

Table of Contents

File 1978-0039

Date 8/7/00

Project Name: Greenwood Estates

P r e s e n t	S c a n n e d	<p>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, not all entries designated to be scanned are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been included.</p> <p>Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.</p> <p>Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.</p>
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X	X	*Summary Sheet – Table of Contents
		Application form
		Receipts for fees paid for anything
		*Submittal checklist
		*General project report
		Reduced copy of final plans or drawings
		Reduction of assessor's map
		Evidence of title, deeds
		*Mailing list
		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 nonbound reports
		Traffic studies
		Individual review comments from agencies
		*Consolidated review comments list
		*Petitioner's response to comments
		*Staff Reports
		*Planning Commission staff report and exhibits
		*City Council staff report and exhibits
		*Summary sheet of final conditions
		*Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)

DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	Follow-Up Form	X	X	Inventory & Evaluation of Land, Water, and Related Resources
		Review Sheets			
			X	X	Geologic Report – 4/23/78
		Preliminary Plan Application	X	X	Memo from C.E. Maguire, Inc. to Mesa Co. Health – 4/17/78
		Final Plat Application	X	X	Letter from Ron Rish to Robert Coburn – 8/18/78
		Legal Description	X		Letter from Ronald Rish to Robert Coburn – 10/11/78
		Letter from Kathy Lofink to Green Tree Inc. – 5/4/78	X		Letter from Karl Metzner to Green Tree, Inc. – 6/29/78
		Development Summary Form	X	X	Notes on file
		Preliminary Plan			
		Planning Commission Minutes - ** - 4/25/78, 6/27/78, 5/30/78			
		Warranty Deed			
		Supplemental Form for Additional Filings and Additional Subdivisions			
		Legal Description			
		Utility & Service Plan			
		Road Plans and Profiles			

Estimated Water Requirements 10,850 gallons/day.

Proposed Water Source(s) CITY OF GRAND JUNCTION

Estimated Sewage Disposal Requirement 10,850 gallons/day.

ACTION:

Planning Commission Recommendation

Approval ()

Disapproval ()

Remarks _____

Date _____, 19____.

City Council

Approval ()

Disapproval ()

Remarks _____

Date _____, 19____.

Note: This form is required by C.R.S. 106-3-37 (4) but is not a part of the regulations of the City of Grand Junction.

A. (18) copies of this application required. Numbering system corresponds with Grand Junction Development Regulations. Layouts and designs initiate for this application should incorporate the Design Standards reviewed in Section III of the regulation. If question not applicable, indicate by n/a.

B. GREENWOOD ESTATES
name of subdivision

C. Owners and/~~or~~ subdividers.

<u>GREEN TREE, INC.</u>	_____	_____
name	name	name
<u>2820 NORTH AVE.</u>	_____	_____
<u>GRAND JUNCTION, COLO.</u>	_____	_____
address	address	address
<u>243-7980</u>	_____	_____
business phone	business phone	business phone

Designer:
C&M SURVEYORS & ENGINEERS, INC.

_____	<u>434-7089</u>
name	business phone
<u>656 31 ROAD</u>	_____
<u>GRAND JUNCTION, COLO. 81501</u>	<u>L.S. 10386</u>
address	registration and number

ENGR. BY WAYNE LIZER OF GR. TREE PE-LS 14113

D. Legal description. (Attach additional sheets as necessary).

see attached sheet

Total acreage 5.82.

E. Eighteen (18) copies of map submitted yes X no _____
If "no", explain.

The following check list shall be completed to insure that the map contains the essential information required by the subdivision regulations (see regulations for detailed information).

- 27-2.2 f. Scale and Size
- | | |
|---|----------|
| (1) Proposed Name | <u>X</u> |
| (2) Location and boundaries | <u>X</u> |
| (3) Names and Addresses of subdivider and engineer or surveyor | <u>X</u> |
| (4) Date of preparation | <u>X</u> |
| (5) Total acreage | <u>X</u> |
| (6) Location and dimensions for existing streets, alleys, easements and water courses | <u>X</u> |

- | | |
|--|-------------|
| (7) Location dimensions and names of proposed streets, alleys, easements, lot lines and public sites | <u>X</u> |
| (8) Topography | <u>X</u> |
| (9) Floodplain designation | <u>none</u> |
| (10) Land Use breakdown - number and size of lots | <u>X</u> |
| (11) Sites for multi-family residential, business, or non-public uses | <u>X</u> |
| (12) Adjacent zoning | <u>X</u> |
| (13) Names and Locations of adjoining subdivisions, names and dimensions of existing streets and other relevant data on adjoining properties | <u>X</u> |
| (14) Location and size of existing sewer and water lines and proposed utility easements | <u>X</u> |
| (15) Location and size of proposed water and sewer taps | <u>X</u> |

Text

Eighteen (18) copies of text material in report form submitted yes X no _____

If "no", explain:

27-2.2 f

- (4) Copy of certificate of title with a list of all mortgages, judgments, liens, etc. of record.

Subdivision summary form

X
X

This application completed by:

<u>C&M SURVEYORS & ENGINEERS, INC.</u>	_____
name	name
<u>656 31 ROAD GRAND JUNCTION</u>	_____
address	address
<u>Luther T. Mangrove</u>	_____
signature	date

27-2.3 FINAL PLAT APPLICATION - City of Grand Junction

Eighteen (18) copies this application required. Numbering system corresponds with Grand Junction Development Regulations. If question not applicable, indicate by n/a.

GREENWOOD ESTATES

name of subdivision

Fee Paid \$290⁰⁰ 5-1-78

amount date

Name and address of land owners and/or subdividers. Developer/Contract holder

GREEN TREE, INC. ← owner, subdivider

name
2820 NORTH AVE.
GRAND JUNCTION, COLO.

address

243-7980

business phone

name

address

business phone

name

address

business phone

A. Total Subdivision submitted yes, portion _____

Eighteen (18) copies submitted yes date 5-1-78

B. Revisions to Preliminary Plat? _____ X

yes no

If so, list (add attached sheets if necessary)

None

The following check list shall be completed to insure that the maps contain the essential information required by the subdivision regulations: (See regulations for detailed information).

27-2.3

- | | |
|--|----------|
| b. (2) Scale of Map | <u>X</u> |
| c. (1) Name of Subdivision | <u>X</u> |
| (2) Date | <u>X</u> |
| (3) Legal Description of Property | <u>X</u> |
| (4) Control points, dimensions, angles, bearings | <u>X</u> |
| (5) Boundary lines, right-of-way lines, easements, ditches and lot lines with bearings and distances | <u>X</u> |
| (6) Streets and other rights-of-way - names and dimensions | <u>X</u> |
| (7) Location and Dimensions of easements | <u>X</u> |
| (8) Lots numbered and area of each lot in square feet | <u>X</u> |
| (9) Location and description of all monuments | <u>X</u> |
| (10) Statement of land ownership | <u>X</u> |
| (11) Dedication statement - easements, rights-of-way and public sites | <u>X</u> |

- (12) Surveyor or Engineer Certification
- (13) Appropriate certification blocks
- (14) Clerk and Recorder Certification Block

X
X
X

Supporting Documents

27-2.3 c. (13) Copy of certificate of title with list of all mortgages, judgments, liens, easements, contracts and agreements of record.

filed w/ prelim.

(14) Proof of easement dedication

X

d. (1) Improvements Guarantee
(2) Composite Utility Plan

to follow
to follow

The following check list shall be completed to insure that design standards required by the subdivision regulations are met. (See regulations for complete details)

- 27-3.1 Site Considerations
- 27-3.2 Streets, Alleys and Easements
- 27-3.3 Blocks
- 27-3.4 Lots
- 27-3.5 Sidewalks
- 27-3.6 Irrigation systems and design
- 37-3.7 Public Sites Reservations and Dedications

X
X
X
X
X
none
none

This application completed by:

C & M SURVEYORS & ENGINEERS, INC.

name
656 31 ROAD
GRAND JUNCTION, COLO.

name

address
Luther T. Musgrave
signature

address
5-1-78
date

NOTE: No fee required

SUPPLEMENTAL FORM FOR

ADDITIONAL FILINGS AND ADDITIONAL SUBDIVISIONS

TO: Department of Regulatory Agencies
Colorado Real Estate Commission
110 State Services Building
1525 Sherman Street
Denver, Colorado 80203

In compliance with Title 12, Article 61, Part 4, CRS, 1973, as amended, and Commission Rules, application is hereby made to the Colorado Real Estate Commission for registration and certification of additional subdivision(s) and in support of this application the following statements are made under oath:

1. Registered Name Green Tree Inc. Phone 243-7980

2. Principal Office Address 2820 1/2 No. Ave., Grand Junction, Colo. 81501
(Street) (City) (State) (Zip Code)

3. List any brokerages to be used in the State of Colorado for the sale or lease of subdivided lots or units: (If an open listing has been given or the question is otherwise not applicable, please explain.)

Any and all brokerages will and do have the opportunity
to sell Green Tree, Inc. property.

4. Have you read and do you understand the Registration and Certification of Subdivision Developers statute (1973, CRS, Title 12, Article 61, Part 4, as amended) and the latest Commission Rules pursuant thereto? Yes.

5. If any change of ownership of 10% or more of the financial interest of the applicant has occurred, define the change as follows:

(a) _____ (Name) _____ (Residence)

(Capacity and Title) (Business Address) Ownership amount (in%)

(b) _____ (Name) _____ (Residence)

(Capacity and Title) (Business Address) Ownership amount (in%)

(c) _____ (Name) _____ (Residence)

(Capacity and Title) (Business Address) Ownership amount (in%)

6. Are there any liens or unpaid court judgments filed against you at the present time? (If yes, submit details on a separate sheet.) NO.

7. Give the name or other information required below for each subdivision which you intend to sell or lease.

(a) Name of the subdivision: Greenwood Estates

NOTE: If the applicant is the owner of additional subdivisions other than those given on page 2 of this application, attach a separate sheet giving the same information for additional subdivisions.

ALSO -- THE SAME INFORMATION MUST BE FURNISHED TO THE COMMISSION IF ADDITIONAL SUBDIVISIONS OR FILINGS ARE ACQUIRED IN THE FUTURE.

- (b) Location of the subdivision by street or road and direction and distance from nearest city: corner of 17 th. Stree and Walnut Ave. and
located in Grand Junction City limits
Located in County of Nesa State of Colorado
- (c) Number of lots or units: 32
Approximate size of lots or units: lots 90' x 80' approximately
- (d) Who holds legal title to this subdivision? Green Treen, Inc.
- (e) I, the applicant, have title to the above named subdivision and my interest is evidenced by a (check one) warranty deed, installment land contract, option to purchase, other (explain) _____
- (f) Have all the local, state and other governmental regulations been complied with at this time? yes

DO NOT ANSWER QUESTIONS BELOW IF CONDOMINIUMS OR TOWN HOUSES

- (g) Will each site or lot be surveyed before sale or lease? Yes
If answer is no, please explain when this will be done or how the property sold will be identified for each purchase if not surveyed. _____
- (h) Has a plat of this subdivision been filed and approved by the county or local government in which it is located? Yes
- (i) If item (h) has not been done, when will this be done? _____
- (j) Will each site or lot be staked before sale or lease? Yes

8. DOCUMENTATION MUST BE SUPPLIED OF THE FOLLOWING: (If not supplied, application will be returned for completion.)

- (a) If the applicant is a corporate developer, a copy of the Certificate of Authority to do business in the State of Colorado or a Certificate of Incorporation issued by the Secretary of State for the State of Colorado must accompany this supplement. (If applicable)
- (b) Copies of documents evidencing the title or other interest in the subdivision.
- (c) If the subdivision is subject to a blanket encumbrance, there must be filed with the Commission evidence that there is a provision or supplementary agreement providing that the purchaser or lessee of any lot or parcel can obtain legal title or other interest contracted for, free and clear of such blanket encumbrance upon compliance with the terms of the purchase or lease. If the subdivision is not subject to any blanket encumbrance, a statement to that effect will be sufficient.
- (d) Sample copies of contracts of sale, notes, deeds, and other legal documents to be used to effectuate the sale or lease, except if standard Colorado Real Estate Commission approved forms, with no printed additions, are used exclusively, a statement to that effect will be sufficient.
- (e) A true statement of the provisions for legal access, sewage disposal, public utilities, including water, electricity, gas and telephone facilities in the subdivision to be offered for sale or lease. (If a subdivision developer is obligated under Federal law to issue a property report, said property report shall be used in lieu of a subdivision developer's own statement.)

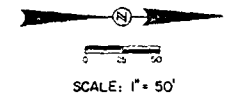
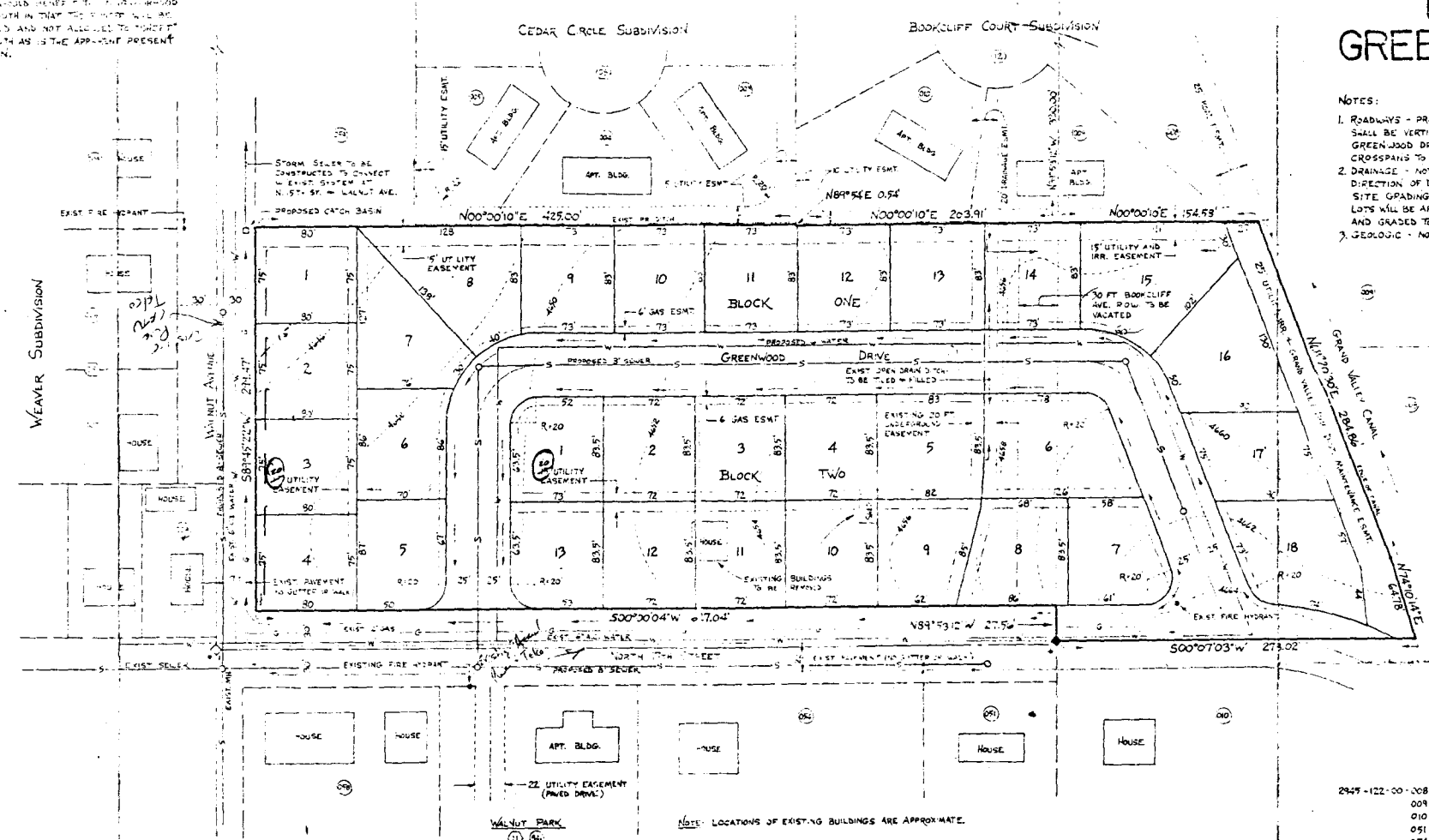
THE STORM DRAINAGE SYSTEM IN AN URBAN AREA SHOULD BE DESIGNED TO DRAIN TO THE SOUTH IN THAT THE STORM WOULD BE CHANNELLED AND NOT ALLOWED TO FLOW AT TO THE SOUTH AS IS THE APPARENT PRESENT CONDITION.

preliminary plan GREENWOOD ESTATES

PRESENT ZONING: RIC

NOTES:

1. ROADWAYS - PROPOSE 34' PAVING MAT WITH 6' CURB AND WALK SECTION. CURB SHALL BE VERTICAL. THE ABOVE IS PROPOSED FULL CROSS-SECTION FOR GREENWOOD DRIVE AND 1/2 CROSS-SECTION FOR WALNUT AVE. AND N. 17TH ST. CROSSPANS TO BE 5' WIDE.
2. DRAINAGE - NOT SUBJECT TO INUNDATION DUE TO 100 YEAR STORM. DIRECTION OF DRAINAGE IN GUTTERS AND CROSSPANS INDICATED HEREON (→). SITE GRADING - FINISHED ROADS WILL BE APPROXIMATELY AT EXISTING GRAVE. LOTS WILL BE APPROXIMATELY 9" ABOVE FINISHED ROAD AT THE BUILDING FOUNDATION AND GRADED TO DRAIN AWAY FROM THE FOUNDATION TO THE ROAD.
3. GEOLOGIC - NO APPARENT GEOLOGIC PROBLEMS.

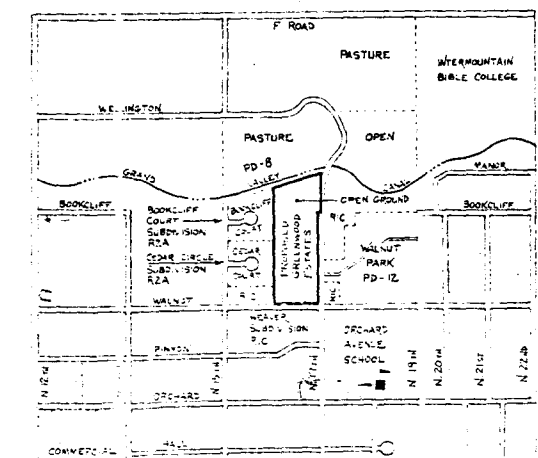


PROPERTY DESCRIPTION
 LOTS 23 AND 24 IN BLOCK 7 OF MOUNTAIN SUBDIVISION AND THE E 1/2 S 1/4 NE 1/4 OF SEC. 12, T. 3, R. 10, W. 1/2, MESA COUNTY, COLORADO, SOUTH OF THE GRAND VALLEY CANAL, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT FROM WHENCE THE SW COR. OF THE SW 1/4 NE 1/4 OF SAID SEC. 12 BEARS N89°53'12"W 330.00 FT; THENCE N00°00'0"E 154.53 FT; THENCE N68°20'30"E 284.50 FT; THENCE N70°00'0"E 64.73 FT; THENCE S00°07'03"W 278.02 FT; THENCE N89°53'12"W 27.50 FT; THENCE S00°00'04"W 627.04 FT; THENCE S89°45'22"W 299.4 FT; THENCE N00°00'0"E 425.00 FT; THENCE N89°54'E 0.94 FT; THENCE N0°00'0"E 203.91 FT TO THE POINT OF BEGINNING.

AREA SUMMARY

NUMBER OF LOTS	3	TYPICAL SIZE	73 x 53'
DENSITY	5.3 LOTS/AC		
AREA IN LOTS	4.68 AC		80.4%
AREA IN STREETS	1.14 AC		19.6%
TOTAL	2.82 AC		100.0%

- LEGEND:**
- ▲ FOUND MESA COUNTY SURVEY MONUMENT
 - FOUND CITY OF GRAND JUNCTION BLOCK MONUMENT
 - ◆ FOUND P.C. MARK, ACCEPTED AS BLOCK CONTROL MONUMENT TO BE USED FOR CONTROL PLANS CONSTRUCTION



- ADJACENT OWNERS**
- 2945-122-00-008 - CHARLES L. A.M. FORNEY, 1631 WELLINGTON, GJ
 - 009 - MABEL HEBERLING, 16 L.A. BROWN, 2741 F ROAD, GJ
 - 010 - KEITH BROWN, 3344 S. 210 EAST, SALT LAKE CITY, UTAH 84109
 - 051 - LEO E. + JOAN L. HYLAND, 437 N. 17TH ST. GJ
 - 054 - CLAYTON R. + N.W. WATT, 2204 N. 17TH ST. GJ
 - 058 - ALVIN L. THORPE, 1049 27th ROAD, GJ
 - 059 - ELLEN B. LANCASTER, 210 N. 15th ST. GJ
 - 2945-122-05-005 - LACOLE V. + M.P. SKIPPEN, 1955 WALNUT AVE. GJ
 - 006 - JOHN A. + FRANKIE LINDSAT, 1903 WALNUT AVE. GJ
 - 007 - G.M. + A. WEAVER, 1825 WALNUT AVE. GJ
 - 008 - BOB FRANK, 623 HILL, GJ
 - 2845-122-08-003/004/005 - CHARLES BUTTORN ET AL., 357 ORCHARD AVE. GJ
 - 2851-122-11-041 - GRAND JUNCTION INDUSTRIAL DEVELOPMENT
 - 2345-122-12-008/009 - VEROY ELDENE WILLIAMS + RICHARD D. COLEMAN, 2781 URBAN DR. GJ
 - 010 - RICHARD D. + MYRNA J. COLEMAN, 527 S. BROADWAY, GJ
- NOTE: MESA COUNTY TAX NUMBER SHOWN HEREON: 2945-122-00-008

VICINITY MAP
 LAND USE IS STRICTLY RESIDENTIAL EXCEPT WHERE OTHERWISE NOTED

ENGINEERING FOR GREEN TREE, INC. BY WAYNE H. LIEZ, P.E.L.S. 1413

PRELIMINARY PLAN
 GREENWOOD ESTATES
 PREPARED FOR GREEN TREE, INC. 2800 NORTH AVE. GRAND JUNCTION, CO 81501 PHONE 243-7990



Architects • Engineers • Planners

DATE: April 17, 1978

TO: Mesa County Planning Commission
Colorado Department of Health

Gentlemen:

A gamma radiation survey was conducted in compliance with Senate Bill #35 as a portion of our client services. The following information is presented as details of this survey.

Proposed Building Site

Location/Description Greenwood Estates subdivision (approximately 5.8 acres)

Owner's Name Green Tree, Inc.

Owner's Address 2820 North Avenue, Grand Junction, Colorado

Survey Requested by C and M, Inc. - L. Musgrove

Date of Survey April 14, 1978

Survey by J. Tell Tappan

Instrument Type Mt. Sopris Model SC-129

Serial Number 300

CALIBRATION: Cross calibrated with gas proportional ion chamber with Ra-226

SURVEY RESULTS (See attached plat map)

- All meter readings less than 0.02 milliRoentgen per hour (20 micro R/h). No tailings indicated.
- Highest reading between .02 - .04 milliRoentgens per hour.
- Some readings greater than .04 milliRoentgens per hour.
- Gamma radiation coming from adjacent area.
- Tailings deposits indicated.

Description of Deposit. Along east bank of unused drain ditch in southeast section of property. Adjoining west section of existing house and extending west about 300 feet.

RECOMMENDATIONS: Remove radioactive material from areas indicated on the map prior to commencing site preparation for structures. Contact the Colorado Department of Health (phone 245-2400) for monitoring assistance and further guidance.

Respectfully submitted,

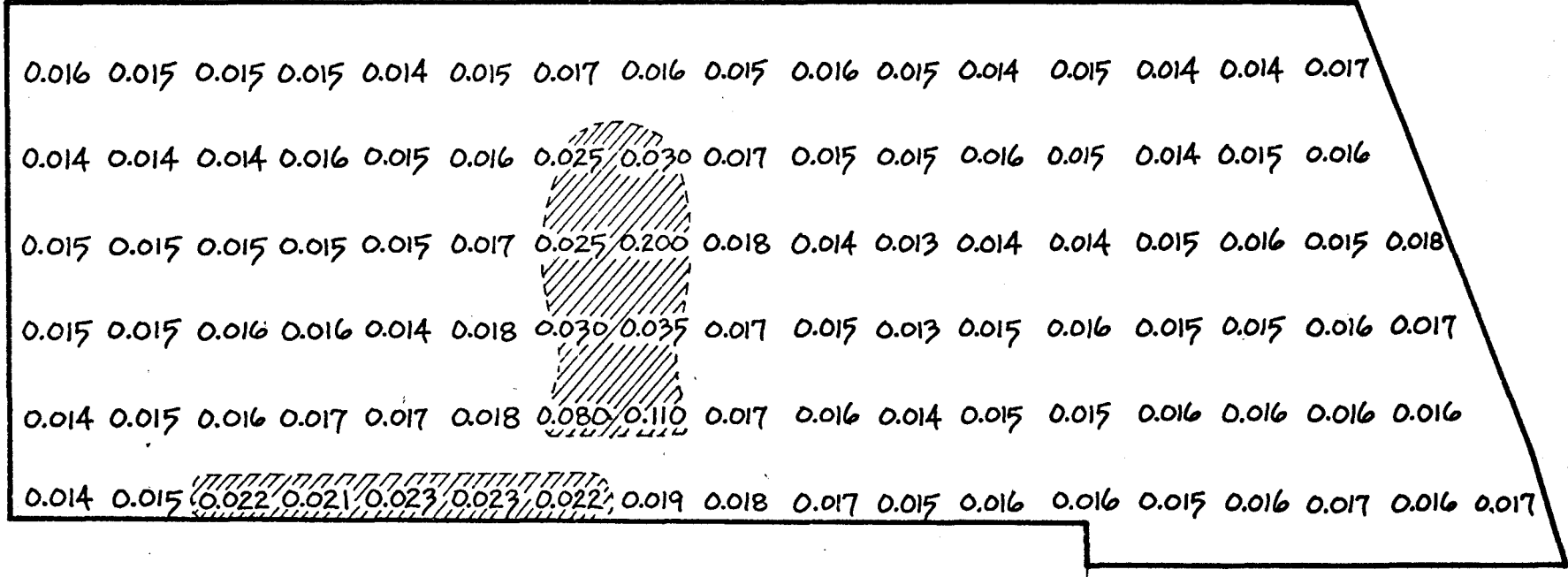
C-E MAGUIRE, INC.

Gordon W. Bruchner, P.E., L.S.

GWB:ymc

Enclosures: Plat Map

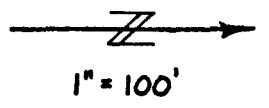
cc: 1 - Client w/enclosure
1 - File w/enclosure



GREENWOOD ESTATES
GAMMA RADIATION SURVEY

BY: J. TELL TAPPAN, HEALTH PHYSICIST
 DATE: APRIL 14, 1978
 INST: MT. SOPRIS MODEL SC-129 WITH
 1" x 1 1/2 NaI (Tl) CRYSTAL

0.0XX = UNCORRECTED METER READING IN mR/HR.
 ///// = APPROXIMATE AREA OF RADIOACTIVE MILL TAILINGS



INVENTORY & EVALUATION OF LAND, WATER, AND RELATED RESOURCES

Greenwood Estates Subdivision
REQUESTED BY c/o C & M Engineering, Inc. LOCATION Grand Junction, CO

ASSISTED BY C. Malone DATE April 17, 1978

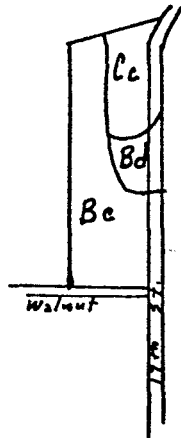
* INDIVIDUAL GROUP UNIT OF GOVERNMENT

SITUATION: Soils map, descriptions and interpretations needed for
subdivision planning and submission.

SUGGESTED SOLUTION(S) Attached are a soils map, the soils descriptions,
and the soils interpretations for the soils shown on the map. Please
note that the Cc soil has a high shrink-swell and frost action potential.
This soil is also shallow to shale. The Billings soils, Bc and Bd are
deeper, but have limitations due to the moderate to high shrink-swell
and frost action potential. All these soils have a poor traffic
supporting capacity and will require a very good base for all streets.
On site checks should be made in the area of the Bc soils in particular
for the possibility of high water tables. There is no known flood
hazard for this area.

Chuck Malone

* Check appropriate category



SCS-CONS-18
OCTOBER 1974

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SOIL MAP

Owner Greenwood Estates Subdiv. Operator _____
 County Mesa State Colorado
 Soil survey sheet (s) or code nos. 3-4 Approximate scale 8 in/mi.
 Prepared by U. S. Department of Agriculture, Soil Conservation Service cooperating
 with Mesa Soil Conservation District



Tentative - subject to revision.

Billings silty clay loam, 0 to 2 percent slopes (B_c) (B_d) similar
SOIL SURVEY INTERPRETATIONS

This soil is derived from deep alluvial deposits that came mainly from Mancos shale. Although the dominant texture is silty clay loam, the profile may have seams of loam, clay loam, fine sandy loam, or a very fine sandy texture. Its tilth and workability are fair; but when it is mostly a silty clay loam, it puddles quickly when wet and bakes so hard when dry that good tilth can be maintained only by proper irrigation and special cultural practices. Slopes range up to those having two feet of fall.

MLRA: Mesa County, Colo.
Grand Junction Soil
Survey Area

ESTIMATED PHYSICAL AND CHEMICAL PROPERTIES in every 100 feet.

MAJOR SOIL HORIZONS (INCHES)	CLASSIFICATION			COARSE FRACT. > 3 IN. %	PERCENTAGE LESS THAN 3 INCHES PASSING SIEVE NO. ---				LL	PI	PERMEABILITY (in./hr)	AVAILABLE WATER CAPACITY (in./in)	SOIL REACTION (pH)	SALINITY (EC x 10 ³ @25°C)	SHRINK-SWELL POTENTIAL	POTENTIAL FROST ACTION
	USDA TEXTURE	UNIFIED	AASHO		4	10	40	200								
0-60	Silty clay loam	CL	A-7	-	100	90-95	85-90	75-90	-	-	.3-.75	.17-.19	7.9-9.0	1/	Moderate	Mod. to high * 0-60
DEPTH TO BEDROCK OR HARDPAN: > 60"					FLOOD HAZARD: Rare											
DEPTH TO SEASONAL HIGH WATERTABLE < 20"					HYDROLOGIC GROUP C											

SUITABILITY AND MAJOR FEATURES AFFECTING SOIL AS RESOURCE MATERIAL

TOPSOIL: Poor; high clay content	GRAVEL: 2/
SAND: 2/	ROADFILL: Fair; moderate shrink-swell; A-2 to A-7

DEGREE OF LIMITATION AND MAJOR SOIL FEATURES AFFECTING SELECTED USE

LOCAL ROADS AND STREETS: Severe; poor traffic-supporting capacity; moderate to high water tables common.	SEPTIC TANK FILTER FIELDS: Severe; slow permeability; poor internal drainage; seasonal high water tables.
SHALLOW EXCAVATIONS: Severe; high water tables common	SEWAGE LAGOONS: Moderate; moderate piping hazard; berm material Unified CL
DWELLINGS: Moderate; high shrink-swell potential; subject to water table build up.	CORROSIVITY - UNCOATED STEEL: --
RESERVOIR AREA: Moderate; seepage through gypsum seams; high water table.	CORROSIVITY - CONCRETE: --
RESERVOIR EMBANKMENT: Moderate; moderately erosive; moderate shrink-swell potential	

- 1/ Property highly variable requiring on-site investigation.
 2/ Unsuitable; limited quantity or limited quality of sand or gravel.
 * Frost action potential is greater due to irrigation of desert lands.

BILLINGS SILTY CLAY LOAM, 0 to 2 percent slopes, Class IIs Land (Bc)

This soil, locally called adobe, is one of the most important and extensive in the Grand Valley. It is derived from deep alluvial deposits that came mainly from Mancos shale but in a few places from fine-grained sandstone materials. The deposits ordinarily range from 4 to 40 feet deep but in places exceed 40 feet. The deposits have been built up from thin sediments brought in by the streams that have formed the coalescing alluvial fans or have been dropped by the broad washes that have no drainage channel. The thickest deposit, near Grand Junction, was built up by Indian Wash.

Although moderately fine textured, this Billings soil permits successful growth of deep-rooted crops such as alfalfa and tree fruits. Its permeability is normally not so favorable as that of the Mesa, Fruita, and Ravola soils. Its tilth and workability are fair, but it puddles so quickly when wet and bakes so hard when dry that good tilth can be maintained only by proper irrigation and special cultural practices. Runoff is slow and internal drainage is very slow.

Like all other soils in the area, this one has a low organic-matter content. Under natural conditions it contains a moderate concentration of salts derived from the parent rock (Mancos shale). In places, however, it contains so much salt that good yields cannot be obtained. Some large areas are so strongly saline they cannot be used for crops. Generally, this soil is without visible lime, but it is calcareous. In many places small white flecks or indistinct light-colored streaks or seams indicate that lime, gypsum, or salts are present.

Soil limitations are classified as severe for local roads and streets (poor traffic-supporting capacity, moderate to high water tables common), shallow excavations (high water tables common), and septic tank filter fields (slow permeability, poor internal drainage, seasonal high water table).

SOIL SURVEY INTERPRETATIONS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

FILE CODE SOILS-12

In Billings series are deep, well drained soils formed in alluvium from shale on fans and flood plains. Surface layer is light brownish gray silty clay loam 5 to 7 inches thick. The underlying layer is light brownish gray silty clay loam to 60 inches. Average annual precipitation is 8 to 11 inches. Frost-free period is 100 to 160 days. Slopes range from 1 to 6 percent.

SERIES: Billings
STATE: Colorado
MLRA: D34
CLASSIF: Typic torrifuvent,
fine silty mixed,
calcareous, mesic.

ESTIMATED SOIL PROPERTIES SIGNIFICANT TO ENGINEERING

MAJOR SOIL HORIZONS (INCHES)	CLASSIFICATION			COARSE FRACT. > 3 IN. %	PERCENTAGE LESS THAN 3 INCHES PASSING SIEVE NO. ----				LL	PI	PERMEABILITY (In./hr)	AVAILABLE WATER CAPACITY (In/In)	SOIL REACTION (pH)	SALINITY (EC x 10 ³ @25°C)	SHRINK-SWELL POTENTIAL	POTENTIAL FROST ACTION
	USDA TEXTURE	UNIFIED	AASHO		4	10	40	200								
0-60	Silty clay loam	CL	A-6	0	100	100	95-100	90-95	25-40	10-20	0.06-0.2	0.17-0.20	7.4-9.0	2-8	Mod.	High
DEPTH TO BEDROCK OR HARDPAN: > 60"					FLOOD HAZARD: Rare											
DEPTH TO SEASONAL HIGH WATERTABLE > 6'					HYDROLOGIC GROUP C											

SUITABILITY OF SOIL AS SOURCE OF SELECTED MATERIAL AND FEATURES AFFECTING USE

TOPSOIL: Fair - too clayey	GRAVEL: Unsuitable
SAND: Unsuitable	ROADFILL: Poor - low strength, shrink-swell

DEGREE OF SOIL LIMITATION

LOCAL ROADS AND STREETS: Moderate - low strength, shrink-swell	SEPTIC TANK ABSORPTION FIELDS: Severe - percs slowly
SHALLOW EXCAVATIONS:	SEWAGE LAGOONS: Moderate - slope, low strength
DWELLINGS: a) w/ basements Moderate - low strength, shrink-swell b) w/o basements Moderate - low strength, shrink-swell	CORROSIVITY: a) uncoated steel High b) concrete High
SANITARY LAND FILL: (TRENCH TYPE) Moderate - floods	

MAJOR SOIL FEATURES AFFECTING SELECTED USE

POND RESERVOIR AREAS: Slope, piping, low strength	IRRIGATION: Slope, slow intake
EMBANKMENTS, DIKES, and LEVEES: Low strength - piping	TERRACES and DIVERSIONS: Not needed
DRAINAGE of CROPLAND and PASTURE: Slow permeability	GRASSED WATERWAYS: Not needed

BILLINGS SILTY CLAY LOAM, 2 to 5 percent slopes, Class IIe Land (Bd)

Except for its stronger slope, the soil is almost the same as Billings silty clay loam, 0 to 2 percent slopes.

Many of the areas lie along large drainageways or washes where they are difficult to reach. Even a large number have such an uneven surface that considerable leveling would have to be done before they could be cropped. The cost of leveling, together with the expense of controlling erosion and gullying, discourages farmers from using them.

Many of the uncultivated areas have moderate concentrations of salts, but they are not particularly difficult to reclaim because they border natural ditches or washes which afford free disposal of irrigation water. Furthermore, for the most part, they have a porous substratum.

Soil limitations are classified as severe for septic tank absorption fields (percs slowly).

Tentative - subject to revision

Chipeta-Persayo silty clay loam, 5 to 15 percent slopes (Cc)

SCS - SOILS - 2C (Rev.)

8 - 71

SOIL SURVEY INTERPRETATIONS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

FILE CODE SOILS-12

These soils are light colored, highly calcareous, shallow and clayey textured. They overlie weathered Mancos shale that grades into consolidated shale at 2 to 4 feet in depth. Gypsum crystals and seams are common throughout. These soils occur on rolling hills associated with the Mancos shale outcrops.

SERIES: Chipeta-Persayo

STATE: Colorado

MLRA: 34

CLASSIF: Typic torriorthent:
clayey, mixed, calcareous,
mesic, shallow

ESTIMATED SOIL PROPERTIES SIGNIFICANT TO ENGINEERING

MAJOR SOIL HORIZONS (INCHES)	CLASSIFICATION			COARSE FRACT. > 3 IN. %	PERCENTAGE LESS THAN 3 INCHES PASSING SIEVE NO. ---				LL	PI	PERMEABILITY (in./hr)	AVAILABLE WATER CAPACITY (in/in)	SOIL REACTION (pH)	SALINITY (EC x 10 ³ @25°C)	SHRINK-SWELL POTENTIAL	POTENTIAL FROST ACTION
	USDA TEXTURE	UNIFIED	AASHO		4	10	40	200								
0-15	Silty clay loam	CL	A-7	0	100	100	95-100	85-95	30-50	20-30	0.06-0.2	0.19-.21	7.9-8.4	Mod.	Mod. to high	Mod to High * 0-15

DEPTH TO BEDROCK OR HARDPAN: Impervious shale at 2-4'

FLOOD HAZARD: Rare

DEPTH TO SEASONAL HIGH WATERTABLE: None

HYDROLOGIC GROUP: D

SUITABILITY OF SOIL AS SOURCE OF SELECTED MATERIAL AND FEATURES AFFECTING USE

TOPSOIL: Poor: too clayey, thin	GRAVEL: Unsuitable
SAND: Unsuitable	ROADFILL: Unsuitable

DEGREE OF SOIL LIMITATION

LOCAL ROADS AND STREETS: Severe: high plasticity index, shrink-swell	SEPTIC TANK ABSORPTION FIELDS: Severe: slowly permeable, shallow
SHALLOW EXCAVATIONS: Severe: shallow to consolidated shale	SEWAGE LAGOONS: Severe: slope, shallow to impervious layer
DWELLINGS: a) w/ basements Severe: shallow to shale; shrink-swell b) w/o basements Moderate: shrink-swell	CORROSIVITY: a) uncoated steel Moderate b) concrete Low
SANITARY LAND FILL (TRENCH TYPE): Severe: shallow to consolidated shale	

MAJOR SOIL FEATURES AFFECTING SELECTED USE

POND RESERVOIR AREAS: Shallow to consolidated shale	IRRIGATION: Shallow soil, moderate salinity, erodible soils
EMBANKMENTS, DIKES, and LEVEES: Shallow, gypsum seams	TERRACES and DIVERSIONS: Shallow to consolidated shale
DRAINAGE of CROPLAND and PASTURE: Shallow to consolidated shale	GRASSED WATERWAYS: Erodible soils, shallow, potential siltation

SCS-200-POST-LAND, 0000, 1971

* Frost action potential is greater due to irrigation of desert lands.

CHIPETA-PERSAYO SILTY CLAY LOAMS, 5 to 10 percent slopes, Class VIe (Cc)

The soils are derived from material weathered from the thick Mancos shale formation. Except for their silty clay loam texture in the surface layer, the soils are very similar to those of the Chipeta-Persayo shaly loam complex on 5 to 10 percent slopes.

The Persayo soil in this complex contains somewhat more silt and fine sand and is slightly more permeable than the Persayo soil in the complex of Chipeta and Persayo shaly loams, but it is nonetheless highly erodible if cropped. In fact, the platy, compact, impervious shale under both soils of this complex permits so much erosion that only a sharp or choppy surface remains.

Soil limitations are classified as severe for local roads and streets (high plasticity index, shrink-swell), shallow excavations (shallow to consolidated shale), dwellings with basements (shallow to shale, shrink-swell), sanitary land fill (shallow to consolidated shale), septic tank absorption fields (slowly permeable, shallow), and sewage lagoons (slope, shallow to impervious layer).

A

GEOLOGIC REPORT

ON

GREENWOOD ESTATES SUBDIVISION

by

Jack E. Roadifer

April 23, 1978

A GEOLOGIC REPORT
ON
GREENWOOD ESTATES SUBDIVISION
MESA CO., COLO.

by
Jack E. Roadifer

LOCATION: The proposed subdivision is in the SE $\frac{1}{4}$, NW $\frac{1}{4}$, section 12, T. 1 S., R. 1 W., Mesa County, on the northeast side of Grand Junction.

GEOLOGIC FORMATIONS: As shown on the enclosed geologic map, the surface material is alluvium consisting mostly of clay and silt with minor amounts of sand and gravel. It is derived from the Mancos Shale, which underlies the alluvium and outcrops a few hundred feet north of the property. The alluvium is estimated to be 10 to 20 feet thick.

STRUCTURE: The Mancos Shale dips about two degrees to the northeast toward the axis of the Piceance basin. The nearest fault is the inactive Redlands fault about five miles to the south.

GEOLOGIC HAZARDS: There are no geologic hazards related to topography. The area is quite flat with a total relief of about 10 feet. The irrigation canal (Grand Valley Canal) along the north side of the property will carry runoff from the low shale hills to the north. No flooding danger is apparent.

CONSTRUCTION FACTORS: Surface material is mostly silty and should not present any particular problems for construction;

however, the high clay content of Mancos Shale-derived shales in some areas makes it necessary to consult a qualified soils engineer before construction is begun. Construction methods similar to those used in nearby subdivisions would probably be suitable here.

WATER TABLE: There is no indication of a high water table in this area. Although some percolation from the Grand Valley Canal could be expected, a ditch about 75 feet from the canal did not intersect the water table at its depth of about 10 feet. Excessive irrigation of lawns could cause a water table buildup in this fine soil with Mancos Shale underneath.

WATER SUPPLY AND DISPOSAL: Water will be supplied by municipal system and disposed of by sewer system.

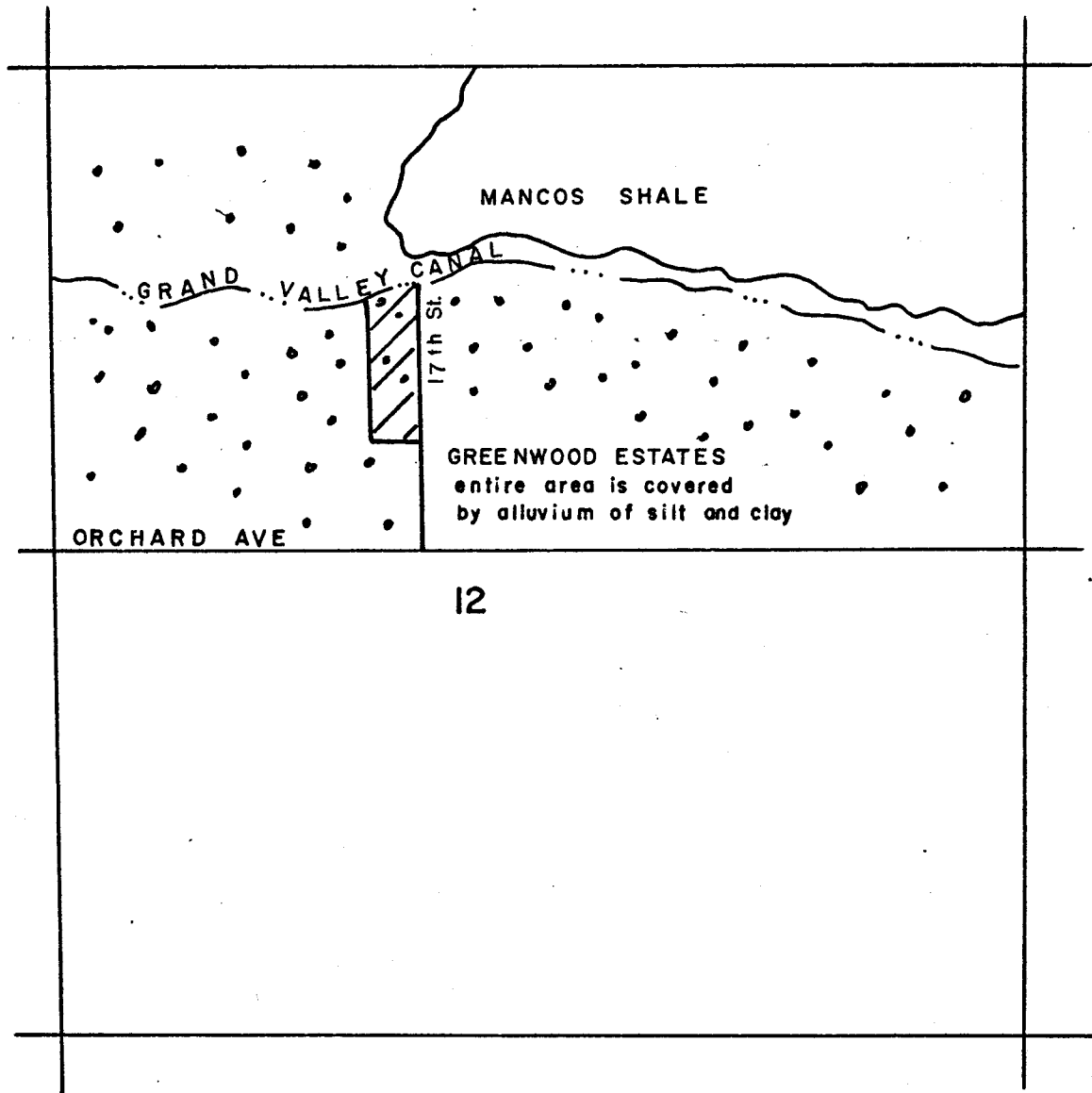
SUMMARY: There are no geologic hazards related to topography in the area. The proposed subdivision is bordered on three sides by existing or now-building subdivisions. There is no geologic reason why this subdivision should not be approved.

Submitted by;

Jack E. Roadifer

Dr. Jack E. Roadifer, Geologist

RIW



GEOLOGIC MAP
GREENWOOD ESTATES
MESA CO., COLO
Scale: 1" = 1,000'

BY: JACK E. ROADIFER APR. 24, 1978

 alluvium

CHIPETA-PERSAYO SILTY CLAY LOAMS, 5 to 10 percent slopes, Class VIe (Cc)

The soils are derived from material weathered from the thick Mancos shale formation. Except for their silty clay loam texture in the surface layer, the soils are very similar to those of the Chipeta-Persayo shaly loam complex on 5 to 10 percent slopes.

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Soil limitations are classified as severe for local roads and streets (high plasticity index, shrink-swell), shallow excavations (shallow to consolidated shale), dwellings with basements (shallow to shale, shrink-swell), sanitary land fill (shallow to consolidated shale), septic tank absorption fields (slowly permeable, shallow), and sewage lagoons (slope, shallow to impervious layer).

May 4, 1978

Green Tree Inc.
2820 North Avenue
Grand Junction, Colorado 81501

Re: FILE #39-78 GREENWOOD ESTATES SUBDIVISION

Dear Sir:

The Grand Junction Planning Commission, at their regularly scheduled meeting of April 25, 1978, approved the preliminary plan for Greenwood Estates. Approval was subject to the following requirements:

1. One fire hydrant required on 6" line at NW corner, Lot 4, Block 2.
2. Easements needed by Public Service
3. City Engineering, the Development Staff, and the Developer meet to discuss plans for curing the ills of the streets and intersection, and that the comments generated relate to development timing of the project.
4. No development to begin until intersection at 17th Street and Walnut is improved.

This item will be heard before the Grand Junction City Council at 7:30 p.m. in Council Chambers on May 17, 1978.

If you have any questions or comments, please contact this office.

Sincerely,



Kathy F. Lofink
Planner I

KFL:cjr

Bob Beaver

file



City of Grand Junction. Colorado 81501

250 North Fifth St., 303 243-2633

August 18, 1978

Mr. Robert S. Coburn
C and M
Surveyors and Engineers Inc.
656 31 Road
Grand Junction, Colorado 81501

Dear Bob:

RE: Greenwood Estates Subdivision

As requested, I have reviewed the detailed construction plans for streets and storm drains for the above as submitted on July 26, 1978, and have the following comments:

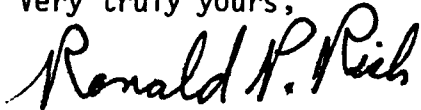
1. Pavement design calculations as submitted are acceptable and approved with the one change that we are designing Walnut Avenue with 3" HBP on 6" ABC (Class 6) which yields an SN of 2.16. We do this to permit two 1-1/2" lifts on HBP which we feel yields a better pavement finish.
2. Please add the streets centerline stationing to the plan view for clarification.
3. The catch basin at the southwest corner will not be necessary since Walnut Ave. will be constructed as part of ST-78 ID.
4. The 17 ft. dimension on No. 17th Street Typical Section should be to the pan line instead of the back of curb.
5. Delete the profile for Walnut Avenue or revise it in accordance with the enclosed calculation sheets.
6. The two calculation sheets enclosed reflect the horizontal and vertical geometric design for Walnut Avenue including intersections. The interface between ST -78 ID construction and Greenwood Estates construction is at 0+44 on 17th St. Please insure that your horizontal and vertical geometry at that location fits the enclosed calculations at 0+44. My check shows a possible 0.18 ft. disparity in elevation at 0+44. Minor adjustment is possible if needed to fit your planning. Please keep us advised if any change from the values shown on the enclosed calculation sheets is desired.

7. Add the following note to the plan sheet:
"All construction shall be in accordance with City of Grand Junction General Contract Conditions for Public Works construction GC-37, GC-50, and GC-65". Copies are enclosed for your use and files.
8. Grades look fine except it is suggested vertical curves at least 50 ft. long be provided at grade changes.
9. You should sign the P.E. stamp when the plans are complete.

When the above comments have been addressed, please send me one print for our file and consider the plans to be approved by this office for construction. If question or significant construction problems develop, please do not hesitate to call on us. Upon completion of construction notify us for a final inspection. Submission of test results as required by City specifications and cronar as-built drawings will also be necessary prior to City acceptance of the constructed facilities.

Thanks for your continued cooperation.

Very truly yours,



Ronald P. Rish, P.E.
City Engineer - Public Works

Enclosure

cc: Del Beaver
John Kenney
Don Newton
Jim Patterson



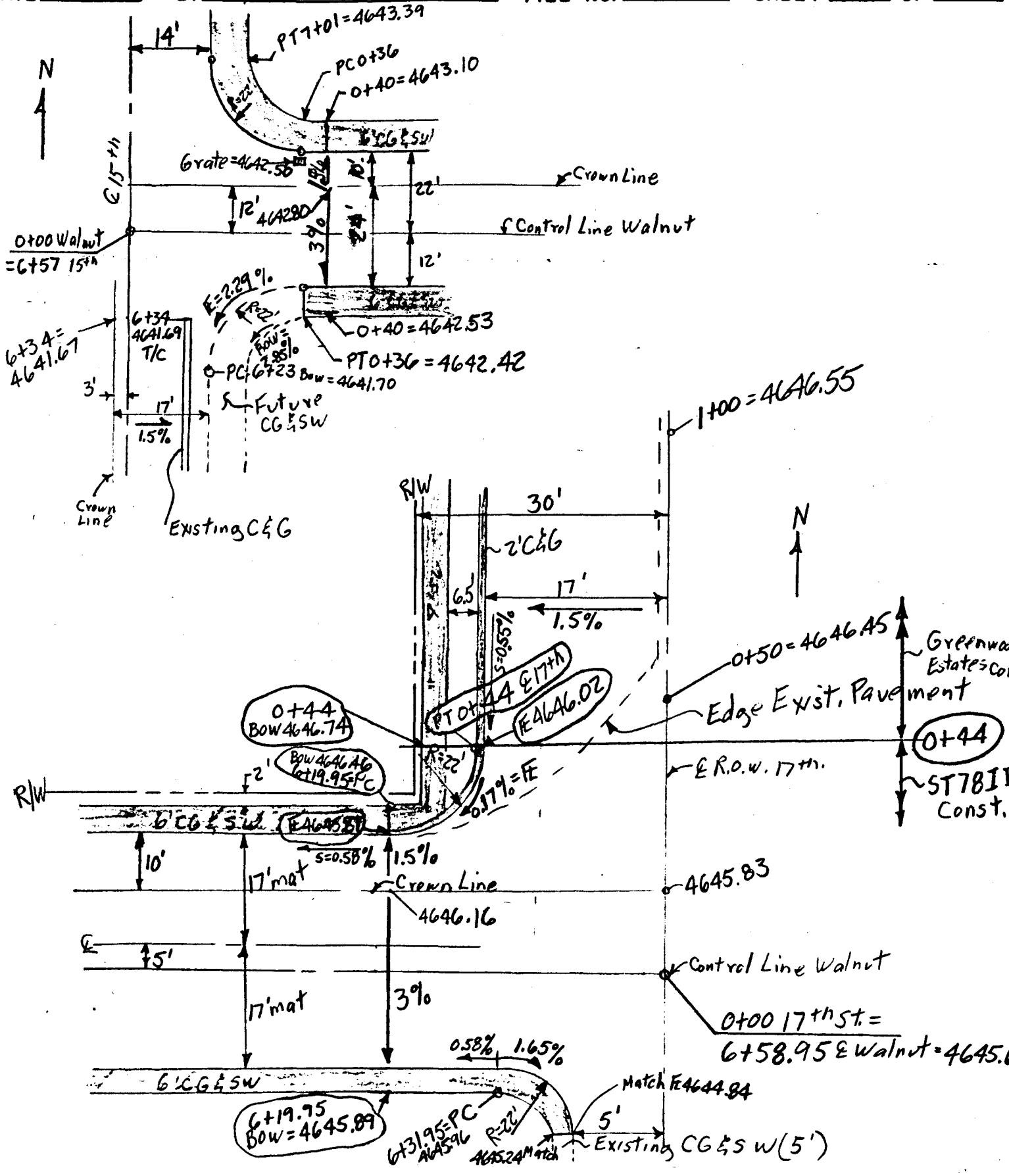
CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION

CC. CG/M SERV. ENGR.



PROJECT: Walnut Ave. 15th to 17th St.
SUBJECT: Intersections

DATE 8-16-78 : BY Rish : FILE NO. _____ : SHEET 1 OF 1



ROUGH

Luther Musgrave

434-7089

Did



City of Grand Junction, Colorado 81501

250 North Fifth St., 303 243-2633

1. Greenwood Estates has agreed to curb, gutter and 4 foot detached sidewalk on 17th Street on the frontage of the project and will improve base and create 22 feet of road surface from that gutter east and work it into the existing pavement.

2. The sum of \$5,565.00 will be given the City of Grand Junction as partial consideration.

3. On Walnut Avenue the developer will build the entire road for a distance west from the 17th and Walnut intersection to the back lot line of the parcel at the Southeast Corner of that intersection with full improvements (curb, gutter and 4 foot attached sidewalks according to City engineering specs.) The balance of Walnut Avenue frontage of the project will be under Power of Attorney for the full cost development of curb, gutter and 4 foot attached sidewalks and 17 feet of pavement complete to be assessed or paid for in full when installed. It is agreed the Greenwood Estates will enter an improvement district as soon as possible for this improvement of Walnut with their neighbors.

\$36,500

\$1500
\$1000

39-78



City of Grand Junction, Colorado 81501

250 North Fifth St., 303 243-2633

October 11, 1979

Mr. Robert Coburn
C & M Surveyors & Engineers, Inc.
656 31 Road
Clifton, CO 81520

Dear Bob:

Re: Greenwood Estates

city sub.

The streets and storm drainage facilities constructed in the above subdivision were final-inspected on August 1, 1979, and September 10, 1979, and our recent reinspection showed that apparently all deficiencies noted in the inspections have been corrected. We have received the required construction test results and the as-built drawings which acknowledge the facilities have been constructed in accordance with the approved plans and specifications.

In light of the above, the streets and storm drainage facilities for Greenwood Estates are accepted by the City, and we are now responsible for maintenance of those facilities.

Thanks for your cooperation in these matters.

Very truly yours,

Ronald P. Rish, P.E.
City Engineer

RPR/hm

cc - Doug Cline
John Kenney
Steve McKee
Karl Metzner ✓
Jim Patterson

Subdivision Greenwood Estates - Preliminary

Date 3 April 78 Item # 39-78

Petitioner GREEN TREE, INC.
NW CORNER 17th ST. & WALNUT AVE

Review Agencies Comments

Review Agencies Comments

Check Greenwood Drive
for name. (Greenwood Circle)
Design for Walnut Ave.
Dead as R.O.W. rather
than easement for
maintenance along
Canal.

Fire Dept. - 1 hydrant required
on 6" line at NW Corner Lot 4
Block 2.
PSCO - req's add'l easmts (see
review sheet.)
Grand Jet Drainage - owners-developers
need to sign tiling agreements

City Utilities - fire flows analysis
should be made to ISO
requirements.

\$5565 Cash payment
22' mat, curb, gutter & sidewalk on
17th Street

City Engg - Walnut must
have 50' ROW at the inter
section with 17th St.

Full Construction of intersection
and Street (34' mat, curbs, gutters, and
sidewalks, P. of A for full
1/2 Street Imp's w/ stipulation the
Petitioner shall work toward a
full street improvement Dist. on Walnut

Walnut intersection with
17th St should be straight
P. of A for full street
improvements

Action Taken

Action Taken

P.C. APPROVAL 4/25/78
C.C. Tabled til Jun 7 - 17 MAY 78

P.C. _____
C.C. _____

Approved Prelim. as submitted,
Comments
with negotiations on 17th & Walnut
intersection to continue.
(Appr. subj. to all staff comments)

Comments

ITEMS REQUIRED FROM DEVELOPER

- 1620 Check receipt No. _____ Utility Agreement _____ Title Investigation
- _____ Drainage _____ Landscaping _____ Covenants
- _____ Improvements Guarantee _____ Annexation _____ Other (Specify)

4/5/78

Subdivision Greenwood Estates - Fina

Date May 1, 1978 Item # 39-78

Petitioner Green tree, Inc

~~_____~~

Final

Review Agencies Comments

Review Agencies Comments

1) G.I. DRAINAGE - Existing tile through center of project & want to discuss with engineer. Show tile on plat.

lights
South 5' of lot 15, BK 1
South 5' of " " 12 " "
" " " 9 " "

2) Engineering - min. 22' mat req'd on 17th & Walnut.

3) Fire Dept. - One Hydrant required installed on a looped grid of wot less than 6" dia pipe at the New Corner lot 4 BK 2.

4) Public Service - electric needs easements for street

Action Taken

P.C. _____

C.C. _____

Comments

Action Taken

P.C. approved 27 June 78

C.C. approved 7/19/78

Comments

Subject to all reviewed requirements & working out 17th & Walnut intersection with the city.

~~_____~~ Subject to Staff comments exc. intersection (which was agreed to)

ITEMS REQUIRED FROM DEVELOPER

- Check
- Drainage
- Improvements
- Utility Agreement
- Landscaping
- Guarantee
- Title Investigation
- Covenants
- Annexation
- Other (Specify)