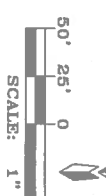


- LEGEND**
- 29.29
 - 5390
 - 5396
 - 5398
 - 5399
 - 5400
 - 5401
 - 5402
 - 5403
 - 5404
 - 5405
 - 5406
 - 5407
 - 5408
 - 5409
 - 5410
 - 5411
 - 5412
 - 5413
 - 5414
 - 5415
 - 5416
 - 5417
 - 5418
 - 5419
 - 5420
 - 5421
 - 5422
 - 5423
 - 5424
 - 5425
 - 5426
 - 5427
 - 5428
 - 5429
 - 5430
 - 5431
 - 5432
 - 5433
 - 5434
 - 5435
 - 5436
 - 5437
 - 5438
 - 5439
 - 5440
 - 5441
 - 5442
 - 5443
 - 5444
 - 5445
 - 5446
 - 5447
 - 5448
 - 5449
 - 5450
 - 5451
 - 5452
 - 5453
 - 5454
 - 5455
 - 5456
 - 5457
 - 5458
 - 5459
 - 5460
 - 5461
 - 5462
 - 5463
 - 5464
 - 5465
 - 5466
 - 5467
 - 5468
 - 5469
 - 5470
 - 5471
 - 5472
 - 5473
 - 5474
 - 5475
 - 5476
 - 5477
 - 5478
 - 5479
 - 5480
 - 5481
 - 5482
 - 5483
 - 5484
 - 5485
 - 5486
 - 5487
 - 5488
 - 5489
 - 5490
 - 5491
 - 5492
 - 5493
 - 5494
 - 5495
 - 5496
 - 5497
 - 5498
 - 5499
 - 5500

GRADING & DRAINAGE PLAN

MARK GOODMAN & ASSOCIATES, P.A.
 P.O. BOX 50606
 ALBUQUERQUE, NEW MEXICO 87199
 OFFICE (505) 828-2200, FAX (505) 797-8539

CITY PROJECT NO. **M-21-Z** SHEET OF **11**



| NO. | DATE | REMARKS | BY |
|-------------|------|-----------|-------|
| | | DESIGN | |
| | | REVISIONS | |
| DESIGNED BY | | DATE | 06/14 |
| DRAWN BY | | DATE | 06/14 |
| CHECKED BY | | DATE | 06/14 |

ENGINEER'S SEAL

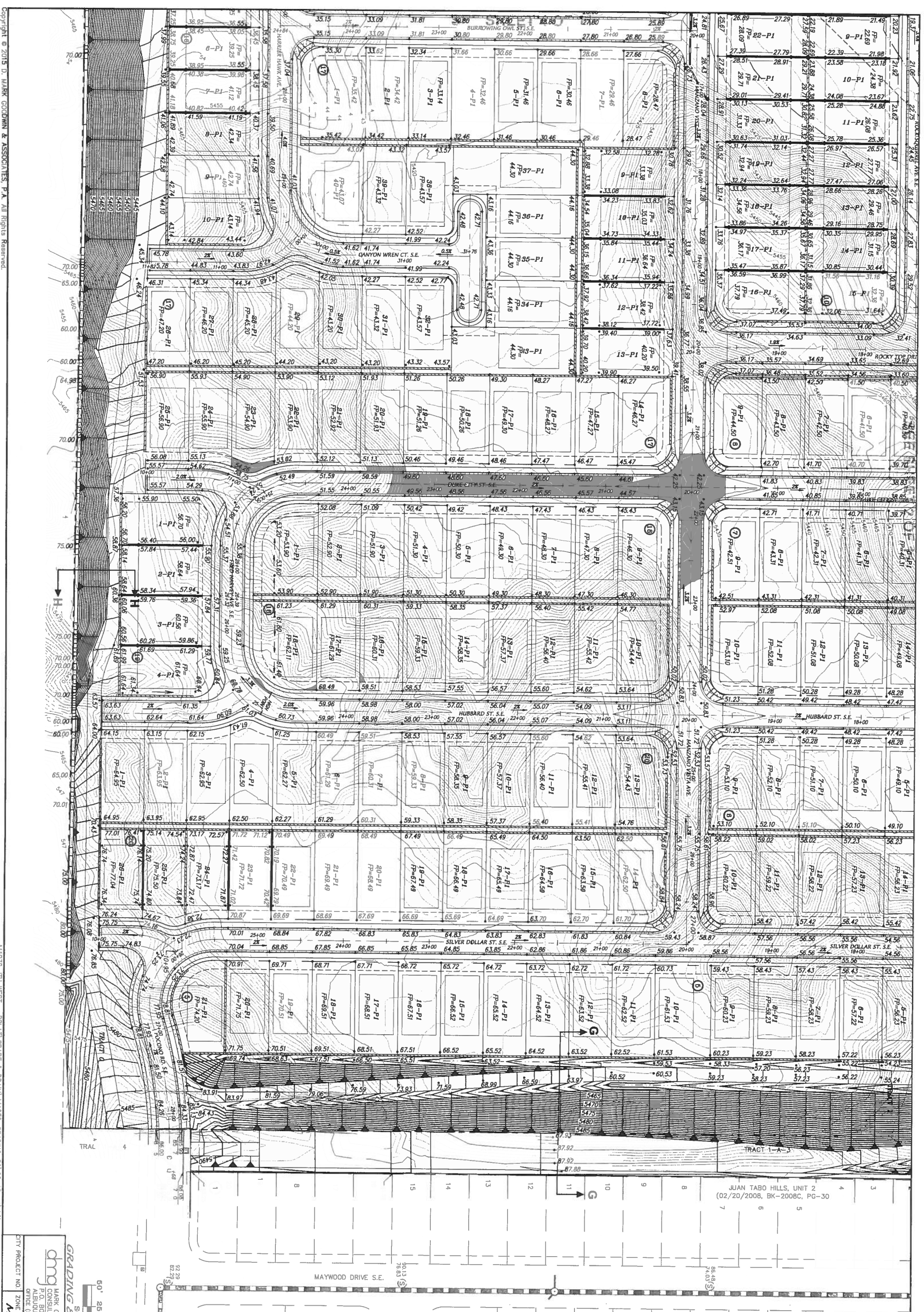
JAMES D. HUGHES
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF NEW MEXICO
 11-11-2015

| SURVEY INFORMATION | | |
|--------------------|----|------|
| FIELD NOTES | | |
| NO. | BY | DATE |
| | | |

BENCH MARKS

STATION "5-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #537 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22".
 X= 1,564,263.207, Y= 1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1988).

| AS BUILT INFORMATION | |
|---------------------------|------|
| CONTRACTOR | DATE |
| WORK STAKED BY | DATE |
| INSPECTOR'S ACCEPTANCE BY | DATE |
| FIELD VERIFICATION BY | DATE |
| DRAWINGS CORRECTED BY | DATE |
| MICRO-FILM INFORMATION | |
| RECORDED BY | DATE |
| NO. | |



GRADING & DRAINAGE PLAN
 SCALE: 1" = 50'
 MARK GOODWIN & ASSOCIATES, P.A.
 CONSULTING ENGINEERS
 P.O. BOX 90606
 ALBUQUERQUE, NEW MEXICO 87199
 OFFICE (505) 828-2200, FAX (505) 797-9539
 CITY PROJECT NO. M-21-Z
 SHEET NO. 3



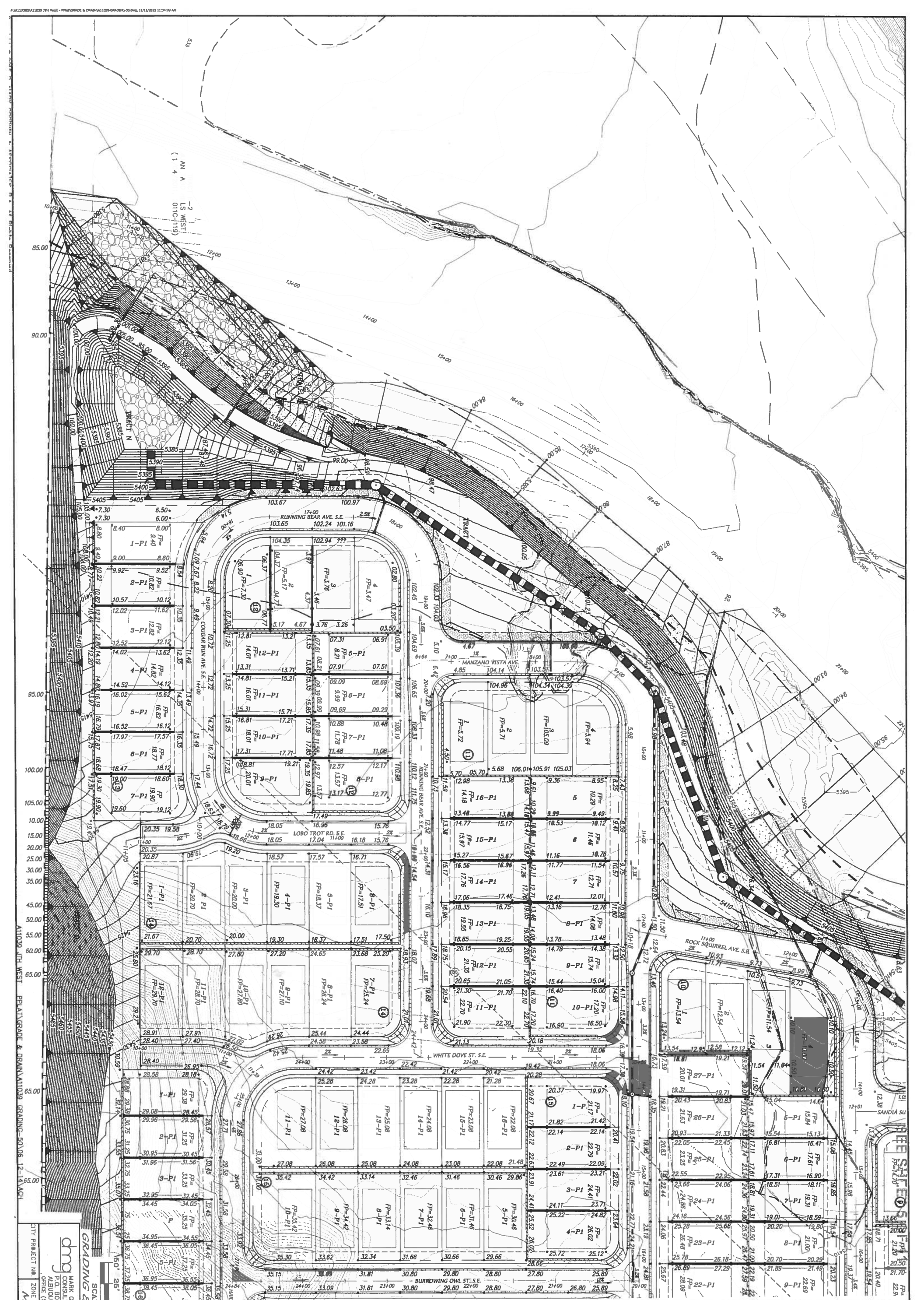
| NO. | DATE | REMARKS | BY |
|-------------|------|-----------|-------|
| | | DESIGN | |
| | | REVISIONS | |
| DESIGNED BY | JDH | DATE | 06/14 |
| DRAWN BY | ACH | DATE | 06/14 |

ENGINEER'S SEAL
 JAMES D. MICHAEL
 PROFESSIONAL ENGINEER
 11-11-2015

| SURVEY INFORMATION | | |
|--------------------|-------------|------|
| NO. | FIELD NOTES | DATE |
| | | |

BENCH MARKS
 STATION "5-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #37 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22".
 X=1,564,263.207, Y=1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1988).

| AS BUILT INFORMATION | |
|---------------------------|------|
| CONTRACTOR | DATE |
| | |
| WORK STAMPED BY | DATE |
| INSPECTOR'S ACCEPTANCE BY | DATE |
| FIELD VERIFICATION BY | DATE |
| DRAWINGS CORRECTED BY | DATE |
| MICRO-FILM INFORMATION | |
| RECORDED BY | DATE |
| | |



CITY PROJECT NO. **M-21-2**
 SHEET **4** OF **21**
 MARK GOODMAN & ASSOCIATES, P.A.
 CONSULTING ENGINEERS
 ALBUQUERQUE, NEW MEXICO 87109
 OFFICE (505) 258-2200 FAX (505) 787-9239

GRADING & DRAINAGE PLAN
 SCALE: 1" = 50'
 DESIGNED BY **JDH** DATE **06/14**
 DRAWN BY **ACH** DATE **06/14**
 CHECKED BY **DMG** DATE **06/14**

| NO. | DATE | REMARKS | BY |
|-----|------|-----------|----|
| | | REVISIONS | |
| | | DESIGN | |

ENGINEER'S SEAL

JAMES D. HILL
 PROFESSIONAL ENGINEER

| SURVEY INFORMATION | | |
|--------------------|----|------|
| FIELD NOTES | | |
| NO. | BY | DATE |
| | | |

BENCH MARKS
 STATION "5-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #537 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22".
 X= 1,564,263.207, Y= 1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1988).

| AS BUILT INFORMATION | |
|---------------------------|------|
| CONTRACTOR | |
| WORK STAKED BY | DATE |
| INSPECTOR'S ACCEPTANCE BY | DATE |
| FIELD VERIFICATION BY | DATE |
| DRAWINGS CORRECTED BY | DATE |
| MICRO-FILM INFORMATION | |
| RECORDED BY | DATE |
| NO. | |

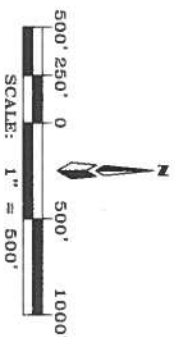


Table 1: HYDROLOGY SUMMARY TABLE

| AHJWD BASIN ID | Location | AREA (Sq mi) | | | | Ground Cover % | | | | Incement | | Water Quality Volume (Ac-Ft) | |
|----------------|-----------------|--------------|---------|-----|-----|----------------|------|---|---|----------|----------|------------------------------|--------|
| | | (A) | (B) | (C) | (D) | A | B | C | D | Incement | Incement | Sub Total | Total |
| 100 | Four Hills | 68.10 | 0.1322 | 0 | 18 | 35 | 28.2 | | | 328.25 | 1.0718 | 1.3218 | |
| 201 | Juan Tabo Hills | 68.80 | 0.10438 | 0 | 19 | 38 | 46 | | | 282.20 | 1.0756 | 1.0756 | 1.4000 |
| 300 | Four Hills | 61.00 | 0.01408 | 0 | 20 | 40 | 40 | | | 27.64 | 0.0000 | 0.0000 | 0.0000 |
| 201 | NEWARK | 78.30 | 0.01025 | 100 | 0 | 1 | 0 | | | 172.29 | 0.0000 | 0.0000 | 1.8101 |
| 300 | Juan Tabo Hills | 42.50 | 0.02841 | 0 | 22 | 45 | 33 | | | 172.29 | 0.2578 | 2.1004 | 2.1004 |
| 400 | Juan Tabo Hills | 22.50 | 0.02841 | 0 | 14 | 29 | 37 | | | 98.73 | 0.4873 | 1.4883 | 1.4883 |
| TOTALS | AHJWD BASIN | 272.20 | 0.12144 | 0 | 0 | 41 | 50 | | | 1243.81 | 1.4883 | 5.05 | 5.05 |

LEGEND

- AHJWD BASIN BOUNDARY
- SUB-BASIN BOUNDARY
- NEW RCP STORM DRAIN
- 400 AHJWD BASIN NUMBER



**JUAN TABO HILLS ESTATES
DRAINAGE BASIN MAP**

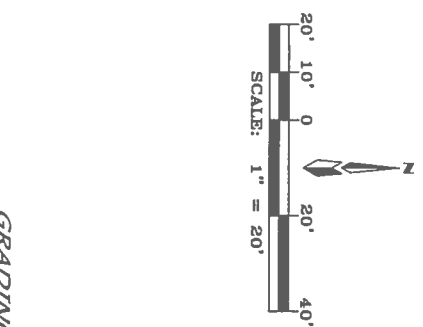
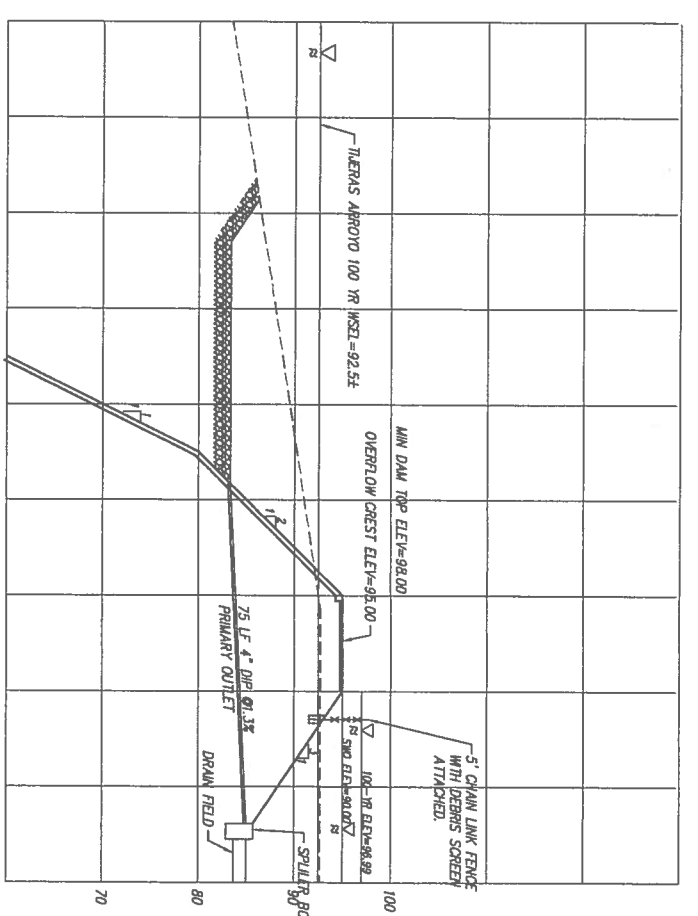
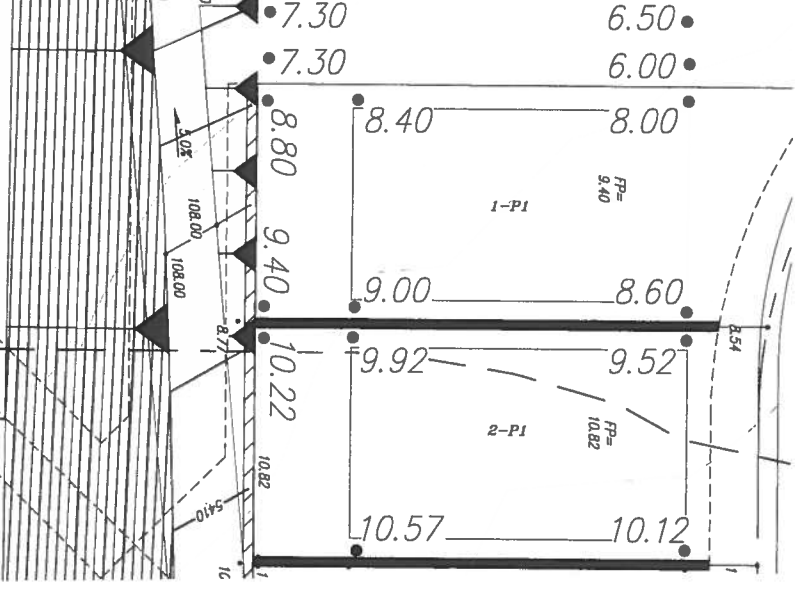
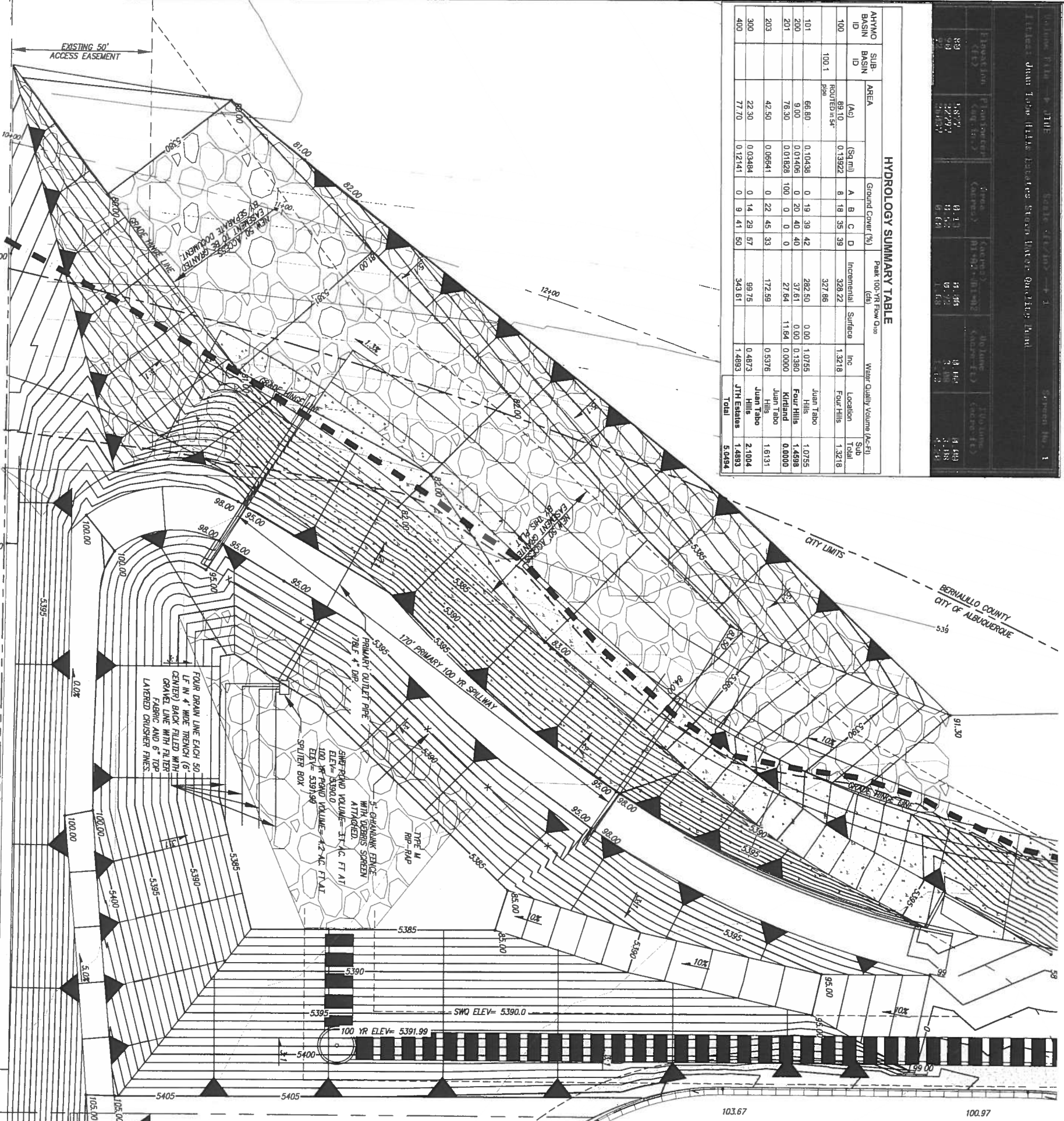
dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
701 BOX 90108
NEW MEXICO 87199
OFFICE (505) 826-2200, FAX (505) 787-9339

CITY PROJECT NO. ZONE MAP NO. SHEET OF

| ENGINEER'S SEAL | | SURVEY INFORMATION | | BENCH MARKS | | AS BUILT INFORMATION | |
|-----------------|------|----------------------------|-------|--|------|---|------|
| NO. | DATE | BY | DATE | NO. | DATE | NO. | DATE |
| | | FIELD NOTES NO. BY DATE | | STATION "5-M22" IS LOCATED 0.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #SE37 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22". X= 1,584,263.207, Y= 1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1988). | | CONTRACTOR WORK STARTED BY DATE INSPECTOR'S ACCEPTANCE BY DATE FIELD VERIFICATION BY DATE DRAWINGS CORRECTED BY DATE MICRO-FILM INFORMATION RECORDED BY DATE NO. | |
| DESIGNED BY | JDH | DATE | 06/14 | | | | |
| DRAWN BY | ACH | DATE | 06/14 | | | | |
| CHECKED BY | DMG | DATE | 06/14 | | | | |

HYDROLOGY SUMMARY TABLE

| HYDRO BASIN ID | SUB-BASIN ID | AREA (Ac) | AREA (Sq. mi) | Ground Cover (%) | | | | Incremental Surface Inc | Water Quality Volume (Ac-Ft) |
|----------------|--------------|-----------|---------------|------------------|----|----|----|-------------------------|------------------------------|
| | | | | A | B | C | D | | |
| 100 | 100.1 | 69.10 | 0.13922 | 8 | 18 | 35 | 39 | 327.96 | Juan Tabo Four Hills 1.3218 |
| 101 | | 66.80 | 0.10438 | 0 | 19 | 39 | 42 | 282.50 | Juan Tabo Four Hills 1.0755 |
| 200 | | 9.00 | 0.01406 | 0 | 20 | 40 | 40 | 37.61 | Juan Tabo Four Hills 1.4598 |
| 201 | | 76.30 | 0.01828 | 100 | 0 | 0 | 0 | 27.94 | Juan Tabo Four Hills 0.0000 |
| 203 | | 42.50 | 0.06641 | 0 | 22 | 45 | 33 | 172.59 | Juan Tabo Four Hills 1.6131 |
| 300 | | 22.30 | 0.03484 | 0 | 14 | 29 | 57 | 99.75 | Juan Tabo Four Hills 2.1004 |
| 400 | | 77.70 | 0.12141 | 0 | 9 | 41 | 50 | 343.61 | Juan Tabo Four Hills 1.4893 |
| | | | | | | | | | Total 5.0484 |



GRADING & DRAINAGE PLAN
POND DETAIL

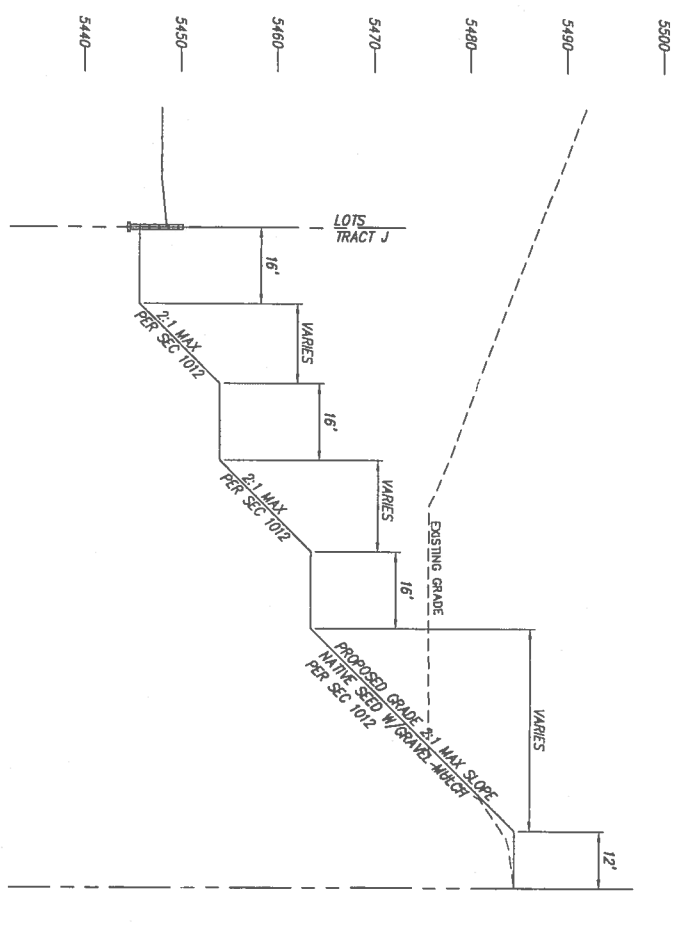
MARK GOODMAN & ASSOCIATES, P.A.
 CONSULTING ENGINEERS
 P.O. BOX 90506
 ALBUQUERQUE, NEW MEXICO 87199
 OFFICE (505) 828-2200, FAX (505) 797-9539

CITY PROJECT NO. **M-212** SHEET **10** OF **11**

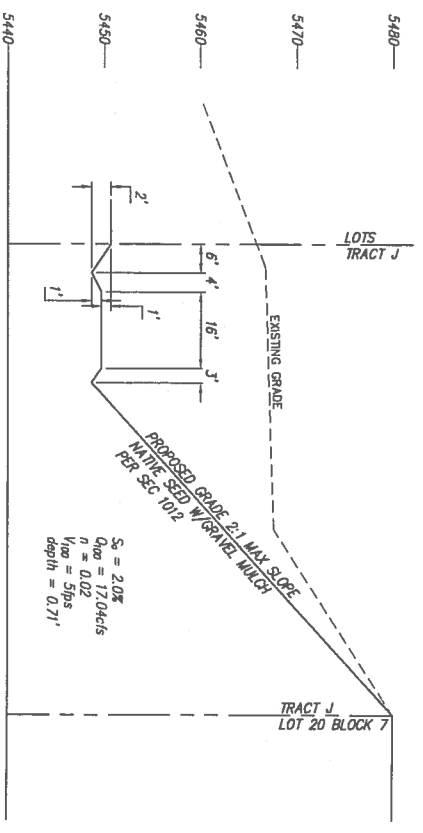
Copyright © 2015 D. MARK GOODMAN & ASSOCIATES, P.A. All Rights Reserved.

A11039 JTH WEST - PRIVATE GRADE & DRAIN V11039-GRADING-50\06-12-14\ACH

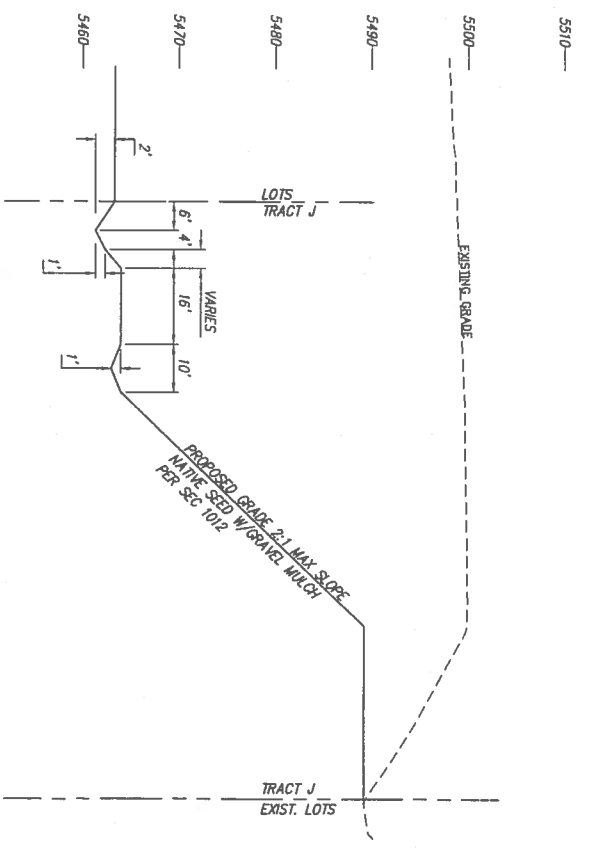
| ENGINEER'S SEAL | | SURVEY INFORMATION | | BENCH MARKS | | AS BUILT INFORMATION | |
|-----------------|-----|----------------------------|-------|--|--|--|--|
| | | FIELD NOTES NO. BY DATE | | STATION "5-M22" IS LOCATED 0.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #337 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22". X= 1,564,263.207, Y= 1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1986) | | CONTRACTOR WORK STAKED BY DATE INSPECTOR'S ACCEPTANCE BY DATE FIELD VERIFICATION BY DATE DRAWINGS CORRECTED BY DATE MICRO-FILM INFORMATION RECORDED BY DATE NO. | |
| DESIGNED BY | JDH | DATE | 06/14 | | | | |
| DRAWN BY | ACH | DATE | 06/14 | | | | |
| CHECKED BY | DMG | DATE | 06/14 | | | | |



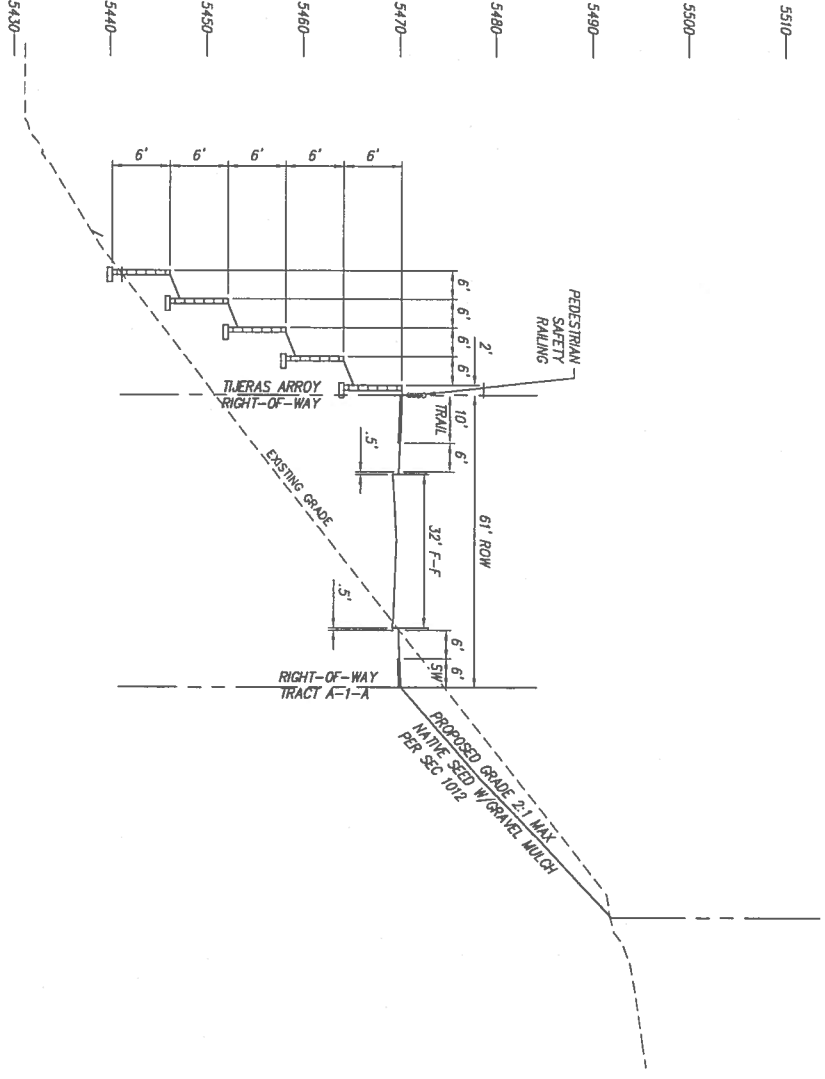
SECTION E-E SCALE: 1"=20' H
1"=10' V



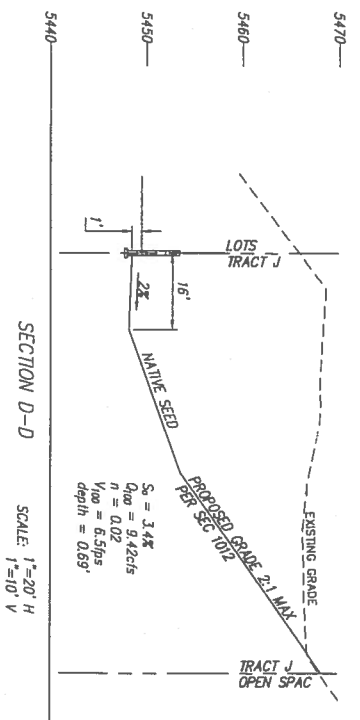
SECTION F-F SCALE: 1"=20' H
1"=10' V



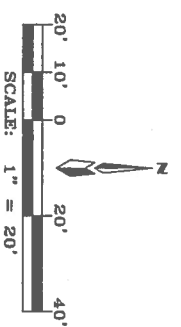
SECTION G-G SCALE: 1"=20' H
1"=10' V



SECTION C-C SCALE: 1"=20' H
1"=10' V



SECTION D-D SCALE: 1"=20' H
1"=10' V



JUAN TABO HILLS ESTATES
GRADING & DRAINAGE PLAN

MARK GOODWIN & ASSOCIATES, P.A.
 CONSULTING ENGINEERS
 P.O. BOX 90606
 ALBUQUERQUE, NEW MEXICO 87199
 OFFICE (505) 828-2100, FAX (505) 797-9539

CITY PROJECT NO. 1 ZONE MAP NO. **M-21-2** SHEET OF **11 11**

| ENGINEER'S SEAL | | SURVEY INFORMATION | | BENCH MARKS | | AS BUILT INFORMATION | |
|-----------------|-----|--------------------|-------|--|-----|----------------------|------|
| | | FIELD NOTES | | STATION "5-M22" IS LOCATED 8.7 MI. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #37 & 186.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22". | | CONTRACTOR | |
| | | NO. | BY | DATE | NO. | BY | DATE |
| DESIGNED BY | JDH | DATE | 06/14 | X= 1,564,263.207, Y= 1,475,762.595, (NAD 83), Z= 5597.219 (NAVD 1988) | | RECORDED BY | |
| DRAWN BY | ACH | DATE | 06/14 | | | DATE | |
| CHECKED BY | DMG | DATE | 06/14 | | | NO | |