City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 8, 1993

Mark Goodwin
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: ENGINEER CERTIFICATION FOR COACHMAN ESTATES (E22-D3D) CERTIFICATION STATEMENT DATED 3/25/93.

Dear Mr. Goodwin:

Based on the information provided on your March 29, 1993 resubmittal, the conditions listed on the November 9, 1992 approval letter have been satisfied. Item No. 3: A maintenance Covenant from the current owner of Tract C-1-A for the earthen channel along the east boundary, has been relaxed because of the construction of the solid core CMU wall constructed on the entire east boundary.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/7671

xc: File
Alan Martinez
LyndaMichelle Devanti

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 1, 1993

Mark Goodwin
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: ENGINEER CERTIFICATION FOR COACHMAN ESTATES (E22-D3D) CERTIFICATION STATEMENT DATED 3/25/93.

Dear Mr. Goodwin:

Based on the information provided on your March 29, 1993 resubmittal, the above referenced site is approved for Financial Guarantee Release.

If I can be of further assistance, please feel free to contact me at 768-2667

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/7585

xc: Alan Martinez
Lynda Michelle Devanti

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 9, 1993

Mark Goodwin
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: ENGINEER CERTIFICATION FOR COACHMAN ESTATES (E22-D3D) CERTIFICATION STATEMENT DATED 2/11/93.

Dear Mr. Goodwin:

Based on the information provided on your February 23, 1993 submittal, Engineer Certification for the above referenced site is not acceptable.

Please be advised that our office has received numerous calls of the excess fill dirt placed against the existing wall on the west property line at the above referenced site.

Certification will not be accepted until a revised plan has been submitted for review which will address a retaining wall at the location where the fill dirt has been placed.

Also, on the far southwest corner lot, up against the 10'xl' concrete channel, your plan indicates a change of grade of 3.6' feet? Please address how the change of grade will be compensated for.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/7585

xc: File

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 9, 1992

Mark Goodwin, P.E.
Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE REPORT FOR COACHMAN ESTATES (E22/D3D)
ENGINEER'S STAMP DATED AUGUST 31, 1992

Dear Mr. Goodwin:

Based on the information provided, the plan is acceptable for Preliminary Plat and Final Plat approval.

Please be advised that prior to release of Financial Guarantees by DRC, a submittal to Hydrology must be approved consisting of the following information:

1. Certification of grading for the entire site
2. Certification of the flood wall along the entire east perimeter.
3. A Maintenance Covenant from the current owner of Tract C-1-A for the earthen channel along the east boundary.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
Civil Engineer/Hydrology

xc: Fred Aguirre, City Hydrologist
Billy Goolsby, DRC Chairman
file

wp+3461

C I T Y O F A L B U Q U E R Q U E

PUBLIC WORKS DEPARTMENT

INTER-OFFICE CORRESPONDENCE REF. NO.: WPHYD0075

August 27, 1991

TO: Fred J. Aguirre, City Hydrologist

FROM: Bernie J. Montoya, Engineering Assistant BJM

SUBJECT: PEPPERTREE SUBDIVISION, TRACT C-1-A

Attached you will find a copy of the Preliminary Plat for Peppertree Subdivision, Unit 2, Phase 2. A field inspection was conducted on August 26, 1991 to determine where the runoff from Tract C-1-A was originating from. As you can see from the pictures taken, the intent of the diversion was to take the runoff from the south portion of Tract C-1-A and route it towards the 20' drainage right-of-way. The runoff originating on the south side of Tract C-1-A is directed from east to west along the common property line of Tract C-1-A and Albuquerque Ranch Estates. The runoff was supposed to be swaled along the berm and on towards the 20' drainage right-of-way. Because of deposit of sediment within the swale, (picture 4) the runoff is ponding at the southwest corner of Tract C-1-A. If the berm at that point was to breach, the wall within Peppertree Subdivision, Unit 2, Phase 2 would probably collapse. Further research has revealed that the covenant for the berm and swale was never executed. I recommend that what ever parties where involved be contacted so that the berm and swale can be reconstructed to the state that it will function properly. Also, some spot elevations were taken within the swale which runs from north to south towards the drainage right-of-way. It was determined that any water that is intercepted by the swale from the east is also routed towards the drainage right-of-way (picture 2).

Called Mike Williams 9/30/91 828-2500 Left message to have him call me.

Talked to Mike Adams at the DRB office and he advised me that he is taking care of the upstream problem.

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 3, 1990

Richard Hall
Hall Engineering
6804 Second Street, NW
Albuquerque, New Mexico 87107

RE: REVISED DRAINAGE PLAN FOR LOTS 23-A, 24-A, BLOCK 9
PEPPERTREE SUBDIVISION, UNIT 2, PHASE 2 (E-22/D3D)
RECEIVED MARCH 15, 1990

Dear Mr. Hall:

Based on the information provided on your submittal of March 15, 1990, listed are some concerns that will need to be addressed prior to final approval.

1. Your plan drawing contains two different stamps. Mr. Anderson's stamp must be removed and you must identify that you are using a plan drawing that was previously approved by the City of Albuquerque.

2. The S.O. #19 format must be included within the plan drawing for the proposed 4" pvc penetration through the curb. Please include the six notes to contractor and the sign-off blocks.

3. I will need a copy of the filed 7' private drainage easement.

4. Please include the amount of basin draining to the proposed catch basin and also the hydraulics for the pipe and basin.

5. Please address what will happen if the proposed beehive drain gets plugged.

6. You indicated that the ponding volume for lot 24-A will increase, why?

7. The plan drawing shows a retaining wall on the west property line of Lot 23-A. What is proposed for the north property line to hold back the runoff going to the inlet?

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya
for Fred J. Aguirre, P.E.
Hydrologist
PUBLIC WORKS DEPARTMENT

BJM:FJA/bsj
(WE-834)

Walter H. Metzgen, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

September 25, 1987

Kyle Zimmerman
Scanlon & Associates, Inc.
8008 Pennsylvania Circle, NE
Albuquerque, New Mexico 87110

RE: OFFSITE SWALE ANALYSIS FOR PEPPERTREE UNIT 2, PHASE 2
RECEIVED SEPTEMBER 3, 1987 FOR DRB COMMENTS (E-22/D3D)

Dear Kyle:

The above referenced submittal, memo dated September 3, 1987, plans dated September 23, 1987, adequately addresses the request made by Fred Aguirre at the D.R.B. meeting in regards to the capacity and existing topography of the diversion swale along the northeast corner of your project site.

If you have any questions, please call me at 768-2650.

Cordially,

Roger A. Green, P.E.
C.E./Hydrology Section

RAG/bsj

xc: Jack Cloud, DRB
Mike Adams, Owner

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

August 19, 1987

Kyle Zimmerman
Scanlon & Associates
8008 Pennsylvania Circle, NE
Albuquerque, New Mexico 87110

RE: GRADING & EROSION CONTROL PLAN RESUBMITTAL OF PEPPERTREE UNIT 2, PHASE II, RECEIVED AUGUST 11, 1987 FOR FINAL PLAT AND WORK ORDER APPROVAL (E-22/D3D)

Dear Kyle:

The above referenced submittal ddated August 11, 1987, is approved for Final Plat and Work Order. The Work Order construction drawings may be signed off by Hydrology and the Final Plat can be signed by the City Engineer after execution of the Subdivision Improvements Agreement.

The approval letter also serves as the Grading Permit allowing the contractor to proceed with rough grading in accordance with these approved plans.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Mike Adams, Peppertree Dev.

RAG/bsj

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

August 4, 1987

Kyle Zimmerman
Scanlon & Associates
8008 Pennsylvania Circle, NE
Albuquerque, New Mexico 87110

RE: GRADING & EROSION CONTROL PLAN SUBMITTAL OF PEPPERTREE UNIT 2, PHASE 2 SUBDIVISION RECEIVED JULY 16, 1987 FOR FINAL PLAT AND WORK ORDER APPROVAL (E-22/D3D)

Dear Kyle:

I have reviewed the above referenced submittal dated July 15, 1987 and have the following comments to be addressed prior to approval:

1. Temporary construction/drainage easements are required from the two adjacent tracts to build the earth berm as shown along the east side of the project site. What is the status of a previous easement requested by Mike Adams from Tract C-1-A?

2. Provide top and bottom of wall elevations for all required retaining walls.

3. Provide minimum required pond volumes for rear yard retention ponds.

4. Provide more detailed top of curb and flow line elevations at the intersection of Tamarac Drive and San Victorio Avenue to ensure that the 10' drainage right-of-way between Lots 30 and 31 drain to the south, in accordance with the approved master plan.

5. Provide a temporary bench mark, adjacent to the project site.

6. Provide or reference grading specifications for the building pads, site grading, and ponding areas.

7. Erosion control plan should include note requiring the contractor to obtain a Topsoil Disturbance permit prior to grading operations.

8. Why is a retaining wall not required between Lots 6 and 7 of Block 9 since the pad elevations have a greater difference than adjacent lots requiring retaining walls?

If you have any questions, call me at 768-2650.

Cordially,

for Roger A. Green, P.E.
C.E./Hydrology Section

RAG/bsj

SCANLON & ASSOCIATES INC
CONSULTING ENGINEERS
8008 Pennsylvania Circle NE
Albuquerque, New Mexico 87110-7897
(505) 265-6941

Project OFF SITE FLOWS
Location PEPPERTREE UNIT 2 PHASE 2
Job No. 87101.1 Date 7-13-87
By J. Yk Zimmerman Sheet 1 of

COMPUTE RAINFALL INTINSITY:

$I = 6.84 (6\text{-HR. RAIN}) (t_c)^{-0.51}$ FROM PLATE 22.2 O-2 ALB. DPM

6-HR RAIN = 2.6" FROM PLATE 22.2 O-1 ALB. DPM

t_c = 10 min

$I = 6.84 (2.6) (10)^{-0.51} = 5.50$ IN/HR

RATIONAL METHOD

$Q = CIA$

C = 0.4 FROM PEPPERTREE SUBDIVISION ONAINAGE MANAGEMENT PLAN

PEAK RUNOFF COMPUTATION

AREA B1

A = 8.4 ac.

$Q = (0.4)(5.50)(8.4)$ 18.5 CFS

AREA B2

A = 4.5 ac.

$Q = (0.4)(5.50)(4.5) = 9.9$ CFS

DRAINAGE REPORT

FOR

Coachman Estates Subdivision

Prepared for:

Mock Homes, Inc.
3550 Pan American Freeway NE
Suite A
Albuquerque, NM 87107

June 1992

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 21, 1992

Mark Goodwin, P.E.
Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE REPORT FOR COACHMAN ESTATES (E-22/D3D)
ENGINEER'S STAMP DATED JUNE 15, 1992

Dear Mr. Goodwin:

Based on the information provided, the plan is acceptable for Preliminary Plat.

Please be advised that prior to rough grading permit or work order approval, the following comments should be addressed:

1. 2:1 slopes are unacceptable unless you will be using a gravel mulch for stabilization, recommend slopes be revised to 3:1.

2. Please provide a legend for the location of mountable versus standard curb and gutter.

3. The waterblock at Academy does not seem to comply with the D.P.M.

4. Show the location of the existing 100-year floodplain.

5. Provide a hydraulic analysis for the concrete channel due to the number of bends provided. I am also concerned about the constraint the bends will have with access into the channel with a service vehicle. You may need to consider using a radius at the bends.

6. Show the location with a legend on where the erosion control berms are to be placed.

7. A Maintenance Covenant Agreement will need to be executed for the off-site diversion channel.

If you should have any questions, please do not hesitate to call me at 768-2650.

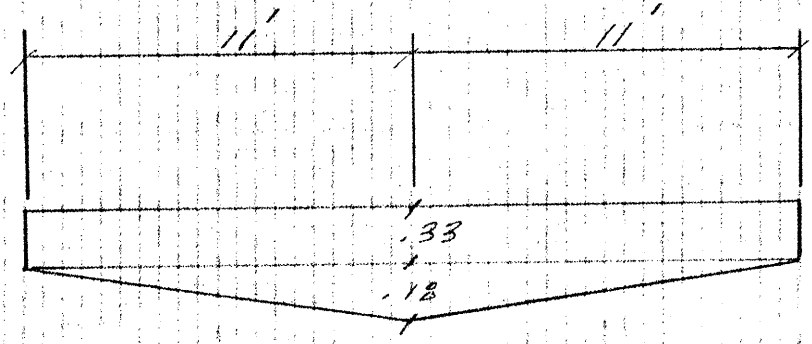
Cordially,

Gilbert Aldaz, P.E. & P.S.
Civil Engineer/Hydrology

wp+3461

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Coachman Estates
SUBJECT Drainage
BY MG DATE 7/6/92
CHECKED ____ DATE ____
SHEET 1 OF 1



$n = .017$ Asphalt

$S(AVG.) = 2.89\%$

$Area = 2(1/2)(11)(.18) + 22(.33) = 9.24$ Sq. Ft.

$WP = 2(.33) + 2\sqrt{11^2 + .18^2} = 22.66$

$V = \frac{1.486}{.017}\left(\frac{9.24}{22.66}\right)^{.67}(.0289)^{1/2} = 8.17$ fps

$Q(max.) = 75$ cfs vs. 28 cfs

By Trial & error $\Longrightarrow$ $D = 0.31'$

$V = 5.60$ fps

Using ODM for Superelevation for Supercritical and Σ^2 = Cotangent $.18/9 = .02$

$S = 0.05'$ Still within existing prism.

PURPOSE

The purpose of this report is to present the Drainage Management Plan for Final Plat and Work Order approvals. All applicable ordinances and the Development Process Manual were employed for this report. Due to the site area and its relationship to previous plans and reports, the Rational Method was utilized.

EXISTING CONDITIONS

This site comprises an area of 9.8 acres near the southwest corner of Academy Boulevard and Tramway Road in northeast Albuquerque. The site is bounded by Academy Boulevard on the north, by the Compound at Peppertree on the west, by Peppertree Unit II, Phases 1 and 2 on the south and by Peppertree Tract C-1-A on the east. This project was originally a portion of the Compound at Peppertree. (See attached Vicinity Map and Exhibits 1 and 2.)

The tract has a moderate slope falling from northeast to southwest, where it currently discharges to an existing, improved alley section into the Compound at Peppertree. As will be discussed later in this report, no off-site flows enter this project.

This particular site has been studied on three previous occasions in three other reports:

1. Drainage Report for SAD 205 by Thomas Mann & Associates, 1984

2. Analysis of Peppertree Unit II, Tract C-1-A by Scanlon & Associates, 1985

3. Drainage Report for Compound at Peppertree, Bohannan-Huston, 1986

All three reports utilized methodology consistent with the current Development Process Manual. Therefore, this report does not attempt to recreate these previous reports except in areas where changes have been or will be occurring.

PROPOSED MANAGEMENT PLAN

As a developed site, we propose to continue discharging to the Compound at Peppertree as masterplanned by Bohannan-Huston when this site was once part of that project. In the original plan, there were proposed to be 57 dwelling units generating a peak flow rate of 37 cfs. These flows were to be combined with the rest of the Compound for a total flow rate of 75 cfs. This portion of the project is now comprised of 43 dwelling units, which will generate a peak flow rate of 28 cfs. This makes for a revised total flow rate at Lowell Street of 66 cfs. Per the attached calculations from the Bohannan-Huston report, the existing storm drain at Lowell, within the Compound, intercepts 51 cfs. As-Built drawings and field investigations show this storm drain to be in place. The remaining flows will be ponded in an existing landscaped pond in a platted drainage easement at Lowell. The capacity of Summertree Street is 68 cfs at the top of curb. This is adequate capacity to warrant developed flows from our project to the Compound at Peppertree. Per correspondence

hereby made a part of this report, this design was approved by the City in 1986. Since we are decreasing the design flow, this report requests free discharge for this project.

Somewhere over the years and through multiple studies, the off-site flow conditions changed. At one time, flows from Tract C-1-A to the east of this project flowed through this project. A small, temporary ponding area had been planned on this project to control the off-site flows from Tract C-1-A due to inadequate capacity in the Summertree Storm Drain at Lowell. In the Scanlon report previously cited, the recommended solution to dealing with the flows from Tract C-1-A was to control the developed discharge from Tract C-1-A and direct this discharge through Peppertree Unit II through a platted easement in Unit II to Persimmons. The undeveloped flows were to be allowed free discharge. Per the filed plat, this easement exists; and a constructed earthen channel, with a capacity of 50 cfs versus the current rate of 15 cfs, exists to intercept and convey the existing flows into this easement. The easement has also been improved as a large sod-lined swale to Persimmons. Per the previously cited reports, with controlled discharge in the Compound at Peppertree and an increase in the storm drain size in Persimmons from 30 inches to 36 inches, the flows from Tract C-1-A in its undeveloped state could be accommodated within the available capacity of the Bear Tributary Storm Drain. This design was approved 6/16/86 and the storm drain ultimately constructed. The earthen diversion channel appears to have been constructed at the same time.

INTERIM EROSION CONTROL

Due to the sensitive nature of the soils associated with this site, an Erosion Control Plan is a part of this report and project.

The plan centers on the fact that storm waters will not be allowed free discharge during the construction process until all street paving is accomplished.

CONCLUSIONS

It has been shown in this report and others that the stormwater runoff from the proposed 43 lots comprising this project was planned for; the facilities downstream are currently in place and have adequate capacity. The masterplanned volumes were larger than those that will be generated by the proposed project. This site should therefore be allowed free discharge to the Compound at Peppertree through the existing conveyance system.

It has further been shown that the once off-site flows from Tract C-1-A have been diverted to Peppertree Unit II in an approved and acceptable manner and that the conveyance system currently in place has adequate capacity for these flows.

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Carriman Estates
SUBJECT Drainage
BY MS DATE 6/7/92
CHECKED _____ DATE _____
SHEET 1 OF 4

This project comprises the easterly 9.8 acres, of a project initially planned as Peppertree Phase II.

Previous drainage studies were performed by:

1. Tom Mann & Associates, 1984
2. Scanlon & Associates, 1985
3. Berryman - Huston, 1986

This report will not re-verify all of these studies but will summarize and analyze only the changes in development plans & As-Built conditions.

Originally, Commercial Tract C-1-A in the east of this project drained into this site. Per the Scanlon Report this flow rate = 15 cfs. At some point an earthen diversion channel was constructed within Tract C-1-A and channeled flows into a platted and improved drainage easement to the south of this site into Unit 2, Phase I, Peppertree. These flows drain to Persimmons & into a storm drain at Cowell. No records concerning this diversion can be found.

This project drains into an existing alley section at the southwest corner and into the Carriman at Peppertree. There exists a platted 35' drainage easement to accept this. These flows combine with the computations in Summerwise Est. & a storm drain at Cowell.

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Corchaan Estates
SUBJECT Drainage
BY MG DATE 6/7/96
CHECKED ____ DATE ____
SHEET 2 OF 4

This report needs to determine:

1. On-site flows and ability of downstream system to accept these flows.
2. Impact of diverting flows to Persimmons from Tract C-1-A.

On-site Developed Flow Rate

Drainage Area = 9.8 Ac.

P(100-6) = 2.55 in. Same as utilized in all previous reports

Time of Concentration, Tc = 10 min.

I(100-6) = 5.39 in/hr

Composite "C"

* Streets, Drives, etc.	0.95	2.85	2.14
Roofs (1800 ft²/lot)	0.90	1.78	1.60
Lawns & Landscape	0.25	5.77	1.44
		9.80	5.18

Composite "C" = 0.53

* Includes 32' street, 6" curb, 600 ft² drive/lot & 100 ft² walk/lot

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Coachman Estates
SUBJECT Drainage
BY MG DATE 6/7/90
CHECKED _____ DATE _____
SHEET 3 OF 4

$Q(100\text{-}C) = 0.53(5.59)(9.8) =$ **28 cfs**

Per Bahaman-Huston Report, Flow from Compound at Peppertree = **38 cfs**

Per Scanlon, Q from Tract C-1-A = **15 cfs**

Per Scanlon, Flow from Peppertree Unit 2 into Persimmons = **34 cfs**

Total Flow Summertree at Lowell = 66 cfs

Total Flow Persimmons at Lowell = 49 cfs

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT COACHMAN
SUBJECT Drainage
BY MG DATE 6/11/92
CHECKED ____ DATE ____
SHEET 4 OF 4

We now need to size outlet channel to Compound Alloy Section. We need to keep depth of flow in our section to ≥ 0.5' which will market depth of Alloy : use attached nomograph for a 10' bottom width @ 2% ↑ d = 0.38'

We now need to size low flow entrance to channel using 2 year storm :

P(6-2) = .445 (2.55) = 1.13 in

I(6-2) = 2.39 in/hr.

Q(6-2) = 12 cfs

entrance will act as a weir w/ h = 0.5'

$$L = \frac{Q}{CH^{3/2}} = \frac{12}{2.9(.5)^{3/2}} = 12'$$

We need 6 - 24" sw culverts for low flow

We now need to size weir length over culverts for remainder of 100 Year storm

H = (0.67 + 0.33) − 0.50) = 0.50'

Q = 28 - 12 = 16 cfs

$$L = \frac{16}{2.9(0.50)^{3/2}} = 16'$$

See detail on Grading Plan

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

September 25, 1987

Kyle Zimmerman
Scanlon & Associates, Inc.
8008 Pennsylvania Circle, NE
Albuquerque, New Mexico 87110

RE: OFFSITE SWALE ANALYSIS FOR PEPPERTREE UNIT 2, PHASE 2
RECEIVED SEPTEMBER 3, 1987 FOR DRB COMMENTS (E-22/D3D)

Dear Kyle:

The above referenced submittal, memo dated September 3, 1987, plans dated September 23, 1987, adequately addresses the request made by Fred Aguirre at the D.R.B. meeting in regards to the capacity and existing topography of the diversion swale along the northeast corner of your project site.

If you have any questions, please call me at 768-2650.

Cordially,

Roger A. Green, P.E.
C.E./Hydrology Section

RAG/bsj

xc: Jack Cloud, DRB
Mike Adams, Owner

X.C

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

August 19, 1987

Kyle Zimmerman
Scanlon & Associates
8008 Pennsylvania Circle, NE
Albuquerque, New Mexico 87110

RE: GRADING & EROSION CONTROL PLAN RESUBMITTAL OF PEPPERTREE UNIT 2, PHASE II, RECEIVED AUGUST 11, 1987 FOR FINAL PLAT AND WORK ORDER APPROVAL (E-22/D3D)

Dear Kyle:

The above referenced submittal ddated August 11, 1987, is approved for Final Plat and Work Order. The Work Order construction drawings may be signed off by Hydrology and the Final Plat can be signed by the City Engineer after execution of the Subdivision Improvements Agreement.

The approval letter also serves as the Grading Permit allowing the contractor to proceed with rough grading in accordance with these approved plans.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Mike Adams, Peppertree Dev.

RAG/bsj

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

July 17, 1986

Dan J. Grochowski, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: DRAINAGE & GRADING PLAN SUBMITTAL OF COMPOUND AT PEPPERTREE, RECEIVED JUNE 26, 1986 FOR PLATTING AND ROUGH GRADING PERMIT APPROVAL (E-22/D15)

Dear Dan:

The above referenced submittal, revised June 26, 1986, is approved for Preliminary Plat approval and Rough Grading Permit. Bring in mylars for rough grading approval signature if desired.

Prior to Final Plat sign-off by the City Engineer, the following items are required:

1. An executed Subdivision Improvements Agreement.

2. A Drainage Covenant covering the detention pond maintenance between the homeowners association and the City if it is decided that the Engineering Division will allow maintenance agreements on public detention ponds. The preferred alternative is for the developer to establish native vegetation with seeding and temporary irrigation, then turn maintenance responsibilities over to the City storm drain maintenance crews.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Andre Houle, DRC
Mike Adams, Brown & Assoc.

RAG/bsj

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

June 16, 1986

Dan J. Grochowski, PE
Bohannan-Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

RE: DRAINAGE AND GRADING PLAN SUBMITTAL OF COMPOUND AT PEPPERTREE, RECEIVED JUNE 4, 1986 FOR PLATTING AND ROUGH GRADING PERMIT APPROVAL (E22/D3B)

Dear Dan:

Since my last letter dated 6/3/86 and your additional submittals, I have the following additional comments:

1. The Drainage Report by Scanlon and Associates for Peppertree Subdivision, dated June 3, 1986, has been approved, identifying allowable discharge rates from each tract as they develop. Your calculations, dated June 2, 1986, are not consistant with the Scanlon report.

2. Volume calculations using the rational formula are not recognized for use in the triangular hydrograph and sizing detention ponds. Previous run-off volume calculations must be redone using the SCS CN method. The curve number is identified in the Scanlon report.

3. The approved infrastructure listing should be updated to include the required detention pond. Proposed policy is that the City will maintain all detention ponds within public easements or R.O.W.'s and these ponds will be included in the work order. Vegetative treatment will be acceptable provided it is irrigated and established before City acceptance.

If you have any questions, call me at 765-7044.

Sincerely,

Roger A. Green, PE

Roger A. Green, PE
CE/Hydrology

cc: Andre Houle, DRC

COPY

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

June 16, 1986

J. Kyle Zimmerman
Scanlon & Associates
8008 Pennsylvania Circle, NE
Albuquerque, NM 87110-7897

REF: REVISED DRAINAGE REPORT FOR PEPPERTREE SUBDIVISION, TRACT C-1-A RECEIVED JUNE 3, 1986 FOR DRAINAGE SCHEME APPROVAL AND VACATION REQUEST (E22/D4)

Dear Kyle:

The above referenced submittal dated 6/3/86 is approved, establishing drainage criteria to be followed by further development of Peppertree Subdivision. All the tracts involved will be limited to peak discharge rates lower than those originally allowed by previous SAD 205 Drainage Reports, due to the storm drain system not having adequate capacity for free discharge from fully developed watersheds.

If you have any further questions, call me at 766-7644.

Sincerely,

Roger A. Green, PE

Roger A. Green, PE
CE/Hydrology

RAG:mrk

cc: Tom Mann, Tom Mann & Associates
Dan Grochowski, Bohannan-Huston

TYPE "A" AND DOUBLE "B" CATCH BASINS IN SERIES CALCULATIONS

DISTANCE APART – 15'

STREET SLOPE @ "A" – 3.13 %
@ "B" – 2.40 %

8" CURB & GUTTER

CONNECTOR PIPE – 18" @ 5.00 % SLOPE *
PIPE TO MAIN – 24" @ 1.20 % SLOPE

1/2 STREET FLOW @ "A" (32' F-F W/ NORMAL CROWN) 74.6 ÷ 2 = 37.3 cfs

PER PLATE 22.3 D-1 d = 0.57'
PER PLATE 22.3 D-4
GRATE CAPACITY = 10 cfs

@ "B" 37.3 – 10 = 27.3 cfs

PER PLATE 22.3 D-1 d = 0.53'
PER PLATE 22.3 D-7
GRATE CAPACITY = 14 cfs

TOTAL STREET FLOW DOWNSTREAM OF CATCH BASINS

74.6 – 10(2) – 14(2) = 26.6 cfs

DETERMINATION OF V DEPTHS

"A" – PER PLATE 22.3 D-9 V_A = 3.44'

"B" – d = 2' depth of flow = 1.92'
FROM PLATE 22.3 B-6 AND MANNING'S EQUATION V = 8.33 fps

$H_1 = G_7$

* SEE SHEET 3 FOR FRICTION SLOPE VALUES

TYPE "A" AND DOUBLE "B" CATCH BASINS IN SERIES CALCULATIONS (cont'd)

$$V_B = 1.33 + 1.2\,\frac{8.33^2}{64.4} + 2 = 4.62'$$

ELEVATIONS

"A" - TOP OF CURB 98.27 (PER PLANS)
CATCH BASIN OUTLET INVERT
98.27 - 3.44 = 94.83

"B" - TOP OF CURB 97.88 (PER PLANS)
CATCH BASIN OUTLET INVERT
97.88 - 4.62 = 93.26

18" CONNECTOR PIPE (BOTH SIDES OF STREET)
INV IN - 94.83
12' @ 5.00% = 0.60' (NON-PRESSURE)
INV OUT - 94.23

24" PIPE TO MANHOLE
- NORTH SIDE OF STREET
INV IN - 93.26
22' @ 1.20% = 0.26' (NON-PRESSURE)
INV OUT - 93.00
- SOUTH SIDE OF STREET
INV IN - 93.26
10' @ 1.20% = 0.12' (NON-PRESSURE
INV OUT - 93.14

STORM DRAIN FRICTION SLOPES

18" RCP
10 cfs $A = 1.77\ ft^2$ $WP = 4.71$ ft. $HR = 0.375$
$n = 0.013$ $K = 105.21$
$S_f = 0.90\%$ d @ $5.00\% = 0.68'$

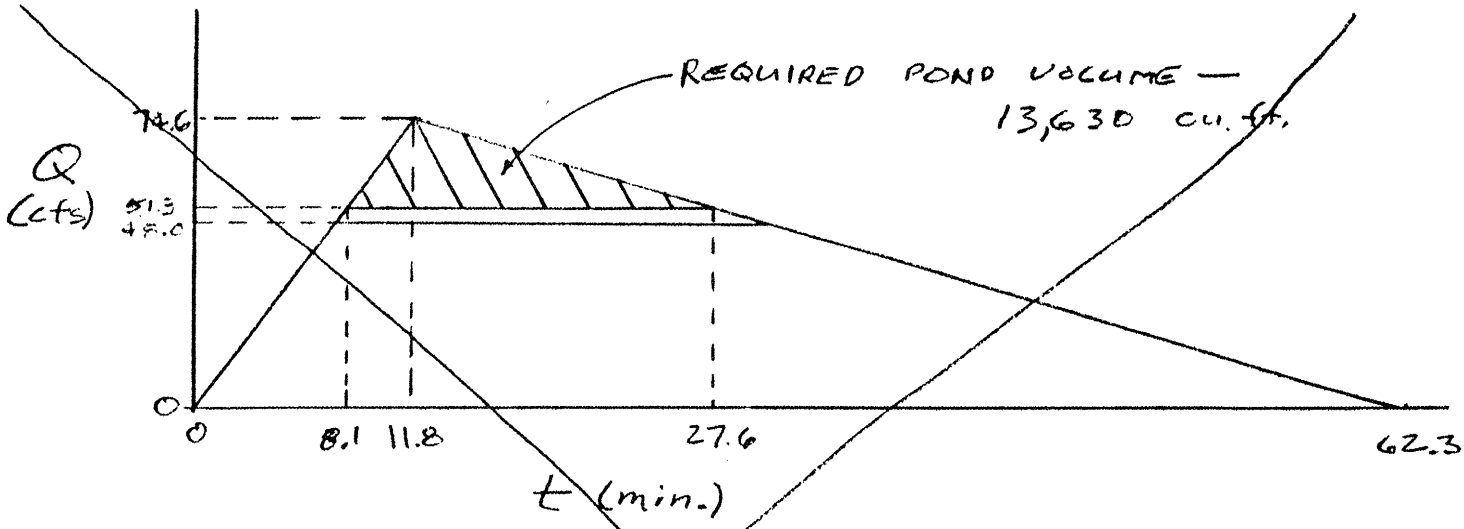
24" RCP
24 cfs $A = 3.14\ ft^2$ $WP = 6.28$ ft $HR = 0.50$
$n = 0.013$ $K = 226.11$
$S_f = 1.13\%$ d @ $1.20\% = 1.59'$

36" RCP
48 cfs $A = 7.07\ ft^2$ $WP = 9.42$ ft. $HR = 0.75$
$n = 0.013$ $K = 667.12$
$S_f = 0.52\%$ d @ $1.25\% = 1.75'$

52 cfs $S_f = 0.61\%$ d @ $1.25\% = 1.84'$

HYDRAULIC GRADE LINES FOR ALL PIPES ARE COINCIDENT WITH THE WATER SURFACE PROFILE. DEPTHS SHOWN ABOVE USED FOR PLOTTING THE WATER SURFACE PROFILE WERE DETERMINED USING MANNING'S EQUATION.

PONDING REQUIREMENT FOR TOTAL COMPOUND BUILD-OUT WITH TRACT C-1-A ROUTED THROUGH PEPPER-TREE UNIT II.



TOTAL VOLUME$_{100}$ — 13,427 cu. ft.

Q_{100} — 74.6 cfs

Q MAX. COLLECTED BY THE STORM INLETS IN THE STREET — 48 cfs

Q AVAILABLE IN BEAR TRIB. STORM DRAIN (per SCANLON) — 51.3 cfs

Q TO BE COLLECTED BY THE STORM INLET IN THE POND — 51.3 - 48 = 3.3 cfs

TOP OF POND ELEVATION - 95.5
AREA - 13,860 SQ. FT.
BOTTOM OF POND ELEVATION - 94.0
AREA - 4500 SQ. FT.
AVERAGE END AREA — 9180 SQ. FT.
× 1.5 FT.
TOTAL CAPACITY - 13,770 CU. FT.
GREATER THAN 8,895 CU. FT.* O.K.

*SEE SHEET 3 OF 6 DATED 6/19/86.

COMPOUND @ PEPPERTREE 1 2
51677 DJG 5/8/86
PONDING AREA REV. 6/23/86

PONDING REQUIREMENT FOR PHASE I WITH TRACT C-1-A ROUTED THROUGH PHASE I

Q_{100}: a) PHASE I (DEVELOPED)
b) PHASE II (UNDEVELOPED)
c) NORTH 1/2 TRACT C-1-A (DEVELOPED AS RESIDENTIAL W/ 1/8 AC. LOTS)
SOUTH 1/2 UNDEVELOPED

~~a) FROM ORIGINAL PLAN AREAS~~
~~P-2 - 31.5 cfs~~
~~P-3 - 13.1 cfs~~
~~TOTAL Q = 44.6 cfs~~
~~b) AREA = 9.80 Ac, R = 2.6 in. T_c = 10 min~~
~~C = 0.4 I = 5.50~~
~~Q = 21.6 cfs~~
~~c) TRACT C-1-A~~
~~Q = 13.5 cfs (from SAP 2000)~~

BY USING ALL THREE AREAS COMBINED AS ONE WATERSHED USE A COMPOSITE "C"

"C"		PHASE I	PHASE II	C-1-A(N)	C-1-A(S)
0.95	IMPERV. AREA	3.71	0	1.42	0
0.25	LAWN AREA	4.41	0	2.32	0
0.40	UNDEV. AREA	0	9.80	0	2.63
0.95	ROOF AREA	3.81	0	1.88	0

TOTAL AREA - 29.98 Ac. COMPOSITE "C" - 0.55

T_c: LENGTH 3011'
ELEV. DIFF. 5996 - 5895 = 101'
S = 3.35%
T_c = 13.8
R = 2.57 in.
I = 4.60 IN/HR.

Q_{100} = 75.8 cfs

TOTAL VOLUME = 141,476 cu. ft.

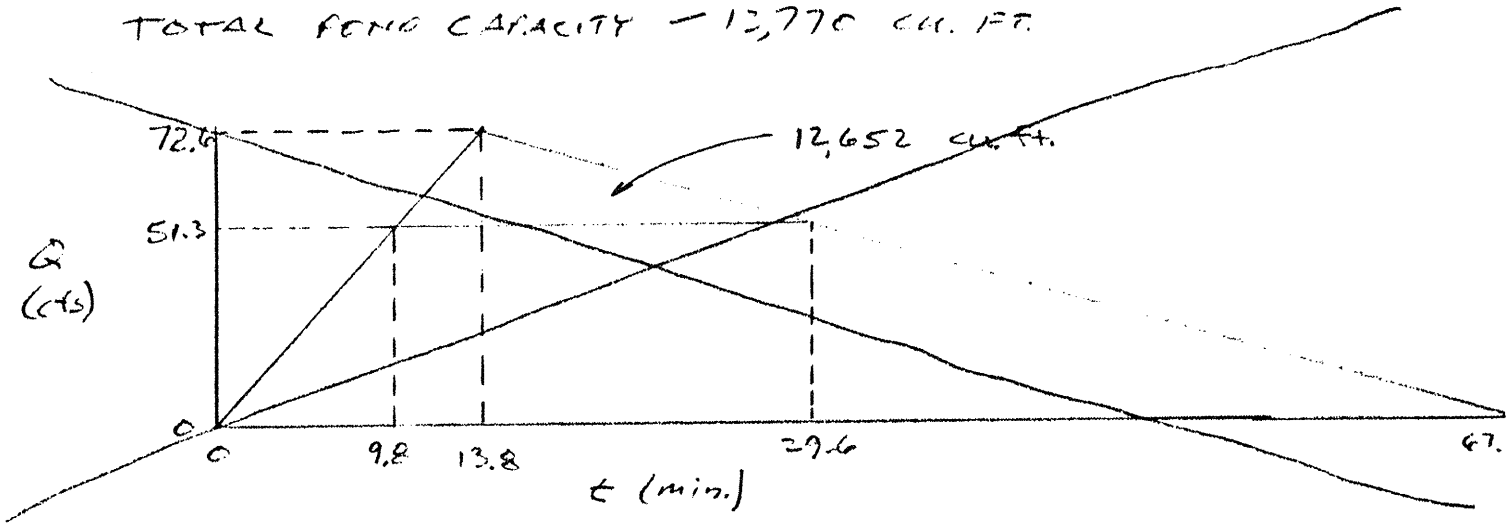
@ MAX. COLLECTED BY STORM INLETS IN THE STREET - 48 cfs

COMPOUNDED PERPETREE 1A1-1 2
5-1677 DWG 6/3/16

Q AVAILABLE IN BEAR TRIB.
STORM DRAIN (PER SCANLON) ~ 52.0 cfs

Q TO BE COLLECTED BY THE
STORM INLET IN THE POND. ~ 52.0 - 48 = 4.0 cfs

TOTAL POND CAPACITY ~ 13,770 CU. FT.



VOLUME REQ. ~ 11,451 cu. ft.*
LESS THAN 13,770 cu. ft.
O.K.

* SEE SHEET 6 OF 6 DATED 6/19/86

COMPUTED & PREPARED BY 1-2
~1677 1/16

REV. 6/20/86

POND AREA INLET SIZING

Q = 4.0 cfs

USE A MANHOLE W/ FRAME & GRATE TO ALLOW STORM WATER TO FLOW INTO THE STORM DRAIN.

USING NEENAH GRATE #R-2535

H = 1.5'

A = 1.1'

Q = 6.5 cfs (from Orifice Equation)

@ 39 % CLOGGED = 4.0 cfs

DRAIN TIME

① 8895 CU. FT. (FROM SHT. 1.)

$$\frac{8895\ ft^3}{4.0\ ft^3/sec} = 2224\ sec. = 0.62\ hr.$$

② 11,451 CU. FT. (FROM SHT. 1A-2)

$$\frac{11,451\ ft^3}{4.0\ ft^3/sec} = 4172.7\ sec. = 0.80\ hr.$$

COMPUTED & REPRODUCED 2 2

51677 DJG 5/8/86

Pond Area

BEAR TRIB. STORM DRAIN CAPACITY

1. CAPACITY AT LOCKELL ST. — 98.0 cfs
   (per SCANLON)

2. FLOW TO STORM DRAIN FROM PEPPERTREE UNIT II — 28.0 cfs
   (per SCANLON)

3. FLOW FROM TRACT C-1-A — ~~18.0~~ 15 cfs
   (per SCANLON)

4. ADD 2.53 (CONSERVATIVE, NOT ROUTED) — 46.0 cfs

5. REMAING CAPACITY AVAILABLE FOR COMPOUND (1.—4.) — ~~52.0~~ 55 cfs

COMPOUND @ PEPPERTREE 5/6/77

1 D.K.

1 6/13/86 REV 6/23/86

HYDROGRAPH COMPUTATION WORKSHEET

DATE 6/19/86
COMPUTED BY D.G
CHECK BY _____

PROJECT COMPOUND @ PEPPERTREE

LOCATION LOWELL & ACADEMY

ANALYSIS POINT # @ PONDING AREA

(DR. AREA) A = 21.73* ACRES

T_c 11.8 MIN

POINT RAINFALL 2.57 IN. FROM PLATE 22.2 D-1

CN = 85 FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = 1.3 IN. FROM PLATE 22.2 C-4

COMPUTED T_p = 12 MIN. (Rounded to even minute) $T_p = T_c$

$q_p = \frac{45.4A}{T_p}$ = — CFS./INCH OF RUNOFF

$(R \times q_p) = Q_{peak}$ = 74.6** CFS

t(COLUMN)=(t/T_p) $t=T_p(t/T_p)$

$y = \frac{Q}{Q_{peak}}$ $Q = y(Q_{peak})$

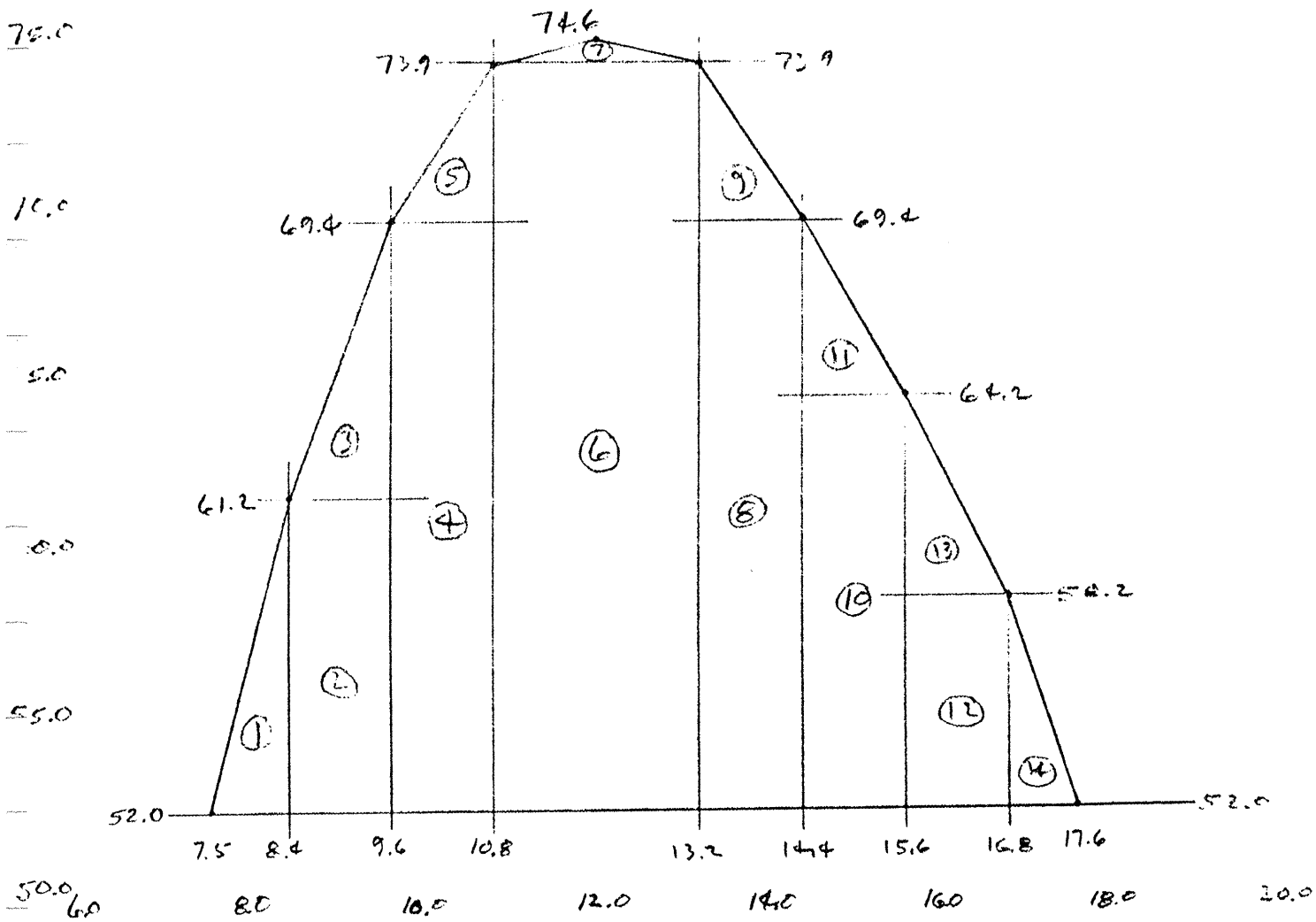
	(t/T_p)	t (min.)	y	Q (cfs)	
1	0	0	0	0	
2	.1	1.2	.03	2.2	
3	.2	2.4	.10	7.5	
4	.3	3.6	.190	14.2	
5	.4	4.8	.310	23.1	
6	.5	6.0	.470	35.1	
7	.6	7.2	.660	49.2	← t=7.5
8	.7	8.4	.820	61.2	
9	.8	9.6	.930	69.4	
10	.9	10.8	.990	73.9	OVER
11	1.0	12.0	1.00	74.6	52cfs
12	1.1	13.2	.990	73.9	
13	1.2	14.4	.930	69.4	
14	1.3	15.6	.860	64.2	
15	1.4	16.8	.780	58.2	← t=17.(
16	1.5	18.0	.680	50.7	
17	1.6	19.2	.560	41.8	
18	1.7	20.4	.460	34.3	
19	1.8	21.6	.390	29.1	
20	1.9	22.8	.330	24.6	
21	2.0	24.0	.280	20.7	
22	2.2	26.4	.207	15.4	
23	2.4	28.8	.147	11.0	
24	2.6	31.2	.107	8.0	
25	2.8	33.6	.077	5.7	
26	3.0	36.0	.055	4.1	
27	3.2	38.4	.040	3.0	
28	3.4	40.8	.029	2.2	
29	3.6	43.2	.021	1.6	
30	3.8	45.6	.015	1.1	
31	4.0	48.0	.011	0.8	
32	4.5	54.0	.005	0.4	
33	5.0	60.0	.000	0.0	

* COMPOUND ONLY, TOTALLY DEVELOPED.

** PER PREVIOUS SUBMITTAL.

PLATE 22.2 F-1

1 of 6



COMPOUND @ REPERTRE 2 6

SIC 77 D.G 6/17 RC

AREA (SEE SHEET 2 OF 6) — Volume

① $(61.2-52.0)(8.4-7.5)(60)/2 = 27.0$

② $(61.2-52.0)(9.6-8.4)(60) = 662.4$

③ $(69.4-61.2)(9.6-8.4)(60)/2 = 295.2$

④ $(69.4-52.0)(10.8-9.6)(60) = 1252.8$

⑤ $(73.9-69.4)(10.8-9.6)(60)/2 = 162.0$

⑥ $(73.9-52.0)(13.2-10.8)(60) = 3153.6$

⑦ $(74.6-73.9)(13.2-10.8)(60)/2 = 50.4$

⑧ $(69.4-52.0)(14.4-13.2)(60) = 1252.8$

⑨ $(73.9-69.4)(14.4-13.2)(60)/2 = 162.0$

⑩ $(64.2-52.0)(15.6-14.4)(60) = 878.4$

⑪ $(69.4-64.2)(15.6-14.4)(60)/2 = 187.2$

⑫ $(58.2-52.0)(16.8-15.6)(60) = 446.4$

⑬ $(64.2-58.2)(16.8-15.6)(60)/2 = 216.0$

⑭ $(58.2-52.0)(17.6-16.8)(60)/2 = 148.8$

TOTAL 8895.0 CU.FT.

HYDROGRAPH COMPUTATION WORKSHEET

DATE 6/19/86
COMPUTED BY O.G
CHECK BY _____

PROJECT COMPOUND @ PEPPERTREE

LOCATION LOWELL & ACADEMY

ANALYSIS POINT # @ PONDING AREA

(DR. AREA) A = 29.98* ACRES

T_c 13.8 MIN

POINT RAINFALL 2.57 IN. FROM PLATE 22.2 D-1

CN = 85 FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = 1.3 IN. FROM PLATE 22.2 C-4

COMPUTED T_p = 14 MIN. (Rounded to even minute) $T_p = T_c$

$q_p = \frac{45.4A}{T_p}$ = ____ CFS./INCH OF RUNOFF

$(R \times q_p) = Q_{peak}$ = 75.8** CFS

t(COLUMN)=(t/T_p) $t=T_p(t/T_p)$

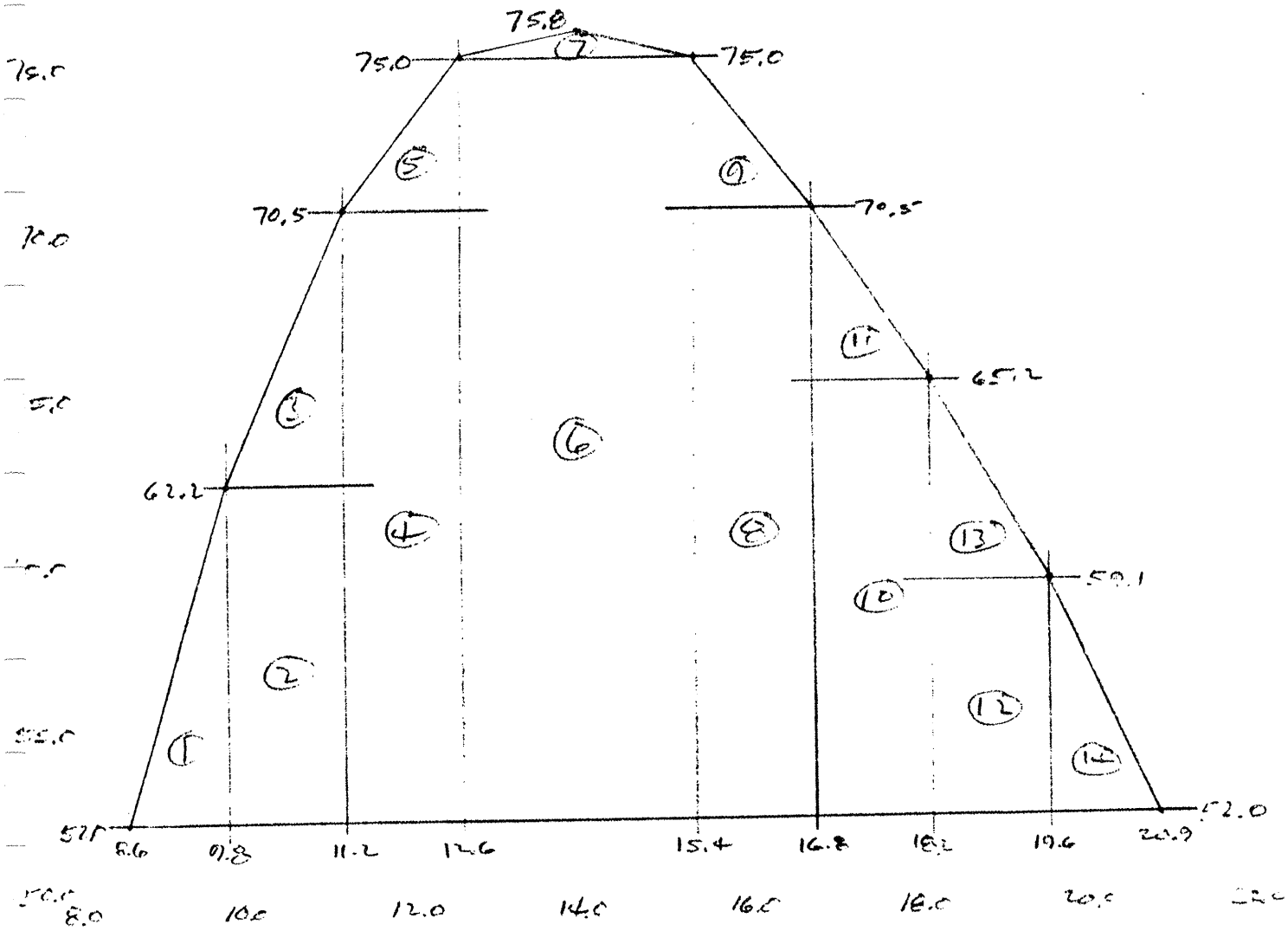
$y = \frac{Q}{Q_{peak}}$ $Q = y(Q_{peak})$

	(t/T_p)	t (min.)	y	Q (cfs)	
1	0	0	0	0	
2	.1	1.4	.03	2.3	
3	.2	2.8	.10	7.6	
4	.3	4.2	.190	14.4	
5	.4	5.6	.310	23.5	
6	.5	7.0	.470	35.6	
7	.6	8.4	.660	50.0	t=8.4
8	.7	9.8	.820	62.2	
9	.8	11.2	.930	70.5	
10	.9	12.6	.990	75.0	
11	1.0	14.0	1.00	75.8	OVER 5-2 cfs
12	1.1	15.4	.990	75.0	
13	1.2	16.8	.930	70.5	
14	1.3	18.2	.860	65.2	
15	1.4	19.6	.780	59.1	
16	1.5	21.0	.680	51.5	t=20.4
17	1.6	22.4	.560	42.4	
18	1.7	23.8	.460	34.9	
19	1.8	25.2	.390	29.6	
20	1.9	26.6	.330	25.0	
21	2.0	28.0	.280	21.2	
22	2.2	30.8	.207	15.7	
23	2.4	33.6	.147	11.1	
24	2.6	36.4	.107	8.1	
25	2.8	39.2	.077	6.2	
26	3.0	42.0	.055	5.8	
27	3.2	44.8	.040	3.0	
28	3.4	47.6	.029	2.2	
29	3.6	50.4	.021	1.6	
30	3.8	53.2	.015	1.1	
31	4.0	56.0	.011	0.8	
32	4.5	63.0	.005	0.4	
33	5.0	70.0	.000	0.0	

* COMPOUND PLUS TRACT C-1-A (per Scanlon - 8.25 Ac.)

** SEE SHEET 1A-1 OF 2 DATED 6/2/86 AND REVISED 6/23/86

PLATE 22.2 F-1



Compound Retaining Wall

5

6

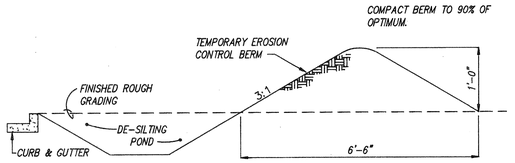
5T677

D.G

6/11/18

AREA (SEE SHEET 5 OF 6)		VOLUME
(1)	$(62.2-52.0)(9.8-6.6)(60)/2$ =	367.2
(2)	$(62.2-52.0)(11.2-9.8)(60)$ =	856.8
(3)	$(70.5-62.2)(11.2-9.2)(60)/2$ =	348.6
(4)	$(70.5-52.0)(12.6-11.2)(60)$ =	1554.0
(5)	$(75.0-70.5)(12.6-11.2)(60)/2$ =	189.0
(6)	$(75.0-52.0)(15.4-12.6)(60)$ =	3864.0
(7)	$(75.8-75.0)(15.4-12.6)(60)/2$ =	67.2
(8)	$(70.5-52.0)(16.8-15.4)(60)$ =	1554.0
(9)	$(75.0-70.5)(16.8-15.4)(60)/2$ =	189.0
(10)	$(65.2-52.0)(18.2-16.8)(60)$ =	1108.8
(11)	$(70.5-65.2)(18.2-16.8)(60)/2$ =	222.6
(12)	$(59.1-52.0)(19.6-18.2)(60)$ =	596.4
(13)	$(65.2-59.1)(19.6-18.2)(60)/2$ =	256.2
(14)	$(59.1-52.0)(20.9-19.6)(60)/2$ =	276.9
TOTAL		11,450.7 CU. FT.

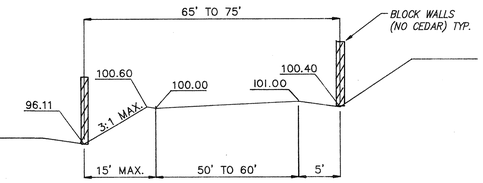
COMPOUND @ PEPPERTREE 6 6
51677 DVG 6/19/86
COMPOUND # C-1-A



SECTION

EROSION CONTROL BERM DETAIL

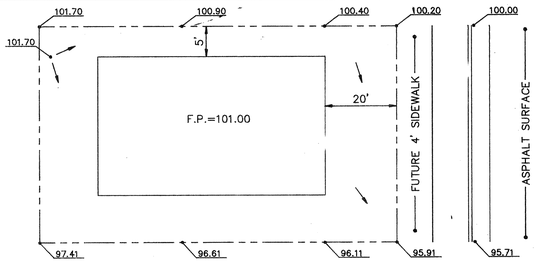
N.T.S.



SECTION

TYPICAL LOT LAYOUT

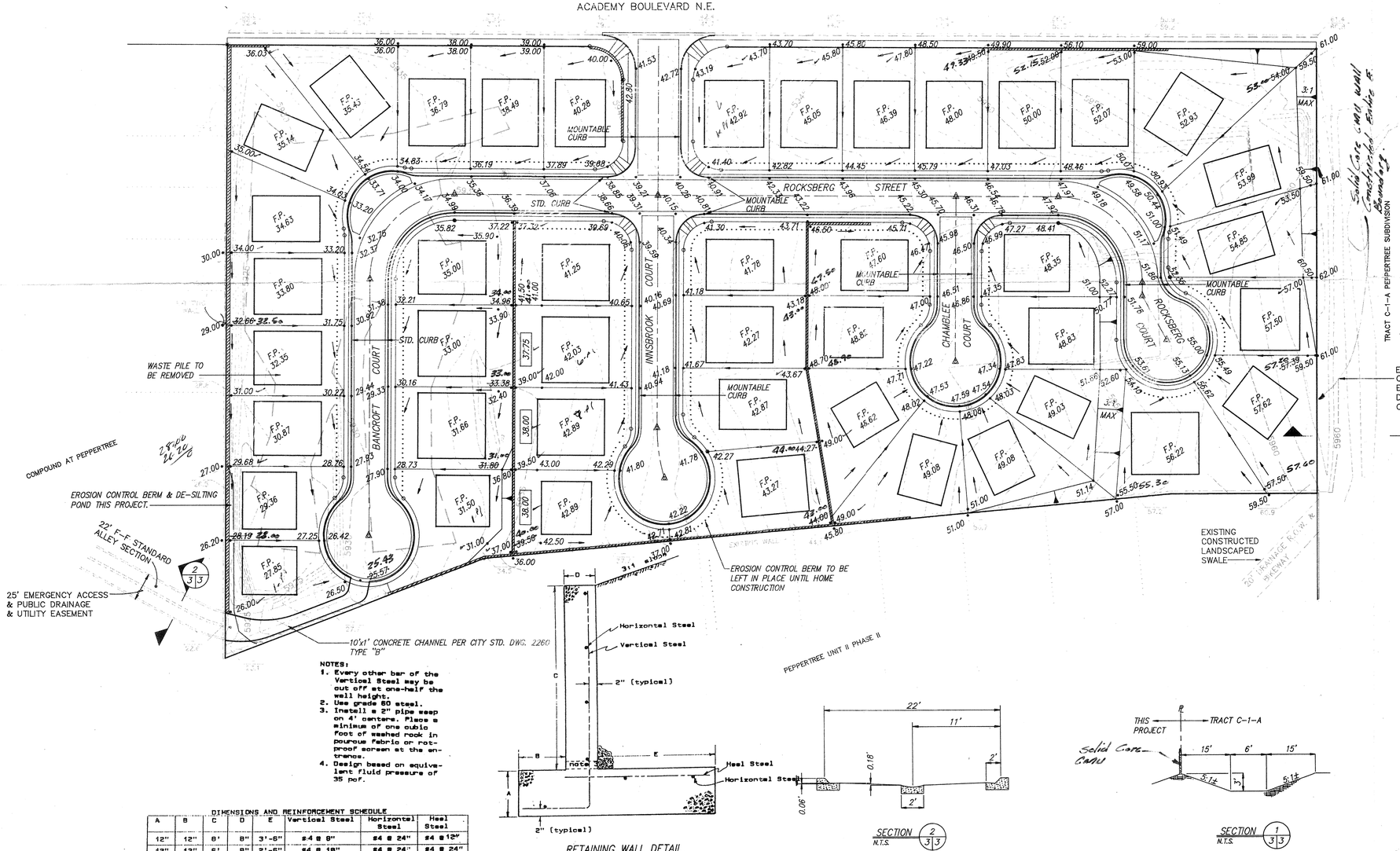
N.T.S.



PLAN

TYPICAL LOT LAYOUT

N.T.S.



RETAINING WALL DETAIL

N.T.S.

NOTES:
1. Every other bar of the Vertical Steel may be cut off at one-half the wall height.
2. Use grade 60 steel.
3. Install a 2" pipe weep on 4' centers. Place a minimum of one cubic foot of washed rock in pourous fabric or rot-proof screen at the entrance.
4. Design based on equivalent fluid pressure of 35 pcf.

DIMENSIONS AND REINFORCEMENT SCHEDULE

A	B	C	D	E	Vertical Steel	Horizontal Steel	Heel Steel
12"	12"	8'	8"	3'-6"	#4 @ 8"	#4 @ 24"	#4 @ 12"
12"	12"	6'	8"	2'-6"	#4 @ 18"	#4 @ 24"	#4 @ 24"
12"	6"	4'	8"	1'-6"	6X6-6/6 mesh	none	6X6-10/10

SECTION 2/3 N.T.S.

SECTION 1/3 N.T.S.

SCALE: 1"=50'

PTS\TOPO50

GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DTL. THIS SHT. AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. ALL LOTS (3) WITH REAR YARD PONDS SHALL BE GRADED SUCH THAT ONLY THE REAR YARD SHALL DRAIN TO PONDS. ALL ROOFS SHALL DRAIN TO FRONT.

RECEIVED
FEB 23 1993
HYDROLOGY

RECORD DRAWING

I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the Contractor, Universal Constructors, Inc., and by the Surveyor, D. Mark Goodwin and Associates, and reflects the construction as actually accomplished. This plan as constructed is in substantial compliance with the Approved Plan, with particular emphasis on the retaining wall locations and height, and earthwork grading.

Mark Goodwin, NMPE 8948

AS BUILT INFORMATION

CONTRACTOR UNIVERSAL

	DATE
WORK STAKED BY	MGM 11/92
INSPECTION BY	MGM DATE 1/93
FIELD INFORMATION BY	MGM DATE 1/93
DRAWINGS CORRECTED BY	MGM DATE 1/93

MICRO-FILM INFORMATION

	DATE
RECORDED BY	
NO.	

BENCH MARKS

THE STATION IS LOCATED AT THE INTERSECTION OF LOWELL ST. N.E. AND SAN VICTORIO N.E. THE STATION IS A 3 1/4" ALUMINUM CAP SET FLUSH IN THE TOP OF THE CURB AND IS STAMPED "ACS 3-E224 1985". X=423,379.14, Y=1,509,592.78, Z=5691.17

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
982	DMGA	6/92

ENGINEER'S SEAL

MARK GOODWIN 8948 REGISTERED PROFESSIONAL ENGINEER
8/12/92

REVISIONS	BY	DATE
DESIGN		
REMARKS		
NO.	DATE	
DESIGNED BY	DMG	6/92
DRAWN BY	STAFF	6/92
CHECKED BY	DMG	6/92

~~57.50~~ 57.60 DENOTES AS-BUILT

APPROVED FOR ROUGH GRADING 1'± 7-10-92 DATE

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: COACHMAN ESTATES SUBDIVISION GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN		8-18-92	WATER	N/A RWK	8-7-92
TRANSPORTATION		8-10-92	WASTE WATER	N/A RWK	8-7-92
HYDROLOGY		8-17-92			

PROJECT NO.	MAP NO.	SHEET	OF
4525.90	E22	3	9

Build Earth Berm along East Property Line - See Detail this Sheet

BUILD DRAINAGE LINING IN 10' DRAINAGE R.O.W. SEE DETAIL THIS SHEET

BUILD DRAINAGE LINING IN 10' DRAINAGE R.O.W. SEE DETAIL THIS SHEET

10' DRAINAGE FLOW & EASEMENT FOR FUTURE USE

TAMARAC DRIVE

SAN VICTORIO AVENUE

PERSIMMON AVENUE

HICKORY COURT

SCALE: 1" = 50'

Property Line

Existing Chain Link Fence

Concrete Block Wall

Earth Berm

Existing Ground

18"±

TYPICAL SECTION EARTH BERM
Not to Scale

Garden Wall less than 18"

Spot Elev. Finish

Pond Elevation

Retaining Wall greater than 18"

15'x30'(Min) Usable yard Area

Lot No.

5' Sideyard Setback(min)

10' Sideyard Setback (min)

Design Pad Grades: Finish Floor Garage Nominal Pad dimensions are 60'x150' unless otherwise shown.

Swale Line

Swale Elevation

Face of Curb

Street ℄

Set back 20' Nom.

TYPICAL LOT SECTION
Scale: 1"=50'

9'0"

6"Min.

Symmetrical about ℄

20" Max

4" Inverted Crown

6"min.

TYPICAL SECTION
CONCRETE DRAINAGE LINING
Not to Scale

Note: Concrete Lining to be Reinforced as shown on City of Albuquerque Standard Dwg 2760

INSTALL DRAIN CATCH 5 FEET INSIDE REAR PROPERTY LINE. BEEHIVE GRATE W/FRAME NEENAH R-4853 OR EQ.

CONSTRUCT 24"I.D. CONC. CATCH.

SLOPE TO GRATE

5702.50

INV. 5694.80

#4 Rebar @ 8' o.c., E.W.

4" PVC SCHED 40 PIPE DRAIN

6' 24" 6'

Std. @ 199.36, PERSIMMON DRIVE, 16' R.[R] CONSTRUCT DRAIN LINE THROUGH CURB PER STD. DWG. 2236 TRANSITION FROM ROLL-TYPE C&G TO STD C&G 4' BOTH SIDES. 2' STD. C&G CENTERED ON OUTLET.

- REMOVE & REPLACE 2 CURBSTONES

Private Drainage Easement Filed Aug 10, 1988 Book Misc. 382 Pg. 117 746-750

Backflow Grate 12"x30" INLET IN 694.50

T.B.M. - ■ in top of curb located on west side of Teakwood Trial at the South P.C., next to Lot 29 Block 1 of Peppertree Subdivision Unit One. Elev = 5937.170

Min Backyard Pond Volumes:

Block	Lot	Vol. (cu. ft.)	Depth (ft.)
3	7	622	1.89
3	8	613	1.91
3	9	566	1.81
9	22	594	1.88
9	23	638	1.93
9	24-A	~~623~~ 740	~~1.98~~ 1.28
9	25	627	1.99

Site grading shall conform to Section 210 of "City of Albuquerque Standard Specifications for Public Work Construction" 1986.

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS

A.C.S. "BENCH MARK 6-E22 LOCATED FROM THE INTERSECTION OF EUBANK N.E. AND ACADEMY N.E. 1.2 MILES EAST ON ACADEMY, 375 SOUTH OF ACADEMY ON THE SOUTH RIM OF A SHALLOW ARROYO. A STANDARD ACS. BRASS TABLET STAMPED "6-E22 LS-4972" SET IN THE TOP OF A CONCRETE POST. ELEVATION 5934.53

AS BUILT INFORMATION

CONTRACTOR

WORK STARTED BY: DATE
WORK COMPLETED BY: DATE
ACCEPTANCE BY: DATE
VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE

MICRO-FILM INFORMATION

RECORDED BY: DATE
NO:

ENGINEER'S SEAL

Richard J. Mall 3-11-87 12 LOTS 23-A & 24-A ONLY

RECEIVED
MAR 15 1990
HYDROLOGY DIVISION

NO.	DATE	BY	REMARKS	ENGR.
	05-15-86	JKZ	GRADING, L 23-A & 24-A, B-9	BY MCEL ENGINEERING
			REVISIONS	
			DESIGN	

DESIGNED BY: JKZ — DATE MARCH 1987
DRAWN BY: SLL — DATE APRIL 1987
CHECKED BY: — DATE

PEPPERTREE UNIT 2 PHASE 2

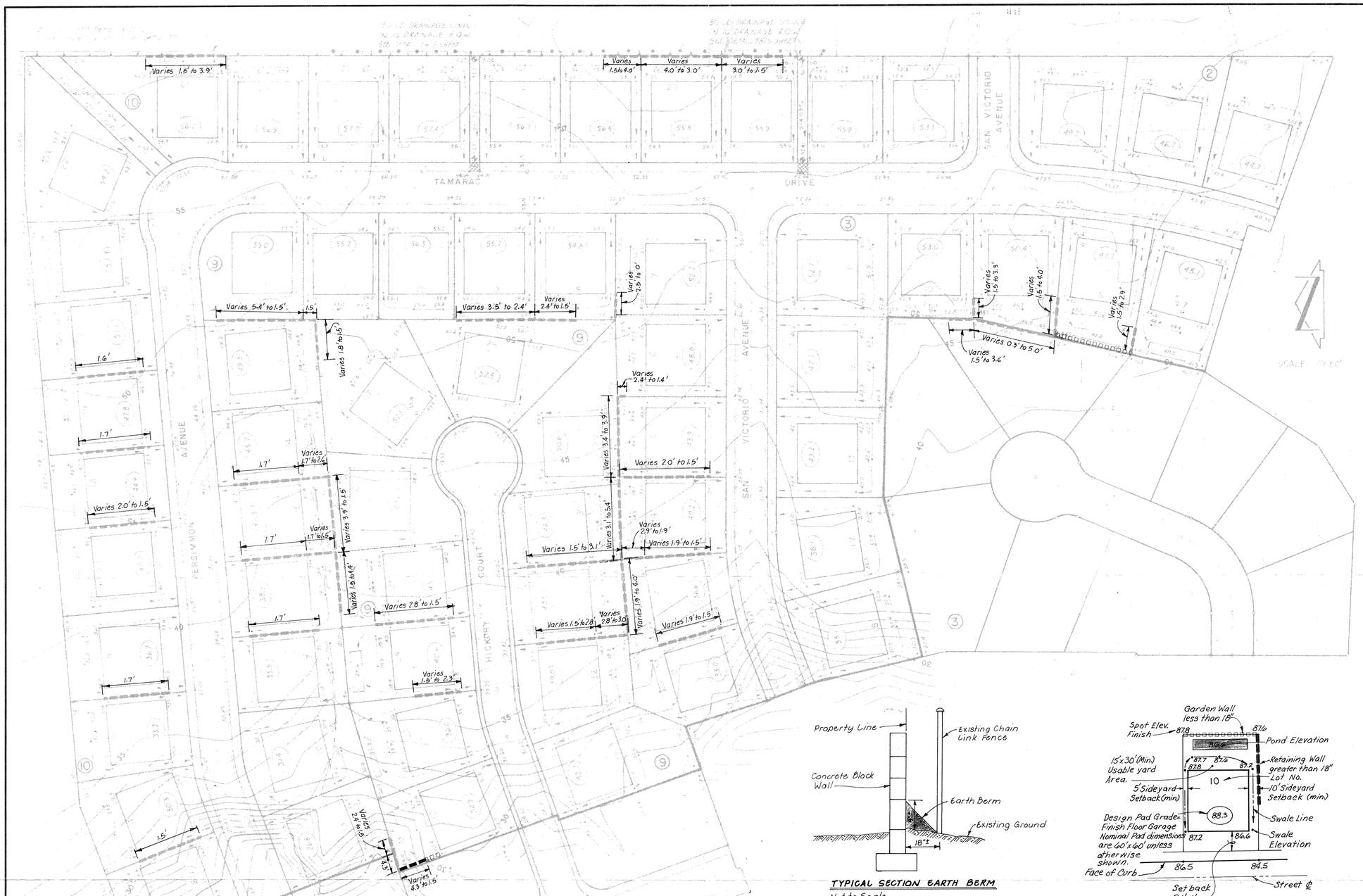
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		3/17/87	Liquid Waste		9/4/87
A.C.E. Design		" "	Traffic		9/4/87
A.C. E.-Hydrology	CAM	5-4-87	Water		9/4/87

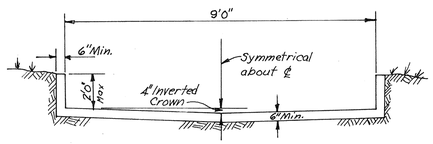
DRAWING NO. | MAP NO. E-22 | SHEET 4 OF 15

SCANLON & ASSOCIATES — JOB NO. 87101



TYPICAL SECTION EARTH BERM
Not to Scale

TYPICAL LOT SECTION
Scale: 1"=50'



TYPICAL SECTION
CONCRETE DRAINAGE LINING
Not to Scale

Note: Concrete Lining to be Reinforced as shown on City of Albuquerque Standard Dwg. 2260

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

BENCH MARKS

A.C.S. "BENCH MARK 6-E22 LOCATED FROM THE INTERSECTION OF EUBANK N.E. AND ACADEMY N.E. 1.2 MILES EAST ON ACADEMY, 375' SOUTH OF ACADEMY ON THE SOUTH RIM OF A SHALLOW ARROYO. A STANDARD A.C.S. BRASS TABLET STAMPED "6-E22 LS-4972" SET IN THE TOP OF A CONCRETE POST.

ELEVATION 5934.53

AS BUILT INFORMATION

CONTRACTOR — DATE
STAKED BY — DATE
INSPECTORS — DATE
AS-BUILT SURVEY BY — DATE
FIELD VERIFICATION BY — DATE
DRAWING CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE

NO.

ENGINEER'S SEAL

CHRISTOPHER L. LUCERO 9/14/87

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	JKZ
		DATE MARCH 1987	
		DESIGNED BY	JKZ
		DATE APRIL 1987	
		DRAWN BY	SLL
		DATE	
		CHECKED BY	

AUG 11 1987
PEPPERTREE UNIT 2 PHASE 2

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
RETAINING WALL HEIGHTS

RECEIVED AUG 11 1987 HYDROLOGY SECTION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. Design			Traffic		
A.C. E.-Hydrology			Water		

DRAWING NO. | MAP NO. E-22 | SHEET 4A OF 15

SCANLON & ASSOCIATES — JOB NO. 87101

186079