Table of Contents

File 1993-0093 Name: Larchwood Inns / Final Plan and Minor Plan and Subdivision-NW 15th & Patterson

Present	Scanned	
		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, items are found on the list but are not present in the scanned electronic development file because they are already scanned elsewhere on the system. These scanned documents are denoted with (**) and will be found on the ISYS query system in their designated categories. Documents specific to certain files, not found in the standard checklist materials, are listed at the bottom of the page. Remaining items, (not selected for scanning), will be listed and marked present. This index can serve as a quick guide for the contents of each file.
X	X	**Table of Contents**
		***Review Sheet Summary**
X	X	***Application form**
		Review Sheets
X		Receipts for fees paid for anything
X	X	***Submittal checklist**
X	X	***General project report**
		Reduced copy of final plans or drawings
X		Reduction of assessor's map.
		Evidence of title, deeds, easements
X	X	***Mailing list to adjacent property owners**
		Public notice cards
		Record of certified mail
		Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or non-bound reports
		Traffic studies
X	X	***Review Comments**
X	X	***Petitioner's response to comments**
X	X	***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**

DOCUMENT DESCRIPTION:

X		Easement -Bk 1472 / Pg 884 - not conveyed to the City	X	X	Floor Plan
X		Subsurface Soils Exploration Large Retirement Residence - Garden Suite Complexes - 1/29/93	X	X	Planting Plan
X		Treasurer's Certificate of Taxes Due - 7/20/93	X	X	Site Plan
X		Insurance Policy information	X	X	Grading and Drainage Plan
X		POA - Bk 1472 / Pg 887 - not conveyed to the City	X		Detention Facility Details
X		Correspondence	X	X	Hilltop Minor Sub. map #2 - GIS Historical Maps-**
X	X	Drainage Report	X		Elevation maps
X	X	Utility Committee approval - 9/8/93	X	X	Sign Detail
X	X	Planning Commission Minutes - 9/7/93, 9/15/93 - **			
X	X	Ordinance No. 2706 - **			
X	X	Planning Clearance - issued 1/7/94			
X	X	Certificate of Occupancy - 8/8/94			
X	X	Development Improvements Agreement - ** - to be delivered to City Clerk for scanning and retention			

DEVELOPMENT APPLICATION

Community Development Department
250 North 5th Street Grand Junction, CO 81501
(303) 244-1430

Original
Do NOT Remove
From Office

Receipt 485
Date 8-3-93
Rec'd By mp
File No. # 93 93

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
[X] Subdivision Plat/Plan	[X] Minor [ ] Major [ ] Resub	7.5 acres	NW corner 15th & Patterson	PB	Nursing Home, etc.
[ ] Rezone				From: To:	
[X] Planned Development	[ ] ODP [ ] Prelim [X] Final	3.5 acres	"	PB	Nursing Home
[ ] Conditional Use					
[ ] Zone of Annex					
[ ] Text Amendment					
[ ] Special Use					
[ ] Vacation					[ ] Right-of-Way [ ] Easement

[X] PROPERTY OWNER [X] DEVELOPER [ ] REPRESENTATIVE

Hilltop Foundation, Inc.	Fredrick Schumann	Pat Edwards
Name	Name	Name
1100 Patterson	653 Larkspure Lane	2499 Hwy. 6 & 50
Address	Address	Address
Grand Junction, CO	Grand Junction, CO 81501	Grand Jmction, CO
City/State/Zip	City/State/Zip	City/State/Zip
244-6007	243-9898	243-0456
Business Phone No.	Business Phone No.	Business Phone No.

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all hearings. In the event that the petitioner is not represented, the item will be dropped from the agenda, and an additional fee charged to cover rescheduling expenses before it can again be placed on the agenda.

Sept. 13th -

Pat Edwards 8/2/93
Signature of Person Completing Application Pat Edwards Date

Dennis L. Sthal 8/2/93
Signature of Property Owner(s) - Attach Additional Sheets if Necessary
Dennis H. Sthal

Dorothy Hitt
1441 Patterson #404
Grand Junction, CO 81506

Barbara Meeker
1441 Patterson Rd. #503
Grand Junction, CO 81506

Mark Smith
1411 Patterson Rd. #602
Grand Junction, CO 81501

Dillon Real Estate Co.
P.O. Box 729
Grand Junction, CO 81502

John Phillipe
4660 Bacon Ave.
Inver Grove Heights, Minn
55075

Kay Prewitt
& Ila Marie Tilton
1441 Patterson Rd. #103
Grand Junction, CO 81501

Thelma Smith
1441 Patterson Rd. #301
Grand Junction, CO 81506

Harlan Huskey
1441 Patterson Rd. #303
Grand Junction, CO 81506

Dorothy Jenkins
1441 Patterson Rd. #402
Grand Junction, CO 81506

Elaine Washington
1441 Patterson Rd. #501
Grnad Junction, CO 81506

John Nelson
1441 Patterson Rd. #504
Grand Junction, CO 81506

Peter James & Ruby Fregetto
C/O MFRS Hnove Mtg Corp.
P.O. Box 1800
Farmington Hills, MI 48018

Edward Kallio
1441 Patterson Rd. #701
Grand Junction, CO 81501

June & Eldon Miller
1441 Patterson Rd. #704
Grand Junction, CO 81506

Warren & Ruth Lowe
1441 Patterson Rd. #803
Grand Junction, CO 81501

Alma Melton
1441 Patterson Rd. #903
Grand Junction, CO 81501

Clarence & Helen Cypher
1441 Patterson Rd. #1002
Grand Junction, CO 81506

Richard Fulton III
1556 Wellington Ave.
Grand Junction, CO 81506

Peggy Bray
2741 Patterson Rd.
Grand Junction, CO 81506

John & Lydia Tate
2726 F Rd.
Grand Junction, CO 81506

Thelma Moore
2860 N 15th St.
Grand Junction, CO 81506

Gordon Kissner
2760 N 15th St.
Grand Junction, CO 81506

David Rees
1441 Patterson Way #702
Grand Junction, CO 81501

John & Margo O'Rourke
12035 Blackfoot Rd.
Conifer, CO 80433

JKS Partnership
C/O Charlene A. Semsack
8026 West 78th Cir.
Arvada, CO 80005

Charles & Jeanne Lankford
1441 Patterson Rd. #904
Grand Junction, CO 81501

Michael Gallegos
1441 Patterson Rd.
Grand Junction, CO 81506

Peterson House Associates II
Attn: Mr. Paul Ogier
212 North Kirkwood Rd.
St. Louis. Missouri 63122

Daniel Geer
1300 Patterson Rd.
Grand Junction. CO 81506

Ben & Mildred Miller
835 Texas Ave.
Grand Junction, CO 81501

James Voytilla
2449 H Rd.
Grand Junction, CO 81505

Bookcliff Baptist Church
2702 Patterson Rd.
Grand Junction, CO 81506

Gerald Kelley
2737 Patterson Rd.
Grand Junction, CO 81506

Paul R. Maffey
1441 Patterson Rd. #101
Grand Junction, CO 81506

Earl Buzzard
1441 Patterson Rd. #104
Grand Junction, CO 81506

Rutha Hart
1441 Patterson Rd. #203
Grand Junction, CO 81506

Bess Jean Russel
622 30 Rd.
Grand Junction, CO 81504

Eugene & Judy Stark
6649 Quay St.
Arvada, CO 80003

Carl & Emily Stewart
1441 Patterson #403
Grand Junction, CO 81506

Donald & John Markl
1441 Patterson Rd. #502
Grand Junction, CO 81506

Wendell Nelson
3088 Bookcliff Ave.
Grand Junction, CO 81502

Charles & June Exner
1441 Patterson Way #703
Grand Junction, CO 81501

Gary Bauer
1441 Patterson Rd. #703
Grand Junction, CO 81501

Harriet Hamlin
2985 G Rd.
Grand Junction, CO 81506

Robin & Sandra Cherp
1441 Patterson Rd. #901
Grand Junction, CO 81501

Salas & Kathy Salvador
1411 Patterson Rd. #1001
Grand Junction, CO 81506

Betty Bray
2708 Patterson Rd.
Grand Junction, CO 81506

Wilda Mattson
1441 Patterson Rd. #1004
Grand Junction, CO 81501

Angelina, Agnes, Tylenda
Mraule
Box 565
East Carbon, UT 84520

Dennis & Paula Owen
1511 Lowell Lane
Grand Junction, CO 81506

Otis & Patsy Testerman
2710 Patterson Road
Grand Junction, CO 81506

Douglas & Debra Frazier
1241 Bonita Avenue
Grand Junction, CO 81506

George & Lisa Lewellen
1240 Hermosa Avenue
Grand Junction, CO 81506

Maurice Moore
762 Lewiston
Aurora, CO 80011

Thomas & Carol Calvert, Jr.
1257 Hermosa
Grand Junction, CO 81506

Wanda Willcoxon
P.O. Box 4836
Grand Junction, CO 81502

Irene Schmaltz
2910 North 13th
Grand Junction, CO 81501

Ronald Evans
2911 N 14th St.
Grand Junction, CO 81506

Carolyn Wilson
2910 N 14th St.
Grand Junction, CO 81501

Manuel & Evyla Vigil
302 South Ave.
Grand Junction, CO 81501

Kathleen Weber
1235 Bonita Ave.
Grand Junction, CO 81506

Victor Perino
2731 Sierra Vista Rd.
Grand Junction, CO 81503

A.F. Soinski
1228 Hermosa Ave.
Grand JXnction, CO 81506

John & Aryln Martens
1502 Lowell Ln.
Grand Junction, CO 81506

N.E. & Elizabeth Doolittle
1281 Hermosa Ave.
Grand Junction, CO 81506

Agnes Martin
2920 N 13th St.
Grand Junction, CO 81501

Mary Mactavish
P.O. Box 4032
Grand Junction, CO 81502

Dalton & Patsy Garlitz
631 26 Rd.
Grand Junction, CO 81506

Charles Desrosier
2643 F½ Rd.
Grand Junction, CO 81506

Eugene & Jeannie Rome
2887 Darla Dr.
Grand J nction, CO 81506

Ronald & Valerie Puckett
1231 Bonita Ave.
Grand Junction, CO 81501

Walter & Naomi Fritzlan
1243 Bonita Ave.
Grand Junction, CO 81506

Mary Jean Stoner
1234 Hermosa Ave.
Grand Junction, CO 81506

Thelma Moore
2860 N 15th St.
Grand Junction, CO 81506

Patricia & Douglas Dean
1267 Hermosa Ave.
Grand Junction, CO 81506

Illa Olsson
2930 N 13th St.
Grand Junction, CO 81501

Daniel & Darlene Smith
1320 Hermosa
Grand Junction, CO 81506

Housing Authority Of The
City Of Grand Junction
2236 N 17th St.
Grand Junction, CO 81501

Robert & Lynn Mock
2910 N 17th St.
Grand Junction, CO 81501

Carole Sue Stover
5320 Pal Mal Ave.
Temple City, CA 91780

L.A. Brodak
2741 F Rd.
Grand Junction, CO 81506

Beverly Kay Heitt
C/O Beverly Jackson
664 39 Rd.
Palisade, CO 81526

Violet Roeland
1441 Patterson Way #201
Grand Junction, CO 81501

Margaret Sears
1441 Patterson Rd. U204
Grand Junction, CO 81506

Florence Fortsch
1441 Patterson Rd. #902
Grand Junction, CO 81506

Peter Tooker
P.O. Box 932
Ranier, WA 98576

#93 93

SUBSURFACE SOILS EXPLORATION

LARGE RETIREMENT RESIDENCE

ASSISTED LIVING CARE FACILITY

GARDEN SUITE COMPLEXES

GRAND JUNCTION, COLORADO

Prepared For:

Hilltop Rehabilitation Hospital
1100 Patterson Road
Grand Junction, CO 81503

Prepared By:

LINCOLN-DeVORE, INC.
1441 Motor Street
Grand Junction, CO 81505

January 29, 1993

Lincoln DeVore, Inc.
Geotechnical Consultants
1441 Motor St.
Grand Junction, CO 81505
(303) 242-8968

January 29, 1993

Hilltop Rehabilitation Hospital
1100 Patterson Road
Grand Junction, CO 81503

Re: SUBSURFACE SOILS EXPLORATION

LARGE RETIREMENT RESIDENCE

ASSISTED LIVING CARE FACILITY

GARDEN SUITE COMPLEXES

Dear Sirs:

Transmitted herein are the results of a Subsurface Soils Exploration for the proposed 104-suite retirement residence, 40-suite assisted living facility, and two small garden suite complexes.

If you have any questions after reviewing this report, please feel free to contact this office at any time. This opportunity to provide Geotechnical Engineering services is sincerely appreciated.

Respectfully submitted,

LINCOLN-DeVORE, INC.

By: _____
Edward M. Morris, E.I.T.
Western Slope Branch Manager
Grand Junction, Office

Reviewed by: _____
George D. Morris, P.E.
Colorado Springs Office

GEORGE D. MORRIS REGISTERED 2051 PROFESSIONAL ENGINEER STATE OF COLORADO

EMM/rl

LDTL Job No. 77443-J

TABLE OF CONTENTS

INTRODUCTION

PROJECT DESCRIPTION

This report presents the results of our geotechnical evaluation performed to determine the general subsurface conditions of the site applicable to construction of a large T-shaped, 104-suite, multi-story, retirement residence, a smaller, 40-suite assisted living care facility, and two small garden suite complexes. A vicinity map is included in the Appendix of this report.

To assist in our exploration, we were provided with a site description. The Boring Location Plan attached to this report is based on that plan provided to us.

We understand that the proposed 104-suite retirement structure will consist of a three-story, wood-framed structure with a concrete floor slab on grade. Lincoln DeVore has not seen a full set of building plans, but structures of this type typically develop wall loads on the order of 2000 to 3500 plf and column loads on the order of 60 to 90 kips.

We further understand that the proposed 40-suite assisted living facility will probably consist of a one to two story, wood-framed structure with a concrete floor slab on grade. Lincoln DeVore has not seen a full set of building plans, but structures of this type typically develop wall loads on the order of 800 to 2000 plf and column loads on the order of 20 to 30 kips.

We also understand that the proposed garden suites will consist of a single-story, wood-framed struc-

ture with a concrete floor slab on grade. Lincoln DeVore has not seen a full set of building plans, but structures of this type typically develop wall loads on the order of 800 to 1800 plf and column loads on the order of 3 to 10 kips.

The characteristics of the subsurface materials encountered were evaluated with regard to the type of construction described above. Recommendations are included herein to match the described construction to the soil characteristics found. The information contained herein may or may not be valid for other purposes. If the proposed site use is changed or types of construction proposed, other than noted herein, Lincoln DeVore should be contacted to determine if the information in this report can be used for the new construction without further field evaluations.

PROJECT SCOPE

The purpose of our exploration was to evaluate the surface and subsurface soil and geologic conditions of the site and, based on the conditions encountered, to provide recommendations pertaining to the geotechnical aspects of the site development as previously described. The conclusions and recommendations included herein are based on an analysis of the data obtained from our field explorations, laboratory testing program, and on our experience with similar soil and geologic conditions in the area.

The scope of our geotechnical exploration consisted of a surface reconnaissance, a geophoto study, subsurface exploration, obtaining representative samples, laboratory testing, analysis of field and laboratory data, and a review

of geologic literature.

Specifically, the intent of this study is to:

1. Explore the subsurface conditions to the depth expected to be influenced by the proposed construction.

2. Evaluate by laboratory and field tests the general engineering properties of the various strata which could influence the development.

3. Define the general geology of the site including likely geologic hazards which could have an effect on site development.

4. Develop geotechnical criteria for site grading and earthwork.

5. Identify potential construction difficulties and provide recommendations concerning these problems.

6. Recommend an appropriate foundation system for the anticipated structure and develop criteria for foundation design.

FIELD EXPLORATION AND LABORATORY TESTING

A field evaluation was performed on January 25 and 26, 1993, and consisted of a site reconnaissance by our geotechnical personnel and the drilling of six exploration borings. These six exploration borings were drilled within the proposed building footprints, as available to Lincoln DeVore at the time, near the locations indicated on the Boring Location Plan. These six exploration borings were located to obtain a reasonably good profile of the subsurface soil conditions. All exploration borings were drilled using a CME 45-B, truck-mounted drill rig with continuous flight auger to depths of approximately 23 to 77 feet. Samples were taken with a standard split-spoon sampler, California lined sampler, thin-walled Shelby tubes, and

by bulk methods. Logs describing the subsurface conditions are presented in the attached figures.

Laboratory tests were performed on representative soil samples to determine their relative engineering properties. Tests were performed in accordance with test methods of the American Society for Testing and Materials or other accepted standards. The results of our laboratory tests are included in this report. The in-place moisture content and the standard penetration test values are presented on the attached drilling logs.

FINDINGS

SITE DESCRIPTION

The project site is located in the Southeast Quarter of the Southwest Quarter of the Southwest Quarter of Section 1, Township 1 South, Range 1 West of the Ute Principal Meridian, Mesa County, Colorado. More specifically the site is located on the northwest corner of the intersection of 15th Street and Patterson Road in Grand Junction, Colorado. The site is approximately two miles northeast of the main downtown business district of Grand Junction.

The topography of the site is relatively flat, with a slight overall gradient to the south, southwest. The exact direction of surface runoff on this site will be controlled by the proposed construction and therefore will be variable. In general, surface runoff is expected to travel to the storm drainage system of Patterson Road, eventually entering the Colorado River. Surface and subsurface drainage on this site would be described as poor.

GENERAL GEOLOGY AND SUBSURFACE DESCRIPTION

The geologic materials encountered under the site consist of alluvial, fine-grained soils, deposited by actions of debris-flows originating in the Bookcliffs to the northeast. These alluvial soils overlie the Mancos Shale Formation which is considered bedrock in this area. The geologic and engineering properties of the materials found in our six exploration borings will be discussed in the following sections.

This site is on the southern margin of an ancient gully feature in the Mancos Shale erosional surface. This gully feature is a part of the prehistoric Indian Wash Drainage and runs generally east, northeast to west, southwest and approximately parallels the present-day Horizon Drive alignment. This gully feature has been filled with low-density, fine-grained soils due to actions of debris-flows. The thickness of these fine-grained soils was found to range from approximately 18 1/2 feet at the southeast corner of the property to approximately 75 feet thick in the central and northern part of the property.

The surface soils on this site consist of a series of silty clay and sandy clay soils which are a product of mud flow/debris flow features which originate on the south-facing slopes of the Bookcliffs. These mud flow/debris flow features are a small part of a very extensive mud flow/debris flow complex along the base of the Bookcliffs and extending to the Colorado River. Utilizing recent events and standard evaluation techniques, this tract is not considered to be within with an active debris flow hazard area. The surface soils are an erosional product of the upper Mancos Shale and the Mount Garfield Formations which are exposed on the slopes of the Bookcliffs. The soils contained within these mud flow/debris flow features normally exhibit a metastable condition which can range from very slight to severe. Metastable soil is subject to internal collapse and is very sensitive to changes in the soil moisture content. Based on the field and laboratory testing of the soils on this site, the severity of the metastable soils can

be described as low. These soils exhibit medium to medium-high consolidation characteristics for the anticipated building loads.

Soil Type I represents the low-density, fine-grained alluvial soils on this site. These soils are quite stratified. Thin lenses or zones of fine-grained silty sands and low plastic clays may be encountered throughout the soil section. In general, the upper soil profile as whole will probably quite consistent in terms of geotechnical properties.

This Soil Type was classified as a silty clay and clayey silt mixture (CL-ML) under the Unified Classification System. This material is of low plasticity, of low to moderate permeability, and was encountered in a low density, wet condition. It undergoes mild expansion with the entry of small amounts of moisture, but will undergo long-term consolidation upon the addition of larger amounts of moisture. This soil will settle after being loaded. The maximum allowable bearing capacity for this soil was found to be 1000 psf, with 150 psf minimum dead load pressure required for foundations founded between two to five feet below the existing ground surface. The finer grained portion of Soil Type No. I contains sulfates in detrimental quantities.

The surface soils of Soil Type I are deposited over the dense formational material of the Mancos Shale Formation of Cretaceous Age. The Mancos Shale is described as a thin-bedded, drab, light to dark gray marine shale, with thinly interbedded fine grain sandstone and limestone layers. Some portions of the Mancos Shale are bentonitic, and therefore, are highly expansive. The majority of the shale, however, has only a

moderate expansion potential. Formational shale was encountered in Test Boring No.s 1, 3, and 6 at depths of 76 feet, 75 feet, and 18 1/2 feet respectively. Large quantities of soluable sulfate salts were observed in the fractures and some bedding planes of the Weathered Mancos Shale. It is anticipated that this formational shale will affect the construction and the performance of the foundations on the site.

This soil type (Type II) was classified as a low-plastic, silty clay (CL) under the Unified Classification System. This soil type was found to be of medium to high density. The moisture content varied from approximately 17 % in the upper weathered portion to under 14 % in the less weathered portion of the formation. This soil is plastic and is sensitive to changes in moisture content. Upon increasing moisture, this soil will tend to expand. Expansion tests were performed on typical samples of the soil and expansion pressures on the order of 1600 to 2200 psf were found to be typical. This material will consolidate upon excessive loading. If recommended bearing values are not exceeded, such settlement will remain within tolerable limits. Assuming a deep foundation system consisting of either drilled piers or drive piles is utilized on this site and the end bearing is placed a minimum of four feet below the surface of the Mancos Shale Formation, the allowable maximum bearing value was found to be on the order of 35,000 psf for drilled piers and 70,000 psf for drive piles. A minimum dead load of 2500 psf end bearing will be required.

The lines defining the change between

soil types or rock materials on the attached boring logs and soil profiles are determined by interpolation and therefore are approximations. The transition between soil types may be abrupt or may be gradual.

GROUND WATER:

A free water table came to equilibrium during drilling at 15 to 17 feet below the present ground surface. This is probably not a true phreatic surface but is an accumulation of subsurface seepage moisture (perched water). In our opinion the subsurface water conditions shown are a permanent feature on this site. The depth to free water would be subject to fluctuation, depending upon external environmental effects.

Because of capillary rise, the soil zone within a few feet above the free water level identified in the borings will be quite wet. Pumping and rutting may occur during the excavation process, particularly if the bottom of the foundations are near the capillary fringe. Pumping is a temporary, quick condition caused by vibration of excavating equipment on the site. If pumping occurs, it can often be stopped by removal of the equipment and greater care exercised in the excavation process. In other cases, geotextile fabric layers can be designed or cobble sized material can be introduced into the bottom of the excavation and worked into the soft soils. Such a geotextile or cobble raft is designed to stabilize the bottom of the excavation and to provide a firm base for equipment.

Data presented in this report concerning ground water levels are representative of those levels at the

time of our field exploration. Groundwater levels are subject to change seasonally or by changed environmental conditions. Quantitative information concerning rates of flow into excavations or pumping capacities necessary to dewater excavations is not included and is beyond the scope of this report. If this information is desired, permeability and field pumping tests will be required.

proposed foundations are similar to those encountered in our exploration borings. If the materials below the proposed foundations differ from those encountered, or in our opinion, are not capable of supporting the applied loads, additional recommendations could be provided at that time.

STRUCTURAL FILL

PREPARATION OF AREAS TO RECEIVE FILL

Areas where excavation or fill is required shall be cleared of trees, stumps, roots, brush, sod, topsoil, vegetation and other objectionable materials to minimum depth of six (6) inches, or sufficient to remove all detrimentally organic material. The cleared materials, other than those materials suitable for topsoil, shall be legally disposed of.

Any abandoned, buried structures encountered during grading operations shall be totally removed or otherwise rendered harmless for the proposed purposes of the fill, unless other specific recommendations have been provided. All underground utilities to be abandoned beneath any proposed structure shall be removed from within 10 feet of any structures and properly capped. The resulting depressions from the above described procedures shall be backfilled with soil uniformly compacted in accordance with the recommendations in the body of this report. This includes, but is not limited to, septic tanks, fuel tanks, sewer lines or leach lines, storm drains and water lines. Any buried structures or utilities not to be abandoned shall be investigated by the Geotechnical Engineer to determine

if any special recommendation will be necessary.

All water wells which will be abandoned shall be backfilled and capped in accordance with the requirements of the Health Department. The top of the cap should be at least 4 feet below finished grade or 3 feet below the bottom of footing, whichever is greater. The type of cap will depend on the diameter of the well and shall be determined by the Geotechnical Engineer and/or a qualified Structural Engineer.

FILL MATERIAL

Materials placed in the fill shall be approved by the Geotechnical Engineer and shall be free of vegetable matter, frozen material, and other deleterious substances. No material over 6 inches in maximum dimension shall be placed in fill unless special recommendations are provided by the Geotechnical Engineer. Granular soil shall contain sufficient fine material to fill enough voids to provide a stable fill. The definition and disposition of oversized rocks, expansive and/or detrimental soils are given in the site soils report. Expansive soils, soils of poor gradation, or soils with low strength characteristics may be thoroughly mixed with other soils only if specific recommendations have been provided by the Geotechnical Engineer. Any import material shall be approved by th Geotechnical Engineer before being brought to the site.

PLACING AND COMPACTING FILL

After clearing or benching, the natural ground in areas to be filled shall be observed by the

Geotechnical Engineer to determine the presence of any adverse unanticipated conditions. The area shall then be scarified to a depth of 6 inches, cleared of oversized material, brought to the proper moisture content, compacted and tested.

The distribution of the material in the fill shall be such as to avoid the formation of lenses, or layers of material differing substantially in characteristics from the surrounding material. The materials shall be delivered to the fill surface at a uniform rate and in such quantity as to permit a satisfactory construction procedure. Unnecessary concentration of travel tending to cause ruts and uneven compaction shall be avoided. Before placing each succsessive layer, all ruts and other hollows more than six (6) inches in depth shall be regraded and compacted. Fill material shall be spread by approved methods in approximately horizontal lifts. These lifts shall not be greater than eight (8) inches in thickness after compaction. Thicker lifts may be used only if it can be demonstrated adequately in the field, by a test section, that uniform compaction can be achieved. The material in each layer, while being compacted, shall be at approxlimately optimum moisture content, as determined by the Geotechnical Engineer's field representative.

As moisture is added to the material in each layer, it shall be thoroughly mixed into the layer by suitable equipment prior to compaction. Water shall be delivered to the soil by means of a spreader bar which distributes the water approximately uniformly over the fill area. If, in the opinion of the Geotechnical Engineer, the moisture content cannot be

uniformly obtained by adding water on the fill surface, the moisture shall be added in the borrow excavation. Water used during earthwork shall be obtained in accordance with the provisions of the regulations of the agency governing the use of water and water meters.

When the moisture content and condition of each spread layer is satisfactory, it shall be compacted by an approved method to the recommended relative compaction based on the appropriate laboratory test.

SLOPE COMPACTION

When the slope of the natural ground receiving fill exceeds 20% (5 horizontal units to 1 vertical unit), the original ground shall be stepped or benched. Benches shall be cut to firm, competent soil. The lower bench shall be at least 10 feet wide or 1 1/2 times the equipment width, whichever is greater, and shall be sloped back into the hillside at a gradient of not less than two (2) percent. All other benches shall be at least 6 feet wide. The horizontal portion of each bench shall be compacted prior to receiving fill as previously recommended for compacted natural ground. Ground slopes flatter than 20% shall be benched when considered necessary by the Geotechnical Engineer.

Fill slopes shall be compacted by approved equipment to the relative compaction specified in the Geotechnical Report. Compacting the slope surface may be done progressively in increments of three to five feet in fill height or after the fill is brought to its total height. The interior

shall be compacted by the horizontal methods previously outlined. Slopes having a horizontal to vertical ratio steeper than 2:1 shall be overfilled by at least 5 feet and then cut back to the desired slope ratio.

CUT SLOPES

The Geotechnical Engineer will observe all cut slopes during the grading operations at intervals determined at his discretion. If any conditions not anticipated in the geotechnical report, including but not limited to; perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints or fault planes are encountered during grading, these conditions shall be analyzed by the Geotechnical Engineer to determine if mitigating measures are necessary.

DENSITY TESTS

Field density tests shall be made by the representative of the Geotechnical Engineer. The location and frequency of the tests shall be at the Geotechnical Engineer's discretion. In general, the density tests shall be made at an interval not exceeding two feet in vertical rise and/or 500 cubic yards of embankment. If any density test indicates any part of the layer does not meet the required density, that portion of the layer shall be reworked until the required density is obtained. The Geotechnical Engineer will provide a final completion report on the fill work.

SEASONAL LIMITS

No fill shall be placed, spread or rolled while it is frozen or thawing or during other unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until the Geotechnical Engineer indicates that the moisture content and density of the previously placed fill are as specified. Fill surfaces shall be scarified and recompacted after rainfall, if necessary, to obtain the proper moisture content and density within the cover layer at the time of the rain.

No major difficulties are anticipated in the course of excavating into the surficial soils on the site. It is probable that safety provisions such as sloping or bracing the sides of excavations over 4 feet deep will be necessary. Any such safety provisions shall conform to reasonable industry safety practices and to applicable OSHA regulations. The OSHA Classification for excavation purposes on this site is Class C.

We recommend that all backfill placed around the exterior of the building, and in utility trenches which are outside the perimeter of the building and not located beneath roadways or parking lots, be compacted to a minimum of 85% of its maximum Proctor dry density (ASTM D 698).

In general, we recommend all structural fill in the area beneath any proposed structure or roadway be compacted to a minimum of 90% of its maximum modified Proctor dry density (ASTM D1557). We recommend that fill be placed and

compacted at approximately its optimum moisture content (+/-2%) as determined by ASTM D 1557. Structural fill should be a granular, non-expansive soil.

DRAINAGE AND GRADIENT:

Adequate site drainage should be provided in the foundation area both during and after construction to prevent the ponding of water and the saturation of the subsurface soils. We recommend that the ground surface around the structures be graded so that surface water will be carried quickly away from the buildings. The minimum gradient within 10 feet of the building will depend on surface landscaping. We recommend that paved areas maintain a minimum gradient of 2%, and that landscaped areas maintain a minimum gradient of 8%. It is further recommended that roof drain downspouts be carried across all backfilled areas and discharged at least 10 feet away from the structures. Planters, if any, should be so constructed that moisture is not allowed to seep into foundation areas or beneath slabs or pavements.

The existing drainage on the site must either be maintained carefully or improved. We recommend that water be drained away from structures as rapidly as possible and not be allowed to stand or pond near the building. We recommend that water removed from one building not be directed onto the backfill areas of adjacent buildings. We recommend that a hydrologist or drainage engineer experienced in this area be retained to complete a drainage plan for this site.

Should an automatic lawn irrigation

system be used on this site, we recommend that the sprinkler heads be installed a minimum of 5 feet from the building. In addition, these heads should be adjusted so that spray from the system does not fall onto the walls of the building and that such water does not excessively wet the backfill soils.

SHALLOW FOUNDATIONS

For structures with wall loads less than 2000 plf and column loads less than 30 kips, a shallow foundation system may perform satisfactorily. Assuming that some amount of differential movement can be tolerated, then a conventional shallow foundation system, underlain by structural fill, placed in accordance with the recommendations contained within this report may be utilized. The foundation would consist of continuous spread footings beneath all bearing walls and isolated spread footings beneath all columns and other points of concentrated load. Such a shallow foundation system, resting on the properly constructed structural fill may be designed on the basis of an allowable bearing capacity of 2200 psf maximum. Recommendations pertaining to balancing, reinforcing, drainage, and inspection are considered extremely important and must be followed. Contact stresses beneath all continuous walls should be balanced to within + or - 200 psf at all points. Isolated interior column footings should be designed for contact stresses of about 150 psf less than the average used to balance the continuous walls. The criteria for balancing will depend somewhat on the nature of the structure. Single-story, slab-on-grade structures may be balanced on the basis of dead load only. Multi story structures may be balanced on the basis of dead load plus one half live load, for up to three stories.

An extensive layer of very soft native soils was encountered on this site. These soils are of extremely low density and are not judged suitable for support of the proposed shallow foundation system. Owing to the depths to which

CONCLUSIONS AND RECOMMENDATIONS

GENERAL DISCUSSION

No geologic conditions were apparent during our reconnaissance which would preclude the site development as planned, provided the recommendations contained herein are fully complied with. Based on our investigation to date and the knowledge of the proposed construction, the site condition which would have the greatest effect on the planned development is the quite thick, low-density, compressible soils which overlie the Mancos Shale Formation.

Since the exact magnitude and nature of the foundation loads are not precisely known at the present time, the following recommendations must be somewhat general in nature. Any special loads or unusual design conditions should be reported to Lincoln DeVore so that changes in these recommendations may be made, if necessary. However, based upon our analysis of the soil conditions and project characteristics previously outlined, the following recommendations are made.

OPEN FOUNDATION OBSERVATION

Since the recommendations in this report are based on information obtained through random borings, it is possible that the subsurface materials between the boring points could vary. Therefore, prior to placing forms or pouring concrete, an open excavation observation should be performed by representatives of Lincoln DeVore. The purpose of this observation is to determine if the subsurface soils directly below the

this low density soil was encountered and the relatively shallow excavation depths anticipated, it is recommended that an overexcavation/replacement scheme be used on this site.

The existing low density soils should be removed to a depth of 3 feet below the proposed bottom footing elevation. Once it is felt that adequate soil removal has been achieved, it is recommended that the excavation be closely examined by a representative of Lincoln-DeVore to ensure that an adequate overexcavation depth has indeed occurred and that the exposed soils are suitable to support the proposed structural man-made fill.

Once this examination has been completed, it is recommended that a coarse-grained, non-expansive, non-free draining man-made structural fill be imported to the site. This imported fill should be placed in the overexcavated portion of this site in lifts not to exceed 6 inches after compaction. A minimum of 90% of the soils maximum Modified Proctor dry density (ASTM D-1557) must be maintained during the soil placement. These soils should be placed at a moisture content conducive to the required compaction (usually Proctor optimum moisture content $\pm$ 2%). The granular material must be brought to the required density by mechanical means. No soaking, jetting or puddling techniques of any type should be used in placement of fill on this site. To ensure adequate lateral support, we must recommend that the zone of overexcavation extend at least 2 feet around the perimeter of the proposed footing. To confirm the quality of the compacted fill product, it is recommended that surface density

tests be taken at maximum 2 foot vertical intervals.

The placement of a geotextile fabric for separation between the native soils and the structural fill is recommended to aid the fill placement and to improve the stability of the completed fill.

When the structural fill is completed, an allowable bearing capacity of 2200 psf maximum may be assumed for proportioning the footings.

It is extremely important, due to the nature of data obtained by the random sampling of a nonhomogeneous material such as soil, that a shallow foundation system be used only if all recommendations are strictly followed. All the listed recommendations regarding fill compaction, site grading, drainage and subsurface water control are exceedingly important. **CAUTION : Failure to follow these recommendations will void part or all of the recommendations contained in this report.**

SETTLEMENT:

Close estimates of total and differential settlement will not be provided in this report since Lincoln DeVore has not been given exact foundation loads and building configurations. Upon completion of the structural plans, the predicted settlements can be supplied upon request.

DEEP FOUNDATIONS

Because of the high loads associated with the large 104-suite retirement residence and possibly the 40-suite assisted living facility, we recommend the use of a deep foundation system consisting of either drilled piers or driven piles, penetrating the bedrock. Since the site is relatively wet and the overlying silty clayey soils are quite soft, problems with seepage, hole squeezing and caving are anticipated. Therefore, it is recommended that the use of drive piles be considered for this site. Although a drilled pier system can be used, the problems associated with the wet, soft soils could affect the proper drilling and concrete placement of the piers. Therefore, this report will consider only driven piles. If information concerning drilled piers is desired, it can be supplied upon request.

DRIVEN PILES:

We recommend that driven piles bear in the competent materials of the underlying Mancos Shale Formation. We anticipate that pile driving refusal will be encountered within a few feet of penetration into the relatively unweathered Mancos Shale Formation. Unweathered Mancos Shale is generally considered to have SPT blow count greater than 40 for 12 inches. Based on a static analysis, piles driven to refusal may be designed for an allowable tip bearing capacity of 35 to 50 tons. To determine the bearing area of the pile, the area including the space between the flanges may be included. For example, an HB-12 pile may be assumed to have an end area of approximately 1 square

foot.' A round, closed-end pipe pile bearing area would be the area of the pile end plate. Pile driving refusal should be determined by our representative in the field. Generally, pile driving refusal is taken as a maximum of 15 blows per inch. If pile groups are used, the overall capacity of the pile group should be reduced in accordance with the appropriate efficiency formula (such as the Converse-Labarre method). If bearing capacities greater than those recommended above are necessary, we recommend that the pile bearing capacity be determined on the basis of static load tests.

It is anticipated that steel piling (either 'H' sections or concrete filled pipe) will be utilized in this construction. The following recommendations will assume the use of these materials. If wood or concrete piling are anticipated, recommendations can be readily provided.

Driving hammers should be of such size and type to consistently deliver effective dynamic energy suitable to the piles and materials into which they are to be driven. Hammers should operate at manufacturer's recommended speeds and pressures. We recommend that a pile driving hammer be used which is rated at least 19,000 feet pounds. However, driving energy should not be so large that pile damage occurs.

Piles must be used in groups to provide for eccentricities in loading. The group capacity will be less than the summation of the individual pile capacities, depending upon the relative spacing of the piles. A conservative estimate of group capacity is two-thirds of the summation of the individual pile capacities.

We recommend that minimum spacing of the piles be twice the average pile diameter or 1.75 times the diagonal dimension of the pile cross-section, but no less than 24 inches. It is recommended that the tops of the piles extend a minimum of 4 inches into the pile cap. Based on the exploration borings no pile shorter than 80 feet is recommended over the majority of the site unless proper pile capacity is verified by field inspection by the Geotechnical Engineer. Vertical piles should not vary more than 2% from the plumb position. We further recommend that eccentricity of reaction on a pile group with respect to the load resultant not exceed a dimension that would produce overloads of more than 10% in any one pile.

Since the underlying bedrock is moderately expansive, we recommend a minimum of permanent pressure be maintained on each pier. The minimum pressure should be designed based on a tip uplift pressure of 2500 psf. The area used to consider the uplift pressure should be width times the depth of the pile section used when considering H piles. Round pipe piles will require an end uplift pressure of 2500 psf and a side uplift of 600 psf for the portion of the side wall in contact with the expansive formation.

Based on our analyses, a standard 10-3/4 inch diameter, 1/4 inch wall, pipe pile driven to refusal may be designed for an allowable capacity of 35 to 50 tons. On this site the capacity of the pile will govern allowable load. Pile driving refusal required to obtain the recommended capacity was taken as 7 blows per inch with a 20 foot kip hammer. Driving

hammers should be of such size and type to consistently deliver effective energy suitable to the piles and materials into which they are driven. Final pile driving refusal should be determined by representatives of Lincoln DeVore in the field.

DRIVEN PILE OBSERVATION:

Continuous observation of the pile driving operations and a pile load test, if required, should be performed by Lincoln DeVore as a representative of the owner. A continuous log should be maintained on the number of blows per foot required to drive each pile. Driving should be completed without interruption (except for splicing) and without jetting or pre-drilling unless the geotechnical engineer has been contacted for further recommendations.

GRADE BEAMS:

A reinforced concrete grade beam is recommended to carry the exterior wall loads in conjunction with the deep foundation system. We recommend that this grade beam be designed to span from bearing point to bearing point but, may be allowed to rest on the ground surface between these points. We do not recommend a void space be left between the bottom of the grade beam and the subgrade below due to the compressive nature of the subgrade soils.

LATERAL LOADS:

If lateral loads are minimal, then only straight-shaft piers or piles will be used. If the lateral loads

become significant, we recommend that batter piles be used. To aid in the design of laterally loaded piles, we recommend that the following values of lateral modulus of subgrade reaction be used.

Geologic Unit	Driven Piles	Drilled Piers
Structural Fill	250 kcf	200 kcf
Alluvium	25 kcf	15 kcf
Weathered Bedrock	550 kcf	500 kcf
Formational Bedrock	1,000 kcf	1,000 kcf

CONCRETE SLABS ON GRADE

On-grade slabs may bear directly on the native soils or on a structural fill. Because the native soils were found to be relatively low density, some settlement should be expected. If these settlements are determined to be not tolerable, then the existing possible fill should be removed to a depth of 3 feet below slab elevation and replaced with uniformly compacted lifts of structural fill, compacted to at least 90% of maximum Proctor dry density, as determined by ASTM D-1557. The purpose of this recommendation is to decrease the likelihood of adverse slab movement.

In general, we recommend that all on-grade slabs be isolated from other structural portions of the building. This is generally accomplished by an expansion joint at the slab-foundation wall interface. If a vapor barrier is desired beneath slabs, we recommend that it be overlain by at least 2 inches of sand to decrease the likelihood of curing problems.

It is recommended that slabs on grade be constructed over a capillary break of approximately 6 inches in thickness. We recommend that the material used to form the capillary break be free draining, granular material and not contain significant fines. A free draining outlet is also recommended for this break so that it will not trap water beneath the slab. A vapor barrier is recommended beneath the floor slab and above the capillary break. To prevent difficulty in finishing concrete, a 2 inch sand layer should be placed above the break. An alternate method of reducing finishing problems would be to place the vapor

barrier beneath approximately 6 inches of a minus 3/4 inch gravel fill. This method must be very carefully accomplished to minimize excessive puncturing and tearing of the vapor barrier.

It is recommended that floor slabs on grade be constructed with control joints placed to divide the floor into sections not exceeding 360 square feet, maximum. Also, additional control joints are recommended at all inside corners and at all columns to control cracking in these areas.

EARTH RETAINING STRUCTURES

The active soil pressure for the design of earth retaining structures may be based on an equivalent fluid pressure of 55 pounds per cubic foot. The active pressure should be used for retaining structures which are free to move at the top (unrestrained walls). For earth retaining structures which are fixed at the top, such as basement walls, an equivalent fluid pressure of 81 pounds per cubic foot may be used. It should be noted that the above values should be modified to take into account any surcharge loads, sloping backfill or other externally applied forces. The above equivalent fluid pressures should also be modified for the effect of free water, if any.

The passive pressure for resistance to lateral movement may be considered to be 172 pcf per foot of depth. The coefficient of friction for concrete to soil may be assumed to be 0.35 for resistance to lateral movement. When combining frictional and passive resistance, the latter must be reduced by approximately 1/3.

We recommend that the backfill behind any retaining wall be compacted to a minimum of 85% of its maximum modified Proctor dry density, ASTM D-1557. The backfill material should be approved by the Soils Engineer prior to placing and a sufficient amount of field observation and density tests should be performed during placement. Placing backfill behind retaining walls before the wall has gained sufficient strength to resist the applied lateral earth pressures is <u>not</u> recommended.

Drainage behind retaining walls is considered critical. If the backfill behind the wall is not well drained, hydrostatic pressures are allowed to build up and lateral earth pressures will be considerably increased. Therefore, we recommend a vertical drain be installed behind any impermeable retaining walls. Because of the difficulty in placement of a gravel drain, we recommend the use of a composite drainage mat similar to Exxon Battledrain or Tensar MD Series NS-1100. An outfall must be provided for this drain.

REACTIVE SOILS

Since groundwater in the Grand Junction area typically contains sulfates in quantities detrimental to a Type I cement, a Type II or Type I-II or Type II-V cement is recommended for all concrete which is in contact with the subsurface soils and bedrock. Calcium chloride should not be added to a Type II, Type I-II or Type II-V cement under any circumstances.

LIMITATIONS

This report is issued with the understanding that it is the responsibility of the owner, or his representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and are incorporated into the plans. In addition, it is his responsibility that the necessary steps are taken to see that the contractor and his subcontractors carry out these recommendations during construction. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in acceptable or appropriate standards may occur or may result from legislation or the broadening of engineering knowledge. Accordingly, the findings of this report may be invalid, wholly or partially, by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 3 years.

The recommendations of this report pertain only to the site investigated and are based on the as-

sumption that the soil conditions do not deviate from those described in this report. If any variations or undesirable conditions are encountered during construction or the proposed construction will differ from that planned on the day of this report, Lincoln DeVore should be notified so that supplemental recommendations can be provided, if appropriate.

Lincoln DeVore makes no warranty, either expressed or implied, as to the findings, recommendations, specifications or professional advice, except that they were prepared in accordance with generally accepted professional engineering practice in the field of geotechnical engineering.

SOILS DESCRIPTIONS:

SYMBOL	USCS	DESCRIPTION
		Topsoil
		Man-made Fill
	GW	Well-graded Gravel
	GP	Poorly-graded Gravel
	GM	Silty Gravel
	GC	Clayey Gravel
	SW	Well-graded Sand
	SP	Poorly-graded Sand
	SM	Silty Sand
	SC	Clayey Sand
	ML	Low-plasticity Silt
	CL	Low-plasticity Clay
	OL	Low-plasticity Organic Silt and Clay
	MH	High-plasticity Silt
	CH	High-plasticity Clay
	OH	High-plasticity Organic Clay
	Pt	Peat
	GW/GM	Well-graded Gravel, Silty
	GW/GC	Well-graded Gravel, Clayey
	GP/GM	Poorly-graded Gravel, Silty
	GP/GC	Poorly-graded Gravel, Clayey
	GM/GC	Silty Gravel, Clayey
	GC/GM	Clayey Gravel, Silty
	SW/SM	Well-graded Sand, Silty
	SW/SC	Well-graded Sand, Clayey
	SP/SM	Poorly-graded Sand, Silty
	SP/SC	Poorly-graded Sand, Clayey
	SM/SC	Silty Sand, Clayey
	SC/SM	Clayey Sand, Silty
	CL/ML	Silty Clay

ROCK DESCRIPTIONS:

SYMBOL	DESCRIPTION
	SEDIMENTARY ROCKS
	CONGLOMERATE
	SANDSTONE
	SILTSTONE
	SHALE
x x x x x x	CLAYSTONE
	COAL
	LIMESTONE
	DOLOMITE
	MARLSTONE
	GYPSUM
	Other Sedimentary Rocks
	IGNEOUS ROCKS
	GRANITIC ROCKS
	DIORITIC ROCKS
	GABBRO
	RHYOLITE
	ANDESITE
	BASALT
	TUFF & ASH FLOWS
	BRECCIA & Other Volcanics
	Other Igneous Rocks
	METAMORPHIC ROCKS
	GNEISS
	SCHIST
	PHYLLITE
	SLATE
	METAQUARTZITE
	MARBLE
	HORNFELS
	SERPENTINE
	Other Metamorphic Rocks

SYMBOLS & NOTES:

SYMBOL	DESCRIPTION
9/12	9/12 Standard penetration drive Numbers indicate 9 blows to drive the spoon 12" into ground.
ST	ST 2-1/2" Shelby thin wall sample
W_0	W_0 Natural Moisture Content
W_x	W_x Weathered Material
Free water	Free water table
γ^0	γ^0 Natural dry density
T.B.	T.B. – Disturbed Bulk Sample
(2)	(2) Soil type related to samples in report
18' W_x Form.	Top of formation
	Test Boring Location
	Test Pit Location
	Seismic or Resistivity Station. Lineation indicates approx. length & orientation of spread (S = Seismic, R = Resistivity)

Standard Penetration Drives are made by driving a standard 1.4" split spoon sampler into the ground by dropping a 140 lb. weight 30". ASTM test des. D-1586.

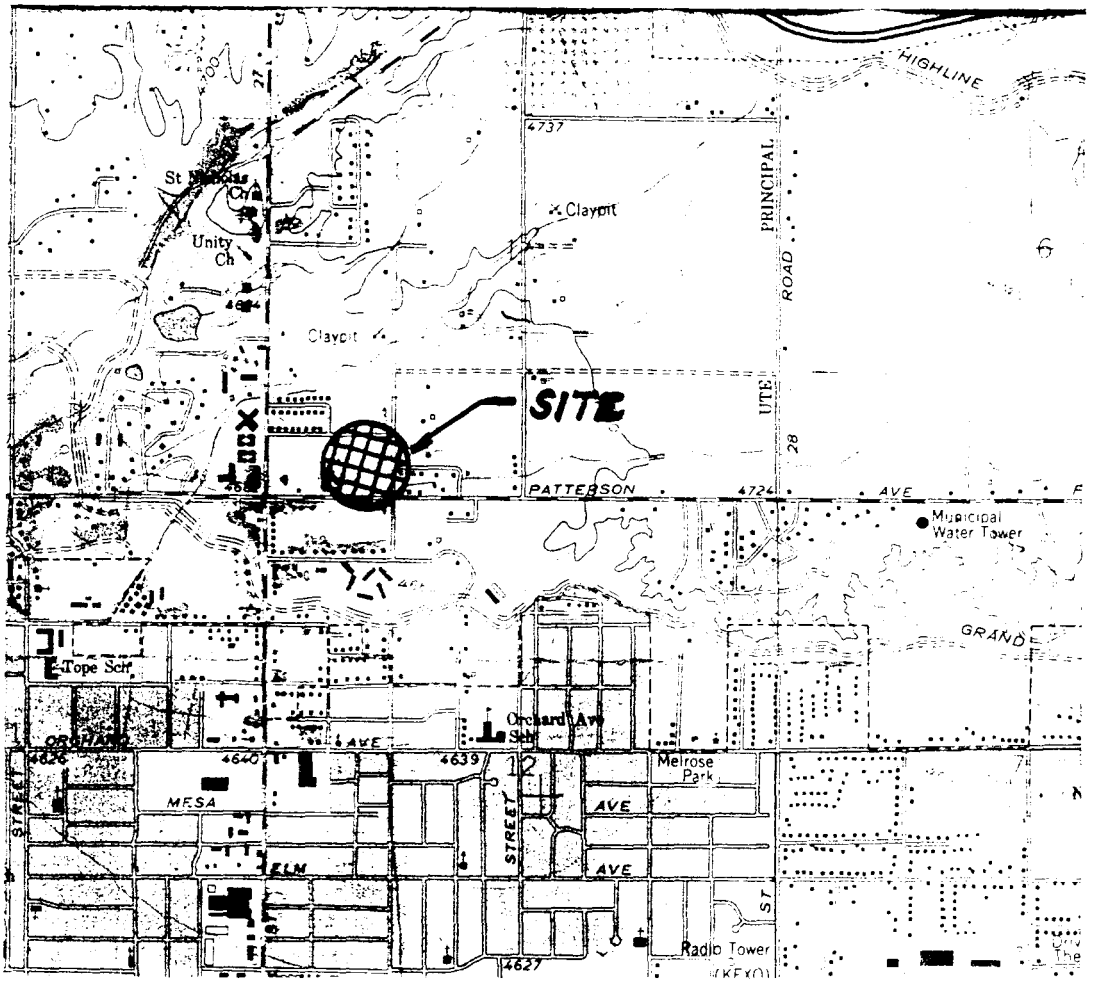
Samples may be bulk, standard split spoon (both disturbed) or 2-1/2" I.D. thin wall ("undisturbed") Shelby tube samples. See log for type.

The boring logs show subsurface conditions at the dates and locations shown, and it is not warranted that they are representative of subsurface conditions at other locations and times.

LINCOLN DeVORE TESTING LABORATORY

COLORADO: Colorado Springs, Pueblo, Glenwood Springs, Montrose, Gunnison, Grand Junction, – WYO. – Rock Springs

EXPLANATION OF BOREHOLE LOGS AND LOCATION DIAGRAMS

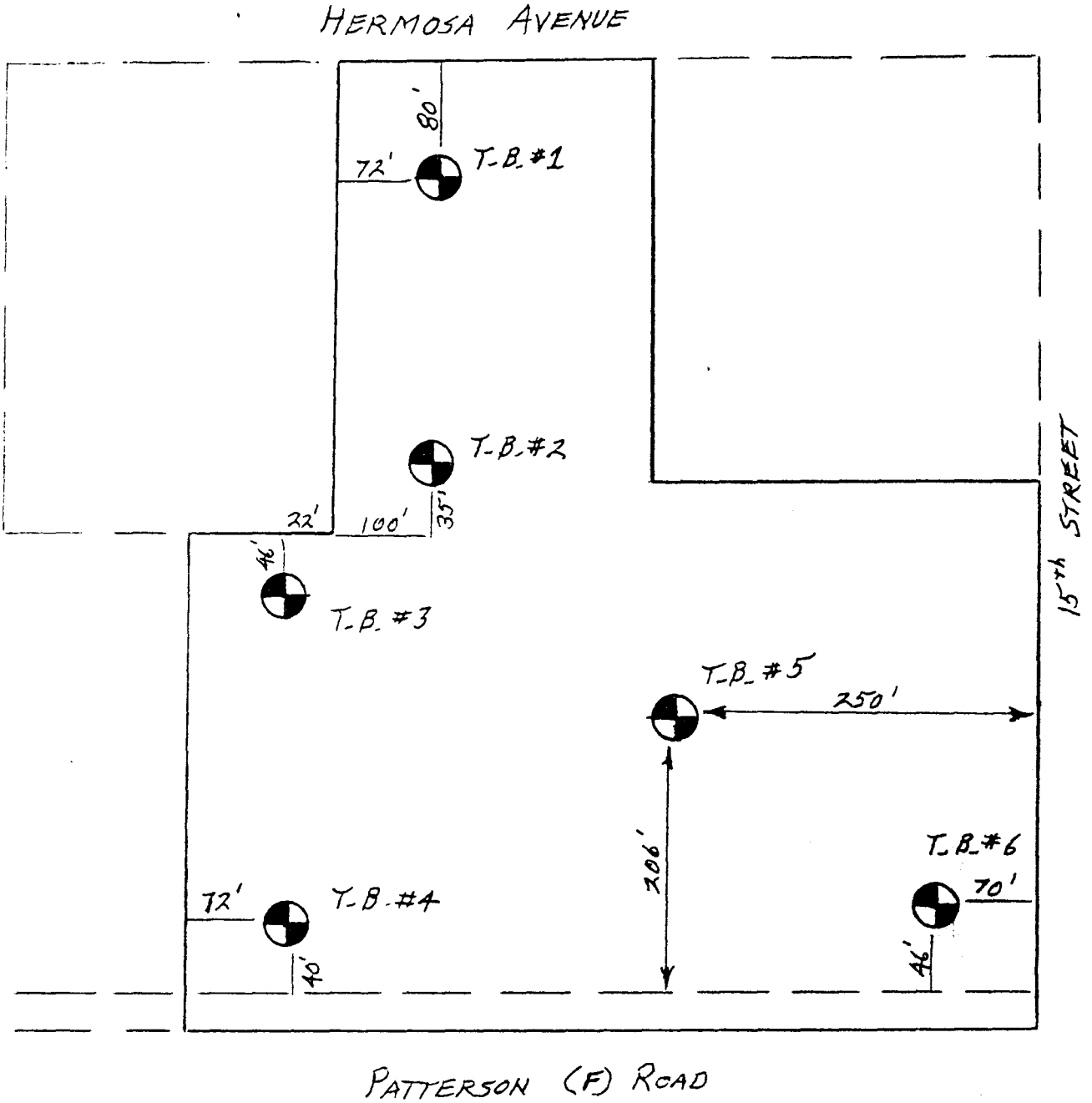


SCALE - 1" = 2000'

U.S.G.S. 7-1/2' Quadrangle Series

Lincoln DeVore, Inc.
Geotechnical Consultants

GENERAL SITE LOCATION DIAGRAM		
		DATE
JOB NO.	DRAWN	



Lincoln DeVore, Inc.
Geotechnical Consultants

TEST BORING LOCATION - 15th & PATTERSON

HILLTOP — GRAND JUNCTION

DATE 2-1-93

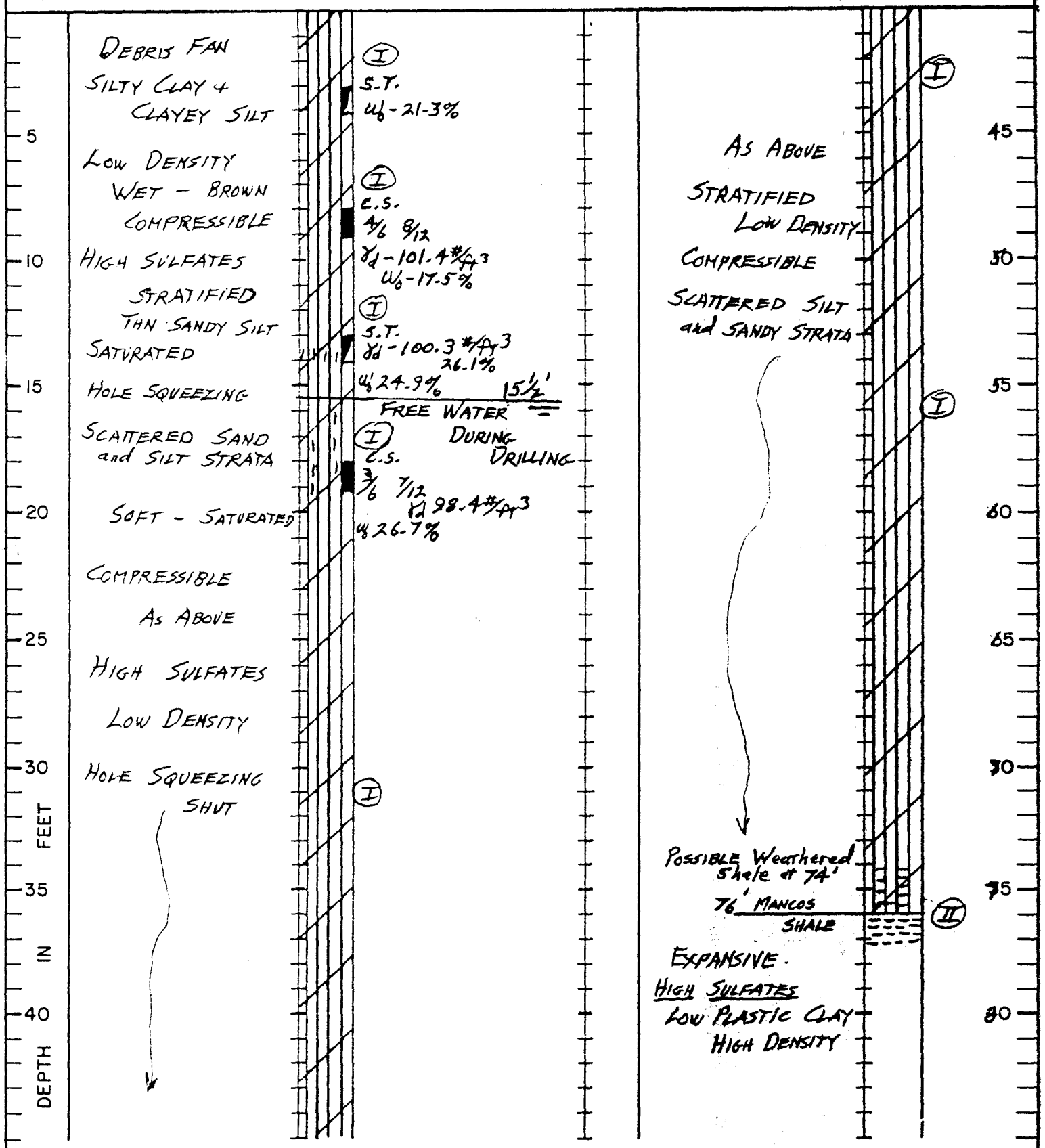
JOB NO. 77443-J

DRAWN EHM

Job No. LD 7743-J

TEST HOLE No. 1 — 1 CONTINUED

ELEVATION



DRILLING LOGS

LINCOLN DeVORE ENGINEERS • GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO, GLENWOOD SPRINGS
WYOMING: EVANSTON

BORING NO. 2

ELEVATION:

DEPTH (FT)	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
			AGRICULTURE REWORKED SURFACE				
		I	SILTY CLAY & SANDY SILT				
			VERY MOIST TO WET	C.S.	3/6 6/12		20.8%
5			SOFT				
			LOW PLASTIC ALLUVIAL				
		I	STRATIFIED – THIN SANDY ZONES				
			SILTY CLAY DEBRIS FAN DEPOSIT	S.T.		99.1	21.4% 17.9%
10			HIGH SULFATES				
		I	LOW DENSITY				
				C.S.	3/6 5/12	99.6	24.0%
15			COMPRESSIBLE				
			FREE WATER DURING DRILLING				
			SATURATED ▽ – SAND & SILT STRATA				
		I	SILTY CLAY & CLAY SILT	S.T.		99.7	25.5%
20			HOLE IS SQUEEZING SHUT				
			COMPRESSIBLE				
			HIGH SULFATES				
25			VERY SOFT				
30			SILTY STRATA FLOWING INTO BORING				
35							

LOG OF SUBSURFACE EXPLORATION

Lincoln DeVore, Inc.
Geotechnical Consultants

NORTH WEST CORNER - 15th & PATTERSON, G.J.

HILLTOP

DATE 1-27-93

JOB NO. 77443-J

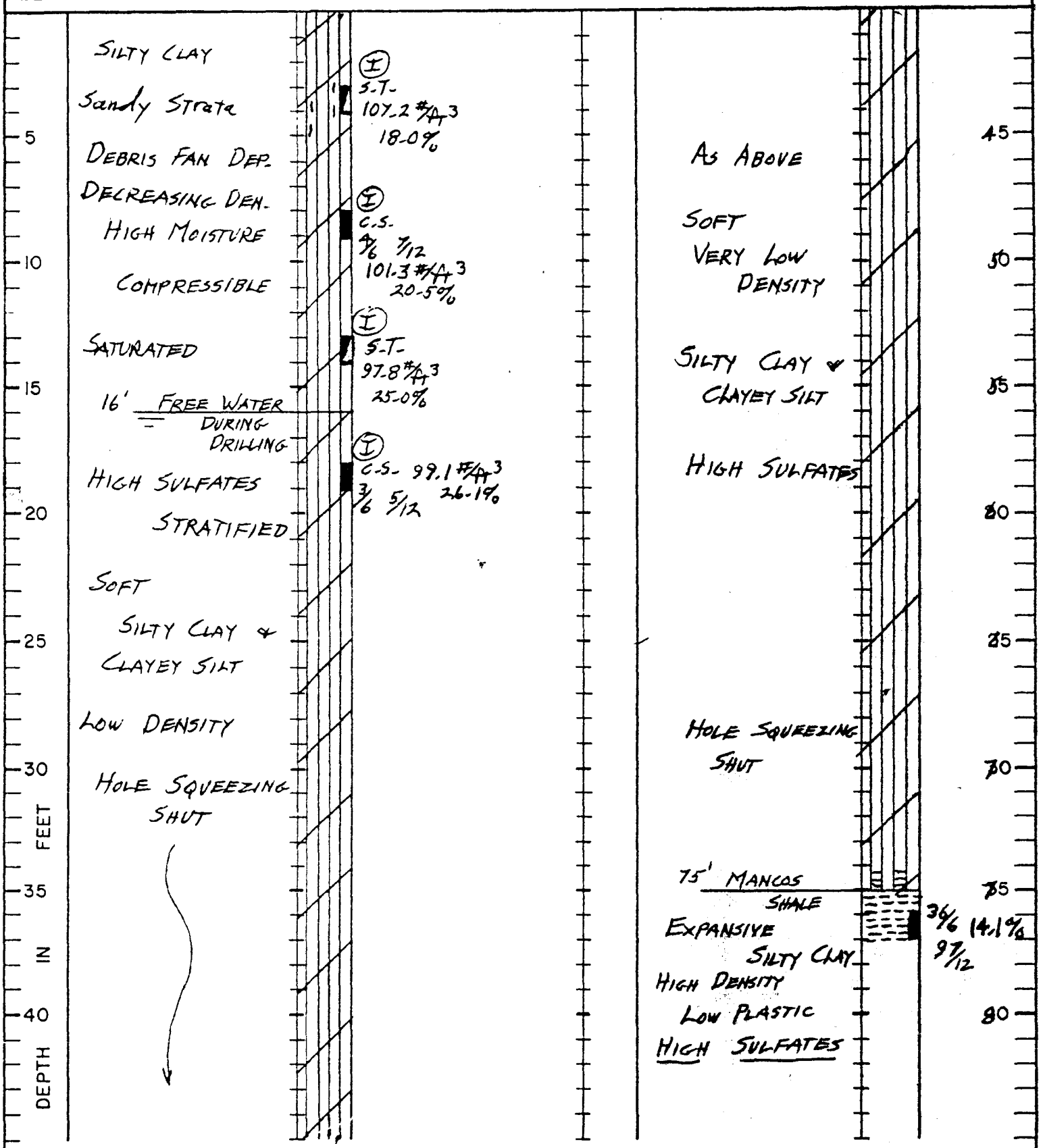
DRAWN EHM

Job No. LD 7744-J

TEST HOLE No. 3

ELEVATION

3 CONTINUED



DRILLING LOGS

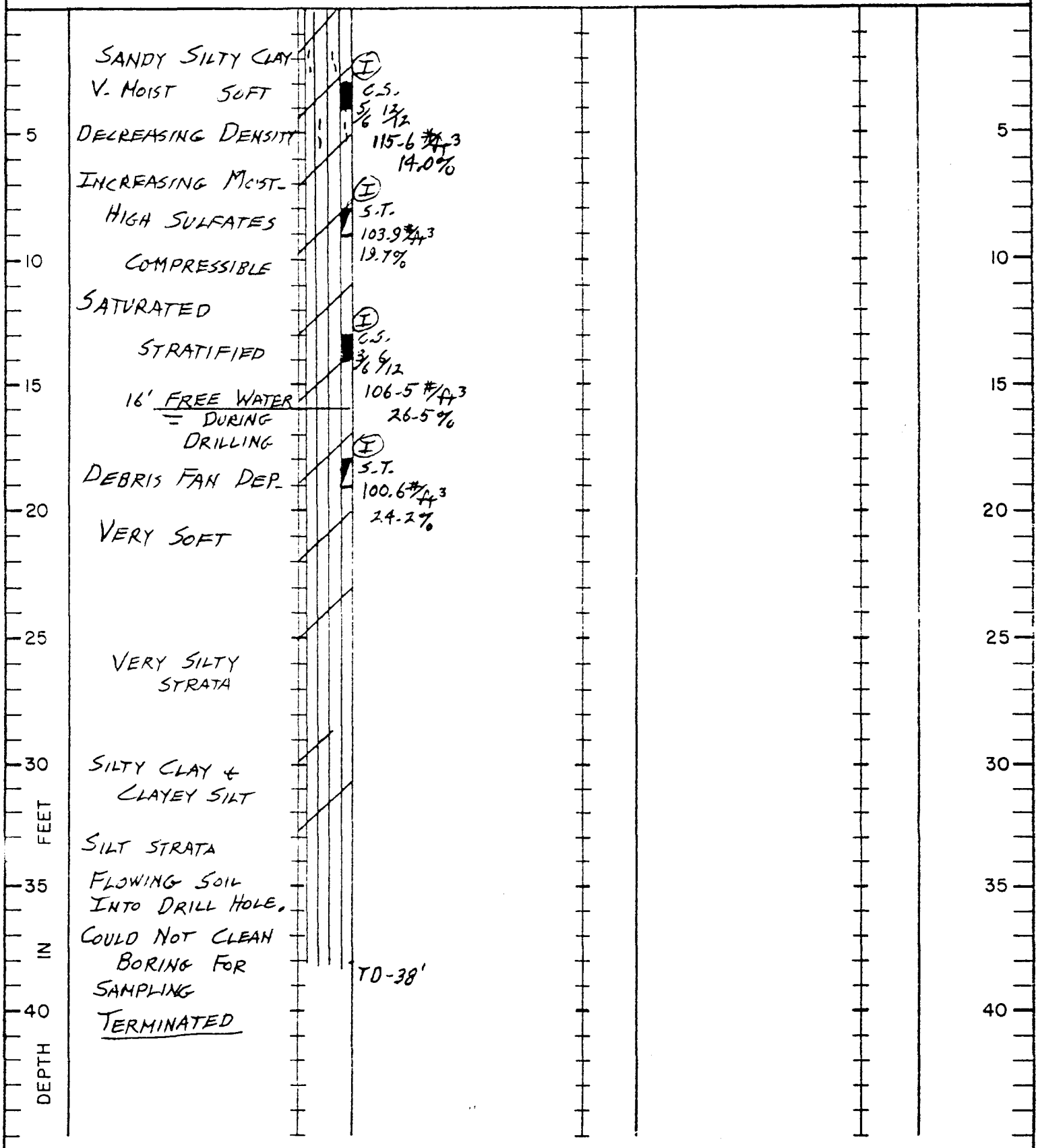
LINCOLN DeVORE ENGINEERS • GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO, GLENWOOD SPRINGS
WYOMING: EVANSTON

Job No. LD 7744J-J

TEST HOLE NO. 4

ELEVATION



DRILLING LOGS

LINCOLN DeVORE ENGINEERS • GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO, GLENWOOD SPRINGS
WYOMING: EVANSTON

BORING NO. 5

ELEVATION:

DEPTH (FT)	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
			DEBRIS FAN DEPOSIT				
		I	SILTY CLAY & CLAYEY SILT SOFT	S.T.		105.7	12.2%
5			HIGH SULFATES				
			LOW DENSITY - VERY MOIST				
		I	COMPRESSIBLE				
			STRATIFIED SILTY CLAY & CLAY SILT	C.S.	6/6 11/12	97.5	16.3%
10			SOME SANDY STRATA				
		I	INCREASING MOISTURE				
				S.T.		109.6	28.5%
15							
			17' FREE WATER DURING DRILLING				
		I	SILTY CLAY				
				C.S.	7/6 5/12	101.6	21.9%
20			HOLE SQUEEZING SHUT				
			VERY SOFT LOW PLASTIC				
25							

LOG OF SUBSURFACE EXPLORATION

Lincoln DeVore, Inc.
Geotechnical Consultants

NORTH WEST CORNER - 15TH & PATTERSON, G.J.

HILLTOP

DATE 1-27-93

JOB NO. 77443-J

DRAWN EMM

BORING NO. 6

ELEVATION:

DEPTH (FT)	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
			LOW PLASTIC SILTY CLAY & CLAYEY SILT				
	I		COMPRESSIBLE	C.S.	5/6 12/12	103.4	18.7%
5			HIGH SULFATES HIGH MOISTURE				
			DECREASING DENSITY				
	I		SOFT SILTY CLAY w/ SOME SANDY STRATA	S.T.		95.2	27.3%
10			SATURATED				
	I		COMPRESSIBLE				
			15' FREE WATER DURING DRILLING	C.S.	2/6 5/12	97.4	25.6%
15			VERY SOFT - COMPRESSIBLE				
	II		MANCOS SHALE FORMATION 18½'	S.T.		112.8	17.0%
20			HIGH SULFATES - FILLING FRACTURES	SPT	24/6 74/8		
	II		SILTSTONE STRATA EXPANSIVE	SPT	66/6 120/10		13.7%
25			SULFATE LENSES IN MANCOS SHALE UP TO ¼" THICK - DECREASING AFTER ≈ 3' INTO FORMATION				
30							

LOG OF SUBSURFACE EXPLORATION

Lincoln DeVore, Inc.
Geotechnical Consultants

NORTH WEST CORNER - 15TH & PATTERSON, G.J.

HILLTOP

DATE 1-27-93

JOB NO. 77443-J

DRAWN EMM

SUMMARY SHEET

Soil Sample _____ Test No. 77443-J

Location HILLTOP 15th & PATTERSON G-J. Date 1-29-93

Boring No. _____ Depth _____

Sample No. I Test by JLS

Natural Water Content (w) _____ %

Specific Gravity (Gs) _____ In Place Density (γ_o) _____ pcf

SIEVE ANALYSIS:

Sieve No.	% Passing
1 1/2"	
1"	
3/4"	
1/2"	
4	
10	100
20	99.9
40	97.8
100	87.3
200	69.5

HYDROMETER ANALYSIS:

Grain size (mm)	%
.02	41.9
.005	29.9

Plastic Limit P.L. 18.1 %

Liquid Limit L. L. 22.2 %

Plasticity Index P.I. 4 %

Shrinkage Limit _____ %

Flow Index _____

Shrinkage Ratio _____ %

Volumetric Change _____ %

Lineal Shrinkage _____ %

MOISTURE DENSITY: ASTM METHOD

Optimum Moisture Content - w_o _____ %

Maximum Dry Density - γ_d _____ pcf

California Bearing Ratio (av) _____ %

Swell: _____ Days _____ %

Swell against _____ psf Wo gain _____ %

BEARING:

Housel Penetrometer (av) 1000 psf

Unconfined Compression (qu) _____ psf

Plate Bearing: _____ psf

Inches Settlement _____

Consolidation % under psf

PERMEABILITY:

K (at 20°C) _____

Void Ratio _____

Sulfates 2000+ ppm.

SOIL ANALYSIS

LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS, COLORADO

SUMMARY SHEET

Soil Sample Low Plastic Clay (CL). Test No. 77443-J

Location Hilltop 15th & Patterson G-J. Date 1-29-93

Boring No. _____ Depth _____

Sample No. II Test by JLS

Natural Water Content (w) _____ %

Specific Gravity (Gs) _____ In Place Density (γ_o) _____ pcf

SIEVE ANALYSIS:

Sieve No.	% Passing
1 1/2"	
1"	
3/4"	
1/2"	100
4	99-1
10	96-2
20	87-8
40	78-8
100	64-1
200	54-7

HYDROMETER ANALYSIS:

Grain size (mm)	%
.02	35-8
.005	20-3

Plastic Limit P.L. [redacted] %

Liquid Limit L. L. 37-7 %

Plasticity Index P.I. 14 %

Shrinkage Limit _____ %

Flow Index _____

Shrinkage Ratio _____ %

Volumetric Change _____ %

Lineal Shrinkage _____ %

MOISTURE DENSITY: ASTM METHOD

Optimum Moisture Content - w_o _____ %

Maximum Dry Density - γ_d _____ pcf

California Bearing Ratio (av) _____ %

Swell: 1 Days 3-9 %

Swell against 1600 psf Wo gain 7-3 %

BEARING:

Housel Penetrometer (av) 15,000+ psf

Unconfined Compression (qu) _____ psf

Plate Bearing: _____ psf

Inches Settlement _____

Consolidation % under psf

PERMEABILITY:

K (at 20°C) _____

Void Ratio _____

Sulfates 23,000 ppm.
(2.3%)

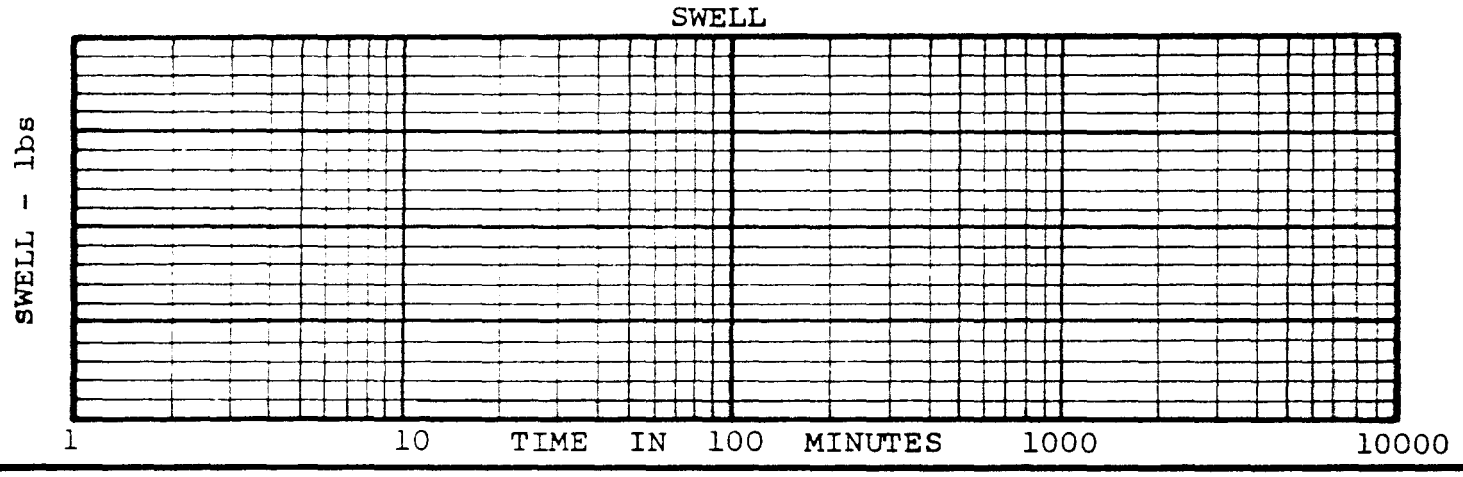
SOIL ANALYSIS

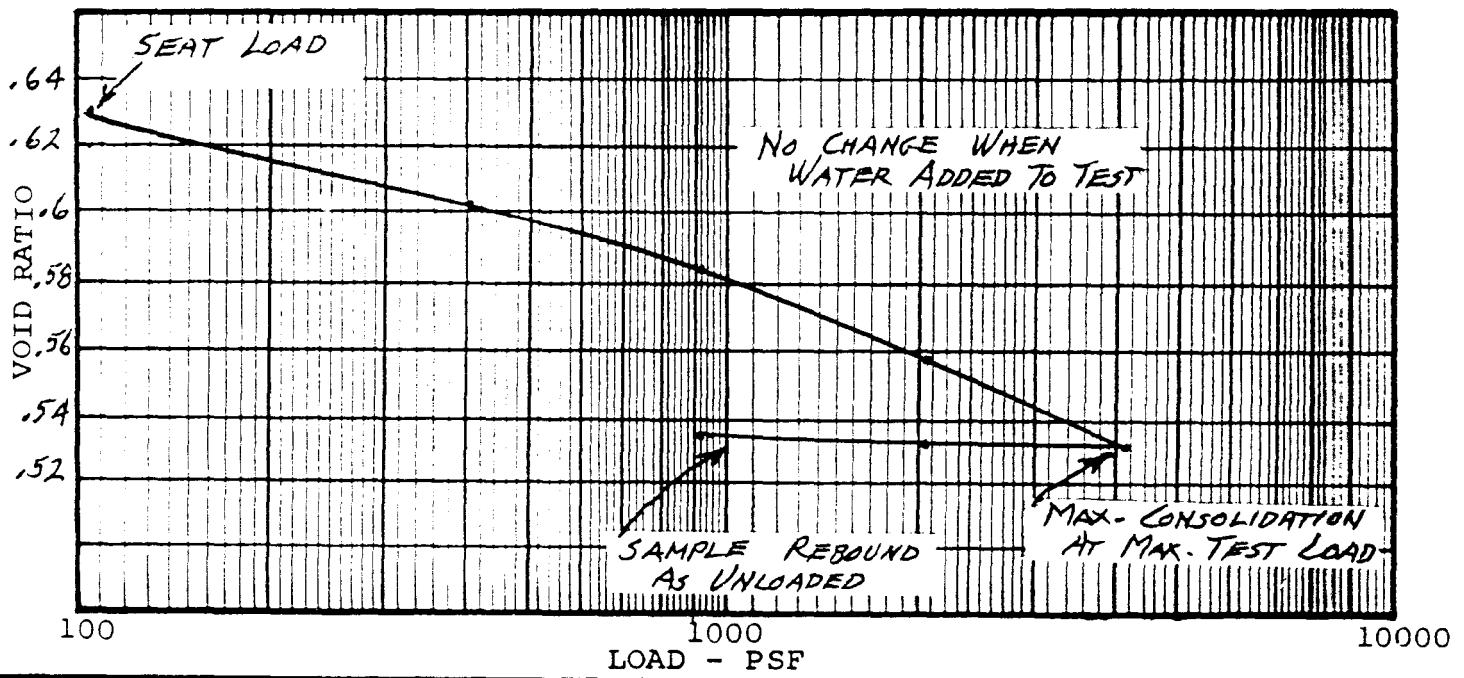
LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS, COLORADO

SOIL SAMPLE Silt - Silty Clay (ML-CL) Test No. 77443-J

Project Hilltop 15th & Patterson G-J Date 1-29-93

Sample Location T.H. # 1 @ 13' Test by EMH





Sample Conditions	Initial	Maximum Load	Expanded
Dry Density	100.3 #/ft³	108.0 #/ft³	107.6 #/ft³
% Moisture	26.1%	20.1%	20.3%
% Saturation	100%	100%	100%
Void Ratio	.649	.531	.536

Specific Gravity 2.65

Maximum Load used 4116 lb. Ring Number 140.0

Apparatus Densoil #3 Volume 2.5" Ring .002841 cu. ft.

LOAD - CONSOLIDATION

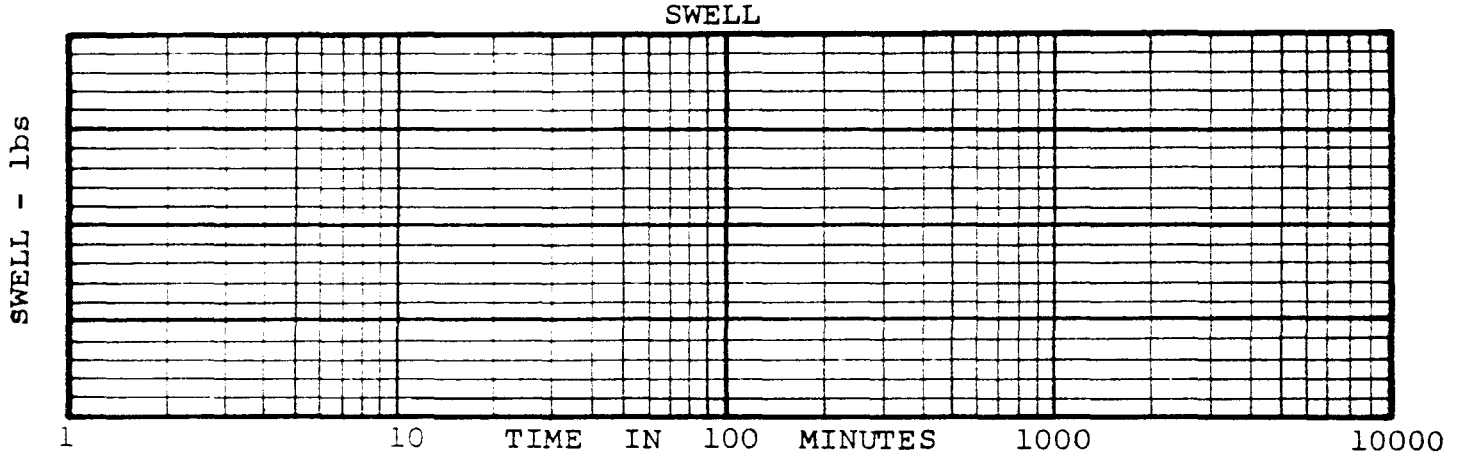
LINCOLN-DeVORE, INC.
COLORADO SPRINGS, COLORADO

SOIL SAMPLE Silt - Silty Clay (ML-CL) Test No. 77443-J

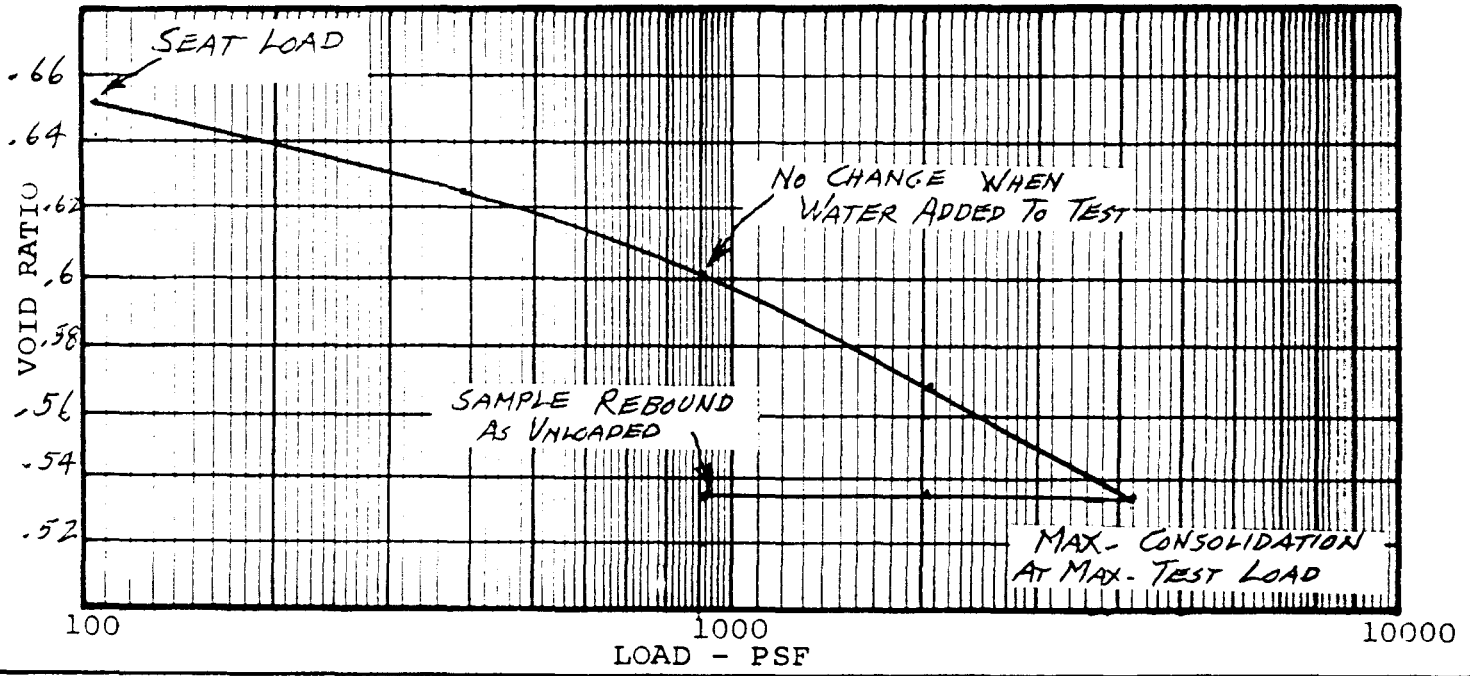
Project Hilltop - 15th & Patterson G.J. Date 1-29-93

Sample Location T-H-#2 @ 8' Test by EMM

SWELL



CONSOLIDATION



Sample Conditions	Initial	Maximum Load	Expanded
Dry Density	99.1 #/ft³	107.3 #/ft³	107.2 #/ft³
% Moisture	21.4 %	20.3 %	19.9 %
% Saturation	85.4 %	100.0 %	100 %
Void Ratio	.663	.536	.537

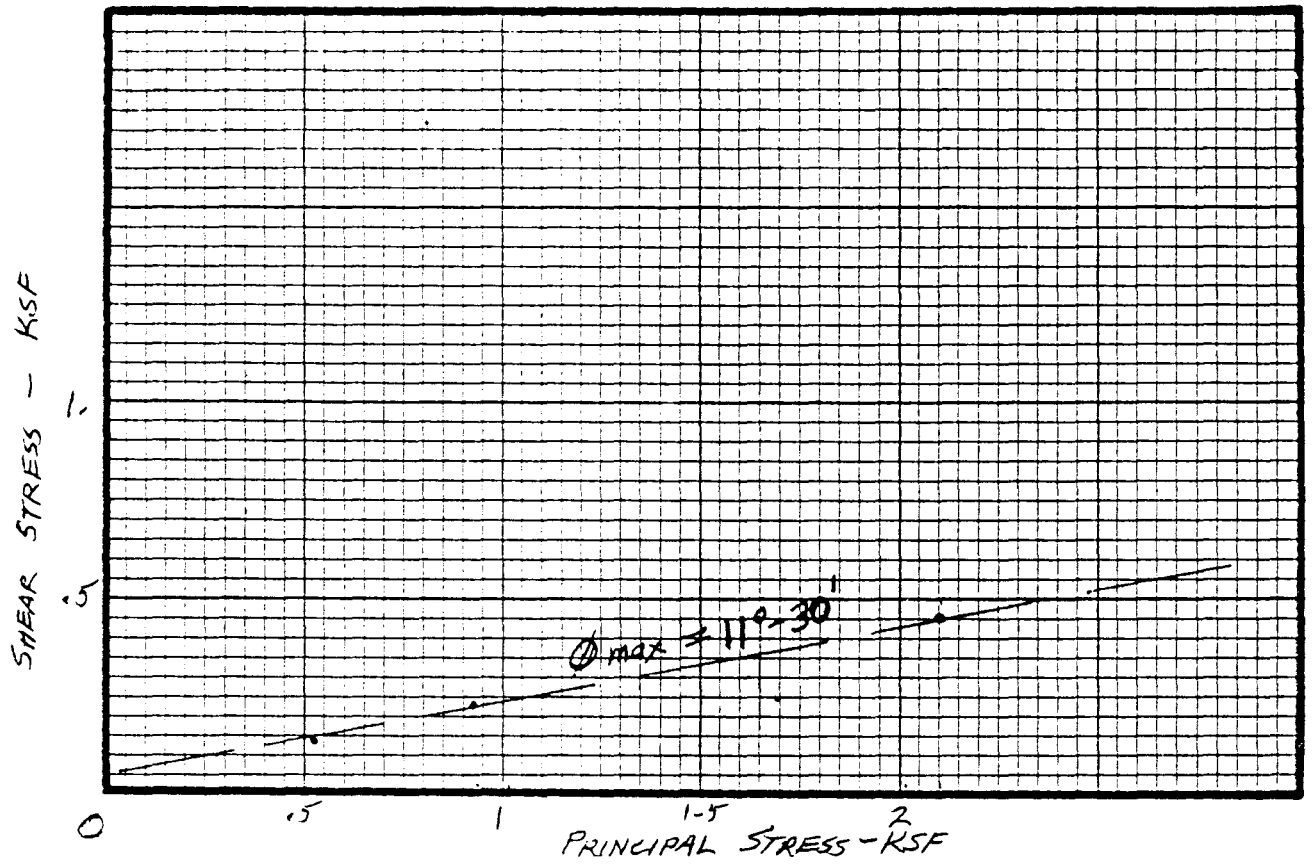
Specific Gravity 2.64

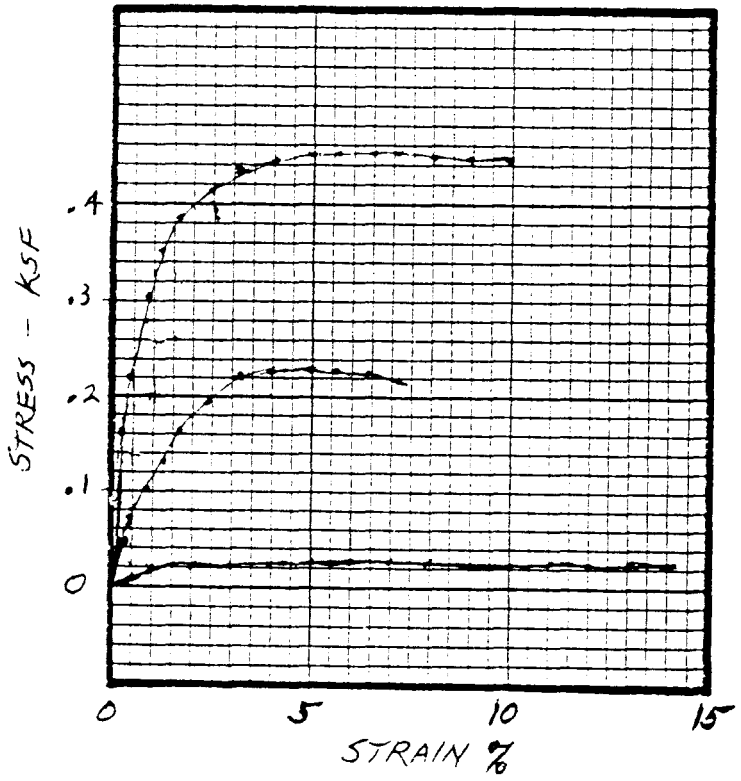
Maximum Load used 4210 lb. Ring Number 143-3

Apparatus Densoil # 4 Volume 2.5" Ring .002841 cu.ft.

LOAD - CONSOLIDATION

LINCOLN-DeVORE, INC.
COLORADO SPRINGS, COLORADO





TEST	CU	—	—
NORMAL STRESS psf	520	923	2126
SHEAR STRESS psf	139	229	461
Dry Density pcf	101-2	106-1	105.7
MOISTURE %	21-6	20-1	18.0

Type Test : CU - NOT REMOLDED

Cohesion C : 35 psf

Ø : 11° 30'

Tan Ø : 0.201

SOIL TYPE: SILTY CLAY CL-ML

LOCATION: T-H-#4 @ 8'

EQUIV. FLUID : Active Case 71 pcf
(NATURAL COND.) Passive Case 159 pcf/ft

DIRECT SHEAR TEST

HILLTOP 15th & PATTERSON - Gd. Jct.

LINCOLN DeVORE ENGINEERS GEOLOGISTS

COLORADO: COLORADO SPRINGS
GRAND JUNCTION, PUEBLO,

NICHOLS ASSOCIATES, INC.
751 Horizon Court, Suite #102
P.O. Box 60010
Grand Junction, Colorado 81506

2-Aug-1993

CITY OF GRAND JUNCTION
GRAND JUNCTION, COLORADO

Ladies and Gentlemen:

Please find enclosed a drainage study report for the proposed Larch Wood Inns.

This report was prepared by me for use as a part of the submittal package for the Hilltop Two Minor Subdivision.

A detention facility is designed with a two stage outlet to limit storm water discharge to the 2 year and 100 year historic levels.

I hereby certify that this report was prepared by me.

Terry Nichols
Registered Professional Engineer.
State of Colorado, Number 12093

#93 93

LARCH WOOD INNS DRAINAGE REPORT

2-AUG-1993

I. General Location and Description

The Larch Wood Inns project is located in the city of Grand Junction, Colorado.

The property is bounded on the north by Hermosa Street, bounded on the south by Patterson Road, bounded on the east by 15th street, and bounded on the west by a small drainage ditch which drains the developed properties lying to the west. These streets and the drainage ditch intercept all of the site drainage.

II. Existing Drainage Conditions

The present ground cover consists of grasses and alfalfa. The surface soil type is predominantly medium silt. The field is surface irrigated using furrows running from east to west. Storm drainage discharges through the irrigation furrows to the existing drain ditch on the west side then south through the drain ditch to Patterson Road where the water enters an existing city storm drain.

III. Proposed Drainage Conditions

As shown on the grading and drainage plan, the site will be developed to include a large retirement home and paved parking area. The building floor elevation will be such that drainage is away from the building in all directions.

There will be a detention facility in the southwest corner of the property. The service drive and the parking area along with grass swales will convey the storm water to the detention facility.

The detention facility includes a two-stage controlled outlet and a 15 inch overflow outlet. Also, if the sod berm forming the pond is ever topped, it is designed to channel the flow into the existing drain ditch at the southwest corner of the pond.

The 2 year and 100 year control outlets consist of 15 inch PVC pipe fitted with a PVC cap which has a hole drilled to the correct orifice diameter. The ends of the pipe and the cap are in a concrete catch box fitted on the top with a cast iron storm grate.

The 15 inch overflow terminates in a similar manner except that it does not include a cap and restrictive orifice.

The 15 inch PVC pipe runs south from the detention pond to Patterson Road where it connects to an existing storm drain.

IV. Design Criteria & Approach

Design reainfall intensities are taken from the Interim Outline of Grading and Drainage Criteria, City of Grand Junction, 1 July 1992 and the Mesa County Storm Drainage Manual. The time of concentration for each basin is calculated using a combination of overland flow, shallow concentrated sheet flow, and channel flow travel time.

The following formula is used to calculate overland sheet flow:

$t_c=1.8(1.1-C)\,(L^{1/2})/100S)^{1/3}$

where:

t_c= time of concentration in minutes;
C= runoff coefficient;
L= length of basin in feet; and
S= slope of the basin in feet/feet.

The intensity is taken from APPENDIX A of the Interim Outline Of Grading And Drainage Criteria.

For on site development, the peak runoff discharges are calculated using the rational formula:

$Q=CiA$

where:

Q= peak runoff rate in cubic feet per second (CFS);
C= runoff coefficient representing a ratio of peak runoff to average rainfall intensity for a duration equal to the runoff time of concentration;
i= average rainfall intensity in inches per hour; and
A= drainage area in acres

Results and Conclusions

Reference APPENDIX Page 1:

The historic 2 year and 100 year runoff quantities are 0.85 CFS and 2.21 CFS respectively. The calculated discharge after construction is 1.62 CFS for the 2 year storm and 4.07 CFS for the 100 year storm. The net increase in runoff is 0.78 CFS for the 2 year storm and 1.86 CFS for the 100 year storm.

Reference APPENDIX Page 2:

The required detention volume to limit discharge to historic levels are 3,646 CF for the 2 year frequency storm and 6,820 CF for the 100 year frequency storm.

Reference APPENDIX Page 2A

A depth capacity curve has been developed for the proposed detention pond. The curve indicates that a pond depth of 2.1 feet will provide the required 2 year volume, and a pond depth of 3.5 feet will exceed the storage volume requirements for the 100 year storm. The 2 year historic orifice at the bottom of the pond should be a 2.3 inch diameter hole in the discharge pipe end cap. The inlet grate for this outlet should be set at elevation 4666.0.

The 100 year historic orifice is set at elevation 4668.0 feet with oil allowed for wier head over the grate. This elevation allows 2.1 feet of depth for the 2 year detention. The cap for this outlet should be drilled with a 2.8 inch orifice. This orifice, in combination with the 2 year orifice, will pass the 100 year historic storm when the pond surface elevation reaches 4669.5 feet. (See the composite stage discharge graph-APPENDIX Page 4.) At this elevation, a storm inlet structure allows overflow directly to the 15 inch diameter PVC discharge pipe. In the event of clogging or storms greater than the 100 year event, the sod berm will be overtapped at elevation 4670.0 and will flow directly into the existing drain ditch.

VI. References

Interim Outline of Grading and Drainage Criteria, City of Grand Junction, July 1992

Submittal Standards for Improvements and Development (SSID) Draft; City of Grand Junction; March 1993

Civil Engineering Handbood Fourth Edition; by Urquhart

Mesa County Storm Drainage Criteria Manual; Adopted April 14, 1992

VII. Appendices Table of Contents

CALCULATION OF INCREASE IN DISCHARGE DUE TO PROPOSED CONSTRUCTION

After Construction {Area - Intensity - Discharge}

Note: Reach A is from a very small basin - time should not be included in total

BASIN	LENGTH Reach A FEET	SLOPE (S) PERCENT	RUNOFF COEF. C	BASIN TIME MIN.	GUTTER LENGTH FT.	GUTTER VELOCITY FT./SEC.	GUTTER TIME MIN.	TOTAL TIME Tc MIN.	INTENSITY Inches/Hour		AREA Acres	DISCHARGE CFS (Q=CIA)	
A1	150	1.3	0.3	16.2					2-Yr	100-Yr	A	2-Yr	100-Yr
Reach B - Across Asphalt					225.0	1.4	2.7						
Reach C - Grass channel to detention pond					380.0	1.0	6.3	9.0	1.59	3.99	3.40	1.62	4.07

Historic - For 3.24 Ac. development area

BASIN	LENGTH (L) FEET	SLOPE (S) PERCENT	RUNOFF COEF. C	BASIN TIME MIN.	MAX. TRAVEL FT.	TRAVEL VELOCITY FT./SEC.	TRAVEL TIME MIN.	TOTAL TIME Tc MIN.	INTENSITY Inches		AREA Acres	DISCHARGE CFS (Q=CIA)	
									2-Yr	100-Yr	A	2-Yr	100-Yr
H1	360	1.4	0.30	24.5	375	2.00	3.13	27.7	0.83	2.17	3.40	0.85	2.21
										TOTAL:	3.40	0.85	2.21
										NET INCREASE:		0.78	1.86

From City of Grand Junction Grading & Drainage Criteria page 23

2 year storm detention volume

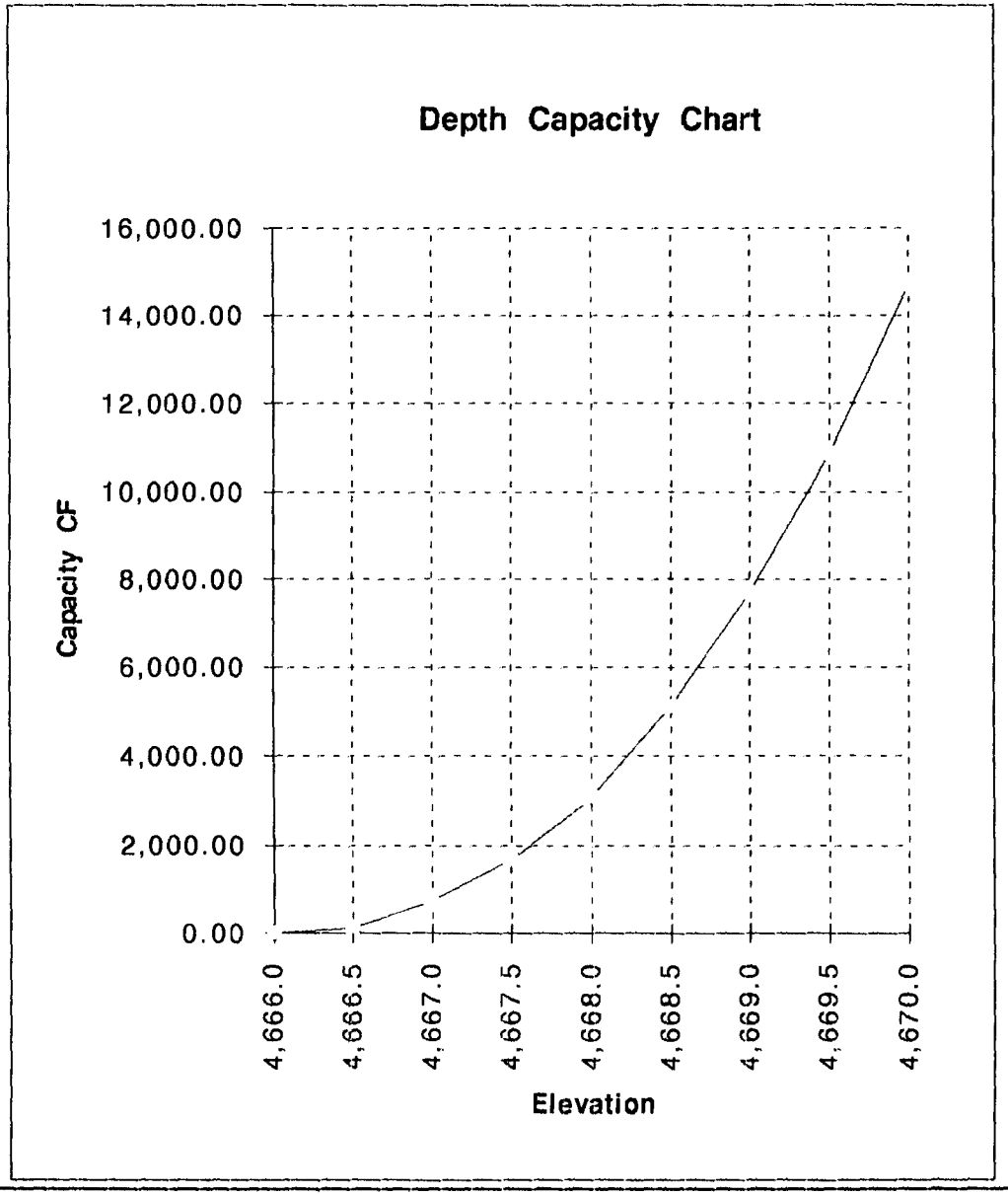
A	3.40
Qo	0.68
Td2	35.34
Id2	0.80
Qd	2.17
K	2.89
V	3,646 Cu Ft

100 year storm detention volume

A	3.40
Qo	1.77
Td100	16.42
Id100	2.82
Qd	7.68
K	2.89
V	6,820 Cu Ft

Volume = [An+An+1+(An*An+1)^.5]*h/3

Contour Elevation Ft.	Closed Area Ft. Sq.	Volume Cu. Ft.	Accumulated Volume Cu. Ft.
	0.00	0.00	0.00
	800.00	133.33	133.33
	1,750.00	622.20	755.54
	2,000.00	936.80	1,692.34
	3,600.00	1,380.55	3,072.89
	4,632.00	2,052.59	5,125.48
	5,665.00	2,569.92	7,695.40
	7,025.00	3,166.41	10,861.81
	8,385.00	3,847.49	14,709.30



ORIFICE FORMULA:

Orifice flow formula: $Q=CA(2gH)^{.5}$

Where:

Q=Orifice flow in CFS

C=Coefficient

g=Gravitational constant

H=Height of water above the center of the orifice opening in feet

D=Orfice diameter

Subscripts:

h = Historic flow

2 = Two year storm

100 = One hundred year storm

t = Top orifice

b = Bottom orifice

T = total

Bottom orifice

The bottom orifice must pass the historic 2 Yr storm

Storage depth above center of bottom orifice = 2.00

Q2= 0.85
C= 0.65
g= 32.20
Hb= 2.00
A= Q/C(2gH)^.5
= 0.11
D= 0.19113 2.29 Inches

Top orifice

The bottom & top orifices must pass the historic 100 Yr storm

Storage depth above center of top orifice = 1.50

C= 0.65
Ht= 1.5
Bottom orifice Q=CA(2gH)^.5 where H = Hb + Ht
Q= 1.12

Top orifice Q= Qh100 - Q bottom orifice
Q= 1.09
A= Q/C(2gH)^.5
= 0.17
D= 0.23 2.80 Inches

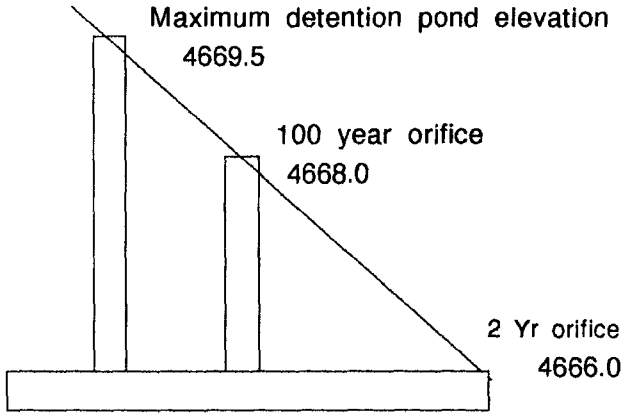
Discharge pipe diameter:

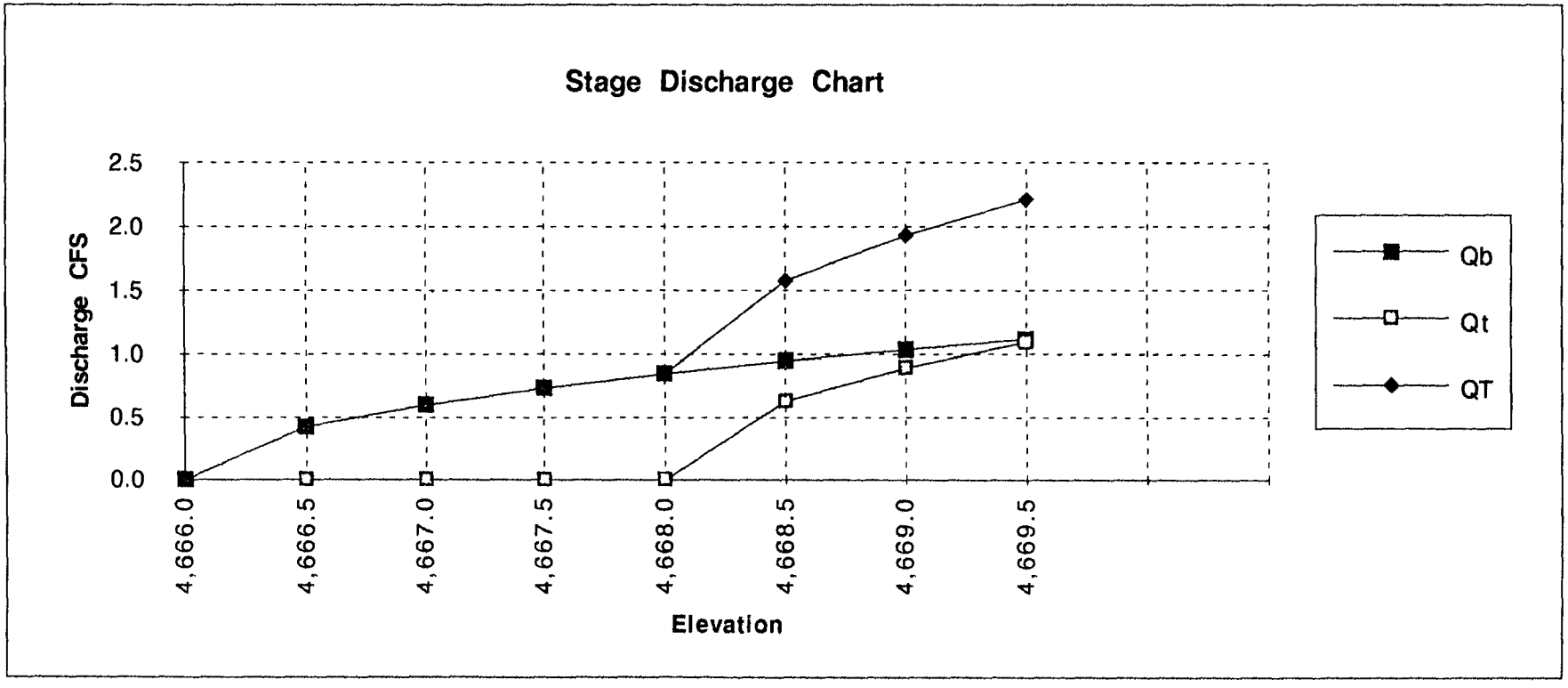
D = 1.25"

Sf =4.66*(.011)^2*(4)^2/(1.25)^5.33 = .002746

Q =(.463*(1.25)^2.67*.002746^.5) = 4.0 CFS

Elevation	Bottom Orifice		Top Orifice		Total
	Discharge Formula	Qb	Discharge Formula	Qt	QT
4,666.0	Q=CA(2gH)^.5	0.0	Q=0	0.0	0.0
4,666.5	Q=CA(2gH)^.5	0.4	Q=0	0.0	0.4
4,667.0	Q=CA(2gH)^.5	0.6	Q=0	0.0	0.6
4,667.5	Q=CA(2gH)^.5	0.7	Q=0	0.0	0.7
4,668.0	Q=CA(2gH)^.5	0.8	Q=CA(2gH)^.5	0.0	0.8
4,668.5	Q=CA(2gH)^.5	0.9	Q=CA(2gH)^.5	0.6	1.6
4,669.0	Q=CA(2gH)^.5	1.0	Q=CA(2gH)^.5	0.9	1.9
4,669.5	Q=CA(2gH)^.5	1.1	Q=CA(2gH)^.5	1.1	2.2





NICHOLS ASSOCIATES, INC.
751 Horizon Court, Suite #102
P.O. Box 60010
Grand Junction, Colorado 81506

LARCH WOOD INN
Storm Water Management Plan

2-August-1993

The Larch Wood Inn site is small (3.4 acres) with no off-site drainage entering the property.

The entrances to the property are at the high sides, and the site drains naturally to the south and west.

During construction, a 1.5 foot high berm should be maintained along the west side of the property to prevent runoff into the existing drain ditch. Any storm drainage leaving the site during construction should be collected along the south boundary of the site and put into the existing surface irrigation ditch and distributed to the furrows in the existing alfalfa and grass hay field. The field will privide adequate detention and filtration of sand and soil from the construction storm water. After crossing the hay field, the water will enter the existing waste water ditch.

This report was prepared by:

Terry Nichols PE No. 12093

August 3, 1993

Pat Edwards

RE: Larchwood Inns

Dear Pat:

After having done a cursory review of the Larchwood Inns submittal I had indicated to you that the submittal would be accepted. However, after engineering staff took a closer look, they found many of the items submitted to be inadequate for review. Since we had originally told you the submittal would be accepted, and because we have additional review time this month we can allow you extra time to correct the deficiencies noted on the attached checklists and plans. These revised items, as well as the landscaping plan, must be submitted to our office by noon on Tuesday, August 10th to give us adequate time for review. If the revised plans are found to be deficient the item will not be scheduled for the September Planning Commission hearing.

Sincerely,

Katherine M. Portner
Planning Supervisor

COVENANTS/CONDITIONS/RESTRICTIONS

(None)

APPRAISIAL OF RAW LAND

Approval is requested conditional upon appriasial being provided prior to recording of the final plat.

LANDSCAPE PLAN

Landscape plan to be provided within 10 days of project engineer and City Dev. Eng. agreeing in concept to the Grading and Drainage Plan, Drainage Report, and The Storm Water Managment Plan, however said Landscape plan will be provided on or 10 days prior to hearing.

#93 93

#93 93

August1,1993

Planning Department
City of Grand Junction
559 White Avenue
Grand Junction, CO 81501

RE: General Project Report-Larchwood Inns

A. Project Description
1. Location. The project is located on 15th street between Patterson and Hermosa.
2. Acreage. The total acreage is 7.49 acres.
3. Proposed use. The acreage is proposed to be split into four lots. Lot #1 will be retained by Hilltop Health Services Corporation for use as is presently designated. Lot #2 will be used for a skilled nursing facility. Lots #3 & 4 have at this time no planned development.

B. Public Benefit
The benefit to the general public will, at this juncture, be the construction of a new skilled nursing facility. In addition to the Health Care Facility that has been approved by the various State Agencies, the economic benefit to the City of Grand Junction will be substantial. A projected payroll of over $750,000 with the creation of forty new jobs is anticipated.

C. Project Compliances, Compatibility, and Impact
1. Adoptive plans and/or policies... The present zoning on this property is Business. We believe that this zone is compatible with the proposed use and would therefore request no change in zoning.
2. Land use in the surrounding area. All adjacent land, except as noted is zoned R2F-8 for residential use. On the southeast corner of Patterson & 15th the zone is PR 16.2 and the property adjacent to the subject property on the west is zoned for business use.
3. Site access and traffic patterns. Lot 1 will continue to be accessed from Hermosa. Lot #2 will be accessed from 15th street. Lots # 3 & 4 will be accessed from Patterson.
4. Availibilty of utilities, including proximity of fire hydrants. Exisiting water and sewer lines are in Hermosa, 15th, and Patterson Streets. Proposed fire hydrants appear on the site plan.
5. Special or unusual demands on utilities. Because of the need for a sprinkler system throughout the building, a 6" water main maybe needed to service the skilled nursing facility.
6. Effects on public facilities. Although the need for fire, police and sanitation is obvious, we see no

unusual burden for these departments. Some slight increase in traffic due to the work force and service necessary to sustain the skilled nursing facility is expected, but no excessive use is anticipated. No additional demands on parks or schools is forseen.

7. Site soils and geology. According to the soils report no unexpected geology or soils were encountered.
8. Impact of project on site geology and geological hazards. No significant geology impact or geological hazards are anticipated.
9. Hours of operation. As with all skilled health care facilities, this project will be operational 24 hrs. a day, 7 days a week.
10. Signage plans. It is expected that a sign will be place on 15th street for the skilled nursing facility.

D. Development Schedule and Phasing.
Construction of the skilled nursing facility will begin as soon as all permits are granted by the City of Grand Junction. Completion is expected in July, 1994. Future expansion will depend upon need as determined by the Colorado State Department of Health.

On behalf of the petitioners,

Pat Edwards

REVIEW COMMENTS

FILE #93-93 **TITLE HEADING:** Final Plat - Minor Subdivision; Final Plan Lot 2 - Larchwood Inns

LOCATION: NW corner of 15th & Patterson

PETITIONER: Fredrick Schumann

PETITIONER'S ADDRESS/TELEPHONE: 653 Larkspur
Grand Junction, CO
243-9898

PETITIONER'S REPRESENTATIVE: Pat Edwards

STAFF REPRESENTATIVE: Kathy Portner

NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS REQUIRED ON OR BEFORE 5:00 P.M., AUGUST 30, 1993.

GRAND VALLEY RURAL POWER **8/5/93**
Perry Rupp **242-0040**

None at this time.

U.S. WEST **8/6/93**
Leon Peach **244-4964**

No comments at this time.

MESA COUNTY BUILDING DEPARTMENT **8/11/93**
Bob Lee **244-1656**

No comments or concerns at this time.

GRAND JUNCTION FIRE DEPARTMENT **8/11/93**
George Bennett **244-1400**

1. Fire Department access is to be a minimum clear and unobstructed width of 20 feet.
2. An automatic fire sprinkler system is required throughout the building.
3. An automatic and manual fire alarm system is required in the building. A fire flow survey is required to determine the required flows and fire hydrant requirements and placement. Submit a complete stamped set of building plans.
4. Have your automatic sprinkler and fire alarm contractors contact our office for submittal requirements.

CITY POLICE DEPARTMENT **8/11/93**
Mark Angelo **244-3587**

What type of parking lot lights are going to be used? What type of lighting is proposed on the building for exterior lights? Recommend a light over every door - a ceiling or wall mount with a cover over the bulb so it can't be tampered with. In addition, some light assemblies come with tamper resistant screws.

What type of doors and locks are going to be used?

What is proposed for landscaping?

Is there adequate parking?

The trees should stay if possible.

CITY PARKS & RECREATION **8/12/93**
Don Hobbs **244-1542**

Appraisal needed for open space fee determination.

CITY UTILITY ENGINEER **8/17/93**
Bill Cheney **244-1590**

1. Provide information pertaining to number of beds or units being proposed. Provide information on water and sewer requirements.
2. Show proposed location of water and sewer taps. If possible, make all taps in Hermosa.

CITY DEVELOPMENT ENGINEER **8/16/93**
Gerald Williams **244-1591**

See attached comments, red-lined Drainage Study Report, red-lined Storm Water Management Plan and red-lined drawings.

MESA COUNTY PLANNING **8/16/93**
Mike Joyce **244-1642**

1. Lot 3 should be accessed from 15th Street, not Patterson Road.
2. Lot 4 should be accessed through lot 3 by an access easement/agreement. Exiting from lot 4 onto Patterson Road might work as a one-way egress if signed correctly (a traffic generation study should be submitted to determine access).
3. A monument type sign should be used that is designed in conjunction with the Landscape Plan (not submitted).

COMMUNITY DEVELOPMENT DEPARTMENT **8/19/93**
Kathy Portner **244-1446**

See attached comments.

LATE COMMENTS

PUBLIC SERVICE COMPANY **8/27/93**
Dale Clawson **244-2695**

Electric & Gas: Require 14' front lot line easement along Hermosa Avenue and along Patterson Road. Also require 14' easement west of the "Exception described in Book 1694, page 163 and 164 of Mesa County Records".

STAFF REVIEW

FILE: #93-93

DATE: August 20, 1993

STAFF: Kathy Portner

REQUEST: Final Plat for Hilltop Minor Subdivision No. 2 and Final Development Plan for lot 2, Larchwood Inns

LOCATION: Northwest corner of 15th Street and Patterson Road

APPLICANT: Fredrick Schumann/Pat Edwards

EXISTING LAND USE: Undeveloped and Hilltop's Files Center

PROPOSED LAND USE: Skilled nursing facility on lot 2

SURROUNDING LAND USE:

NORTH: Residential
SOUTH: Residential
EAST: Residential
WEST: Residential and Office

EXISTING ZONING: Planned Business (PB)

PROPOSED ZONING: Planned Business (PB)

SURROUNDING ZONING:

NORTH: RSF-8 (Residential Single Family, 8 units per acre)
SOUTH: RSF-8
EAST: RSF-8
WEST: RSF-8 and

RELATIONSHIP TO COMPREHENSIVE PLAN:

This area is not specifically addressed in the Patterson Road Corridor Guidelines.

STAFF ANALYSIS:

Staff Comments

1. Signage for lot 2 must be proposed and approved through this review process. Please submit details on type, size and location.

2. An appraisal of the unimproved land for lots 2,3 and 4 is required for review with the petitioners response to comments.

3. A note must be included on the plat stating that access to lots 3 and 4 will only be allowed at the Ingress and Egress easement and it must be a shared access.

4. The approval of the original PB zone on this site did not include a list of approved uses for the zone, only the hospital use was approved. I would recommend that a list of approved uses that would be considered for lots 3 and 4 be considered at this time. The most appropriate uses would be those that are allowed or require Special or Conditional Use Permits in the B-1 (limited business) zone.

5. The parking requirement for the facility is based on the number of beds and the number of employees per shift. Please provide detailed information on the type of facility that is being proposed (is this a nursing home or retirement center?), the number of employees per shift and the number of beds proposed including the future wings shown.

6. Outdoor sitting areas should be provided for the residents and employees with good access from the building. The two areas shown for future expansion would be ideal. Sidewalks should be provided on site to enable the residents to access around the site and access the public sidewalks along the streets.

STAFF RECOMMENDATION:

NICHOLS ASSOCIATES, INC.
751 Horizon Court, Suite #102
P.O. Box 60010
Grand Junction, Colorado 81506

LARCHWOOD INNS
Response to Review Comments
re: City of Grand Junction Planning Department File No. 93-93

24 August, 1993

CITY UTILITY ENGINEER

1.) Provide information pertaining to number of beds or units being proposed. Provide information on water and sewer requirements.

The proposed development calls for 80 beds with a central kitchen in the first phase of construction and a future expansion of 40 beds. The expected water and sewer flow is 36% of 280 Gallons per day or approximately 100 GPD per bed times 80 beds = 8,000 GPD and 12,000 GPD after the expansion.

2.) Show proposed location of water and sewer taps. If possible, make all taps in Hermosa.

The plans will be revised to show tap locations and the taps will all be in Hermosa street.

CITY DEVELOPMENT ENGINEER

Final Plat

1.) Show easement separation and/or cross-over.

Plat drafting will be revised to show separation and cross over of easements.

2.) Add note as indicated (previous comment!).

Note will be included in revised plat.

3.) On the graphic portion of the plat, indicate beneficiaries of ingress/egress easements.

Beneficiaries will be noted on the revised plat.

4.) Provide a boundary closure print-out (previous comment!).

A print out of the boundary inverse and closure will be provided.

5.) Streets and ROW are not being dedicated by this plat.

6.) The ingress/egress easement may not be adequate. See comment #4 on the Site Plan.

The curb cut and turning radius will be reviewed and revised as required.

7.) Lines to fire hydrants have no easements, and are assumed to be private.

The lines and hydrants are private.

Site Plan

1.) Identify the owners of the irrigation ditch, pipe, and storm drain systems.

The irrigation ditch is owned by the Grand Valley Irrigation District.

The pipe and storm drain within the property will be privately owned by the development.

2.) Maintain positive gravity flow on drain lines.

This was a drafting error. All drains have positive flow. The error will be corrected.

3.) This note appears on several drawings, and yet it is unclear. Please show by contours, cross-section, or both.

The note will be removed and reference will be made to the contours and cross sections.

4.) ...entry off Hermosa...

Entries, drives and all turning radii will be redesigned in accord with comments and the SSID IX-29 criteria.

5.) ...driveway width...

The drive way will be widened, however the present location is preferred.

6.) Check with the Fire Department. Fewer hydrants will probably be acceptable if sprinkling is provided.

Fire hydrant locations will be reviewed.

7.) Midway on Hermosa and at the Hermosa/15th Street intersection, water valves seem to be floating away from the waterline. Please correct.

The referenced valve was field located as shown. The purpose of the valve is unknown to us.

8.) Both irrigation head gate diversion boxes only show a line going one direction. Please show all lines, and the direction of flow.

The required revisions will be included on the revised site plan.

9.) Use a benchmark on the site or on public property. Set one if necessary.

An additional bench mark will be placed on the concrete irrigation structure in the north east corner of the project.

10.) In the future, SSID graphics per Section VIII-E will be enforced; that is, having a distinction between the line weights used for existing and proposed facilities.

Acknowledged.

<u>Grading and Drainage Plan</u> (HILL2DRN)

1.) See Note 3, Site Plan.

The note will be removed and reference will be made to the contours and cross sections.

2.) All details should be on construction drawings. Moreover, page 4 of the calculations provide no additional information anyway.

Drainage study will be revised and details will be added to the construction drawings.

3.) Show sewer line continuation.

Continuation will be shown on revised plan.

4.) Revise drawing per comments on the Site Plan.
Revisions will be included.

5.) See Note 10, Site Plan.

Acknowledged.

6.) Show revised contours in the legend.

Legend will be revised to include 'revised contours'.

7.) BMP's (SSID IX-16, Item 9).

The waste control will be contracted locally with a waste management company.

Grading and Drainage Plan (HILL2DN2)

1.) Revise per comments on other sheets.

Revisions will be made.

2.) Changes required by these comments for this affect the other Grading and Drainage Plan as well.

Required changes will be made on the other plans.

3.) See Note 2, other G&D Plan.

Size will be corrected.

4.) See Note 3, Site Plan.

The note will be removed and reference will be made to the contours and cross sections.

5.) Show ditch flow lines and pipe elevations. Is there a conflict? Where does the ditch go?

Detail will be clarified.

6.) The outlet should be at the basin low point, not necessarily level with the whole basin bottom.

Bottom contour will be revised to provide a low point.

7.) Erosion control?

Most of the water from the driveway enters up stream of this point. Erosion control will be sod.

8.) Valley pan?

There will be very little flow in this location. A valley pan is not required.

9.) Additional grades are required (SSID IX-16, Item 5).

Additional grades will be added to the drawing.

10.) Slopes between grades (SSID, IX-16, Item 6).

Slope between grades will be added.

11.) Entry may require revision. See Site Plan Comment #4.

Entry design will be reviewed.

12.) HC ramp?

Detail will be added to show the HC ramp across the curb & gutter.

13.) What and where is the "existing retention ditch"?

This note will be removed.

14.) ...swale grades...

A pipe or concrete swale will be added.

15.) Correct the elevation reference.

The referenced number is a horizontal dimension.

Detail Sheet

1.) Add elevation information.

Elevations will be added as requested.

2.) Pipe sizes and 10" orifice do not coincide with the Drainage Report.

The drainage report will be corrected.

Landscape Plan

1.) Suggest moving tree away from proposed waterline.

The landscape plan will be revised.

Storm water Management Plan

1.) The plan appears acceptable, but should be incorporated into the construction drawings. Place the revised (as red-lined) third paragraph on the Grading and Drainage Plan. Or, as an alternative, the plans could require that the first facilities constructed be the detention basin and swale along the south side of lot 2. This would also effectively catch runoff sedimentation. Either way, the construction plans must be clear as to procedure. Also, please be aware that prior to the commencement of construction, the City must be furnished a copy of the Colorado Health Department NPDES permit.

Changes and notes will be added as suggested.

Drainage Report

The drainage report will be rewritten to address items 1 through 4

1.) Information is not consistent with plans. The two must match.

2.) "Q_0" values...

3.) Maps show basin areas. For this project, we can get by without it, but normally a map per SSID is required.

4.) Make corrections.

COMMUNITY DEVELOPMENT DEPARTMENT

6.) Outdoor sitting areas should be provided for the residents and employees with good access from the building. The two areas shown for future expansion would be ideal. Sidewalks should be provided on site to enable the residents to access around the site and access the public sidewalks along the streets.

Side walks will be added to the plan.

Regards,

Terry Nichols PE

RESPONSE TO REVIEW COMMENTS

Final Plat - Minor subdivision Hilltop #2
Final Plan - Lot #2 Larchwood Inns (80 bed nursing home)

City Filing #93-93

1. Grand Junction Fire Department
   A. Department access is a clear 20 feet.
   B. Automatic fire alarm and sprinkler system to be provided throughout the building. Fire flow survey will be provided. Complete set of building plans to be provided to the fire department with appropriate contractors working with the Grand Junction Fire Department.

2. City Police Department
   A. Overhead parking lot lighting is to be utilized.
   B. Building exterior lighting to be provided as suggested.
   C. All exterior doors will utilize push bars and locks with only the entry doors accessible to visitors.
   D. Parking is recalculated (See response to staff comments)
   E. Existing trees to stay.

3. Mesa County Planning
   A. City Engineering is requiring access to Lots 3 & 4 at the existing curb cut on Patterson Road only.
   B. Sign design is provided herein.

4. Staff Comments
   A. Sign provided
   B. Appraisal provided
   C. Cross easements to be provided for Lots 3 and 4 with the same having access only on Patterson Road.
   D. Petitioner requests zoning remain PB with uses allowed in the B-1, B-2, and B-3 zoning designation.
   E. Outdoor sitting areas to be provided with a sidewalk as proposed.
   F. Trees to be saved along No. 15th.
   G. Parking is calculated as follows:
      1. 80 bed nursing home, 1 space per each 4 beds = 20 spaces.
      2. Employee parking: 50 total employees with 25 during daytime business hours and the remaining 25 divided equally between two shifts.

The requirement for employee parking is currently under revision.
The old requirement calculates to 16, the new requirement calculates to 25.

Old Requirement
80 beds = 20 parking spaces
Employees = 16 parking spaces
Total Required - 36
Total ~~Required~~ in Plan - 37
Provided
New Requirement
80 beds = 20 parking spaces
Employees = 25 parking spaces
Total Requirement - 45
Total Provided - 37

Additional parking can be provided based upon Planning Commission approval.

H. Petitioner reserves the right to move the South line of Lot #2 plus or minus 25 feet to the south based upon parking requirements and other considerations.

For The Petitioner

Pat Edwards

NISLEY & ASSOCIATES, INC.

Real Estate Appraisers

519 Grand Avenue
Post Office Box 446
Grand Junction, Colorado 81502-0446
Telephone: (303) 242-8076 FAX: (303) 245-8155

August 30, 1993

Mr. Fredrick A. Schumann
653 Larkspur Lane
Grand Junction, Colorado 81506

Dear Mr. Schumann:

Pursuant to your request for a letter of opinion on the land value for the property located at the northwest corner of the intersection of 15th Street with Patterson Road, I have concluded my research and have arrived at an opinion of value. The property is vacant at this time. The function of this appraisal assignment is for the use of the City of Grand Junction to estimate a 5% open space fee which will be required for development of the property. This appraisal assignment would be considered a limited scope assignment, based on the Standards of Professional Appraisal Practice promulgated by the Appraisal Institute. This appraisal assignment is limited in scope to reporting a vacant land value for the property based on current land sales in the area. The appraisal is also limited in scope in reporting neighborhood and area data, and limited to a brief description of the subject property due to the knowledge of the area and the property by the client. The scope of this appraisal includes estimating a vacant land value From available sales data. The land value arrived at in this letter is Market Value, which is defined as follows:

> *"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is consummation of a sale as of a specified date and passing of title from seller to buyer under conditions whereby:*
>
> *Buyer and seller are typically motivated;*
>
> *Both parties are well informed or well advised and each acting in what he considers his own best interest;*
>
> *A reasonable time is allowed for exposure in the open market;*

Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

The price represents a normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

The property rights appraised are the unencumbered fee simple estate rights of ownership, and the effective date of the opinion of value expressed in this letter is as of August 27, 1993. This is the date of inspection of the subject property by Barry U. Sullivan.

I was not provided with a full legal description of the property, however, it is depicted as Parcel B in the accompanying survey of the parcel and would be generally described as Lot 1 of Block 1, Hilltop Subdivision, Section 1, Township 1 South, Range 1 West of the Ute Meridian except the north 289.41 feet of the west 226 feet thereof, and also except road right-of-way on the east as described in Book 1694 at pages 163 and 164 of the Mesa County records.

The subject property is located in the north area of Grand Junction at the northwest intersection of 15th Street with Patterson Road. The property has approximately 516 feet of frontage along Patterson Road, approximately 479 feet of frontage along 15th Street, as well as approximately 400 feet of frontage along Hermosa Avenue. With the exception of Parcel A which is not included in the scope of this appraisal and which is noted in the accompanying survey of the property, the subject property includes a total of approximately 260,662 square feet or 5.98 acres, more or less.

The property at the present time has a zoning designation of PB which allows for Planned Business uses. This zoning designation allows for uses which are included in the B-1, B-2, and B-3 zoning designations on a planned development basis. In general, the allowable uses under this zoning designation provide for a great variety in residential, business, commercial and professional office uses on a planned basis, which would include human care and treatment facilities, cafes and restaurants, a wide variety of retail businesses, as well as medical and professional office uses. Taking into consideration the subject property's close proximity to the two major hospitals in the area, as well as existing elderly care homes in the neighborhood, it would appear that the highest and best use of the property would be for development of an elderly care home or for medical office uses. The demand for these types of uses appears to be the strongest in the area at this time, as evidenced by recent new construction of medical office and elderly care housing in the area.

The property at this time is owned by the Hilltop Foundation, Inc., and the property included within this appraisal is part of Tax Schedule #2945-013-11-002.

There have been few recent sales of large undeveloped parcels which are zoned for Planned Business uses which would be meaningful in the valuation of the property. There have, however, been two recent sales of larger parcels which were zoned for Planned Business uses that are located at the northwest intersection of 1st Street with Patterson Road, approximately 15 blocks west of the subject property. These two sales are discussed below and would be the most recent and most meaningful market data available at this time.

Sale #1

This sale includes a parcel of vacant land located west of the intersection of 1st Street with Patterson Road. This parcel consists of Lot 2 of the Hi Fashion Fabric Subdivision and is now developed with the Hi Fashion Fabric store. The property sold August 13, 1992 with the sale being recorded in Book 1918 at page 705 of the Mesa County Clerk's and Recorder's office records. The parcel included a total of 90,997 square feet or 2.09 acres, more or less. The parties involved were Tomkins to Vogel and the total consideration was $135,000 cash which would break down to $1.48 per square foot. This was a cash transaction. The property at the time of sale was not zoned for Planned Business uses, however, the contract to purchase the parcel was contingent upon obtaining Planned Business zoning for the property. This parcel would have a somewhat inferior location to the subject, as it is not a corner location. However, the property is located on Patterson Road which is a major east/west thoroughfare through the northern portion of Grand Junction and exposes this property to a great deal of vehicular traffic.

In comparing this parcel directly with the subject, an upward adjustment is indicated for the inferior location of this parcel and a negative adjustment is indicated for its smaller size. Adjusting upward 25% for location and downward 10% for size would indicate a value for the subject property at $1.70 per square foot.

Sale #2

This parcel of land is located at the northwest intersection of 1st Street with Patterson Road and is located immediately east of the sale noted above. This parcel included a total area of 225,640 square feet or 5.18 acres, more or less. The parcel was composed of several smaller parcels, however, in confirming this sale with John Caldwell of City Market, it was noted that this was not a factor in negotiating a purchase price. The total consideration paid for the 5.18 acres totalled $714,819.60 which would indicate an overall purchase price of $3.17 per square foot. This was a cash transaction. The parties involved within this sale were Gormley, etal to Dillon Real Estate Company and this sale is recorded in Book 1969 at pages 368 through 370 and occurred on April 15, 1993. This parcel was zoned for Planned Business uses at the time of sale.

This parcel has frontage on two major thoroughfares which would be 1st Street and Patterson Road, and in this respect would have a somewhat better location than the subject. Traffic counts along Patterson Road in the area of this sale, as well as Sale #1 above, are slightly less than those occurring near the subject property, however, traffic counts along 1st Street are much heavier than those experienced along 15th Street at the subject property.

In comparing this sale directly with the subject, negative adjustments would be indicated for the sale's superior location. This sale would be comparable in other respects to the subject property in overall size, topography and availability of utilities. Adjusting downward 25% would indicate a value for the subject property at $2.38 per square foot.

As noted earlier, the above two sales are the most recent and comparable that I could find in the area at this time. The two sales after adjustments indicate a fairly wide range in value for the subject from $1.70 to $2.38 per square foot. It is my understanding that the subject parcel is currently under contract at a price of $460,000, which would break down to $1.76 per square foot. The contract price for the parcel is within the range indicated by the limited market data available although at the lower end of the range. It is therefore my opinion that the current contract price for the subject property is reasonable and consistent with available market data and, in my opinion, the subject property would have a Market Value as of the effective date of the appraisal of $460,000 or $1.76 per square foot.

I trust this is the information that you need. If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

Barry U. Sullivan
Certified General Appraiser
Colorado - #CG01314642

NW CORNER
SE1/4 SW1/4 SW1/4
SEC. 1
T1S, R1W, U.M.

S89°54'36"E 661.16

HERMOSA AVENUE

30'

S89°54'36"E 617.28

226'

10' utility easement

PARCEL "A"

Subject

N00°00'24"W 269.41

10' utility easement

10' utility easement

~~520069 S.F.~~
~~11.93 AC±~~

PARCEL "B"
(SUBJECT)

N89°53'24"W 113.10

Subject

N00°00'24"W 340.00

N00°06'36"E 290.00

10' utility easement

10' utility easement

N89°53'24"W 515.64

50.00

50.00

661.19

112.44

S89°53'24"E 773.63

F (PATTERSON) ROAD

S89°53'24"E 548.74

(BASIS OF BEARINGS)

SW CORNER
SECTION 1
T1S, R1W, U.M.

A=65.95
R=294.30
D=12°50'21"
B=N06°25'00"E
C=65.81
T=33.11

A=88.02
R=324.06
D=15°33'45"
B=N07°47'01"W
C=87.75
T=44.28

A=4.30
R=276.06
D=00°53'33"
B=S15°07'08"E
C=4.30
T=2.15

20' utility and drainage easement

N00°00'09"W 278.67

S00°00'09"E 469.78

N00°00'09"W 659.64

S00°00'09"E 109.85

33.00

15TH STREET

Subject

659.64 N00°00'09"W

NE Corner
SW1/4 Sec. 1
T1S, R1W, U.M.

N40°46'11"W
14.74

A=23.89
R=306.44
D=04°27'58"
B=S10°36'12"W
C=23.88
T=11.95

EXCEPTION
BOOK 1694 PAGE 163

SE CORNER
SW1/4 SW1/4
SECTION 1
T1S, R1W, U.M.

DESCRIPTION

LOT 1,
BLOCK 1,
Hilltop Subdivision,
EXCEPT parcel as conveyed to the City of Grand Junction in deed recorded May 23, 1988, in Book 1694 at Page 163.

Mesa County, Colorado

N

LEGEND & NOTES

- ○ FOUND SURVEY MONUMENTS SET BY OTHERS NO. 5 RE-BAR NO CAP
- ● NO. 5 RE-BAR W/CAP SET IN CONCRETE
- ⊥ LOT CORNERS – NO. 5 RE-BAR W/CAP LS16413 TO BE SET
- ϟ MESA COUNTY BRASS CAP

NOTICE:

ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON

BOUNDARY SURVEY

SITUATED IN SECTION 1, TOWNSHIP 1 SOUTH, RANGE 1 WEST, UTE MERIDIAN

FOR: CURRY	Q.E.D. SURVEYING SYSTEMS Inc. 1018 COLO. AVE. GRAND JUNCTION COLORADO 81501 (303) 241-2370 464-7568	SURVEYED BY: DS SB
		DRAWN BY: MEM
SCALE: 1"N = 50'FT		ACAD ID: ATRIUM
		SHEET NO.
DATE: 2/10/93		FILE: 93025

Adjoining
T.I.S. R.I.W.
2945-024

SCALE — 1" = 100'

Adjoining
T.I.S. R.I.W.
2945-122

Adjoining
T.I.S. R.I.W.
2945-01

T. I S. R.I.W. SEC. 1 S
2945-013

ROAD

27

OPEN & USED ROAD

S 89°50' E 990'

RD. R.O.W. B-1502 P-291 14.5

NELLIE BECHTEL GARDENS

LOT 1

CHURCH

BONITO AVE.

EAGLETON STREET

HERMOSA AVE.

SUBDIVISION

FAIRMOUNT STREET

F-114 ROAD

DRAIN DITCH

VAC R.O.W. PER B-1158 P-485

B B B SUBDIVISION

FAIRMONT SUBDIVISION

HILLTOP SUBDIVISION

"TREEHAVEN SUBDIVISION"

(LOWELL LANE) ROAD

Subject

Subject

Subject

HILLTOP FOUNDATION

ALLEY

VACATED ROAD

R.O.W. B-1536 P-712

R.O.W. B-1536 P-29 thru 30

R.O.W. B-1536 P-453

R.O.W. B-1536 P-465,466

R.O.W. B-1536 P-465,464

R.O.W. B-1536 P-908,907

ROW B-1472 P-232/235

R.O.W. B-1438 P-844

R.O.W. B-1582 P-324,326

ROAD R.O.W. B-1106 P-146

R.O.W. B-1555 P-314 & 319

R.O.W. B-1867 P-286 & 287

ROAD R.O.W. B-1022 P-96
B-1536 P-675 thru P-678

ROAD R.O.W. B-1022 P-93

ROAD R.O.W. B-1080 P-668

HIGHEST AND BEST USE DEFINITION

That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal.

Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value.

The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use.

Implied within this definition is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value), another appropriate term to reflect highest and best use would be most probable use. In the context of investment value, an alternative term would be most profitable use.

(Taken from "Real Estate Appraisal Terminology" - The American Institute of Real Estate Appraisers)

BARRY U. SULLIVAN
Summary of Experience and Qualifications

EDUCATION:

Western State College, Gunnison, Colorado
2 years, Major - Biology

American Institute of Real Estate Appraisers
1979 - Course VIII - Residential Valuation
1980 - Real Estate Appraisal Principles
1980 - Basic Valuation Procedures
1980 - Capitalization Theory and Techniques-Part 1
1981 - Capitalization Theory and Techniques-Part 2
1981 - Capitalization Theory and Techniques - Part 3
1982 - Case Studies in Real Estate Valuation
1982 - Valuation Analysis and Report Writing
1988 - Appraiser and Eminent Domain Litigation Seminar
1988 - Standards of Professional Practice

PROFESSIONAL AFFILIATIONS:

1987 - American Institute of Real Estate Appraisers
Candidate - MAI Designation

1991 - State of Colorado
Certified General Appraiser - #CGO1314642

BACKGROUND AND EXPERIENCE:

Smith Tool Company, Grand Junction - Purchasing
August, 1976 through March, 1979

Bill Schilling, Appraiser - Research Work
April, 1979 through June, 1979

Nisley & Associates, Inc. - Research Work and Fee Appraiser
July, 1979 through Present

Qualified Expert Witness
Mesa County District Court, Grand Junction, Co.
Jefferson County District Court, Golden, Co.
Denver County District Court, Denver, Co.
Garfield County District Court, Glenwood Springs, Co.
United States Bankruptcy Court, District of Colorado

TYPES OF WORK DONE:

Farms
Residential - Single Family and Multi-family
Commercial - Office, Retail and Warehouse Properties
Condominiums
Vacant Land
Condemnation - Right of way and Easement Acquisitions

Barry U. Sullivan - Qualifications - Continued

AREAS WORKED IN: (Counties)

Montrose, Delta, Moffat, Rio Blanco, Mesa, Garfield, Gunnison, Routt, Eagle, Grand, San Miguel

PURPOSE OF APPRAISALS:

Acquisition
Mortgage
Sales
Tax Purposes
Development

CONTINGENT AND LIMITING CONDITIONS

The certification of the Appraiser appearing in this appraisal report is subject to the following conditions and to such other specific and limiting conditions as are set forth by the Appraiser in this report.

1. The Appraiser assumes no responsibility for matters of a legal nature affecting the property appraised or the title thereto, nor does the Appraiser render any opinion as to the title, which is assumed to be good and marketable. The property is appraised as though under responsible ownership.

2. The sketches and/or maps in this report are included to assist the reader in visualizing the property, and the Appraiser assumes no responsibility for their accuracy. The Appraiser has made no survey of the property.

3. The Appraiser is not required to give testimony or appear in court because of having made this appraisal, with reference to the property in question, unless arrangements have been previously made therefor.

4. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. The separate valuations for land and building must not be used in conjunction with any other appraisal and are invalid if so used.

5. The Appraiser assumes that there are no hidden or unapparent conditions of the property, subsoil, or structures which would render it more or less valuable. The Appraiser assumes no responsibility for such conditions or for engineering which might be required to discover such factors.

6. Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of substances such as asbestos, urea-formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimate is predicated on the assumption that there is no such condition on or in the property or in such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

(Contingent and Limiting Conditions - Continued)

7. Information, estimates and opinions furnished to the Appraiser and contained in this report were obtained from sources considered reliable and believed to be true and correct. However, no responsibility for accuracy of such items furnished the Appraiser can be assumed by the Appraiser.

8. On all appraisals, subject to satisfactory completion, repairs or alterations, the appraisal report and value conclusion are contingent upon completion of the improvements in a workmanlike manner.

9. It is assumed that all improvements, either existing or proposed, meet all local building codes in force at the time of construction or modification, that satisfactory inspections are completed as required, and a Certificate of Occupancy issued (in all jurisdictions where required).

10. The appraiser is not an engineer and accepts no responsibility for structural and/or mechanical defects which would not be reasonably apparent in the scope of an Appraiser's normal inspection of the subject improvements or to a typical prudent purchaser.

11. The liability of Nisley & Associates, Inc. and its employees or Appraisers associated with Nisley & Associates on an Independent Contractor status is limited to the client only and to the fee actually received by the Appraiser. Further, there is no obligation, accountability or liability to any third party. Any damages incurred by the use of or reliance on this appraisal report by the client is without warranty or liability except for the amount of the fee paid to the Appraiser.

12. The by-laws and regulations of the Appraisal Institute requires each member and candidate to control the use and distribution of each appraisal report signed by such member or candidate. Therefore, except as hereinafter provided, the party for whom this appraisal report was prepared may distribute copies of this appraisal report, in its entirety, to such third parties as may be selected by the party for whom this appraisal report was prepared, however, portions of this appraisal report shall not be given to third parties without the prior written consent of the signatories of this appraisal report. Further, neither all nor any part of this appraisal report shall be disseminated to the general public by use of advertising media, public relations media, news media, sales media, or other media for public communication without the prior written consent of the signatories of this appraisal report.

13. THE ACCEPTANCE OF AND/OR USE OF THIS APPRAISAL REPORT BY THE CLIENT OR ANY THIRD PARTY CONSTITUTES ACCEPTANCE OF THESE THIRTEEN NUMBERED LIMITED CONDITIONS AND ASSUMPTIONS.

CERTIFICATION

The undersigned does hereby certify that, to the best of my knowledge and belief, and except as otherwise noted in this appraisal report:

1. The statements of fact contained in this report are true and correct.

2. The reported analysis, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal unbiased professional analysis, opinions, and conclusion.

3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

4. My compensation is not contingent on an action or event resulting from the analysis, opinions, or conclusions in, or the use of this report.

5. My analysis, opinions and conclusions were developed, and this report has been prepared in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the Appraisal Institute.

6. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

7. I have made a personal inspection of the property that is the subject of this report.

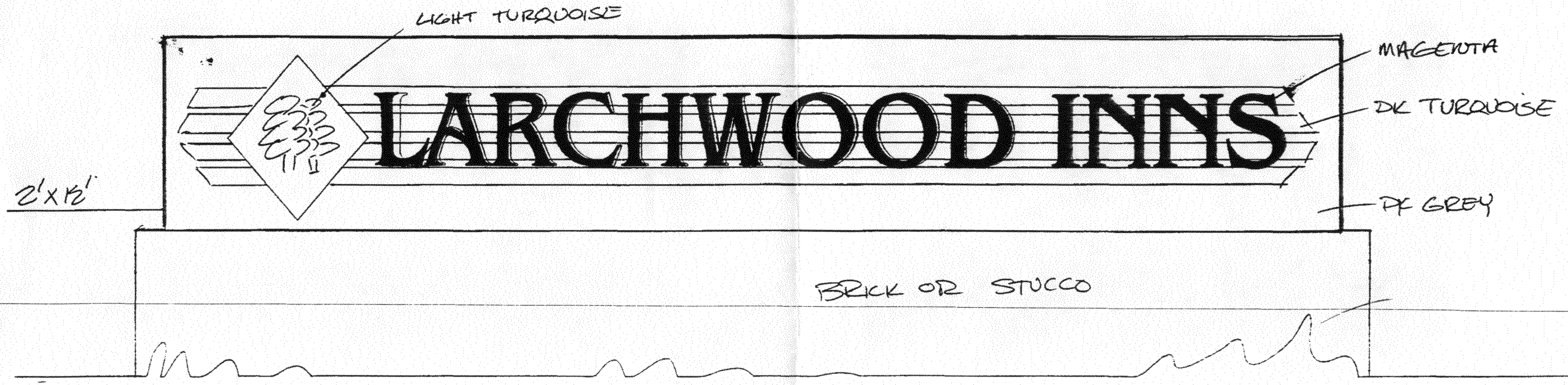
8. No one provided significant professional assistance to the person(s) signing this report.

9. I do not authorize the use of my name or the name of my firm for publicity in connection with any effort to market the appraised property. I do not authorize any out of context quoting from or partial reprinting of this report for public dissemination.

10. The confidentiality of the appraiser-client relationship will be protected.

Certified General Appraiser
Colorado - #CG01314642

TO: PAT EDWARDS



To: Kathyp
Cc: Donh
From: Tim Woodmansee
Subject: Open Space Appraisal
Date: 9/02/93 Time: 1:26p

I've reviewed the open space appraisal for the property at the northwest corner of 15th & Patterson and find the appraiser's opinion of value to be acceptable.

STAFF REVIEW

FILE: #93-93

DATE: September 2, 1993

STAFF: Kathy Portner

REQUEST: Final Plat for Hilltop Minor Subdivision No. 2 and Final Development Plan for lot 2, Larchwood Inns

LOCATION: Northwest corner of 15th Street and Patterson Road

APPLICANT: Fredrick Schumann/Pat Edwards

EXISTING LAND USE: Undeveloped and Hilltop's Files Center

PROPOSED LAND USE: Skilled nursing facility on lot 2

SURROUNDING LAND USE:

NORTH:	Residential
SOUTH:	Residential
EAST:	Residential
WEST:	Residential and Office

EXISTING ZONING: Planned Business (PB)

PROPOSED ZONING: Planned Business (PB)

SURROUNDING ZONING:

NORTH:	RSF-8 (Residential Single Family, 8 units per acre)
SOUTH:	RSF-8
EAST:	RSF-8
WEST:	RSF-8 and PB

RELATIONSHIP TO COMPREHENSIVE PLAN:

This area is not specifically addressed in the Patterson Road Corridor Guidelines.

STAFF ANALYSIS:

The proposal is for a 4 lot minor subdivision on 7.48 acres on the northwest corner of Patterson Road and 15th Street and a final plan on the proposed lot 2. The property is zoned Planned Business (PB) and was originally proposed as the site for Hilltop Rehabilitation

Hospital. Lot 1 is developed with Hilltop's Files Center. The proposal for lot 2 is a skilled nursing facility. There are no development plans for lots 3 and 4 at this time.

The proposed final plan for lot 2 is a single level 80 bed nursing home with a total of 50 employees (25 during daytime business hours and the remaining 25 divided equally between two shifts). The parking requirement is 1 space per each 4 beds plus 1 space per each employee per shift under the existing Code and 1 space per employee on the largest shift under the proposed text amendment that has received final approval by the City Council but is not yet effective. Therefore, the parking requirement under the current code is 37 and under the proposed amendment is 45. Staff recommends the additional 8 spaces be provided to reduce the likelihood of employees or visitors parking on-street.

The existing site is not big enough to accommodate the future expansion wings shown on the plan and the required additional parking and still retain sufficient open space and landscaping. The petitioner has agreed to provide outdoor sitting areas with good access from the building and to provide sidewalks on-site to enable the residents to access around the site and access the public sidewalks along the streets. The landscaping as proposed is adequate and will retain the mature Cottonwood trees along 15th Street.

The petitioner is proposing 2' x 12' monument style sign with a brick or stucco base. Staff must approve the location of the sign.

The Open Space fee to be paid to the City is 2.5% of the appraised land value of $460,000 for a total of $11,500. That fee must be paid prior to recording the plat.

The approval of the PB zone on this site did not include a list of approved uses for the zone, only the hospital use was approved. Staff feels that the proposed nursing home facility is appropriate and recommends that a list of approved uses for lots 3 and 4 be considered at this time. The most appropriate uses would be those that are allowed or require Special or Conditional Use Permits in the B-1 (limited business) zone as listed in the Use/Zone Matrix of the Zoning and Development Code. Any approved uses would still require planned development review and approval by the Planning Commission.

All technical review comments have been addressed or will be incorporated into the final construction drawings to be approved by City staff.

STAFF RECOMMENDATION:

Approved Uses for lots 3 and 4

Staff recommends the approved uses for lots 3 and 4 be those uses that are allowed or allowed by a Conditional Use Permit or Special Use Permit as listed in the Use/Zone Matrix of the Zoning and Development Code. (Planning Commission action on this will be a recommendation to City Council because the uses should be tied to the zoning).

Final Plat

Staff recommends approval of the final plat for 4 lots with the following conditions:

1. A notation on the plat must be included indicating access for lots 3 and 4 must be a shared access point at the designated ingress/egress easement.

2. The ingress/egress easement on lot 1 must be reconfigured to meet minimum turning radius standards.

3. Open Space fees of $11,500 must be paid prior to recording the plat.

4. Require a 14' front lot line utility easement along Hermosa Avenue and along Patterson Road. Also require a 14' utility easement west of the "Exception as described in Book 1694, page 163 and 164 of Mesa County Records".

Final Plan

Staff recommends approval of the final plan for lot 2 with the following conditions:

1. All entries, drives and turning radii be redesigned to meet standards.

2. All construction drawings incorporate the changes as noted in the response to review comments dated August 24, 1993.

3. The drainage report be reconciled with all associated drawings.

4. The revised plan include outdoor sitting areas accessible from the building and on-site sidewalks be provided for access around the site and access to the public sidewalks along the streets.

5. The future expansion wings as shown on the site plan dated 8/10/93 not be a part of this approval.

6. The plant investment fee for sewer service as calculated by the City Utility Engineer must be paid prior to issuance of a sewer clearance for construction. The PIF based on the information provided in the petitioners response to comments is $21,600.

September 7, 1993

Ms. Kathy Portner
Planning Department
City of Grand Junction
559 White Avenue
Grand Junction, CO 81501

RE: Staff Review and Recommendations dated September 2, 1993, File #93-93
Larchwood Inns Hilltop #2 Minor Subdivision

Dear Ms. Portner:

With the exception of the two following items, the petitioner concurs with your analysis and recommendations referenced above.

1. Approved Uses for Lots 3 & 4

The subject property was zoned Planned Business for a Rehabilitation Hospital in l983. Since that date the subject property has remained zoned PB without a plan. The subject property was contracted for by the petitioner based upon a zoning designation of Planned Business without a plan. The subject property is being sold by Hilltop on the same basis. An appraisal for open space fees has been provided on the basis that the zoning is Planned Business. Open space fees in the corrected amount of $16,725 are requested based upon the provided appraisal. To date no notice of zoning recision has been received by the petitioner or Hilltop. Your own staff review referenced above indicates no corridor guidelines or comprehensive plan address the subject area. The petitioner & Hilltop therefore, request that the subject property including Lots 1, 2, 3 & 4 remain Planned Business, that Lots 3 & 4 remain zoned Planned Business without a plan, with the understanding that proposed uses for Lots 3 & 4 are subject to Planning Commission review (i.e., public hearing).

2. Item #5 Final Plan regarding future expansion.

Provided herewith is a "sample" revised parking plan demonstrating lot coverage by structures, parking and paved areas, and open space. Those numbers are duplicated here for discussion purposes.

80 Bed Nursing Home
Building area 30,518 square feet
Parking area 29,350 square feet
Open space 81,331 square feet
Total Site 141,199 square feet

57% open landscaped area

120 Bed Nursing Home
Building area 36,384 square feet
Parking area 38,609 square feet
Open space 66,206 square feet
Total Site 141,199 square feet

46% open landscaped area

The additional parking for the 40 bed expansion is calculated as follows:

a. 5 additional employees with 3 on the largest shift, 40 beds - 4 = 10 + 3 + 1 additional handicap space.

b. Total parking would be 59, i.e., 45 spaces for the 80 bed home and 14 additional spaces for the 40 bed expansion.

The following lot coverages by structure are provided

80 bed nursing home - 21%
120 bed nursing home - 25%

Per the zoning and development code, lot coverages in RSF to B-3 zones range from 25% in the RSF zone to 60% in the B-3 zone. The minimum landscape area in the B-1 & B-2 zones is 10% in the RMF 16 zone the minimum is 10%, and 15% in the RMF 64 zone. Based upon the percentage of lot coverage, the percentage of landscaped open space, etc. it appears the site is more than adequate to accommodate the 80 bed nursing home and a 40 bed expansion.

Therefore, the petitioner hereby requests final approval of the 80 bed nursing home and conceptual approval of the 40 bed expansion with the provision that plans, i.e. parking, drainage, landscaping, etc., for the 40 bed expansion would be submitted for staff review and approval.

3. Small outdoor patio areas can be provided in the areas indicated on the enclosed "sample" parking plan. Said areas are to be accessed via existing day seating areas within the proposed facility. In the event the expansions are constructed, the day seating areas will be relocated in the expansion wings allowing continued access to the patio areas from the day seating area.

Sincerely,

Pat Edwards
For The Petitioner

STAFF REVIEW

FILE: #93-93

DATE: September 7, 1993

STAFF: Kathy Portner

REQUEST: Final Plat for Hilltop Minor Subdivision No. 2 and Final Development Plan for lot 2, Larchwood Inns

LOCATION: Northwest corner of 15th Street and Patterson Road

APPLICANT: Fredrick Schumann/Pat Edwards

EXISTING LAND USE: Undeveloped and Hilltop's Files Center

PROPOSED LAND USE: Skilled nursing facility on lot 2

SURROUNDING LAND USE:

NORTH: Residential
SOUTH: Residential
EAST: Residential
WEST: Residential and Office

EXISTING ZONING: Planned Business (PB)

PROPOSED ZONING: Planned Business (PB)

SURROUNDING ZONING:

NORTH: RSF-8 (Residential Single Family, 8 units per acre)
SOUTH: RSF-8
EAST: RSF-8
WEST: RSF-8 and PB

RELATIONSHIP TO COMPREHENSIVE PLAN:

This area is not specifically addressed in the Patterson Road Corridor Guidelines.

STAFF ANALYSIS:

The proposal is for a 4 lot minor subdivision on 7.48 acres on the northwest corner of Patterson Road and 15th Street and a final plan on the proposed lot 2. The property is zoned Planned Business (PB) and was originally proposed as the site for Hilltop Rehabilitation

STAFF RECOMMENDATION:

Approved Uses for lots 3 and 4 in the B-1 zone

Staff recommends the approved uses for lots 3 and 4 be those uses that are allowed or allowed by a Conditional Use Permit or Special Use Permit as listed in the Use/Zone Matrix of the Zoning and Development Code. (Planning Commission action on this will be a recommendation to City Council because the uses should be tied to the zoning).

Final Plat

Staff recommends approval of the final plat for 4 lots with the following conditions:

1. A notation on the plat must be included indicating access for lots 3 and 4 must be a shared access point at the designated ingress/egress easement.

2. The ingress/egress easement on lot 1 must be reconfigured to meet minimum turning radius standards.

3. Open Space fees of $16,725 (5% of value of lots 3 and 4; 2.5% of value of lot 2) must be paid prior to recording the plat.

4. Require a 14' front lot line utility easement along Hermosa Avenue and along Patterson Road. Also require a 14' utility easement west of the "Exception as described in Book 1694, page 163 and 164 of Mesa County Records".

Final Plan

Staff recommends approval of the final plan for lot 2 with the following conditions:

1. All entries, drives and turning radii be redesigned to meet standards.

2. All construction drawings incorporate the changes as noted in the response to review comments dated August 24, 1993.

3. The drainage report be reconciled with all associated drawings.

4. Eight additional parking spaces be provided on-site for Phase I (80 bed facility), the location of which to be reviewed and approved by staff.

5. The revised plan include outdoor sitting areas accessible from the building and on-site sidewalks be provided for access around the site and access to the public sidewalks along the streets.

Hospital. Lot 1 is developed with Hilltop's Files Center. The proposal for lot 2 is a skilled nursing facility. There are no development plans for lots 3 and 4 at this time.

The proposed final plan for lot 2 is a single level 80 bed nursing home with a total of 50 employees (25 during daytime business hours and the remaining 25 divided equally between two shifts). The parking requirement is 1 space per each 4 beds plus 1 space per each employee per shift under the existing Code and 1 space per employee on the largest shift under the proposed text amendment that has received final approval by the City Council but is not yet effective. Therefore, the parking requirement under the current code is 37 and under the proposed amendment is 45. Staff recommends the additional 8 spaces be provided to reduce the likelihood of employees or visitors parking on-street.

The petitioner has agreed to provide outdoor sitting areas with good access from the building and to provide sidewalks on-site to enable the residents to access around the site and access the public sidewalks along the streets. The landscaping as proposed is adequate and will retain the mature Cottonwood trees along 15th Street.

The petitioner is proposing 2' x 12' monument style sign with a brick or stucco base. Staff must approve the location of the sign.

for lot 2 95% of Lots 3 & 4

The Open Space fee to be paid to the City is 2.5% of the appraised land value of $460,000 for a total of ~~$11,500.~~ $16,725 That fee must be paid prior to recording the plat.

The approval of the PB zone on this site did not include a list of approved uses for the zone, only the hospital use was approved. Staff feels that the proposed nursing home facility is appropriate and recommends that a list of approved uses for lots 3 and 4 be considered at this time. The most appropriate uses would be those that are allowed or require Special or Conditional Use Permits in the B-1 (limited business) zone as listed in the Use/Zone Matrix of the Zoning and Development Code. Any approved uses would still require planned development review and approval by the Planning Commission.

All technical review comments have been addressed or will be incorporated into the final construction drawings to be approved by City staff.

Additional Staff Comments based on discussions with the petitioner

The petitioner would like approval of the project with the two wings shown as future expansion areas. The proposed site plan does not show the additional parking that would be needed for the expansion. The two wings would add another 40 beds (20 beds each) and 5 employees, 3 of which would be on the largest shift. The additional parking that would be required is 13 spaces. They proposed to add a patio area on the west side of the north wing and the east side of the south wing to be accessed from the internal "day rooms" in each of those wings. The landscaping would remain essentially as proposed. They would like to add the additional parking needed for the future expansion, as well as the additional 8 spaces needed for Phase I, in the turf area on the corner of 15th and Hermosa. The design of that area for parking could be reviewed and approved at the staff level.

6. The future expansion wings be revised to be the north and south wings with outdoor sitting areas to be provided off of the proposed "day rooms" in each of those wings. The approval of the expansion wings is contingent on 13 additional parking spaces being provided on-site, the location of which to be reviewed and approved by staff.

7. The plant investment fee for sewer service as calculated by the City Utility Engineer must be paid prior to issuance of a sewer clearance for construction. The PIF based on the information provided in the petitioners response to comments is $21,600.

8. The final construction drawings as they pertain to the existing irrigation line along Hermosa must be reviewed and approved by Grand Valley Water Users.

CITY OF GRAND JUNCTION DEVELOPMENT FILE 93-93, HILLTOP MINOR SUBDIVISION NO.2 LOCATED AT THE NORTHWEST CORNER OF 15TH STREET AND PATTERSON ROAD, IN THE CITY OF GRAND JUNCTION HAS BEEN REVIEWED AND APPROVED BY THE UTILITY COORDINATING COMMITTEE.

CHAIRMAN John L. Ballagh

DATE Sep 8, 1993

COUNCIL — Pat Edwards would like an opportunity to convince you that the uses, as listed in the ordinance, are too restrictive — th should be left open, in his vie as was deemed acceptable by the Planning Commission. He feels that all on Council may not have appreciated the distinctions.

Please let me know if you think his request has merit; if so, w could schedule this for the 1st meeting in November at which time yo would be asked to adopt the Commissio view.

Dave call me. 243-0456 Thanks Pat

October 12, 1993

Councilman

Grand Junction, CO 81502

RE: Request for reconsideration on Ordinance #2706 (specifying uses on Lots 3 & 4 Hilltop Subdivision #2 located on the northwest of 15th & Patterson Road)

C: MkA
LarryT
JohnS

Dave

Dear Councilman

This request for reconsideration of the above referenced ordinance is based upon the misunderstanding that the ordinance was written based upon planning staff recommendation and not upon planning commission's recommendation to Council. In order for Council to support planning commission's recommendation, a no (negative) vote would have been required. Neither the petitioner nor myself were aware of the exact wording of the Ordinance until after the final Council vote on the Ordinance was taken on October 6, 1993. It certainly did not appear that Council discussed the issue to a degree generally perceived to overturn planning commission's recommendation.

I enclose minutes from the September 7, 1993, planning commission meeting for your review in this matter.

Sincerely,

Pat Edwards
For the Petitioner

3) #93-93 FINAL PLAT MINOR SUBDIVISION & FINAL PLAN - LARCHWOOD INNS

Request for approval of the Final Plat of a 4 lot Minor Subdivision on 7.5 acres and approval of the Final Plan for Larchwood Inns, an 80 bed skilled nursing facility proposed for Lot 2 (3.24 acres). The property is located at the NW corner of 15th and Patterson with a zoning of Planned Business.
PETITIONER: Fredric Schumann
REPRESENTATIVE: Pat Edwards
LOCATION: NW corner of 15th Street & Patterson Road

STAFF PRESENTATION

Kathy Portner gave an overview of the proposal. She said that the property was zoned Planned Business and was originally planned for Hilltop Rehabilitation Hospital. Currently Lot 1 contains Hilltop File Center. The proposed final plan is for Lot 2. Petitioner would also like to have two expansion wings approved that would add an additional 40 beds to the facility. She said that petitioner had agreed to provide outdoor sitting areas and that the proposed landscaping was adequate. The Open Space fee was to be 2.5% for Lot 2 and 5% for Lots 3 and 4, for a total fee of $16,725.

Kathy Portner said that approval of the Planned Business zone did not include a list of approved uses for the zone. Staff felt that a list of approved uses for Lots 3 and 4 should be required by the Commission.

Kathy Portner said that 13 additional parking places would be needed for the future expansion wings and that petitioner had proposed a location for the additional parking that could be reviewed and approved at the staff level.

Staff recommended that the approved uses for Lots 3 and 4 be those uses that are allowed or allowed by a Conditional Use Permit or Special Use Permit in the B-1 zone as listed in the Use/Zone Matrix of the Zoning and Development Code. This would need to be a recommendation to City Council.

Staff recommended approval of the final plat for 4 lots with the following conditions:

1. A notation on the plat must be included indicating access for Lots 3 and 4 must be a shared access point at the designated ingress/egress easement.

2. The ingress/egress easement on Lot 1 must be reconfigured to meet minimum turning radius standards.

3. Open Space fees of $16,725 must be paid prior to recording the plat.

4. Require a 14' front lot line utility easement along Hermosa Avenue and along Patterson Road. Also require a 14' utility easement west of the "Exception as described in Book 1694, page 163 and 164 of Mesa County Records."

Staff recommended approval of the final plan for Lot 2 with the following conditions:

1. All entries, drives and turning radii be redesigned to meet standards.

2. All construction drawings incorporate the changes as noted in the response to review comments dated August 24, 1993.

3. The drainage report be reconciled with all associated drawings.

4. Eight additional parking spaces be provided on-site for Phase I (80 bed facility), the location of which to be reviewed and approved by Staff.

5. The revised plan include outdoor sitting areas accessible from the building and on-site sidewalks be provided for access around the site and access to the public sidewalks along the street.

6. The future expansion wings be revised to be the north and south wings with outdoor sitting areas to be provided off of the proposed "day rooms" in each of those wings. The approval of the expansion wings is contingent on 13 additional parking spaces being provided on-site, the location of which to be reviewed and approved by Staff.

7. The Plant Investment Fee for sewer service as calculated by the City Utility Engineer must be paid prior to issuance of a sewer clearance for construction. The PIF based on the information provided in the petitioner's response to comments is $21,600.

8. The final construction drawings as they pertain to the existing irrigation line along Hermosa must be reviewed and approved by Grand Valley Water Users.

PETITIONER'S PRESENTATION

Pat Edwards, representative for petitioner, said the project will utilize shared access with the curb cuts that service the File Center Building. He discussed the proposed future expansion wings and outdoor seating areas. He said petitioner was in concurrence with staff

recommendations and comments except for the recommendation concerning specific uses for Lots 3 and 4.

Pat Edwards said that the property was zoned in 1983 for the Hilltop Rehabilitation Hospital. That plan for the hospital lapsed but the zoning remained in place. He said that the property "was zoned Planned Business without a plan." He said that Staff acknowledges that there are "no specific corridor guidelines or no comprehensive plan that effects this particular area of the property." He said that petitioner felt it was unreasonable for staff to limit uses for Lots 3 and 4 to B1. Petitioner felt that a compromise would be to agree that whatever use is eventually proposed for Lots 3 and 4 would be subject to Planning Commission review and public hearing. Pat Edwards said that he didn't feel there was any provision in the Zoning and Development Code that allowed staff to make a recommendation to limit usage to a B1 zone.

PUBLIC COMMENT

Dennis Stahl, 676 26-1/2 Road, spoke in favor of the proposal. He said that Hilltop acquired the property over 10 years ago for future development of a new facility, but only a File Center was built. Hilltop supported the idea of maintaining the Planned Business zoning and coming before the Commission when and if Lots 3 and 4 were developed. He said that "times change" and he did not wish the zoning to be limited.

No one came forward to speak in opposition to the proposal.

QUESTIONS/DISCUSSION

Chairman Elmer asked Pat Edwards what was discussed in the neighborhood meeting that petitioner held. Mr. Edwards said that an architectural rendering was presented showing the height of the building, there was discussion concerning the continued use of the File Center, and discussion concerning possible uses of Lots 3 and 4.

Commissioner Anderson said that, concerning Lots 3 and 4, it bothered him to give a final plat on something "that I know nothing about." He asked John Shaver if approving Lot 2 would have any bearing on Lots 3 and 4.

John Shaver said that they would remain Planned Business. He said that the platting process itself had no bearing on the zoning. He said the problem is "that you have a planned zone without a plan." That problem has been "subject to debate by legal scholars for decades as to whether or not that is appropriate. Can a planned zone exist without a plan?" He said it could be argued that such a situation violates the nature of what a planned zone is. The plan exists because the zone exists and vice-versa. When the plan lapses and the zoning is not

reverted, then there is an expectation that the zoning will continue. Mr. Shaver said that either Staff's recommendation for a listing of uses or petitioner's idea to come back for review at a later date would probably both be legally acceptable.

Chairman Elmer said that the main difference between B1 and B2 zoning was the allowance of service/retail uses.

Commissioner Volkmann asked if there was any type of "automatic reversion" of zoning.

John Shaver responded "unfortunately not." He said it would have to go through a reversionary process because once the zone is in place then there are legitimate expectations and "detrimental reliance." He said that there is not an automatic default zone.

Chairman Elmer said that there was no way of knowing what petitioner would propose in the future. John Shaver pointed out that if nothing was done in terms of recommended uses, the situation would not get worse. He said that it was simply deferring the problem until a later date.

Chairman Elmer asked if the landscaping plan had been approved and Kathy Portner replied that it had been.

Commissioner Anderson asked if the percentage amount of landscaping would change with the addition of the extra parking spaces. Kathy Portner said that there would be less turf area.

Chairman Elmer asked if petitioner had shown the expansion wings at the neighborhood meeting and Pat Edwards replied that he had.

MOTION: **(Commissioner Anderson) "Mr. Chairman, on Item #93-93, Final Plat for Hilltop Subdivision, I move that we approve this subject to Staff recommendations and, further, that before any development of Lots 3 and 4 occurs, that development will be contingent upon acceptance by the Planning Commission of that plan; and that a list of uses not be specified at this time."**

Kathy Portner felt that there was perhaps too much information in the motion and she said that the recommendation to City Council would only be on the list of uses for Lots 3 and 4.

AMENDED MOTION: **(Commissioner Anderson) "Mr. Chairman, on Item #93-93, Final Plat for Hilltop Subdivision #2, I move that we approve the request for the final development plan for Lot 2 subject to staff recommendations."**

The motion was seconded by Commissioner Seese.

A vote was called, and the motion passed unanimously by a vote of 5-0.

MOTION: **(Commissioner Volkmann) "Mr. Chairman, on Item #93-93, Final Plat for Hilltop Minor Subdivision #2, I move that we approve this request subject to staff recommendations."**

The motion was seconded by Commissioner Laiche.

A vote was called, and the motion passed unanimously by a vote of 5-0.

MOTION: **(Commissioner Anderson) "Mr. Chairman, on Item #93-93, I move that we forward this to City Council with a recommendation for approval, and that a list of uses not be specified for Lots 3 and 4 at this point."**

The motion was seconded by Commissioner Volkmann.

A vote was called, and the motion passed unanimously by a vote of 5-0.

Chairman Elmer said that he wanted it noted in the record that Staff had recommended limiting uses on Lots 3 and 4.

~~V. PUBLIC HEARING ON ITEMS FOR RECOMMENDATION TO CITY COUNCIL~~

1. ~~#25-93 REZONE AND FINAL PLAN/PLAT - V.O.A. ELDERLY HOUSING~~
   A request to change the zoning of a property from B-2 & P (Neighborhood Business and Parking) to PR-43.8 (Planned Residential with a density of 43.8 units per acres) and approval of a final plan/plat.
   PETITIONER: Volunteers of America, Inc.
   REPRESENTATIVE: Lantz-Boggio Architects, Inc.
   LOCATION: NW corner of 1st Street and Independent Avenue

Kathy P.

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

November 22, 1993

Pat Edwards
Coldwell Bankers/Homeowners Realty
2499 Hwy 6 & 50
Grand Junction, CO 81505

Re: October 20, 1993 Letter

Dear Mr. ~~Edwards~~ Pat:

As I had mentioned to you previously, I have solicited Council member's thoughts on whether or not they were willing to revisit the decision made at the public hearing.

I conclude in the absence of expressed support, that there is no Council interest in revisiting the question.

Assuming that my assumptions are correct, i.e. that Council is not eager to rehear the matter, your best option may be to either accept the zoning as it is or to talk with the City's planners concerning a reapplication for a rezone of the property.

I will be pleased to speak with you in more detail if you desire.

Very truly,

Dan E. Wilson
City Attorney

NICHOLS ASSOCIATES, INC.
751 Horizon Court, Suite #102
P.O. Box 60010
Grand Junction, Colorado 81506

23-Nov-1993

CITY OF GRAND JUNCTION
GRAND JUNCTION, COLORADO

Ladies and Gentlemen:

Please find enclosed a drainage study report for the proposed Larch Wood Inns.

This report was prepared by me for use as a part of the submittal package for the Hilltop Two Minor Subdivision.

A detention facility is designed with a two stage outlet to limit storm water discharge to the 2 year and 100 year historic levels.

I hereby certify that this report was prepared by me.

Terry Nichols
Registered Professional Engineer.
State of Colorado, Number 12093

LARCH WOOD INNS DRAINAGE REPORT

23-Nov-1993

I. General Location and Description

The Larch Wood Inns project is located in the city of Grand Junction, Colorado.

The property is bounded on the north by Hermosa Street, bounded on the south by Patterson Road, bounded on the east by 15th street, and bounded on the west by a small drainage ditch which drains the developed properties lying to the west. These streets and the drainage ditch intercept all of the site drainage.

II. Existing Drainage Conditions

The present ground cover consists of grasses and alfalfa. The surface soil type is predominantly medium silt. The field is surface irrigated using furrows running from east to west. Storm drainage discharges through the irrigation furrows to the existing drain ditch on the west side then south through the drain ditch to Patterson Road where the water enters an existing city storm drain.

III. Proposed Drainage Conditions

As shown on the grading and drainage plan, the site will be developed to include a large retirement home and paved parking area. The building floor elevation will be such that drainage is away from the building in all directions.

There will be a detention facility in the southwest corner of the property. The service drive and the parking area along with grass swales will convey the storm water to the detention facility.

The detention facility includes a two-stage controlled outlet and a 10 inch overflow outlet. Also, if the sod berm forming the pond is ever topped, it is designed to channel the flow into the existing drain ditch at the southwest corner of the pond.

The 2 year and 100 year control outlets consist of 6 inch PVC pipes fitted with a PVC cap which has a hole drilled to the correct orifice diameter. The ends of the pipes and the caps are to be fitted with PVC boxes and trash grates.

The 10 inch overflow terminates in a similar manner except that it does not include a cap and restrictive orifice.

The 10 inch PVC pipe runs south from the detention pond to Patterson Road where it connects to an existing storm drain.

An emergency spillway overflows in to the existing drain ditch.

Drawing 1. Site Drainage Plan.

Drawing 2. Detention Facility Details.

The required detention volume to limit discharge to historic levels are 3,703 CF for the 2 year frequency storm and 8,508 CF for the 100 year frequency storm.

Reference APPENDIX Page 2A

A depth capacity curve has been developed for the proposed detention pond. The curve indicates that a pond depth of 2.1 feet will provide the required 2 year volume, and a pond depth of 3.5 feet will exceed the storage volume requirements for the 100 year storm. The 2 year historic orifice at the bottom of the pond should be a 4.45 inch diameter hole in the discharge pipe end cap. This orifice should be set to drain the pond to the 4666.00 elevation.

The 100 year historic orifice box and grate is set at elevation 4668.0 feet with 0.1 feet allowed for weir head over the grate. This elevation allows 2.1 feet of depth for the 2 year detention. The cap for this outlet should be drilled with a 4.77 inch orifice. This orifice, in combination with the 2 year orifice, will pass the 100 year historic storm when the pond surface elevation reaches 4669.5 feet. At this elevation, a storm inlet structure allows overflow directly to the 10 inch diameter PVC discharge pipe. In the event of clogging or storms greater than the 100 year event, the sod berm will be over toped at elevation 4669.8 and will flow directly into the existing drain ditch.

VI. References

Interim Outline of Grading and Drainage Criteria, City of Grand Junction, July 1992

Submittal Standards for Improvements and Development (SSID) Draft; City of Grand Junction; March 1993

Civil Engineering Handbook Fourth Edition; by Urquhart

Mesa County Storm Drainage Criteria Manual; Adopted April 14, 1992

VII. Appendices Table of Contents

IV. Design Criteria & Approach

Design rainfall intensities are taken from the Interim Outline of Grading and Drainage Criteria, City of Grand Junction, 1 July 1992. The time of concentration for each basin is calculated using a combination of overland flow, shallow concentrated sheet flow, and channel flow travel time.

The following formula is used to calculate overland sheet flow:

$t_c = 1.8(1.1-C)\,(L^{1/2})/100S)^{1/3}$

where:

t_c= time of concentration in minutes;
C= runoff coefficient;
L= length of basin in feet; and
S= slope of the basin in feet/feet.

The intensity is taken from APPENDIX A of the Interim Outline Of Grading And Drainage Criteria.

For on site development, the peak runoff discharges are calculated using the rational formula:

$Q = CiA$

where:

Q= peak runoff rate in cubic feet per second (CFS);
C= runoff coefficient representing a ratio of peak runoff to average rainfall intensity for a duration equal to the runoff time of concentration;
i= average rainfall intensity in inches per hour; and
A= drainage area in acres

Results and Conclusions

Reference APPENDIX Page 1:

The historic 2 year and 100 year runoff quantities are 0.80 CFS and 2.04 CFS respectively. The calculated discharge after construction is 2.26 CFS for the 2 year storm and 6.76 CFS for the 100 year storm. The net increase in runoff is 1.47 CFS for the 2 year storm and 4.72 CFS for the 100 year storm.

Reference APPENDIX Page 2:

PTARMIGAN RIDGE NORTH - Drainage Study

CALCULATION OF INCREASE IN DISCHARGE DUE TO PROPOSED CONSTRUCTION

After Construction {Area - Intensity - Discharge}

												2-Yr	100-Yr
					Weighted Runoff Coefficient (C) After Development=							0.60	0.70
BASIN	LENGTH Reach A FEET	SLOPE (S) PERCENT	RUNOFF COEF. C	BASIN TIME MIN.	LENGTH FT.	VELOCITY FT./SEC.	GUTTER TIME MIN.	TOTAL TIME Tc MIN.	INTENSITY Inches/Hour		AREA Acres	DISCHARGE CFS (Q=CiA)	
Lot 1	180	1.4	0.3	17.2					2-Yr	100-Yr	A	2-Yr	100-Yr
				Reach B - Across Service Drive	20.0	1.0	0.3						
				Reach C - Service drive gutter	250.0	2.0	2.1	19.6	1.11	2.84	3.40	2.26	6.76

Historic - For 3.24 Ac. development area

BASIN	LENGTH (L) FEET	SLOPE (S) PERCENT	RUNOFF COEF. C	BASIN TIME MIN.	MAX. TRAVEL FT.	TRAVEL VELOCITY FT./SEC.	TRAVEL TIME MIN.	TOTAL TIME Tc MIN.	INTENSITY Inches		AREA Acres	DISCHARGE CFS (Q=CiA)	
									2-Yr	100-Yr	A	2-Yr	100-Yr
Lot 1	360	1.4	0.30	24.4	400	0.50	13.33	37.8	0.78	2.00	3.40	0.80	2.04
										TOTAL:	3.40	0.80	2.04
										NET INCREASE:		1.47	4.72

Required Detention Volume = Vs

From City of Grand Junction Grading & Drainage Criteria page 23

2 year storm detention volume

A	3.40
Qo	0.650
Td2	36.39
Id2	0.78
Qd	2.12
K	2.89
V	**3,703 Cu Ft**

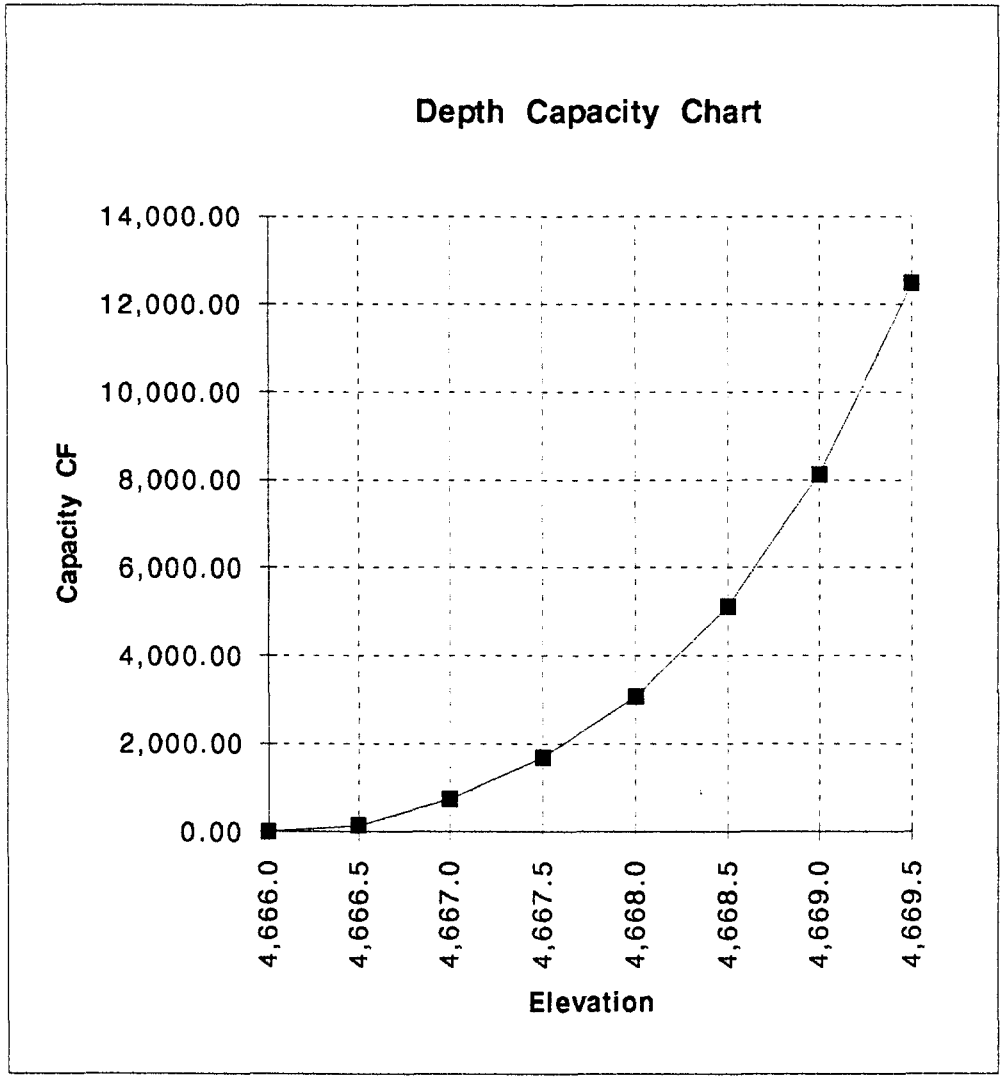
100 year storm detention volume

A	3.40
Qo	1.20
Td100	22.98
Id100	2.44
Qd	6.63
K	2.89
V	**8,508 Cu Ft**

DETENTION POND DEPTH-CAPACITY CURVE

Volume = [An+An+1+(An*An+1)^.5]*h/3

Contour Elevation Ft.	Closed Area Ft. Sq.	Volume Cu. Ft.	Accumulated Volume Cu. Ft.
4,666.0	0.00	0.00	0.00
4,666.5	800.00	133.33	133.33
4,667.0	1,750.00	622.20	755.54
4,667.5	2,000.00	936.80	1,692.34
4,668.0	3,600.00	1,380.55	3,072.89
4,668.5	4,632.00	2,052.59	5,125.48
4,669.0	7,465.00	2,996.22	8,121.69
4,669.5	10,000.00	4,350.84	12,472.53



DETENTION POND OUTLET ORIFICE CALCULATIONS

ORIFICE FORMULA:

Orifice flow formula: $Q=CA(2gH)^{.5}$

Where:

Q=Orifice flow in CFS

C=Coefficient

g=Gravitational constant

H=Height of water above the orifice opening in feet

D=Orfice diameter

Subscripts:

h = Historic flow

2 = Two year storm

100 = One hundred year storm

t = Top orifice

b = Bottom orifice

T = total

Bottom orifice

The bottom orifice must pass the historic 2 Yr storm

Storage depth above lower orifice = 2.00

Q2= 0.80

C= 0.65

g= 32.20

Hb= 2.00

A= Q/C(2gH)^.5

= 0.11

D= 0.37057 4.45 Inches

Qo= 0.6496

Top orifice

The bottom & top orifices must pass the historic 100 Yr storm

Storage depth above top orifice = 2.00

C= 0.65

Ht= 2.0

Bottom orifice $Q=CA(2gH)^{.5}$ where H = Hb + Ht

Q= 1.13

Top orifice Q= Qh100 - Q bottom orifice

Q= 0.91

A= Q/C(2gH)^.5

= 0.12

D= 0.40 4.77 Inches

Capacity For Pipe Storm Drainage

Storm Drain Location	Pipe Diameter Inches	Slope Feet/Feet	Rough. Coeff. n	Capacity Q CFS	Required Q CFS
Pond to Patterson	10	0.0242	0.013	3.40	2.04

NICHOLS ASSOCIATES, INC.
751 Horizon Court, Suite #102
P.O. Box 60010
Grand Junction, Colorado 81506

LARCH WOOD INN
Storm Water Management Plan

23-Nov-1993

The Larch Wood Inn site is small (3.4 acres) with no off-site drainage entering the property.

The entrances to the property are at the high sides, and the site drains naturally to the south and west.

Prior to other construction, a 1.5 foot high berm should be constructed and maintained along the west side of the property during construction of other facilities until the detention basin and swales are graded, to prevent runoff into the existing drain ditch. Any storm drainage leaving the site during construction should be collected along the south boundary of the site and put into the existing surface irrigation ditch and distributed to the furrows in the existing alfalfa and grass hay field. The field will privide adequate detention and filtration of sand and soil from the construction storm water. After crossing the hay field, the water will enter the existing waste water ditch.

This report was prepared by:

Terry Nichols PE No. 12093

GRAND VALLEY WATER USERS ASSOCIATION

GRAND VALLEY PROJECT, COLORADO

500 South Tenth Street (303) 242-5065 FAX (303) 243-4871
GRAND JUNCTION, COLORADO 81501-3740

January 6, 1994

Community Development Department
250 North 5th Street
Grand Junction, CO 81501

Attn: Kathy Portner

Ladies/Gentlemen:

Enclosed herewith is a copy of Larchwood Inns Grading and Drainage Plan last revised 12/29/93. Grand Valley Water Users Association accepts such plan as it pertains to its interests and facilities, based on the understanding that the easement highlighted thereon, will exist as drawn and that the location of existing facilities shown to be within said easement is accurate.

Subject to the above comments, such plan is hereby approved by Grand Valley Water Users Association.

Thank you for the opportunity to review and consider this plan.

Sincerely

G. W. Klapwyk
Manager

DATE 1-6-94

☐ ~~$15.00~~ - Office nc
☐ $35.00 - Site Evaluation

DIVISION OF ENVIRONMENTAL HEALTH

MESA COUNTY HEALTH DEPARTMENT

515 Patterson Road, P.O. Box 20,000-5033, Grand Junction, CO 81502-5033 (303) 248-6960

Address 2840 N 15th Street, Grand Junction, CO Zip 81501

Re: Larchwood Inns

Comments: We have no objection to the proposed facility. State of Colorado has given approval

Submit To:
Building Department ___
Other ___

Clearance
Approved ___
Denied ___

Sanitarian

Fee $ 0

Receipt # 0

Date/Initials 1.6.94 / KH

No. ___

MCHD: WW5 (4-92)

file in Larchwood/ Hilltop Manor
(#93-93?)

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

June 8, 1994

Mr. Terry Nichols, P.E.
Nichols and Associates Inc.
751 Horizon Court
Grand Junction, CO

RE: Larchwood Inns

Dear Terry:

I visited the Larchwood site today at the request of Bob Horineck to look at the detention pond constructed for this project. Apparently the owner would like a release from the improvements agreement for the construction of the detention facility.

Before we can release funds from the improvements agreement, I need to have as-built drawings of the grading and drainage. This includes a volume certification of the pond as shown on the attached checklists for as-built drawings.

While I was there, Bob mentioned the possibility of eliminating the concrete drainage pan shown on the approved plans and on the revised plans you brought by last month. I have attached a copy of page 16 of the city's Interim Outline of Grading and Drainage Criteria. Table 1 outlines the allowable channel flows for unlined channels. In looking through the drainage report for this project, I could not find a calculation for the flow in the channel. If you would submit calculations of the anticipated 100 year flow in the channel and they fall within the allowable range for unlined channels, then approval for elimination of the concrete pan will be granted.

If I can answer any questions, please don't hesitate to call.

Sincerely,

Jody Kliska

Jody Kliska
Development Engineer

cc: Kathy Portner

Grand Junction Community Development Department
Planning • Zoning • Code Enforcement
250 North Fifth Street
Grand Junction, Colorado 81501-2668
(303) 244-1430 FAX (303) 244-1599

September 21, 1994

Dr. Fredrick Shumann
P.O. Box 2931
Grand Junction, CO 81502

Dear Dr. Shumann:

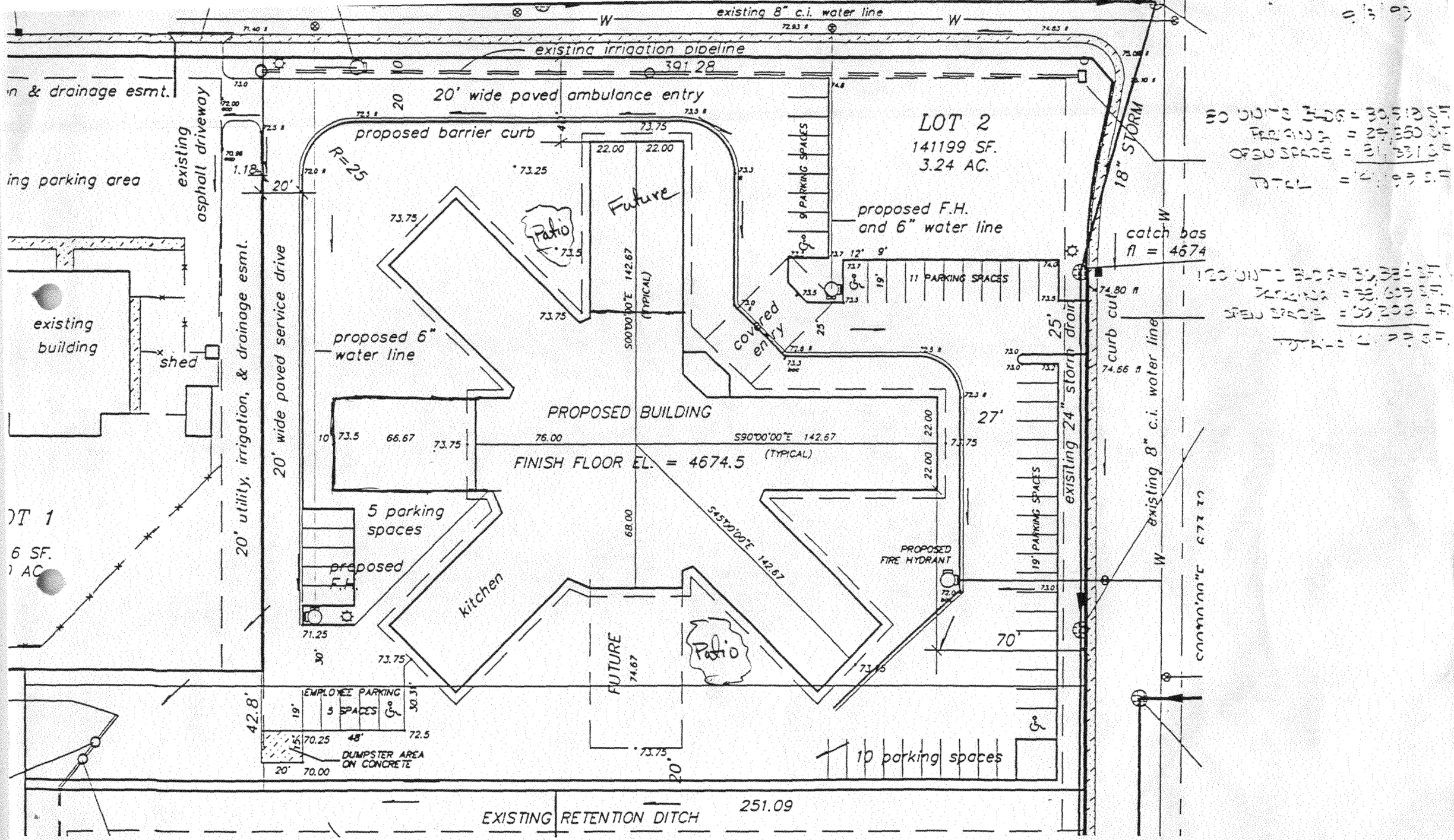
I just did the final inspection of the landscaping for Larchwood Inns and found all the required site improvements to be completed. I have submitted a request for the release of the money you had deposited with the City as a guarantee for the improvements. A check will be processed and mailed to you on September 30th.

I'd like to take this opportunity to commend you on the completion of Larchwood Inns. The facility looks great and is truly an asset to the area. I enjoyed working with you on this project.

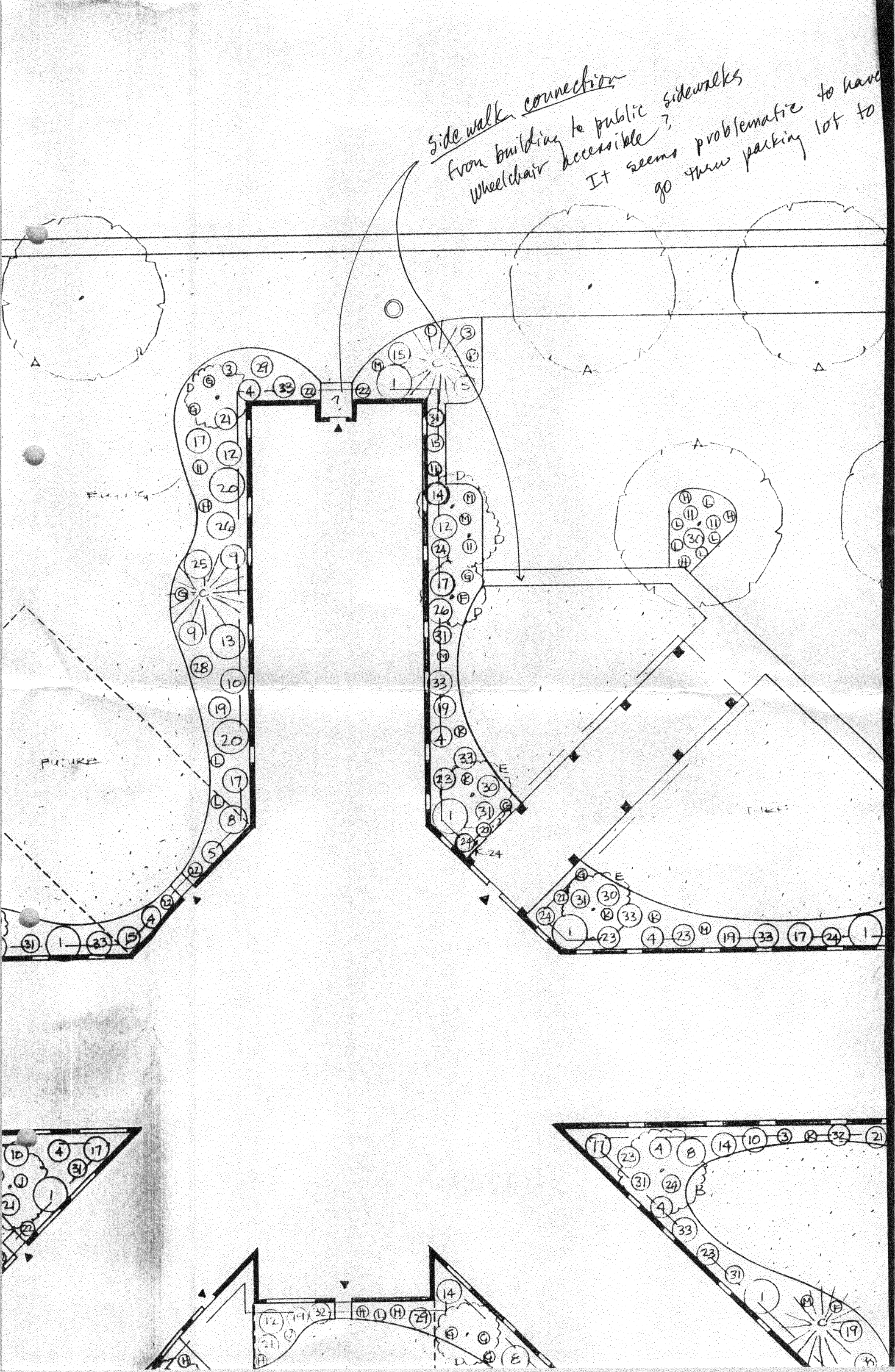
Sincerely,

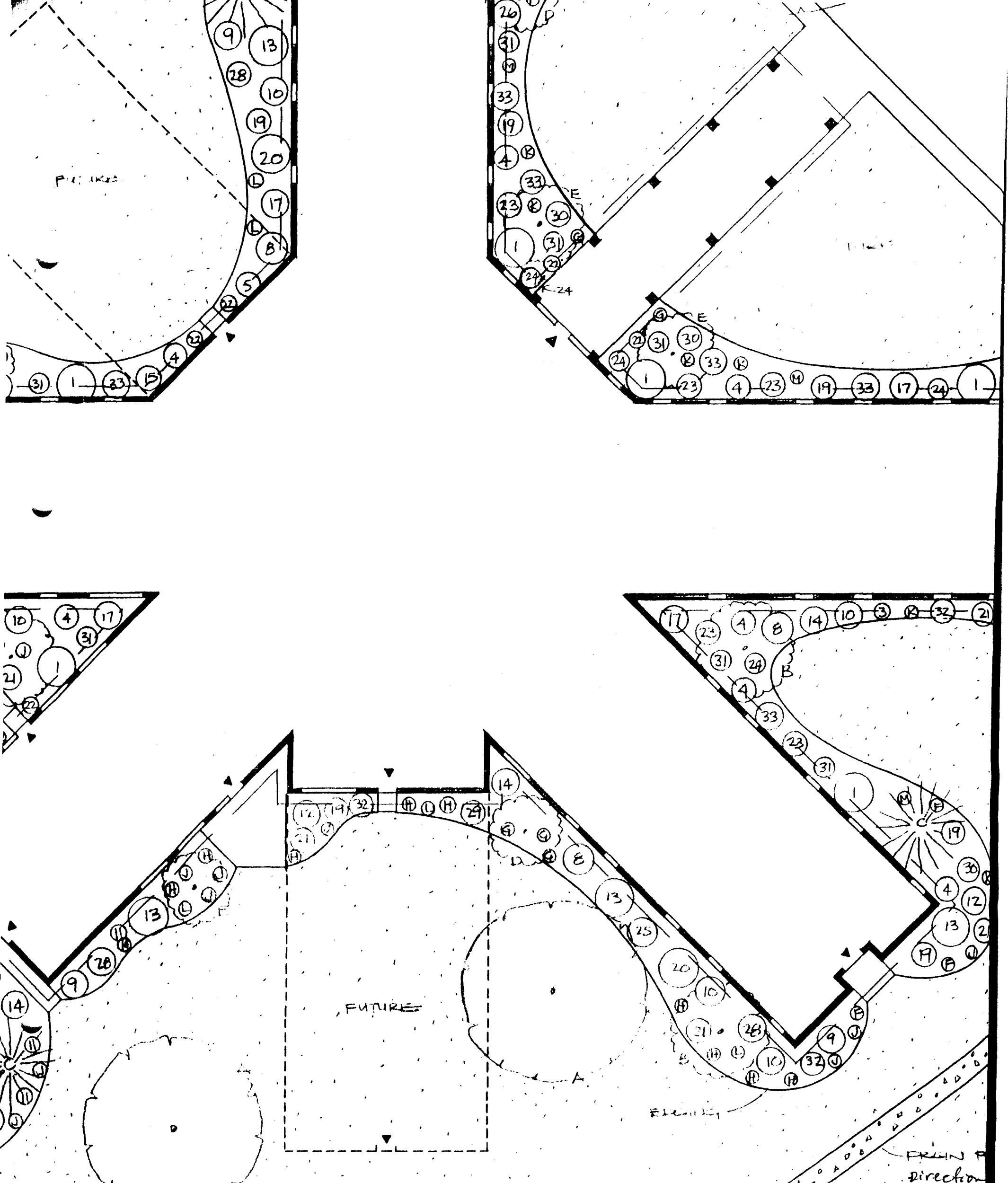
Kathy

Katherine M. Portner
Planning Supervisor


existing 8" c.i. water line
existing irrigation pipeline
20' wide paved ambulance entry
proposed barrier curb
LOT 2
141199 SF.
3.24 AC.
proposed F.H.
and 6" water line
9 PARKING SPACES
11 PARKING SPACES
19' PARKING SPACES
existing asphalt driveway
20' wide paved service drive
20' utility, irrigation, & drainage esmt.
existing building
shed
proposed 6" water line
PROPOSED BUILDING
FINISH FLOOR EL. = 4674.5
Future
Patio
covered entry
kitchen
5 parking spaces
proposed F.H.
PROPOSED FIRE HYDRANT
existing 24" storm drain
18" STORM
catch bas
fl = 4674
curb cut
existing 8" c.i. water line
EMPLOYEE PARKING
5 SPACES
DUMPSTER AREA ON CONCRETE
10 parking spaces
EXISTING RETENTION DITCH
251.09
S90°00'00"E 142.67 (TYPICAL)
S00°00'00"E 142.67 (TYPICAL)
S45°00'00"E 142.67
76.00
68.00
66.67
42.8'
70'
27'
25'
20'

sidewalk connection
from building to public sidewalks
wheelchair accessible?
It seems problematic to have
go thru parking lot to





Plant Selection is Great.

PLANTING PLAN

LARCHWOOD INNS

Arcieri Associates

Landscape Architecture & Planning

604 25 Road Grand Junction, Colorado 81505 • (303) 243-4145 FAX (303) 242-1894

American Society of Landscape Architects

PLANTING PLAN

LARCHWOOD INS

Does this drain parking lot?

could there be a sidewalk connection to 15th street sidewalk from building sidewalk

Future Landscape?

Make sure an area at least equal in size to the landscape area on northern side is designated ~~[illegible]~~ to provide similar buffer between parking and sidewalk. Use similar plants?

TURF

TURF

Direction of slope to drain?

North

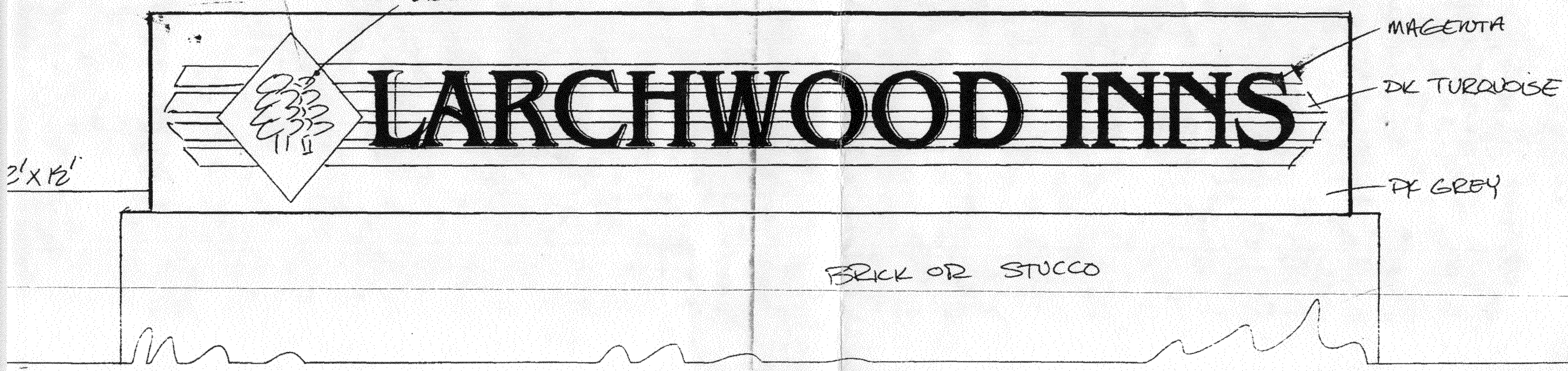
1" = 20'
Scale

12/6/93
Date Issued

Date Revised

Sheet

TO: PAT EDWARDS



2'x12'

END

#93 93

ZONED
R 2 F – 8

HERMOSA AVENUE
30' HALF R.O.W.

existing catch basin
flowline elev. = 4670.36
N 5406.27
E 4469.14

existing Manhole
Rim elev = 4675.52
N 5423.43
E 4997.02

PROPOSED ENTRY

existing 4' sidewalk

existing 15" storm sewer line

S89°54'36"E 661.16

existing water line

existing 8" san. sewer line

existing 8" c.i. water line

existing Manhole
Rim elev = 4675.65
N 5420.91
E 5005.25

226.00

10' utility, irrigation & drainage esmt.

15' wide paved ambulance entry

391.26

R=20

existing parking area

asphalt driveway

existing building

shed

10' utility esmt.

N00°00'04"W 289.41

S00°00'04"E 289.49

20' utility, irrigation, & drainage esmt.

15' wide paved service drive

LOT 1
65416 SF.
1.50 AC.

utility, irrigation, & drainage easement

N89°53'24"W 113.10

S89°53'24"E 112.90

N00°00'04"W 659.41

utility, irrigation, & drainage easement

56.35

LOT 2
141199 SF.
3.24 AC.

curb cut

18" STORM

EXISTING ENTRY

existing Manhole
Rim elev = 4674.33
N 5123.78
E 4971.44

PROPOSED BUILDING

FINISH FLOOR EL. = 4672.5

FUTURE

kitchen

FUTURE

existing 24" storm

existing 8" c.i. water line

BENCH MARK
TOP CONCRETE
NW CORNER FRONT
PORCH. ELEV. 4676.24

S00°00'09"E 673.32

existing water line

existing sewer line

existing Manhole
Rim elev = 4674.00
N 5092.13
E 4999.27

N90°00'00"W 502.16

251.09

251.09

LOT 4
58781 SF.
1.35 AC.

LOT 3
60673 SF.
1.39 AC.

N00°00'00"E 234.14

233.65

existing storm sewer

261.54

264.10

curb cut

sewer line

S89°53'24"E 661.18

15 TH STREET

F ROAD (PATTERSON) 50' HALF R.O.W.

ZONED
R 2 F – 8

ZONED
P R 16.2

ZONED
R S F – 8

N

INSERT: SCALE 1"IN = 2000'FT

AREA SUMMARY

LOTS = 7.48 ACRES = 100%

EXISTING MANHOLE
WATER LINE
PROPOSED LIGHT
PROPOSED FIRE HYDRANT
EXISTING CATCH BASIN
EXISTING UTILITY PEDESTAL
EXISTING IRRIGATION STAND PIPE
HANDICAP PARKING SPACE

UTILITY VENDORS

Water	Ute water
Gas	Public service
Electricity	Public Service or Grand Valley Rural Power
Sewer	City of Grand Junction
Telephone	U. S. West
Cable T.V.	United Cable

LARCHWOOD INNS

SITE PLAN

SITUATED IN SECTION 1, TOWNSHIP 1 SOUTH, RANGE 1 WEST, UTE MERIDIAN

FOR: SCHUMAN	Q.E.D. SURVEYING SYSTEMS Inc. 1018 COLO. AVE. GRAND JUNCTION COLORADO 81501 (303) 241-2370 464-7568	SURVEYED BY: DS SB
SCALE: 1"IN = 50'FT		DRAWN BY: MEM
DATE: 7/30/93		ACAD ID: HILLSIT
		SHEET NO.
		FILE: 93208

IX-85 14-93

HERMOSA AVENUE

EXISTING SERVICE DRIVE

SERVICE DRIVE

COVERED DRIVE

PARKING
45 SPACES

FUTURE 20 BED WING

COVERED WALK

FUTURE PARKING

FUTURE PARKING
14 SPACES

PROPOSED
60 BED NURSING FACILITY

KITCHEN

PATIO

FUTURE 20 BED WING

EMPLOYEE PARKING
8 SPACES

15th STREET

Concept Plan for revised parking - reviewed & approved for detailed revised drawings will be based on this design.
KP 10/12/93

SITE PLAN

SCALE : 1" = 20'

CHILDERS
ARCHITECTS • PLANNERS • CONSULTANT
PO BOX 9409 FORT SMITH, ARKANSAS 72913-5409 (501) 783-2480

60 BED FACILITY

GRAND JUNCTION HEALTH CENTER

Grand Junction Colorado

Contents
SITE PLAN "A"

Revisions

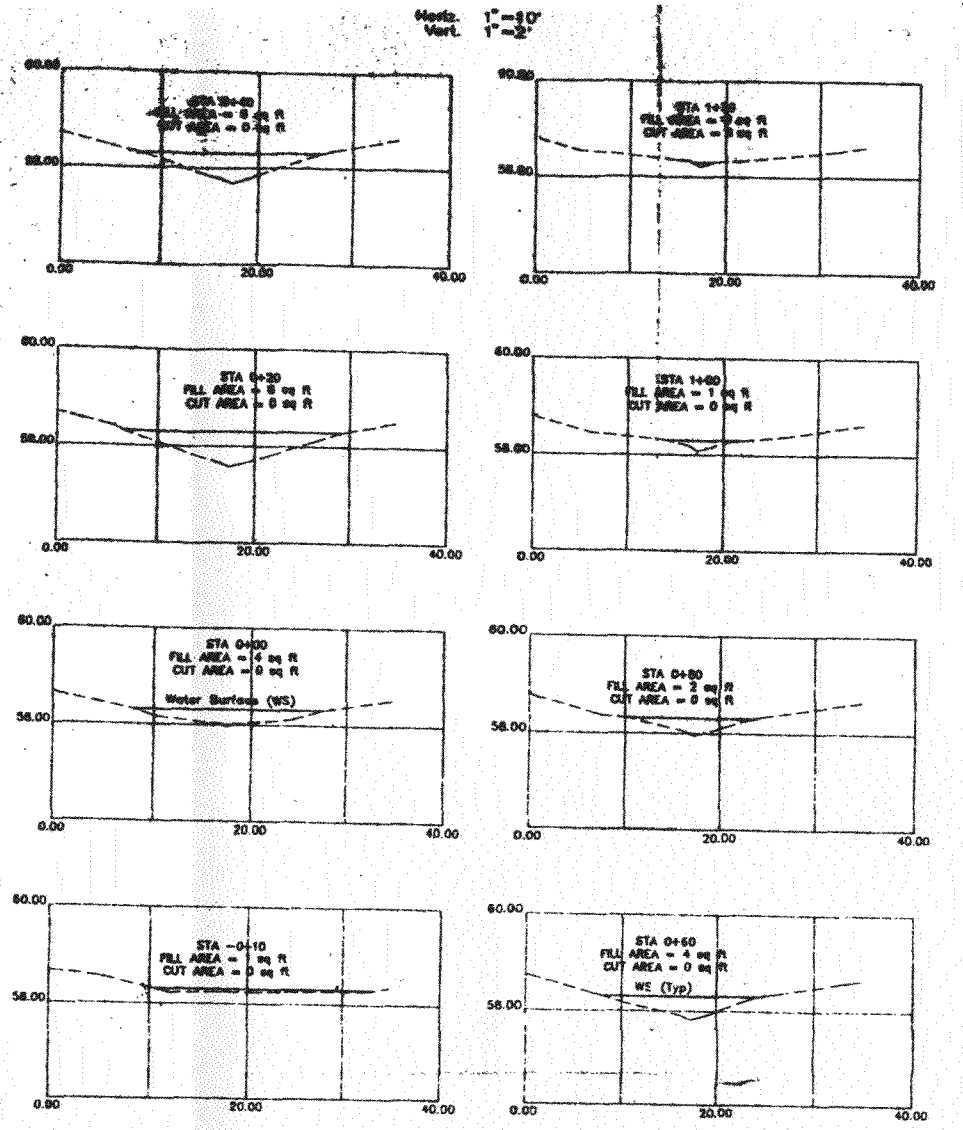
Plan Number
9X-XX

Date
SEPTEMBER 17, 1993

Sheet Number

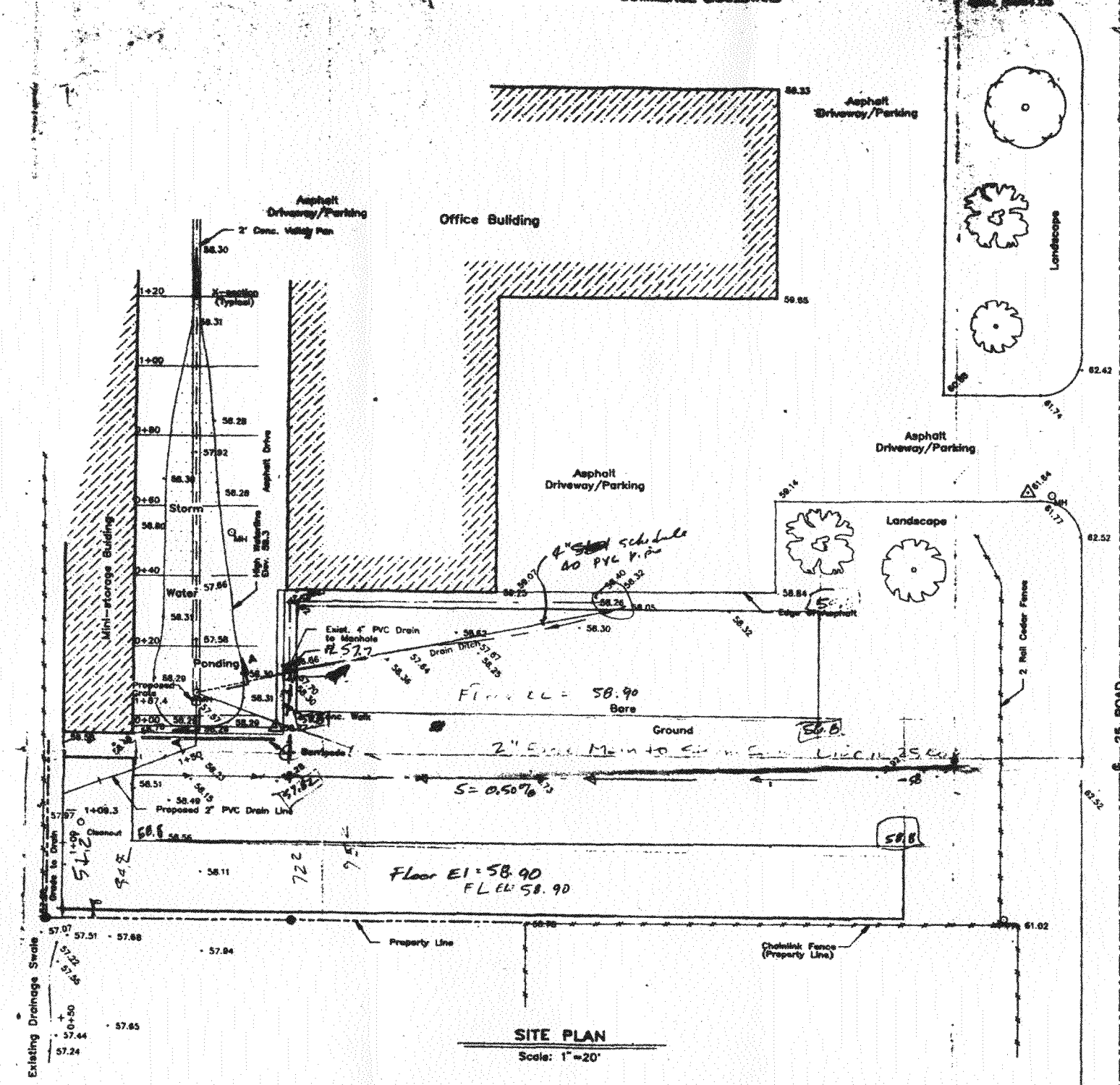
1994-0042

Horiz. 1"=10'
Vert. 1"=2'



POND VOLUME

STATION	AREAS in SQ FT		VOLUMES in CU YDS	
	CUT	FILL	CUT	FILL
-0+10	0	1	0	1
0+00	0	4	0	4
0+20	0	6	0	5
0+40	0	6	0	4
0+60	0	4	0	2
0+80	0	2	0	1
1+00	0	1	0	0
1+20	0	0	0	17



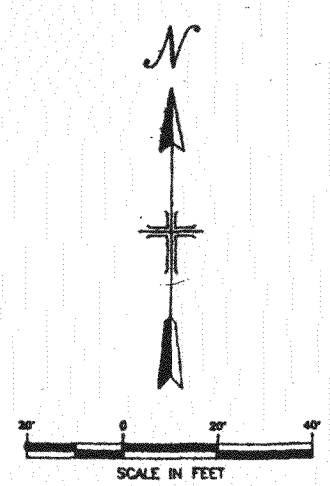
SITE PLAN
Scale: 1"=20'

PREPARED FOR:
BILL HEAD

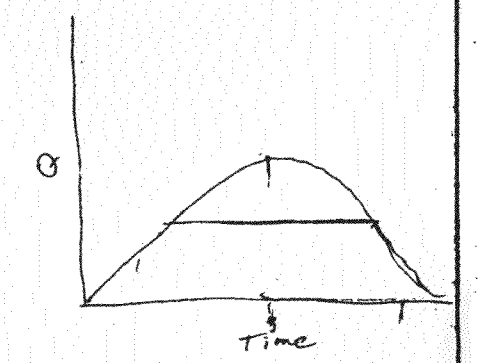
DRAINAGE SKETCH PLAN

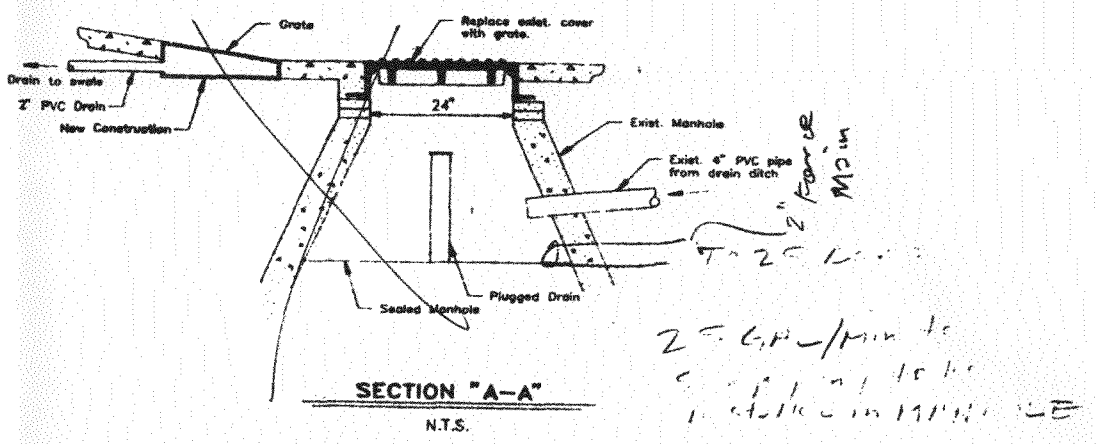
590 - 25 ROAD
GRAND JUNCTION, COLORADO

SURVEYED	R.A.M.	DRAWN	mg	DESIGNED	R.A.M.
DATE	11/10/92	JOB SHEET NO.		3331	

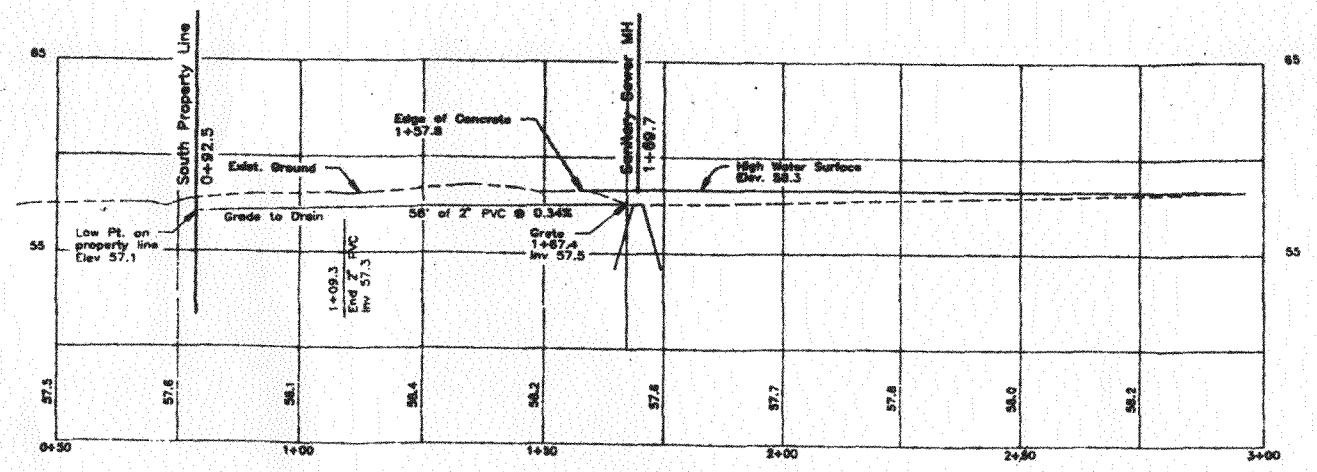


LEGEND
- Mesa County Survey Monument
- Survey Conrtrol Point
- Property Line
- Manhole
- Power Pole
- Chainlink Fence

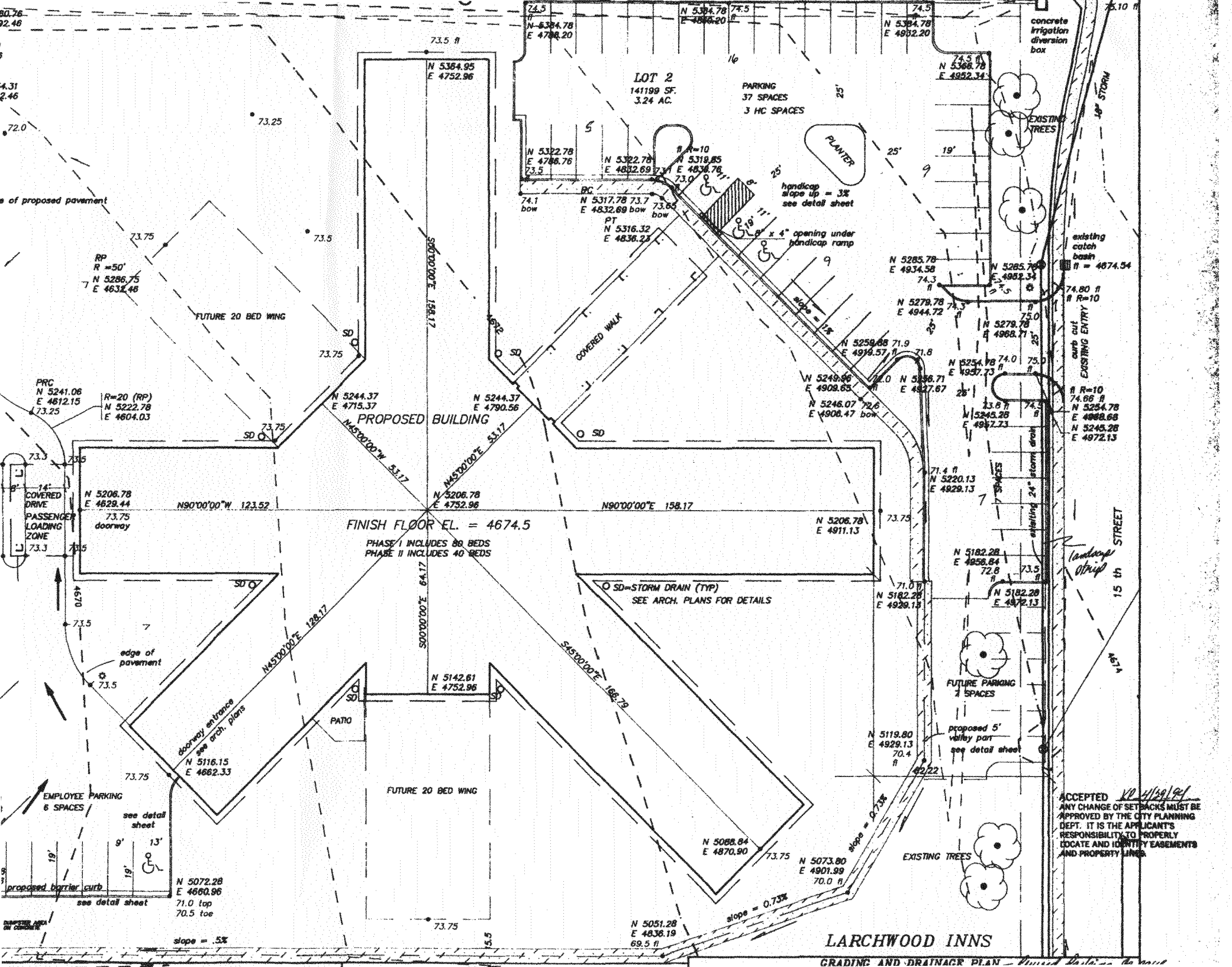




SECTION "A-A"
N.T.S.



FLOWLINE PROFILE


LOT 2
141199 SF.
3.24 AC.
PARKING
37 SPACES
3 HC SPACES
PROPOSED BUILDING
FINISH FLOOR EL. = 4674.5
PHASE I INCLUDES 80 BEDS
PHASE II INCLUDES 40 BEDS
FUTURE 20 BED WING
COVERED WALK
PLANTER
EXISTING TREES
handicap slope up = 3% see detail sheet
8" x 4" opening under handicap ramp
existing catch basin
curb cut EXISTING ENTRY
14' COVERED DRIVE PASSENGER LOADING ZONE
EMPLOYEE PARKING 6 SPACES
see detail sheet
proposed barrier curb
edge of pavement
doorway entrance see arch. plans
PATIO
SD=STORM DRAIN (TYP)
SEE ARCH. PLANS FOR DETAILS
FUTURE PARKING 2 SPACES
proposed 5' valley pan see detail sheet
existing 24" storm drain
Landscape Strip
15th STREET
LARCHWOOD INNS
GRADING AND DRAINAGE PLAN
ACCEPTED XP 4/29/94
ANY CHANGE OF SETBACKS MUST BE APPROVED BY THE CITY PLANNING DEPT. IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY LOCATE AND IDENTIFY EASEMENTS AND PROPERTY LINES.