professional services to design and produce conceptual plans and elevation studies for an accessible playscape in Grant Park. The packet includes: architectural drawings of the proposed playground layout, elements, and equipment; a written description of playground layout, elements, and equipment; a report summarizing medical and therapeutic reviews of elements included in the design; an existing site plan of the tentatively proposed location on Boulevard Avenue in Grant Park; proposals and cost estimates from reputable engineering firms in the Atlanta area for structural engineering and site planning; and a recommended outline of follow-up procedures necessary for the execution of full construction documents once the actual site has been selected.

The design, which accommodates both able-bodied and disabled individuals, is the culmination of many hours of careful planning and research by professional architects and designers in CRT. Recognizing that, by nature, playground facilities are potentially hazardous, staff designers have consulted the technical guidelines set forth in the "Public Playground Safety Handbook" developed by the U.S. Consumer Product Safety Commission; final verification of conformance to specifications is the responsibility of the prime design services contractor commissioned for the construction phase of the playground endeavor. Furthermore, the design process emphasized regular consultation with physical therapists from the Medical College of Georgia and our staff occupational therapist in an effort to produce a scheme that is as safe and therapeutic as can reasonably be expected for the disabled user.

Although this packet completes our contractual obligation, our interest in the project remains active. We shall endeavor to assist the City in fund raising initiatives and are interested in entering into any additional contracts with the City that might be appropriate for design consultation to the prime design services contractor in the final construction phase.

Sincerely,

Lane M. Duncan, AIA
Project Architect

James C. Toler
Center Director
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CONCEPTUAL DRAWINGS:

PLANS, ELEVATIONS, DETAILS
NUMBER TWO DETAILS
NUMBER TWO DETAILS

CLIMBING DECK

JUNGLE TREE

SPRING TREE

DETAIL CONNECTION
6 POL. 1/2"
NUMBER THREE DETAILS

GUITAR PANEL

FISHING GAME

- Strings are heavy nylon core
- Finger guards
- Square head metal coupling
- Threaded rod
- PVC coating on rod & rail & contact
- Rod is thick walled rigid tubing with rubber flared handle
- Chain link mesh gate 4" top
- Cast aluminum handle 3/4" dia
NUMBER FOUR DETAILS

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**Typical View:**
- **Metal Entrance Door:** Includes welded metal.
- **Entrance to Number Four:**
- **Door Frame West North:**
- **Frame with Chimes:**
- **Lightweight Plastic Cladding:**
  - Plastic sleeve
  - Fits in roof of house frame

---

Dimensions and measurements are provided for each section, including:
- Heights, widths, and lengths
- Material specifications
- Placement and orientation of components

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**Guidelines:**
- Use of metal frames and welds
- Entrance details
- Chime installation
- Lightweight cladding application

---

**Notes:**
- Clearances and clearances
- Material thicknesses
- Installation instructions
NUMBER FOUR DETAILS

EDGES OF CONCRETE BASE ARE ROUNDED

CONNECTING TUNNELS

MANY SHOWN SURFACE OF TUNNEL WHEN ATTACHING CONNECTING PLATFORM

CARDS DURVACE IP SET OFF CENTER TO FORM RADS

BEVELED EDGE
NUMBER FOUR DETAILS
DESCRIPTION OF PLAYGROUND LAYOUT, ELEMENTS, AND EQUIPMENT
The CRT playground design is made up of four thematic playscapes which have been organized numerically and have been designed to reflect graphically the numerals one, two, three, and four both in plan and in elevation. Located within each area, an introductory rhyme-sign records the playground numeral and mates it with a short rhyming verse describing the theme of the site.

SITE NUMBER ONE
There's fun in the sun at Number One!

Area: 7,600 square feet
Estimated Capacity: Number of participants in wheelchairs = 50, total = 170

Within this play area, the user will find a chalk wall, a mass slide, a large three-dimensional numeral one, and a giant sundial which doubles as an arena stage for open-air productions.

On this site, the numeral one—in plan—is made up of a three-part slide unit. It features a mass slide, a set of "bump up" steps running parallel to the slide and a 1:12 ratio ramp for wheelchair access. The 7' wide slide, which follows the contours of the banked ground beneath it, allows the user to move freely down the unit without danger of falling off. The low-rise steps are specifically designed to allow the user with upper body control but limited lower body control to lift or "bump" himself up to the top of the slide without wheelchair assistance. The rounded sides of the slide permit entry from whatever height the individual is capable of reaching on the "bump up" steps. The ramp provides an alternate means of reaching the top of the slide where a metal railing spans its width to keep wheelchairs from rolling down. A safety landing is provided at the top and bottom of the 15-foot long slide.

The ramp leading to the mass slide creates a wedge-shaped wall. This is a "Chalk Wall" and is designed to be drawn on. A 6' wide side walk adjacent to the chalk wall provides ample access to the wall. The wall has a smooth cementitious coating for drawing and is slanted five degrees to allow rain water to wash it evenly. Hidden drainage is provided at the base.
At Site Number One, a 12’ numeral one acts as a the sundial’s style, or gnomon, which throws its shadow across the face of the dial. The surface is metal burnished and polished smooth so that a person can see his reflection in it. "There’s fun in the sun at Number One" and a list (in print and braille) of activities located at Site Number One is engraved in the surface. To indicate the time of day, the pattern of shadows created by the metal numeral will be painted onto the surface of the sundial so that different colors of shadows will indicate the time in different seasons.

Playfully and literally interpreted, the sundial itself is patterned after the Grant Park neighborhood renovation sign which is sun-burst shaped. Spanning the space between the rays of the sundial, benches provide seating for the amphitheater. The benches are oriented to allow space for wheelchairs between them so that the center of the sundial can be used as an amphitheater for open air productions.

Swing frames, constructed of brightly painted corrugated metal columns supporting a wooden beam, hold an assortment of swings and are positioned to afford a variety of sensory experiences. Two swings face each other to allow social interaction. Other frames are placed so that swings reach out over the grass. All swing frames are located so that swinging takes place a safe distance from the surface of the rays and from general circulations paths. It is our intention that surface patterns indicating time on the sundial and patterns on the Number One be the commissioned work of selected local artists.

Several types of premanufactured swings are suitable for installation here. Bench swings allow two or more people to swing together. "Exerglide" swings provide trunk support and upper body exercise. Double strap swings provide support for infants and smaller children in the handicapped population. Horizontally mounted tire swings can be used by two or more children at a time. They allow the user to swing in any direction or to spin in circles.
A platform swing designed to allow two people in wheelchairs to swing together can be added in the swing area at a future date. The design of this swing is considered to be an undertaking that warrants additional funding and research.

Located near Site Number One is a 196 square foot sandbox consisting of a ground-level section and a table-level section designed for wheelchair access. At the juncture of the two sections, a back support is created for a seating area in the lower sandbox. The contours of the table-height section facilitate interactive play. The sandbox should be constructed of exposed aggregate concrete. The sandbox has a capacity for 24 participants.
SITE NUMBER TWO

Here's a jungle, Number Two,
With vines and tree limbs to go through.

Area: 6,200 square feet
Estimated Capacity: Number of participants in wheelchairs = 45, total = 140

Site Number Two is introduced by two giant, soft rolling pins proportioned especially for wheelchairs. The rolling pins are made of plastic covered with a padded vinyl jacket that rolls about a metal pin. A rhyme etched into the adjacent three-dimensional numeral two tells that the theme of this playscape is "to go through."

Three types of monkey bars follow the contours of this playscape which, in plan, is shaped like the number two. The frames of the monkey bars are constructed of treated wooden timbers which hold 1-1/2" diameter steel bars. The first section of monkey bars is 6' high for older children and adults; ropes hang from these bars to provide a challenge for people in wheelchairs and small children. The second section, the "rolling monkey bars," is designed to allow people in wheelchairs to lift out of their chairs and ease back into them under the first set of sloping bars in this section and lift to standing under the second set. Covering the rolling monkey bars is a slatted wooden walkway accessible by ladder and fireman's pole. The walkway serves to provide shading for the strenuous activity located below and also to provide a challenge for the able-bodied. It is imperative to note that because of the nature of the activity located at two, resilient playground matting over concrete slab must cover the entire site to absorb the shock of potential falls and to allow accessibility to wheelchairs at the same time. Bench seating is provided just outside the site for those who would prefer to watch the activity.

Another pair of soft rolling pins proportioned especially for pedestrians to pass through indicates the transition from monkey bars to jungle gym. Within the "jungle," 1' diameter timbers 8' high become jungle trees capped with a set of 1-1/2"
diameter pipe segments configured to simulate branches. Plastic disks simulate foliage and provide shading. On the trunks of eight of the trees are short flexible "limbs" made of covered 1" diameter springs. These springs contain a rope core knotted at the end to keep the springs intact. Guarding the side entrance of the jungle is a giant gorilla ("Willie B"), which should be designed and fabricated by a local artist. This figure could be contoured to allow children to sit on his legs and climb under his arm into the jungle, provided that he is made of a smooth material and that the space provided to climb through is a minimum of 2' in diameter. The side entrance to the "jungle" is a wall of rope "vines" to go through. Within the jungle is a series of "climbing decks." This is dimensioned to allow people in wheelchairs to transfer onto the first deck and raise themselves to a maximum of 5' to the top deck. The edges of the decks are rounded for safety and railing is provided at all heights exceeding 18".
SITE NUMBER THREE

Come and see
You and me
In the Sea
With Number Three!

Area: 9,200 square feet
Estimated Capacity: Number of participants in wheelchairs = 45, total = 70

Hovering over a pond at Site Number Three is a boardwalk that in plan is an equilateral triangle ending in cul-de-sacs at each of its corners. Along the boardwalk are 6 additional covered cul-de-sacs which contain four different activities.

Two 6' high metal panels located here house musical guitar strings of heavy nylon cord. The tautness of the strings is maintained by an adjusting rod across the top of the panel.

A lever across the bottom of the strings can be pushed down to change the notes. This lever is held in slots in the frame so that the amount of tension put on the strings can be controlled. On either side of the slot, finger guards are welded to the lever to prevent users from pinching their fingers. This is an activity that will promote interaction--children can take turns pushing the lever and plucking the strings.

Also in the boardwalk cul-de-sacs are two abaci. These are made of 9" plastic disks on a 1-1/2" diameter rod spanning the cul-de-sac. This is a simple activity used both for counting and for creating rhythm to accompany the guitar music.

Three steering wheels are located in cul-de-sacs to stimulate children's imagination, and engraved metal signs are attached to the railing of the inner sides of three of the cul-de-sacs. One of the signs is the rhyme-sign for the number three. The other two contain the commissioned work of local artists and poets.

Three message containers are located on the inner side of the cul-de-sac. These are named "message in a bottle" and contain a plastic bottle for placing "secret" messages into.
Located on each of the three-shaped cul-de-sacs are four fishing games. These fishing games allow children to develop fine motor skills by maneuvering a pole (permanently attached to the rail) to hook a floating fish (attached to a fish-shaped frame). The object of the game is to lift the floating fish out of the water and rest it in the mouth of a larger fish sculpture in the pond.
SITE NUMBER FOUR

Through the door,  
'Cross the floor,  
Find the ends of the earth,  
All four

Area: 5,300 square feet  
Estimated Capacity: Number of participants in wheelchairs = 30, total = 70

Site Number Four is oriented so that its major axes are oriented North/South and East/West. The East, West, and Northern points of entry are marked by metal door frames containing letters indicating the direction with the exception of the main entrance of the site which contains a number four and a panel engraved with the rhyme-sign. The door frame on the South entry houses large metal "door chimes."

At the entry to Site Number Four are "accessible stairs" flanking an entry ramp. These stairs are proportioned to challenge those in wheelchairs. The stairs and ramp lead to a checker-board patterned landing leading to a roller coaster ride for wheelchairs, bikes, and skateboards. The four-part roller coaster consists of a long ride with small hills of diminishing height proportioned to accommodate the length of wheelchairs. Each section of the roller coaster is wide enough for one wheelchair. The sides of each section are beveled to keep the chair centered, and the sections are divided by rails and metal panels to prevent the user from crossing into another lane.

Located high overhead and spanning the roller coaster, roof-top shaped frames of metal tubing support pivoting cloud shapes to be spun by those passing below. The roller coaster floor is made of concrete covered with padded material patterned to resemble a "flying carpet." The roller coaster leads to a second checker-board patterned landing on the lower level of the number. Located parallel to the angled edge of the four are three activities. The first activity is the "Captain's
Wheel." Here the shaft of a steering wheel is connected to a large enameled disk housed within a wooden frame designed to simulate a ship. When the wheel is turned, the illusion of traveling on water is simulated by viewing a portion of the disk through a small window in the frame. A bell within the frame creates a tone when struck by a tab on the disk. Also by adding figures on the back side of the disk a moving cartoon is created; these graphics should be designed and executed by local artists.

The second activity in this location is a pivoting platform surrounded by playground matting. The pivot mechanism is set slightly off center so that a ramp is formed by the platform for wheelchair access. Padded railing helps the participant to maintain balance.

The third activity along the four is a pair of short, smooth connected tunnels. These tunnels are 3' in diameter so that even adults can climb through. They are 3' in length for safety. The flooring of this play zone is soft playground matting.

The triangle in the center of the four will house a mural that is an artist's interpretation of the number four theme. A tether ball game is attached to the numeral four. The ball is made of a lightweight material (a foam-coated ball would be best). The pole and tether are designed to be used both by participants in wheelchairs and the able-bodied.

A second checker-board patterned landing is located on the lower level of the four at the base of a ramp leading back to the upper level. Flanking this ramp are "texture squares." The first pair of texture squares are made of bumpy rubber matting. The second pair are made of bricks and the third pair are wood slat square benches. Murals, painted on the railing panels of the ramp, depict domestic scenes: a bath tub with shower and a soap dish, a window, and a kitchen table and chairs. These are spaces for "make-believe" play.
Four ramps provide routes of egress from Site Number Four. Two are standard 1:12 ratio ramps and two are 1:6 ratio ramps to be used as rides. Upon leaving the area through the North door frame, participants encounter a revolving door (surrounded by playground matting). The door consists of a frame of bent metal tubing which revolves around a metal pin. This frame can be used in several ways: able-bodied children can ride within the frame or hold onto the frame and push it around while children in wheelchairs can hold onto the frame and spin.

Located near Site Number Four is a large wooden platform to be used both as general seating and picnicking. The platform is 18" high and is mounted on a concrete base.

Commissioned art work at Site Number Four includes the pivoting cloud shapes, the "4" mural, wind chimes, and the picture disk of the Captain's Wheel. These commissions, as well as all others previously mentioned, would be the artist's creative interpretation of our design parameters.
SUMMARY OF PROFESSIONAL PLAYGROUND REVIEW

BY

PHYSICAL AND OCCUPATIONAL THERAPISTS
SUMMARY OF PLAYGROUND REVIEW
BY
PHYSICAL AND OCCUPATIONAL THERAPISTS

The primary purposes of the accessible playground are to provide a recreational area that is designed for both able-bodied and the disabled individuals and to promote interaction between the two groups. In order to design a scheme that would encourage and accommodate these goals, the design team consulted with physical therapists from the Medical College of Georgia and with the occupational therapist on staff at CRT to determine the types of play activities and environmental requirements that would promote therapeutic, safe recreation. The design team received additional input from an occupational therapist from the Georgia Retardation Center and a physical therapist from the Scottish Rite Children's Hospital who volunteered their time to review the playground design in June, 1988. Feedback from these professionals has significantly influenced the design presented to the City of Atlanta. A summary of recommendations follows.

<table>
<thead>
<tr>
<th>Recommendations Regarding Circulation and Paths</th>
<th>Action Taken by Design Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi-directional paths should be a minimum of 6’ wide. Unidirectional paths should be 3’ wide.</td>
<td>All playground paths meet recommended dimensions.</td>
</tr>
<tr>
<td>Where it is necessary for wheelchairs to turn around, a minimum of 5’ (in diameter) should be used.</td>
<td>Wheelchair turn-arounds meet recommended dimensions.</td>
</tr>
<tr>
<td>There should be no dead ends.</td>
<td>There are no dead end paths in the design, and cul-de-sacs are located off the main path.</td>
</tr>
</tbody>
</table>
Recommendations Regarding User Comfort

Shade should be provided for handicapped users especially. Many are on medications which can cause dehydration; some handicapped individuals have loss of feeling in limbs and can be burned on sun-heated surfaces easily.

Recommendations Regarding Challenge Therapy

Within the limits of safety, physical activities should be challenging if activities are to help in developing sensory and motor abilities.

Alternative routes around challenging activities should be provided.

The playground should provide activities that challenge the able-bodied.

Action Taken by Design Team

Play activities must be located and oriented on the actual site to take advantage of shading provided by trees and foliage. Monkey bars are partially sheltered.

Action Taken by Design Team

A wide variety of activities has been incorporated into the design to assure that each participant will be challenged. Activities such as the monkey bars at Site Number Two are designed at different heights to accommodate varying arm reach abilities, and monkey bars that slope gently are provided as a challenge for those who wish to try to raise themselves out of their wheelchairs and lower safely back into their wheelchairs. Participants who are unable to move themselves along the monkey bars can be encouraged to stretch and reach for bars of increasing height within the sloping monkey bar portion. Bars of varying height are to be painted different colors for additional sensory experiences.

The fishing game at Site Number Three challenges participants to exercise fine motor skills. Balance and coordination skills can be exercised on the pivoting platform at Site Number Four.

Nowhere in the playscape are participants forced to participate in an activity. Alternate routes are provided for by-passing every activity.

The walkway above the monkey bars is reached by a vertical ladder, and a fireman’s pole is located here. These activities are not accessible to the handicapped individual.
**Recommendations Regarding Multi-sensory Activities**

The playground should appeal to the senses.

Within the limits of safety, allow elements of the environment to invade wheelchair space; physical contact can be therapeutic.

**Action Taken by Design Team**

In addition to the visual and tactile appeal of playground equipment and varying surface treatments, the playscape incorporates sound into many of the activities in the playscape: a bell on the Captain's Wheel activity, guitar strings on the boardwalk, for example.

Hanging ropes and flexible limbs in the jungle gym area invade wheelchair space safely. Pairs of soft rolling pins at Site Number Two are also designed to invade wheelchair space, giving wheelchair-bound individuals a gentle squeeze about the shoulders as they pass through. (Although both pairs of rolling pins are designed to allow wheelchairs to pass through, it was considered necessary to design one pair that would clear the hands of a participant in a wheelchair as most people in wheelchairs seem to avoid brushing their hands against surfaces while operating the chair.)

**Recommendations Regarding Social Interaction Therapy**

Social interaction between participants should be promoted as much as possible throughout the playground.

**Action Taken by Design Team**

Numerous activities within all four play areas encourage interaction: guitar panel, accessible sandbox, swings, mass slide, roller coaster, chalk wall, "make-believe" area in Site Number Four, jungle gym, and tether ball game.

**Recommendations Regarding Traditional Playground Equipment**

Standard activities found in playground should be included in this playground.

**Action Taken by Design Team**

The design provides maximum accessibility to traditional playground activities.
Recommendations Regarding Traditional Playground Equipment

(Continued)

The playground’s slide allows both able-bodied and disabled individuals to participate: the 7’ width allows the user to descend in seated, prone or supine positions. An extended landing at the base allows the user to ease to a stop gradually. A 3” rise at both top and bottom landings allows an attendant to aide the user to enter and exit. Steps (8” rise, 14” run) parallel the slide to enable individuals with adequate upper body strength to "bump up" the length of the slide; low, rounded sides allow side entry.

Swings, spaced a safe distance apart, are designed to be as accessible as possible. In addition to standard flat swings, a variety of swings designed to accommodate individuals with specific physical limitations are also supported by the swing frames. "Exerglide" swings have been used in accessible playgrounds and are designed to provide upper-body support. Wheelchair swings can be used by participants who would prefer to remain in their wheelchair while swinging; horizontally mounted tire swings allow participants to swing in any number of positions and in all directions. Double strap swings provide trunk support for small children and babies. Bench swings allow two people to swing together.

The length of the radius of the movement of the swing is the important feature that causes the swing to be therapeutic.

All the swing frames located at Site Number One are 8’ in height so that the radius of the swing motion is long.
RECOMMENDED SEQUENCE OF FOLLOW-UP PROCEDURES
FOR
THE CITY OF ATLANTA
RECOMMENDED SEQUENCE OF FOLLOW-UP PROCEDURES FOR
THE CITY OF ATLANTA

1) **The City should secure the necessary funding source(s) for the construction of the playground.**

CRT is willing to assist the City in fund raising initiatives.

2) **The City should select actual playground site.**

CRT has held preliminary consultations with civil engineers from the RBA Group, an Atlanta firm which performed the traffic/site engineering for Zoo Atlanta. As a result of these meetings, we recommend that alternative locations within Grant Park be considered before final determination of the playground site is made. We also recommend that the City contract with the RBA Group for site engineering once the location has been selected. (See attached proposal for site engineering submitted by RBA.)

3) **The City should secure a true topological map of the selected site.**

4) **The City should select the prime consultant.**

The prime consultant will provide:

a) full working drawings,

b) specifications,

c) on-site construction observation.

CRT recommends the engineering firm of Bennett and Pless; this highly reputable Atlanta firm has had many years of experience in this type of work. Consequently, in the course of CRT's playground project efforts, we have consulted with Bennett and Pless to determine suitable materials, surfaces, etc. (See attached consulting proposal submitted by Bennett and Pless.)

5) **With a full set of drawings and specifications in hand, the prime consultant should assist the City in selecting an appropriate contractor to proceed with construction of the playground.**
ENGINEERING PROPOSALS

AND

COST ESTIMATES
October 26, 1988

Ms. Carol Whitecarver  
Center for Rehabilitation Technology  
College of Architecture  
Georgia Institute of Technology  
Atlanta, Georgia 30332

Re: Proposal of Site Engineering  
Services for Accessible Playground  
at Grant Park

Dear Ms. Whitecarver:

The RBA Group is pleased to present you this proposal to provide engineering and landscape services for the site located in Grant Park. It is our understanding that the Center for Rehabilitation Technology is developing a playground for use by the handicapped.

We propose to conduct our work in the following tasks:

Task 1:00 - Initial Evaluation

Due to the use and nature of the project, The RBA Group feels it is necessary to re-evaluate the existing site. This work will be divided into two subtasks listed below:

(a) specific site location; and
(b) evaluation of onsite conditions.

(a) Specific Site Location

In order to assure that out of the possible alternatives the best suited location for the playground is chosen, The RBA Group, working with the Project Team the City of Atlanta, shall investigate possible alternative locations for the site. Accessibility, visibility (sight lines), and safety will be investigated.
(b) Evaluation of Onsite Conditions

The RBA Group will review a survey provided by the City of Atlanta. This survey should include boundary for the total site, topography and utilities, and any easements on the site. We will advise the City of any additional information needed to proceed with design. During this task, The RBA Group will conduct an investigation on the existing site and with the governing authorities to identify important factors and key personnel. A site information checklist will be provided for use by the project design team.

Task 2:00 - Design Development

Working with the project team and the City of Atlanta, The RBA Group will develop a specific site design. This work will be broken into the three subtasks listed below:

(a) plan development;
(b) hydrology study; and
(c) construction cost estimate.

(a) Plan Development

The RBA Group will develop a precise site layout with an associated grading plan. Special attention will be given to the preservation of existing foliage. We will also design utilities needed for the project. (These include the following: stormwater system and horizontal controls for the water and electric services.) During this task, The RBA Group shall also prepare a conceptual landscape and irrigation plan and a parking lot lighting plan, if needed.

(b) Hydrology Study

The RBA Group shall prepare a hydrology study for eventual submission to the City of Atlanta. We will determine existing flow conditions and concentrations and then analyze the future conditions for any change in impact on the existing stormwater system. We will advise the project team of our findings to allow the inclusion of facilities to handle the storage of increased flow properly as per City requirements.

(c) Construction Cost Estimate

The RBA Group shall prepare a cost estimate on the site design including general construction, landscaping, irrigation, lighting, erosion control, utilities, and stormwater management facilities. If additional estimates are needed or the present one reworked, they will be conducted on an hourly basis.
Task 3:00 - Construction Development

Having finalized a design under Task 2:00, The RBA Group will proceed with preparation of site construction documents. These documents will be prepared under two subtasks listed below:

(a) construction plans; and
(b) construction specifications.

(a) Construction Plans

The RBA Group shall prepare construction plans for submittal to the City of Atlanta. These plans will include a cover sheet, staking plan, grading and utility plan, erosion control plan, construction details, pipe profiles (if needed), site cut/fill profiles, landscape plans, and an irrigation plan.

(b) Specifications

The RBA Group shall prepare a complete set of civil specifications. These specifications shall also cover landscaping, lighting, and irrigation.

The plans and specifications will be completed in a timely fashion based on a mutually agreed upon schedule established at task initiation.

This work will be performed on a lump sum fee basis. If Task 3:00 has been initiated and the architect's plans change or a new design is agreed upon, work will be performed on an hourly basis until a comparable point has been reached. This also applies to reworking of the hydrology study, should changes be required.

Task 4:00 - Construction Observation and Coordination

During construction, The RBA Group will provide bi-monthly observations of the site. It is anticipated that 10 visits will be necessary. Technical memos of the site visits will be provided in a timely fashion. The RBA Group shall also be available for coordination on an "as-needed" basis with the contractor and the project team during the construction process. This task will be performed hourly at our standard hourly rates.

Task 5:00 - Meetings

All meetings (except those mentioned above) with the project team, CRT, City or others will be conducted on an hourly basis. As it is difficult to anticipate the precise number of meetings in advance, an upset limit is suggested which we feel to be reasonable at this time.

Additional Services Not Included

The RBA Group is capable of providing a full range of services; however, in this contract, several items are not included. These are: structural design, bid documents, driveway plans for D.O.T., any design of retaining walls (if required), and roadway plans. These services can be provided by The RBA Group, if required by the owner, under separate contract.
Fees

The fees for the above scope of services are provided below:

Task 1:00
A - $1,400 upset limit, billed hourly;
B - $700 lump sum;

Task 2:00
A - $2,000 lump sum;
B - $1,200 lump sum;
C - $1,200 lump sum;

Task 3:00
A - $2,600 lump sum;
B - $2,000 lump sum;

Task 4:00 - $4,500 upset limit, billed hourly;
Task 5:00 - $2,000 upset limit, billed hourly.

Our standard hourly rates are as follows through December 31, 1988:

- Principal: $100/hour
- Senior Associate: $75/hour
- Associate: $63/hour
- Principal Engineer: $60/hour
- Project Engineer: $48/hour
- Senior Engineer: $45/hour
- Engineer: $41/hour
- Chief Designer: $42/hour
- Project Designer: $34/hour
- Senior Technician: $28/hour
- Technician: $25/hour
- Word Processor: $30/hour
- Field Personnel: $15/hour

The upset limit is the amount of money which can be charged without further authorization and our best judgment as to the actual project cost. You will be notified when you are approximately 50% and 75% through the budget to determine if additional monies are needed to complete the task as defined.

All travel, printing, aerial photography, computer, facsimile, and delivery charges will be billed directly to you at our cost.
A retainer of $500 will be required for us to begin work. Please send a check along with the signed contract. The retainer will be deducted from your final bill.

You will be billed on a monthly basis for services provided during that time period. Our operation is based on monthly payments unless special arrangements have been made at project initiation.

It is anticipated that this work will be authorized by December 1, 1988. Any work which has not been authorized by this date is subject to review for price revision.

If you agree with the terms of this proposal, please sign in the space provided below. Then return the original to our office, keeping a copy for your file. The Standard Contract Conditions attached to this proposal are incorporated by reference and are a part of this agreement.

Thank you for the opportunity of presenting this proposal. We are looking forward to working with you.

Sincerely,

Mark G. Morelock
Senior Engineer

Kenneth O. Voorhies, P.E.
Director of Georgia Operations
Senior Associate

AGREED TO AND ACCEPTED BY:

Center for Rehabilitation Technology

name, title date

MGM/KOV/k1

Attachment
I. All documents, including drawings and specifications, prepared by The RBA Group pursuant to this contract are instruments of service in respect to this contract. The originals of all such drawings shall be retained by The RBA Group but copies, in excess of those specified in the contract, will be provided to Client upon request, at cost. The drawings and specifications are not intended or represented to be suitable for reuse by Client or others on extensions of the project contemplated by this contract or any other project. Any reuse without permission from The RBA Group will be at Client's sole risk and without liability or legal exposure to The RBA Group, and Client shall indemnify and hold harmless The RBA Group from all claims, damages, losses, and expenses, including attorney's fees arising out of or resulting therefrom. The RBA Group shall be entitled to appropriate compensation for any such reuse or adaptation.

II. Attendance at meetings, unless specifically included in the schedule of proposed work, will be billed at appropriate per diem rates (portal to portal) plus travel and living costs.

III. Any work requested which is not specified in the schedule of proposed work will be considered an extra. Unless a specific price is agreed to, in advance, and in writing, all extras will be invoiced on a time and material basis using our standard Per Diem Billing Rate Schedule, a copy of which will be supplied on request. Per Diem Schedules are revised from time to time and the current version will be used for invoicing.

The proposed schedule of work is based on a work program that does not exceed 40 hours per week. If overtime work is specifically required or requested by Client, appropriate adjustments in the fee schedule will be negotiated, in advance.

IV. Invoices for work performed will be submitted on a regular basis. Any comments or discrepancies concerning the charges on a given invoice or the quality or completeness of the services rendered must be submitted in writing, within twenty-five (25) days. If no such comments are received, the invoice will be considered correct and payment shall be made within thirty (30) days. Interest (or late payment charge) of 1% per month will be billed against each invoice which has not been paid within forty-five (45) days of the date of the invoice. At our option, work may be stopped at that time, and not resumed until all outstanding invoices are paid. In the event that The RBA Group obtains the services of attorneys or collection agencies in order to collect any indebtedness owed by Client hereunder, then Client agrees to pay all fees for such services, not to exceed 33-1/3% of the amount owed, for the collection of said indebtedness.
V. In the event that a disagreement arises on any issue (other than invoicing, already covered in Clause IV) which the parties cannot resolve themselves, it is understood and agreed that The RBA Group will have the right to submit the issue to binding arbitration. If The RBA Group chooses this course of action, Client agrees to cooperate with The RBA Group in the selection of a single arbitrator. If the parties cannot agree on a single arbitrator, they will each name one and the two thus named will select a third. A majority opinion shall be conclusive. The arbitrator(s) shall also determine who will pay the fees for the arbitration services.

VI. Our professional services shall be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering, land surveying, and architectural practices. This warranty is in lieu of all other warranties either implied or expressed. The RBA Group assumes no responsibility for interpretations made by others based upon the work or recommendations made by The RBA Group.

Our liability to the Client for injury or damage to persons or property arising out of work performed for the Client and for which legal liability may be found to rest upon us, other than for professional errors or omissions, will be limited to our general liability insurance coverage. An insurance certificate will be furnished upon request. If increased insurance coverage and/or greater responsibility is required by the Client, we, if specifically directed by Client will take out additional insurance (if procurable) to protect us, but at Client's expense. We shall not be responsible for property damage from any cause, including fire and/or explosion, beyond the amounts and coverages of our insurance.

For any damage on account of any error, omission or other professional negligence, our liability will be limited to a sum not to exceed $50,000 or our fee, whichever is greater. In the event that the Client does not wish to limit our professional liability to this sum, we will waive this limitation upon the Client's written request provided that the Client agrees to pay for this waiver an additional consideration of 4% of our total fee or $400, whichever is greater, to provide one million dollars of professional liability insurance coverage. Further, the Client agrees to notify any contractor or subcontractor who may perform work in connection with any design, report or study prepared by The RBA Group of such limitation of liability for design defect, errors, omissions or professional negligence, and require as a condition precedent to their performing the work a like limitation of liability on their part as against The RBA Group. In the event the Client fails to obtain a like limitation of liability provision as to design defects, errors, omissions or professional negligence, any costs and expenses shall be allocated between the Client and The RBA Group in such a manner that the aggregate liability for The RBA Group for such design defect to all parties, including the Client, shall not exceed $50,000 or the amount of The RBA Group's fee, whichever is greater.
In the event the Client makes a claim against The RBA Group, at law or otherwise, for any alleged error, omission or other act arising out of the performance of our professional services, and the Client fails to prove such claim, then the Client shall pay all costs incurred by The RBA Group in defending itself against the claim.

VII. It is understood and agreed that The RBA Group shall not be held responsible for any inaccuracies in any materials, data or records of any other person, firm or agency which are provided to it and/or may be utilized by it in the performance of specific services.

VIII. This agreement can be terminated by either party only upon written notice of seven (7) days. In the event of termination of this contract, The RBA Group will be paid for all services rendered to the effective date of written notice of termination, at contract rates plus other applicable expenses.

IX. Any proposal which is not accepted within thirty (30) days is void as to prices quoted unless specifically reconfirmed in writing by The RBA Group.

X. In the event Client is a corporation, then the agent entering into this agreement on behalf of Client shall be duly constituted and appointed an agent with power to fully bind the Client under this agreement.

XI. The RBA Group will not be liable for any delay in the performance of its obligations hereunder or for any damages suffered by reason of such delay, when such delay is directly or indirectly caused by, or in any manner arises from fires, floods, accidents, riots, acts of God, war, governmental interference or embargoes, strikes, labor difficulties, shortage of labor, fuel, power, materials or supplies, transportation delays, or any other causes beyond its control.

XII. All notices given under this agreement shall be in writing and shall be sent by registered or certified mail, return receipt requested, to the parties and their respective addresses set forth in the proposal letter of which this is a part.

XIII. This agreement is intended as a complete and exclusive statement of the terms of the arrangements between the parties with respect to the transactions contemplated hereby and cannot be modified or terminated orally.

XIV. The failure of The RBA Group to insist upon strict adherence to any term of this agreement on any occasion shall not operate or be construed as a waiver of the right to insist upon strict adherence to that term or another term of this agreement on any other occasion.

XV. This agreement shall be governed by and construed in accordance with the laws of Georgia.
APPLICABLE TO CONTRACTS INVOLVING SURVEY WORK IN ADDITION TO CLAUSES I - XV ABOVE

A. The RBA Group shall not be required to release certified survey information to any source until payment in full by Client for services rendered on any outstanding statement has been received by The RBA Group.

B. Client agrees that all services to be performed under this agreement shall be conducted by The RBA Group and/or its designated agents or employees without interference or participation by the Client or his/her agents in the field work.

C. Client agrees to obtain written permission for The RBA Group, its agents or employees to freely enter the property to be surveyed, whether or not said property is owned by Client. Client agrees to make available such written permission within five (5) days of request for same by The RBA Group, its agents or employees.

D. Client agrees to notify The RBA Group about any alleged error of stakeout as soon as a problem occurs. No deductions from amounts owed to The RBA Group may be made unless proper notification is made and there is agreement between the parties relating to work necessary to correct an error. If the parties cannot agree, they will follow the steps described in Clause V above.

E. Estimates for survey work are based on average costs for similar surveys previously performed on comparably sized parcels of land. However, unless a lump sum fee is agreed upon in advance, it is understood and agreed that invoicing will be based exclusively on per diem rates irrespective of any estimates previously given, whether verbal or written.

Signature

January 1985
October 27, 1988

Mr. Lane Duncan
Center For Rehabilitation Technology
Georgia Institute of Technology
Atlanta, Georgia 30332-0155

RE: Structural Fee Proposal
Playground Structures
Atlanta, Georgia

Dear Lane:

We are pleased to present the following proposal for consulting structural engineering services which include bid documents and construction administration for the playground facilities as outlined in the preliminary documents furnished by The Center For Rehabilitation Technology.

Bennett & Pless, Inc. will provide preliminary consultation, prepare structural contract documents, prepare structural specifications, review structural shop drawings, prepare bid documents, provide ten (10) site visits during construction, and ten (10) sets of contract documents for the sum of $6,000.00.

Bennett & Pless will coordinate construction of the site work with playground structures; however, site work documents are not a part of our contract.

Should additional services beyond the scope outlined above become necessary, we will be glad to perform them upon your written authorization on an hourly cost basis. Our billing rates for additional services are $100.00 per hour for Senior Principals; $85.00 per hour for Principals/Project Managers, and 2.5 times direct personnel expense for the remainder of the technical staff. All reimbursable expenses, including special reproduction in excess of 10 sets of contract documents, are invoiced at 1.1 times cost.
We are looking forward to working with you on this project. If we can provide additional services or additional information, please let us know.

Sincerely,

BENNETT & PLESS, INC.

E. M. Bennett, P.E.
Chairman of the Board