



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

Original
 Do NOT Remove
 From Office

Receipt 929
 Date 2-3-94
 Rec'd By WMD
 File No. 115 94

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
<input checked="" type="checkbox"/> Subdivision Plat/Plan	<input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major <input type="checkbox"/> Resub	~3.5 acres	7th & North Marcus	R5F-4	Residential
<input type="checkbox"/> Rezone				From: To:	
<input type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Prelim <input type="checkbox"/> Final				
<input type="checkbox"/> Conditional Use					
<input type="checkbox"/> Zone of Annex					
<input type="checkbox"/> Variance					
<input type="checkbox"/> Special Use					
<input type="checkbox"/> Vacation					<input type="checkbox"/> Right-of-Way <input type="checkbox"/> Easement
<input type="checkbox"/> Revocable Permit					

PROPERTY OWNER

DEVELOPER

REPRESENTATIVE

WDM CORPORATION	William D. Merkel	William D. Merkel
Name 2525 North 8th, #203	Name 2525 North 8th, #203	Name 2525 North 8th, #203
Address Grand Junction, CO 81501	Address Grand Junction, CO 81501	Address Grand Junction, CO 81501
City/State/Zip 242-9127	City/State/Zip 242-9127	City/State/Zip 242-9127
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.

William Merkel
 Signature of Person Completing Application 1/31/94
Date

William Merkel
 Signature of Property Owner(s) - Attach Additional Sheets if Necessary

William P. Merkel
2525 N. 8th St.
Grand Junction, CO 81501-8845

2945-23-22-008
John M. & Pamela W. Waage
360 Northridge Dr.
Grand Junction, CO 81506

2945-23-19-009
John G. & Janice A. Pepin
363 Northridge Dr.
Grand Junction, CO 81506

2945-23-19-007
Stanley W. & Deborah S. Stephans
3323 Music Lane
Grand Junction, CO 81506

2945-23-19-008
Roger C. & Rita Shenkel
3333 Music Lane
Grand Junction, CO 81506

2945-23-17-20
Mary A. & Gregory B. Schaefer, Jr.
3350 Music Lane
Grand Junction, CO 81506

2945-23-17-19
Daniel F. & Lynda M. O'Brien
3334 Music Lane
Grand Junction, CO 81506

2945-23-17-18
Glen H. & Diane H. Gallegos
3324 Music Lane
Grand Junction, CO 81506

2945-23-17-017
Robert H. & Arleen T. Ruggeri
3314 Music Lane
Grand Junction, CO 81506

2945-23-17-16
LaVerne & Harold Grosse Living Trust
3304 Music Lane
Grand Junction, CO 81506

2945-23-12-002
Benny G. Kilgore
649 26 1/2 Road
Grand Junction, CO 81506

2945-12-001
Stanley E. & Carolyn B. Rocklin
2811 13th Road South
Arlington, VA 22204

2945-23-00-65
Bernice L. Long
105 Riverside Dr. #1
Palisade, CO 81526

2945-23-00-64
Donald M. Fifield
412 Northridge Dr.
Grand Junction, CO 81506

2945-23-00-46
C.J. & I.I. Desrosiers
2643 F 1/2 Rd.
Grand Junction, CO 81506

2945-23-00-023
John T. & Sharon A. Gordon
629-1/2 26-1/2 Road
Grand Junction, CO 81506

2945-23-00-005
Mable I. Morford Trust
2641 F 1/2 Road
Grand Junction, CO 81506

2945-23-00-002 & 2945-23-00-003
Paul G. & Pamela A. Curlee
2645 F 1/2 Road
Grand Junction, CO 81506

2945-23-00-001
Shirley A. Howard, et al, c/o CL Files
631 26 1/2 Road
Grand Junction, CO 81506

2945-23-24-002
Mesa View Retirement Residence
2741 12th St. SE
Salem, OR 97302

2945-24-00-971
Community Hospital
2021 N. 12th
Grand Junction, CO 81501

2945-24-00-0958
Internatl Church Four Square Gospel
1100 Glendale Blvd.
Los Angeles, CA 90026

2945-23-00-948
City of Grand Junction
250 N. 5th St.
Grand Junction, CO 81501

2945-023-13-004
Harry K. & R.H. Webster
629 Sage Ct.
Grand Junction, CO 81506-1955

2945-023-13-005
Michael R. & Judith M. Heuton
630 Sage Ct.
Grand Junction, CO 81506-1955

2945-023-13-008
Gordon R. & Victoria L. Gilbert
628 Sage Ct.
Grand Junction, CO 81506-1955

2945-023-13-010
William E. & Wanda Wray Putnam
627 Sage Ct.
Grand Junction, CO 81506-1955

2945-023-13-011
Mark S. & Virginia Boyd Wilson
627-1/2 Sage Ct.
Grand Junction, CO 81506-1955

2945-024-00-952
St. Paul Evangel. Lutheran Church
632 26 1/2 Rd.
Grand Junction, CO 81506-1932

2945-024-00-001
Alice K. McConnell
640 Roundhill Dr.
Grand Junction, CO 81506-8316

2945-024-00-004

John C. & Mary E. Cunningham

642 26 1/2 Road

Grand Junction, CO 81506-1932

#15 94

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

DEC 22 1993

Project Name: Bill's Village Plan Refine & Graphics

Date: 12/22/93

To:

Job number 9320

Dr. Bill Merkle
2136 Baniff Ct.
Grand Junction CO 81502

Conference Type Meeting Telephone Hearsay

Conference with Cathy Portner, Don Newton, Jody (City Engineer), Dr. Merkle, Lyle Chamberlain, Craig Roberts and Jim Langford

PREAPPLICATION CONFERENCE FOR NORTHACRES RE-SUBDIVISION OF LOTS 1,2, &7

Existing Zone: RSF-4, allows 4 lots per acre, 8,500 s.f. per lot, min. lot width 20', maximum building height 32', minimum lot width at structure site 75', min. side yard setback 7', rear yard 30', front yard (collector) 50' from center line, max. 4 units per gross acre.

Proposed Plan: 10 lots at 79'x139', no access for sage court -not acceptable to City Planning (Cathy). Cathy recommended the access be included to allow Sage Court to some day have platted R.O.W., since the existing access is by easement at present. Don suggested the R.O.W. be straightened somewhat to reduce the excessive curves in the existing plat. Jim noted that an existing irrigation structure may interfere with the alignment. Craig noted that as long as we provide the R.O.W. connecting to the existing R.O.W., the existing improvements (possibly installed in the R.O.W.) are the concern of the Sage Court residents.

Easements/R.O.W.'s: 7th street will require an additional 10' to provide the 80' R.O.W. required.

Northacres Drive will require whatever R.O.W. has been used on Northridge Drive, (seems to be 50', 2' short of the standard). That difference will be made up when the property on the north side of Northacres finishes the improvements. Don may ask for a 2' flare to accommodate a left turn lane at that time.

Sage Court will require a 44' R.O.W.

Road Improvements: Sage Court where adjacent to this property will require full improvements, or \$100/ft. in escrowed funds.

Northacres Drive will require half street improvements, with mat of width to allow paved two way access (22' mat). A temporary paved cul-de-sac and barrier will be required until a bridge is installed to cross the Grand Valley Canal to the west. This may require the curb and gutter to end short of the proposed bridge and funds escrowed to complete this construction at the time of bridge construction. The temporary R.O.W. for the cul-de-sac will be vacated at that time.

7th Street will require escrow of \$50/ ft. for the length of the property that fronts 7th street. The preliminary drainage study may conclude that an improvement to convey drainage to the existing curb & gutter on 7th may be necessary.

Water Lines: City code may require a looped main to provide fire protection. bill Cheny will know that status of this requirement. The site is served with an 8" Ute main in 7th.

Sewer Service: Site is served by a line which has been stubbed under the canal to the west. Don indicated that the developer would not be required to extend sewer in 7th street.

Irrigation: City does not require irrigation plan. We will provide design for the existing irrigation improvements modification which will be required to align those improvements with easements, R.O.W.'s, etc.

Project Name: Northacres Re-subdivision of lots 1,2,&7

Date: 12/22/93

To:

Job number 9320

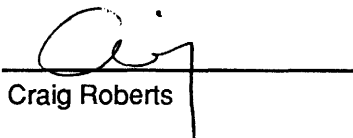
Dr. Bill Merkle
2136 Baniff Ct.
Grand Junction CO 81502

Conference Type Meeting Telephone Hearsay

Drainage: City will require preliminary drainage study to determine whether the fee in lieu of further study, design of detention structures, and construction of structures can be considered.

Schedule: Submittal package are due the first working day of each month, with Planning Commission hearing the first Tuesday of the following month. If appealed, City Council will hear the appeal 2 weeks following Planning Commission.

Sage Court Meeting: Cathy suggested we meet with the residents of Sage Court to allow them to express their opinions and allow the City and developer an opportunity to convince them that a permanent access is to their benefit.


Craig Roberts

cc: Lyle Chamberlain
Jim Langford
Cathy Portner
Don Newton

A RE-PLAT OF
NORTHACRES
SUBDIVISION

Lots 1,2, & 7

February 1, 1994

Prepared for:
Dr. Bill Merkle
2136 Baniff Ct.
Grand Junction, CO. #15 94

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CIAVONNE & ASSOCIATES, INC.

PLANNING AND LANDSCAPE ARCHITECTS
336 MAIN #206, GRAND JUNCTION, CO.

Northacres Subdivision Re-plat

Project Narrative

Legal Description: Lots 1,2 and 7 of Northacres Subdivision.

PROPERTY LOCATION

The lots are located west of 26-1/2 Road (North 7th Street), approximately 500' north of the intersection of 26-1/2 Road and Horizon Drive. These lots lie in the northeast quarter of the southwest quarter of Section 2, Township 1 South, Range 1 West, of the Ute Principal Meridian.

EXISTING SITUATION

Northacres Subdivision, platted in 1965, is an existing single family residential development. The two platted rights-of-way, Northacres Road and most of Sage Court, have never been developed. The residents of Sage Court presently use a 14' graveled access easement which connects with the southern 180' of the platted Sage Court Right of Way. The portion of the platted Sage Court that is being used is graveled with no curb or gutter.

The existing zoning is RSF-4. Lot 1 is .80 acres, lot 2 is .84 acres, and lot 7 is .85 acres.

THE PROPOSED DEVELOPMENT

The Owner is requesting a re-plat to allow 9 lots to be subdivided from the existing lots 1,2 and 7. This re-plat will allow an adjustment of the Sage Court road alignment which was originally platted with 55' radius curves. The re-platting will also allow the dedication of an additional 17' of Right-of-way for 26-1/2 Road (North 7th Street) to allow the right of way to be expanded to meet the right-of-way to the south.

PUBLIC BENEFIT

This project is proposed to allow the development of these parcels as single family residences in response to need shown by recent depletion of residential lots available in this area. These lots are within close proximity to St. Mary's hospital, the surrounding medical service offices, as well as Foresight Park. Both of these areas have shown growth in employment and have accelerated the pressure for adjacent available housing.

ADOPTED PLANS AND POLICIES

Seventh Street Policies- extends south from Horizon drive, this project is 500' north of this intersection.

Multi-Modal Transportation Plan-the adjacent canal is included as a proposed bike route, but the existing canal road lies on the other side of the canal.

THE IMPACTS

Surrounding Land Use-Sage Court lots and the Gordon Property to the south have been developed with single family homes. The Northridge Filing 5 property to the west is undeveloped, and the property to the north is undeveloped. The property to the east is occupied by the Church and a single family residence. Mesa View Retirement home lies south 600', and the developed portion of Northridge Subdivision lies 250' to the west.

Site Access & Traffic Patterns-The proposed Northacres Drive provides the development of a road platted in 1965. The completion of this road will form a 90° "Tee" intersection with 26-1/2 road (north 7th Street).

The existing Rights-of-Way for Northacres Drive and Sage Court are 50' and will be maintained at this width. The location of the undeveloped but platted Sage Court has been moved 100' to the west to allow the lots to be configured in a more desirable manner and to eliminate the 55' radius curves in the platted Sage Court alignment.

The City of Grand Junction Engineering Department has requested the escrow of funds for 7th street right-of-way half street improvements. It is the intention of the Owner to pay the fee into escrow for future development of 7th Street.

Availability of Utilities-The site is served by an 8" City of Grand Junction Water line, adequate to provide drinking water and fire protection for the development. Two fire hydrants are proposed. The service will be extended with an 8" main to serve homes and fire hydrants.

An 8" sewer line was stubbed into the site from under the canal, and the right of recovery is acknowledged to allow the proposed lots to access this line.

The Owner of the property also owns 3 shares of Grand Valley Irrigation Company water. The historic delivery has come from the Upper Grand Valley Canal near F-1/2 Road. An existing 15" pipe delivers irrigation to some homes on Sage Court and in Northridge Subdivision. A parallel line to this 15" line to deliver irrigation water for a gravity system for the proposed lots is being investigated.

Drainage- See Preliminary Drainage Plan, attached to this report.

Effects on Public Facilities- In general, the development of this site will incrementally increase the use of roads, fire protection, police protection, schools, sanitation facilities, parks, and irrigation. In some cases, the expanded use has been planned for and will increase the efficiency of existing facilities, such as irrigation (because shares are already owned), sanitation (plant was designed for population of the 201 district), and fire protection (within the existing district service area). In other cases, the developer is paying or the proposed improvements such as roads (26-1/2 road escrow of funds), parks (Parks & Open space fees). The remaining services, schools and police protection, are property tax funded.

A \$225 per lot Parks and Open Space Fee will be paid in lieu of open space development or dedication.

The site is within 1/2 mile of Tope elementary School, 1.5 miles from West Middle School, and within 1 mile of Grand Junction High. With 9 lots being developed, any additional burden to the schools from this development will be minimal.

Fire protection in this area is served by the Grand Junction Fire Protection. Initial response to this site would be served from Station #3, located on 25-1/2 Road just south of Patterson Avenue.

In Summary, this proposal meets the intent of the policies established by The City of Grand Junction, the desires of the landowner, and the home buyer market that we believe this project addresses.

Preliminary Drainage Report

**A Replat of Northacres Subdivision
Lots 1, 2 & 7**

January 1994

Prepared for:

**Dr. Bill Merkle
2136 Baniff Ct.
Grand Junction, CO 81502**

Prepared by:

**THOMPSON-LANGFORD CORPORATION
529 251/2 RD., SUITE B-210
Grand Junction, CO 81505
PH. 243-6067**

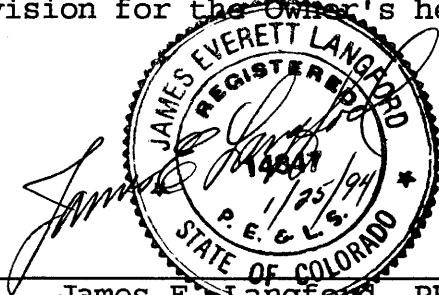
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Job. No 0202-001.03

Engineer's Certification

I hereby certify that the following report was prepared by me or under my direct supervision for the Owner's hereof.



James E. Langford, PE & LS
Reg. No. 14847

. Site and Major Basin Description

1. Acreage: Original Plat 9.04 acres
Proposed Replat 3.64 acres
2. Ground cover types:
The site is presently covered with wheat grasses, weeds and a few scattered small Elm trees.
3. Hydrologic soil types:
Chipeta Silty clay Loam, a shallow soil developed from Mancos shale. The hydrologic soil group is "D"

Existing Drainage Conditions

Occupying a high point above the Main Line of the Grand Valley Canal, the site is isolated from off-site drainage. Northacres is geologically a knob of weathered Mancos Shale, peaking near it's center and generally shedding it's storm drainage south and west to the adjacent canal with a minor amount going northly and easterly to 7th street.

Though there appear to be wetlands immediately west of the project across the Grand Valley Canal, there are no indications of wetlands on this property.

The site has been checked to see it is in any identified 100-year floodplain and was found not to be impacted by any known floodplain delineation.

Proposed Drainage Conditions

We do not expect to materially alter the historic drainage patterns from this site, but do expect that development of the site will increase the runoff. Only the front three lots of the original Northacres Subdivision are involved in this platting effort. Lots 3 thru 6 of Northacres are not a part of this project. These lots occupy the higher knob to the south and will continue to shed as they have historically done to the canal which borders them on the south and west sides.

Drainage from the northerly three lots which we are replatting, will flow to the curb and gutter on the south side of Northacres Road. From here the drainage will shed roughly 1/3 towards 7th Street with the remainder shedding west towards the southerly branch of the Grand Valley Canal.

The portion that drains to 7th street will be diverted south and flow along the west side of 7th Street eventually reaching the curb and gutter of the Horizon Drive extension.

The portion of the drainage that sheds westerly will temporarily flow into the southerly branch of the Grand Valley Canal. Charlie Guenther of the Grand Valley Irrigation District was contacted and was willing to accept this drainage on a temporary basis until such time as the bridge across the canal is completed and the road is connected to Northridge Drive. We need only install a 20 foot length of culvert so that their access is not impeded. When the road is completed to Northridge, flows from this site as well as those from Northridge will collect immediately west of the canal and be discharged into the existing natural drainage.

Design Criteria & Approach

Though we have discussed in general terms how we would expect to divert drainage from the site, we are not proposing any technical site analysis of drainage at this time. Given the small size of this replatting, it is our request that this project be allowed to make payment of the drainage fee in lieu of conducting a formal drainage analysis, preparing a formal drainage report, or designing on-site conveyance, retention or detention facilities.

REVIEW COMMENTS

Page 1 of 4

FILE #15-94

TITLE HEADING: Preliminary Plan - Northacres
Subdivision

LOCATION: 26 1/2 Road & Northacres Road

PETITIONER: WDM Corporation/Dr. William Merkel

PETITIONER'S ADDRESS/TELEPHONE: 2525 North 8th Street, #203
Grand Junction, CO 81501
242-9127

PETITIONER'S REPRESENTATIVE: Ciavonne & Associates

STAFF REPRESENTATIVE: Kathy Portner

**NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS
REQUIRED ON OR BEFORE 5:00 P.M., FEBRUARY 22, 1994.**

GRAND VALLEY RURAL POWER
Perry Rupp

2/3/94
242-0040

Not in GVRP service area.

GRAND VALLEY IRRIGATION DISTRICT
Phil Bertrand

2/8/94
242-2762

Petitioner has satisfied requests related to drainage pipe and right-of-way access at canal on West end of subdivision. Some other areas of concern are:

1. Are water shares going to be held by association to be formed or by individual landowners in the subdivision?
2. No future alternate points of diversion for irrigation water will be authorized by the GVIC; i.e. the Mainline Canal on the west border of the subdivision.
3. Is fencing of lots to be responsibility of developer or future owners? Require west fence on Lot 7 to be placed on property line and not to encroach on canal right-of-way.
4. Homeowner's Association Covenants need to include restrictions on canal right-of-way use such as:
 - No stock piling of debris, grass-clippings, brush, vehicles, animal refuse, etc. on canal right-of-way.
 - No horizontal or vertical encroachment of canal right-of-way by live trees or shrubs.
 - Canal right-of-way is considered a "No Trespass" area not to be used for walking, biking, vehicular use, etc.
 - No runoff or irrigation, garden or lawn water, etc., is to come onto right-of-way that would inhibit right-of-way use or damage such access road.

CITY DEVELOPMENT ENGINEER
Jody Kliska

2/10/94
244-1591

See attached comments and red-lined drawings.

CITY ATTORNEY
Dan Wilson

2/10/94
244-1505

Pedestrian/public link from 7th to 1st & Patterson should be dedicated and the first portion built.

CITY POLICE DEPARTMENT
Mark Angelo

2/10/94
244-3587

1. Is Sage Court going to be completely finished to provide a public right-of-way to the homes on Sage Court?
2. If Northacres Road is going to join with Northridge Drive, I recommend the name be changed to Northridge Drive. Because of the potential use of Northridge Drive once it connects and because of the potential for area growth and more connections, would a right-turn line at 7th Street be appropriate? And maybe a left turn lane?
3. Instead of a turn-around spot at the west end, this may be a good time to go ahead and connect it with Northridge.

CITY PARKS & RECREATION DEPARTMENT
Don Hobbs

2/4/93
244-1542

Open space fees based upon 9 lots = \$2,025.

U.S. WEST
Leon Peach

2/8/94
244-4964

New or additional telephone facilities necessitated by this project may result in a "contract" and up-front monies required from developer, prior to ordering or placing of said facilities. For more information, please call Leon Peach, 244-4964.

GRAND JUNCTION FIRE DEPARTMENT
George Bennett

2/14/94
244-1400

Fire Department access and water line size appears to be adequate at this time. Fire hydrants are required at intersections and spaced no greater than 500 feet apart. The proposed fire hydrants need to be relocated to the following locations: the hydrant between Lots 3 & 4 moved to the NE corner of Lot 1; the fire hydrant at the NE corner of Lot 8 to the NW corner of Lot 7. Submit a revised utility composite reflecting these changes.

PUBLIC SERVICE COMPANY
Dale Clawson

2/7/94
244-2695

ELECTRIC & GAS: Require 14' front lot line multi-purpose easement.

CITY UTILITY ENGINEER
Bill Cheney

2/14/94
244-1590

WATER

1. It has not been determined at this time who the water purveyor will be; Ute or the City.
2. Additional information will be required upon submittal of final drawings.

SEWER

1. Sewer configuration appears adequate.
2. Plan/profile sheets will be required at the time of final submittal.
3. Payback, as 4-1-94, is \$8,925.15 for Lots 2 & 7.

No other comments.

UTE WATER DISTRICT
Gary R. Mathews

2/14/94
242-7491

1. Fire protection for lots 3 through 6 is provided from the Ute system. Both fire and domestic services for the re-platted 9 lots along Northacres Road will be provided from the existing 8" Ute Water line located along the west side of North 7th Street. The necessary new water line is to be installed in the North half of the road right-of-way, rather than as shown, and will eventually be looped to the existing 6" main in Northridge Drive.
2. Grand Junction Fire Department will determine proper fire hydrant placement.
3. Policies and fees in effect at the time of application will apply. As-builts and construction plans required.

CITY PROPERTY AGENT
Tim Woodmansee

2/15/94
244-1565

The Final Plat should be accompanied by a dedication describing the subject property by metes and bounds and appropriate dedications for all easements and rights-of-ways.

I would question the petitioner's ownership of the vacated portion of Sage Court that forms a triangle in the southwest corner of Lot 7. One could argue that a considerable portion of the vacated Sage Court would revert to the owner of Lot 3 of the original plat.

COMMUNITY DEVELOPMENT DEPARTMENT
Kathy Portner

2/16/94
244-1446

See attached comments.

LATE COMMENTS

GRAND JUNCTION DRAINAGE DISTRICT
John L. Ballagh

2/22/94
242-4343

There are no known existing or planned rainage district facilites on this site.

STAFF REVIEW

FILE: #15-94

DATE: February 16, 1994

STAFF: Kathy Portner

REQUEST: Preliminary Plan--Northacres Subdivision

LOCATION: South-west corner of 7th Street and Northacres Road

APPLICANT: William D. Merkel

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: Residential Single Family

SURROUNDING LAND USE:

NORTH: Residential (bicycle salvage yard)

SOUTH: Residential

EAST: Church

WEST: Residential

EXISTING ZONING: RSF-4

PROPOSED ZONING: RSF-4

SURROUNDING ZONING:

NORTH: R-1-A (County)

SOUTH: RSF-4

EAST: R-1-A (County)

WEST: PR (Planned Residential)

RELATIONSHIP TO COMPREHENSIVE PLAN:

No plan exists for this area.

STAFF ANALYSIS:

The proposal is for the replatting of lots 1, 2 and 7 of Northacres Subdivision. The property is currently zoned RSF-4 (Residential Single Family, 4 units per acre) and remain so zoned. The following issues/comments are offered for the petitioner's response:

1. Permanent improvements to the west end of Northacres Road must be guaranteed. Funds adequate for the extension of Northacres Road if it is to extend across the bridge or funds adequate for a permanent cul-de-sac if the development on the west side of the canal for some reason does not require the canal crossing must be provided.
2. After further review staff is recommending that the developer of Northacres be required to pay for, or guarantee, a portion of the cost to construct the bridge across the canal. If the bridge is not needed in the future a permanent cul-de-sac would be constructed at the end of Northacres Road and remaining funds escrowed for the bridge will be refunded to the developer.
3. Assuming Northacres will eventually cross the canal and connect into Northridge Drive, the street name in Northacres should be changed to Northridge Drive at the time of platting.
4. The RSF-4 setbacks for principal structures are as follows:
Side yard 7 feet
Rear yard 30 feet
Front yard:
 7th Street 65 feet from center line
 Northacres and Sage Court--45 feet from center line or 20
 feet from property line whichever
 is greater.
Corner lots must meet the front yard setback along both streets.
5. If the preliminary plan is approved with the new alignment of Sage Court, a ROW vacation will be required to vacate the old alignment at the time of final platting.
6. Please indicate the area of any irregularly shaped lots.
7. The final plat will include a note prohibiting access directly to 7th Street from lot 1.
8. The irrigation line across lot 4 will require an adequate easement. It appears the location of the line will significantly constrain the building envelope of lot 4. Please comment on the building area.
9. Is there an easement associated with the abandoned irrigation ditch that will need to be vacated?
10. The setbacks for lot 9 as they pertain to the location of the temporary cul-de-sac will need to be clarified with the final plat.
11. Subdivision covenants, signage and fencing (if any) must be reviewed and approved with the final plat.
12. Parks and Open Space fees must be paid prior to recording the final plat.

13. Public Works will consider the payment of a drainage fee in lieu of on-site detention.

STAFF RECOMMENDATION:

February 17, 1994

Ms. Cathy Portner
Community Development Department
City of Grand Junction
559 White Avenue
Grand Junction, CO. 81501

Dear Ms. Portner,

The following is a response o the review Agency Comments concerning the Northacres Re-plat submittal.

Grand Valley Rural Power

- OK 1. Not in GVRP service area.

Grand Valley Irrigation District:

- OK 1. Water shares are to be held by the Homeowner's Association.
2. Diversion point is to comply with the wishes of GVID
3. Fencing is to be responsibility of the homeowner.
4. Suggested restrictions will be included in covenants.

City Development Engineer

- OK 1. Drainage Report calculations will be made at Final.
2. The 20' culvert at the west end of the project is on private property, the size and length as requested by the owner, and acknowledged in the review comments by the GVID to satisfy their requests. It is needed only to allow passage of ditch maintenance equipment. Any 100 year event will flow into the canal as it has always done until a permanent crossing is constructed.
3. Radii at Northacres and 7th will be 30' on final.
4. Northacres Road will be shown as Northridge Drive at Final.
5. 14' multi-purpose easement will be shown at Final.
6. The paving ends where shown to allow the construction of the temporary cul-de-sac as agreed in the Dec. 22nd pre-application meeting. It was determined at that meeting that half road improvements from this point up to the canal would be escrowed for the completion of this portion of road when the road is constructed across the canal as would the half street improvements for 7th Street.

City Attorney

- OK 1. Pedestrian access on Northacres Drive is provided through standard sidewalk construction. Additional sidewalk will be constructed in conjunction with the completion of Northacres Drive and 7th Street using escrowed funds required of this developer.

City Police Department

- 1. Sage court will be completed by this developer to the extent of his property or the funds will be escrowed. Any other improvements would be completed by a Special Improvements District if desired by the residents of Sage Court.
- 2. Northacres Road will be shown as Northridge Drive at Final.
- 3. The continuation of Northridge Drive has not been required of this property development, nor by standards of the City at this time.

City Parks and Recreation Department

- 1. Open space fees of \$225 per lot for the additional 6 lots would be \$1,350, and will be paid at Final.

U.S. West

- Contract negotiations for telephone service will begin following Preliminary approval.

Grand Junction Fire Department

- 1. Fire hydrant locations will be coordinated at Final.

Public Service Company

- 1. 14' multi-purpose easement will be shown at Final.

City Utility Director

- 1. Water will be served by Ute Water. Drawings will be changed to show the service connection.
- 2. Sewer service connection is under further study to determine the most cost effective connection available. It should be noted that the right of recovery is a user fee collected at the time of sewer clearance for issuance of a building permit. Plans and profiles will be provided as required at Final.

Ute Water District

- 1. Fire protection and domestic water service is to be provided by Ute Water.
- 2. Fire hydrant locations will be coordinated at Final.
- 3. Fees and plans required at final.

City Property Agent

- 1. Meets and bounds description and dedications is to occur at Final.
- 2. The pre-application meeting on December 22 displayed this plan with the roadway being adjusted in such a manner. At that time there was no indication that a vacation was necessary. The adjustment of the right-of-way was seen by the City Engineer as a benefit by virtue of eliminating the 55' radius corners on the existing platted Sage Court. This is confirmed by the review comments by the City Development Engineer. An application for vacation will be submitted if so desired at Final.

Community Development Staff

- 1. As discussed in the pre-application conference, the construction of the half street improvements, or the funds for half street improvements for Northacres Drive will be escrowed, along with the half street improvements for 7th Street.
- 2. The connection of this right-of-way to Northridge Drive is not necessary for this property to meet codes, existing commitments, or standards for this property. The financial burden for this should not burden this landowner.
- 3. Northacres Road will be shown as Northridge Drive at Final.
- 4. Setbacks indicated in the review are noted.
- 5. The vacation requested was not mentioned at the pre-application meeting on December 22. This plan was presented with the roadway being adjusted in such a manner. The adjustment of the right-of-way was seen by the City Engineer as a benefit by virtue of eliminating the 55'

radius corners on the existing platted Sage Court. This is confirmed by the review comments by the City Development Engineer. An application for vacation will be submitted if so desired at Final.

6. Minimum lot size for RSF-4 is 8,500 s.f. With a lot depth of 149', minimum lot width is 57', at a lot depth of 139', minimum lot width is 61'. At either depth, the minimum width is exceeded by all lots shown.

7. A note prohibiting access from lot 1 onto 7th street will be included at Final

8. Lot #4 has 4,800 s.f. of buildable area for the principal structure if the irrigation line is given a 10' easement.

9. The irrigation ditch has not shown up in the title search. Further investigation will be conducted in preparation of the Final Plat.

10. Temporary easements and setback for lot 9 will be shown at Final.

11. Covenants will be submitted at Final as required.

12. 1. Open space fees of \$225 per lot for the additional 6 lots would be \$1,350, and will be paid at Final.

13. Drainage calculations necessary will be provided to determine fees in lieu of on-site detention.

Thank you for the adherence to the schedule. It is appreciated very much.

Sincerely,

Craig Roberts
Secretary/Treasurer

STAFF REVIEW

FILE: #15-94
DATE: February 23, 1994
STAFF: Kathy Portner
REQUEST: Preliminary Plan--Northacres Subdivision
LOCATION: South-west corner of 7th Street and Northacres Road
APPLICANT: William D. Merkel

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: Residential Single Family

SURROUNDING LAND USE:

NORTH: Residential (bicycle salvage yard)
SOUTH: Residential
EAST: Church
WEST: Residential

EXISTING ZONING: RSF-4

PROPOSED ZONING: RSF-4

SURROUNDING ZONING:

NORTH: R-1-A (County)
SOUTH: RSF-4
EAST: R-1-A (County)
WEST: PR (Planned Residential)

RELATIONSHIP TO COMPREHENSIVE PLAN:

No plan exists for this area.

STAFF ANALYSIS:

The proposal is for the replatting of lots 1, 2 and 7 of Northacres Subdivision. The property is currently zoned RSF-4 (Residential Single Family, 4 units per acre) and remain so zoned. Nine lots are proposed which meet the requirements of the RSF-4 zone. Development of this property will require half street improvements to 7th Street as well as the construction of

Northacres Road with 22' of pavement and curb, gutter and sidewalk on one side and full improvements to that portion of Sage Court that is adjacent to this property. The petitioner is proposing to realign Sage Court through the property.

All review comments have been adequately addressed (see letter dated February 17, 1994) except the following:

1. Open space fees, due at the time of final platting, will \$225 for all nine lots unless the petitioner can show that the fee has already been paid for the three existing lots.
2. Final sewer alignment must be approved by the City.
3. A ROW vacation will be required at final for the realigned Sage Court. Prior to that a determination should be made as to whether the vacated portion of Sage Court that forms a triangle in the southwest corner of Lot 7 would revert to the owner of Lot 3 of the original plat.
4. Permanent improvements to the west end of Northacres Road must be guaranteed. Funds adequate for the extension of Northacres Road if it is to extend across the bridge or funds adequate for a permanent cul-de-sac if the development on the west side of the canal for some reason does not require the canal crossing must be provided.
5. After further review, staff is recommending that the developer of Northacres be required to pay for, or guarantee, a portion of the cost to construct the bridge across the canal. If the bridge is not needed in the future, a permanent cul-de-sac would be constructed at the end of Northacres Road and remaining funds escrowed for the bridge will be refunded to the developer.

STAFF RECOMMENDATION:

Staff recommends approval of the Preliminary Plan for Northacres subject to the following conditions:

1. Open space fees, due at the time of final platting, will \$225 for all nine lots unless the petitioner can show that the fee has already been paid for the three existing lots.
2. Final sewer alignment must be approved by the City.
3. A ROW vacation will be required at final for the realigned Sage Court. Prior to that, a determination should be made as to whether the vacated portion of Sage Court that forms a triangle in the southwest corner of Lot 7 would revert to the owner of Lot 3 of the original plat.
4. Permanent improvements to the west end of Northacres Road must be guaranteed. Funds adequate for the extension of Northacres Road if it is to extend across the bridge

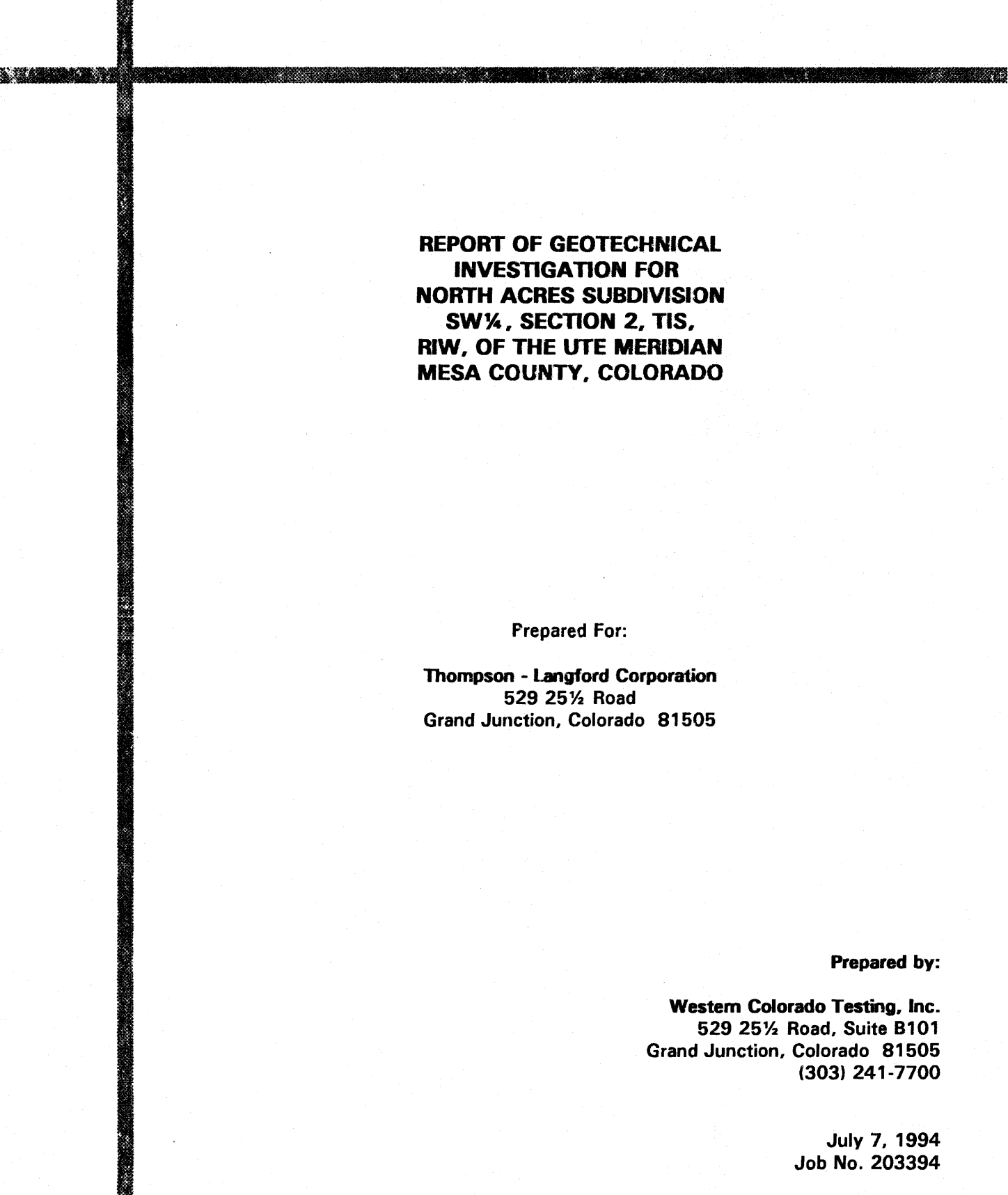
or funds adequate for a permanent cul-de-sac if the development on the west side of the canal for some reason does not require the canal crossing must be provided.

5. After further review, staff is recommending that the developer of Northacres be required to pay for, or guarantee, a portion of the cost to construct the bridge across the canal. If the bridge is not needed in the future, a permanent cul-de-sac would be constructed at the end of Northacres Road and remaining funds escrowed for the bridge will be refunded to the developer.
6. All other review agency comments as noted in the file and agreed to by the petitioner in their response dated February 17, 1994 must be satisfactorily addressed with the final submittal.

SUGGESTED PLANNING COMMISSION MOTION:

Mr. Chairman, on item #15-94, Preliminary Plan for Northacres Subdivision, I move we approve this subject to the staff recommendation as presented.

*3/1/94 - PC - approval subject to staff recommendation
with exception of requiring bridge improvements*



**REPORT OF GEOTECHNICAL
INVESTIGATION FOR
NORTH ACRES SUBDIVISION
SW¼, SECTION 2, T1S,
R1W, OF THE UTE MERIDIAN
MESA COUNTY, COLORADO**

Prepared For:

**Thompson - Langford Corporation
529 25½ Road
Grand Junction, Colorado 81505**

Prepared by:

**Western Colorado Testing, Inc.
529 25½ Road, Suite B101
Grand Junction, Colorado 81505
(303) 241-7700**

**July 7, 1994
Job No. 203394**



**WESTERN
COLORADO
TESTING,
INC.**

**REPORT OF GEOTECHNICAL
INVESTIGATION FOR
NORTH ACRES SUBDIVISION
SW¼, SECTION 2, T1S,
R1W, OF THE UTE MERIDIAN
MESA COUNTY, COLORADO**

Prepared For:

**Thompson - Langford Corporation
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Grand Junction, Colorado 81505**

Prepared by:

**Western Colorado Testing, Inc.
529 25 1/2 Road, Suite B101
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July 7, 1994
Job No. 203394

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INTRODUCTION

This report presents the results of the geotechnical investigation performed at the site of a proposed 3.5 plus or minus acre subdivision to be located in the SW $\frac{1}{4}$, Section 2, Township 1 South, Range 1 West, of the Ute Meridian, Mesa County, Colorado. This investigation was authorized by Mr. Jim Langford on June 16, 1994.

Included in this investigation were test borings and a report of our conclusions and recommendations. The scope of our report was limited to the following:

- Evaluating the engineering properties of the subsoils encountered.
- Recommending types and depths of foundation elements.
- Evaluating soil bearing capacity and estimated settlement.
- Presenting recommendations for earthwork and soils related construction with respect to the subsoils encountered.
- Presenting recommended alternative pavement sections.

This report was prepared by the firm of Western Colorado Testing, Inc. (WCT) under the supervision of a professional engineer registered in the state of Colorado. Recommendations are based on the applicable standards of the profession at the time of this report within this geographic area. This report has been prepared for the exclusive use of **Thompson - Langford Corporation and the owners**, for the specific application to the proposed project in accordance with generally accepted geotechnical engineering practices.

The scope of this investigation did not include any environmental assessment for the presence of hazardous or toxic materials in the soil or groundwater on or near this site. If contamination is a concern, it is recommended an environmental assessment be performed.

SITE CONDITIONS

The site is bounded on the north, south and west by residential housing. To the east is 7th Street followed by residential housing. The site has an approximate north-south ridge located approximately one third of the distance in from the east. The site generally slopes to the northwest west of the ridge and west, northwest, east of the ridge. At the time of the field exploration the site had a ground coverage of native grasses and some scattered small trees.

PROPOSED CONSTRUCTION

The proposal construction will consist of approximately 8 single family dwellings. The proposed residences will be conventional wood framed structures with siding or brick veneer. The structures are planned to be constructed over reinforced concrete foundations. Light to moderate foundation loads are anticipated.

FIELD EXPLORATION

The field investigation was conducted on June 25, 1994. The exploratory program consisted of two (2) soil borings located at Station 3+80 right lane and one at Station 8+00 left lane. Borings were located in the field by pacing distances from features shown on the site plan. The location of the borings should be considered accurate only to the degree implied by the method used.

Test borings were advanced to depths of approximately 18 and 19½ feet with a truck mounted Dietrich D-50 soil sampling rig using four inch continuous flight augers. Borings remained open during drilling, and stabilization drilling methods were not required within the depths investigated.

Soil samples were obtained at the sampling intervals shown on the Boring Logs (Appendix, Figures 1 and 2). Recovered samples were extracted in the field, sealed in plastic or brass containers, labeled and protected for transportation to the laboratory for testing. Dames and Moore ring barrel and split barrel samples were obtained while performing Standard Penetration Tests (SPT) driven in general accordance with ASTM D-1586, "Penetration Test and Split Barrel Sampling of Soils". The N-Value, reported in blows per foot, equals the number of blows required to drive the sampler over the last 12 inches of the sample interval.

Stratification lines represent the approximate boundary between soil types, and the transition may be gradual.

SUBSURFACE CONDITIONS

As shown on the boring logs, Appendix, Figures 1 and 2, the subsurface conditions encountered at the site are fairly uniform. Generally, the soils encountered in the borings consisted of very silty clays overlying weathered claystone and claystone bedrock materials. Water was not encountered in either of the borings during drilling. Water was measured 2 days later at a depth of 9' - 2" in test boring TH-2. Test boring TH-1 remained dry.

The surface material was a very silty clay which was loose for the upper 6 to 8 inches then became stiff to very stiff and was

dry to slightly moist and light brown in color. Following the surface material at a depth of 2½ to 3½ feet was a weathered claystone which was dry to slightly moist and brown to rust to olive in color. A penetration test indicates the weathered claystone is firm to medium hard. The weathered claystone became less weathered at a depth of 5 to 7 feet and was slightly moist to moist and brown to rust to olive in color. Penetration tests indicate the claystone bedrock is hard to very hard. The claystone bedrock extended to the maximum depth explored, 19½ feet.

CONCLUSIONS AND RECOMMENDATIONS

In general, this site is considered suitable for the proposed construction. The subsoils encountered at the anticipated depth of foundations are generally capable of supporting the anticipated loads, within the design parameters discussed as follows.

FOUNDATION ANALYSIS

The upper soils are dry and contain some voids which have the potential when wetted to collapse. At the 2½ to 3½ foot depth is a weathered claystone material which possesses shrink-swell potential. Due to the potential movement and differential movement of the soils we recommend all soils within 3 feet of the foundation bearing depth be removed and replaced with structural fill. Following placement and compaction of the structural fill the residences may be supported on conventional spread footing systems.

The following design and construction details should be observed for a spread footing foundation system.

- Following placement and compaction of the new structural fill the footings should be designed for an allowable soil bearing pressure of 3000 pounds per square foot. Footings should be proportioned as much as practicable to minimize differential settlement.
- Structural fill placed for support of footings should consist of a granular, non-expansive material compacted to a minimum 95% of the maximum Standard Proctor density (ASTM D-698) at a moisture content (\pm) 2% of optimum. Structural fill should extend down from the bottom of the footings at a one horizontal to one vertical projection.
- We estimate total settlement for footings designed and constructed as discussed in this section will be one inch or less, which is generally considered acceptable and was used in our analysis.
- Exterior footings and footings in unheated areas should extend to below the frost depth. The local building codes should be consulted, however we would recommend a minimum depth of 24 inches.
- Continuous foundation walls should be reinforced top and bottom to span an unsupported length of at least ten (10) feet. A sulfate resistant concrete should be used for all concrete that will come into contact with the on site soils.
- All loose or disturbed material encountered at the foundation bearing level should be removed and replaced with new structural fill. The surface of the existing soils should be moisture conditioned and compacted prior to placement of any structural fill.

- A representative of the geotechnical engineer should observe all foundation excavations prior to the placement of fill and concrete.

LATERAL EARTH PRESSURES

Foundation walls are normally designed to be fairly rigid (unyielding), and should therefore be designed for "at rest" lateral soil pressures. Backfill consisting of the existing natural soils should be designed to resist an "at rest" (k_0) lateral earth pressure corresponding to an equivalent fluid pressure (EFP) of at least 70 pounds per cubic foot. Walls which are separate from structures and can rotate sufficiently to develop active conditions can be designed to resist a lateral earth pressure corresponding to an equivalent fluid pressure of 60 pcf. These lateral earth pressures do not include sloped backfill, surcharge loads or hydrostatic pressures.

FLOOR SLABS

The natural soils, exclusive of the topsoil, are suitable for support of slab-on-grade construction. The following construction details will help mitigate slab movement and should be observed for slab-on-grade construction.

- Floor slabs should be separated from all bearing walls, columns and utility lines with an expansion joint which allows unrestrained vertical movement.
- Floor slabs should be provided with control joints to reduce damage due to shrinkage cracking.
- The top 12 inches of soils should be moisture conditioned to near optimum and recompacted to a minimum 95% of ASTM D-698.

- The risk of slab movement could be reduced by removing all clay encountered within 3 feet below the slabs and replacing it with structural fill.
- All fill placed below the slabs should consist of non-expansive, granular material compacted to at least 95 percent of the maximum standard Proctor density at a moisture content near optimum.

PERIMETER DRAIN SYSTEM

Water was encountered at a depth that should not affect the proposed construction, however, it has been our experience that local perched water table conditions can develop after construction. The source of water could be from excessive irrigation and poor surface drainage accumulating in backfill areas, with subsequent seepage to foundation depth. For this reason a drain system should be provided around exterior foundation walls. The perimeter drain system should be placed at or below the footing level and typically consist of a perforated 4 inch diameter drain pipe surrounded by at least one pipe diameter of free draining gravel. The gravel should extend to the top of the footing or above and should be completely wrapped in a filter fabric. The drain lines should be graded to daylight or to a sump where the water can be removed by pumping. A minimum slope of 1 percent should be used for all drain pipe. The gravel used in the drain system should be minus 2 inch material having less than 20 percent passing the No. 4 sieve and less than 5 percent passing the No. 200 sieve.

SURFACE DRAINAGE AND LANDSCAPING

The success of shallow foundation and slab-on-grade systems is contingent upon keeping the subgrade soils at a more or less constant moisture content, and by not allowing surface drainage a path to the subsurface. Positive surface drainage away from structures must be maintained at all times. Landscaped areas

should be designed and built such that irrigation and other surface water will be collected and carried away from foundation elements.

The final grade of the foundations backfill and any overlying concrete slabs or sidewalks should have a positive slope away from foundation walls on all sides. We recommend a minimum slope of 8 inches in the first 10 feet; however, the slope can be decreased if the ground surface adjacent to foundations is covered with concrete slabs or sidewalks.

Backfill material should be placed near optimum moisture content and compacted to at least 90% of maximum standard Proctor density in landscaped areas and to at least 95% maximum standard Proctor density beneath structural areas (sidewalks, patios, driveways, etc.). All roof downspouts and faucets should discharge well beyond the limits of all backfill. Irrigation within ten (10) feet of the foundation should be carefully controlled and minimized.

STREET PAVEMENTS

The pavement section thickness needed at the site is dependent mainly on the subgrade conditions and the traffic loadings. The near surface soils encountered at the site indicate the pavement subgrade soils are primarily very silty clays. The clay was tested for Atterberg limits and size distribution with the results used to classify the soil using both the Unified and AASHTO classification systems. The soil was then tested to determine the R-value according to the Colorado Highway Department procedure which is a modification to ASTM D-2844.

An "R" value test was performed on the clay with a test result of 21. Because scheduling did not allow the subgrade to be pre-soaked for 24 hours it is our opinion that the 21 R-Value is slightly higher than it would have been. Accordingly, we

recommend for pavement section calculations a R-Value of 16 to 18 be used. Based on an R-Value of 16, design manual procedures, freeze/thaw conditions and experience with similar projects, the following pavement section alternatives are indicated:

PAVEMENT ALTERNATIVE SECTIONS									
STREET	DESIGN CRITERIA				ALTERNATIVE	PAVEMENT SECTIONS - INCHES			
	"R" VALUE	EDLA	RF	WSN		HBP	ABC	ASC	TOTAL
Residential	16	5	2.0	2.19	A	3	7		10
					B	2	6	5	13
					C	2	4	8	14
					D	5			5

"R" Value - CDOH Procedures
 EDLA - Equivalent Daily Load Application
 RF - Regional Factor
 WSN - Weighted Structural Number

HBP - Hot Bituminous Pavement
 ABC - Aggregate Base Course (Class 6)
 ASC - Aggregate Subbase Course (Class 2)

Should a better traffic count be determined the above sections should be re-evaluated prior to construction.

Aggregate base course material should conform with Class 6 (minus 3/4 inch) specifications of the Colorado Department of Transportation and be compacted to a minimum 95% of AASHTO T-180 at (\pm)2% of optimum moisture content. Asphaltic concrete should be from an approved mix design, placed and compacted to a minimum of 95% of Marshall density, ASTM D-1559.

Pavement performance is directly affected by the degree of compaction, uniformity, and the stability of the subgrade. It is recommended that the top 12 inches of the subgrade be compacted to a minimum of 100% of the maximum dry density as determined by ASTM D-698 "Standard Proctor Moisture-Density Relationship". The moisture content should also be controlled to between (-) 2 and (+)3 percent of optimum. The final subgrade should be proof rolled immediately prior to placement of the concrete or asphalt to detect any localized areas of

instability. Unstable areas should be reworked to provide a uniform subgrade.

Positive drainage should be provided during construction and maintained throughout the life of the pavement. Adequate drainage is essential for continuing performance.

GENERAL

In the event that any changes in the nature, design, or location of the structure are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analysis and recommendations submitted in this report are based in part upon the data obtained from the two (2) soil borings. The nature and extent of variation between the borings may not become evident until construction. If variations then appear, it will be necessary to reevaluate the recommendations in this report.

It is recommended that the geotechnical engineer be provided the opportunity for general review of the final designs and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the designs and specifications. It is also recommended that the geotechnical engineer be retained to provide continuous engineering services during construction of the foundations, excavations, and earthwork phases of the work. This is to observe compliance with the design concepts, specifications, or recommendations and to modify these recommendations in the event that subsurface conditions differ from those anticipated.

Respectfully Submitted,
WESTERN COLORADO TESTING, INC.



Gary L. Hamacher, P.E.
Senior Geotechnical Engineer
GLH/rr



APPENDIX



**WESTERN
COLORADO
TESTING,
INC.**

Project North Acres Subdivision
 Location Sw¹, Sec 2, T1S, R1W,
Ute Meridian

Job No 203394 Date 6/25/94

BORING LOG												
DRILL HOLE NO.		LOCATION OF DRILL HOLE			ELEVATION			DATUM	DRILLER		LOGGER	
TH-1		Sta. 3 + 80 Right Lane			-			-	D. Smith		G. Hamacher	
WATER LEVEL OBSERVATIONS							TYPE OF SURFACE			DRILL RIG		
							Native Grasses			Dietrich D-50		
WHILE DRILLING		END OF DRILLING			24 HOURS AFTER DRILLING		48 HOURS	DRILLING METHOD		TOTAL DEPTH		
None							None	4" Cont. Flight Augers		18'		
DEP. FT	SAMPLE DATA			SOIL DESCRIPTION				LABORATORY DATA				DEP. FT
	SAMPLE NO. & TYPE	"N" BLOWS /FT	% REC.	COLOR	MOIST	CONS.	GEOLOGIC DESCRIPTION & OTHER REMARKS	% MC	DRY DENS pcf	qu tef	CLASS	
-				light brown	dry	loose	Clay, very silty					-
	D-1	33	100			stiff to very stiff						
5				light brown to rust	dry	medium hard	WEATHERED CLAYSTONE					5
	D-2	50/6"	90									
10				light brown to rust to brown	slightly moist	very hard	CLAYSTONE BEDROCK					10
	SP-1	50/6 1/2"	100									
15												15
20							Bottom of hole 18'					20
25												25

Figure 1



**WESTERN
COLORADO
TESTING,
INC.**

Project North Acres Subdivision

Location Sw¹/₄, Sec 2, T15S, R10W,

Ute Meridian

Job No 203394 Date 6/25/94

BORING LOG												
DRILL HOLE NO.		LOCATION OF DRILL HOLE			ELEVATION			DATUM	DRILLER	LOGGER		
TH-2		Sta. 8+00 Left Lane			-			-	D. Smith	G. Hamacher		
WATER LEVEL OBSERVATIONS								TYPE OF SURFACE		DRILL RIG		
								Native Grasses & Trees		Dietrich D-50		
WHILE DRILLING		END OF DRILLING			24 HOURS AFTER DRILLING		48 HOURS	DRILLING METHOD		TOTAL DEPTH		
None							9'-2"	4" Cont. Flight Augers		19½'		
DEP. FT	SAMPLE DATA			SOIL DESCRIPTION				LABORATORY DATA				DEP. FT
	SAMPLE NO. & TYPE	"N" BLOWS /FT	% REC.	COLOR	MOIST	CONS.	GEOLOGIC DESCRIPTION & OTHER REMARKS	% MC	DRY DENS pcf	qu tsf	CLASS	
				light brown	dry	loose	Clay, very silty					
	D-1	28	95	brown to olive	dry to slightly moist	firm to medium hard	WEATHERED CLAYSTONE					
5												5
	SP-1	54	90	brown to olive	slightly moist to moist	medium hard to hard	CLAYSTONE BEDROCK					
10												10
	SP-2	40	100		moist							
15												15
	SP-3	65	100									
20							Bottom of Hole 19½'					20
25												25

Figure 2



**WESTERN
COLORADO
TESTING,
INC.**

529 25½ Road, Suite B-101
Grand Junction, CO 81505
(303) 241-7700

LABORATORY REPORT

PHYSICAL PROPERTIES OF SOILS

Client Thompson Langford Corp.

Job No. 203394

Lab/Invoice No. _____

Date 7-7-94

Reviewed By *[Signature]*

Project North Acres Subdivision

Location SW1/4, Sec 2, T1S, R1W, Ute Meridian Sampled By G. Hamacher Date 6-25-94

Type of Material Clay, Sandy Submitted By G. Hamacher Date 6-27-94

Source of Material TH-1 @ 0.5'-4.5' Authorized By Client Date 6-16-94

Sieve Analysis, ASTM D422-

Sieve Size	% Passing Accumulative	Specification	Soil Classification <u>Unified CL</u> <u>AASHTO A-6 (14)</u>
			Liquid Limit and Plasticity of Soils ASTM D424- LL = <u>38</u> PI = <u>24</u>
3"			Moisture - Density Relations <input type="checkbox"/> ASTM D698- ; <input type="checkbox"/> ASTM D1557- ; Method _____ Maximum Dry Density, pcf _____ Optimum Moisture, % _____
2½"			
2"			Specific Gravity of Soils (minus No. 4 material) ASTM D854- Specific Gravity _____
1½"			
1"			Resistance 'R' Value of Compacted Soils ASTM D2844- 'R' Value _____
¾"			
½"			Other:
⅜"			
¼"			
No. 4			
8			
10	100		
16	98		
30	97		
40	96		
50	94		
100	87		
Finer than 200 ASTM D1140-	79		

Copies to:

Figure 3



**WESTERN
COLORADO
TESTING,
INC.**

529 25½ Road, Suite B-101
Grand Junction, CO 81505
(303) 241-7700

LABORATORY REPORT

PHYSICAL PROPERTIES OF SOILS

Client Thompson Langford Corp.

Job No. 203394

Lab/Invoice No. _____

Date 7-7-94

Reviewed By JJA

Project North Acres Subdivision

Location SW1/4, Sec 2, T1S, R1W, Ute Meridian Sampled By G. Hamacher Date 6-25-94

Type of Material Sand, silty Submitted By G. Hamacher Date 6-27-94

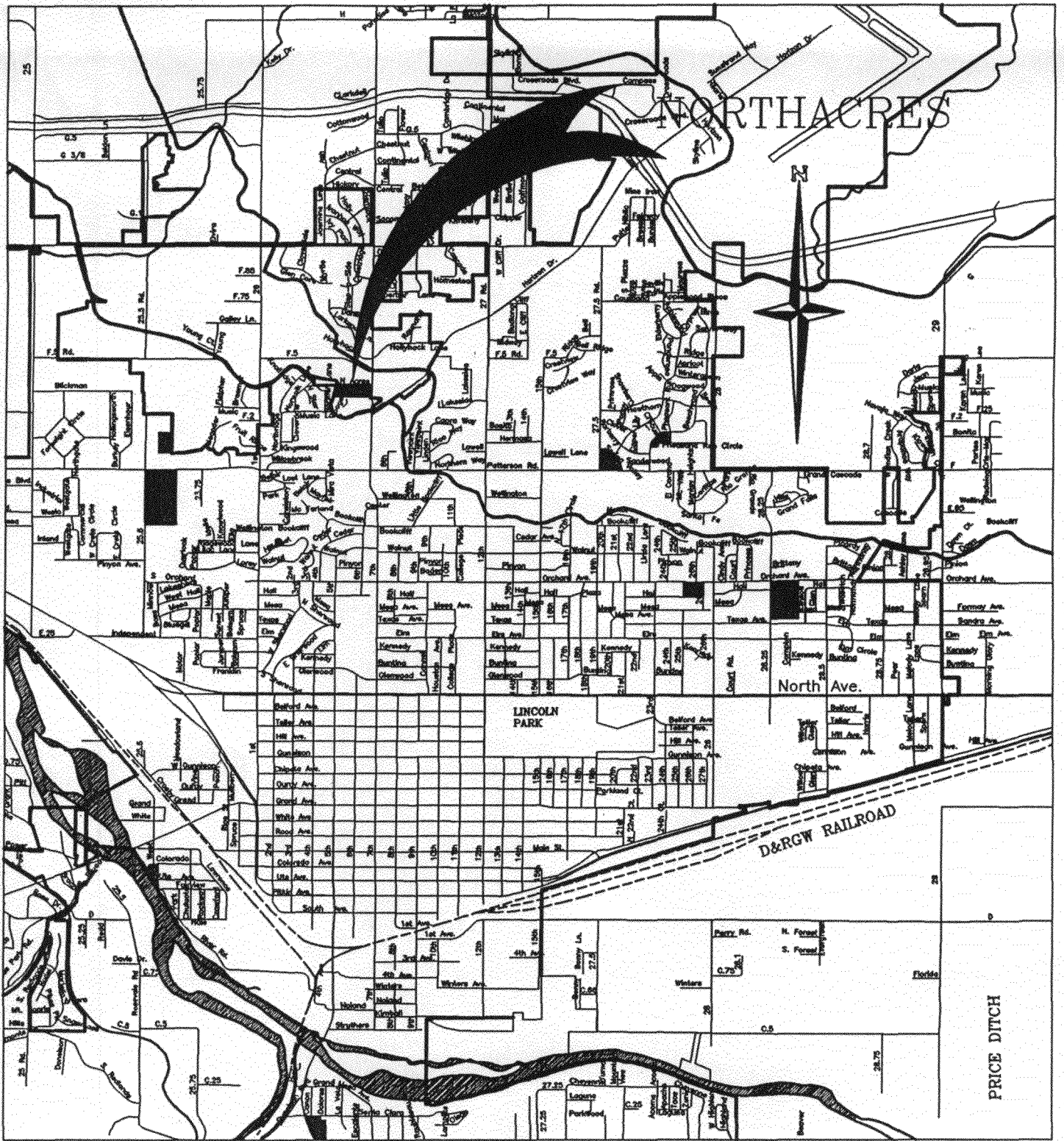
Source of Material TH-2 @ 0.5'-4.5' Authorized By Client Date 6-16-94

Sieve Analysis, ASTM D422-

Sieve Size	% Passing Accumulative	Specification	Soil Classification	Unified SM	AASHTO A-4 (3)
3"			Liquid Limit and Plasticity of Soils ASTM D424- LL = <u>NP</u> PI = <u>NP</u>		
2½"			Moisture - Density Relations <input type="checkbox"/> ASTM D698- ; <input type="checkbox"/> ASTM D1557- ; Method _____ Maximum Dry Density, pcf _____ Optimum Moisture, % _____		
2"			Specific Gravity of Soils (minus No. 4 material) ASTM D854- Specific Gravity _____		
1½"			Resistance 'R' Value of Compacted Soils ASTM D2844- 'R' Value _____		
1"			Other:		
¾"					
½"					
⅜"					
¼"					
No. 4	100				
8	99				
10	-				
16	99				
30	99				
40	99				
50	94				
100	69				
Finer than 200 ASTM D1140-	49.2				

Copies to:

Figure 4



VICINITY MAP
1" = 1000'

Original #15 94
Do NOT Remove
From Office

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LOTS 1, 2 & 7
GRAND JUNCTION, COLORADO