Table of Contents

File 1982-0062
Date 7/25/02

Project Name: Zone of 1480 Annexation to PI & Mesa Co. Operation Center

Present	Scanned	
		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the in some instances, not all entries designated to be scanned by the department are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been provided. **Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.** **Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.**
X	X	***Summary Sheet – Table of Contents**
X	X	**Review Sheet Summary**
		Application form
		Review Sheets
		Receipts for fees paid for anything
		***Submittal checklist**
		***General project report**
		Reduced copy of final plans or drawings
		Reduction of assessor's map
		Evidence of title, deeds
X	X	***Mailing list to adjacent property owners**
		Public notice cards
		Record of certified mail
X		Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or nonbound reports
		Traffic studies
		Individual review comments from agencies
		***Consolidated review comments list**
X	X	***Petitioner's response to comments**
		***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**
		***Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)**

DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	Action Sheet	X		Letter from Don Hobbs to Larry Keith re: check for $62,930.00. from Public Service-10/19/83
X	X	Review Sheet Summary	X	X	Letter from Harvey Blichmann, Welton, Inc. to City Council re: commitment to participate in improvements on F ½ Rd and 25 1/2 Road – 9/1/82
X		Review Sheets	X		Letter from Laura Hansen, appraiser to Harvey Mayer re: appraisal-10/8/82
X		Letter from Don Hobbs to Larry Keith, Landscape Architect re: easement will be prepared for 8" sanitary sewer located approx. 125 feet East of Mesa Co. Operations Center-11/17/82	X	X	Letter from Ron Rish to Arnold Hottovy re: sanitary sewer construction plans-approval with conditions-11/24/82
X	X	Ordinance No. 2085 - **	X		Special Warranty Deed
X		Public Notice Posting – 9/15/82	X		Letter from Harvey Blichmann to City Council re: open space fee-10/18/82
X	X	Planning Commission Minutes - ** – 9/28/82	X		Handwritten Notes to file
X	X	Impact Statement	X		Drainage Plan
X		Development Application – 9/1/82	X		Plans for revised fence & irrigation lines
X		Peak Demand – Data Sheet	X		Water Line Details

X	X	Site Plan	X		Sanitary Sewer Plan & Profile
X	X	Vicinity Map	X		Sanitary Sewer Details
X	X	Preliminary Foundation Investigation and Topographic Survey – 5/7/82	X		Utilities Plan

SUBMITTAL REQUIREMENT B.

IMPACT STATEMENT

Proposed Project

1480 Welton, Inc., a wholly owned subsidiary of Public Service Company of Colorado, herein requests the City of Grand Junction to Zone 17.36 acres located southwest of the intersection of F½ Road and 25½ Road at 2538 North Foresight Avenue to PI, Planned Industrial. This request is made in conformance with the Grand Junction Zoning & Development Code; 4-11 Zoning of Annexations, and 4-4 Rezone Requirements. This property was annexed to the city on July 4, 1982 upon request by 1480 Welton, Inc. The PI, Planned Industrial Zone is requested to assure compatibility with the existing adjacent zone districts and Foresight Park, which is also zoned PI.

The 17.36 acre site will be utilized for Public Service Company's Mesa County Operations Center. The facilities will include an Operations Office and Operations Support building, a Vehicle Maintenance building, Visitor and Employee Parking, Company Vehicle and Equipment Parking, Stores Yard, and Landscaped Areas. The following schedule indicates the initial and ultimate square footage and acreage of each land use proposed for the site:

Land Use	Initial		Ultimate		Remarks
	Sq. Ft.	Acres	Sq. Ft.	Acres	
Mesa County Operations Center					
Operations Office	(22,464)		(32,384)		
Operations Support	(29,120)		(38,120)		
Total	51,584	1.19	70,504	1.62	6.97% Initially 9.48% Ultimately
Vehicle Maintenance	7,304	0.17	8,424	0.19	1% Initially 1.11% Ultimately
Visitor and Employee Parking	76,200	1.75	94,369	2.17	10.25% Initially 12.70% Ultimately
Visitor					13 spaces Initially/21 spaces Ult
Handicapped					2 Spaces
Employee					187 Spaces for 135 Employees Initially = 1/.72 Employees
					261 Spaces for 220 Employees Ultimately=1/.84 Employees
Motorcycles					12 Spaces
Bicycle Spaces					7 Spaces
Company Vehicle and Equipment Parking	182,896	4.20	192,296	4.41	24.59% Initially 25.82% Ultimately
Stores Yard	378,536	8.69	339,768	7.80	50.88% Initially 45.67% Ultimately
Landscaped Areas	46,830	1.08	36,910	0.85	6.32% Initially 4.98% Ultimately
TOTALS	743,350	17.08	743,881	17.08	Excludes 0.28 Ac. DedicatedROW

UTILITIES

It is estimated that the domestic water requirements for this facility will be 5475 gallons per day. This will be obtained from the City of Grand Junction. The sewage disposal requirement is also estimated at 5475 gallons per day and will be collected and treated by the City of Grand Junction. Water for irrigation purposes will be obtained from the Grand Valley Canal #1. 1480 Welton, Inc. owns 40 shares of water.

TRAFFIC

Current traffic levels are not available for F½ Road or North Foresight Avenue. The majority of the operations traffic would be one time out in the mornings and returning in the afternoons via F½ Road. Shift work will generate some evening traffic. Employee ingress and egress, via North Foresight Avenue, will primarily occur once in the mornings and again in the afternoons. The nature of the Mesa County Operations Center will be such that visitor traffic will be limited and infrequent.

POLICE AND FIRE PROTECTION

The Operations Center will be manned 24 hours a day and access provided to police and fire vehicles. The Operation Areas will be secured by a seven foot high chain link fence with three strands of barbed wire. The gates will be monitored and controlled from the Operations Center. Three additional fire hydrants will be installed on the site. Exterior lighting will be designed to enhance the safety and security of the site while not causing undue glare or impacts to adjacent properties.

TAX BENEFITS

The construction of the Mesa County Operations Center will not result in any public costs or capital improvements. The following tax benefits have been estimated based on current year mil levies and estimated 1983 assessed values:

City of Grand Junction	$ 8,700.00
Mesa County	12,500.00
School District No. 51	34,800.00
Colorado River Water Conservation District	261.00
TOTAL	$56,261.00

Frank P. & Martha J. Foraker
2559 F½ Rd.
Grand Junction, CO 81501
#62-82

Kenneth M. & Hilda L. Hetzel
10314 Kingswood Cr.
Sun City, AZ 85351
#62-82

Irving Biers
935 Northern Way
Grand Junction 81501
#62-82

Delbert F. & Edna E. Wanzer
2520 F½ Rd.
Grand Junction 81501
#62-82

Bessie F. Stemple
2522 F½ Rd.
Grand Junction, CO 81501
#62-82

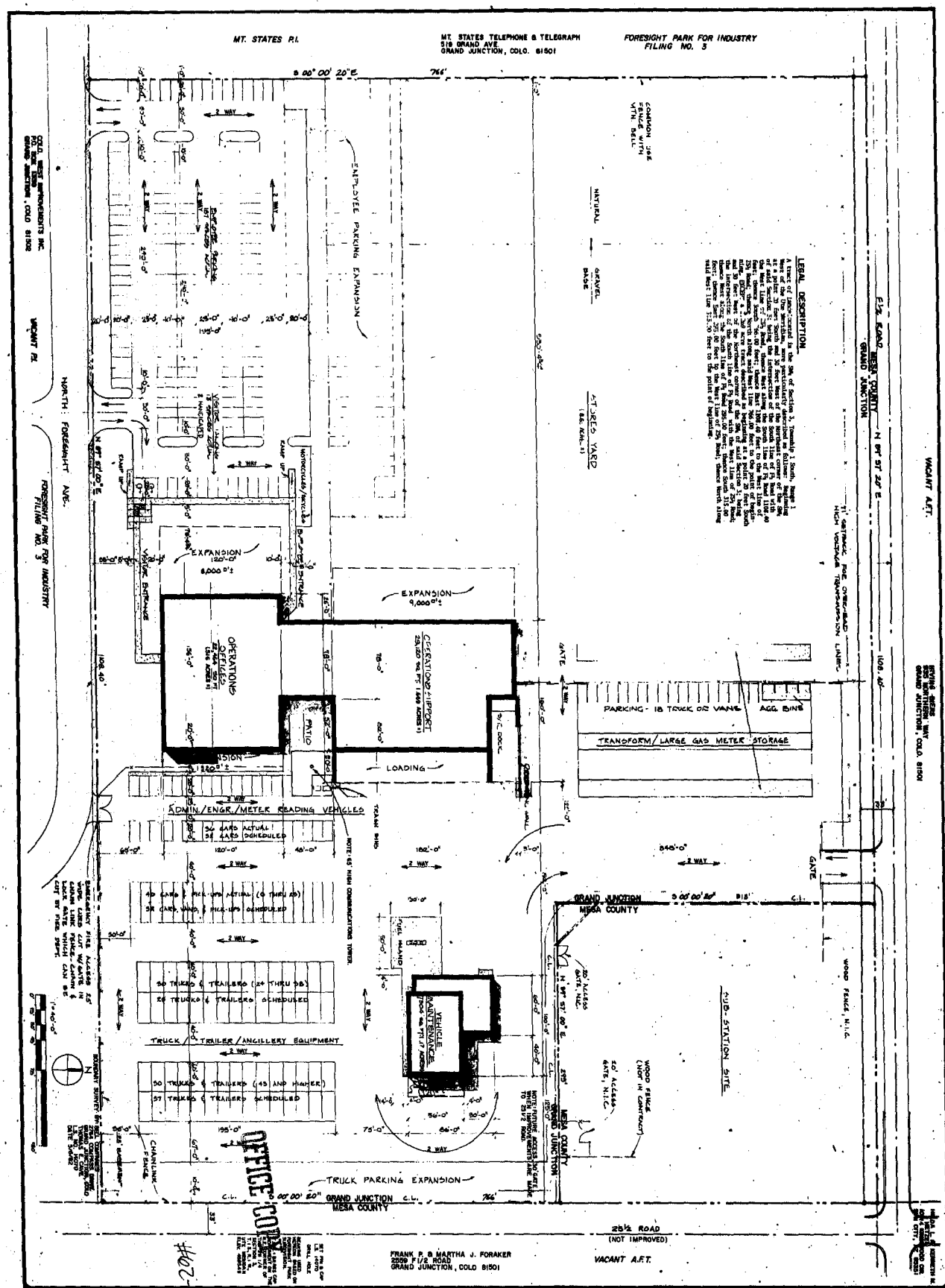
Mountain States T & T
519 Grand Avenue
Grand Junction 81501
#62-82

Colorado West Improvements Inc.
c/o Enginvity Inc.
1122 Elizabeth Ave.
Waukegan, ILL 60085
#62-82

Colorado West Improvements Inc.
P. O. Box 1330
Grand Junction, CO 81502
#62-82

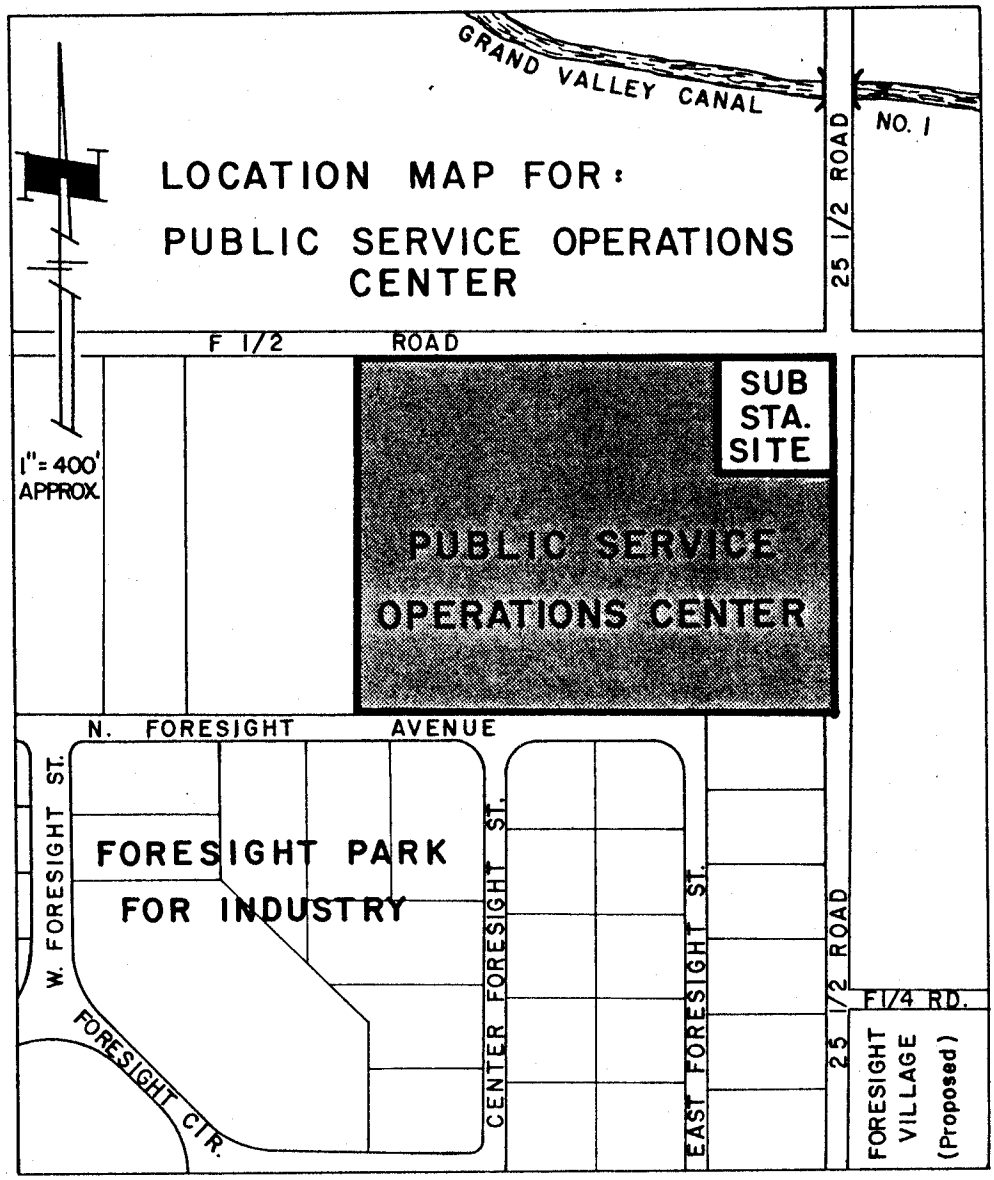
1480 Welton Inc
P.O. Box 840
Denver, CO 80201
#62-82

David K. Howard
5909 E. 38th Ave.
Denver, CO 80207
#62-82



PUBLIC SERVICE
MESA COUNTY
OPERATIONS CENTER
SITE PLAN

ARMSTRONG & ASSOCIATES, INC.
Architects
Engineers
Planners
Surveyors
Soil Testing
Material Testing
U.S. Mineral Surveyors
Geotechnical Engineers
561 Road Avenue
Grand Junction, Colorado 81501
(303) 245-3951
720 S. Broadway - Suite 10
Denver, Colorado 80209
(303) 733-4891



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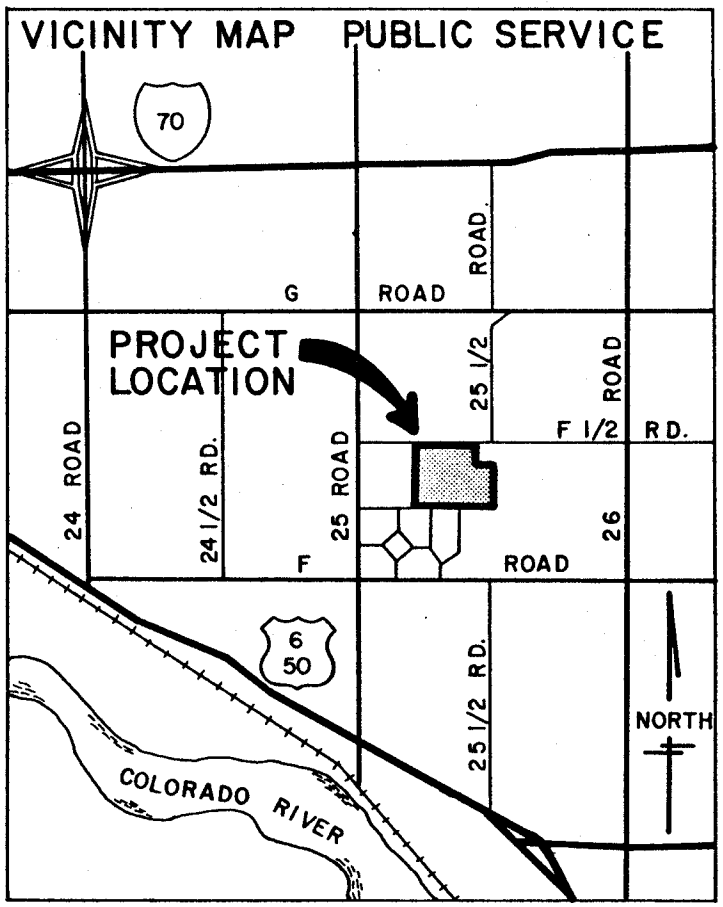

OFFICE COPY

#62-82

Dames & Moore
1626 Cole Boulevard
Golden, Colorado 80401
(303) 232-6262
TWX: 910-931-2600 Cable address: DAMEMORE

May 7, 1982
Our Ref: 08142-061-14

Public Service Company of Colorado
5900 E. 39th Avenue
Denver, Colorado 80207-1294

Attention: Mr. R.W. Comin
Senior Designer
Architectural and Civil Engineering Department

Gentlemen:

With this letter we transmit six copies of our "Report, Preliminary Foundation Investigation and Topographic Survey, 20-acre site, F 1/2 Road and 25 1/2 Road, Grand Junction, Colorado, for Public Service Company of Colorado." This work was authorized by your letter of April 14, 1982.

The site is suitable for the proposed development from a foundation engineering viewpoint. The results of the subsurface investigation indicate that the site is underlain by relatively soft soils to a depth of about 50 feet below the ground surface. These soft soils must be considered in the selection of appropriate foundation types and in the site preparation. The foundation type selected will depend on the structural requirements. If the structures are light and can undergo some differential settlement, they can be founded directly on the near surface soils using a relatively low bearing value. If the column loads are larger and/or differential settlements are to be minimized, the structures can be founded on driven pile foundations or on spread foundations after a surcharge program to preload the site.

It has been a pleasure performing this investigation. We look forward to providing assistance as needed as the project develops and during foundation construction.

Sincerely yours,

DAMES & MOORE

William J. Attwooll,
Partner

WJA:sjm

(15)

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PRELIMINARY FOUNDATION INVESTIGATION
AND TOPOGRAPHIC SURVEY
20-ACRE SITE, F 1/2 ROAD AND 25 1/2 ROAD
GRAND JUNCTION, COLORADO
FOR PUBLIC SERVICE COMPANY OF COLORADO

INTRODUCTION

In this report we present the results of our preliminary foundation investigation and topographic survey for the site of a proposed office complex at the southwest corner of the intersection of F 1/2 Road and 25 1/2 Road in Grand Junction, Colorado. The general location of the site relative to the city of Grand Junction is shown on the Vicinity Map, Plate 1. The scope of work was presented in our proposal of April 12, 1982. Authorization to proceed was received by your letter of April 14, 1982.

We understand the proposed construction will consist of a complex of low rise office buildings. However, the specific site layout and type of construction has not yet been developed.

SCOPE OF WORK

The scope of our preliminary foundation investigation and topographic survey was presented in our proposal of April 12, 1982. The topographic survey was performed by the Bell Companies of Grand Junction, Colorado under the direction of Thomas E. Cave, L.S. The results of the survey have been delivered to you under separate cover. The topographic survey forms the basis of the Plot Plan, Plate 2, attached hereto. The legal description of the property is presented on Plate 3.

The preliminary foundation investigation consisted of a site investigation, laboratory testing and engineering analyses. To fullfill the scope of work five exploratory borings were drilled and laboratory tests performed on the soil samples obtained. The results of the site investigation and laboratory testing were used to perform engineering

analysis as necessary to develop preliminary foundation design and site preparation recommendations. Our written report was to include:

1. Log of Borings.
2. Water Levels.
3. Laboratory Test Data.
4. Site Preparation Recommendations.
5. Preliminary Foundation Design Recommendations including:
    a. suitable foundation types
    b. design bearing capacities for spread foundations
    c. design criteria for drilled piers or driven piles, as appropriate
    d. measures to minimize risks of swelling and/or collapsing soils, if encountered
    e. estimated settlements
    f. other recommendations as appropriate.

FIELD EXPLORATIONS AND LABORATORY TESTING

The field exploration program consisted of drilling 5 borings at the locations shown on Plate 2, Plot Plan. The borings extended from 40.5 feet to 65 feet below the ground surface. Disturbed and undistrubed samples were obtained of the subsurface materials and laboratory tests were performed. The laboratory testing program was assigned to classify the soils and to evaluate the engineering properties of the soils. The field exploration was completed on April 22, 1982.

The field exploration and laboratory testing programs are described in detail in the Appendix. The detailed log of borings are presented on Plates A-1A through A-1C.

As part of our field program, Bell Engineering Company was subcontracted to produce a one foot contour interval topographic map of the site. In addition to the topographic mapping a utility survey was performed. The results of the topographic survey are the basis of Plate 2, Plot Plan and Plate 3, Legal Description.

SITE CONDITIONS

SURFACE CONDITIONS

The site is located south of F 1/2 Road and west of 25 1/2 Road in Grand Junction, Colorado. The site is relatively level and covered with some small trees and native grasses. The topsoil is a silty clay and clay silt that is quite hard when dry.

We understand that the site was used as a distribution site for irrigation water from the Grand Valley Canal which is located approximately 600 feet to the north of the site. Shown on the utility survey on Plate 2 is a manhole that is connected to this distribution system.

SUBSURFACE CONDITIONS

The subsurface conditions encountered at the site consist of 55 to 60 feet of fine grained alluvial material overlying a dense alluvial gravel layer which in turn overlies grey shale of the the Mancos Formation. The upper fine grained materials are silty clays and clayey silts with silty sand lenses and layers interbedded throughout the deposit. The upper 5 feet of material has been desiccated and forms a higher strength crust than the materials below 5 feet. The soils below 5 feet become soft to medium stiff. At a depth of 30 to 35 feet the silty clays become medium stiff to stiff.

The gravels, encountered at 55 to 60 feet, are dense and form a good bearing layer. The gravels are composed of rounded and subrounded quarzitic and granitic materials. In Boring 2 the thickness of the gravel layer was found to be 8 feet. A grey shale of the Mancos Formation was identified below the gravel layer.

The ground water table was encountered at 15 feet below the surface in Boring 2, 21 feet below the ground surface in Boring 3, 15 feet below the ground surface in Boring 4 and 19.8 feet below the ground surface in Boring 5. In general the ground water table slopes toward the south.

This leads us to believe that the water table may be influenced by the water level in Grand Canal.

FOUNDATION DESIGN RECOMMENDATIONS

GENERAL

The site is suitable for the proposed development from a foundation engineering viewpoint. The results of the subsurface investigation indicate that the site is underlain by relatively soft soils to a depth of about 50 feet below the ground surface. These soft soils must be considered in the selection of appropriate foundation types and in the site preparation. The foundation type selected will depend on the structural requirements. If the structures are light and can undergo some differential settlement, they can be founded directly on the near surface soils using a relatively low bearing value. If the column loads are larger and/or differential settlements are to be minimized, the structures can be founded on driven pile foundations or on spread foundations after a surcharge program to preload the site.

The recommendations presented in this report are based on the subsurface conditions encountered at the boring locations as described in this report. Should different subsurface conditions be encountered due to nonuniformity of the natural soils, or due to previous construction activity, we should be contacted to evaluate if corrective measures or revised recommendations are required.

SITE PREPARATION

As the site is relatively flat we do not anticipate extensive excavations and/or fill placement will be required to develop the site. However, some cutting and filling will be required to prepare the site for the proposed construction. Prior to any earthwork the site should be cleared of vegetation and debris. We recommend that all surfaces to be excavated or to receive compacted fill be stripped of topsoil. At most locations a depth of stripping 6 inches will be adequate to remove roots, vegetation and organic topsoil. The stripped topsoil is not suitable for

structural fill but can be used as fill outside of structure and paved areas or may be stockpiled for reuse for landscaping purposes.

Prior to fill placement, all surfaces to receive fill should be moistened to raise the moisture content of the near surface soils to about the optimum moisture content. The surfaces to receive fill should then be proof rolled using rubber tired or steel drum compaction equipment. Should soft or loose soil zones be encountered during proof rolling they should be excavated and replaced as compacted fill.

The onsite near surface soils are suitable for placement as compacted fill. Fill soil should be placed in horizontal layers not exceeding 8 inches in loose thickness. The fill soils should be moistened to about the optimum moisture content. Fill beneath structure and paved areas should be compacted to at least 90 percent of maximum dry density as determined by the ASTM* D 1557 Compaction Test Designation (all future references in this report to degree of compaction refer to this compaction test designation.) Fill in nonstructural areas should be compacted to 85 percent of the maximum dry density. Compaction criteria need not be specified for fill placed for landscape purposes only. Backfill adjacent to exterior structural walls should be compacted to 90 percent of the maximum dry density.

Site drainage should be planned to provide positive drainage of water away from all structure and paved areas. Site drainage should be designed so that water will not pond against foundations, walls, or paved areas.

We expect that temporary excavations such as for utility installation may be constructed with vertical side slopes. However, should men be required to work in the excavations, or should the excavations be required to stand open more than one week, they should be braced or sloped back to 1 horizontal to 1 vertical. Excavated materials should

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*American Society for Testing and Materials.

not be stockpiled adjacent to excavations and trucks and heavy equipment should not be operated adjacent to excavation walls.

Permanent cut and fill slopes should be constructed at 2 horizontal to 1 vertical or flatter. Slopes should be landscaped with suitable vegetation to control erosion. Occasional maintenance of permanent slopes should be anticipated, particularly after heavy or sustained rainfall.

FROST PENETRATION

Frost penetration is a function of the climate, the thermal conductivity of the subsurface soil, and the insulative of properties of materials at the ground surface, such as turf, pavement, standing snow, etc. Based on the review of the weather records obtained at Grand Junction, we estimate frost penetration of between 3-1/2 and 4 feet beneath bare ground for the coldest winter in 30 years.

Foundations should be placed at sufficient depths so as not to heave or settle during freeze and thaw. We recommend that exterior building foundations and the foundations of unheated structures be placed a minimum of three feet below the lowest adjacent grade. We recommend that water pipes beneath paved areas which will be kept free of snow be placed at least 4 feet below final grade.

RECOMMENDED FOUNDATION TYPES

The proposed structures can be supported on conventional spread foundations or on driven piles depending on the loads on the foundations and the design settlement criteria.

Lightly loaded structures not sensitive to total or differential settlements can be founded on spread foundations designed using a net bearing value of 1200 pound per square foot (psf). The weight of concrete and soil below grade need not be included when computing bearing values. The bearing values apply to the total of all dead and frequently applied live loads. For temporary loads resulting from wind or seismic

forces, the allowable bearing capacity may be increased by one-third. Exterior footings should be placed a minimum of 3 feet below lowest adjacent grade and interior footings a minimum of 2 feet below floor slab level. Footings should have a minimum width of 18 inches. Footings designed in accordance with the above criteria and supporting column loads up to 50 kips should settle 1 inch or less due to structural loading. Differential settlements between adjacent footings should not exceed 1/2 inch.

Besides the structural loads, some settlement could occur due to seasonal variations and/or long-term changes in the ground water table. While such settlements should not be large, they cannot be predicted accurately, and could cause some uneven settlement of the structure. Therefore, should such settlements be unacceptable, we recommend that the structure be supported on driven pile foundations or on spread foundations after the building site has been preloaded using a surcharge fill.

SURCHARGE FILL

We suggest that a surcharge program be seriously considered. The dimensions of a surcharge fill will depend on the proposed building column loads, the depth at which foundations will be placed, and whether or not a basement is anticipated. Assuming that there will be no basement and column loads will not exceed 100 kips, a tentative surcharge program consists of a 6 foot high fill extending full height to at least 10 feet outside the building perimeter. The surcharge should remain in place about 2 months. However, if settlement markers are established and maintained it may be possible to remove the surcharge in as little as one month. Soils needed for general site grading could be used to provide the surcharge material. Depending upon your construction sequence, the surcharge could be placed over one building site and then moved to another before being used for site grading. We would be pleased to discuss the concept of a surcharge program in more detail with the project designer.

Following completion of a surcharge loading program structures can be founded on conventional spread foundations designed using a bearing pressure of 2000 psf. Total settlement of footings supporting column loads of up to 100 kips should be 3/4 inch or less with differential settlement between adjacent footing less than 1/4 inch. Prior to pouring concrete, the soils in the bottom of footing excavations should be compacted using hand operated compaction equipment.

DRIVEN PILE FOUNDATIONS

The proposed structures may be supported on driven pile foundations. The piles would derive their supporting capacity in the gravel layer underlying the site. Displacement piles such as closed-end pipe piles, Raymond piles, precast concrete piles, etc. or nondisplacement steel H piles may be used. Driven pile foundations are preferred over drilled piers at this site because of the high water table, the presence of sand layers above the bearing layer and the open nature of the gravel bearing layer. For drilled piers, it would be necessary to use thick bentonite slurry to maintain an open hole. Only drilled pier contractors experienced in installing piers below the water table using bentonite slurry could be considered. If drilled piers seem to be economically viable in spite of the difficulties, we would be pleased to prepare the appropriate design criteria.

Piles should be driven to refusal in the dense gravel layer underlying the site. Ten inch diameter closed-end steel pipe, 10 inch square precast concrete piles or Raymond step-taper piles may be designed using an allowable supporting capacity of 50 tons. Eight inch steel H piles may be designed for a supporting capacity of 30 tons. Steel piles should be driven with a hammer developing at least 19,500 pounds of energy per blow. Practical refusal is defined as 10 blows per inch of penetration for a 19,500 foot pound hammer or equivalent, if a hammer developing different energy is used. Precast concrete piles should be driven with a hammer developing at least 24,000 foot pounds of energy per blow and would have the same refusal criteria.

Due to the variable depth to the underlying gravel layer, it is not possible to predict exact pile lengths in advance. All piles should be driven to sufficient depths to obtain the required penetration resistance. We expect that most piles would extend to 55 to 65 feet below foundation level with generally the greater depth being towards the south end of the site.

End bearing piles should be spaced at least 2-1/2 diameters between centers. For tapered piles, the diameter should be measured at the mid-section. In the case of square piles, the center to center spacing should be at least 2.5 times the face dimension.

It is estimated that the piles driven to the specified refusal criteria will settle on the order of 1/4 inch or less under the maximum design load.

Should extensive site grading take place after piles are driven including fill placement in the vicinity of piles, some downdrag could occur. If areal fills deeper than 3 feet are planned after piles are driven we should be contacted to evaluate the possible downdrag load which could be transmitted to the piles. Nominal backfill around perimeter walls should not cause significant downdrag.

FLOOR SLABS

Floor slabs may be supported on compacted fill which has been placed to raise site grade, or on the natural soils. Before placing slabs on natural soils, the surface should be proof rolled as described under "Site Preparation." A moisture barrier, such as Visqueen, should be placed below slabs which will have carpeting or other floor covers.

EARTH PRESSURES

Retaining walls and basement walls may be designed using an equivalent fluid pressure of 35 pounds per cubic foot. Surcharges or vehicle loads above the retaining walls would increase the active pressure.

RESISTANCE TO LATERAL LOAD

Resistance to lateral loads can be developed in the following ways:

1. Passive pressure against the sides of footings, pile caps and grade beams.
2. Friction between bottoms of footings and floor slabs and the underlying soils.
3. The lateral capacity of piles.

Passive resistance available in the compacted backfill and natural soils above the water table may be taken as equivalent to the pressure exerted by a fluid weighing 300 pounds per cubic foot. For design purposes, the coefficient of friction between the bottoms of shallow concrete footings or floor slabs and the underlying soils may be taken as 0.35. No friction should be assumed between pile caps and the underlying soils.

Lateral forces may be also be resisted by the lateral capacity of the piles. The lateral capacity of various piles at 1/4 inch deflection have been computed and are presented below. The values are presented for piles restrained against rotation by the pile caps (fixed head), and for piles free to rotate at the pile cap (free head).

	Allowable Lateral Capacity, kips	
Pile Type	Fixed Head	Free Head
10-inch concrete or pipe piles	4	8
8-inch steel H-pile	2	4

CEMENT TYPE

The results of chemical tests performed on selected soil samples are presented in Table A-4 of the Appendix. Based on these values the Portland Cement Association recommends that TYPE V cement be used for all concrete in contact with soil or ground water. However, for your information, there is available in Colorado a TYPE II cement that has

been modified to have sulfate resistance generally similar to TYPE V cement. If the manufacturers can demonstrate this cement to be suitable for the site, it could be utilized instead of TYPE V cement.

INSPECTION

It is recommended that site preparation and foundation installation be inspected under the direction of a competent soils engineer. The soils engineer should evaluate the suitability of excavated material for reuse as select or other fill. In addition, the following items should be under his general supervision:

1. Fill placement
2. Installation of pile foundations
3. Footing excavations

ATTACHMENTS

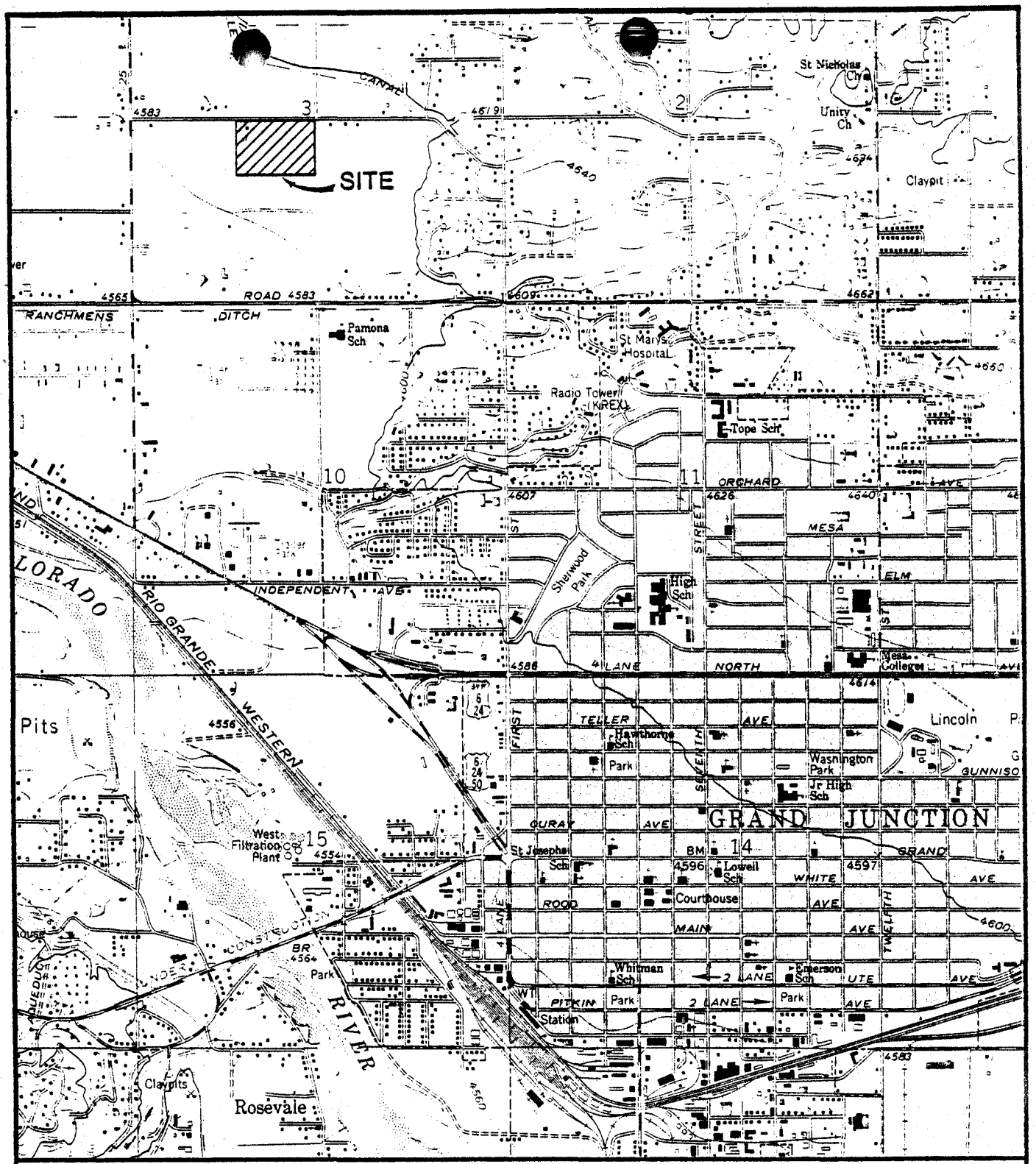
The following are attached and complete this report:

Plate 1	Vicinity Map
Plate 2	Plot Plan
Plate 3	Legal Description
Appendix	Field Explorations and Laboratory Testing

Respectfully submitted,
DAMES & MOORE

William J. Attwooll
Partner
Registered Civil Engineer
State of Colorado No. 18829

Dan T. Kinard
Project Engineer



VICINITY MAP

Reference: U.S.G.S., Grand Junction, Colorado, 7 1/2 Minute Quadrangle, 1973 (28)

0 1/2 1 Mile

Scale

Dames & Moore

PLATE 1

BELL SURVEYING COMPANY

LAND SURVEYORS

DATE: May 6, 1982 NUMBER: 16743AG

ORDERED BY: Dames and Moore

DESCRIPTION: SEC. TWP. RG. CO. STATE

Parcel 1:
A tract of land located in the SW¼ of Section 3, Township 1 South, Range 1 West of the Ute Meridian more particularly described as follows: Beginning at a point 20 feet South and 30 feet West of the Northeast corner of the SW¼ of said Section 3; being the intersection of the South line of F½ Road with the West line of 25½ Road, thence West along the South line of F½ Road 1108.40 feet; thence South 766.00 feet; thence East 1108.40 feet to the West line of 25½ Road; thence North along said West line 766.00 feet to the point of beginning,
EXCEPT a 2.269 acre tract described as beginning at a point 20 feet South and 30 feet West of the Northeast corner of the SW¼ of said Section 3; being the intersection of the South line of F½ Road with the West line of 25½ Road; thence West along the South line of F½ Road 295.00 feet; thence South 315.00 feet; thence East 295.00 feet to the West line of 25½ Road; thence North along said West line 315.00 feet to the point of beginning.

Parcel 2:
A 2.269 acre tract described as beginning at a point 20 feet South and 30 feet West of the Northeast corner of the SW¼ of said Section 3; being the intersection of the South line of F½ Road with the West line of 25½ Road; thence West along the South line of F½ Road 295.00 feet; thence South 315.00 feet; thence East 295.00 feet to the West line of 25½ Road; thence North along said West line 315.00 feet to the point of beginning.
Mesa County, Colorado.

I hereby certify that this plat is the true result of a monumented land survey.

THOMAS E. CAVE
REGISTERED
14070
LAND SURVEYOR
STATE OF COLORADO

Thomas E. Cave

SURVEYOR L.S. 14070

Dames & Moore
PLATE 3

APPENDIX

FIELD EXPLORATION AND LABORATORY TESTING

FIELD EXPLORATION

The field exploration program for this investigation consisted of drilling 5 exploratory borings. Locations of these borings are shown with respect to site boundaries and topographic features on Plate 2, Plot Plan. The field exploration was conducted and supervised by an experienced member of our geotechnical staff.

The borings were drilled to depths ranging from 40.5 to 65 feet below the existing ground surface and a continuous log of borings was maintained. The depths and surface elevations of the borings are presented in Table A-1. A description of the soils encountered is presented on the Log of Borings, Plate A-1 through A-1C. The field data and moisture density results are presented on the Log of Borings. The soils were classified in accordance with the Unified Soil Classification System shown on Plate A-2.

TABLE A-1

BORING DEPTHS AND ELEVATIONS

Boring Number	Boring Depth (Feet)	Boring Elevation (Feet)
1	40.5	4591.7
2	65.0	4587.7
3	65.0	4584.8
4	58.0	4589.0
5	62.0	4587.3

The borings were drilled using a truck mounted CME 55 rotary drill rig. Hollow stem continuous flight augers were used to advance the holes to the required depth. The hollow stem augers kept the borings free of caving soils. When the auger tip reached the desired depth the sampling device was lowered into the hollow augers with drill rods. Soil samples were obtained for classification and laboratory testing purposes.

Relatively undisturbed soil samples were obtained with a Dames & Moore Type U sampler with and without thin wall sampling as illustrated on Plate A-3. The Dames & Moore Type U sampler has an outside diameter of 3.25 inches and inside diameter of 2.42 inches. A standard penetration test split spoon sampler was also driven to measure blow counts and collect disturbed soil samples. The standard split spoon has an outside and inside diameter of 2 inches and 1-3/8 inches, respectively. The samplers were driven by a 140 pound hammer dropping 30 inches. The blows for each of the three successive 6-inch intervals at each sampling depth were recorded. The blows for the last two 6-inch intervals were summed to obtain the blow count as blows per foot. Bulk samples were also collected for classification purposes from the auger cuttings.

LABORATORY TESTING

General

Laboratory tests were performed on selected soil samples to evaluate the physical and engineering properties of the soils encountered during the field exploration program. The classification tests performed consisted of determination of moisture content, in-place density, and Atterberg limits. The engineering properties of the soils encountered in the borings were determined by consolidation tests, collapse/swell consolidation tests, direct shear and triaxial shear strength tests. Chemical tests were also performed to evaluate the pH and soluble sulfate. The method of performing these tests and the test results are presented in this section.

Classification Tests

The moisture content, dry density and Atterberg limits were determined for selected soil samples for classification purposes. The results of the moisture density testing not performed in conjunction with another test are presented on the Log of Borings, Plates A-1A through A-1C.

An Atterberg limit tests was performed on a representative sample of the silty clay to confirm its classification. The liquid limit was found to be 30 percent and, the plastic limit was found to be 22 percent

giving a plasticity index of 8 percent. The Unified Soil Classification that corresponds to these values is CL-ML.

Consolidation - Collapse/Swell Tests

Consolidation tests were performed on selected soil samples from various depths in the soil profile. Three standard consolidation tests were performed and two collapse/swell tests were performed on near surface soils. The results of these tests are presented on Plate A-4. The method of performing the consolidation tests is presented on Plate A-5.

Strength Tests

To evaluate the strength characteristics of the soils encountered, direct shear and triaxial unconsolidated, undrained compression tests were performed on selected relatively undisturbed samples. Four direct shear tests were performed on two samples. Half of each sample was taken and tested at the in situ moisture content and the other half of each sample was saturated before testing. The results of the direct shear tests are presented on Table A-2. The method of performing the direct shear test is presented on Plate A-6.

TABLE A-2

DIRECT SHEAR STRENGTH RESULTS

Boring	Depth (Feet)	Moisture Content Percent	Dry Density (PSF)	Test Condition	Normal Stress (PSF)	Shear Strength Yield Strength (PSF)
3	5.5	9.5	106	Saturated	700	400
3	5.5	12.3	102	Field Moisture	700	700
4	20.0	23.5	102	Saturated	2,400	950
4	20.0	23.7	100	Field Moisture	2,400	1,000

Three triaxial unconsolidated, undrained compression tests were performed on selected soil samples. The results of these tests are presented on Table A-3. The method of performing these tests is presented on Plate A-7.

TABLE A-3

TRIAXIAL SHEAR STRENGTH RESULTS

Boring	Depth (Feet)	Moisture Content (Percent)	Dry Density (PSF)	Confining Pressure (PSF)	Shear[1] Strength (PSF)	Strain[2] (Percent)
2	20.5	26.8	94	2,400	400	5
					600	10
5	31.0	22.4	103	3,600	520	5
					675	10
5	5.5	13.6	106	700	5,200	2.5

Notes: 1. Shear strength is taken as 1/2 the compressive strength

2. The strain of the sample in percent is reported for the corresponding shear strengths.

Chemical Tests

Selected soil samples were tested for pH and total soluble sulfate. The results of these tests are presented on Table A-4.

TABLE A-4

CHEMICAL TEST RESULTS

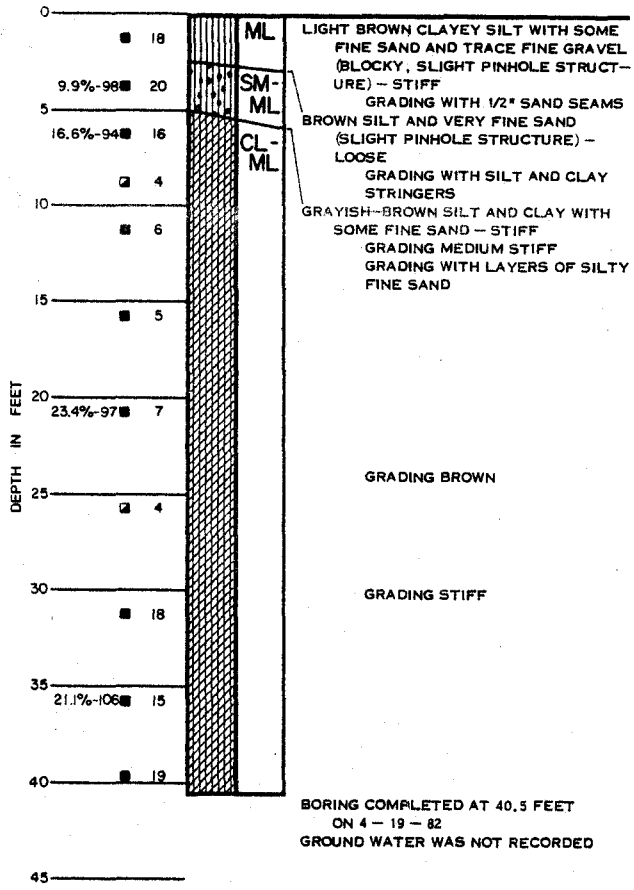
Boring	Depth (Feet)	pH	Total Water Soluble Sulfate (Percent)
1	1	8.5	.27
4	4.5	8.5	.23

* * *

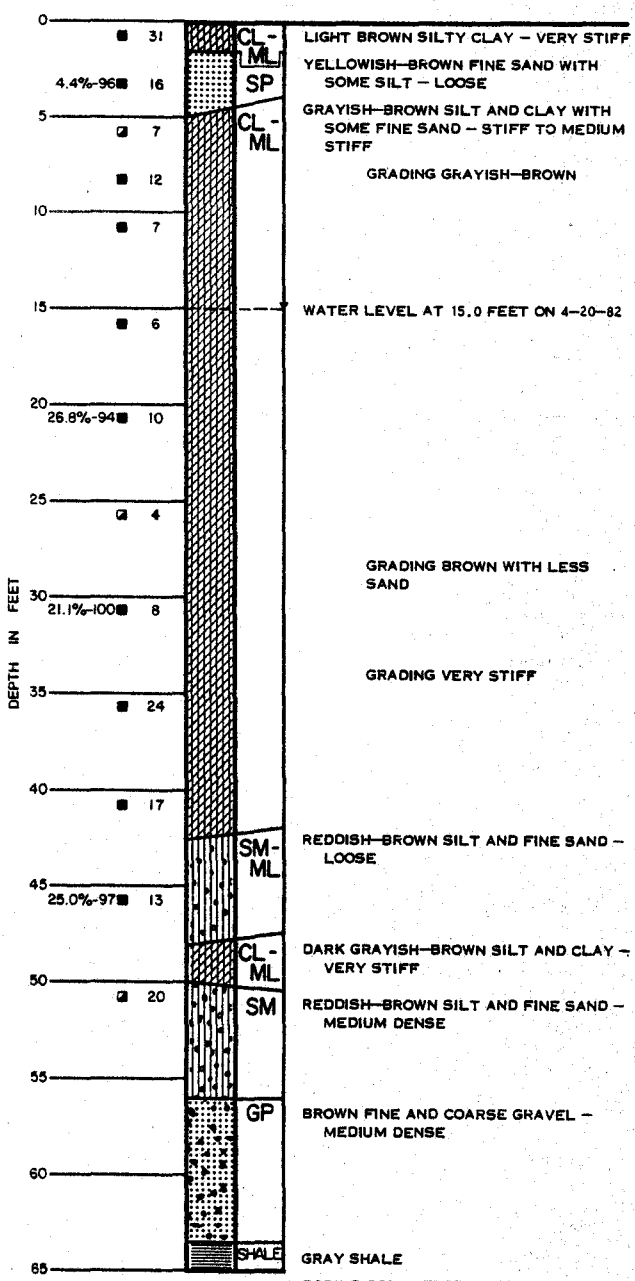
The following Plates are attached and compete this appendix:

Plates A-1A through A-1C	Log of Borings
Plate A-2	Unified Soil Classification System
Plate A-3	Soil Sampler Type U
Plate A-4	Consolidation - Collapse/Swell Data
Plate A-5	Method of Performing Consolidation Tests
Plate A-6	Method of Performing Direct Shear and Friction Tests
Plate A-7	Method of Performing Unconfined Compression and Triaxial Compression Tests

BORING 1



BORING 2



KEY

A – B ■ C

- A FIELD MOISTURE EXPRESSED AS A PERCENTAGE OF THE DRY WEIGHT OF SOIL
- B DRY DENSITY EXPRESSED IN LBS. PER CUBIC FOOT
- C BLOWS PER FOOT OF PENETRATION USING A 140 LB. HAMMER DROPPING 30 INCHES
- P INDICATES SAMPLE WAS PUSHED
- ■ DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED
- ◪ STANDARD PENETRATION TEST

NOTES

THE DISCUSSION IN THE TEXT UNDER THE SECTION TITLED, "SITE CONDITIONS, SUBSURFACE", IS NECESSARY TO A PROPER UNDERSTANDING OF THE NATURE OF THE SUBSURFACE MATERIALS.

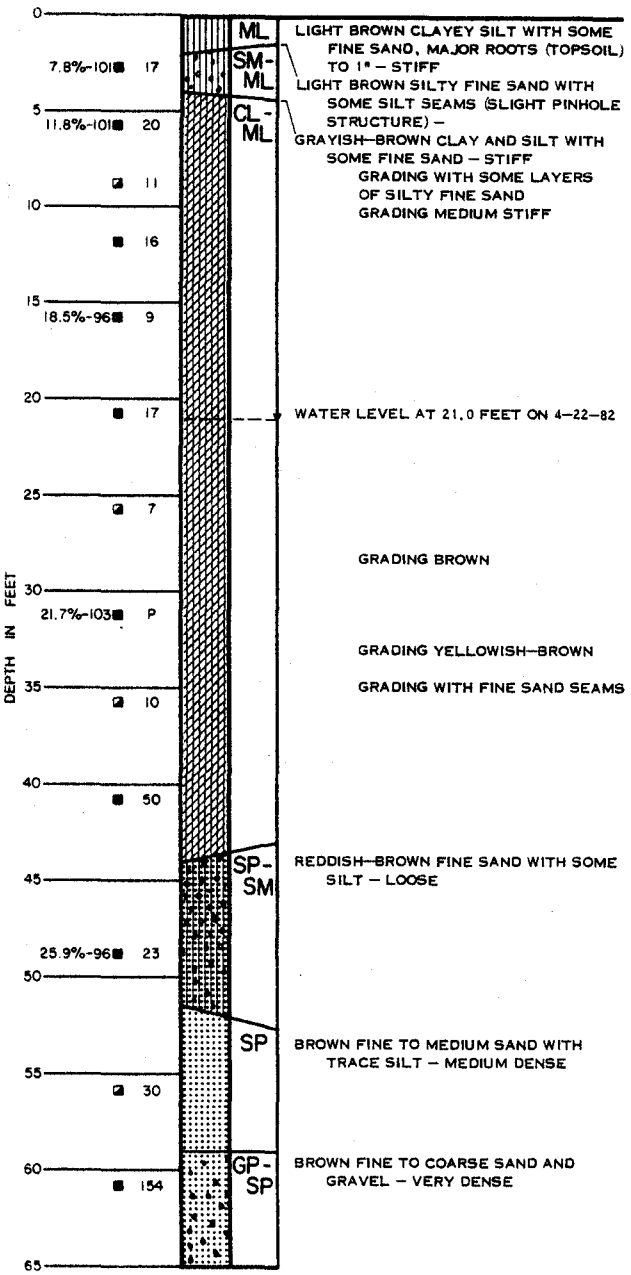
LOG OF BORINGS

(36)

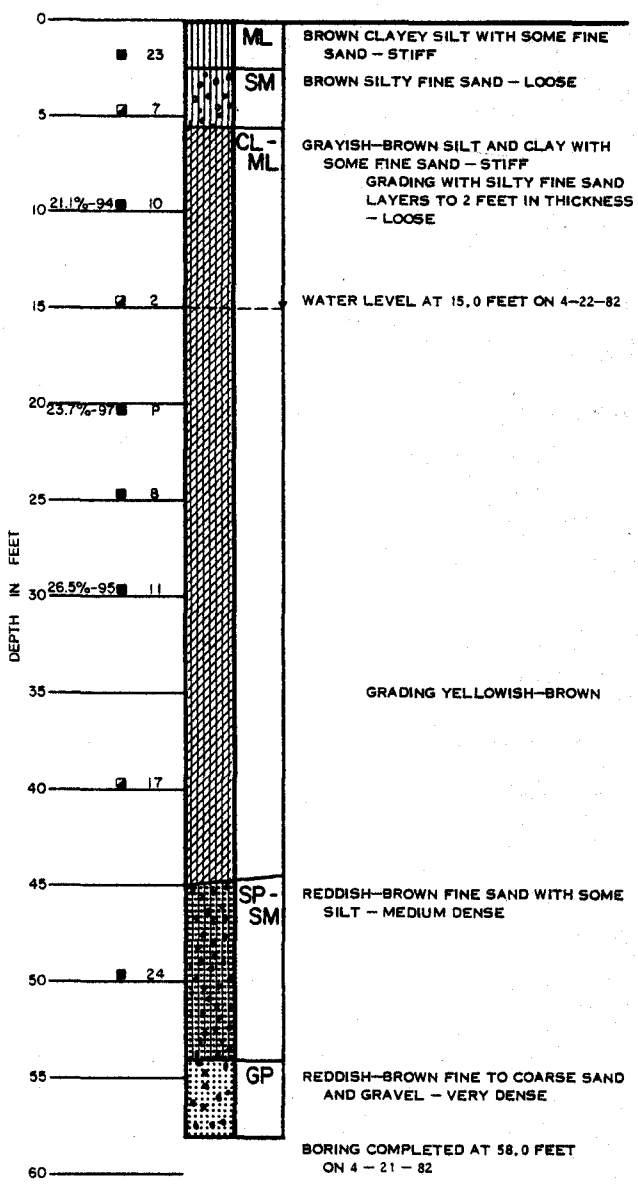
Dames & Moore

PLATE A-1A

BORING 3



BORING 4



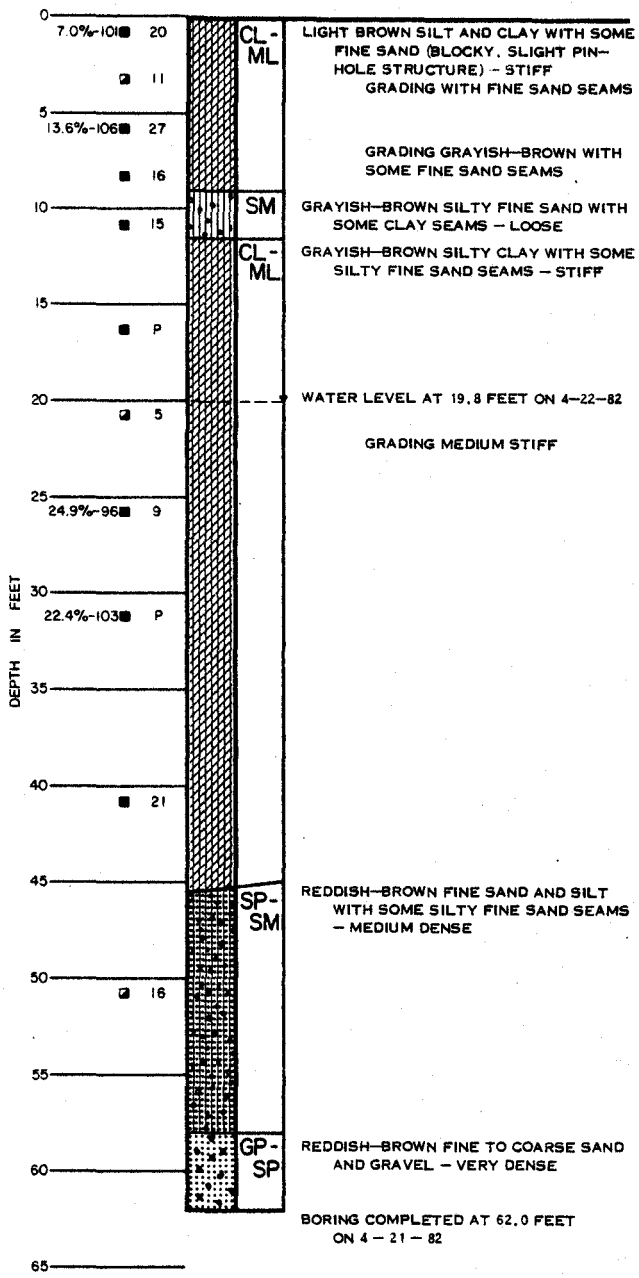
LOG OF BORINGS

(37)

Dames & Moore

PLATE A-1B

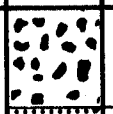
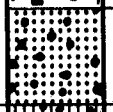
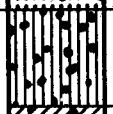
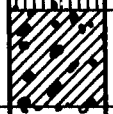
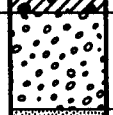
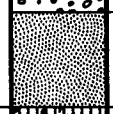
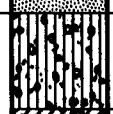
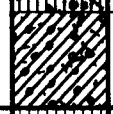
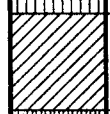
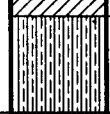
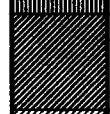
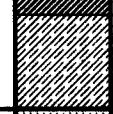
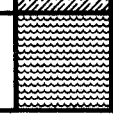
BORING 5



LOG OF BORING

Dames & Moore

PLATE A-1C

MAJOR DIVISIONS			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

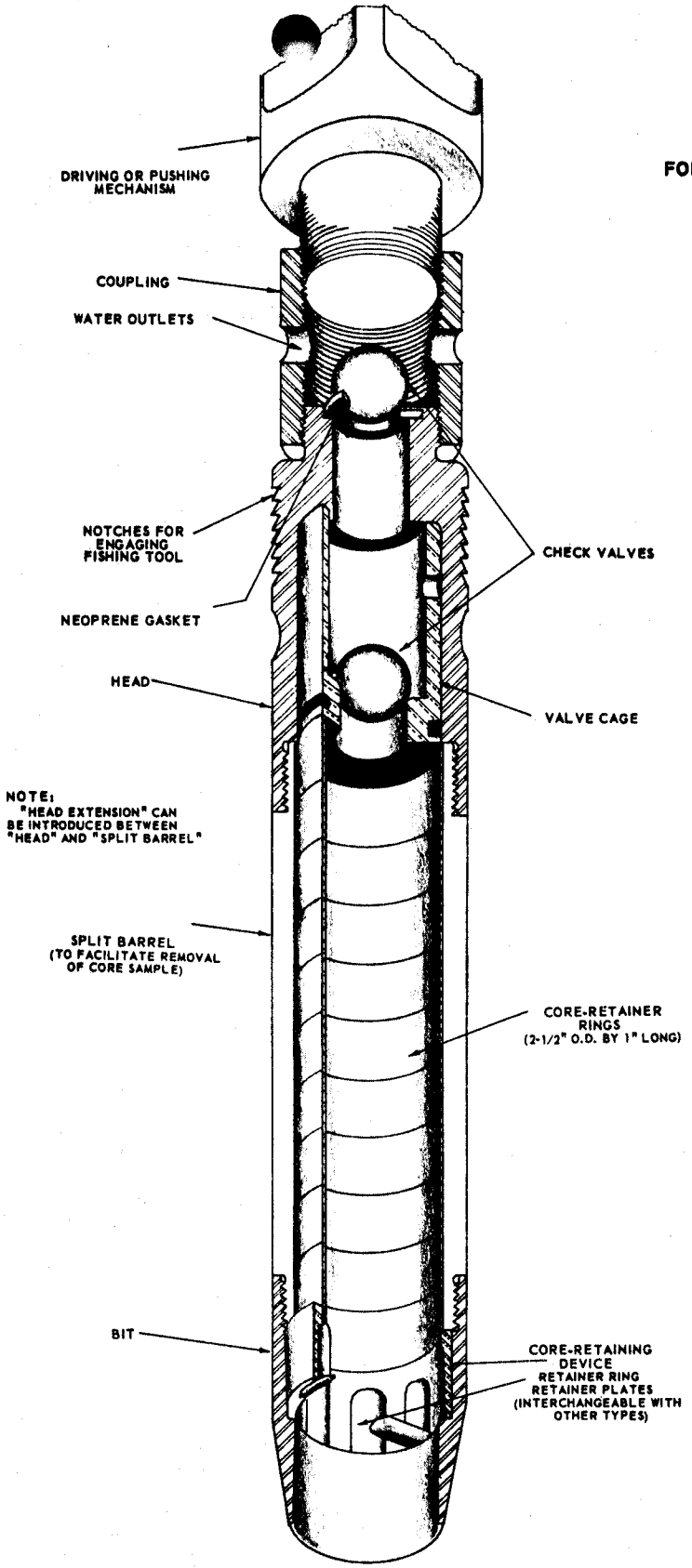
FORM NO. 467.3 (4-78)

DAMES & MOORE

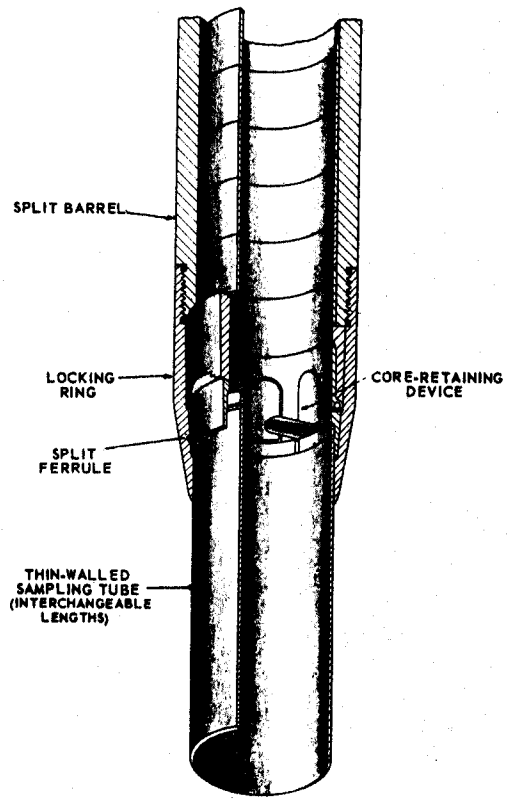
PLATE A-2

SOIL SAMPLER TYPE U

FOR SOILS DIFFICULT TO RETAIN IN SAMPLER

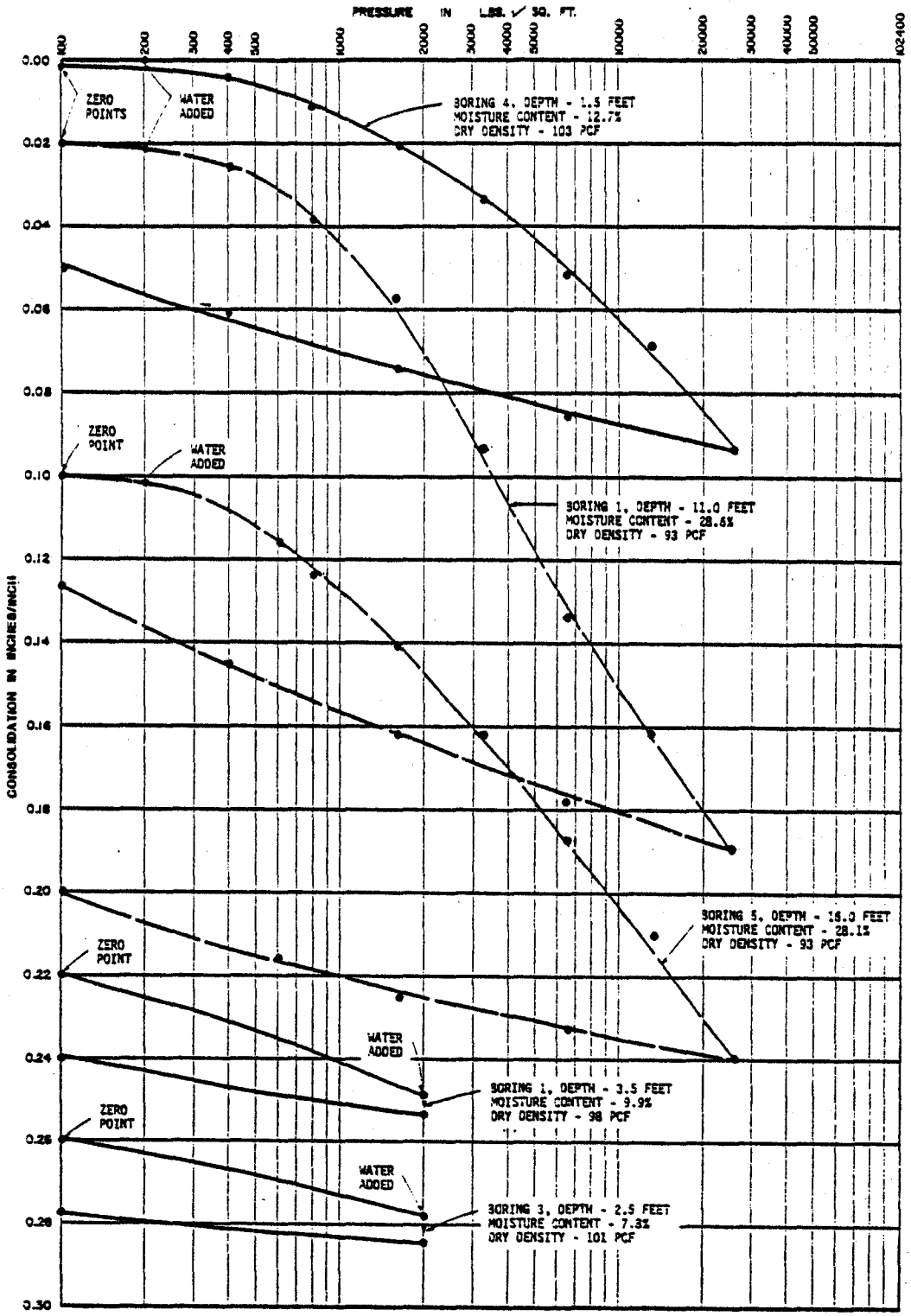


ALTERNATE ATTACHMENTS



417.9 (5-68)

Plate A-3



CONSOLIDATION TEST DATA

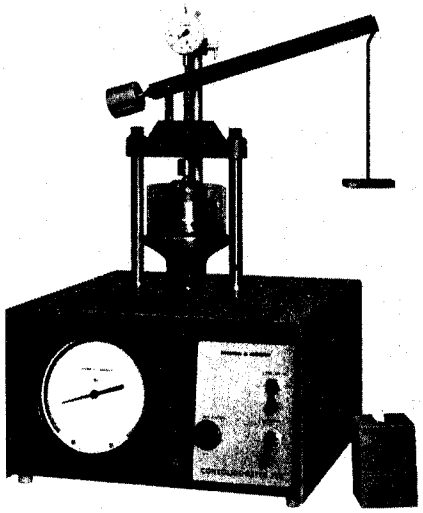
Dames & Moore

PLATE A-4

METHOD OF PERFORMING CONSOLIDATION TESTS

CONSOLIDATION TESTS ARE PERFORMED TO EVALUATE THE VOLUME CHANGES OF SOILS SUBJECTED TO INCREASED LOADS. TIME-CONSOLIDATION AND PRESSURE-CONSOLIDATION CURVES MAY BE PLOTTED FROM THE DATA OBTAINED IN THE TESTS. ENGINEERING ANALYSES BASED ON THESE CURVES PERMIT ESTIMATES TO BE MADE OF THE PROBABLE MAGNITUDE AND RATE OF SETTLEMENT OF THE TESTED SOILS UNDER APPLIED LOADS.

EACH SAMPLE IS TESTED WITHIN BRASS RINGS TWO AND ONE-HALF INCHES IN DIAMETER AND ONE INCH IN LENGTH. UNDISTURBED SAMPLES OF IN-PLACE SOILS ARE TESTED IN RINGS TAKEN FROM THE SAMPLING DEVICE IN WHICH THE SAMPLES WERE OBTAINED. LOOSE SAMPLES OF SOILS TO BE USED IN CONSTRUCTING EARTH FILLS ARE COMPACTED IN RINGS TO PREDETERMINED CONDITIONS AND TESTED.

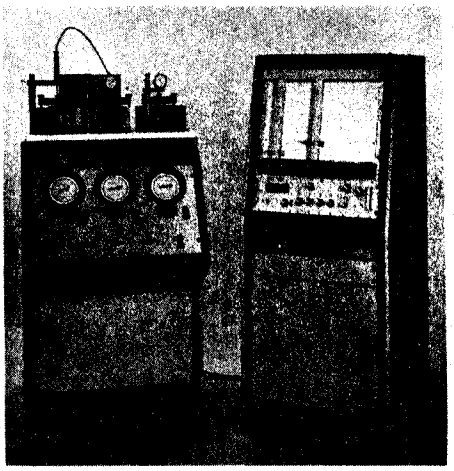


DEAD LOAD-PNEUMATIC CONSOLIDOMETER

IN TESTING, THE SAMPLE IS RIGIDLY CONFINED LATERALLY BY THE BRASS RING. AXIAL LOADS ARE TRANSMITTED TO THE ENDS OF THE SAMPLE BY POROUS DISKS. THE DISKS ALLOW DRAINAGE OF THE LOADED SAMPLE. THE AXIAL COMPRESSION OR EXPANSION OF THE SAMPLE IS MEASURED BY A MICROMETER DIAL INDICATOR AT APPROPRIATE TIME INTERVALS AFTER EACH LOAD INCREMENT IS APPLIED. EACH LOAD IS ORDINARILY TWICE THE PRECEDING LOAD. THE INCREMENTS ARE SELECTED TO OBTAIN CONSOLIDATION DATA REPRESENTING THE FIELD LOADING CONDITIONS FOR WHICH THE TEST IS BEING PERFORMED. EACH LOAD INCREMENT IS ALLOWED TO ACT OVER AN INTERVAL OF TIME DEPENDENT ON THE TYPE AND EXTENT OF THE SOIL IN THE FIELD.

Method Of Performing Direct Shear and Friction Tests

Direct shear tests are performed to determine the shearing strengths of soils. Friction tests are performed to determine the frictional resistances between soils and various other materials such as wood, steel, or concrete. The tests are performed in the laboratory to simulate anticipated field conditions.



DIRECT SHEAR APPARATUS WITH ELECTRONIC RECORDER

Each sample is tested in a split sample holder, two and one-half inches in diameter and one inch high. Undisturbed samples of in-place soils are extruded from rings taken from the sampling device in which the samples were obtained. Loose samples of soils to be used in constructing earth fills are compacted in rings to predetermined conditions and tested.

Direct Shear Tests

A one-inch length of the sample is tested in direct single shear. A constant pressure, appropriate to the conditions of the problem for which the test is being performed, is applied normal to the ends of the sample through porous stones. A shearing failure of the sample is caused by moving the upper sample holder in a direction perpendicular to the axis of the sample. Transverse movement of the lower sample holder is prevented.

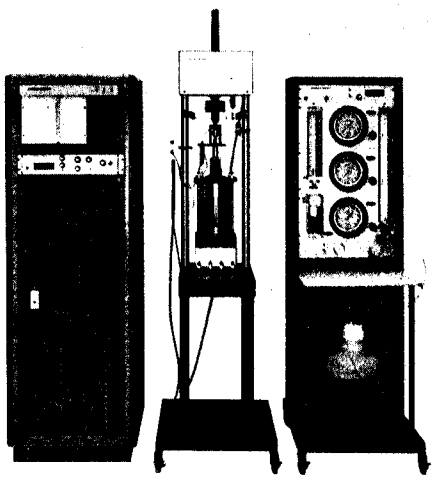
The shearing failure is accomplished by applying to the upper sample holder a constant rate of deflection. The shearing load and the deflections in both the axial and transverse directions are recorded and plotted. The shearing strength of the soils is determined from the resulting load-deflection curves.

Friction Tests

In order to determine the frictional resistance between soil and the surfaces of various materials, the lower sample holder in the direct shear test is replaced by a disk of the material to be tested. The test is then performed in the same manner as the direct shear test by forcing the soil over the friction material surface.

METHODS OF PERFORMING UNCONFINED COMPRESSION AND TRIAXIAL COMPRESSION TESTS

THE SHEARING STRENGTHS OF SOILS ARE DETERMINED FROM THE RESULTS OF UNCONFINED COMPRESSION AND TRIAXIAL COMPRESSION TESTS. IN TRIAXIAL COMPRESSION TESTS THE TEST METHOD AND THE MAGNITUDE OF THE CONFINING PRESSURE ARE CHOSEN TO SIMULATE ANTICIPATED FIELD CONDITIONS.



TRIAXIAL COMPRESSION TEST UNIT

UNCONFINED COMPRESSION AND TRIAXIAL COMPRESSION TESTS ARE PERFORMED ON UNDISTURBED OR REMOLDED SAMPLES OF SOIL APPROXIMATELY SIX INCHES IN LENGTH AND TWO AND ONE-HALF INCHES IN DIAMETER. THE TESTS ARE RUN EITHER STRAIN-CONTROLLED OR STRESS-CONTROLLED. IN A STRAIN-CONTROLLED TEST THE SAMPLE IS SUBJECTED TO A CONSTANT RATE OF DEFLECTION AND THE RESULTING STRESSES ARE RECORDED. IN A STRESS-CONTROLLED TEST THE SAMPLE IS SUBJECTED TO EQUAL INCREMENTS OF LOAD WITH EACH INCREMENT BEING MAINTAINED UNTIL AN EQUILIBRIUM CONDITION WITH RESPECT TO STRAIN IS ACHIEVED.

YIELD, PEAK, OR ULTIMATE STRESSES ARE DETERMINED FROM THE STRESS-STRAIN PLOT FOR EACH SAMPLE AND THE PRINCIPAL STRESSES ARE EVALUATED. THE PRINCIPAL STRESSES ARE PLOTTED ON A MOHR'S CIRCLE DIAGRAM TO DETERMINE THE SHEARING STRENGTH OF THE SOIL TYPE BEING TESTED.

UNCONFINED COMPRESSION TESTS CAN BE PERFORMED ONLY ON SAMPLES WITH SUFFICIENT COHESION SO THAT THE SOIL WILL STAND AS AN UNSUPPORTED CYLINDER. THESE TESTS MAY BE RUN AT NATURAL MOISTURE CONTENT OR ON ARTIFICIALLY SATURATED SOILS.

IN A TRIAXIAL COMPRESSION TEST THE SAMPLE IS ENCASED IN A RUBBER MEMBRANE, PLACED IN A TEST CHAMBER, AND SUBJECTED TO A CONFINING PRESSURE THROUGHOUT THE DURATION OF THE TEST. NORMALLY, THIS CONFINING PRESSURE IS MAINTAINED AT A CONSTANT LEVEL, ALTHOUGH FOR SPECIAL TESTS IT MAY BE VARIED IN RELATION TO THE MEASURED STRESSES. TRIAXIAL COMPRESSION TESTS MAY BE RUN ON SOILS AT FIELD MOISTURE CONTENT OR ON ARTIFICIALLY SATURATED SAMPLES. THE TESTS ARE PERFORMED IN ONE OF THE FOLLOWING WAYS:

UNCONSOLIDATED-UNDRAINED: THE CONFINING PRESSURE IS IMPOSED ON THE SAMPLE AT THE START OF THE TEST. NO DRAINAGE IS PERMITTED AND THE STRESSES WHICH ARE MEASURED REPRESENT THE SUM OF THE INTERGRANULAR STRESSES AND PORE WATER PRESSURES.

CONSOLIDATED-UNDRAINED: THE SAMPLE IS ALLOWED TO CONSOLIDATE FULLY UNDER THE APPLIED CONFINING PRESSURE PRIOR TO THE START OF THE TEST. THE VOLUME CHANGE IS DETERMINED BY MEASURING THE WATER AND/OR AIR EXPELLED DURING CONSOLIDATION. NO DRAINAGE IS PERMITTED DURING THE TEST AND THE STRESSES WHICH ARE MEASURED ARE THE SAME AS FOR THE UNCONSOLIDATED-UNDRAINED TEST.

DRAINED: THE INTERGRANULAR STRESSES IN A SAMPLE MAY BE MEASURED BY PERFORMING A DRAINED, OR SLOW, TEST. IN THIS TEST THE SAMPLE IS FULLY SATURATED AND CONSOLIDATED PRIOR TO THE START OF THE TEST. DURING THE TEST, DRAINAGE IS PERMITTED AND THE TEST IS PERFORMED AT A SLOW ENOUGH RATE TO PREVENT THE BUILDUP OF PORE WATER PRESSURES. THE RESULTING STRESSES WHICH ARE MEASURED REPRESENT ONLY THE INTERGRANULAR STRESSES. THESE TESTS ARE USUALLY PERFORMED ON SAMPLES OF GENERALLY NON-COHESIVE SOILS, ALTHOUGH THE TEST PROCEDURE IS APPLICABLE TO COHESIVE SOILS IF A SUFFICIENTLY SLOW TEST RATE IS USED.

AN ALTERNATE MEANS OF OBTAINING THE DATA RESULTING FROM THE DRAINED TEST IS TO PERFORM AN UNDRAINED TEST IN WHICH SPECIAL EQUIPMENT IS USED TO MEASURE THE PORE WATER PRESSURES. THE DIFFERENCES BETWEEN THE TOTAL STRESSES AND THE PORE WATER PRESSURES MEASURED ARE THE INTERGRANULAR STRESSES.

F 1/2 ROAD

	0'		100'		200'		300'		400'		500'		600'		700'		800'		900'		1000'		1100'
750'	15	15	14.5	15	14	15	15	16	15	16	15	15	15.5	16	15	15	16						
700'	16	15	14	14	15	14	15	15	16	16.5	16	16.5	16	16	15	15.5	15.5						
	15	16	15	14.5	16	15	15	15	15	15	16	16.5	16.5	17	15	15.5	17						
600'	16	15	15	15	15	15	16	15	16.5	15	16.5	16	16.5	15.5	15	15	16						
	14	15	14.5	15	15	15.5	15	16	15	15	15.5	15.5	16	16	15	15.5	16						
500'	15	14	15	16	15	15.5	15.5	16	16	15	15.5	15	15.5	14.5	14	15	16	16	15.5	15	15.5	16	16
	14	14	15	15	15	16	15	15	16	15	15	14.5	15.5	15	14	15	16	16.5	15	16	16.5	16.5	16.5
400'	15	14	15	15	15	16	15.5	15.5	15	14	14.5	15	15	14.5	14	15	16	15.5	15.5	15	15.5	15	16
	16	15.5	15	15	15	16.5	14.5	15	15.5	14.5	15.5	15	15	14	14	15	15.5	16	16	15	16.5	16.5	16.5
300'	15	15	14	16	14.5	16	15.5	15	15	16	15.5	15	14	13.5	15	14	15.5	15	15	15.5	15.5	15	15
	14	16	15	16	15	15.5	15.5	15.5	15.5	16	15.5	15	14	15.5	15	15	15	15	17	15.5	15.5	15	15
200'	15	15.5	14.5	16.5	15.5	16.5	15.5	15	15.5	15	14	15	14	15.5	15	15	15	15	15	15.5	15	15.5	16.5
	16	15	14.5	16.5	15.5	16.5	15.5	15	15	15	14.5	15	15	16	15	14.5	15	15.5	17	15	15.5	15.5	16.5
100'	14	14.5	14	16	15.5	16	14.5	16	14	15	15	15.5	15	15	14.5	14.5	16	16	15	15.5	17	15	16
	15	15	14	14	14.5	15	15	15	14	14.5	15	15.5	15.5	15	15	15.5	15.5	15	15	15	15.5	15	16.5
0'	15.5	15	14.5	15	14.5	14.5	16	14	14	14	14	14	15	15	15	15	16	15.5	16	16	16	16	16

25 1/2 ROAD

FILING: 17.4 Acres FOR PHIPPS CONSTRUCTION, INC. 25 1/2 AND F 1/2 ROADS

DATE OF SURVEY: AUGUST 18, 1982

INSTRUMENT: LUDLUM MEASUREMENTS INC., MODEL NO.19, SERIAL NO. 18425

CALIBRATED BY: LUDLUM MEASUREMENTS INC., SWEETWATER TEXAS 11/23/81 WITH A Cs137 SOURCE TRACEABLE TO NBS 142 Mr/Hr. & 1 METER TFN224008 - OCT. 2 1980

SURVEY RESULTS: READINGS VARIED FROM 4 TO 18 MICROROENTGENS/HR. AT 25 RANGE SETTING DURING FIELD SURVEY.

COMMENTS: THE MAP THIS SHEET SHOWS IS THE GRID LAYOUT OF THE RADIATION SURVEY AND SPOT READINGS. NO ANOMALOUS AREAS WERE FOUND WITHIN THE FILING.

BRUCE D. MARVIN P.E.

BRUCE D. MARVI... REGISTERED PROFESSIONAL ... STATE OF COLORADO

N.

SCALE: 1" = 100'

RADIATION SURVEY OF 25 1/2 & F 1/2 ROADS

SUBMITTAL REQUIREMENT O.

ROADWAY PLAN & PROFILES

There will be no public streets or roads within the Mesa County Operations Center. All ingress and egress points will be designed to meet the City of Grand Junction standards and specifications.

SUBMITTAL REQUIREMENT R.
DEVELOPMENT SCHEDULE

The Mesa County Operations Center is planned to be in-service by August 15, 1983. The following activities are scheduled in order to meet this date:

Construction Drawings & Specifications	Sept. 1, 1982-Dec. 1, 1982
Obtain Building Permit	Dec. 1, 1982-Dec. 15, 1982
Construction	Dec. 15, 1982-Aug. 15, 1983

REVIEW SHEET SUMMARY

FILE NO. #62-82 TITLE HEADING Zone of 1480 Annexation to PI DUE DATE 9/13/82

ACTIVITY - PETITIONER - LOCATION - PHASE - ACRES Petitioner: Harvey P. Blichmann/ 1480 Welton, Inc. Location: Southwest corner of 25.5 Road and F .5 Road (2538 North Foresight Avnue). A request to zone annexation to planned industrial and a final plan on approximately 17.36 acres. a. Consideration of zone. b. Consideration of final plan.

PETITIONER ADDRESS P.O. Box 840, Denver, CO 80201

ENGINEER Dave Howard Superviosr Land Use

DATE REC.	AGENCY	COMMENTS
9/10/82	Planning Staff Comments	1) Berms and landscape should not interfere with sight distance and access from N. Foresight Avenue into parking lots and yard. 2) What about landscaping along F 1/2 Rd. and 25 1/2 Rd.? Would like to see that planted with the other so if and when area to the north develops residential, it will already be place. It will also help buffer and screen which may delete the need for removing the chainlink fence and replacing it with a solid wood fence (as per impact statement p. 5). 3) Parking looks adequate and have allowed room for expansion. 4) Should designate visitor parking with signage. 5) The storage yard to the north (8.69 acres) shows gravel base - we would prefer to see a dust-free surface to prevent loose gravel and dust everywhere. Will the area on the east side be gravel as well? Should be dust free. 6) Lighting and notes re: lighting scheme look ok. 7) Any other signage other than that shown along N. Foresight Ave? 8) Any covenants? 9) 5% appraisal needed for open-space fee. 10) Will you be platting this in the near future? If so may include sub-station as well. OTHER CONCERNS 1) The transmission lines proposed along F 1/2 Rd. need to be resolved to ensure proper ROW dedication and placement. 2) Resolve all other issues with review agencies. 3) What about access along 25 1/2 Rd. any timeframe on your part as to when it is necessary to have those improvements in place? Should coordinate with City Engineer.
9/8/82	Public Service	Gas and Electric: No objections.
9/9/82	Ute Water	No objections to this project. Adequate services will be provided from an existing 8" main in N. Foresight Ave. Policies and fees in effect at the time of service application will apply.
9/16/82	Mountain Bell	No comments.
9/17/82	G.J. Fire	The Grand Junction Fire Department has no objections to this rezone and final plan. Building construction must meet Uniform Fire and Building Code requirements. Operations building will be required to be sprinklered and recommend a standpipe system be interconnected to sprinkler system. Submit construction plans to fire department. The fire hydrant off North Foresight Avenue, at driveway entrance to parking lot may be eliminated as there is an existing fire hydrant across the street to the south. The other two on-site fire hydrants as shown on utilities plans will be required. Siameze connection to sprinkler system msut be within 150 ft. of fire hydrant. If there are any questions, please contact the Grand Junction Fire Dept. 242-2900.

Mailed 9/17 1420 Peter Eng Late.

1480 WELTON, INC.
P.O. BOX 840
DENVER, COLORADO 80201

September 1, 1982

Grand Junction City Council
559 White Avenue, Room 60
Grand Junction, Colorado 81501

Dear Council Members:

It is my understanding that the City/County Attorney, Mr. Gerald Ashby, has determined that an Improvements Agreement and Improvements Guarantee would not be required for Public Service Company's Mesa County Operations Center.

Please accept this letter as 1480 Welton, Inc.'s commitment to participate in our fair share to improve both F½ Road and 25½ Road to the required city standards at such time as the adjacent properties are developed and these roads are improved up to our property.

Sincerely,

1480 WELTON, INC.

H P Blichmann

Harvey P. Blichmann
Vice-President

1480 WELTON, INC.
P.O. BOX 840
DENVER, COLORADO 80201

September 22, 1982

Mr. Bob Goldin, Staff Planner
City and County Development Department
559 White Avenue, Room 60
Grand Junction, CO 81501

RE: RESPONSE TO REVIEW SHEET SUMMARY FOR 1480 WELTON, INC. ZONE TO P-1 AND FINAL PLAN, FILE NO. 62-82

Dear Mr. Goldin:

1480 Welton, Inc. has received and reviewed the comments included in the Review Sheet Summary for the development of the property at 2538 North Foresight Avenue in Grand Junction. Our commitment to each comment follows:

Planning Staff Comments

1) Berms and landscaping will be installed so there is no interference with sight distance and access from North Foresight Avenue into parking lots and yard.

2) Additional landscaping will be installed along F½ Road and 25½ Road. The plant materials along F½ Road will consist of shrubs and drought tolerant grass species. The fence along 25½ Road will be moved west approximately ten (10) feet and the plant materials will consist of similar tree and shrub species as specified on the Landscape Plan and drought tolerant grass species will be installed.

3) Comment or commitment not applicable.

4) A "Visitor Parking Only" sign will be installed in the lawn area near the middle of the visitor parking spaces.

5) The Stores Yard will be surfaced with 6"-8" of road base material. The sub-grade and road base will be compacted to 95% standard proctor. This specification is standard treatment in our Stores Yards and we have not encountered any fugitive dust problems. If, after installation, the City finds that dust from this area is a problem, the Stores Yard will be treated with an emulsion.

   The undeveloped area on the West side of the Stores Yard will be rough graded and treated with herbicides and an emulsion applied to control dust until the Stores Yard is expanded and the road base material is installed.

5) (Continued)

The area on the East side of the Stores Yard, the Company Vehicle and Equipment Parking Area, will be paved with asphalt.

6) Comment or commitment not applicable.

7) "Stop" signs or "Stop - Seat Belts Fastened?" signs are normally installed on the gates exiting the Company Vehicle and Equipment Parking Area and there may be other interior informational signs. There are no other exterior or public oriented signs planned.

8) Covenants are not required as there is only one parcel and one use. The design intent has been to be compatible with the covenants for Foresight Park. However, these covenants have not been adopted and are not proposed for this development.

Any questions during or after development of this facility should be directed to: 1480 Welton, Inc., c/o Harvey H. Mayer, Assistant Vice President and Director, P. O. Box 840, Denver, CO 80201. Telephone (303) 571-7342.

9) A fee of 5% of the appraised land value will be paid, or a parcel of land will be dedicated to the City of Grand Junction as required by provisions in Senate Bill 35 and Section 5-4-6(1) and (2) of the Grand Junction Zoning and Development Code.

10) This parcel will not be platted in the near future. The substation site is a separate parcel owned by Public Service Company of Colorado and is located in Mesa County.

Other Concerns

1) The transmission line proposed to be located along the South side of F½ Road will not affect the right-of-way dedication as the required transmission right-of-way will be acquired by an easement and not purchased in fee.

2) Other issues with Review Agencies have been resolved.

3) Access is not required from 25½ Road. Presently, 25½ Road has not been improved up to 1480 Welton, Inc.'s property line and right-of-way has not been dedicated on the East side of 25½ Road. Our response to submittal requirements F & G, Improvements Agreement and Guarantee Letter indicates that 1480 Welton, Inc. will participate to improve both F½ Road and 25½ Road to the required City standards at such time as the adjacent properties are developed and these roads are improved up to our property.

September 22, 1982

Grand Junction Fire

The Building will be constructed to meet the Uniform Fire and Building Code Requirements. The Operations Building will be sprinkled and a standpipe system will be interconnected to the building sprinkler system. Fire hydrants will be installed as required. A Siamese connection will be provided to the sprinkler system within 150 feet of fire hydrant.

Sincerely,

1480 WELTON, INC.

Dave Howard

David K. Howard

DKH/r

cc: H. P. Blichman
H. H. Mayer
Karl Metzner
N. J. Temple, Jr.

O FF OOOOOOOOOOOOOOOOOOOOO ACTION SHEET

Acres 17.36

Units ______

Density ______

rezone & final plan

File No. #62-82

Zone ______

Tax Parcel Number ______

Activity: Consideration of zone of Annexation to PI & Public Service

~~Phase~~: Mesa County Operations Center - Final plan

Common Location: 2538 North Foresight Ave.

Date Submitted: 9/1/82 | Date Mailed Out: 9/2/82 | Date Posted: 9/17/82 called [illegible]

10 day Review Period | Return by: 9/13/82 | MCC Information Sent ______

Date Adjacent Property Owners Notified of MCPC/GJPC ______ | Date Adjacent Property Owners Notified of MCC/CIC ______

review agencies

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA BB CC DD EE FF

- Development Dept.
- County Road
- County Health
- County Surveyor
- County Parks/Recreation
- County Engineer
- Transportation Engineer
- City Engineer 2 sets
- City Utilities
- City Parks/Recreation
- City Police Dept.
- County Sheriff
- Floodplain Administration
- Comprehensive Planning
- G.J. Dept. of Energy
- Fire
- Irrigation G.V.
- Drainage G.J.
- Water (Ute, Clifton)
- Sewer
- G.V. Rural Power
- Mountain Bell
- Public Service (2 sets)
- Soil Conservation
- State Highway Dept.
- State Geological
- State Health Dept.
- Transamerica
- Water & Power Resources
- Mack, Loma, Mesa, Collbran, Fruita, Palisade, Grand Jct.
- OTHER:
- PLANNING COMMISSION 2
- CIC/~~MCC~~ 17 3

totals

BOARDS

	DATE	
GJPC	9/28/82	Appr subject to F1/2/25 1/2 ROW improvements to City Standards letter of commitment, F1/2 landscape now, open space fee acceptable to all. or land. & City Staff review comments
		[to CC → want 25 1/2 improved & annexation occurs (recommendation)]
CIC	10/20/82	Approved - consent

STAFF

Fee will be paid at time of submittal

Open Space Dedication (acreage) ______ 5% O. S. Fee Required $ ______ Paid Receipt # ______

Recording Fee Required $ ______ Paid (Date) ______ Date Recorded ______

Date Resolution Mailed ______

Pre-application Fee Receipt No. ______

City County Development Department OOOOOOOOOOOOOOOOOOOOOOOOOOOOO

City of Grand Junction, Colorado 81501
250 North Fifth St.
244-1566

November 24, 1982

Arnold Hottovy
Armstrong & Associates Inc.
861 Rood Ave.
Grand Junction, CO 81501

RE: Public Service Company Mesa County Operations Center - Sanitary Sewer

Dear Arn:

As requested, I have reviewed the detailed construction plans for the sanitary sewer to serve the above as submitted November 22, 1982, and I take no exception to the plans. Consider them approved by this office for construction.

I did notice that you have provided two manholes on the property as shown on the architect's plan sheet MS-1. Since the maximum allowed spacing between manholes is 400 ft., you could eliminate the manhole at station 1+90 by moving the manhole at station 4+06, 6 feet south if the site plan will permit this minor adjustment. If you decide to do this submit a revised plan sheet and consider it approved for construction when submitted.

I am returning the "Site Preparation Specifications" submitted by Norm Kinney since I really do not need them and would rather return the documents for somebody else to use instead of throwing them away.

Upon completion of construction, please notify this office to arrange for a final inspection of the completed facilities prior to their being put into service. As is standard policy, city-acceptance of any facilities depends on:

a. Design in accordance with our requirement.
b. Construction in accordance with City-approved design.
c. Submission of documented construction test results.
d. Submission of mylar-type as-built drawings for the public records.
e. Final inspection of complete improvements. (You are expected to inspect during construction and to secure test results).

Thanks for your continued cooperation.

Very truly yours,

Ronald P. Rish

Ronald P. Rish, P.E.
City Engineer

cc: John Newell - Phipps Construction
Bob Goldin
Jim Patterson
Harley Seybold
Ralph Sterry