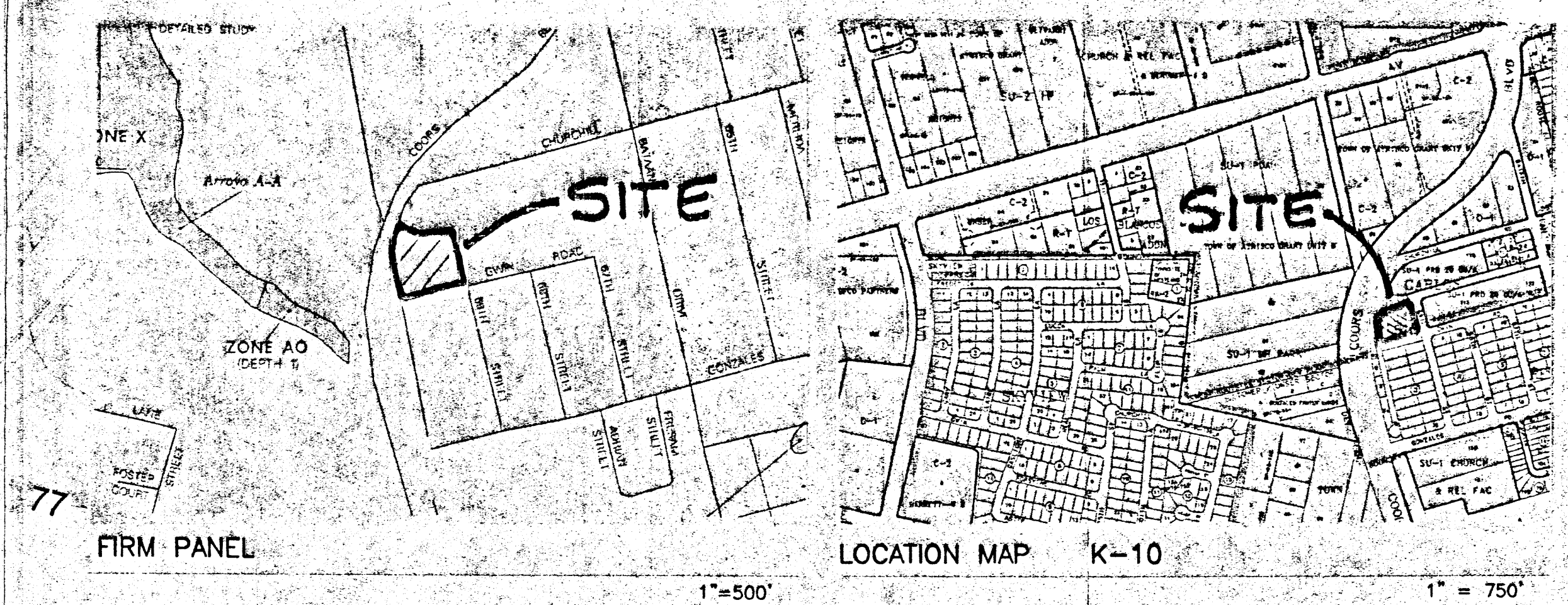




CONCEPTUAL GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Conceptual Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the construction of New Life Homes located Airport Road NW at Delia Road NW. Proposed site improvements include paving, landscaping, utility, grading, and drainage improvements. This Plan is presented to support Site Development Plan approval by the Environmental Planning Commission.

EXISTING CONDITIONS

The project site is approximately 1.1 acres in size and is located Airport Road at Delia Road NW. The project site is particularly described as a Portion of Lot 111, Town of Atrisco Grant, Unit 6. The site is bounded by Delia Road on the north, 69th Street on the east, Airport Road on the west, and developed residential properties on the south. Site topography slopes from north to south at approximately 5 percent. All on-site runoff drains south and west to improvements located at the south end of Airport Road, where an existing drop inlet and storm drain convey flows to the Coors Blvd drainage system.

As shown by the attached FIRM Panel, a Flood Hazard Zone does not impact this site.

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the construction of New Life Homes, with associated site improvements. The Plan shows the contours and elevations required to properly grade and construct the required paving and drainage improvements. Flow arrows give the direction of drainage flows and the project hydrology is tabulated for both existing and proposed conditions.

All drainage flows will be managed on-site by swales and channels and discharge to Airport Road as described above. A landscaped swale with a concrete alley gutter will be provided along the south property line that will convey flows west to Airport Road. Since this is an infill site, with acceptable downstream drainage improvements the site will free discharge to Airport without ponding requirements. As shown by the hydrology calculations, the increase in peak discharge due to development is estimated a 1.8 cfs.

EROSION CONTROL

Temporary erosion control will be required during the construction phase to protect downstream properties and improvements from sediment and uncontrolled runoff. Complete temporary erosion control details will be provided with the final grading and drainage plan to be submitted for building permit.

CALCULATIONS

Calculations are provided which define the 100-year/6 hour design storm falling with the project area under existing and proposed condition. Hydrology is per "Section 22.2, Part A, DPM, Vol 2" updated July 1997.

LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	8" W	8" W
SANITARY SEWER	8" SAS	8" SAS
STORM SEWER	30" SD	24" SD
FIRE HYDRANT		
VALVE		
WATER SERVICE (SHOULDER)		
WATER SERVICE (DOUBLE)		
MANHOLE		
CURB		
DROP INLET		
OVERHEAD ELEC	ONE	ONE
UNDERGROUND ELEC	UGT	UGT
GAS, TEL		
FLOWING ELEV.	FL 0.14	FL 0.14
TOP OF CURB ELEV.	99.3	99.31
SPOT ELEV.	18.7	18.7
SEWER SERVICE		
RIGHT OF WAY		
POWER POLE (OVER)		
CHAIN LINK FENCE		
CENTERLINE		
RETAINING WALL		
TOP OF ASPHALT ELEV.	TA 18.2	TA 18.2
CONTOUR	5100	5100
SWALE		
DIRECTION OF FLOW		
DRAINAGE BASIN		
DRIVE		
WATER BLOCK		
SIGNAL BOX		
TRANSFORMER		
METER BOX		
PHONE BOX		

KEYED NOTES

- EXISTING STD C & G
- EXISTING 4' SIDEWALK
- NEW 4' SIDEWALK
- NEW ASPHALT PAVING
- NEW CONCRETE VALLEY GUTTER
- NEW HANDICAP RAMP
- NEW 6" CONCRETE CURB
- NEW 24" SIDEWALK CULVERT
- NEW SIDEWALK
- NEW RETAINING WALL
- NEW CONCRETE ALLEY GUTTER
- EXISTING HANDICAP RAMP

PROPERTY ADDRESS

AIRPORT DRIVE NW

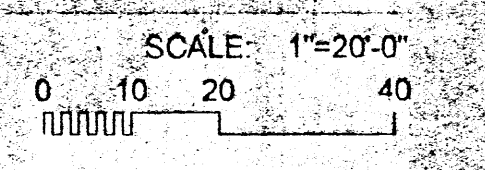
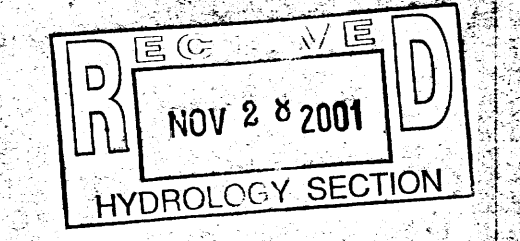
LEGAL DESCRIPTION

PORTION OF TR 111
TOWN OF ATRISCO GRANT
UNIT 6

PROJECT BENCHMARK

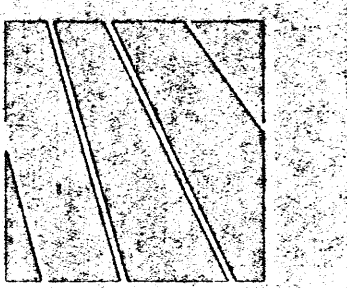
BENCH MARK: ACS 3 1/4" ALUM. CAP
DISK 8-K10
BM #5082.14
SURVEY
SITE MAPPING BY
BRASHER & LORENZ INC.

PROJECT HYDROLOGY									
ZONE:	1								
P ₂₄ HOUR	2.20"								
P ₁₀ DAY	2.65"								
UNDEVELOPED:									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	
SITE	1.10	0.00	1.10	0.00	0.00	0.67	2.23	0.0614	
DEVELOPED (PROPOSED):									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	
SITE	1.10	0.00	0.11	0.33	0.68	1.55	4.05	0.1421	



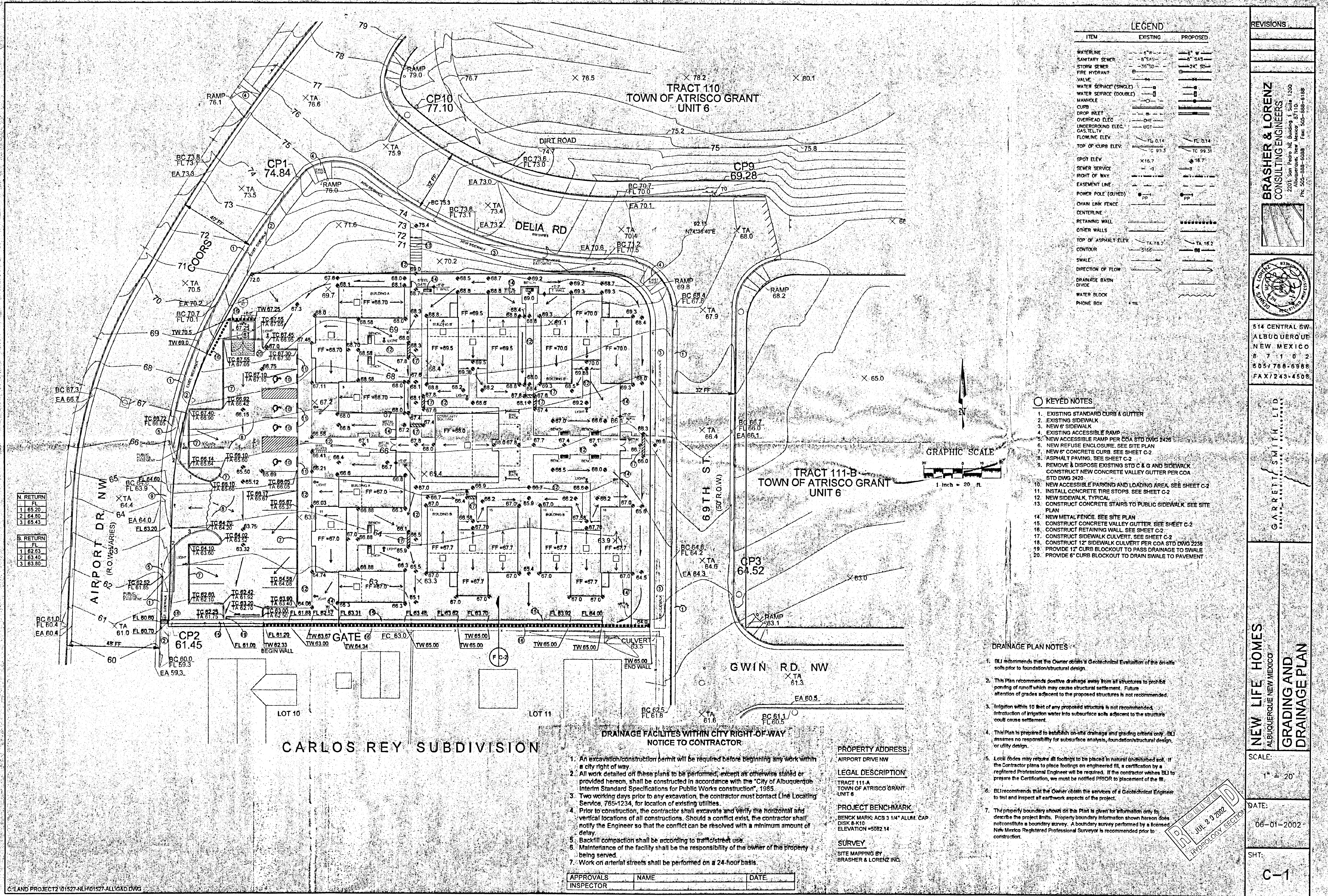
DATE: 11/20/01
SCALE: 1" = 20'-0"
DRAWN: R.M. TR
CHKD: D.A.L. OK
APP: D.A.L. FILE: 01527NFC-2.DWG
REV. NO.

BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 220
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188



NEW LIFE HOMES
John Bloomfield / H.U.D.
CONCEPTUAL
GRADING &
DRAINAGE PLAN

DATE: 11.15.01
SCALE: 1"=20'-0"
DRN. BY: BJJ



LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
FIRE HYDRANT	⊙	⊙
VALVE	⊕	⊕
WATER SERVICE (SINGLE)	---	---
WATER SERVICE (DOUBLE)	---	---
MANHOLE	⊙	⊙
CURB	---	---
DROP INLET	---	---
OVERHEAD ELEC.	---	---
UNDERGROUND ELEC.	---	---
GAS TEL. TV	---	---
FLOWLINE ELEV.	---	---
TOP OF CURB ELEV.	---	---
SPOT ELEV.	---	---
SEWER SERVICE	---	---
RIGHT OF WAY	---	---
EASEMENT LINE	---	---
POWER POLE (CURVED)	---	---
CHAIN LINK FENCE	---	---
CENTERLINE	---	---
RETAINING WALL	---	---
OTHER WALLS	---	---
TOP OF ASPHALT ELEV.	---	---
CONTOUR	---	---
SWALE	---	---
DIRECTION OF FLOW	---	---
DRAINAGE BASIN	---	---
WATER BLOCK	---	---
PHONE BOX	---	---

- KEYED NOTES
- EXISTING STANDARD CURB & GUTTER
 - EXISTING SIDEWALK
 - NEW 6" SIDEWALK
 - EXISTING ACCESSIBLE RAMP
 - NEW ACCESSIBLE RAMP PER COA STD DWG 2426
 - NEW REFUSE ENCLOSURE. SEE SITE PLAN
 - NEW 8" CONCRETE CURB. SEE SHEET C-2
 - ASPHALT PAVING. SEE SHEET C-2
 - REMOVE & DISPOSE EXISTING STD C & G AND SIDEWALK. CONSTRUCT NEW CONCRETE VALLEY GUTTER PER COA STD DWG 2420
 - NEW ACCESSIBLE PARKING AND LOADING AREA. SEE SHEET C-2
 - INSTALL CONCRETE TIRE STOPS. SEE SHEET C-2
 - NEW SIDEWALK, TYPICAL
 - CONSTRUCT CONCRETE STAIRS TO PUBLIC SIDEWALK. SEE SITE PLAN
 - NEW METAL FENCE. SEE SITE PLAN
 - CONSTRUCT CONCRETE VALLEY GUTTER. SEE SHEET C-2
 - CONSTRUCT RETAINING WALL. SEE SHEET C-2
 - CONSTRUCT SIDEWALK CULVERT. SEE SHEET C-2
 - CONSTRUCT 12" SIDEWALK CULVERT PER COA STD DWG 2238
 - PROVIDE 12" CURB BLOCKOUT TO PASS DRAINAGE TO SWALE
 - PROVIDE 6" CURB BLOCKOUT TO DRAIN SWALE TO PAVEMENT

- DRAINAGE PLAN NOTES
- BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
 - This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
 - Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
 - This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
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 - BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
 - The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.

- NOTICE TO CONTRACTOR
- An excavation/construction permit will be required before beginning any work within a city right of way.
 - All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with the "City of Albuquerque Interim Standard Specifications for Public Works Construction", 1985.
 - Two working days prior to any excavation, the contractor must contact Line Locating Service, 785-1234, for location of existing utilities.
 - Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.
 - Backfill compaction shall be according to traffic/street use.
 - Maintenance of the facility shall be the responsibility of the owner of the property being served.
 - Work on arterial streets shall be performed on a 24-hour basis.

APPROVALS	NAME	DATE
INSPECTOR		

PROPERTY ADDRESS:
AIRPORT DRIVE NW

LEGAL DESCRIPTION:
TRACT 111-A
TOWN OF ATRISCO GRANT
UNIT 6

PROJECT BENCHMARK:
BENCH MARK ACS 3 1/4" ALUM CAP
DISK 8-K10
ELEVATION = 5082.14

SURVEY:
SITE MAPPING BY
BRASHER & LORENZ INC.

REVISIONS

BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 1200
Albuquerque, New Mexico 87110
PH: 505-888-6088 Fax: 505-888-6188

514 CENTRAL SW.
ALBUQUERQUE
NEW MEXICO
8 7 1 0 2
505/766-6988
FAX/243-4508

GARRETT SMITH LTD.
SENIOR ARCHITECT/DESIGNER

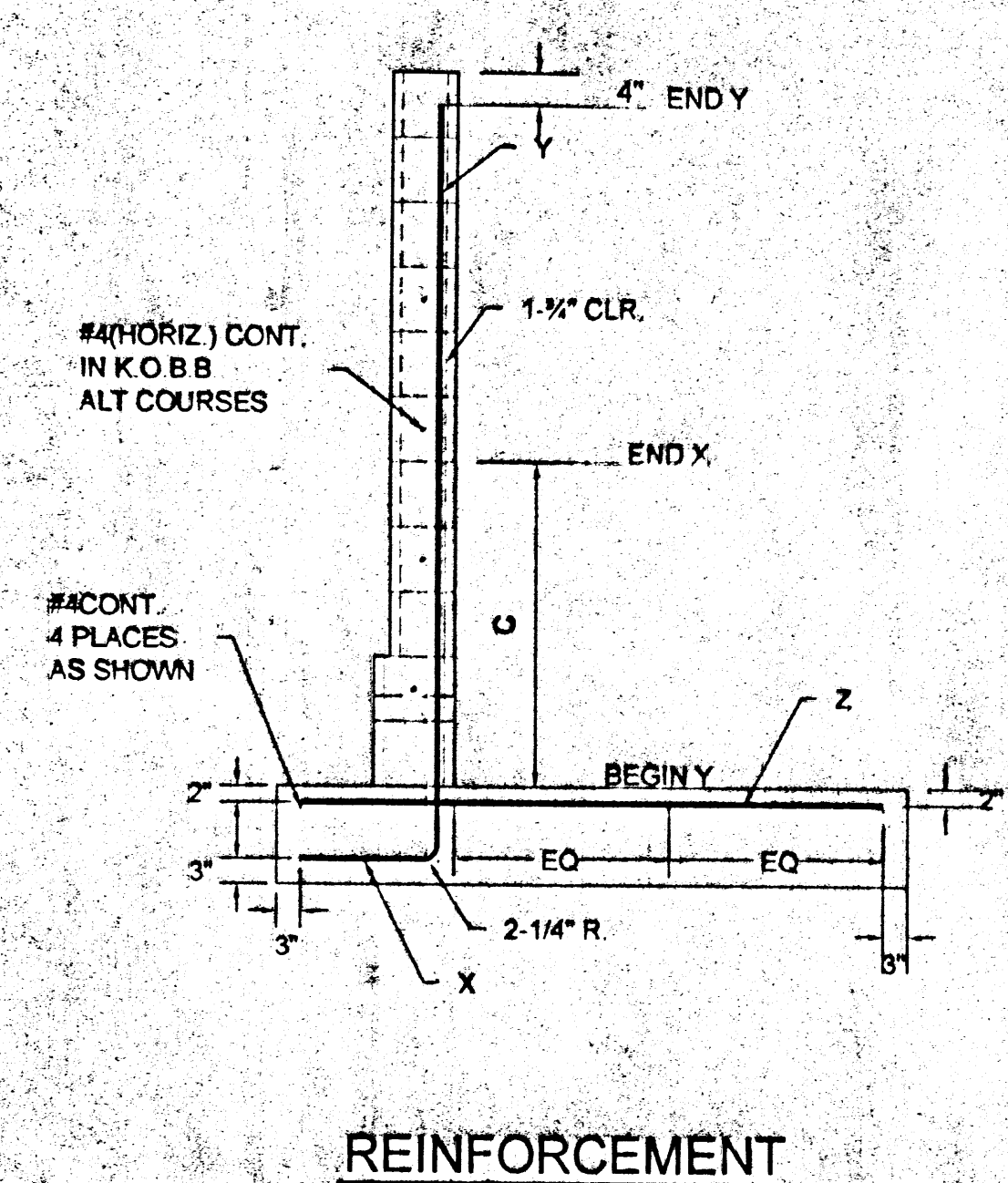
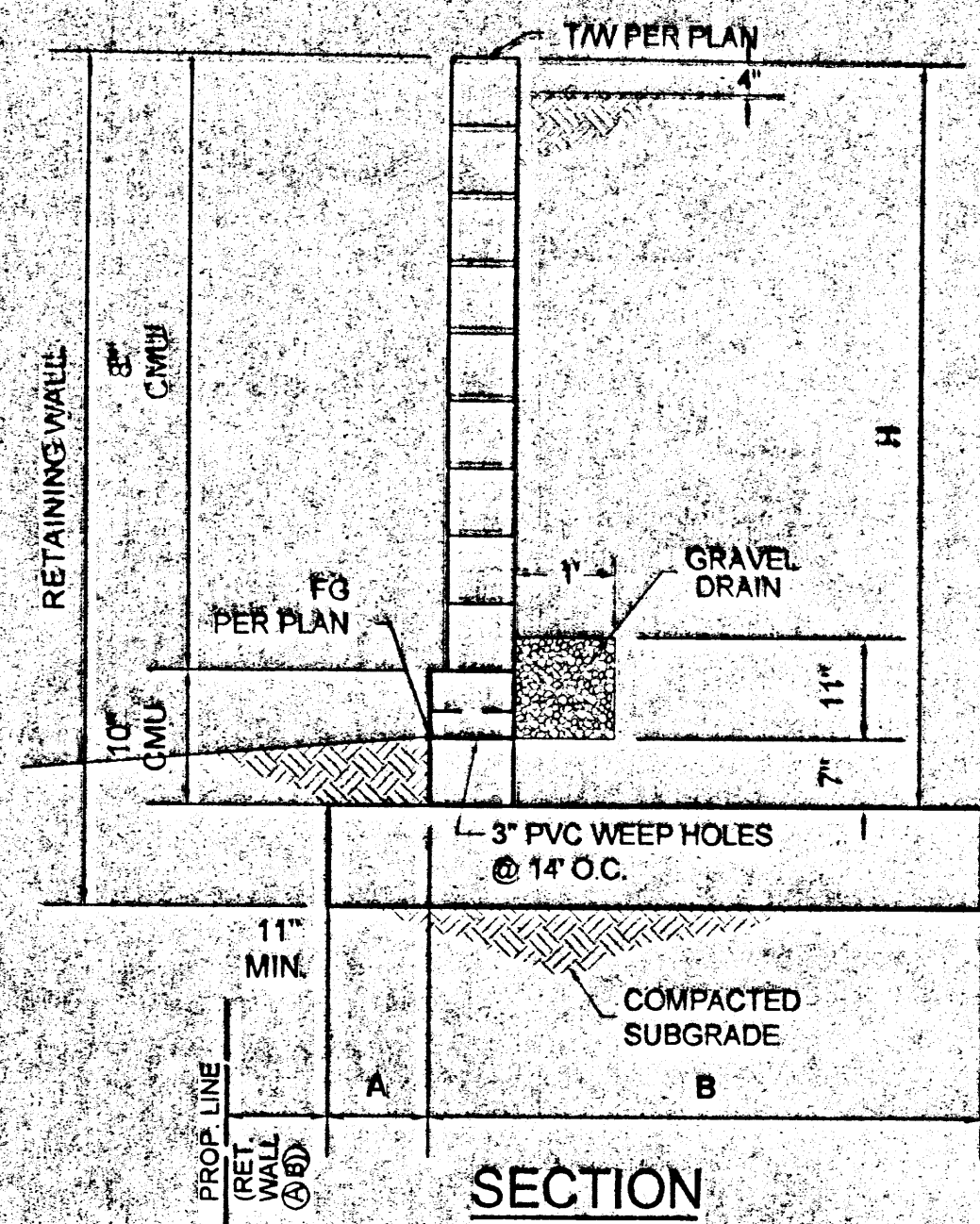
NEW LIFE HOMES
ALBUQUERQUE NEW MEXICO

GRADING AND
DRAINAGE PLAN

SCALE:
1" = 20'

DATE:
06-01-2002

SHT:
C-1



H	A	B	C	10" CMU	8" CMU	X	Y	Z
4'-8"	1'-0"	2'-8"	1'-4"	-	7 CRSES	#5@16"	#4@16"	#4@16"
4'-0"	1'-0"	2'-0"	1'-4"	-	6 CRSES	#4@16"	#4@16"	#4@16"
3'-4"	1'-0"	1'-8"	3'-0"	-	5 CRSES	#4@16"	-	-
2'-8"	1'-0"	1'-8"	2'-4"	-	4 CRSES	#4@16"	-	-
2'-0"	1'-0"	1'-8"	1'-8"	-	3 CRSES	#4@16"	-	-

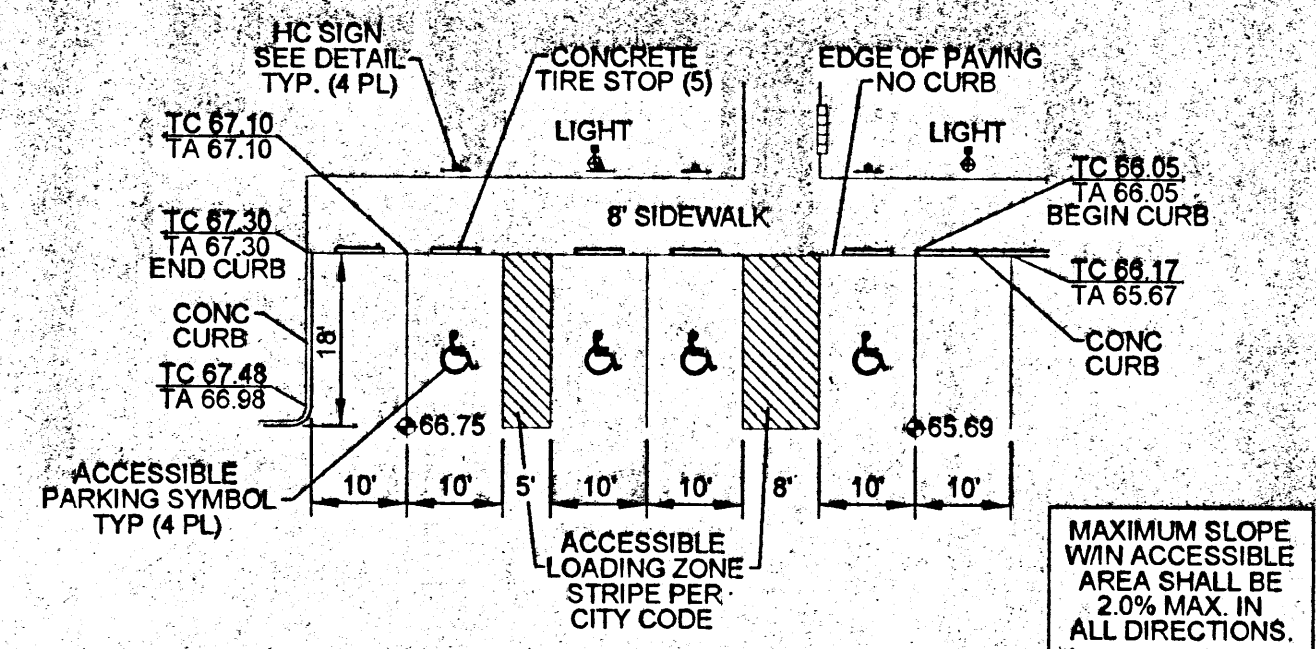
- RETAINING WALL NOTES:
- All cells shall be completely filled with concrete.
 - All wall sections are designed based on special inspection per UBC.
 - Contractor shall submit to Owner results of masonry test prisms built and tested per UBC STD 24-26, UBC SEC 2405.
 - Footing subgrade and base shall be compacted to 95% modified proctor per ASTM D-1557.
 - 1/2" felt expansion joints shall be installed at 30 feet on center and at section changes.
 - All masonry shall be laid in running bond only.
 - All masonry surfaces to be backfilled shall be coated with emulsified asphalt, or other moisture barrier as approved by the Engineer.
 - All reinforced concrete and CMU walls are designed per the following:
- $f'_c = 4000$ psi; maximum aggregate size = 3/4"
 $f_y = 60,000$ psi (ASTM A-615 GR 60)
 $f_m = 1500$ psi
 Unit weight of backfill = 110 pcf
 Concrete/soil coeff of friction = 0.30
 Allowable soil bearing pressure = 1500 psf
 Acting pressure = 44 ps/ft
 Slope active pressure = 44 ps/ft
 Passive pressure = 360 ps/ft

RETAINING WALL DETAILS

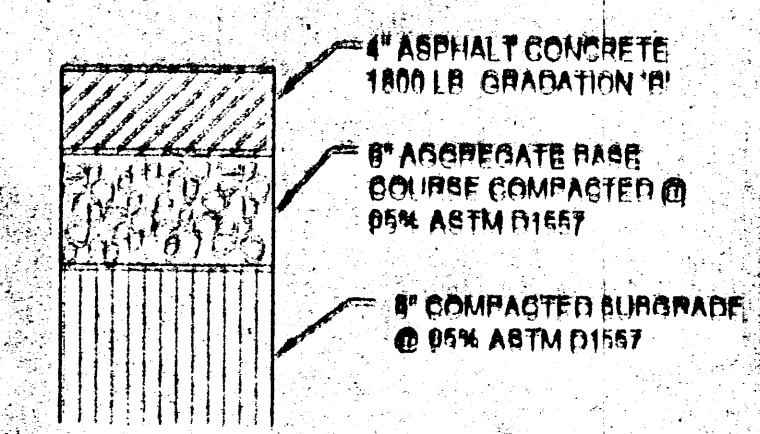


- NOTES:
- SIGN SHALL BE VERTICALLY MOUNTED ON A POST OR A WALL AT FRONT CENTER OF ACCESS AISLE, NO MORE THAN 5'-0" HORIZONTALLY FROM THE FRONT OF THE PARKING SPACE AND SET A MINIMUM OF 5'-0" ABOVE FINISH GRADE TO THE BOTTOM OF THE SIGN.
 - REFER TO SITE PLAN FOR LOCATION OF RESERVED PARKING SPACES.
 - COLORS - LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE

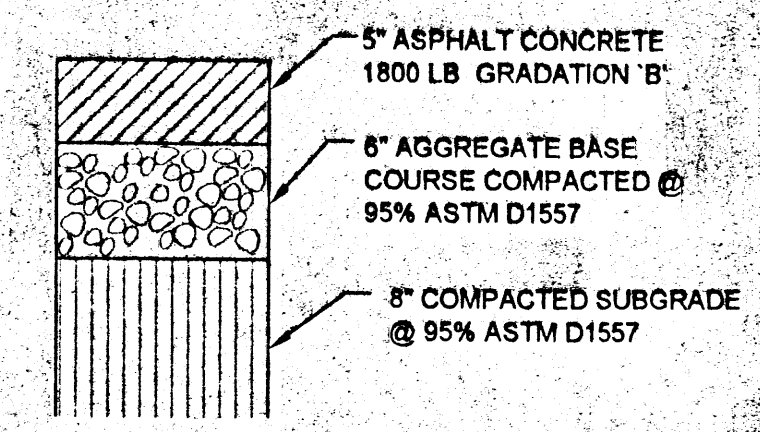
ACCESSIBLE PARKING SIGN



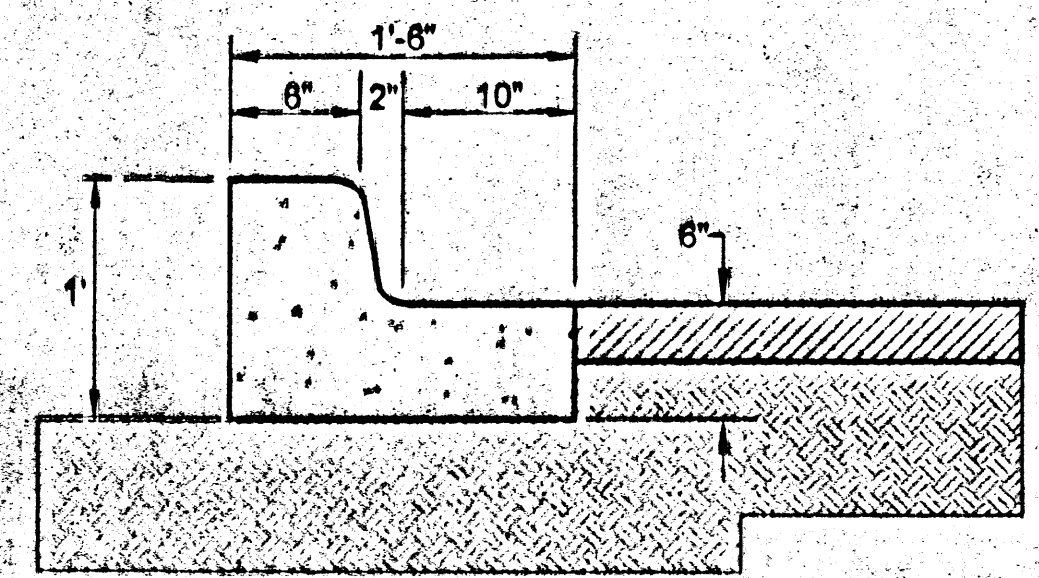
ACCESSIBLE PARKING PLAN



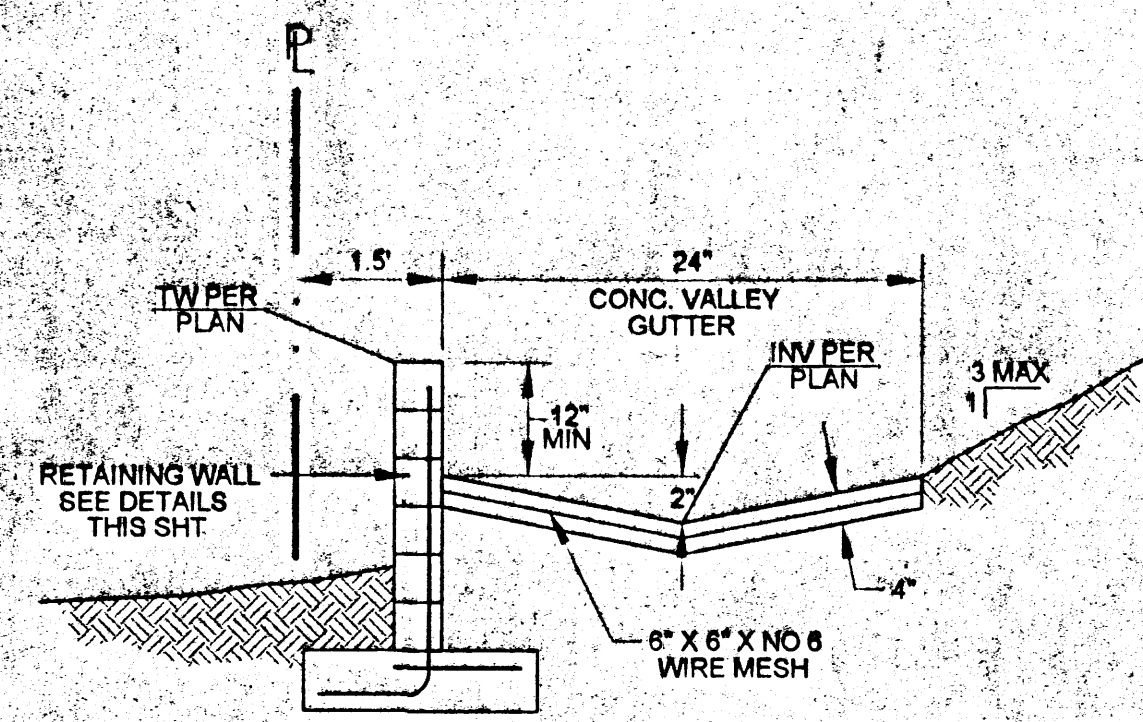
LIGHT DUTY PAVEMENT SECTION



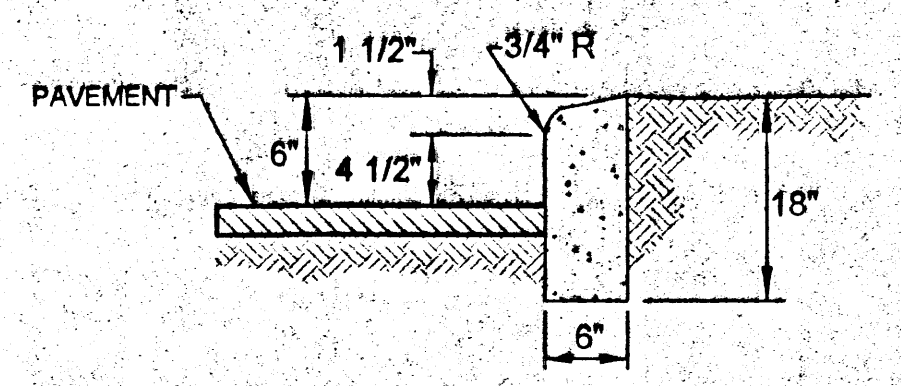
HEAVY DUTY PAVEMENT SECTION



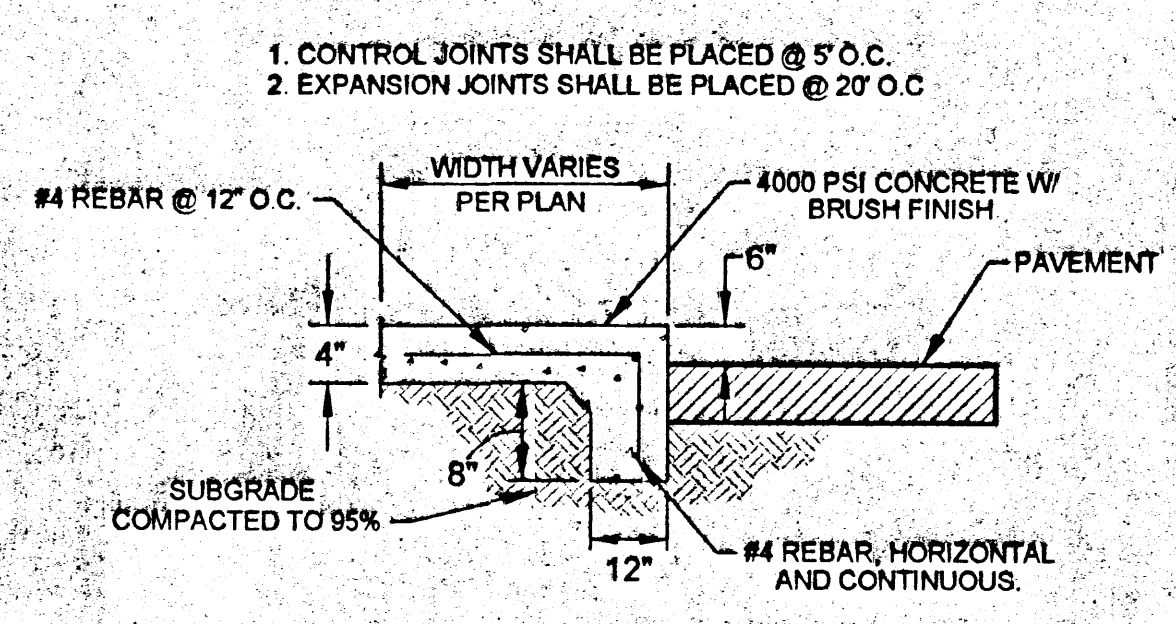
6" CURB & GUTTER DETAIL



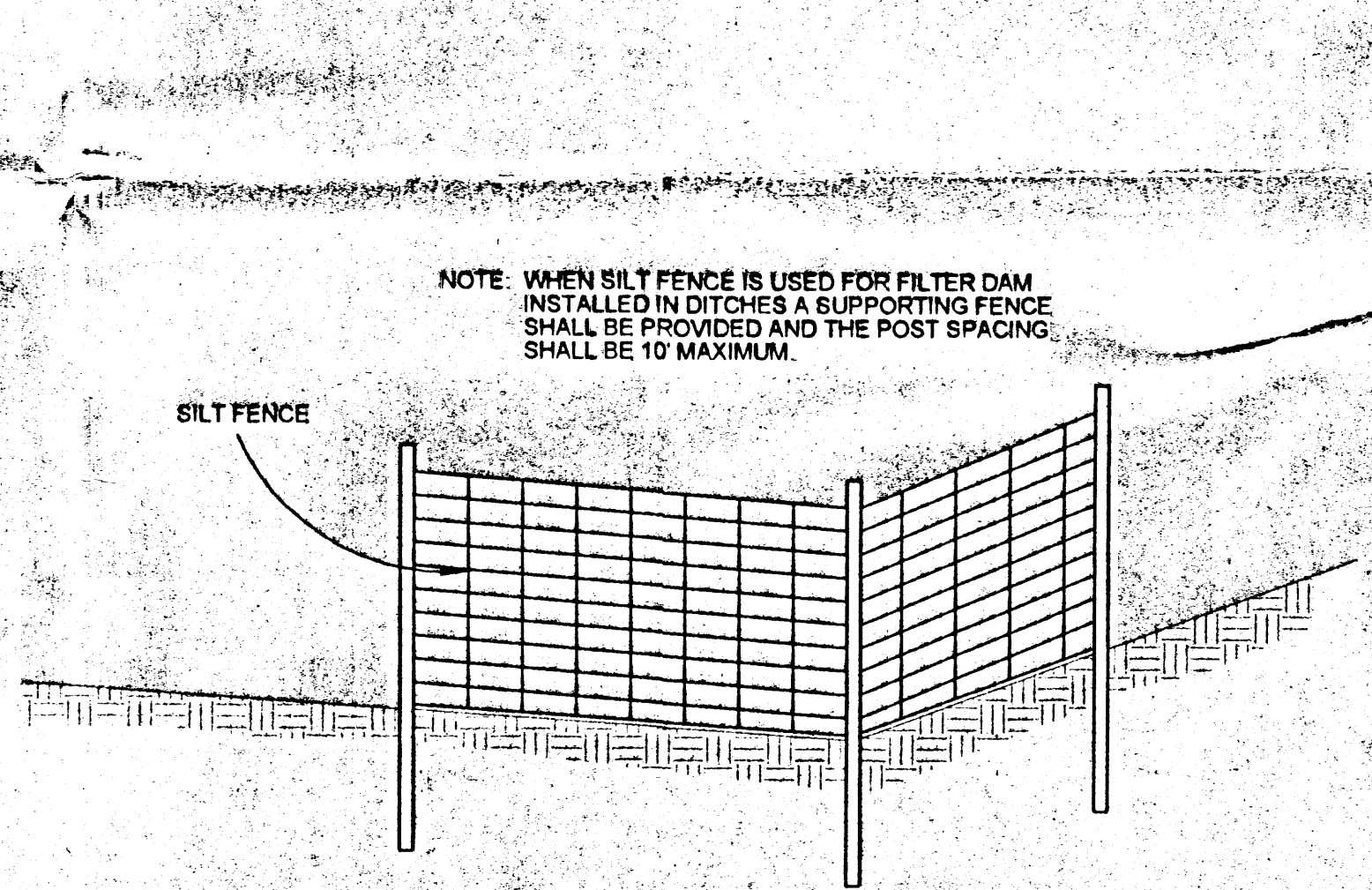
SWALE SECTION



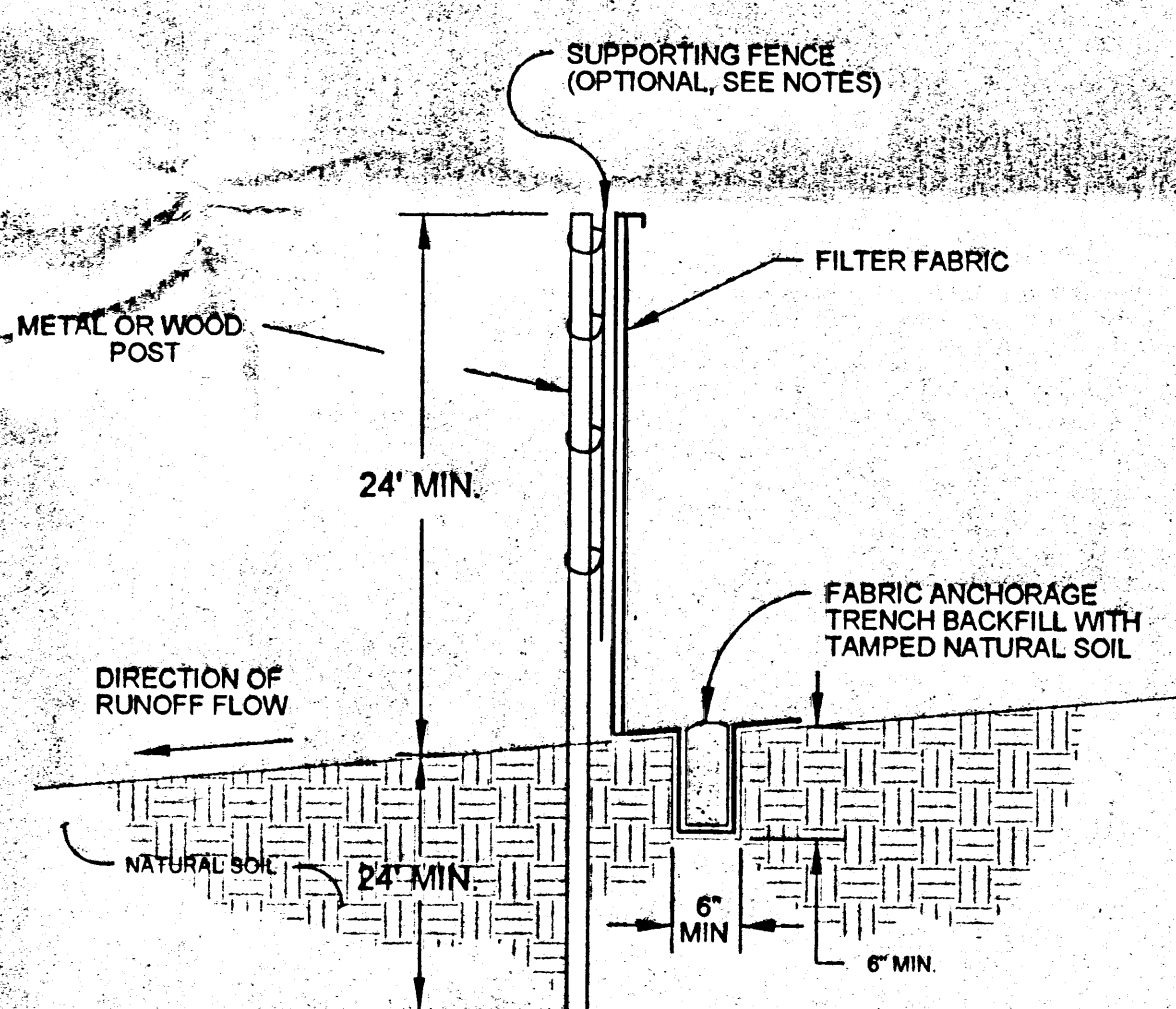
CONCRETE HEADER CURB



TURNDOWN SIDEWALK

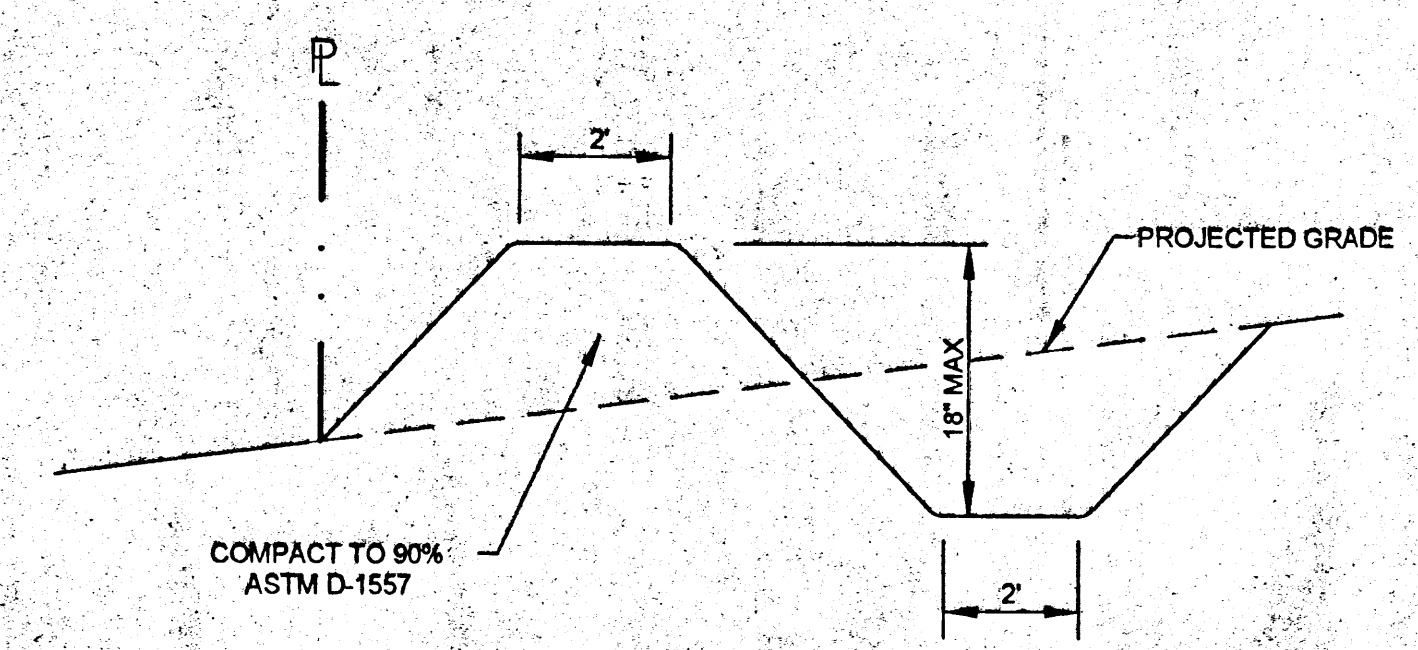


ELEVATION - FILTER DAM (SILT FENCE OPTION)



ELEVATION - FILTER DAM (SILT FENCE OPTION)

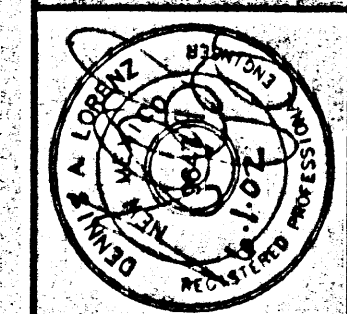
SILT FENCING



TEMPORARY EROSION CONTROL BERM DETAIL

REVISIONS

BRASHER & LORENZ
CONSULTING ENGINEERS
2700 San Francisco Blvd. N., Suite 1200
Albuquerque, NM 87110
Tel: 505-888-6088 Fax: 505-888-6188



514 CENTRAL SW
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505 / 788-8988
FAX / 243-4508

GARRETT SMITH LTD.
SENIOR ARCHITECTURAL DEVELOPER

NEW LIFE HOMES
ALBUQUERQUE NEW MEXICO
GRADING AND DRAINAGE DETAILS

SCALE:

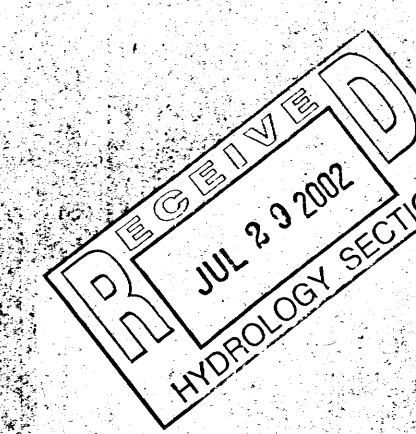
1" = 20'

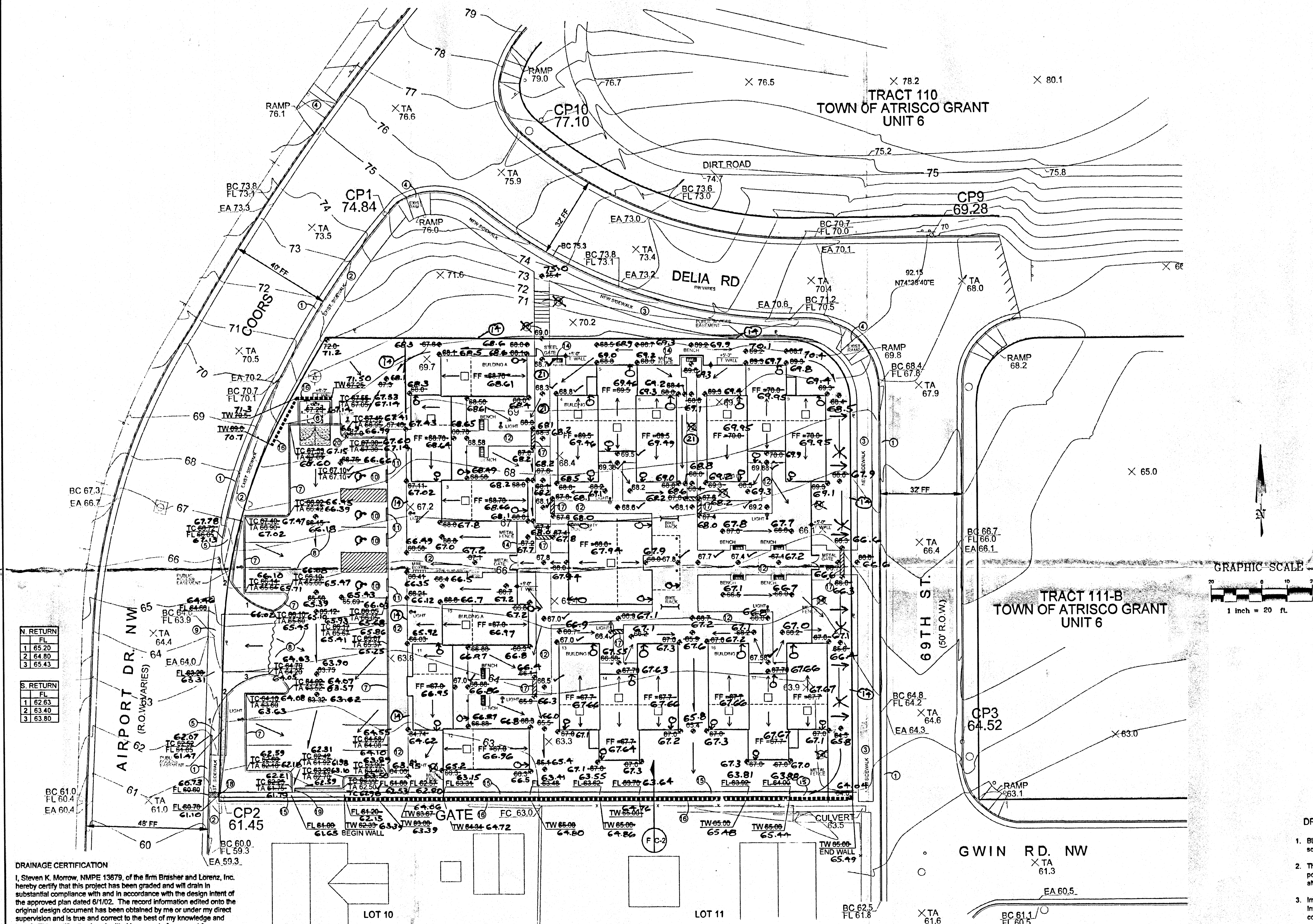
DATE:

06-01-2002

SHT:

C-2





LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
FIRE HYDRANT	---	---
VALVE	---	---
WATER SERVICE (SINGLE)	---	---
WATER SERVICE (DOUBLE)	---	---
MANHOLE	---	---
CURB	---	---
DROP INLET	---	---
OVERHEAD ELEC.	---	---
UNDERGROUND ELEC.	---	---
GAS, TEL, TV	---	---
FLOWLINE ELEV.	FL 0.14	FL 0.14
TOP OF CURB ELEV.	TC 99.3	TC 99.31
SPOT ELEV.	X 16.7	X 16.7
SEWER SERVICE	---	---
RIGHT OF WAY	---	---
EASEMENT LINE	---	---
POWER POLE (GUYN)	---	---
CHAIN LINK FENCE	---	---
CENTERLINE	---	---
RETAINING WALL	---	---
OTHER WALLS	---	---
TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2
CONTOUR	---	---
SWALE	---	---
DIRECTION OF FLOW	---	---
DRAINAGE BASIN	---	---
DIVIDE	---	---
WATER BLOCK	---	---
PHONE BOX	---	---
ROOF DRAIN	---	---

- KEYED NOTES
- EXISTING STANDARD CURB & GUTTER
 - EXISTING SIDEWALK
 - NEW 6" SIDEWALK
 - EXISTING ACCESSIBLE RAMP
 - NEW ACCESSIBLE RAMP PER COA STD DWG 2426
 - NEW REFUSE ENCLOSURE. SEE SITE PLAN
 - NEW 6" CONCRETE CURB. SEE SHEET C-2
 - ASPHALT PAVING. SEE SHEET C-2
 - REMOVE & DISPOSE EXISTING STD C & G AND SIDEWALK. CONSTRUCT NEW CONCRETE VALLEY GUTTER PER COA STD DWG 2420
 - NEW ACCESSIBLE PARKING AND LOADING AREA. SEE SHEET C-2
 - INSTALL CONCRETE TIRE STOPS. SEE SHEET C-2
 - NEW SIDEWALK, TYPICAL. ~~(DELETED)~~
 - CONSTRUCT CONCRETE STAIRS TO PUBLIC SIDEWALK. SEE SITE PLAN ~~(DELETED)~~
 - NEW METAL FENCE. SEE SITE PLAN
 - CONSTRUCT CONCRETE VALLEY GUTTER. SEE SHEET C-2
 - CONSTRUCT RETAINING WALL. SEE SHEET C-2
 - CONSTRUCT SIDEWALK CULVERT. SEE SHEET C-2
 - CONSTRUCT 12" SIDEWALK CULVERT PER COA STD DWG 2236
 - PROVIDE 12" CURB BLOCKOUT TO PASS DRAINAGE TO SWALE
 - PROVIDE 6" CURB BLOCKOUT TO DRAIN SWALE TO PAVEMENT
 - ~~SIDEWALK DELETED~~

- DRAINAGE PLAN NOTES
- BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
 - This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
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DRAINAGE CERTIFICATION

I, Steven K. Morrow, NMPE 13679, of the firm Brasher & Lorenz, Inc. hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 6/1/02. The record information edited onto the original design document has been obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy (Permanent).

Site drainage for the 100-year, 6-hour design storm deviates from the approved plan as follows: The approved plan directs 3.4 cfs of stormwater runoff to Airport Road and 0 cfs to 69th St. As-built conditions direct 2.4 cfs to Airport Road and 1.0 cfs to 69th St. The approved plan would have reduced existing flows to 69th St. by 1.0 cfs. As-built conditions will result in the same amount of runoff being discharged to 69th St. (1 cfs) as was discharged prior to construction.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Steven K. Morrow NMPE 13679

2-18-04

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

NOTICE TO CONTRACTOR

- An excavation/construction permit will be required before beginning any work within a city right of way.
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- Maintenance of the facility shall be the responsibility of the owner of the property being served.
- Work on arterial streets shall be performed on a 24-hour basis.

APPROVALS

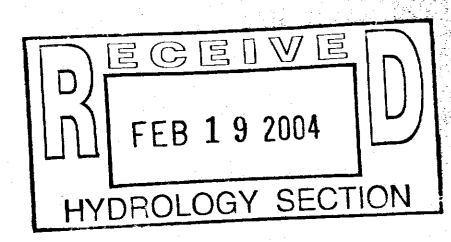
NAME	DATE
INSPECTOR	SIGNED GREEN TAG DELIVERED TO K. MEYER IN LIEU OF SIGNATURE 2/19/04

PROPERTY ADDRESS:
AIRPORT DRIVE NW

LEGAL DESCRIPTION:
TRACT 111-A
TOWN OF ATRISCO GRANT
UNIT 6

PROJECT BENCHMARK:
BENCH MARK: ACS 3 1/4" ALUM. CAP
DISK 8-K10
ELEVATION = 5082.14

SURVEY:
SITE MAPPING BY:
BRASHER & LORENZ, INC.



REVISIONS

NO.	DESCRIPTION	DATE

BRASHER & LORENZ
CONSULTING ENGINEERS
2201 San Pedro NE Building 1 Suite 1200
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

GARRETT SMITH LTD.
SENIOR ARCHITECTURE & SURVEILLANCE

NEW LIFE HOMES
ALBUQUERQUE NEW MEXICO

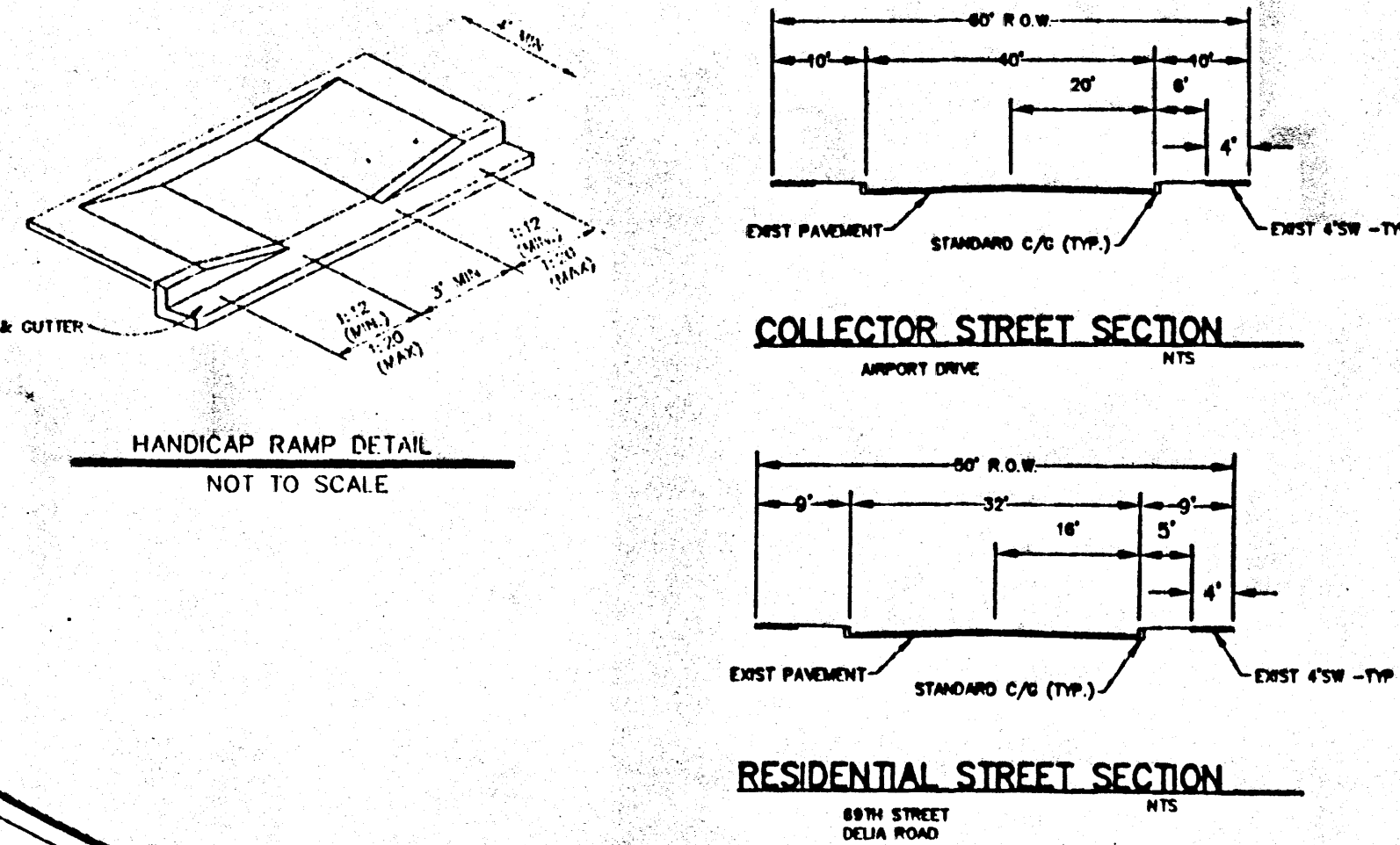
GRADING AND DRAINAGE PLAN

SCALE:
1" = 20'

DATE:
06-01-2002

SHT:
C-1

03512



A1 SITE PLAN
A2 LANDSCAPE PLAN
A3 DETAILS
A4 BUILDING ELEVATIONS
C1 CONCEPTUAL GRADING & DRAINAGE PLAN
C2 UTILITY PLAN

514 CENTRAL SW
ALBUQUERQUE
NEW MEXICO
8 7 1 0 2
505/766-8968
FAX/243-4508

GARRATT, SMITH LTD

EPC SUBMITTAL

NEW LIFE HOMES
John Bloomfield / H.U.D.

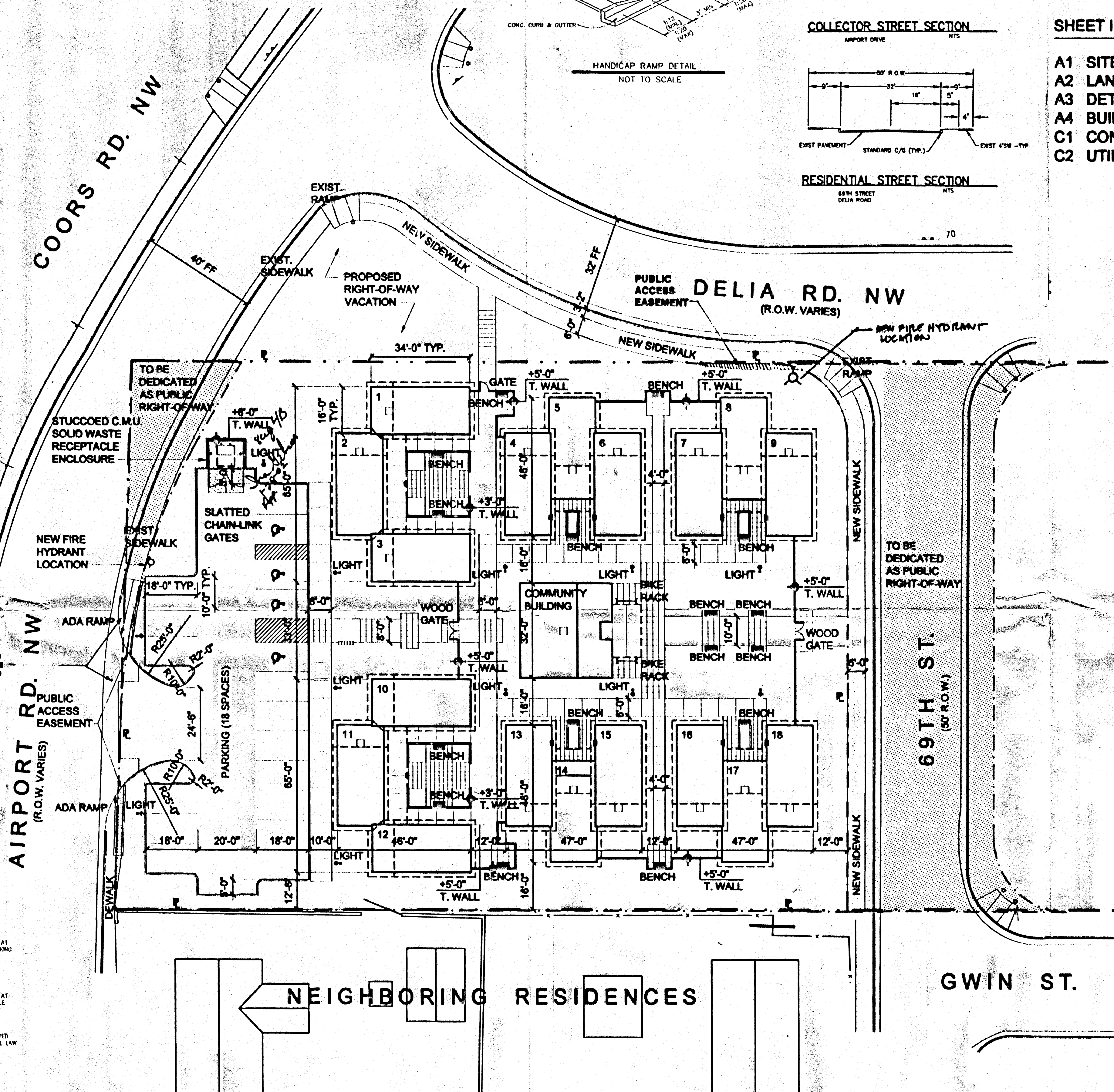
SITE PLAN

RECEIVED
FEB 19 2004
HYDROLOGY SECTION

DATE: 01.24.02
SCALE: 1"=20'-0"
DRN. BY B/JF

REQUIRED: NINE (9)
PROVIDED: TEN (10)

AIRPORT RD. NW
(ROW VARIATION)



TOTAL AREA: 10 011.55

- WALL LIGHT
- POLE LIGHT
- BENCH
- BIKE RACK
- MAIL BOXES
- HEIGHT MARKER

PARKING LOT: ASPHALT

Steven K. Morrow NMPE 13679 Date 2/18/04

LEO FLENNING
 02-1-11
 (L.F.)
 HYDRA-100
 R.C. 1-28-02

APPROVAL AND CONDITIONAL ACCEPTANCE: as specified by the
Department Process Manual

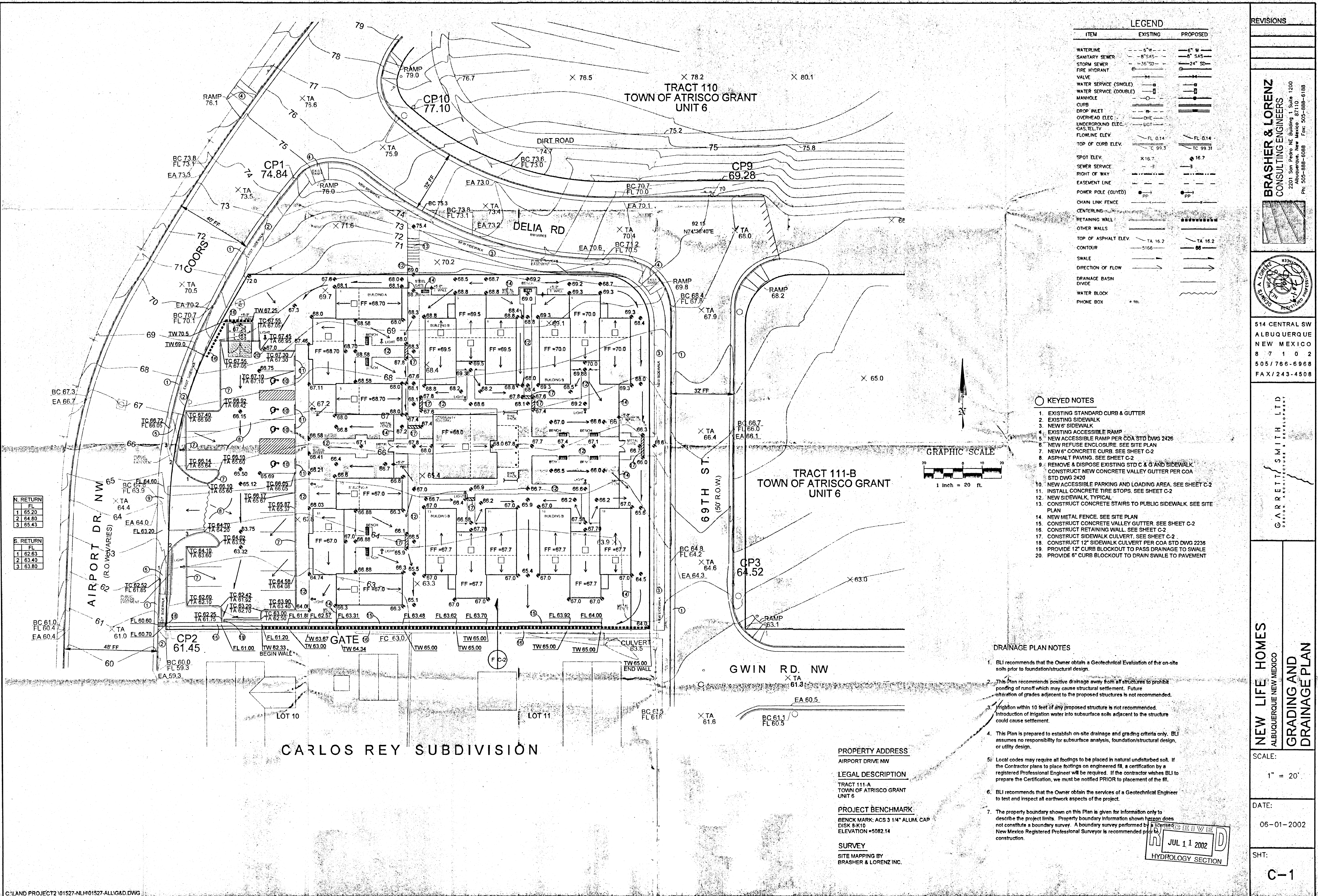
HANDICAP PARKING LAYOUT DETAIL

HANDICAP SIGN ASSEMBLY DETAIL
NOT TO SCALE

SITE PLAN

SCALE: 15-20-00

0 10 20 40



LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	---	---
SANITARY SEWER	---	---
STORM SEWER	---	---
FIRE HYDRANT	---	---
VALVE	---	---
WATER SERVICE (SINGLE)	---	---
WATER SERVICE (DOUBLE)	---	---
MANHOLE	---	---
CURB	---	---
DRAIN INLET	---	---
OVERHEAD ELEC.	---	---
UNDERGROUND ELEC.	---	---
GAS, TEL, TV	---	---
FLOWLINE ELEV.	FL 0.14	FL 0.14
TOP OF CURB ELEV.	TC 99.3	TC 99.3
SPOT ELEV.	X 16.7	X 16.7
SEWER SERVICE	---	---
RIGHT OF WAY	---	---
EASEMENT LINE	---	---
POWER POLE (GUED)	---	---
CHAIN LINK FENCE	---	---
CENTERLINE	---	---
RETAINING WALL	---	---
OTHER WALLS	---	---
TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2
CONTOUR	---	---
SWALE	---	---
DIRECTION OF FLOW	---	---
DRAINAGE BASIN	---	---
WATER BLOCK	---	---
PHONE BOX	---	---

- KEYED NOTES**
- EXISTING STANDARD CURB & GUTTER
 - EXISTING SIDEWALK
 - NEW 6" SIDEWALK
 - EXISTING ACCESSIBLE RAMP
 - NEW ACCESSIBLE RAMP PER COA STD DWG 2426
 - NEW REFUSE ENCLOSURE. SEE SITE PLAN
 - NEW 6" CONCRETE CURB. SEE SHEET C-2
 - ASPHALT PAVING. SEE SHEET C-2
 - REMOVE & DISPOSE EXISTING STD C & G AND SIDEWALK. CONSTRUCT NEW CONCRETE VALLEY GUTTER PER COA STD DWG 2420
 - NEW ACCESSIBLE PARKING AND LOADING AREA. SEE SHEET C-2
 - INSTALL CONCRETE TIRE STOPS. SEE SHEET C-2
 - NEW SIDEWALK, TYPICAL
 - CONSTRUCT CONCRETE STAIRS TO PUBLIC SIDEWALK. SEE SITE PLAN
 - NEW METAL FENCE. SEE SITE PLAN
 - CONSTRUCT CONCRETE VALLEY GUTTER. SEE SHEET C-2
 - CONSTRUCT RETAINING WALL. SEE SHEET C-2
 - CONSTRUCT SIDEWALK CULVERT. SEE SHEET C-2
 - CONSTRUCT 12" SIDEWALK CULVERT PER COA STD DWG 2238
 - PROVIDE 12" CURB BLOCKOUT TO PASS DRAINAGE TO SWALE
 - PROVIDE 6" CURB BLOCKOUT TO DRAIN SWALE TO PAVEMENT

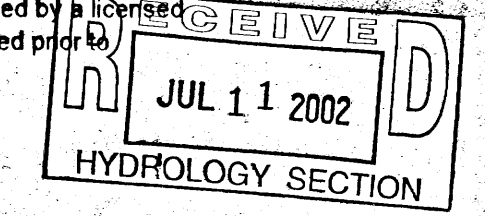
- DRAINAGE PLAN NOTES**
- BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
 - This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
 - Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
 - This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
 - Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes BLI to prepare the Certification, we must be notified PRIOR to placement of the fill.
 - BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
 - The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a Registered Professional Surveyor is recommended prior to construction.

PROPERTY ADDRESS
AIRPORT DRIVE NW

LEGAL DESCRIPTION
TRACT 111-A
TOWN OF ATRISCO GRANT
UNIT 6

PROJECT BENCHMARK
BENCH MARK: ACS 3 1/4" ALUM. CAP
DISK 3/4" X 1/2"
ELEVATION +5082.14

SURVEY
SITE MAPPING BY
BRASHER & LORENZ INC.



BRASHER & LORENZ
CONSULTING ENGINEERS
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Albuquerque, New Mexico 87110
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GARRETT SMITH LTD
DESIGN, ARCHITECTURE & DEVELOPMENT

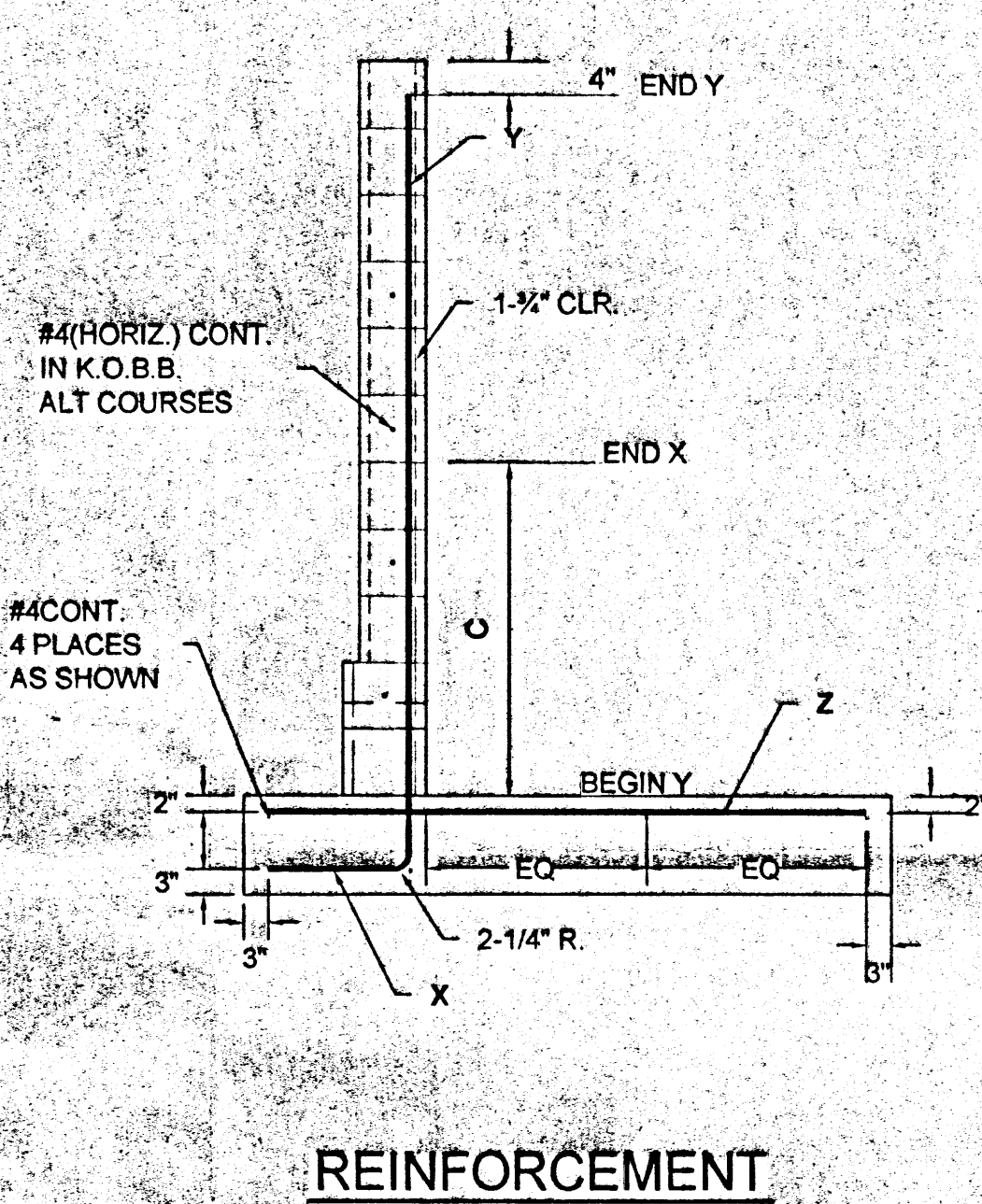
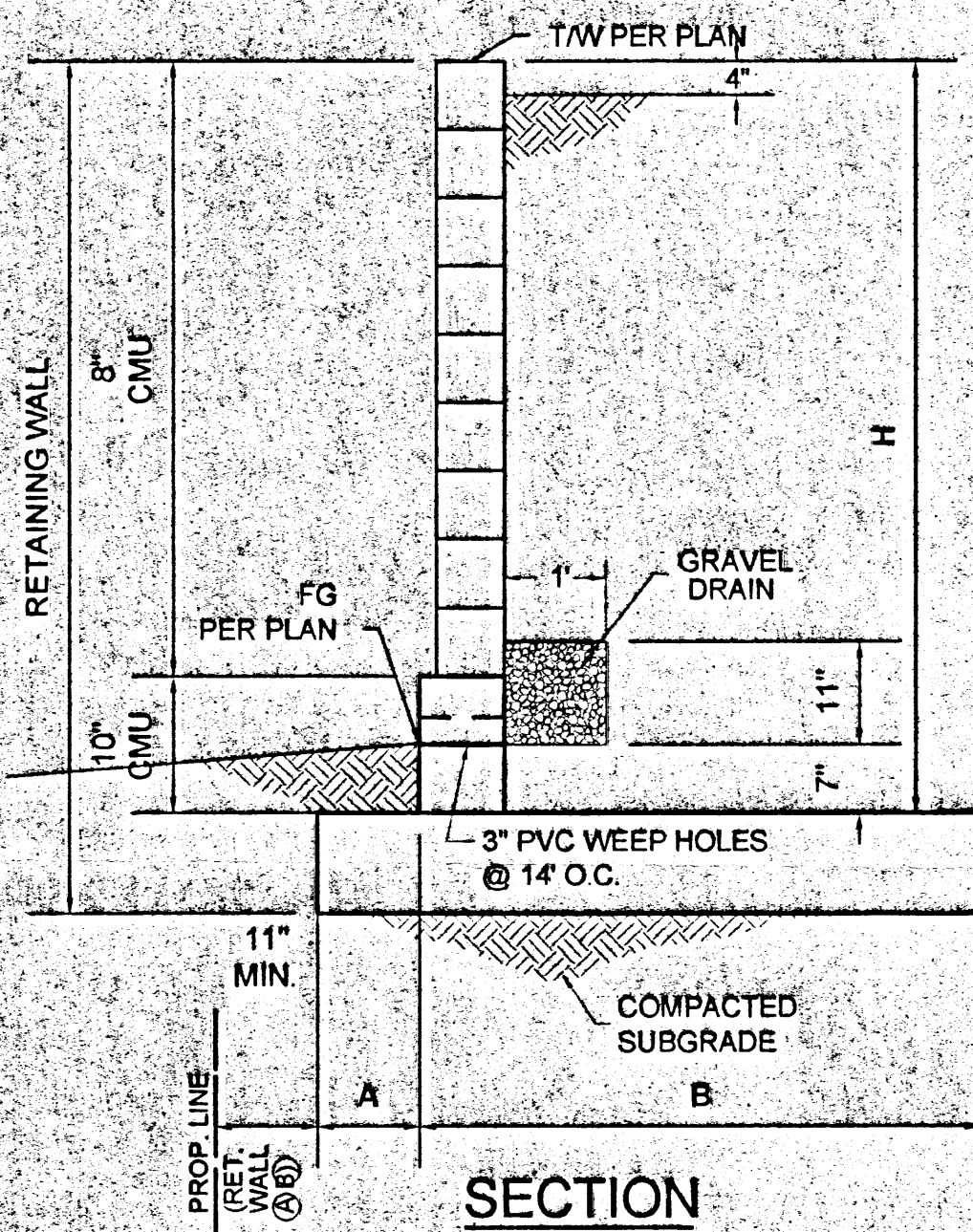
NEW LIFE HOMES
ALBUQUERQUE NEW MEXICO

GRADING AND DRAINAGE PLAN

SCALE:
1" = 20'

DATE:
06-01-2002

SHT:
C-1



H	A	B	C	10" CMU	8" CMU	X	Y	Z
4'-8"	1'-0"	2'-8"	1'-4"	-	7 CRSES	#5@16"	#4@16"	#4@16"
4'-0"	1'-0"	2'-0"	1'-4"	-	6 CRSES	#4@16"	#4@16"	#4@16"
3'-4"	1'-0"	1'-8"	3'-0"	-	5 CRSES	#4@16"	-	-
2'-8"	1'-0"	1'-8"	2'-4"	-	4 CRSES	#4@16"	-	-
2'-0"	1'-0"	1'-8"	1'-8"	-	3 CRSES	#4@16"	-	-

RETAINING WALL NOTES:

- All cells shall be completely filled with concrete.
- All wall sections are designed based on special inspection per UBC.
- Contractor shall submit to Owner results of masonry test prisms built and tested per UBC STD 24-28, UBC SEC 2405.
- Footing subgrade and base shall be compacted to 95% modified proctor per ASTM D-1557.
- 1/2" felt expansion joints shall be installed at 30 feet on center and at section changes.
- All masonry shall be laid in running bond only.
- All masonry surfaces to be backfilled shall be coated with emulsified asphalt, or other moisture barrier as approved by the Engineer.
- All reinforced concrete and CMU walls are designed per the following:

f_c = 4000 psi; maximum aggregate size = 3/4"
 f_y = 60,000 psi (ASTM A-615 GR 60)
 m = 1500 psi
 Unit weight of backfill = 110 pcf
 Concrete/soil coeff of friction = 0.30
 Allowable soil bearing pressure = 1500 psi
 Acting pressure = 44 psf/ft
 Slope active pressure = 44 psf/ft
 Passive pressure = 360 psf/ft

RETAINING WALL DETAILS

NTS

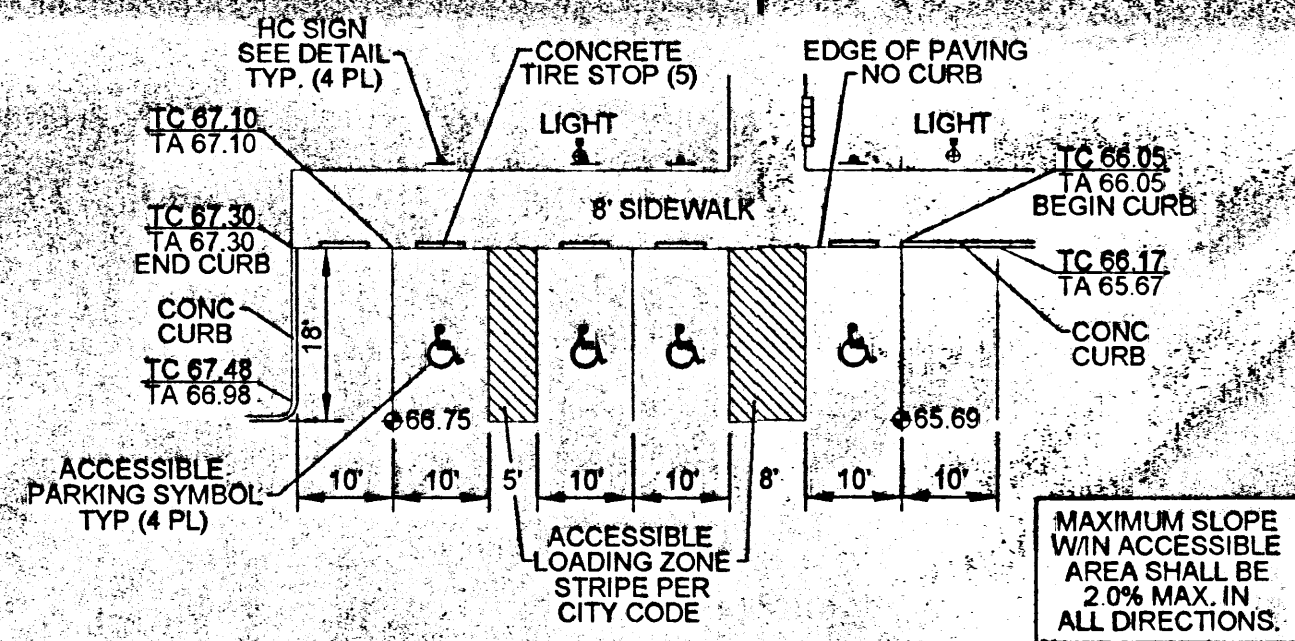


NOTES:

- SIGN SHALL BE VERTICALLY MOUNTED ON A POST OR A WALL AT FRONT CENTER OF ACCESS AISLE, NO MORE THAN 5'-0" HORIZONTALLY FROM THE FRONT OF THE PARKING SPACE AND SET A MINIMUM OF 5'-0" ABOVE FINISH GRADE TO THE BOTTOM OF THE SIGN.
- REFER TO SITE PLAN FOR LOCATION OF RESERVED PARKING SPACES.
- COLORS - LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE

ACCESSIBLE PARKING SIGN

NTS

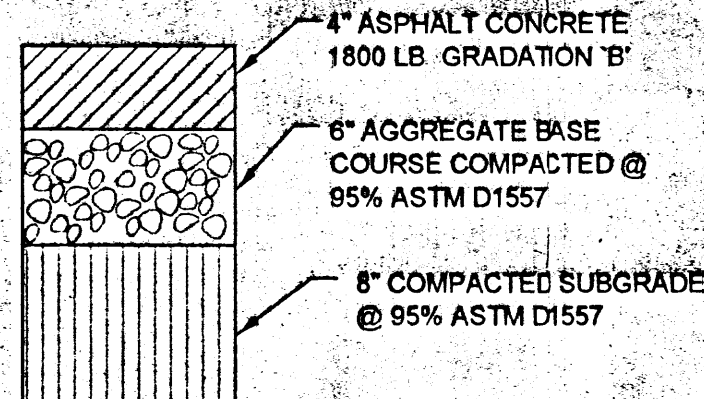


ACCESSIBLE PARKING PLAN

NTS

LIGHT DUTY PAVEMENT SECTION

NTS

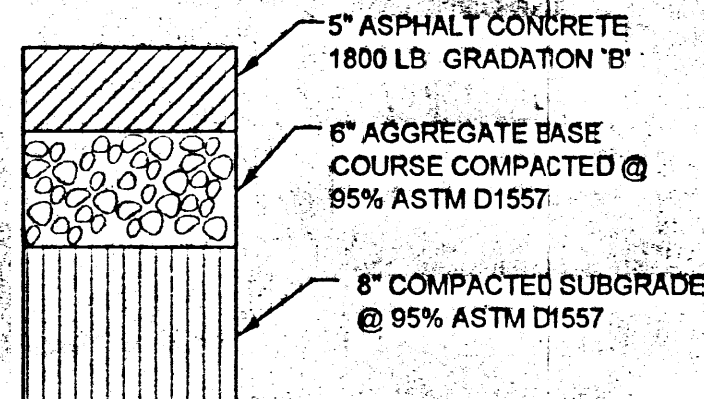


A

C-2

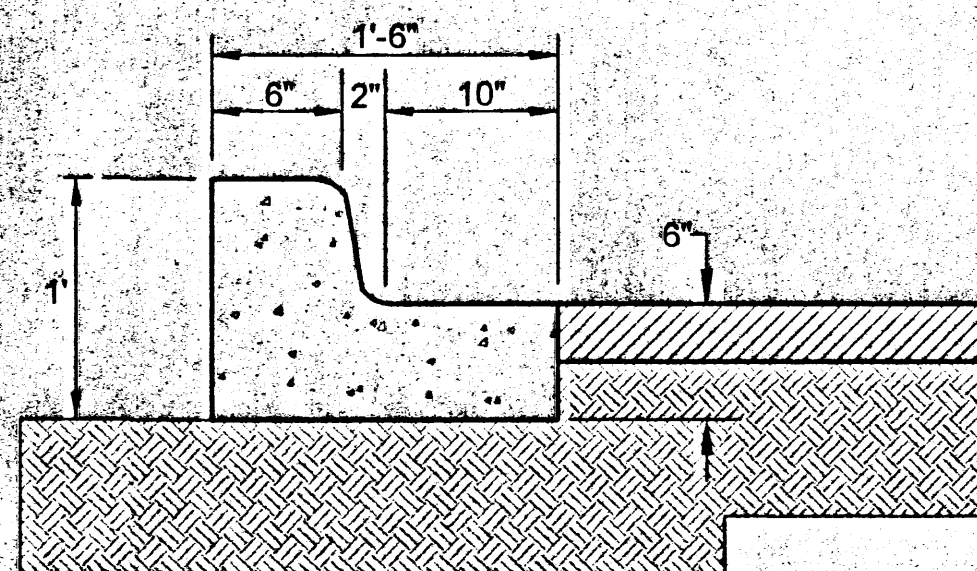
HEAVY DUTY PAVEMENT SECTION

NTS



B

C-2

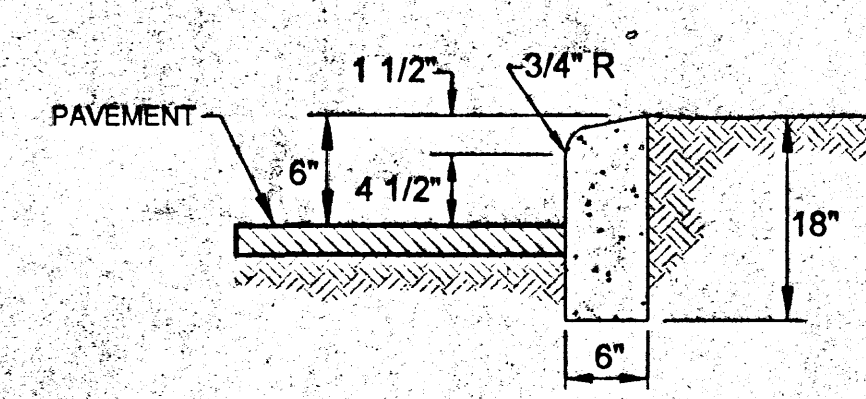


6" CURB & GUTTER DETAIL

NTS

C

C-2

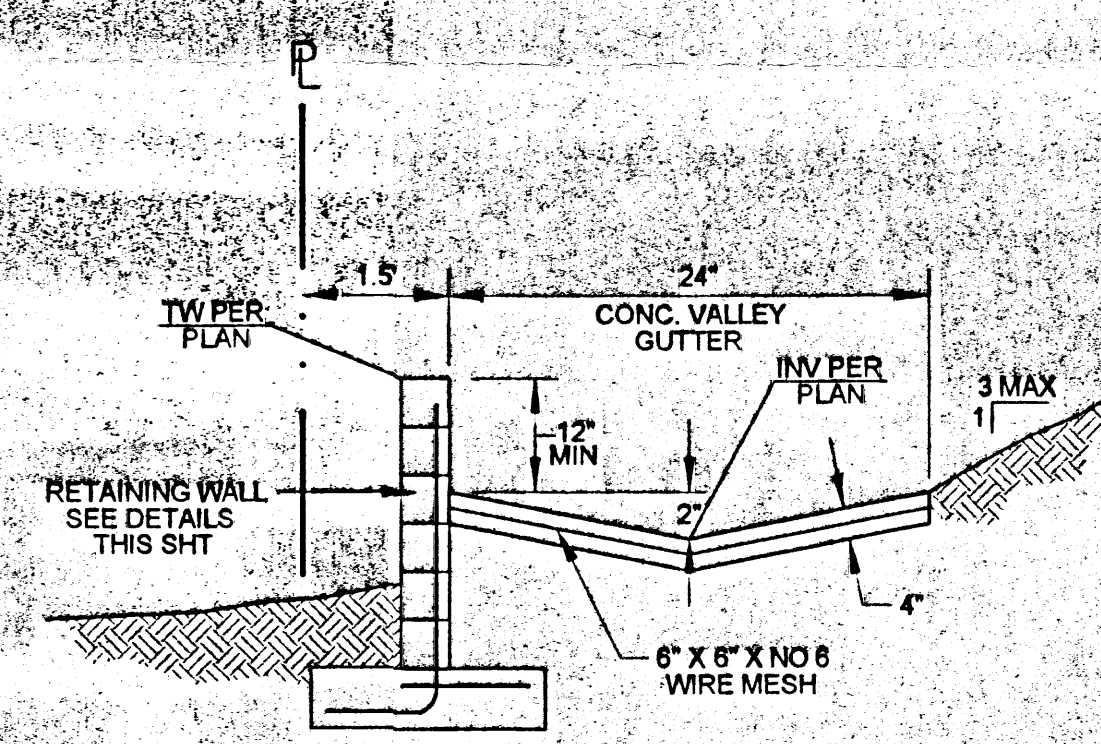


CONCRETE HEADER CURB

NTS

D

C-2

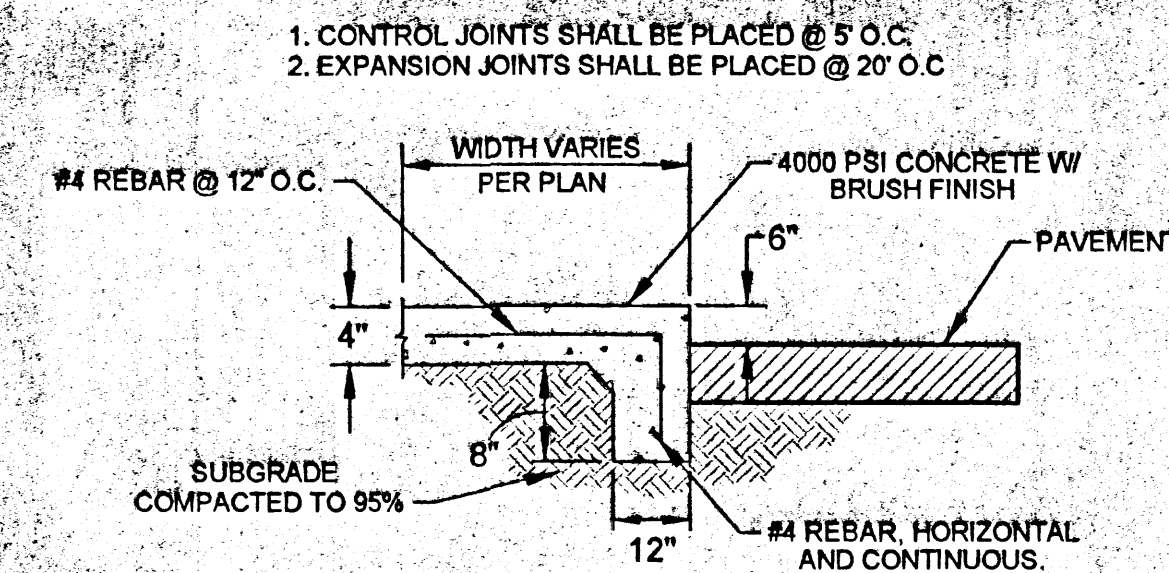


SWALE SECTION

NTS

F

C-2

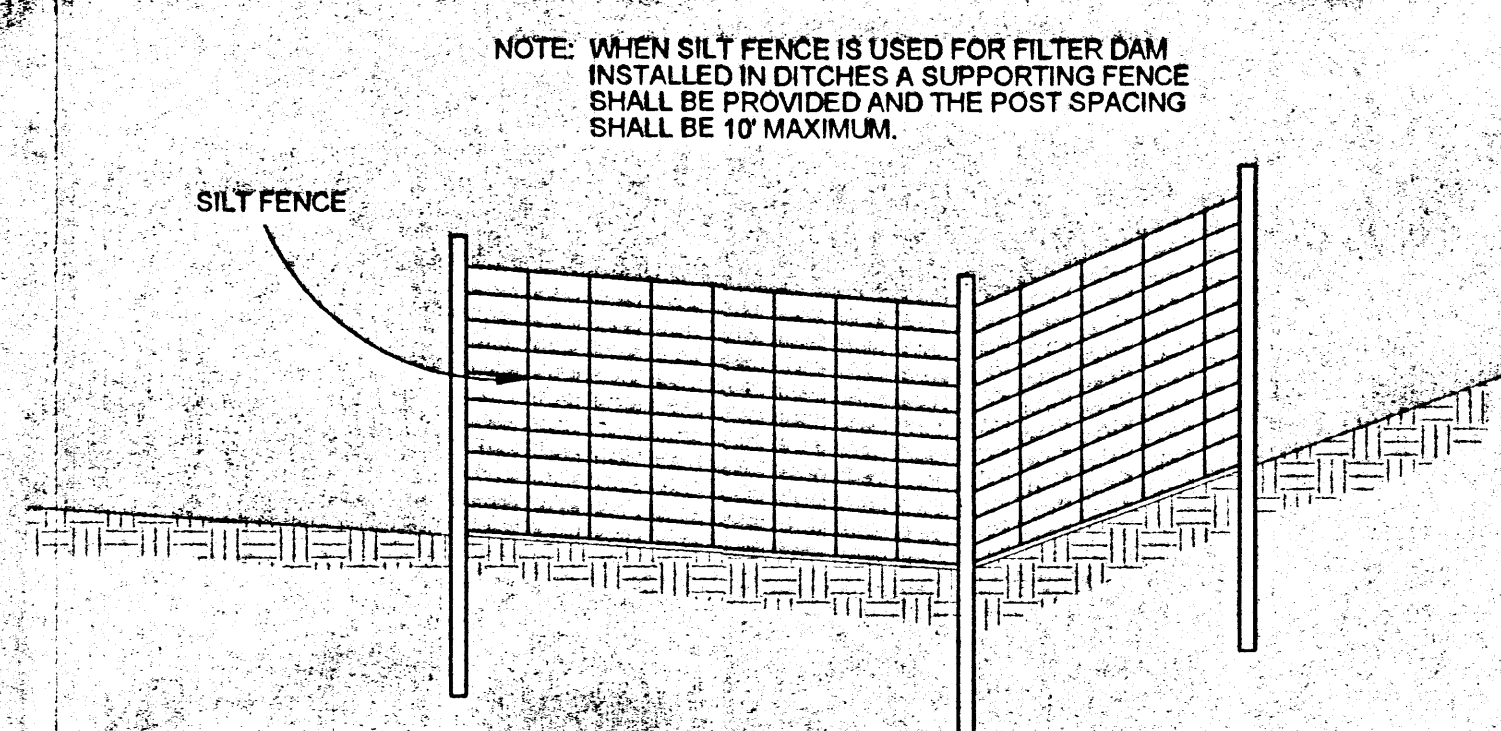


TURNDOWN SIDEWALK

NTS

E

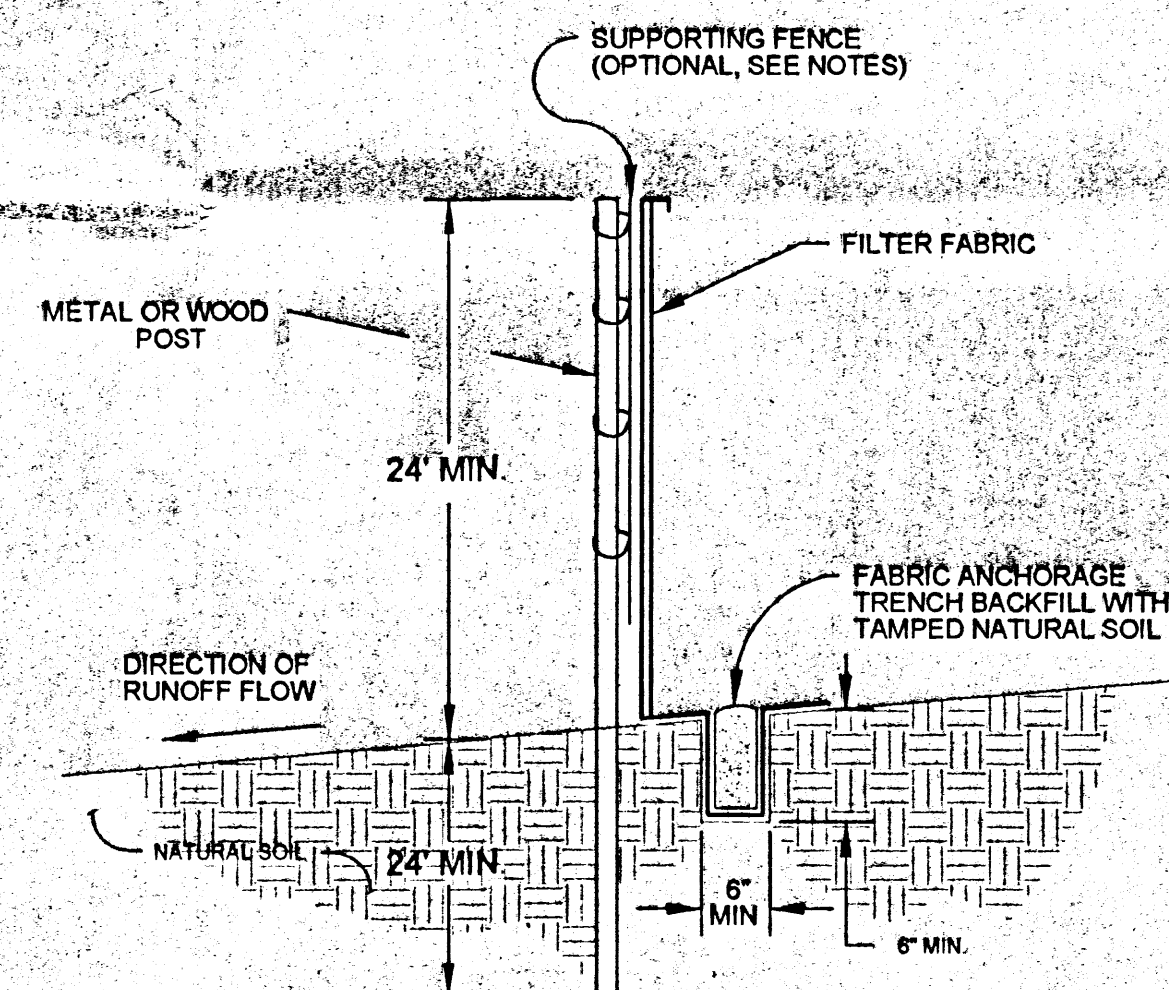
C-2



ELEVATION - FILTER DAM (SILT FENCE OPTION)

SILT FENCING

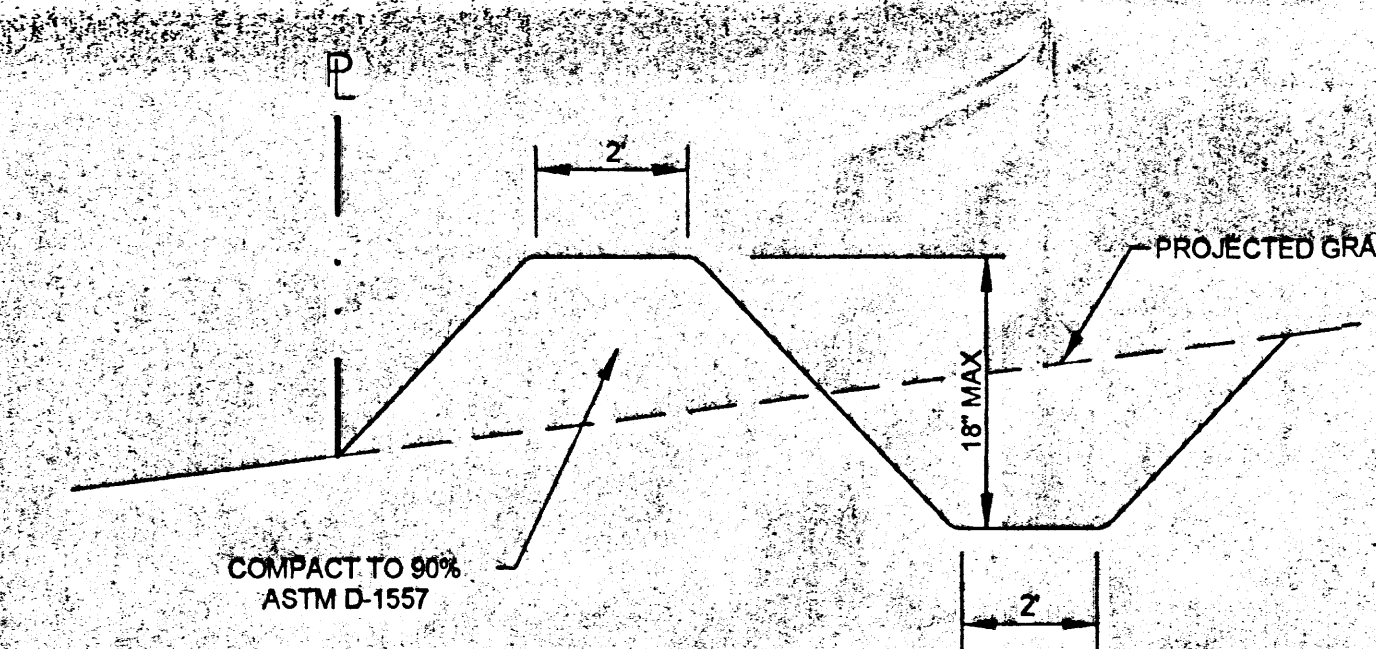
NTS



ELEVATION - FILTER DAM (SILT FENCE OPTION)

G

C-2

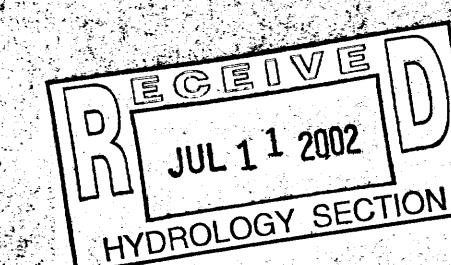


TEMPORARY EROSION CONTROL BERM DETAIL

NTS

H

C-2



REVISIONS

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GARRETT SMITH, LTD.
 CIVIL ENGINEERING CONSULTANTS

NEW LIFE HOMES
 ALBUQUERQUE NEW MEXICO
GRADING AND DRAINAGE DETAILS

SCALE:

1" = 20'

DATE:

06-01-2002

SHT:

C-2