



Richard J. Berry, Mayor

November 21, 2017

Ronald Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM, 87109

**RE: Multi-Use Recreational Facility
Grading and Drainage Plan
Stamp Date: 10/30/17
Hydrology File: F16D003E1**

Dear Mr. Bohannon:

PO Box 1293

Based upon the information provided in your submittal received 11/07/2017, the Grading and Drainage Plan **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

NM 87103

www.cabq.gov

1. Sheet C3. Please provide the flood plain effective date to the FIRM information.
2. Sheet C3 & C4. Please label both streets "Montano Rd" and "Interstate 25".
3. Sheet C3 & C5. Please provide a cross section from the Pickle Ball Courts through Desert Surf Circle.
4. Sheet C3 & C5. Please provide a cross section from the southeast Youth Field through the parking area uphill.
5. Sheet C3. There are missing grades near Desert Surf Circle by the Youth Field. Please add them.
6. Sheet C3. The proposed grades in the area of the southeast Youth Field and the parking area uphill need to tie back into the existing grades. Please fix them.
7. Sheet C3. In general I noticed that some of the proposed grades need to tie back into the existing grades. Please fix them.



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8. Sheet C3. In general, there are a lot of grading being done and this sheet is very busy. Please rescale the Grading Plan to have a maximum scale of 1"=40' or 1"=30' so that it is readable.
9. Sheet C3 & C4. Some of your grade arrows are pointing up gradient. Please correct.
10. Sheet C3. Under the Proposed Drainage Management Plan, it states that it will continue using the existing drainage system designed for the original Beach Waterpark development with some modifications. What drainage system is this referring to and what modifications?
11. Sheet C3. Under the Proposed Drainage Management Plan, Please add the words "approved Drainage Report dated 9/15/15 by Tierra West."
12. Sheet C3. Under the Proposed Drainage Management Plan, it talks about the proposed detention pond. This is in fact a proposed retention pond. Please change the wording.
13. Sheet C3 & C4. Under the Proposed Drainage Management Plan, it states that the off-site drainage from I-25 will now be directed back to the proposed detention pond. Please label the portion of the existing storm sewer after the proposed manhole as "abandoned in place".
14. Sheet C3. Under the Proposed Drainage Management Plan, Basin 4 talks about into a series of drop inlets and conveyed to the detention pond. Please show this proposed storm sewer system on Sheet C4.
15. Sheet C3. Please add a note as how all disturbed areas are to be revegetated.
16. Sheet C4. Under the Weighted E Method for Basin 1. Please verify that the Youth Fields will produce a 26% Treatment B. This may be more.
17. Sheet C4. Under the Weighted E Method for Basin 1. The Pickle Ball Courts should be Treatment D, therefore the percentage for Treatment D should reflect this.
18. Sheet C4. Please show all calculations for the Off-site Basins or where the runoff calculations were obtained. See attachment #2.
19. Sheet C4. Please show all off-site basins that contribute to the existing storm sewer on Desert Surf Circle that is going into the proposed Retention Pond.

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20. Sheet C4. Please add all Drainage Easements per recorded plat. See attachment #1. Also show recording information on Grading Plan.
21. Sheet C4. Please provide all Street Capacity calculations to show that the existing streets can handle the additional proposed runoff.
22. Sheet 4. At both proposed driveways on Desert Surf Circle, please provide the drainage area and calculations of the Q at each driveway.
23. Sheet 4. Please provide the existing inlet capacity calculations. If the current inlets cannot handle the additional proposed runoff, then additional inlets may be required.
24. Sheet 4. Please provide the existing storm sewer pipe capacity calculations on Desert Surf Circle with both EGL and HGL calculations. If the current storm sewer cannot handle the additional proposed runoff, then new public storm pipe may be required.
25. Sheet C4. **Prior to Hydrology's approval of the above referenced project for building permit, the following needs to approved and recorded:**
 - a. Need to record the proposed 20 feet Public Drainage Easement.
 - b. Need to build the proposed Public storm sewer system which must be accepted by the City.
 - c. A DRB submittal may be required for an approval of an Infrastructure List for the Proposed Public Storm Sewer System and an SIA must be recorded. If there is not going to be an approved Infrastructure List, then add a note that states, "Prior to Certificate of Occupancy the public infrastructure must be constructed and accepted by the City." and also list the public infrastructure.
 - d. DRC Work Construction documents for the Proposed Public storm sewer system needs to be submitted and approved. These drawings must include a profile of this Public storm sewer system with both EGL and HGL along with the calculations for them. This construction documents must be submitted to the DRC for approval.
 - e. Need to vacate the portion of the existing 20 feet Public Drainage Easement once the City has accepted the installation of the proposed Public storm sewer system.
26. Sheet C4. Drainage Basins need to be revised. For example, a large portion of Basin 5 sheet drains directly into Basin 4. So this section of Basin 5 should be part of Basin 4. Also a section of Basin 3 sheet drains directly into Basin 4. So this section of Basin 3 should be part of Basin 4.

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27. Sheet C4. Please provide first flush calculations and how the proposed detention pond is going to handle this volume.
28. Sheet C4. Please label the proposed retention pond area.
29. Sheet C4. Please provide the calculations for the retention pond area (the 100 year 10 day) showing the required volume and the provided volume.
30. Sheet C4. Please provide the calculation for the 100 year HGL and EGL through the proposed public storm pipe which is part of the DRC work order.
31. Sheet C4. Please provide the detail of the outfall structure into the detention pond from the existing McDonald's site.
32. Sheet C3 & C4. Please provide a private drainage easement centered along the both the existing storm sewer from the existing McDonald's site and the proposed storm sewer entering the proposed pond. This easement should be stated on the Grading Plan as to be for the benefit of the McDonald's site (please label the legal description of the property) with the recording information of the private easement.
33. Sheet C3 & C4. Please provide a public drainage easement around the proposed retention pond. Please include the recording information for the Public Drainage Easement on the Grading Plan.
34. Sheet C3 & C4. An Agreement and Covenant for the Public Drainage Easement for the proposed retention pond will have to be recorded prior to Hydrology's approval for Building Permit. Please include the recording information for the Agreement and Covenant on the Grading Plan.
35. Sheet C5. Section A, Please show the capacity of the first flush volume in the proposed detention pond. Also provide the 100 year water surface elevation for the 10 day storm.
36. Sheet C5. Section D, E, & F. Please provide the property line and label either I-25 ROW or Lot A.

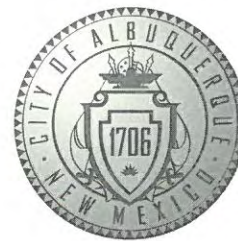
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CITY OF ALBUQUERQUE



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If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

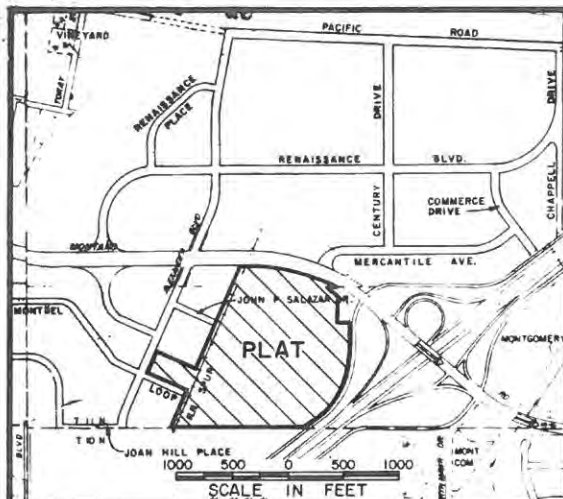
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

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LOCATION MAP

ZONE ATLAS MAP F-16

CURVE DATA

	DELTA	RADIUS	LENGTH
1	35°22'36"	1,371.40'	846.76'
2	41°12'40"	669.18'	481.32'
3	90°00'00"	25.00'	39.27'
4	90°00'00"	530.00'	832.52'
5	78°00'00"	190.00'	258.66'
6	12°00'00"	1,758.57'	368.31'
7	25°54'36"	25.00'	11.31'
8	32°55'02"	30.00'	17.23'
9	22°00'00"	227.00'	87.16'
10	32°54'57"	30.00'	17.23'
11	25°54'36"	25.00'	11.31'

SUBDIVISION DATA

S-86-71

SUBDIVISION CASE NUMBER: Z-86-66, DRB-86-788
GROSS SUBDIVISION ACREAGE: 40.3729
NUMBER OF EXISTING TRACTS: 3
NUMBER OF TRACTS CREATED: 5
MILES OF FULL-WIDTH STREETS CREATED: 0.3169
DATE OF SURVEY: DECEMBER, 1986

FREE CONSENT AND DEDICATION STATEMENT

THE SUBDIVISION DESCRIBED HEREIN IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS AND/OR PROPRIETORS THEREOF AND SAID OWNERS AND/OR PROPRIETORS DO HEREBY DEDICATE ALL STREETS AND PUBLIC RIGHT-OF-WAY SHOWN HEREON TO THE CITY OF ALBUQUERQUE IN FEE SIMPLE AND DO HEREBY GRANT ALL UTILITY EASEMENTS SHOWN HEREON WITH THE RIGHTS OF INGRESS AND EGRESS (BOTH SURFACE AND SUBSURFACE) AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS; INCLUDED ARE EASEMENTS FOR JOINT POWER AND COMMUNICATION SERVICE LINES; AND DO ALSO GRANT TO THE CITY OF ALBUQUERQUE THE DRAINAGE EASEMENTS SHOWN HEREON INCLUDING THE RIGHT TO CONSTRUCT, OPERATE, INSPECT AND MAINTAIN FACILITIES THEREIN. SAID OWNERS AND/OR PROPRIETORS DO HEREBY FREELY CONSENT TO ALL THE FOREGOING AND DO HEREBY REPRESENT THAT WE ARE AUTHORIZED TO SO ACT.

MONTBEL, INC., A NEW MEXICO CORPORATION

BY: Ray E. Montgomery
RAY E. MONTGOMERY, VICE PRESIDENT

ACKNOWLEDGEMENT

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

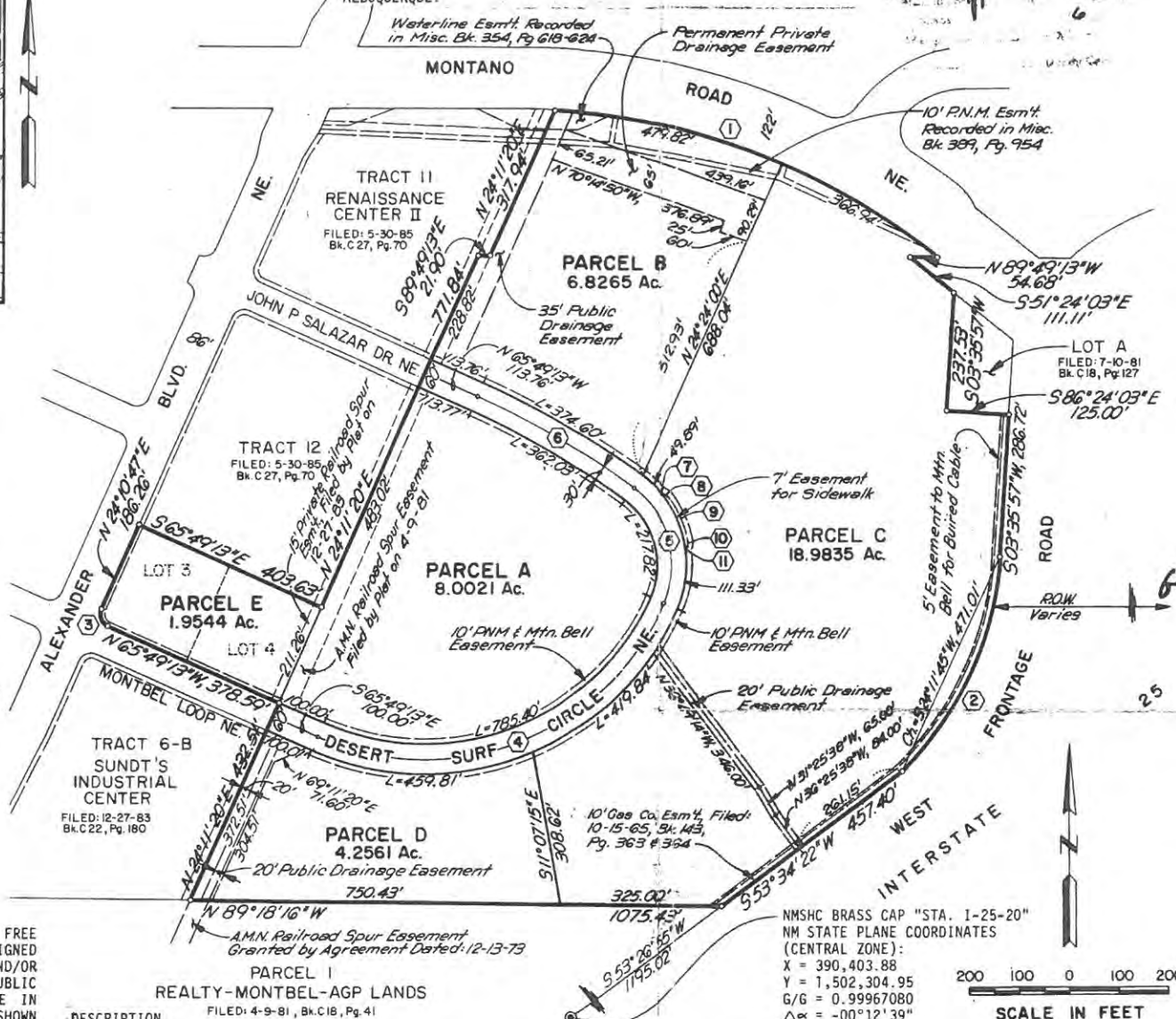
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 1st DAY OF December, 1986, BY Ray E. Montgomery VICE PRESIDENT OF MONTBEL, INC., A NEW MEXICO CORPORATION.

Thomas L. Loyall
NOTARY PUBLIC

MY COMMISSION EXPIRES: 4-22-90

TALOS LOG No.:
SP-11-14-1149

DRAINAGE NOTE:
THE PERMANENT, PRIVATE DRAINAGE EASEMENT WITHIN PARCEL "B" IS TO ACCEPT AND POND THE DRAINAGE RUN-OFF FROM PARCEL "C". THE OWNERS AND/OR PROPRIETORS OF PARCEL "C" WILL REMAIN RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF DRAINAGE FACILITIES IN THIS EASEMENT IN ACCORDANCE WITH ORDINANCES AND STANDARDS PRESCRIBED BY THE CITY OF ALBUQUERQUE.



DESCRIPTION

A CERTAIN TRACT OF LAND SITUATE WITHIN SECTION 34, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M., BERNALILLO COUNTY, NEW MEXICO, BEING AND COMPRISING ALL OF TRACT 6-A AND LOTS 3 AND 4 IN BLOCK 4 OF SUNDT'S INDUSTRIAL CENTER AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT THEREOF FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 27, 1983 IN VOLUME C22, FOLIO 180, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHEAST CORNER OF THE TRACT HEREIN DESCRIBED, BEING A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 25 FROM WHENCE THE MONUMENT "STA. 1-25-20" MARKED BY A N.M.S.H.C. BRASS CAP BEARS S 53°26'55" W, 1,195.02 FEET DISTANCE; THENCE, FROM SAID POINT OF BEGINNING,
N 89°18'16" W, 1,075.43 FEET ALONG THE SOUTH LINE OF SAID TRACT 6-A TO THE SOUTHWEST CORNER OF SAID TRACT 6-A; THENCE,
N 24°11'20" E, 432.51 FEET ALONG THE WESTERLY LINE OF SAID TRACT 6-A TO THE SOUTHEAST CORNER OF SAID LOT 4, BLOCK 4; THENCE,
N 65°49'13" W, 378.59 FEET ALONG THE SOUTHERLY LINE OF SAID LOTS 3 AND 4, BLOCK 4 TO A POINT OF CURVATURE; THENCE,
NORTHERLY, 39.27 FEET ALONG THE ARC OF A CURVE BEARING TO THE RIGHT HAVING A RADIUS OF 25.00 FEET, THROUGH A CENTRAL ANGLE OF 90°00'00" TO A POINT OF TANGENCY; THENCE,
N 24°10'47" E, 186.26 FEET ALONG THE WESTERLY LINE OF LOT 3, BLOCK 4 TO THE NORTHWEST CORNER OF SAID LOT 3; THENCE,
S 65°49'13" E, 403.63 FEET ALONG THE NORTHERLY LINE OF SAID LOTS 3 AND 4 TO THE NORTHEAST CORNER OF LOT 4, ON THE WESTERLY LINE OF SAID TRACT 6-A; THENCE,
N 24°11'20" E, 771.84 FEET ALONG THE WESTERLY LINE OF TRACT 6-A TO A POINT; THENCE,
S 89°49'13" E, 21.90 FEET ALONG THE WESTERLY LINE OF SAID TRACT 6-A TO A POINT; THENCE,
N 24°11'20" E, 317.94 FEET ALONG THE WESTERLY LINE OF SAID TRACT 6-A TO THE NORTHWEST CORNER OF SAID TRACT 6-A, A POINT ON CURVE ON THE SOUTH LINE OF MONTANO ROAD, NE; THENCE,
SOUTHEASTERLY, 846.76 FEET ALONG THE SAID SOUTH LINE OF MONTANO ROAD, NE, ALONG THE ARC OF A CURVE BEARING TO THE RIGHT HAVING A RADIUS OF 1,371.40 FEET AND A CHORD WHICH BEARS S 69°25'27" E, 833.37 FEET TO A POINT; THENCE,
N 89°49'13" W, 54.68 FEET TO A POINT; THENCE,
S 51°24'03" E, 111.11 FEET CONTINUING ALONG THE SAID SOUTH LINE OF MONTANO ROAD, NE, TO A POINT; THENCE,
S 03°35'57" W, 237.53 FEET TO A POINT; THENCE,
S 86°24'03" E, 125.00 FEET TO A POINT ON THE SAID WESTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 25; THENCE,
S 03°35'57" W, 286.72 FEET ALONG SAID WESTERLY RIGHT-OF-WAY LINE TO A POINT OF CURVATURE; THENCE,
SOUTHWESTERLY, 481.32 FEET ALONG SAID WESTERLY RIGHT-OF-WAY LINE ALONG THE ARC OF A CURVE BEARING TO THE RIGHT HAVING A RADIUS OF 669.18 FEET AND A CHORD WHICH BEARS S 24°11'45" W, 471.01 FEET TO A NON-TANGENT POINT; THENCE,
S 53°34'22" W, 457.40 FEET CONTINUING ALONG THE SAID WESTERLY RIGHT-OF-WAY LINE TO THE SOUTHEAST CORNER AND POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED, CONTAINING 42.3273 ACRES, MORE OR LESS.

08767205

RENAISSANCE III

A REPLAT OF
LOTS 3 & 4, BLOCK 4 & TRACT 6-A OF
SUNDT'S INDUSTRIAL CENTER
ALBUQUERQUE, NEW MEXICO
NOVEMBER, 1986

APPROVALS

John D. Urban 12/11/86
CITY ENGINEER
Ross D. Howell 12/15/86
PROPERTY MANAGER
John P. Harnish 12-16-86
TRAFFIC ENGINEER
David A. Salas 12-16-86
PARKS AND RECREATION DIRECTOR
Theresa M. Trought 12-16-86
WATER RESOURCES DEPARTMENT
Paul J. Roper 6-19-87
ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY
Paul J. Roper 6-19-87
CITY ENGINEER, ENGINEERING DIVISION
Paul J. Roper 6-25-87
PLANNING DIRECTOR, CITY/COUNTY PLANNING DIVISION

NOTES:

1. BEARINGS ARE NEW MEXICO STATE PLANE GRID AS SHOWN ON PREVIOUSLY RECORDED PLATS.
2. DISTANCES ARE GROUND DISTANCE AS SHOWN ON PREVIOUSLY RECORDED PLATS.
3. THE PURPOSE OF THIS PLAT IS TO DIVIDE THE PARCELS AND DEDICATE THE STREET RIGHT-OF-WAY IN COMPLIANCE WITH ZONING REQUEST NUMBER Z-86-66, APPROVED.
4. ALL BOUNDARY CORNERS WERE FOUND TO BE 1/2 INCH REBAR WITH ALUMINUM CAP MARKED "A&R" # 1817, UNLESS OTHERWISE INDICATED HEREON.
5. PRIOR TO DEVELOPMENT, CITY OF ALBUQUERQUE WATER AND SANITARY SEWER SERVICE TO ALL PARCELS MUST BE VERIFIED AND COORDINATED WITH THE PUBLIC WORKS DEPARTMENT, CITY OF ALBUQUERQUE, VIA A REQUEST FOR A WATER AND SANITARY SEWER AVAILABILITY STATEMENT.

SURVEYOR'S CERTIFICATE

I, GAYLE D. JEWELL, A REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR UNDER MY SUPERVISION, SHOWS ALL EASEMENTS OF RECORD, MEETS THE MINIMUM REQUIREMENTS FOR MONUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Gayle D. Jewell 12/16/86
GAYLE D. JEWELL, L.S. NO. 4071 DATE

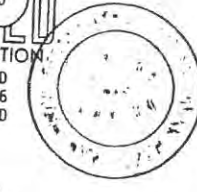
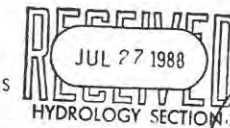
ACKNOWLEDGEMENT

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

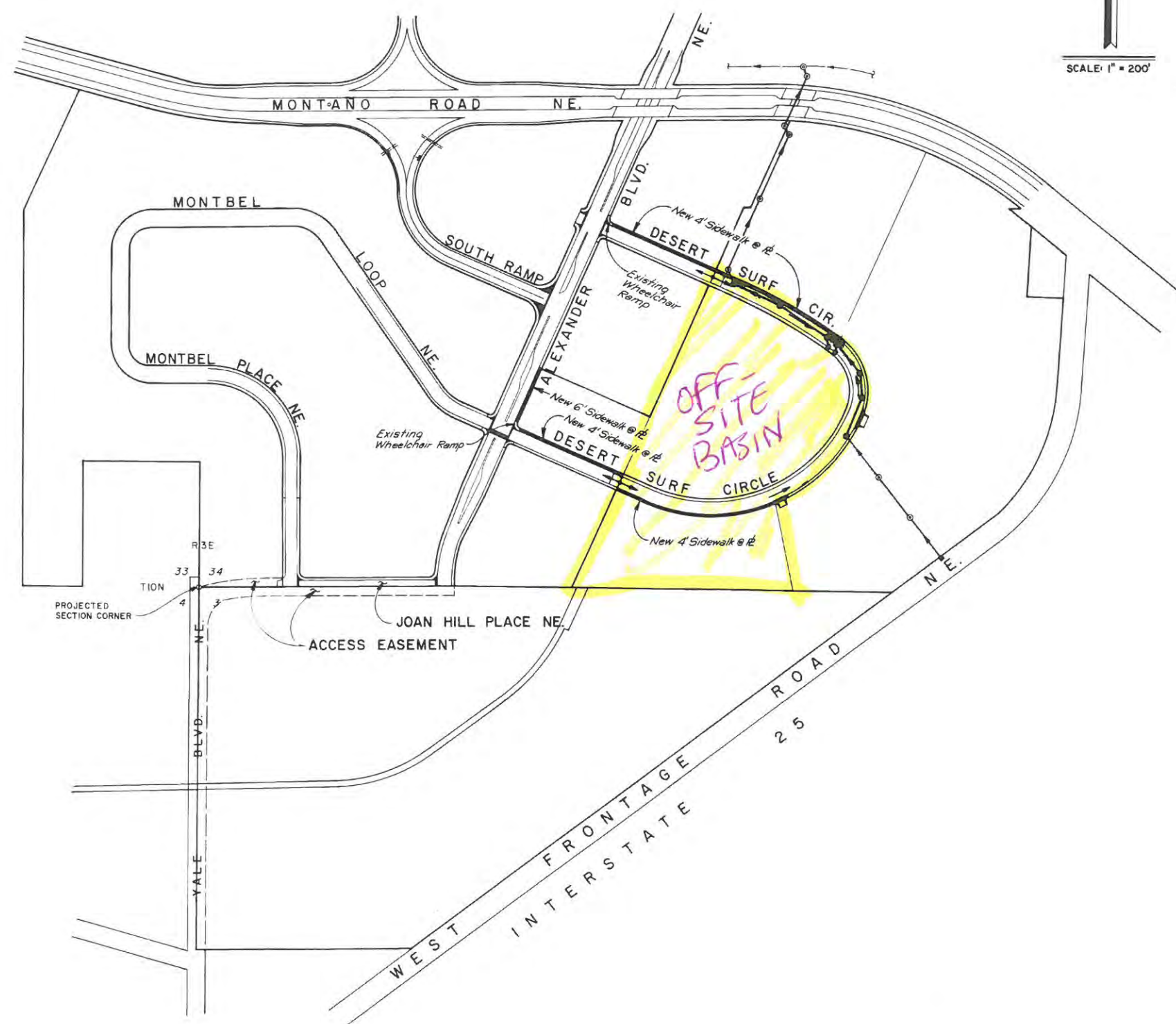
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 16th DAY OF December, 1986 BY GAYLE D. JEWELL, REGISTERED NEW MEXICO LAND SURVEYOR NO. 4071.

MY COMMISSION EXPIRES: 7/26/89

ANDREWS, ASBURY & ROBERT, INC.
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO 86-173



ATTACHMENT #1



- ### LEGEND
- New Street Pavement
 - Direction of Flow
 - ↔ Flow from High Point
 - New Storm Drain w/MH
 - Existing Storm Drain w/MH
 - New Catch Basin
 - New Sidewalk @ 12'

NOTE
 Sidewalk will be Required with Building Permit for Frontage Along Desert Surf Circle and Montano Road.



RECORD DRAWING
John A. Anderson

AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			ENGINEER'S SEAL		
CONTRACTOR	UNIVERSAL CORP.	DATE	NO.	BY	DATE	NO.	BY	DATE	NO.	BY	DATE
DESIGNED BY	ENGINEER	DATE	DESIGNED BY	ENGINEER	DATE	DESIGNED BY	ENGINEER	DATE	DESIGNED BY	ENGINEER	DATE
A.C.E. - Design	WLD	4/2/87	A.C.E. - Design	WLD	4/2/87	A.C.E. - Design	WLD	4/2/87	A.C.E. - Design	WLD	4/2/87
A.C.E. - Hydrology	WLD	4/1/87	A.C.E. - Hydrology	WLD	4/1/87	A.C.E. - Hydrology	WLD	4/1/87	A.C.E. - Hydrology	WLD	4/1/87

REVISIONS		
NO.	DATE	REMARKS
1	4/2/87	DESIGN
2	4/2/87	DESIGN

APPROVALS			APPROVALS		
ENGINEER	DATE	ENGINEER	DATE	ENGINEER	DATE
City Engineer	4/2/87	Liquid Waste	WLD	3-4-87	
A.C.E. - Design	4/2/87	Traffic	WLD	3/8/87	
A.C.E. - Hydrology	4/1/87	Water	WLD	3-4-87	

DRAWING NO.	3134	MAP NO.	F-16	SHEET	3	OF	12
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26 31340387

ATTACHMENT #2



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Multi-Use Recreational Facility **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Parcel B-1 Plat of Parcels C-1, C-2, C-3, C-4 & B-1
City Address: 1600 Desert Surf Cir. NE Albuquerque NM 87107

Applicant: Tierra West, LLC **Contact:** Jonathan Niski
Address: 5571 Midway Park Place NE Albuquerque NM 87109
Phone#: 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** jniski@tierrawestllc.com

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☐ ENGINEER/ARCHITECT CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

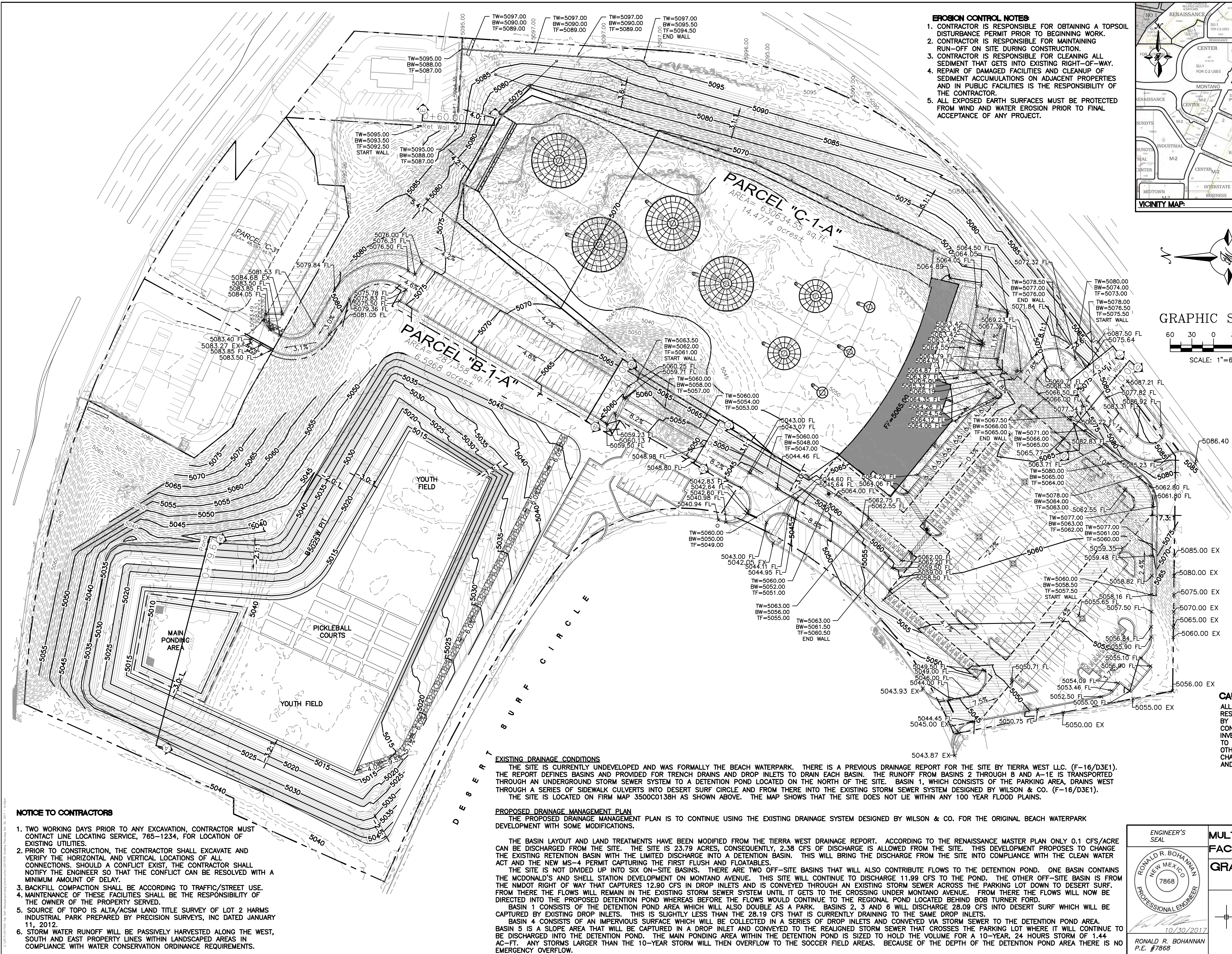
PRE-DESIGN MEETING?

☐ OTHER (SPECIFY) _____

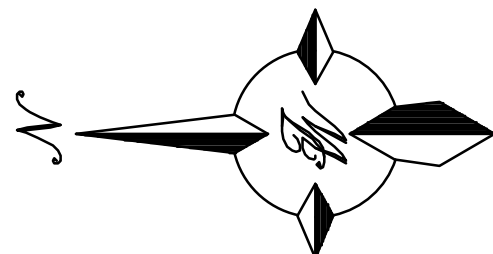
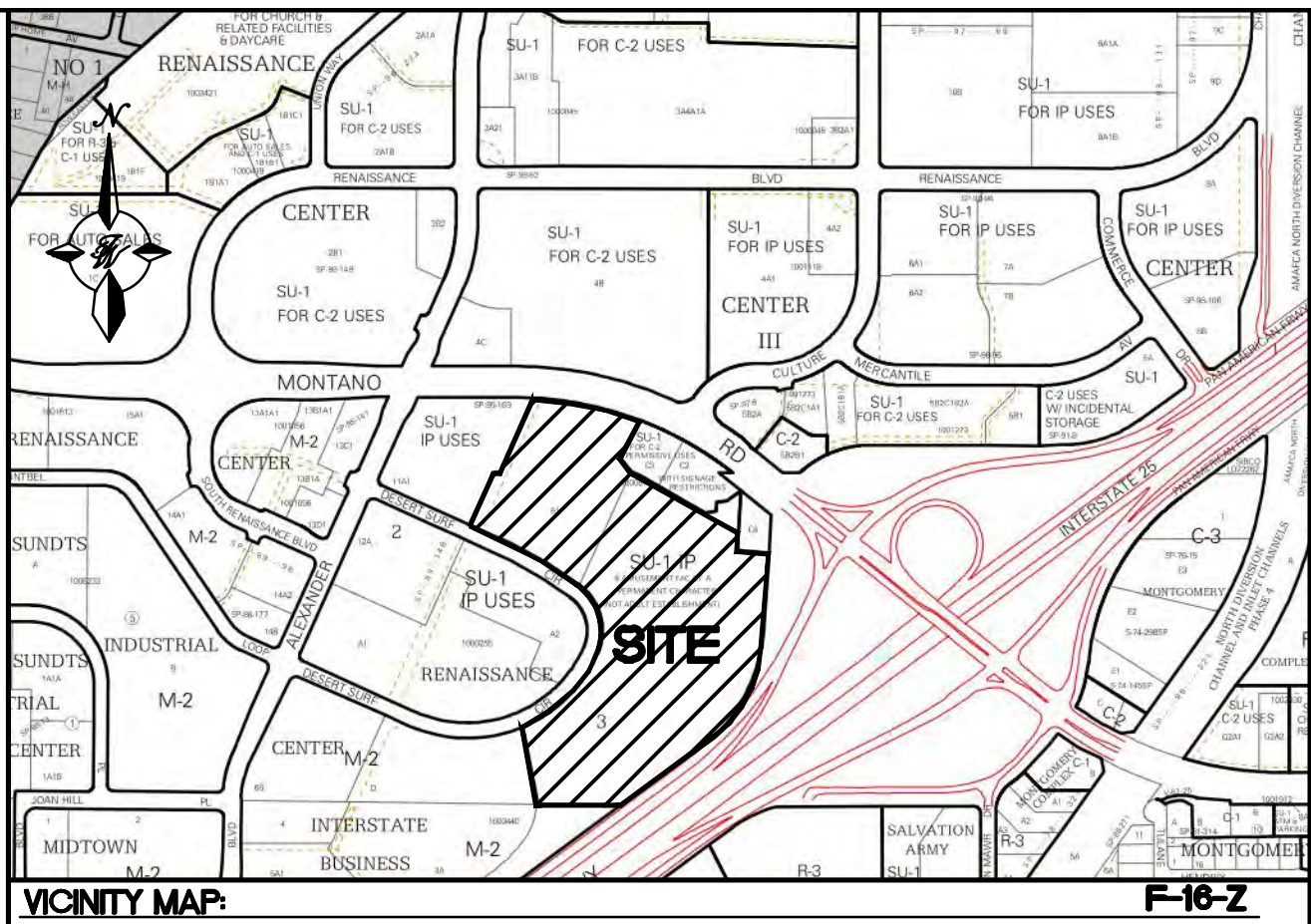
IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ By: _____

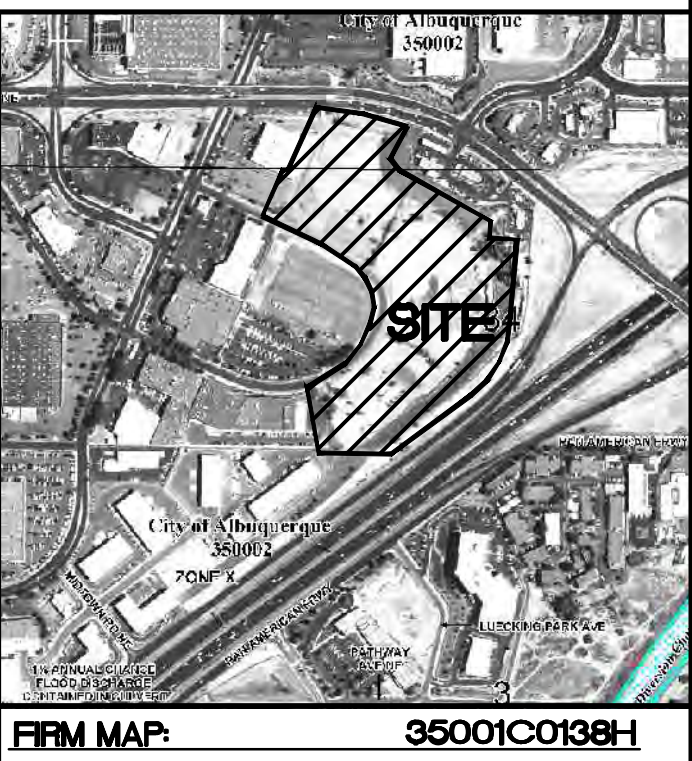
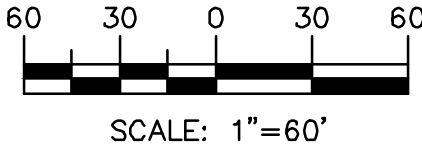
COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



- EROSION CONTROL NOTES**
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
 2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
 3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
 4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



GRAPHIC SCALE



LEGEND

- CURB & GUTTER
- - - BOUNDARY LINE
- - - EASEMENT
- - - CENTERLINE
- - - RIGHT-OF-WAY
- - - BUILDING
- - - SIDEWALK
- - - SCREEN WALL
- - - RETAINING WALL
- - - CONTOUR MAJOR
- - - CONTOUR MINOR
- x 5048.25 SPOT ELEVATION
- - - FLOW ARROW
- - - EXISTING CURB & GUTTER
- - - EXISTING BOUNDARY LINE
- - - PROPOSED CONTOUR MAJOR
- - - PROPOSED CONTOUR MINOR
- - - EXISTING CONTOUR MAJOR
- - - EXISTING CONTOUR MINOR
- x 5048.25 EXISTING SPOT ELEVATION

CAUTION:
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

NOTICE TO CONTRACTORS

1. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
4. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
5. SOURCE OF TOPO IS ALTA/ACSM LAND TITLE SURVEY OF LOT 2 HARMS INDUSTRIAL PARK PREPARED BY PRECISION SURVEYS, INC DATED JANUARY 11, 2012.
6. A SLOPE WATER RUNOFF WILL BE PASSIVELY HARVESTED ALONG THE WEST, SOUTH AND EAST PROPERTY LINES WITHIN LANDSCAPED AREAS IN COMPLIANCE WITH WATER CONSERVATION ORDINANCE REQUIREMENTS.

EXISTING DRAINAGE CONDITIONS

THE SITE IS CURRENTLY UNDEVELOPED AND WAS FORMALLY THE BEACH WATERPARK. THERE IS A PREVIOUS DRAINAGE REPORT FOR THE SITE BY TIERRA WEST LLC. (F-16/D3E1). THE REPORT DEFINES BASINS AND PROVIDED FOR TRENCH DRAINS AND DROP INLETS TO DRAIN EACH BASIN. THE RUNOFF FROM BASINS 2 THROUGH 8 AND A-1E IS TRANSPORTED THROUGH AN UNDERGROUND STORM SEWER SYSTEM TO A DETENTION POND LOCATED ON THE NORTH OF THE SITE. BASIN 1, WHICH CONSISTS OF THE PARKING AREA, DRAINS WEST THROUGH A SERIES OF SIDEWALK CULVERTS INTO DESERT SURF CIRCLE AND FROM THERE INTO THE EXISTING STORM SEWER SYSTEM DESIGNED BY WILSON & CO. (F-16/D3E1). THE SITE IS LOCATED ON FIRM MAP 3500C0138H AS SHOWN ABOVE. THE MAP SHOWS THAT THE SITE DOES NOT LIE WITHIN ANY 100 YEAR FLOOD PLAINS.

PROPOSED DRAINAGE MANAGEMENT PLAN

THE PROPOSED DRAINAGE MANAGEMENT PLAN IS TO CONTINUE USING THE EXISTING DRAINAGE SYSTEM DESIGNED BY WILSON & CO. FOR THE ORIGINAL BEACH WATERPARK DEVELOPMENT WITH SOME MODIFICATIONS.

THE BASIN LAYOUT AND LAND TREATMENTS HAVE BEEN MODIFIED FROM THE TIERRA WEST DRAINAGE REPORT. ACCORDING TO THE RENAISSANCE MASTER PLAN ONLY 0.1 CFS/ACRE CAN BE DISCHARGED FROM THE SITE. THE SITE IS 23.79 ACRES, CONSEQUENTLY, 2.38 CFS OF DISCHARGE IS ALLOWED FROM THE SITE. THIS DEVELOPMENT PROPOSES TO CHANGE THE EXISTING RETENTION BASIN WITH THE LIMITED DISCHARGE INTO A DETENTION BASIN. THIS WILL BRING THE DISCHARGE FROM THE SITE INTO COMPLIANCE WITH THE CLEAN WATER ACT AND THE NEW MS-4 PERMIT CAPTURING THE FIRST FLUSH AND FLOATABLES.

THE SITE IS NOT DIVIDED UP INTO SIX ON-SITE BASINS. THERE ARE TWO OFF-SITE BASINS THAT WILL ALSO CONTRIBUTE FLOWS TO THE DETENTION POND. ONE BASIN CONTAINS THE MCDONALD'S AND SHELL STATION DEVELOPMENT ON MONTANO AVENUE. THIS SITE WILL CONTINUE TO DISCHARGE 11.99 CFS TO THE POND. THE OTHER OFF-SITE BASIN IS FROM THE MNDOT RIGHT OF WAY THAT CAPTURES 12.90 CFS IN DROP INLETS AND IS CONVEYED THROUGH AN EXISTING STORM SEWER ACROSS THE PARKING LOT DOWN TO DESERT SURF. FROM THERE THE FLOWS WILL REMAIN IN THE EXISTING STORM SEWER SYSTEM UNTIL IT GETS TO THE CROSSING UNDER MONTANO AVENUE. FROM THERE THE FLOWS WILL NOW BE DIRECTED INTO THE PROPOSED DETENTION POND WHEREAS BEFORE THE FLOWS WOULD CONTINUE TO THE REGIONAL POND LOCATED BEHIND BOB TURNER FORD.

BASIN 1 CONSISTS OF THE DETENTION POND AREA WHICH WILL ALSO DOUBLE AS A PARK. BASINS 2, 3 AND 6 WILL DISCHARGE 28.09 CFS INTO DESERT SURF WHICH WILL BE CAPTURED BY EXISTING DROP INLETS. THIS IS SLIGHTLY LESS THAN THE 28.19 CFS THAT IS CURRENTLY DRAINING TO THE SAME DROP INLETS.

BASIN 4 CONSISTS OF AN IMPERVIOUS SURFACE WHICH WILL BE COLLECTED IN A SERIES OF DROP INLETS AND CONVEYED VIA STORM SEWER TO THE DETENTION POND AREA.

BASIN 5 IS A SLOPE AREA THAT WILL BE CAPTURED IN A DROP INLET AND CONVEYED TO THE REALIGNED STORM SEWER THAT CROSSES THE PARKING LOT WHERE IT WILL CONTINUE TO BE DISCHARGED INTO THE DETENTION POND. THE MAIN PONDING AREA WITHIN THE DETENTION POND IS SIZED TO HOLD THE VOLUME FOR A 10-YEAR, 24 HOURS STORM OF 1.44 AC-FT. ANY STORMS LARGER THAN THE 10-YEAR STORM WILL THEN OVERFLOW TO THE SOCCER FIELD AREAS. BECAUSE OF THE DEPTH OF THE DETENTION POND AREA THERE IS NO EMERGENCY OVERFLOW.

ENGINEER'S SEAL

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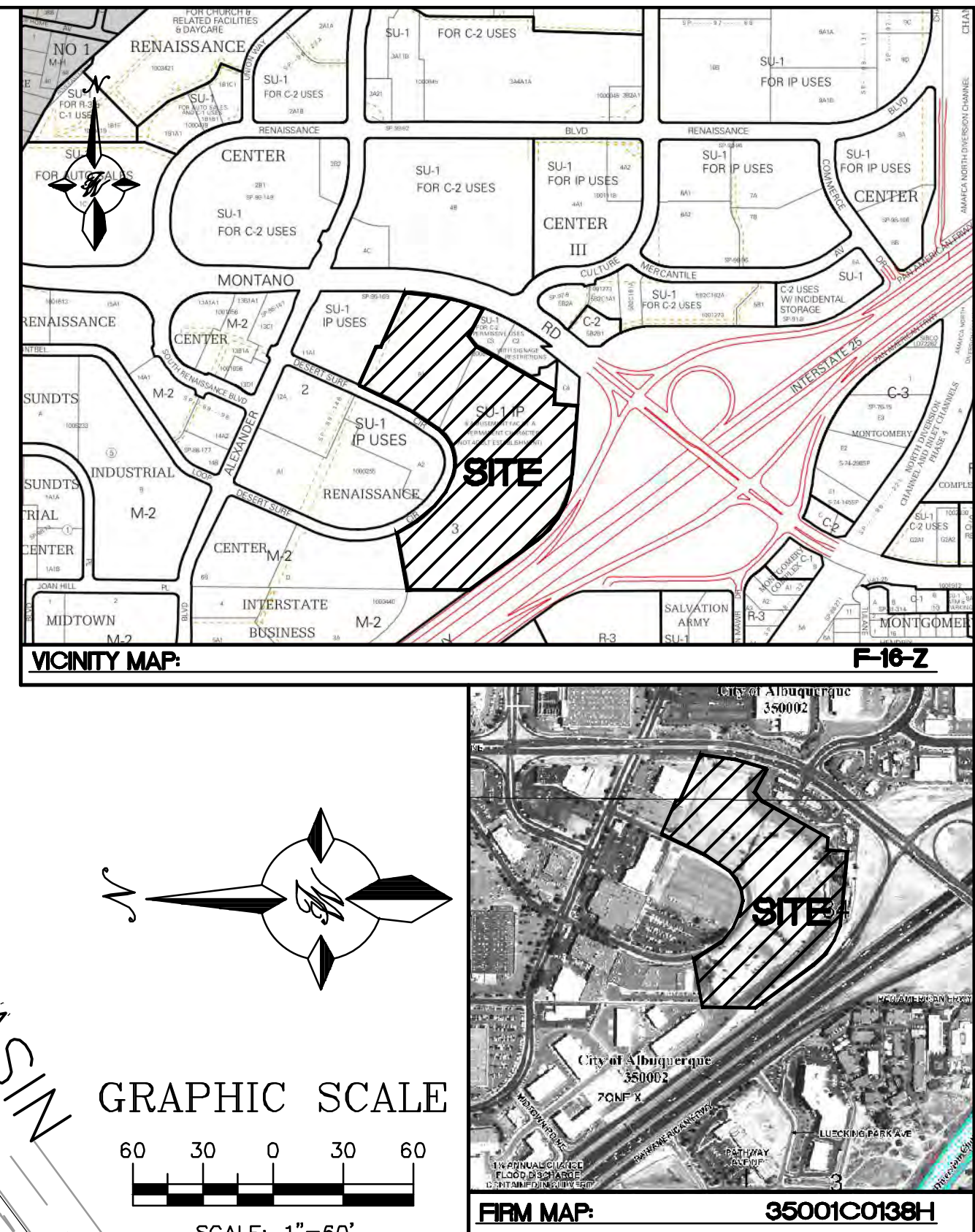
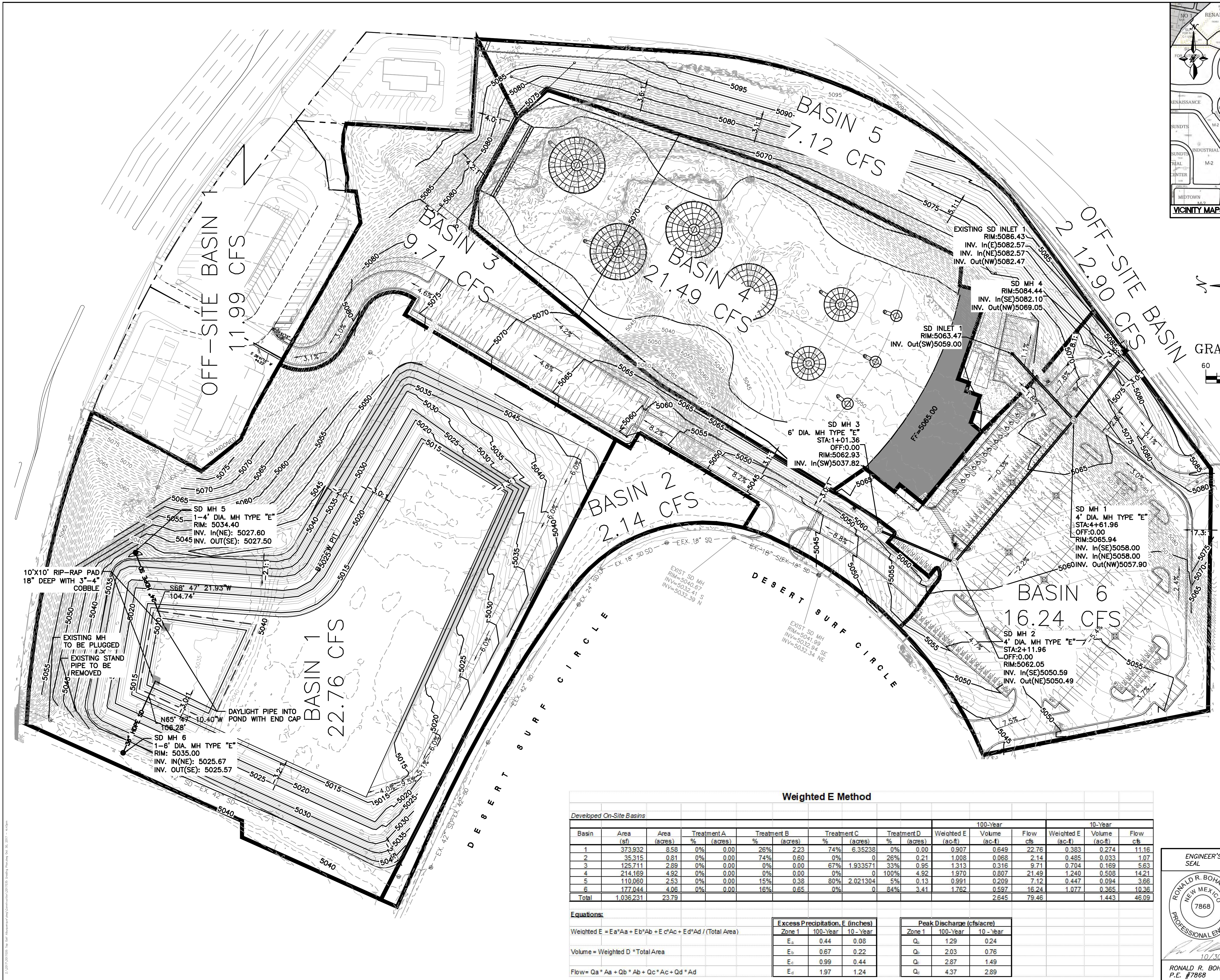
10/30/2017
RONALD R. BOHANNAN
P.E. #7868

MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM

GRADING PLAN

5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858-3100
www.tierrowestllc.com

DRAWN BY
JUG
DATE
10-30-17
2017035 GRADING PLAN
SHEET #
C3
JOB #
2017035



- LEGEND**
- CURB & GUTTER
 - BOUNDARY LINE
 - EASEMENT
 - CENTERLINE
 - RIGHT-OF-WAY
 - BUILDING
 - SIDEWALK
 - SCREEN WALL
 - RETAINING WALL
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - SPOT ELEVATION
 - FLOW ARROW
 - EXISTING CURB & GUTTER
 - EXISTING BOUNDARY LINE
 - PROPOSED CONTOUR MAJOR
 - PROPOSED CONTOUR MINOR
 - EXISTING CONTOUR MAJOR
 - EXISTING CONTOUR MINOR
 - EXISTING SPOT ELEVATION

CAUTION:
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Weighted E Method																
Developed On-Site Basins																
Basin	Area (sf)	Area (acres)	Treatment A	Treatment B	Treatment C	Treatment D	100-Year			10-Year						
			(acres)	(acres)	(acres)	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs				
1	373,932	8.58	0%	0.00	26%	2.23	74%	6.35238	0%	0.00	0.907	0.649	22.76	0.383	0.274	11.16
2	35,315	0.81	0%	0.00	74%	0.60	0%	0.26	0.21	1.008	0.068	2.14	0.485	0.033	1.07	
3	125,711	2.89	0%	0.00	0%	0.00	67%	1.933571	33%	0.95	1.313	0.316	9.71	0.704	0.169	5.63
4	214,169	4.92	0%	0.00	0%	0.00	0%	0	100%	4.92	1.970	0.807	21.49	1.240	0.508	14.21
5	110,060	2.53	0%	0.00	15%	0.38	80%	2.021304	5%	0.13	0.991	0.209	7.12	0.447	0.094	3.66
6	177,044	4.06	0%	0.00	16%	0.65	0%	0	84%	3.41	1.762	0.597	16.24	1.077	0.365	10.36
Total	1,036,231	23.79									2.645	79.46		1.443	46.09	
Equations:																
Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)			Excess Precipitation, E (inches)				Peak Discharge (cfs/acre)									
			Zone 1	100-Year	10-Year		Zone 1	100-Year	10-Year							
			Ea	0.44	0.08		Qa	1.29	0.24							
Volume = Weighted D * Total Area			Eb	0.67	0.22		Qb	2.03	0.76							
			Ec	0.99	0.44		Qc	2.87	1.49							
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad			Ed	1.97	1.24		Qd	4.37	2.89							

ENGINEER'S SEAL

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10/30/2017

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DRAINAGE PLAN

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DRAWN BY
JJG

DATE
10-30-17

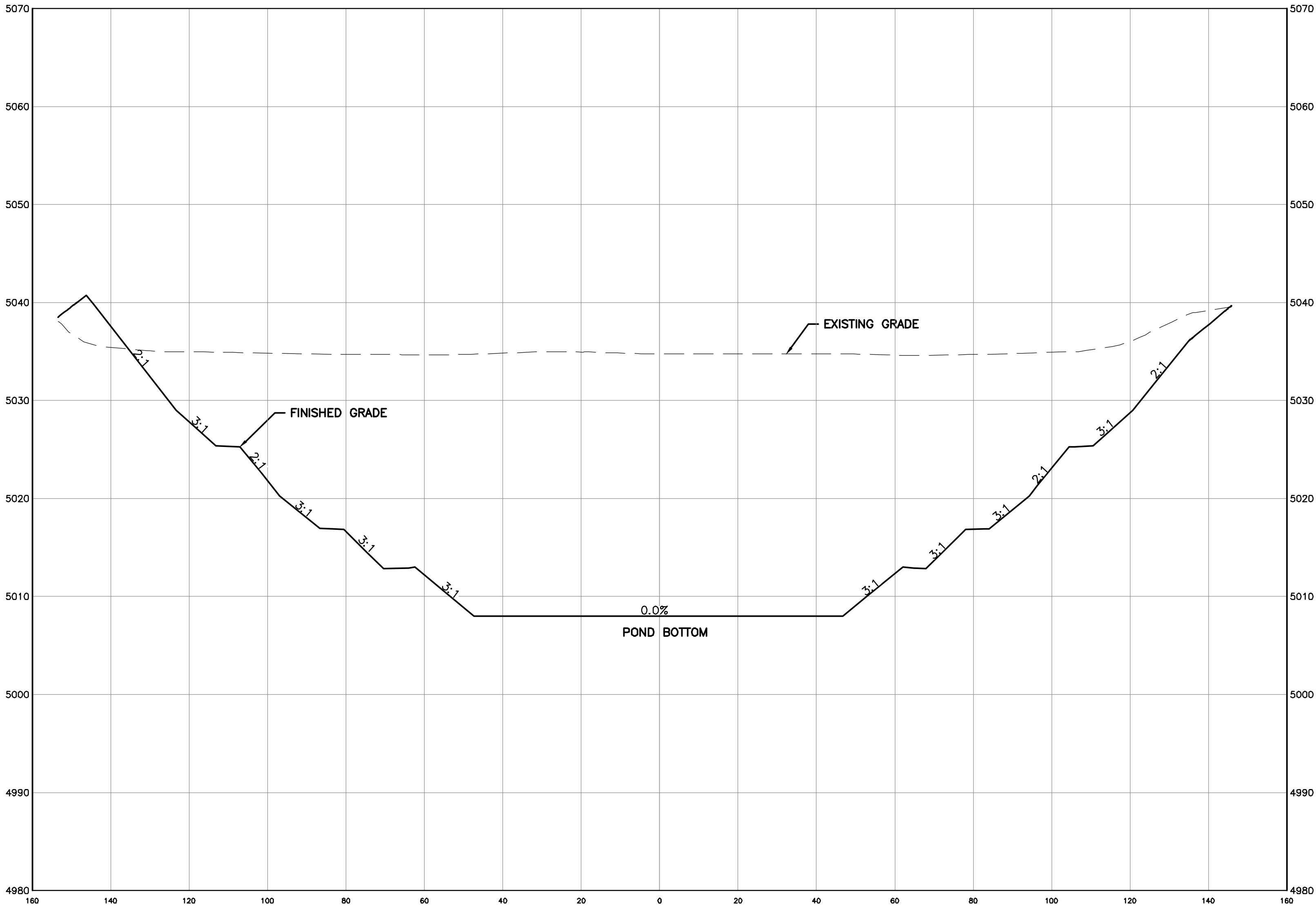
2017035 DRAINAGE PLAN

SHEET #
C4

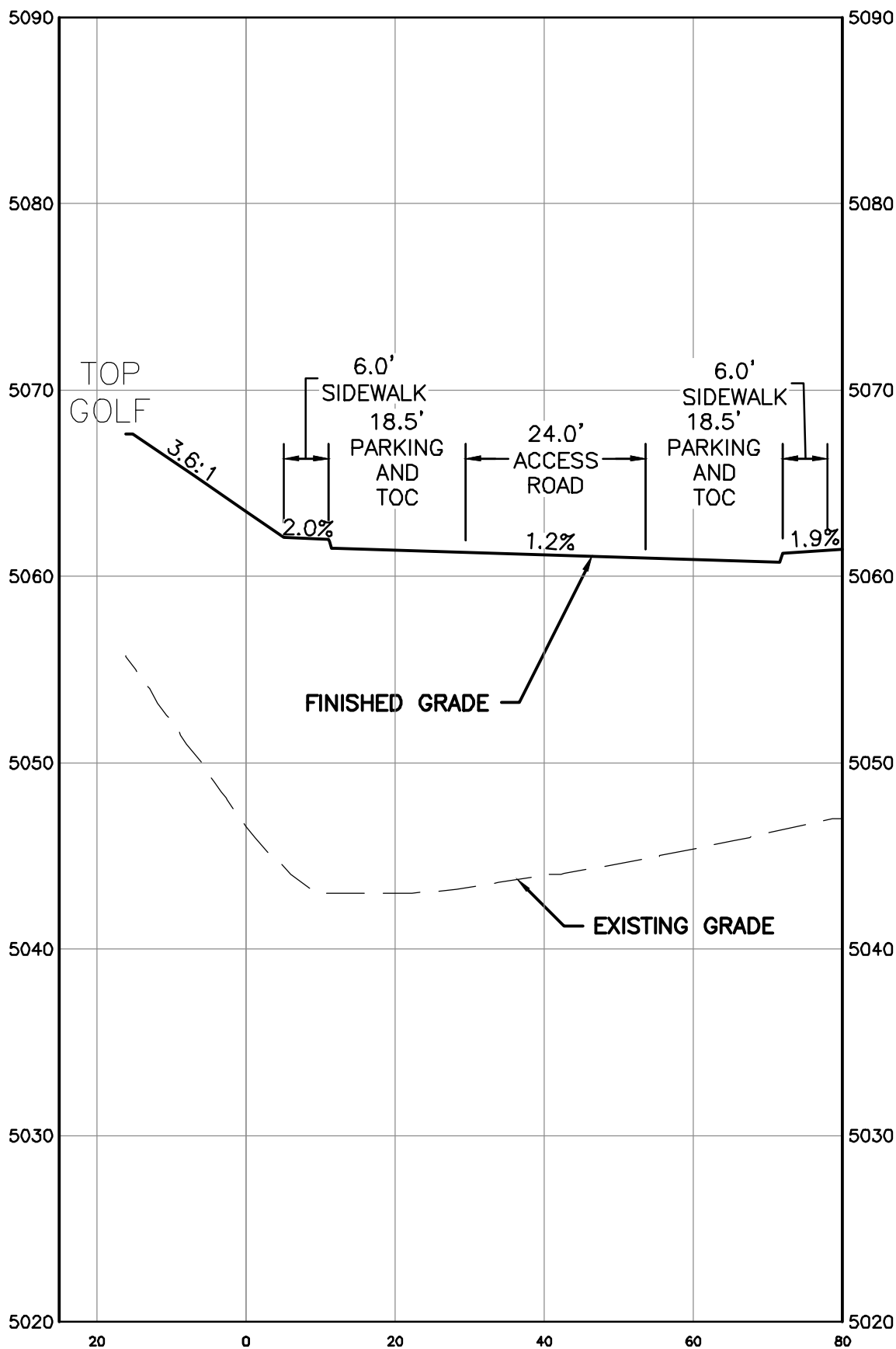
JOB #
2017035

10/30/2017 10:30 AM T:\Projects\2017035 Multi-Use Recreational Facility\Drawings\2017035 Drainage Plan.dwg User: rbohannan Plot Date: 10/30/2017 10:30 AM

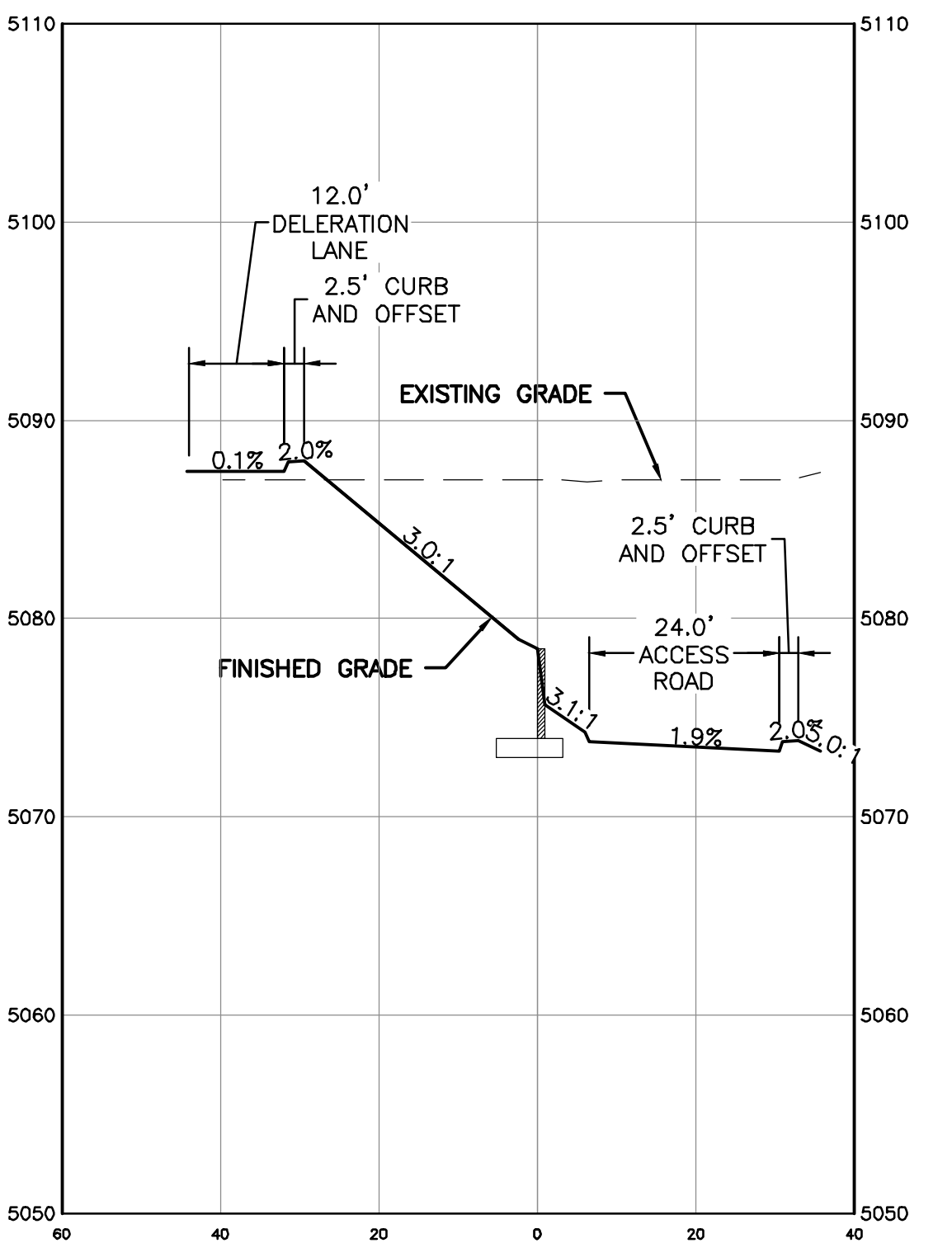
POND – CROSS SECTION A
STA. 0+79.67



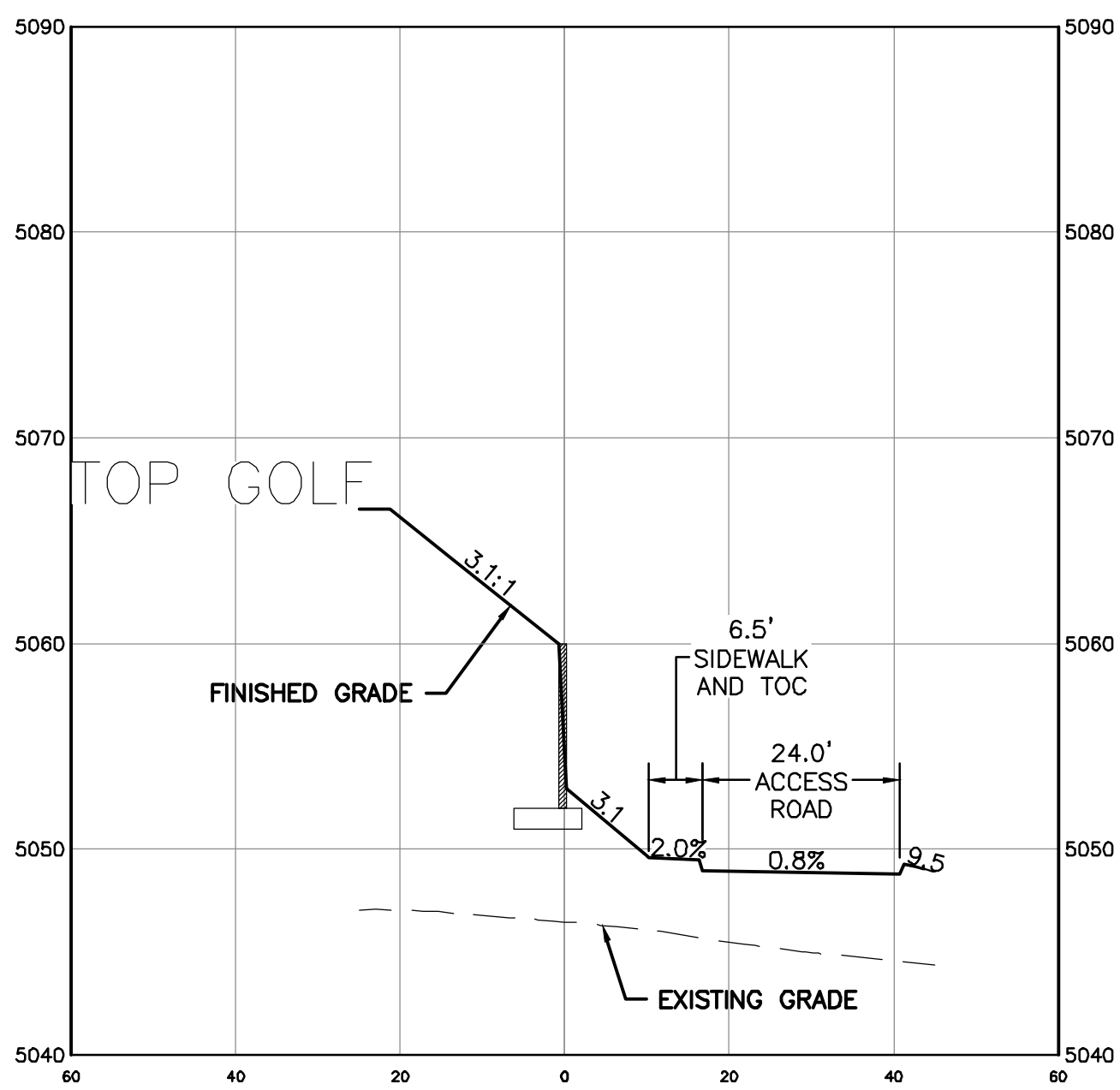
RETAINING WALL – CROSS SECTION B
STA. 0+20.00



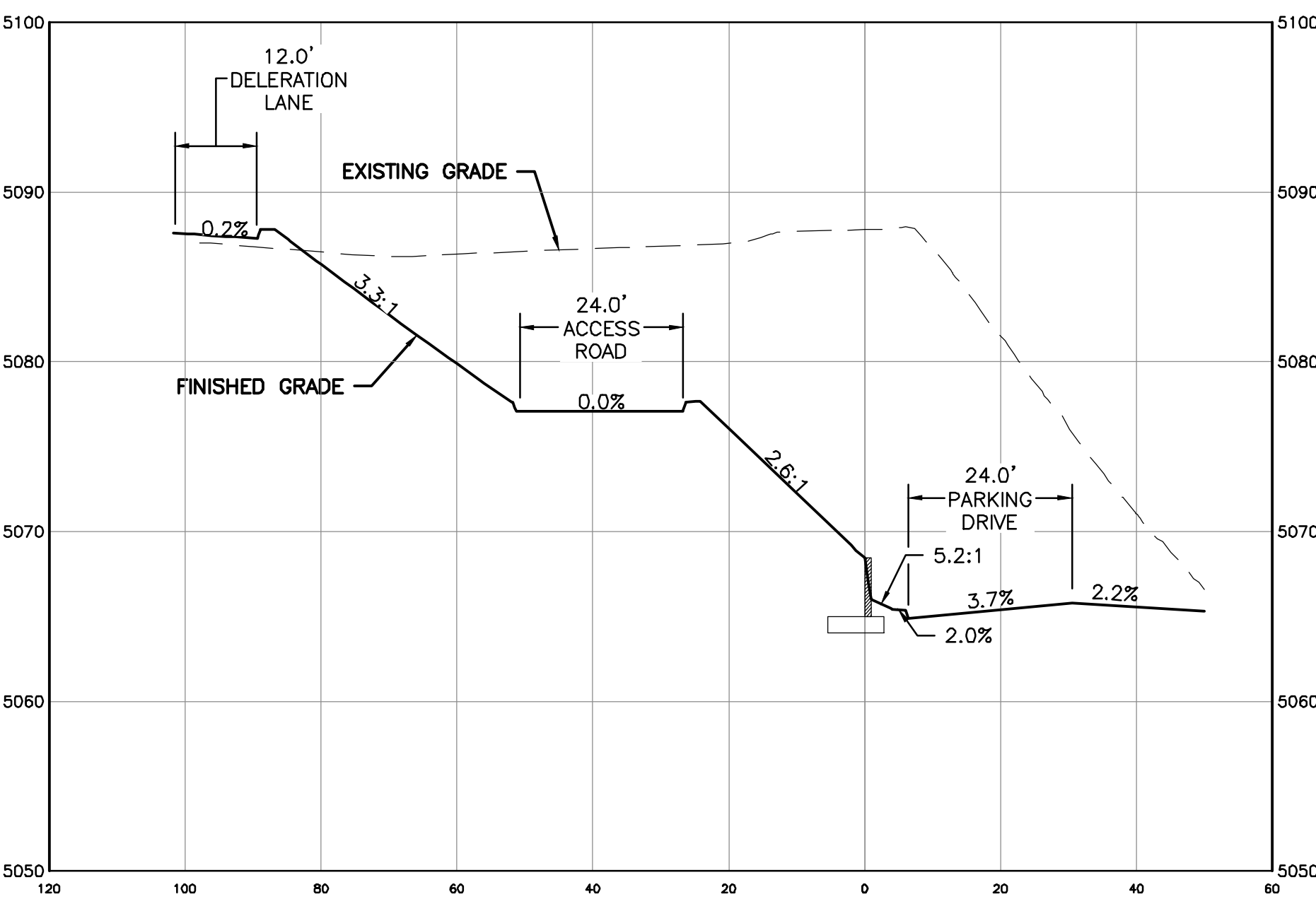
RETAINING WALL – CROSS SECTION F
STA. 0+67.77



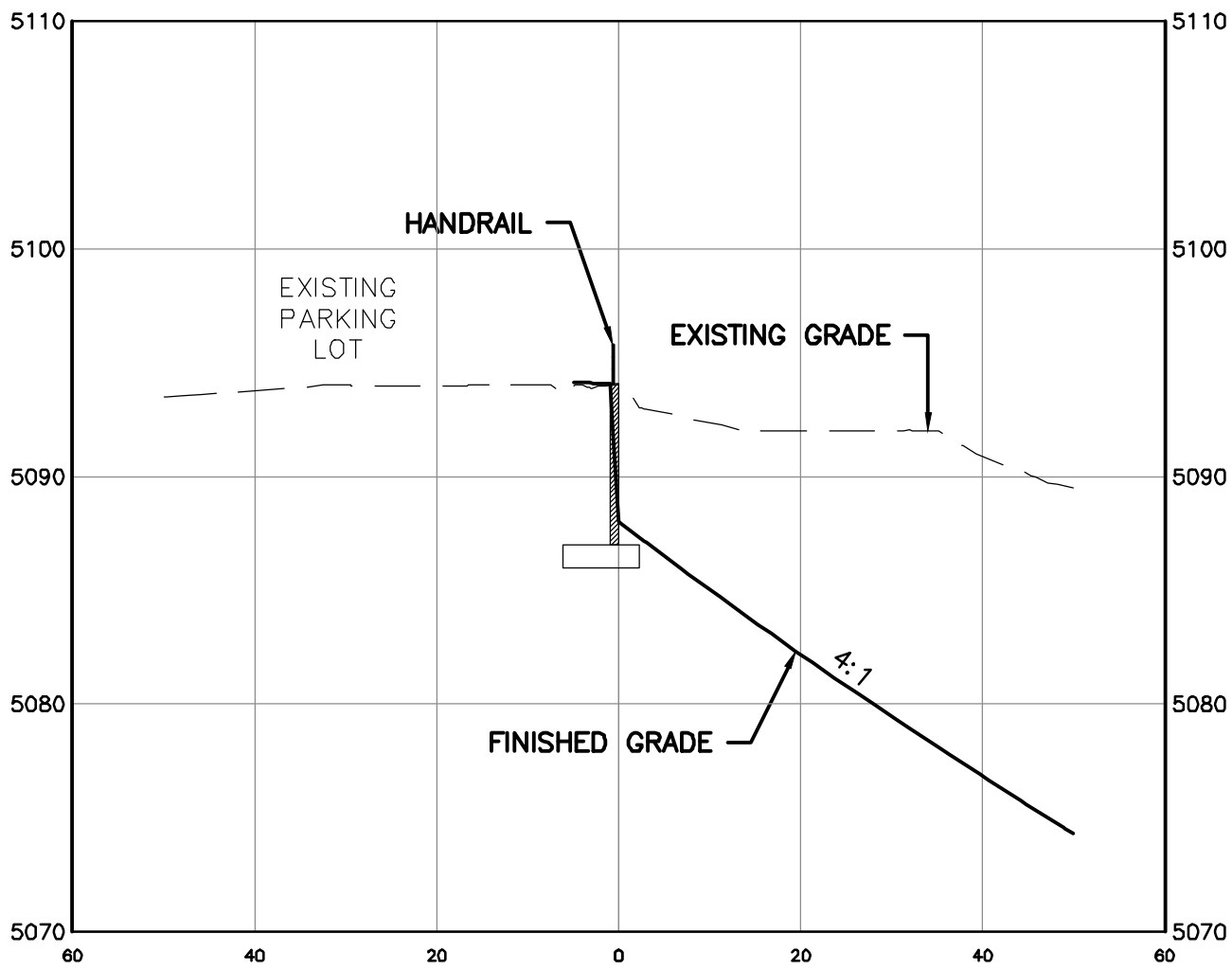
RETAINING WALL – CROSS SECTION C
STA. 1+80.00



RETAINING WALL 2 – CROSS SECTION D
STA. 0+10.00

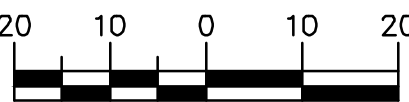


RETAINING WALL 3 – CROSS SECTION E
STA. 0+20.00



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GRAPHIC SCALE



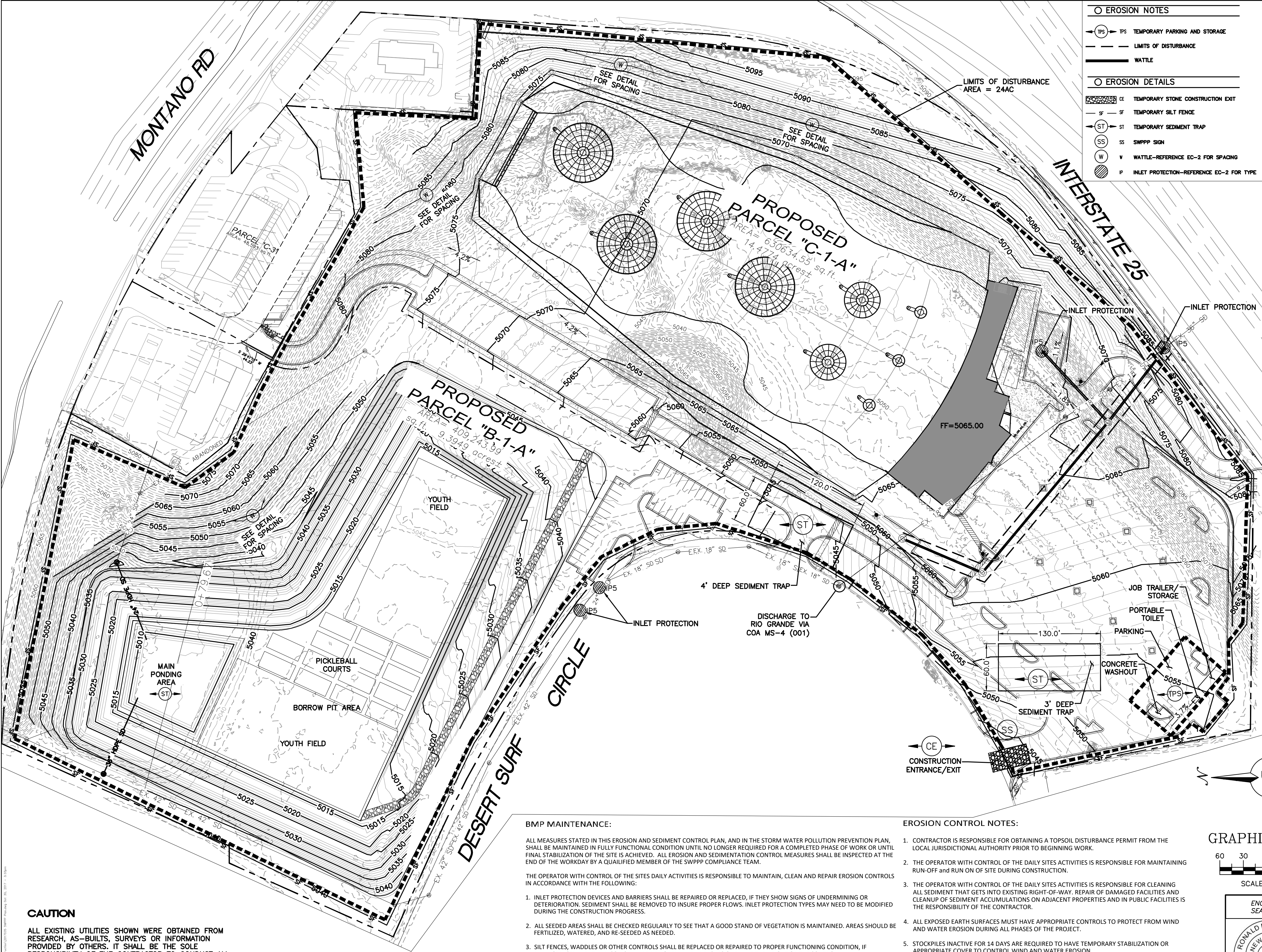
SCALE: 1"=20'
VERT. SCALE: 1"=2.5'



**MULTI-USE RECREATIONAL
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CROSS SECTIONS

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10-30-17
2017035 CROSS
SECTIONS
SHEET #
C5
JOB #
2017035



- EROSION NOTES

TPS

TPS

TEMPORARY PARKING AND STORAGE

LIMITS OF DISTURBANCE

WATTLE
- EROSION DETAILS

CE

CE

TEMPORARY STONE CONSTRUCTION EXIT

SF

SF

TEMPORARY SILT FENCE

ST

ST

TEMPORARY SEDIMENT TRAP

SS

SS

SWPPP SIGN

W

W

WATTLE-REFERENCE EC-2 FOR SPACING

P

P

INLET PROTECTION-REFERENCE EC-2 FOR TYPE

GENERAL EROSION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THE SWPPP BOOK, THE 2017 GENERAL CONSTRUCTION PERMIT, THIS DRAWING ("TEMPORARY EROSION CONTROL AND SEDIMENTATION PLAN"), STANDARD DETAILS ("TEMPORARY EROSION CONTROL AND SEDIMENTATION DETAILS"), EPA NOTICE OF INTENT PERMIT AND ALL SUBSEQUENT REPORTS, CORRECTIVE ACTIONS AND EROSION CONTROL RELATED DOCUMENTS.

B. ALL OPERATORS AS DESIGNATED, CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH SITE ACTIVITIES RELATED TO STORM WATER POLLUTION PREVENTION SHALL REVIEW A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP), THE 2017 CONSTRUCTION GENERAL PERMIT, THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), THE CLEAN WATER ACT OF 1972 AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. THE OPERATOR IN CONTROL OF DAILY SITE ACTIVITIES SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS THAT MAY OCCUR AT NO ADDITIONAL COST TO PROJECT OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO ALL FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. OPERATOR WITH CONTROL OF DAILY SITE ACTIVITIES SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY, LOCAL JURISDICTIONAL AUTHORITY OR SWPPP COMPLIANCE INSPECTOR.

E. THE TEMPORARY EROSION CONTROL AND SEDIMENTATION PLAN IS A WORKING DOCUMENT AND IS REQUIRED TO BE UPDATED WITHIN 24 HOURS OF ANY CHANGES WHEN BMP'S ARE REPAIRED, RELOCATED OR REMOVED BY NOTING ON THE PLAN THE AREA AND DATES OF THE REPAIRS, RELOCATIONS OR REMOVALS. AN ACTIVE COPY OF THE PLAN SHALL BE POSTED IN THE JOB SITE TRAILER ONSITE AND MUST BE MAINTAINED CURRENT AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING AND EARTH DISTURBANCE TO THE MAXIMUM ACREAGE AS REQUIRED BY THE EPA CONSTRUCTION GENERAL PERMIT.

G. CONTRACTOR SHALL DENOTE ON THIS PLAN, THE LOCATION OF TEMPORARY PARKING, STORAGE, PORTABLE SANITARY FACILITIES, OFFICE TRAILERS, AND ALL SUPPORT AREAS. RELOCATIONS OF EACH SHALL ALSO BE DOCUMENTED AS THEY OCCUR.

H. ALL WASH OUT WATER USED FOR CONCRETE, MASONRY, PAINT AND OTHER MATERIALS SHALL HAVE ADEQUATE SIGNAGE WITH PROPER CONTAINMENT AND DISPOSED OF PROPERLY WHEN CAPACITY REACHES 50% OR PER VENDOR RECOMMENDATIONS. VENDORS AND TRADESMEN SHALL BE INFORMED OF THE REQUIREMENTS TO USE THE WASH OUT.

I. A SPILL KIT SHALL BE READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS. A DISCHARGE OF ANY MATERIAL IN A QUANTITY THAT MAY WITHIN REASONABLE PROBABILITY CAUSE, INJURE OR BE DETRIMENTAL TO HUMAN HEALTH, ANIMAL OR PLANT LIFE, OR PROPERTY, OR INTERFERE WITH THE PUBLIC WELFARE MUST BE REPORTED TO THE NEW MEXICO ENVIRONMENTAL DEPARTMENT HOTLINE AT (505) 827-9329 FOR EMERGENCIES OR FOR NON EMERGENCIES AT (866) 428-6535. IF UNSURE IF THE SPILL IS OF A SIGNIFICANT QUANTITY, THE SPILL SHOULD BE REPORTED TO THE HOTLINE AND INFORMATION PROVIDED WITH DETAILS OF THE SPILL FOR FURTHER ACTIONS.

J. DUST DURING CONSTRUCTION OPERATIONS SHALL BE FREQUENTLY CONTROLLED BY WATER SUPPRESSION METHODS ONLY. EARTH DISTURBING OPERATIONS SHALL CEASE IF HIGH WINDS ABOVE 35 MPH ARE PRESENT. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS IS STRICTLY PROHIBITED. OTHER CHEMICALS USED FOR DUST SUPPRESSION MUST BE APPROVED BY THE EPA PRIOR TO THEIR USE.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED, COVERED, LEAK PROOF CONTAINERS. CONTAINERS SHALL BE DISPOSED OF PROPERLY WHEN CAPACITY IS REACHED. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED PER THE SEQUENCE OF CONSTRUCTION AS NOTED.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS BEEN TEMPORARILY SUSPENDED FOR 14 DAYS, SHALL HAVE TEMPORARILY STABILIZATION IN PLACE NO LATER THAN 14 DAYS FROM THE LAST DATE OF CONSTRUCTION ACTIVITY OCCURRING THESE AREAS.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL HAVE PERMANENT CONTROLS IN PLACE NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

O. IF THE ACTION OF VEHICLES OR EQUIPMENTS TRAVELING OVER THE CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD FROM LEAVING THE SITE, THEN THE LENGTH OF THE EXIT SHOULD BE EXTENDED TO PROVIDE ADDITIONAL TIRE ROTATIONS, LARGER ROCK MAY BE USED TO CREATE A SUFFICIENT JARRING MOTION OR INSTALL A TIRE WASH OFF WITH A SEDIMENT TRAP BEFORE LEAVING THE SITE.

P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

Q. THE OPERATOR IN CHARGE OF THE DAILY SITES ACTIVITIES WILL BE RESPONSIBLE FOR REMOVING SEDIMENT OR SOILS ACCUMULATING MORE THAN 50% OF THE DESIGN CAPACITY IN DETENTION PONDS, SILT FENCING OR OTHER SIMILAR EROSION CONTROLS.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, AS REQUIRED PER THE CONSTRUCTION GENERAL PERMIT. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE ESC PLAN AND PERMITTED IN ACCORDANCE WITH LOCAL AUTHORITIES HAVING JURISDICTIONAL CONTROL.

S. SLOPES SHALL BE LEFT WITH CROSS SLOPE GRADING PATTERN AND IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION RILLS. EXCESSIVE SLOPES MAY REQUIRE ADDITIONAL INDUSTRY STANDARD CONTROLS TO PREVENT EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE OPERATOR IN CONTROL OF THE SITE'S DAILY ACTIVITIES SHALL BE RESPONSIBLE FOR ADJUSTING AND MAINTAINING ALL EROSION CONTROL TO PREVENT EROSION T.

U. ALL DISTURBED AREAS SHALL BE SUPPRESSED BY WATER AND ALL CONTROLS LEFT IN GOOD WORKING CONDITION AT THE END OF EACH WORKING DAY, THIS INCLUDES REPLACEMENT OF SILT FENCING AND/OR OTHER SURFACE CONTROLS, TRACK OUT SWEEP CLEAN, BACKFILL OF OPEN TRENCHES AND ANY OTHER EROSION CONTROLS.

SEQUENCE OF CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.

2. POST PUBLIC NOTICE PER DETAIL.

3. INSTALL DOWN GRADIENT PERIMETER CONTROLS.

4. INSTALL SEDIMENT CONTROLS AT INLETS AND DRAINAGE STRUCTURES.

5. INSTALL SEDIMENT TRAP BASINS INCLUDING EMERGENCY OVERFLOW.

6. NOTIFY SWPPP COMPLIANCE INSPECTOR OF COMPLETION OF THE ABOVE.

7. BEGIN GRUBBING AND SOIL DISTURBING ACTIVITIES.

8. PROVIDE POSITIVE GRADES TOWARDS SEDIMENT PONDS DURING SITE GRADING.

9. INSTALL INTERMEDIATE CONTROLS OF STEEP SLOPES.

10. PROVIDE TEMPORARY STABILIZATION OF DISTURBED AREAS OR STOCKPILES.

11. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

12. FINISH GRADING THE SITE.

13. COMPLETE SITE FINAL STABILIZATION

GRAPHIC SCALE

60

30

0

30

60

SCALE: 1"=60'

CAUTION

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BMP MAINTENANCE:

ALL MEASURES STATED IN THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR UNTIL FINAL STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT THE END OF THE WORKDAY BY A QUALIFIED MEMBER OF THE SWPPP COMPLIANCE TEAM.

THE OPERATOR WITH CONTROL OF THE SITES DAILY ACTIVITIES IS RESPONSIBLE TO MAINTAIN, CLEAN AND REPAIR EROSION CONTROLS IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED, IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION. SEDIMENT SHALL BE REMOVED TO INSURE PROPER FLOWS. INLET PROTECTION TYPES MAY NEED TO BE MODIFIED DURING THE CONSTRUCTION PROGRESS.

2. ALL SEEDD AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RE-SEEDD AS NEEDED.

3. SILT FENCES, WADDLES OR OTHER CONTROLS SHALL BE REPLACED OR REPAIRED TO PROPER FUNCTIONING CONDITION, IF DAMAGED. SEDIMENT AND SOIL SHALL BE REMOVED WHEN REACHES ONE-HALF THE HEIGHT OF THE CONTROL.

4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING, EXTENDING OR OTHER MODIFICATIONS TO THE CONSTRUCTION EXITS AS CONDITIONS DEMAND. SITE TRAFFIC SHOULD BE LIMITED TO THE CONTROLLED EXITS ONLY.

5. SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

6. REFERENCE THE SWPPP BOOK FOR ALL EROSION CONTROL MAINTENANCE PROCEDURES AND FREQUENCIES. CONSULT THE SWPPP PREPARER WITH ANY QUESTIONS REGARDING THIS SWPPP AND ITS REQUIREMENTS.

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT FROM THE LOCAL JURISDICTIONAL AUTHORITY PRIOR TO BEGINNING WORK.

2. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS RESPONSIBLE FOR MAINTAINING RUN-OFF AND RUN ON OF SITE DURING CONSTRUCTION.

3. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

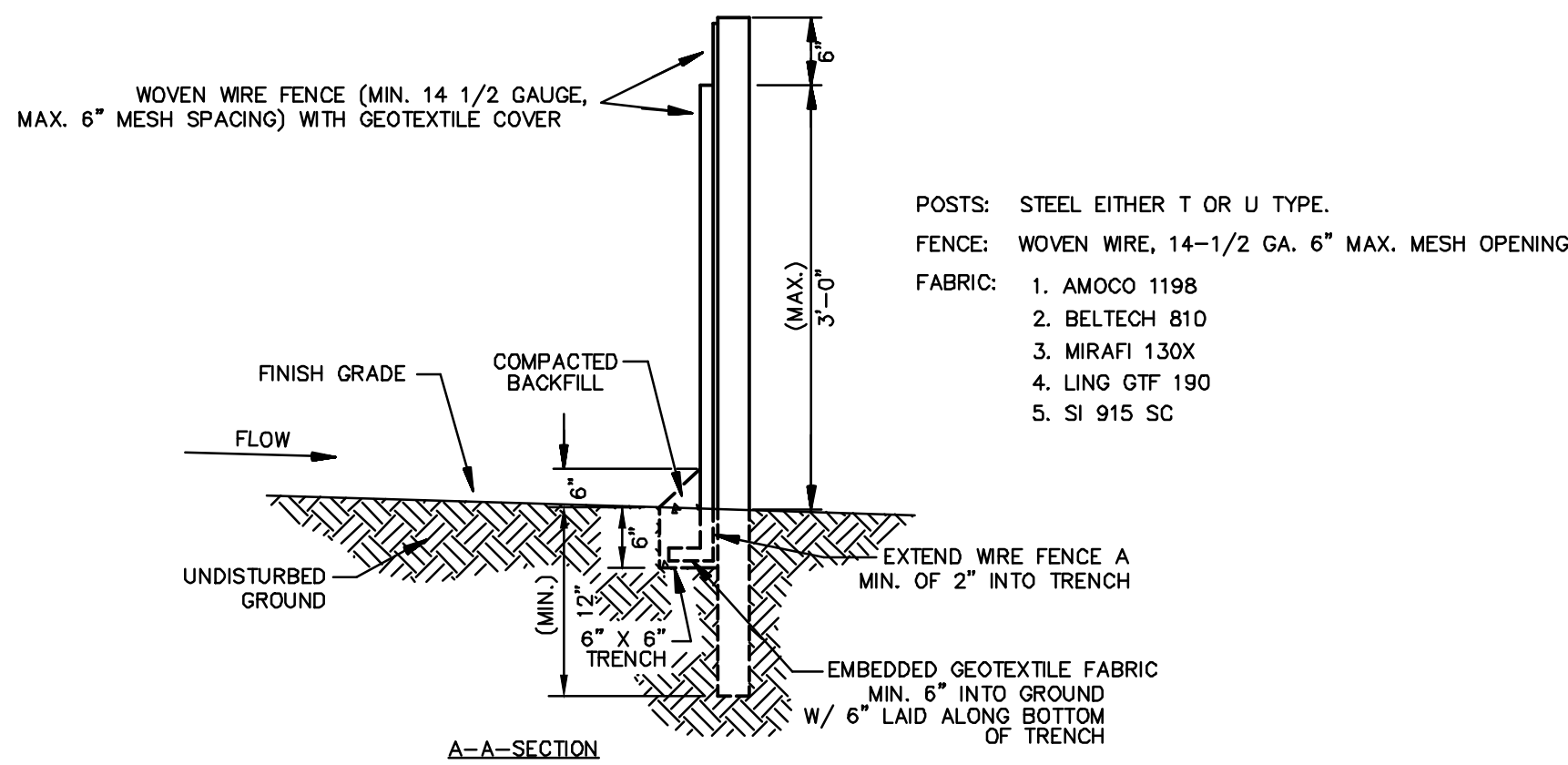
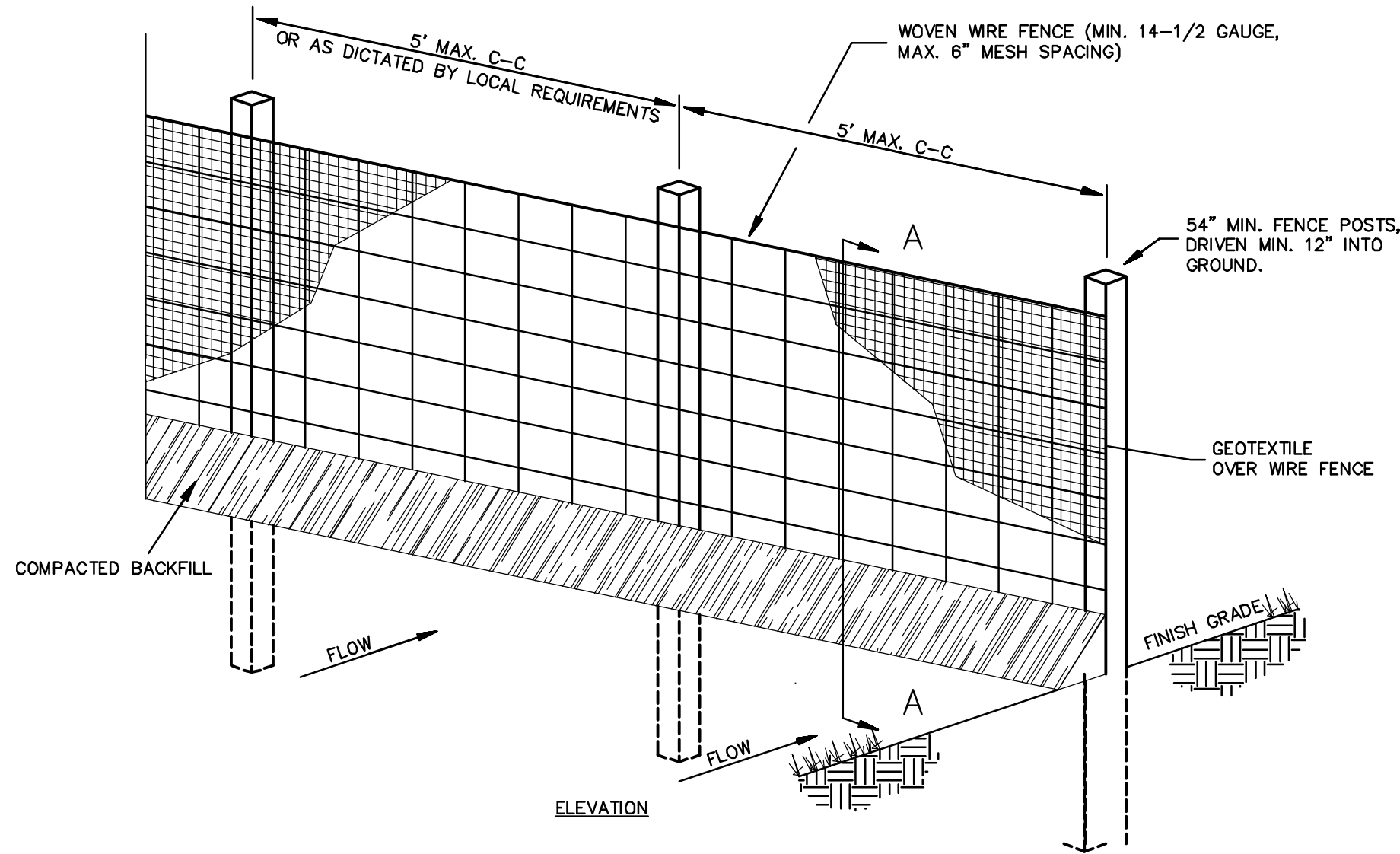
4. ALL EXPOSED EARTH SURFACES MUST HAVE APPROPRIATE CONTROLS TO PROTECT FROM WIND AND WATER EROSION DURING ALL PHASES OF THE PROJECT.

5. STOCKPILES INACTIVE FOR 14 DAYS ARE REQUIRED TO HAVE TEMPORARY STABILIZATION OR APPROPRIATE COVER TO CONTROL WIND AND WATER EROSION.

6. THE OPERATOR WITH CONTROL OF THE DAILY SITES ACTIVITIES IS REQUIRED TO MAINTAIN ALL SITE BMP'S IN GOOD CONDITION FOR THE DURATION OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS ACCEPTED BY THE EPA.

7. IF SITE EARTH DISTURBANCES EXCEED 5 ACRES AT ANY ONE TIME, TEMPORARY AND/OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS WHEN AREA BECOMES INACTIVE OR EARTH DISTURBING ACTIVITIES ARE COMPLETE. SITE EARTH DISTURBANCES OF LESS THAN 5 ACRES, HAVE 14 DAYS TO PROVIDE TEMPORARY OR PERMANENT STABILIZATION WHEN AREA BECOMES INACTIVE OR EARTH DISTURBING ACTIVITIES ARE COMPLETE.

<div>ENGINEER'S SEAL</div> <div><div><div>RONALD R. BOHANNAN</div><div>NEW MEXICO</div><div>7868</div><div>PROFESSIONAL ENGINEER</div></div><div>10/30/2017</div><div>RONALD R. BOHANNAN</div><div>P.E. #7868</div></div>	MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM		DRAWN BY	JJG
	EROSION CONTROL PLAN		DATE	10/9/17
	<div><div><div></div><div>TERRA WEST, LLC</div></div><div>5571 MIDWAY PARK PLACE NE</div><div>ALBUQUERQUE, NM 87109</div><div>(505) 858-3100</div><div>www.tierrowestllc.com</div></div>		2017035 SWPPP	
			SHEET #	EC-1
			JOB #	2017035

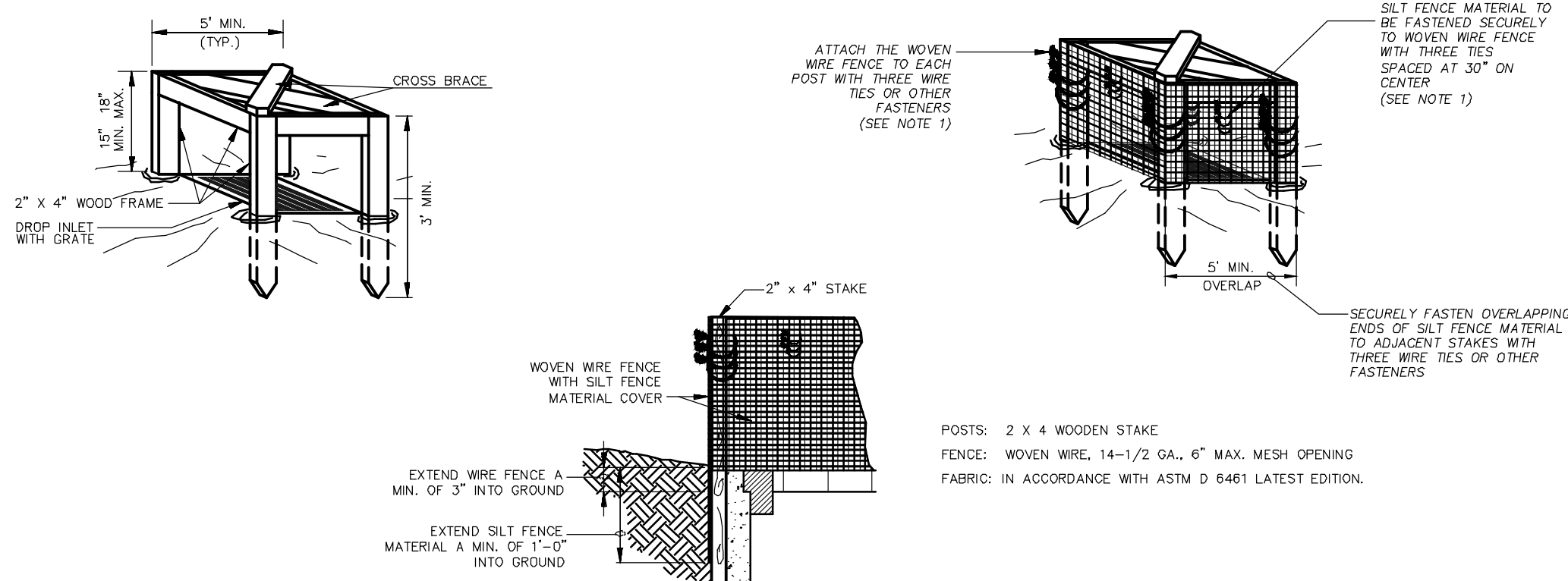


1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES.
2. GEOTEXTILE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24\"/>

SEDIMENTATION/SILT FENCE WITH WIRE SUPPORT

N.T.S.

SF

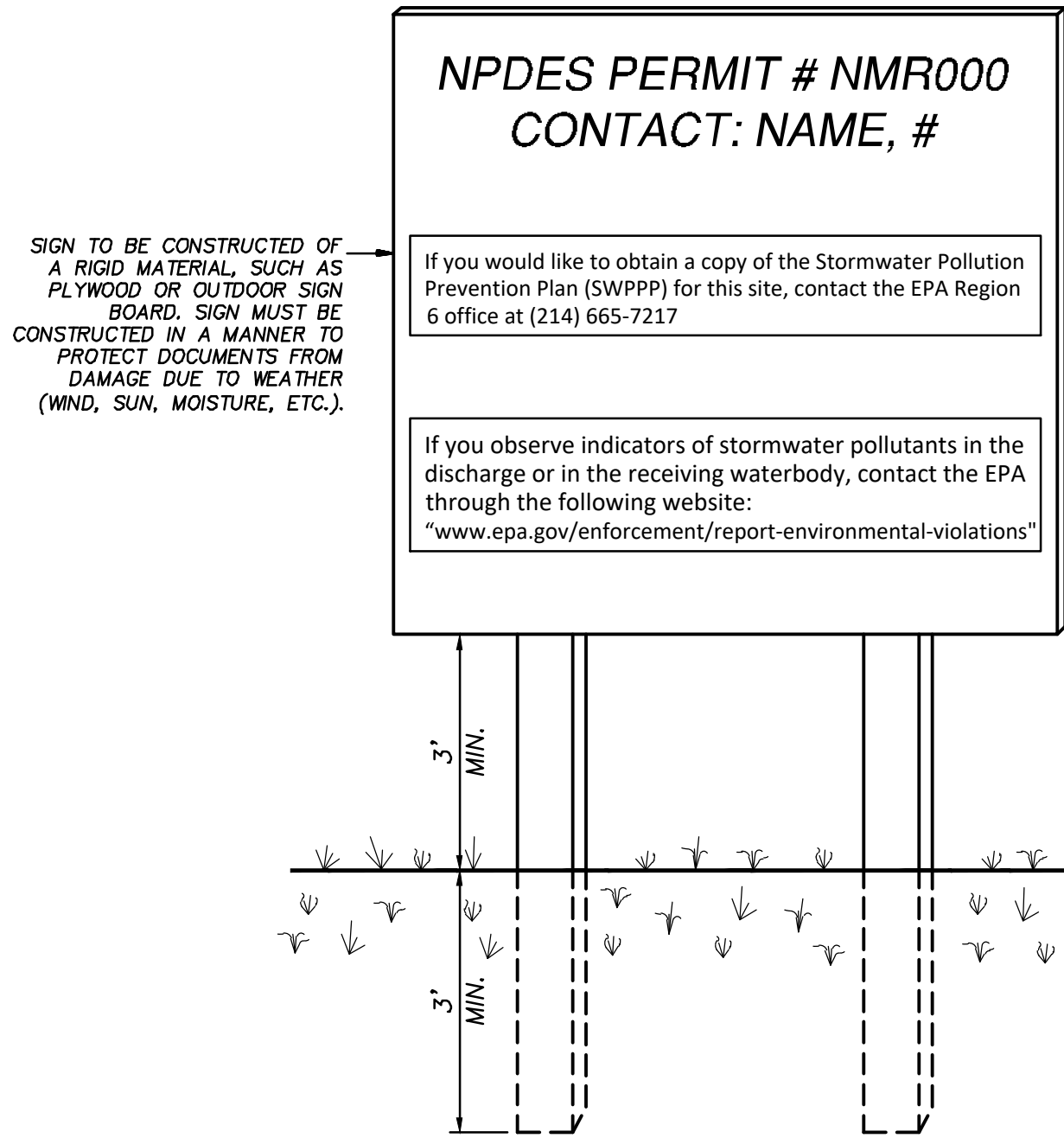


1. ATTACH THE WOVEN WIRE FENCE TO EACH POST AND THE GEOTEXTILE TO THE WOVEN WIRE FENCE (SPACED EVERY 30\"/>

SILT FENCE INLET PROTECTION

N.T.S.

IP6



SWPPP POSTING REQUIREMENTS:

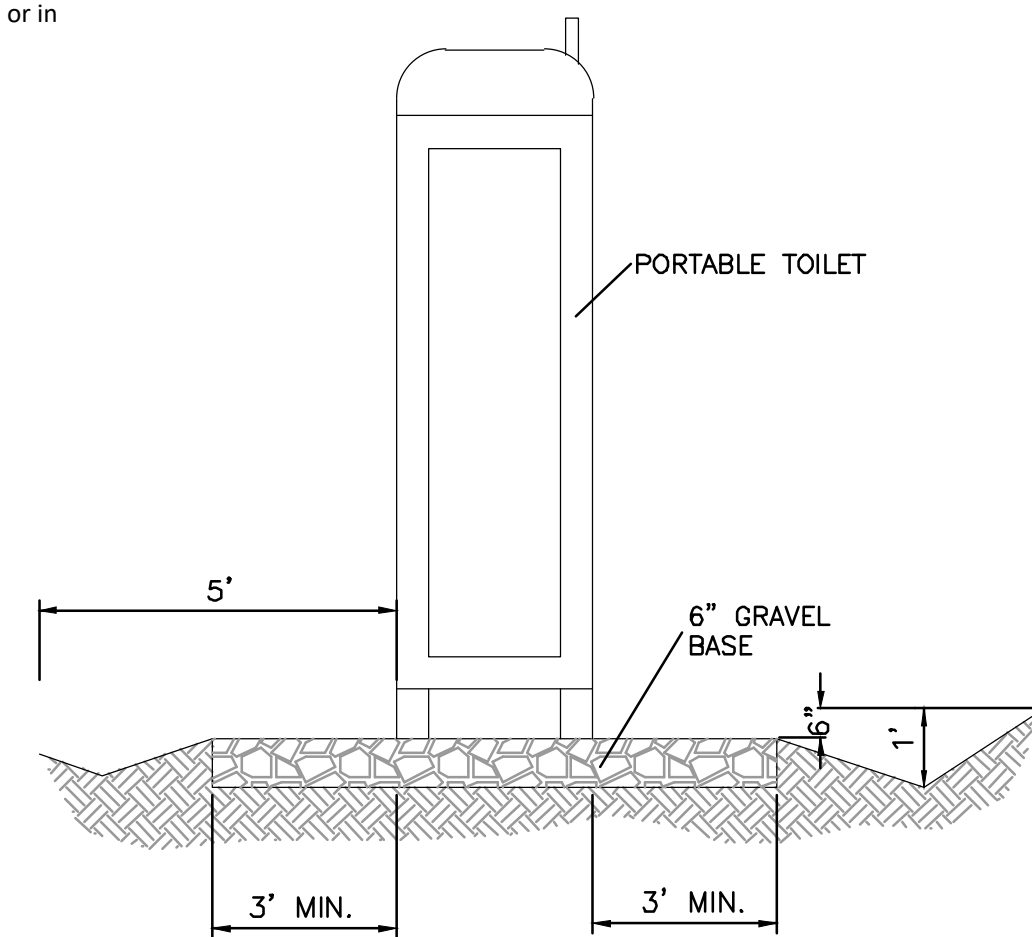
You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.

- At a minimum, the notice must include:
- 1) The NPDES ID (i.e., permit tracking numbers assigned to the project)
 - 2) A contact name and phone number for obtaining additional construction site information;
 - 3) A website where a copy of the SWPPP may be viewed or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Region 6 office at (214) 665-7217" and;
 - 4) The following statement: "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: "www.epa.gov/enforcement/report-environmental-violations."

SWPPP INFORMATION SIGN

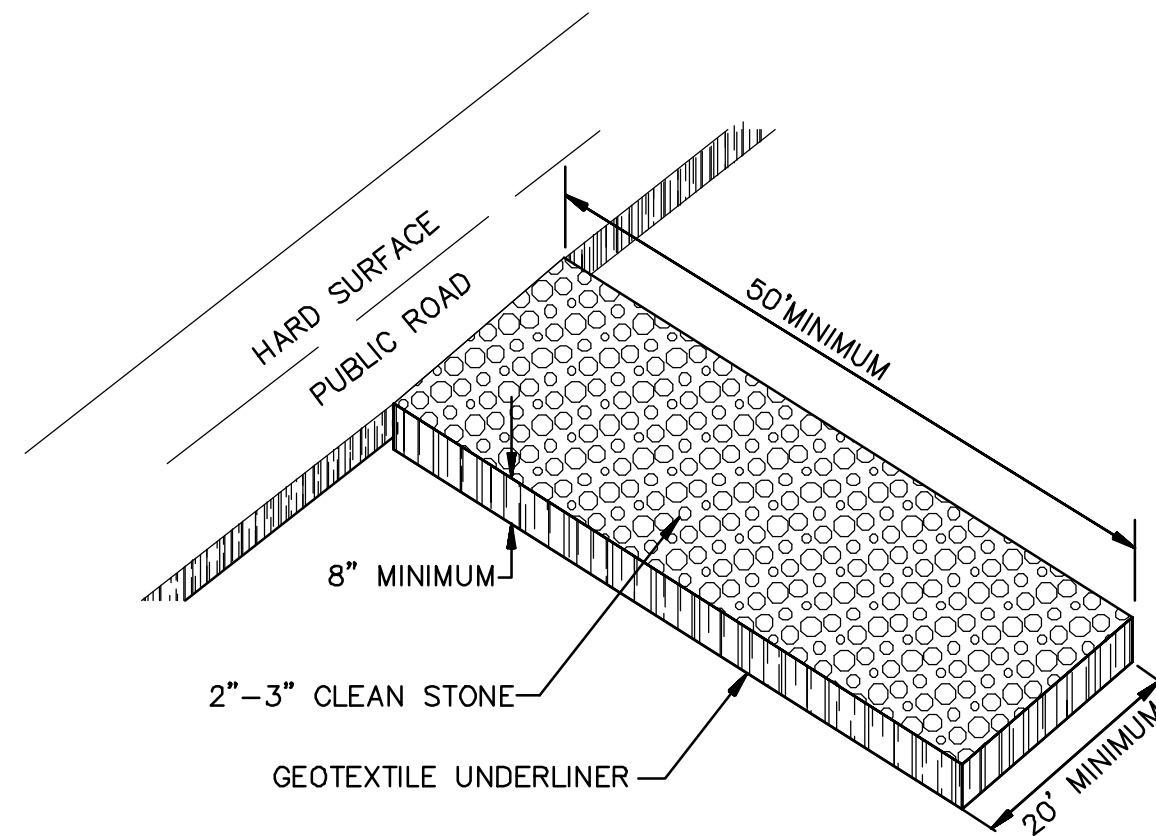
N.T.S.

SS



PORTABLE TOILET CONTAINMENT DETAIL

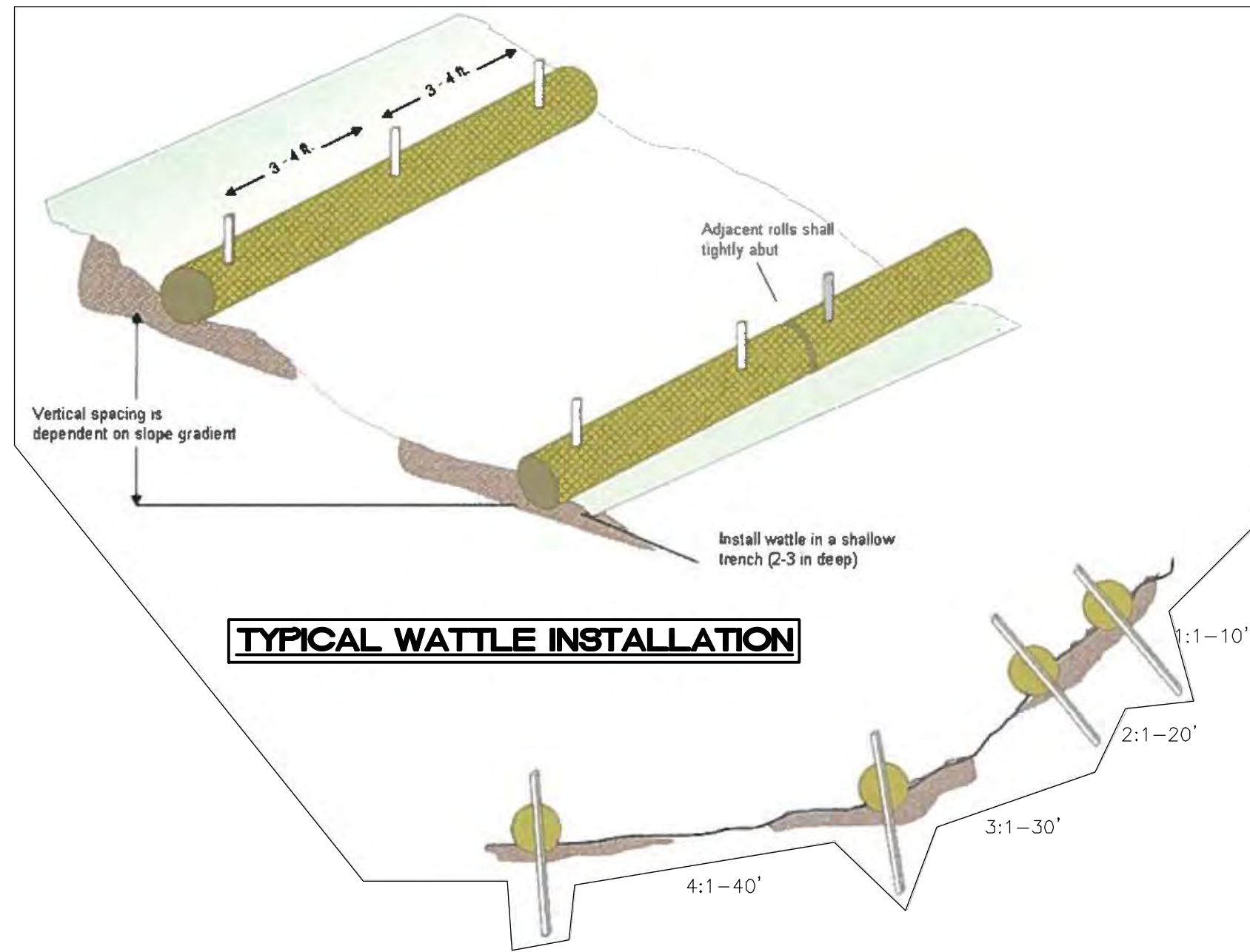
PORTABLE TOILET



CONSTRUCTION EXIT

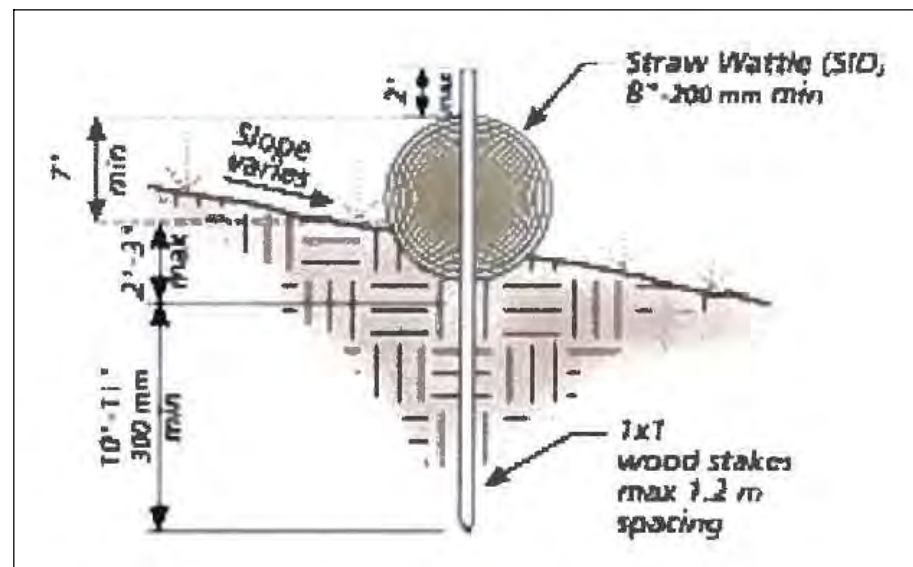
N.T.S.

CE



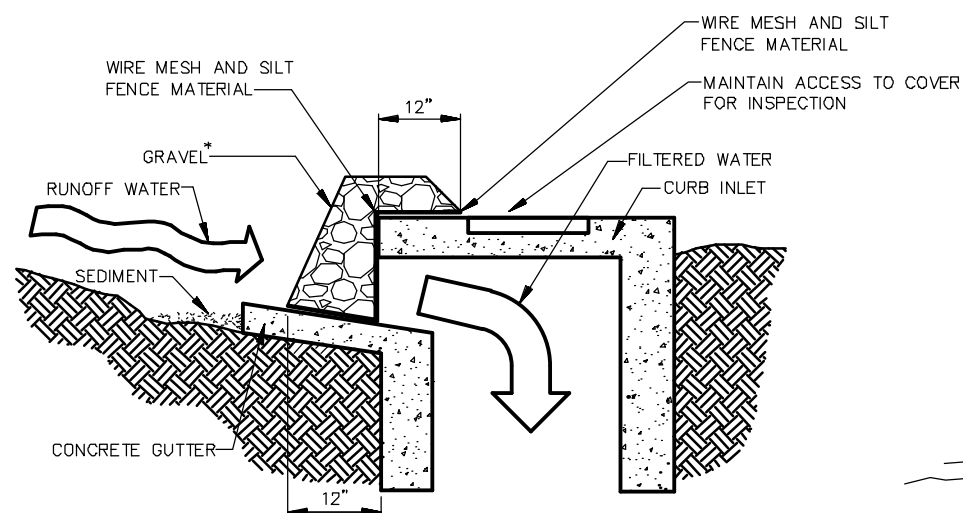
TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT

N.T.S.



ENTRENCHMENT DETAIL

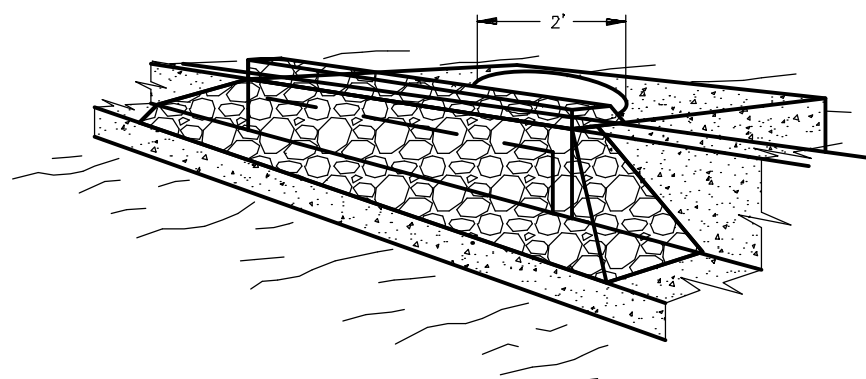
N.T.S.



GRAVEL CURB INLET SEDIMENT FILTER

N.T.S.

IP5



THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

- GRAVEL SHALL BE 3/4\"-2\" ANGULAR CLEAN STONE

	ENGINEER'S SEAL	MULTI-USE RECREATIONAL FACILITY, ALBUQUERQUE, NM	DRAWN BY JJG
		EROSION CONTROL DETAILS	DATE 10/9/17
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			SHEET # EC-2
RONALD R. BOHANNAN P.E. #7868		TERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrowestllc.com	
		JOB # 2017035	