

**BASIS OF BEARINGS**

THE EAST LINE OF THE SOUTHEAST QUARTER SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13 EAST AS SHOWN IN BOOK 58 OF MAPS AND PLATS AT PAGE 70. SAID BEARING BEING N00°17'57"W

**BASIS OF ELEVATION**

1/2" REBAR SW OF THE CENTER OF INTERSECTION OF SHORE CLIFF DR. & CHAPIN CT. OPUS CONTROL POINT 12S13E\_G23. ELEV. = 2596.58 (NAVD88)

**GENERAL NOTES**

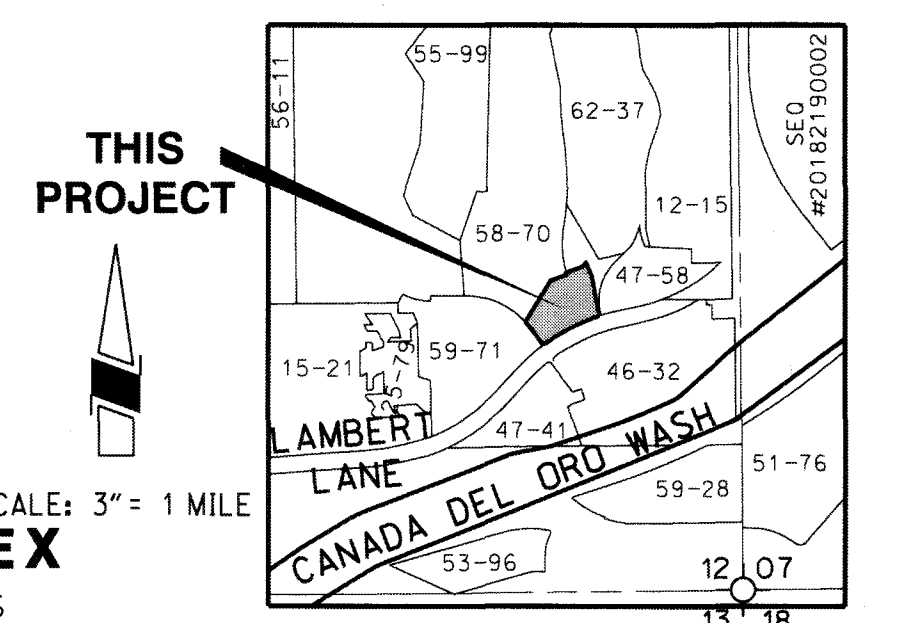
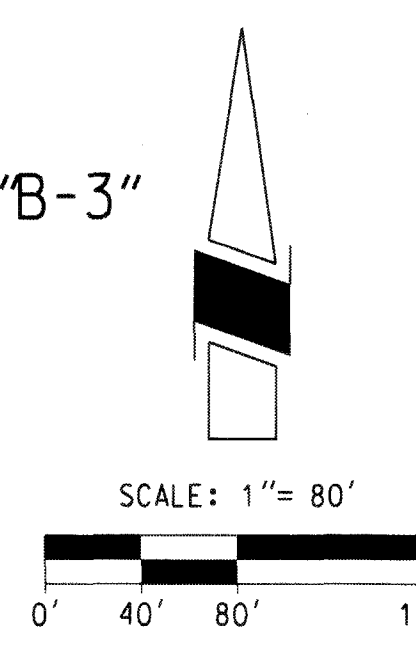
- THE GROSS AREA OF THE DEVELOPMENT SITE IS 6.46 ACRES (281,398 SF)
- ZONING: MELCOR/RIVERS EDGE PAD PROPOSED DEVELOPMENT UTILIZES CR-5 STANDARDS
- RESIDENTIAL UNITS PER ACRE = 3.25 DU/AC
- TOTAL RESIDENTIAL LOTS: 21  
MINIMUM LOT SIZE ALLOWED: 6,000 SF OR 2,000 SF WITH TOWN COUNCIL APPROVAL  
MINIMUM LOT SIZE PROVIDED: 6,533 SF  
LARGEST LOT SIZE PROVIDED: 10,300 SF  
AVERAGE LOT SIZE PROVIDED: 7,277 SF
- BUILDING HEIGHT: 24' MAX ALLOWED AND NOT TO EXCEED 2 STORIES.
- TOTAL AMOUNT OF UNDISTURBED NATURAL OPEN SPACE: 0.23 ACRES.
- TOTAL AMOUNT OF OPEN SPACES: REQUIRED: 0 SF  
PROVIDED: 87,064 SF
- NO KNOWN ZONING VARIANCES OR MODIFICATIONS APPLY TO THE SUBJECT PROPERTY.
- THE TOTAL AMOUNT OF LANDSCAPED COMMON AREAS IS 1.7 ACRES.
- ORO VALLEY WATER UTILITY SHALL BE THE WATER PROVIDER.
- TOTAL MILES OF NEW PUBLIC STREETS IS 0.2 MILES.
- TOTAL MILES OF NEW PRIVATE STREETS IS 0.0 MILES.
- RECREATION AREA REQUIREMENTS: SATISFIED BY PROXIMITY OF LOCAL PARKS. AN IN-LIEU FEE MUST BE PROVIDED PER SECTION 26.5.F.
- ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.
- LANDSCAPE BUFFER YARDS PROVIDED (PER PIMA COUNTY STANDARDS AS DICTATED BY THE MELCOR/RIVERS EDGE PAD):
 

	REQUIRED	PROVIDED
NORTH (CR-2)	0'	--
EAST (CR-5)	0'	--
SOUTH (LAMBERT LANE)	BUFFER TYPE C-12.5'	BUFFER TYPE C-12.5'
WEST (SHORE CLIFF DRIVE)	BUFFER TYPE C-12.5'	BUFFER TYPE C-12.5'
- REQUIRED PERIMETER/SITE SETBACKS PER CR-5:  
FRONT YARD - 20 FEET  
SIDE YARD - 10 FEET  
REAR YARD - 10 FEET  
PROVIDED PERIMETER/SITE SETBACKS:  
FRONT YARD - 20 FEET  
SIDE YARD - 10 FEET  
REAR YARD - 10 FEET  
REQUIRED INTERNAL BUILDING SETBACKS PER CR-5:  
0 FEET OR AS REQUIRED BY BUILDING CODES  
PROVIDED INTERNAL BUILDING SETBACKS:  
FRONT YARD - 20 FEET TO GARAGE W/20' ONSITE DRIVEWAY  
SIDE YARD - AS REQUIRED BY PAD STANDARDS  
REAR YARD - AS REQUIRED BY PAD STANDARDS
- ALL COMMON AREAS AND EASEMENTS WILL BE OWNED AND MAINTAINED BY THE HOA.
- ALL SIGNAGE AND LIGHTING TO BE ADDRESSED AS PART OF A SEPARATE REVIEW AND APPROVAL PROCESS.
- LOTS 123-125 MUST HAVE VIEW-FENCING TO COMPLY WITH CRIME PREVENTION ENVIRONMENTAL DESIGN (CPTED), ADDENDUM A, SECTION 3.2.1.1.
- ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED PLANS. SEPARATE PUBLIC IMPROVEMENT AND CONSTRUCTION PLANS WILL BE SUBMITTED TO THE TOWN ENGINEER'S OFFICE FOR REVIEW AND APPROVAL.
- ANY RELOCATION OR MODIFICATION OF EXISTING UTILITIES AND/OR PUBLIC IMPROVEMENTS NECESSITATED BY THE PROPOSED DEVELOPMENT WILL BE AT NO EXPENSE TO THE PUBLIC.
- THE DESIGN SPEED FOR THESE STREETS IS 25 MPH. THE DESIGN VEHICLE IS SU-30.
- THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.
- THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS HAVING AN ASSURED 100 YEAR WATER SUPPLY BY THE DIRECTOR OF WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER ADWR REGULATIONS.
- A LINE EXTENSION AGREEMENT MUST BE IN PLACE PRIOR TO ANY WORK ON THE WATER INFRASTRUCTURE BEFORE THIS PROJECT BEGINS.
- SHOULD AN EASEMENT BE IN CONFLICT WITH ANY PROPOSED BUILDING LOCATION, VACATION OF THE EASEMENT IS TO OCCUR PRIOR TO ISSUANCE OF BUILDING PERMITS.
- FIRE HYDRANTS CONNECTED TO AN APPROVED WATER SUPPLY OF 1,000 GPM FOR FIRE PROTECTION MUST BE INSTALLED AND IN SERVICE PRIOR TO COMBUSTIBLE MATERIAL DELIVERY TO THE SITE. TEMPORARY CONSTRUCTION OFFICE TRAILERS ARE CONSIDERED COMBUSTIBLE MATERIAL.
- APPROVED FIRE APPARATUS ACCESS ROADS MUST BE INSTALLED AND IN SERVICE PRIOR TO COMBUSTIBLE MATERIAL DELIVERY TO THE SITE.

**FOR CONTINUATION OF GENERAL NOTES  
- SEE SHEET 2**

**FINAL SITE PLAN AND GRADING PLAN FOR  
RIVERS EDGE**

LOTS 121-141 AND COMMON AREAS "A" & "B-1" - "B-3"  
**1901060**  
**PERMIT #2402455 REV #1**



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- FINAL SITE PLAN
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- GRADING PLAN - NOTES
- GRADING PLAN
- NOT USED
- GRADING PLAN - DETAILS
- GRADING PLAN - DETAILS
- GRADING PLAN - DETAILS
- GRADING PLAN - DETAILS
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**LOCATION MAP**

SECTION 12, T 12 S, R 13 E  
G & SRM  
TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA  
LAT 32°24'09"  
LONG -110°58'00"  
PIMA COUNTY DATUM

**OWNER/DEVELOPER**

RICHMOND AMERICAN HOMES  
3091 WEST INA ROAD  
TUCSON, AZ 85741  
ATTN: JEFF TARBOX  
MAIL: JEFFREY.TARBOX@MDCH.COM  
PHONE: (520) 229-5415

**CIVIL ENGINEER**

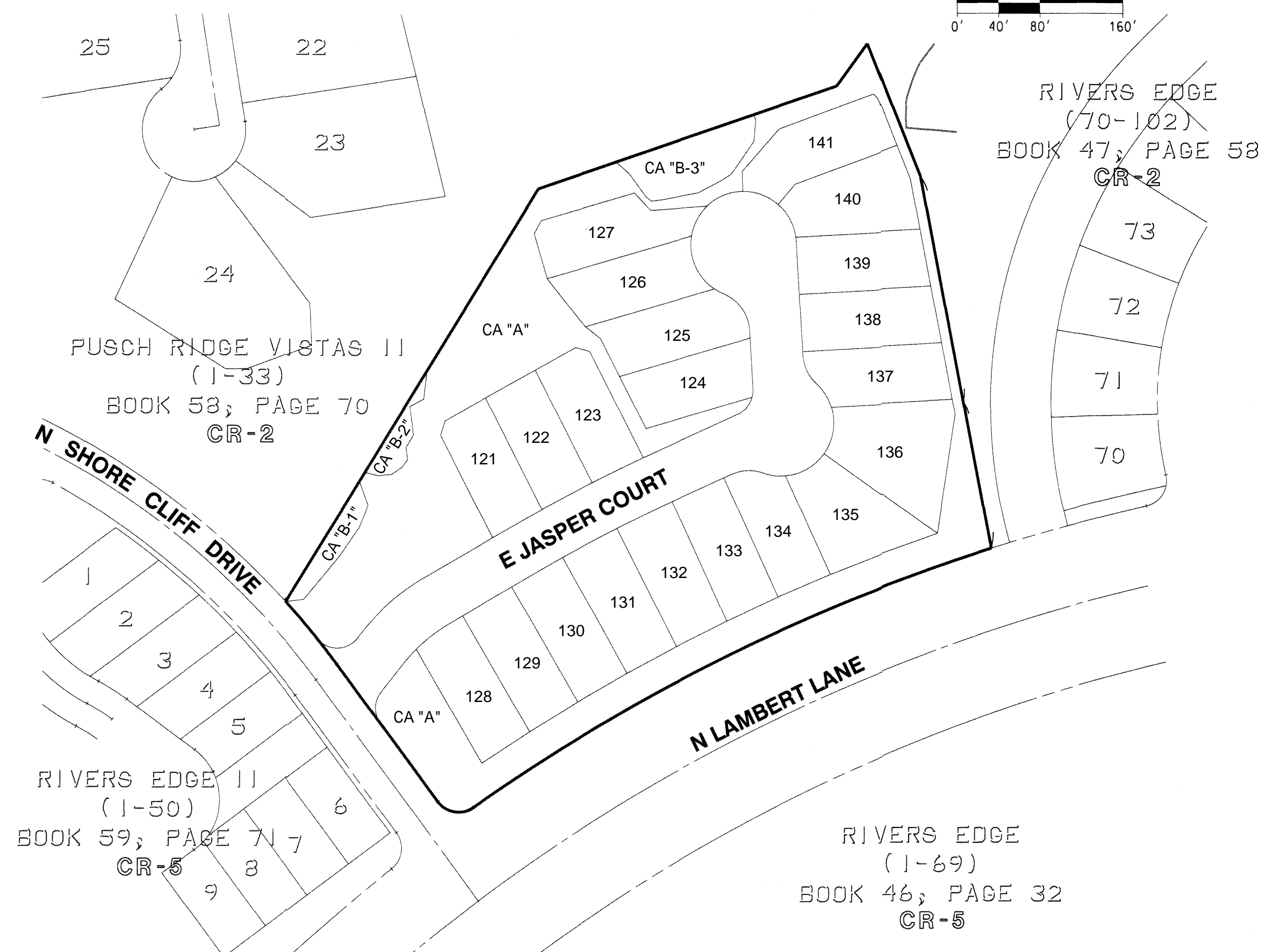
RICK ENGINEERING COMPANY, INC.  
3945 EAST FORT LOWELL ROAD, SUITE 111  
TUCSON, AZ 85712  
PHONE: (520) 795-1000  
ATTN: BRUCE PATON  
EMAIL: BPATON@RICKENGINEERING.COM

**ASSESSOR'S PARCEL NO.**

224-28-1570 & 224-29-042C

**ADMINISTRATIVE ADDRESS**

10750 NORTH SHORE CLIFF DRIVE



**LIST OF COMMON AREAS**

COMMON AREA "A": LANDSCAPE BUFFERYARD, GRADING & DRAINAGE  
COMMON AREAS "B-1" - "B-3": UNDISTURBED NATURAL OPEN SPACE

**APPROVALS**

*[Signature]* 1-17-2020  
TOWN ENGINEER DATE

*[Signature]* 1-21-2020  
PLANNING AND ZONING ADMINISTRATOR DATE

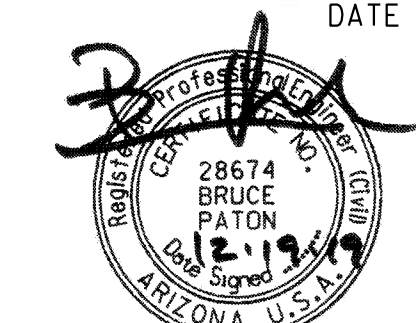
*[Signature]* 1-16-20  
WATER UTILITY DIRECTOR DATE

**REV #1 APPROVALS**

\_\_\_\_\_  
TOWN ENGINEER DATE

N/A  
PLANNING AND ZONING ADMINISTRATOR DATE

N/A  
WATER UTILITY DIRECTOR DATE



**1901060  
FINAL SITE PLAN  
FOR  
RIVERS EDGE**

REF: OV1600944, OV12-03-20  
OV1801921, OV1901060  
RIVERS EDGE PLANNED  
AREA DEVELOPMENT #7

LOTS 121-141 AND COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER OF  
SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13 EAST, GILA &  
SALT RIVER MERIDIAN, TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA.

NO.	BY	DATE	REVISION
1	RICK	11/2024	REVISED SHEETS 1-3, 5-12

DATE: OCTOBER 16, 2019

SCALE: 1"=80' CONTOUR INTERVAL= N/A SHEET 1 OF 12



**GENERAL NOTES - CONTINUED**

- 29. 2018 IFC SECTION 903.2.8 GROUP R: AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3 SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA INCLUDING ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES USED AS MODEL HOMES WITH SALES OR CONSTRUCTION OFFICES AND ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES. IS AMENDED BY ADDING EXCEPTION:  
EXCEPTION: GROUP R-3 OCCUPANCIES ARE NOT REQUIRED TO INSTALL AUTOMATIC SPRINKLER SYSTEMS WHEN ALL OF THE FOLLOWING EXIST:  
1. GROUP R-3 OCCUPANCIES PROVIDING THE REQUIRED FIRE FLOW IN ACCORDANCE WITH SECTION B105 AND TABLES B105.1 (1) AND B105.1 (2).  
2. GROUP R-3 OCCUPANCIES WITHIN 600 FEET (182.880M) OF FIRE HYDRANTS CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW.  
3. GROUP R-3 OCCUPANCIES IN COMPLIANCE WITH SECTION D106 AND D107.
- 30. TEMPORARY STREET SIGNS MUST BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE OF VEHICLES. ALL STRUCTURES UNDER CONSTRUCTION MUST BE CLEARLY IDENTIFIED WITH AN APPROVED ADDRESS.
- 31. THE INSTALLATION OF TRAFFIC CONTROL SIGNALING DEVICES AND/OR ELECTRICALLY OPERATED GATES ON FIRE APPARATUS ACCESS ROADS SHALL INCLUDE PREEMPTIVE CONTROL EQUIPMENT COMPATIBLE WITH THE FIRE DEPARTMENT'S EXISTING SYSTEM.
- 32. THE FOLLOWING CODES AND STANDARDS SHALL BE APPLICABLE TO THIS DEVELOPMENT:
  - 2018 IBC/IRC INTERNATIONAL CODES WITH LOCAL AMENDMENTS
  - 2011 NATIONAL ELECTRICAL CODE
  - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
  - GOLDER RANCH FIRE DISTRICT STANDARDS AND FORMS
  - 2012 TOWN OF ORO VALLEY POOL CODE
  - PAG STANDARD DETAILS AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS
  - 2010 TOWN OF ORO VALLEY DRAINAGE CRITERIA MANUAL
  - 2004 TOWN OF ORO VALLEY SUBDIVISION STREET STANDARDS AND POLICIES MANUAL
  - TOWN OF ORO VALLEY ZONING CODE, CURRENT REVISED
  - ORO VALLEY TOWN CODE, CURRENT REVISED
- 33. THE MAXIMUM LOT COVERAGE IS FIFTY (50) PERCENT FOR MAIN BUILDINGS.
- 34. THE TOWN SHALL REQUIRE THE DEVELOPER TO POST ASSURANCES PRIOR TO RELEASE OF THE GRADING PERMIT.
- 35. MASONRY WALLS SHOWN ON THE PLAN DEPICT REQUIRED SCREENING. ALL LOTS WILL HAVE A 5' MASONRY WALL.
- 36. MATERIALS WITHIN SIGHT VISIBILITY TRIANGLES MUST BE PLACED SO AS NOT TO INTERFERE WITH A VISIBILITY PLANE DESCRIBED BY TWO HORIZONTAL LINES LOCATED THIRTY (30) INCHES AND SEVENTY TWO (72) INCHES ABOVE FINISHED GRADE OF THE ROADWAY SURFACE.
- 37. ALL WEATHER ACCESS MUST BE PROVIDED TO ALL LOTS WITHIN THE SUBDIVISION.
- 38. DRAINAGE MUST BE COLLECTED AND RELEASED FROM A PROPOSED DEVELOPMENT AT THE LOCATIONS AND IN THE MANNER EXISTING PRIOR TO DEVELOPMENT.
- 39. DRAINAGE MUST BE DESIGNED TO NOT DISCHARGE ONTO PAVED STREETS, EASEMENTS OR PARKING AREAS.
- 40. PARKING AREAS MUST NOT BE USED AS DETENTION BASINS.
- 41. WATER INFRASTRUCTURE AS REPRESENTED ON THIS PLAN IS FOR INFORMATIONAL PURPOSES ONLY. A SEPARATE WATER IMPROVEMENT PLAN MUST BE SUBMITTED TO THE ORO VALLEY WATER UTILITY (OVWU) FOR TECHNICAL REVIEW AND COMPLIANCE WITH APPLICABLE STATUTES, CODES AND SPECIFICATIONS. ADDITIONAL WATER INFRASTRUCTURE MAY BE DEEMED NECESSARY UPON REVIEW OF THE WATER IMPROVEMENT PLAN.
- 42. DRAINAGE WAYS MUST BE PROVIDED WHERE NECESSARY TO CARRY DRAINAGE FLOWS THROUGH OR FROM THE DEVELOPMENT AND SUCH DRAINAGE WAYS MUST BE DEDICATED AND MAINTAINED BY PROPERTY OWNERS OR PROPERTY OWNERS ASSOCIATION.
- 43. DRAINAGE MUST BE COLLECTED AND RELEASED FROM A PROPOSED DEVELOPMENT AT THE LOCATIONS AND IN THE MANNER EXISTING PRIOR TO DEVELOPMENT.

- 44. NO MORE THAN 2 TWO-STORY HOMES SHALL BE LOCATED SIDE BY SIDE ON THE SAME STREET. TWO-STORY HOMES SHALL BE LIMITED TO NO MORE THAN 60% OF THE TOTAL LOT COUNT WITHIN THE DEVELOPMENT.
- 45. NO FURTHER SUBDIVISION OF ANY LOT OR PARCEL SHOWN WILL BE DONE WITHOUT THE WRITTEN APPROVAL OF THE ORO VALLEY TOWN COUNCIL.
- 46. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED FOR OBSTRUCTIONS AND DAMAGE, AND A SUMMARY REPORT PREPARED A MINIMUM OF ONCE EACH YEAR IN ACCORDANCE WITH THE PROCEDURES IN THE APPROVED DRAINAGE REPORT. COPIES OF THE ANNUAL INSPECTION REPORTS SHALL BE KEPT BY THE HOMEOWNER'S ASSOCIATION AND MADE AVAILABLE TO THE TOWN UPON REQUEST.
- 47. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED FOR OBSTRUCTION AND DAMAGE, AND A SUMMARY REPORT PREPARED BY AN ARIZONA REGISTERED CIVIL ENGINEER A MINIMUM OF ONCE EACH FIVE YEARS IN ACCORDANCE WITH THE PROCEDURES IN THE APPROVED DRAINAGE REPORT. COPIES OF THE 5-YEAR INSPECTION REPORTS SHALL BE KEPT BY THE HOMEOWNER'S ASSOCIATION AND MADE AVAILABLE TO THE TOWN UPON REQUEST. THE REPORT SHALL IDENTIFY THE PROBABLE MAINTENANCE NEEDS FOR THE NEXT 5-YEAR PERIOD, INCLUDING ANTICIPATED ANNUAL COSTS OF MAINTENANCE AND REPAIR.

**FIRE NOTES**

- 1. APPROVED FIRE APPARATUS ACCESS ROADWAYS AND FIRE HYDRANTS CONNECTED TO AN APPROVED WATER SUPPLY OF 1000 GPM FOR FIRE PROTECTION MUST BE INSTALLED AND IN SERVICE PRIOR TO COMBUSTIBLE MATERIAL DELIVERY TO THE SITE. TEMPORARY CONSTRUCTION OFFICE TRAILERS ARE CONSIDERED COMBUSTIBLE MATERIAL.
- 2. ROADWAYS SHALL BE SURFACED WITH AN ALL-WEATHER MATERIAL CAPABLE OF SUPPORTING AN IMPOSED LOAD OF 82,000 POUNDS.
- 3. NEW COMMERCIAL BUILDINGS SHALL BE EQUIPPED WITH AUTOMATIC FIRE SPRINKLER SYSTEM.
- 4. TEMPORARY STREET SIGNS MUST BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE OF VEHICLES. ALL STRUCTURES UNDER CONSTRUCTION MUST BE CLEARLY IDENTIFIED WITH AN APPROVED ADDRESS.
- 5. ELECTRIC GATE OPERATORS SHALL BE LISTED IN ACCORDANCE WITH UL 325. GATES INTENDED FOR AUTOMATIC OPERATION SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED TO COMPLY WITH THE REQUIREMENTS OF ASTM F 2200.

**LEGEND**

ITEM	STANDARD DETAIL	SYMBOL
A.C. PAVING (REGULAR)		
6" VERTICAL CURB		
6" WEDGE CURB		
ZONING BOUNDARY		
PROPERTY LINE		
LANDSCAPE BUFFERYARD LIMITS		
BUILDING SETBACKS		
EASEMENT BOUNDARY		
EXIST RIGHT-OF-WAY		
PROPOSED RIGHT-OF-WAY		
GRADING LIMIT		
SECTION LINE		
ROADWAY CENTERLINE		
LOT NUMBERS		23
COMMON AREA		CA "A"
FINISHED SURFACE		FS
HIGH POINT		HP
LOW POINT		LP
GRADE BREAK		GB
100-YR FLOOD PRONE LINE		
BUILDING EROSION SETBACK LINE		
DETAIL REFERENCE	A = DETAIL IDENTIFICATION, 1 = SHEET SHOWING DETAIL	
DETAIL CROSS SECTION		
PROPOSED PRIVATE SEWER W/MH		
PROPOSED 8" WATER MAIN AND VALVE		
PROPOSED FIRE HYDRANT		
FLOW ARROW		
FLOW CONDITIONS	0100 = cfs	
FLOW ARROW FOR 0100 = DISCHARGE		
OPEN SPACE		
PROPOSED SLOPE		
CURB ACCESS RAMP		
CONCRETE SIDEWALK		
PROPOSED TYPE 3 SCUPPER		
TELEPHONE PEDESTAL		
TRAFFIC DIRECTIONAL SIGN		
EXIST PAVEMENT EDGE		
EXIST FENCE		
EXIST PUBLIC SEWER LINE W/MH		
EXIST WATERLINE W/VALVE		
EXIST UNDERGROUND ELECTRIC LINE		
EXIST GAS LINE		
RECLAIM WATER LINE		
RECLAIM WATER SERVICE		
EXIST OVERHEAD ELECTRIC LINE		
EXIST FIBER OPTICS LINE		
EXIST STORM DRAIN W/MH		
EXIST LIGHT POST		
SIGHT VISIBILITY TRIANGLE		
ACCESS SIDE		
FINISHED FLOOR ELEVATION		FFE
FINISHED PAD ELEVATION		FPE
LOT SIZE		SF

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1901060  
**FINAL SITE PLAN**  
 FOR  
**RIVERS EDGE**

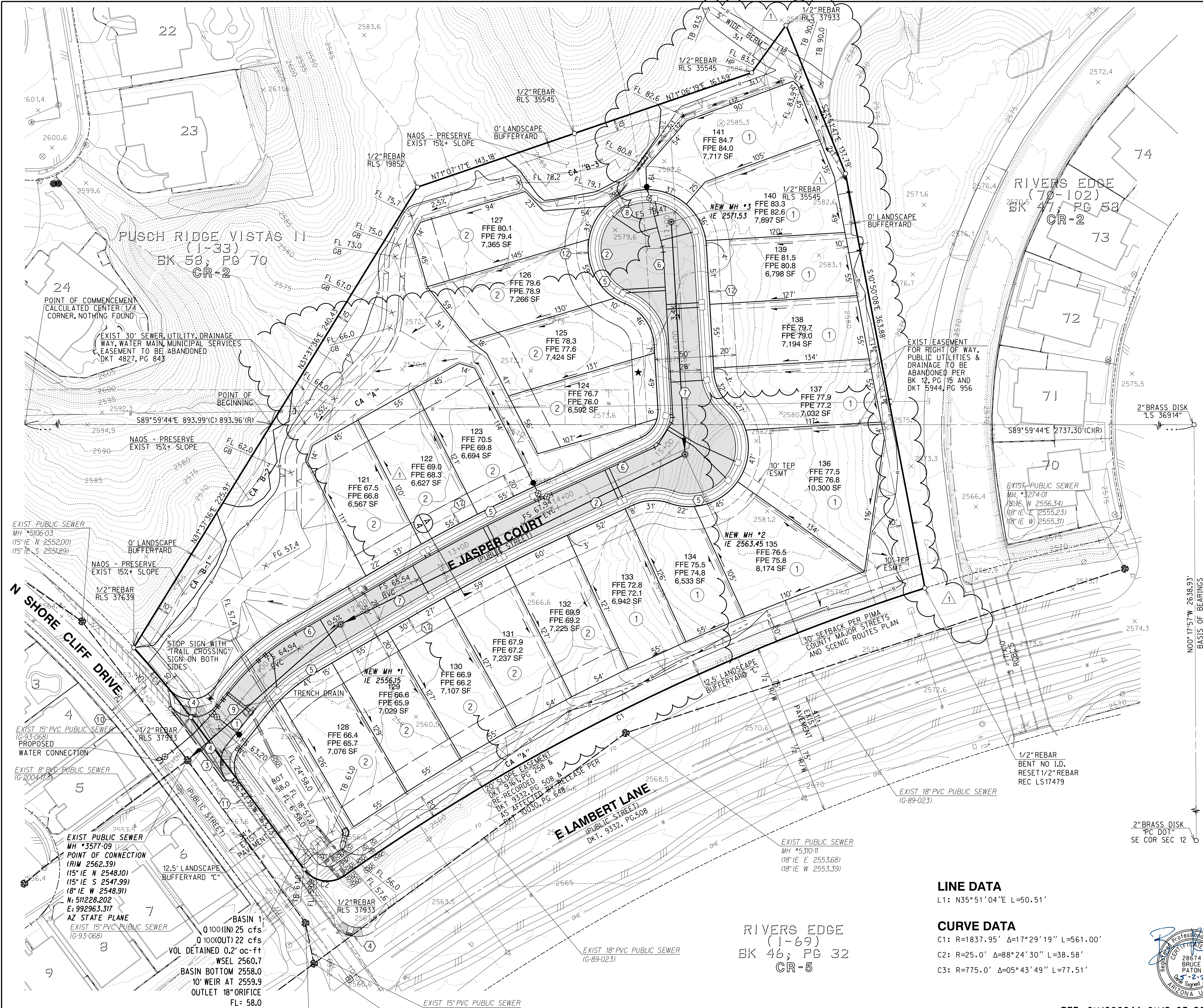
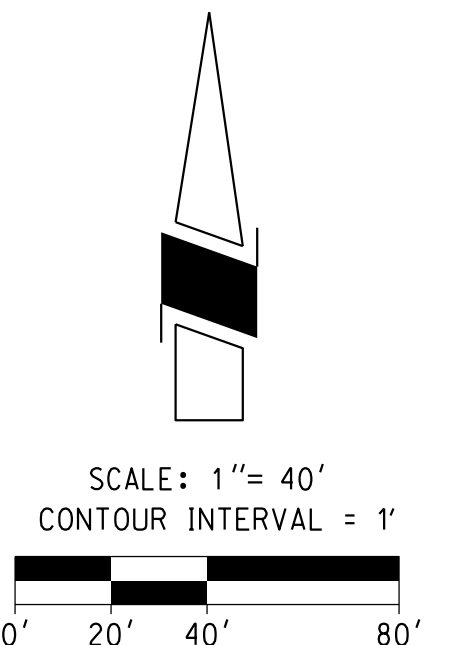
REF: OV1600944, OV12-03-20  
 OV1801921, OV1901060  
**RIVERS EDGE PLANNED AREA DEVELOPMENT #7**  
 DATE: MAY 2, 2025  
 SCALE: N/A CONTOUR INTERVAL: N/A SHEET 2 OF 12  
 LOTS 121-141 AND COMMON AREAS "A" & "B-1"-"B-3" BEING A PORTION OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13 EAST, GILA & SALT RIVER MERIDIAN, TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA.

NO.	BY	DATE	REVISION
1	RICK	11/2024	UPDATED/ADDED NOTES

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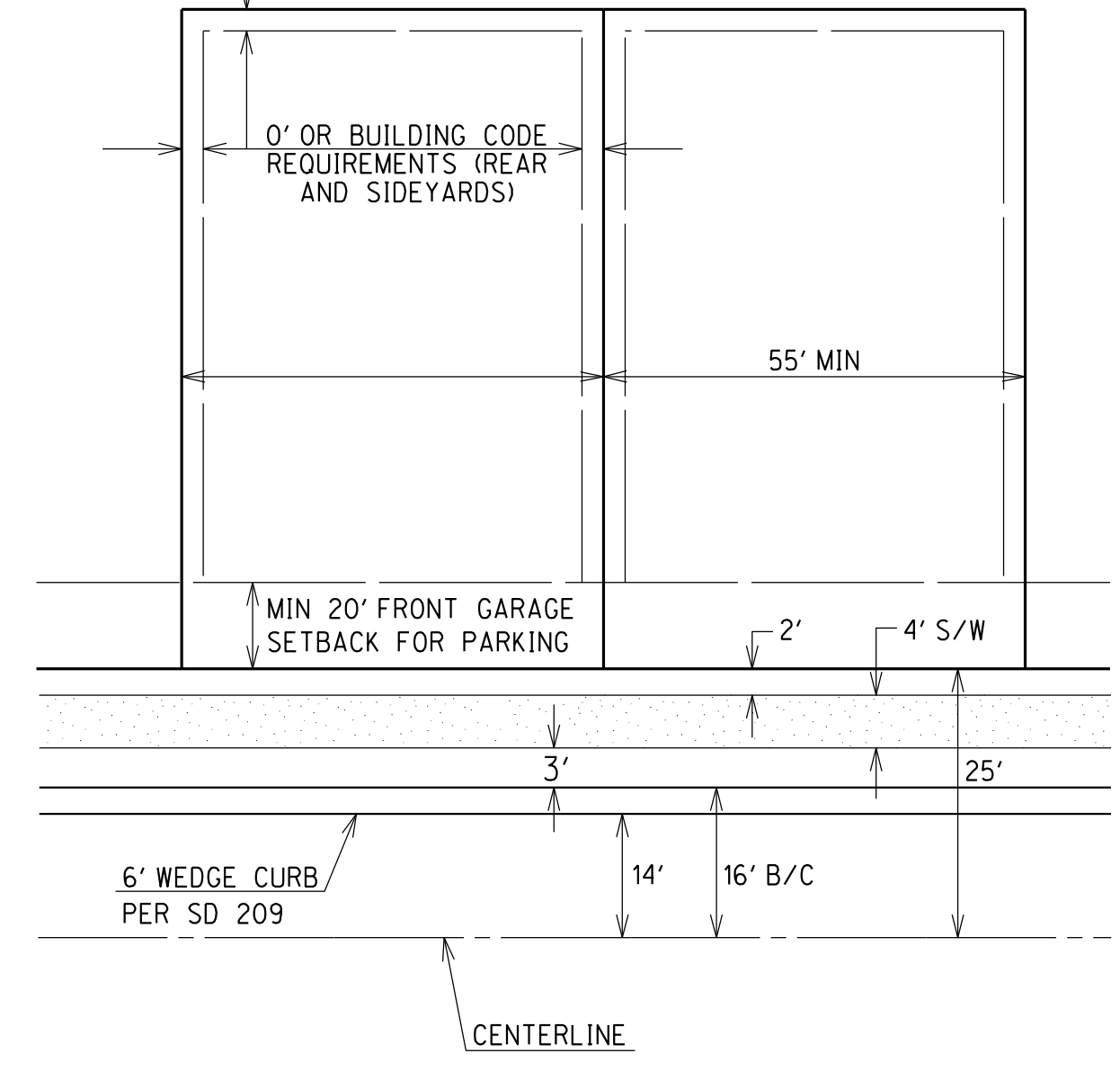
OV #1901060 PERMIT #2402455 REV #1





**KEYNOTES**

- ① NEW 6" VERTICAL CURB (TYP)
- ② NEW 6" WEDGE CURB (TYP)
- ③ SAWCUT AT 1" MINIMUM, REMOVE EXIST CURB AND PAVEMENT AS NECESSARY, TACK, AND JOIN NEW PAVEMENT TO EXIST PAVEMENT
- ④ CURB ACCESS RAMP WITH TRUNCATED DOMES PER ADA STANDARDS (TYP)
- ⑤ 4' WIDE CONCRETE SIDEWALK (TYP)
- ⑥ PROPOSED 8" PVC PUBLIC WATER LINE
- ⑦ PROPOSED 8" PVC PUBLIC SEWER
- ⑧ TYPE 2 SCUPPER PER SD 204
- ⑨ TYPE 1 CATCH BASIN W/ 1 EF-1 GRATE PER SD 307
- ⑩ 15'x190' FAR SIDE SIGHT VISIBILITY TRIANGLE
- ⑪ 15'x240' NEAR SIDE SIGHT VISIBILITY TRIANGLE
- ⑫ 10' PUBLIC UTILITY EASEMENT



TYPICAL LOT SETBACK DETAIL  
NO SCALE

**LOT DRAINAGE KEYNOTE**

- ① TYPICAL "A" LOT DRAINAGE TYPE PER ZONING CODE FIGURE 27.9-2(A)
- ② TYPICAL "C" LOT DRAINAGE TYPE PER ZONING CODE FIGURE 27.9-2(B)

**LINE DATA**

L1: N35°51'04"E L=50.51'

**CURVE DATA**

C1: R=1837.95' Δ=17°29'19" L=561.00'  
 C2: R=25.0' Δ=88°24'30" L=38.58'  
 C3: R=775.0' Δ=05°43'49" L=77.51'

RIVERS EDGE  
 (1-69)  
 BK 46, PG 32  
 CR-5



1901060  
 FINAL SITE PLAN  
 FOR  
**RIVERS EDGE**

REF: OV1600944, OV12-03-20  
 OV1801921, OV1901060  
 RIVERS EDGE PLANNED  
 AREA DEVELOPMENT #7

LOTS 121-141 AND COMMON AREAS "A" & "B"-1-"B"3"  
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 SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13 EAST, GILA &  
 SALT RIVER MERIDIAN, TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA.

NO.	BY	DATE	REVISION
1	RICK	11/2024	REMOVED RETAINING WALLS & EASTERLY STORM DRAIN, REVISED GRADING

DATE: MAY 2, 2025

SCALE: 1" = 40' CONTOUR INTERVAL = 1' SHEET 3 OF 12

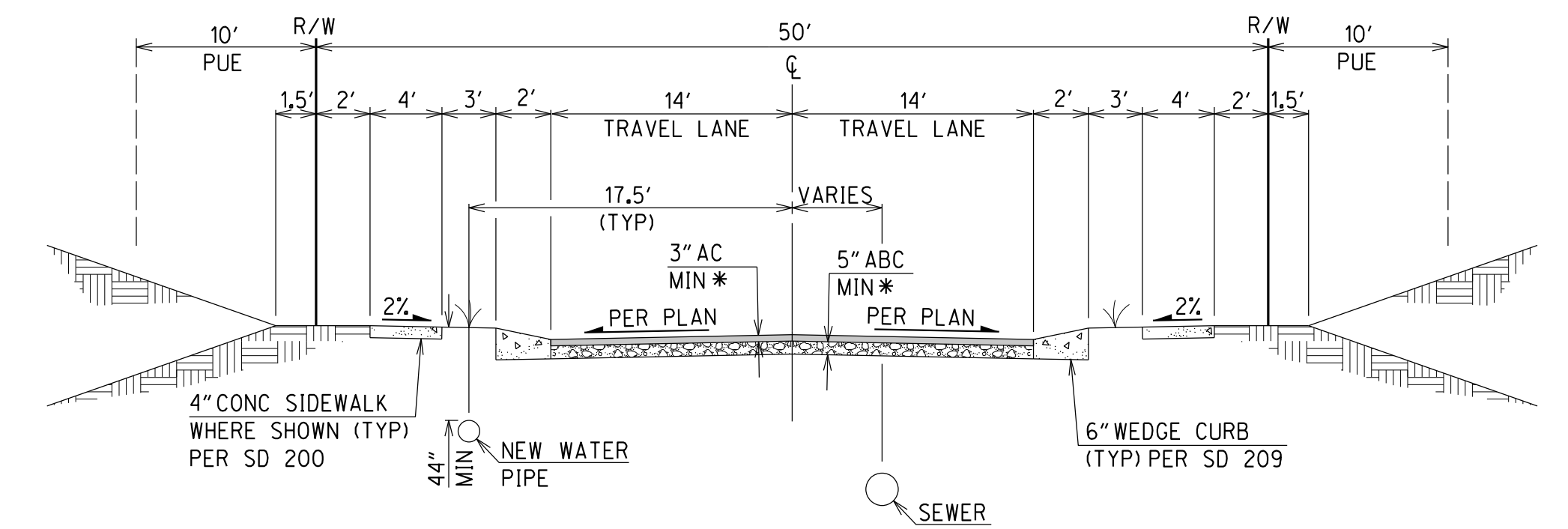
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EXIST. PUBLIC SEWER  
 MH \*5106-02  
 (15" IE N 2543.54)  
 (15" IE S 2543.17)

EXIST. PUBLIC SEWER  
 MH \*5106-01  
 (15" NE IE 2542.11)  
 (15" N IE 2542.29)  
 (18" SW IE 2542.02)

OV #1901060 PERMIT #2402455 REV #1





\*FINAL PAVING SECTION MAY VARY DEPENDING ON  
FIELD ANALYSIS OF ESTABLISHED SUBGRADE

**50' R/W STREET SECTION**  
W/UNIT ON BOTH SIDES

(A) NO SCALE



1901060  
FINAL SITE PLAN  
FOR  
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REF: OV1600944, OV12-03-20  
OV1801921, OV1901060  
RIVERS EDGE PLANNED  
AREA DEVELOPMENT \*7

DATE: MAY 2, 2025

SCALE: N/A CONTOUR INTERVAL= N/A SHEET 4 OF 12

**RICK**  
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NO.	BY	DATE	REVISION



**GRADING NOTES**

- ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND STANDARD DETAILS FOR PUBLIC IMPROVEMENTS, 2015 EDITION, EXCEPT AS MODIFIED AND ACCEPTED WITHIN THESE PLANS.
- ALL CONSTRUCTION AND TEST METHODS SHALL BE IN CONFORMANCE WITH PAG STANDARD SPECIFICATIONS AND STANDARD DETAILS FOR PUBLIC IMPROVEMENTS, 2015 EDITION, EXCEPT AS MODIFIED, DETAILED, AND ACCEPTED WITHIN THESE PLANS.
- ALL WORK SHALL BE IN CONFORMANCE TO GRADING STANDARDS, CHAPTER 27.9 OF THE ORD VALLEY ZONING CODE REVISED.
- EXCAVATION AND BACKFILL FOR STRUCTURES SHALL CONFORM TO PAG STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, SECTION 203-5.
- ALL CONCRETE SHALL CONFORM WITH PAG STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, SECTION 1006, CLASS S, 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, UNLESS OTHERWISE SPECIFIED.
- A STAMPED SET OF APPROVED PLANS SHALL BE KEPT IN AN EASILY ACCESSIBLE LOCATION ON THE JOB SITE AT ALL TIMES OR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
- THE CONTRACTOR SHALL CALL ARIZONA 811 AT 811 TO VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY GOVERNMENTAL AGENCIES.
- UPON COMMENCEMENT OF WORK, TRAFFIC CONTROL DEVICES SHALL BE POSTED AND MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME AS THE WORK IS COMPLETED. ALL WARNING SIGNS, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES ADOPTED BY THE STATE OF ARIZONA PURSUANT TO A.R.S. 28-650.
- IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION AND ARE BEYOND THE SCOPE OF THE DESIGN, THE ENGINEER SHALL SUBMIT THE NECESSARY REVISED OF SUPPLEMENTAL IMPROVEMENT PLANS FOR REVIEW AND APPROVAL BY THE TOWN OF ORD VALLEY PRIOR TO SUCH REVISIONS/CHANGES BEING MADE IN THE FIELD.
- ALL STATIONING IS MEASURED ALONG STREET CENTERLINE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE OF EXISTING IMPROVEMENTS AND VEGETATION IN THE WORK AREA. PAVEMENT, CURBS, CART PATHS AND ANY OTHER OBSTRUCTIONS DAMAGED DURING CONSTRUCTION ARE TO BE REPLACED IN KIND BY THE CONTRACTOR. ANY UNDERGROUND PIPES, IRRIGATION LINES, IRRIGATION CONTROLS, DRAINS, STRUCTURES, OR OBSTRUCTIONS NOT SHOWN ON THESE PLANS SHALL BE MOVED, ALTERED, OR REPAIRED BY THE CONTRACTOR WHEN ENCOUNTERED, AS DIRECTED BY THE ENGINEER, AND IS A DEFINITE PART OF THIS PROJECT.
- ACCEPTANCE OF THESE PLANS DOES NOT CONSTITUTE OR IMPLY ACCEPTANCE OF ANY OF THE FOLLOWING:
  - WALL(S), RETAINING OR OTHER TYPE(S).
  - ANY REINFORCED CONCRETE STRUCTURE(S).
  - ANY EMBANKMENT(S) WHOSE PRIMARY PURPOSE IS TO FUNCTION AS A RETENTION/DETENTION STRUCTURE.

THE ITEMS LISTED ABOVE ARE APPROVED FOR LOCATION ONLY. SEPARATE PLAN CHECKS AND PERMITS ARE REQUIRED. ALL IN ACCORDANCE WITH THE APPLICABLE CODES OF THE TOWN OF ORD VALLEY.
- THE CONTRACTOR SHALL GIVE FORTY-EIGHT (48) HOURS NOTICE WHEN HE SHALL REQUIRE THE SERVICES OF THE ENGINEER OR ANY OTHER PERSON PROPERLY AUTHORIZED FOR SUCH PURPOSE FOR LAYING OUT ANY PORTION OF THE WORK. HE SHALL ALSO DIG ALL STAKE HOLES NECESSARY TO GIVE LINE AND LEVELS AND SHALL PROVIDE ASSISTANCE CALLED FOR BY THE ENGINEER OR HIS ASSISTANTS UPON ANY PART OF THE WORK WHENEVER SO REQUESTED, AND SHALL PRESERVE ALL STAKES SET FOR THE LINES, LEVELS OR MEASUREMENTS OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEERS. ANY EXPENSE INCURRED IN REPLACING ANY STAKES WHICH THE CONTRACTOR OR HIS SUBORDINATES MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED TO THE CONTRACTOR.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, HAUL AND APPLY ALL WATER REQUIRED FOR COMPACTION AND FOR THE CONTROL OF DUST FROM CONSTRUCTION ACTIVITY. THE COST THEREOF IS TO BE INCLUDED IN THE GRADING CONSTRUCTION PRICE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FULLY COMPLY WITH A.D.E.O. STORMWATER DISCHARGE PERMIT IN ACCORDANCE WITH THE REPORT AND POLLUTION PLANS PREPARED BY THE ENGINEER. THE COST THEREOF IS INCLUDED IN THE GRADING CONSTRUCTION PRICE.
- BUILDING SITES SHALL BE CONSTRUCTED TO WITHIN 0.10 FOOT OF FINISH BUILDING PAD ELEVATIONS AS STAKED BY THE ENGINEER. STREETS AND PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF FINISH SUBGRADE AS STAKED BY THE ENGINEER.
- A REPORT OF SOILS INVESTIGATION, INCLUDING RECOMMENDATIONS FOR GRADING PROCEDURES HAS BEEN PREPARED BY SPEEDIE & ASSOCIATES DATED MARCH 29, 2019 & ADDENDUMS #1 & #2 APRIL 1, 2019 & APRIL 18, 2019 JOB NO.190611ST FOR THIS PROJECT. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED IN SAID REPORT AND ANY AMENDMENTS MADE THERETO.
- THE SOILS ENGINEER SHALL OBSERVE, INSPECT AND TEST ALL CONSTRUCTION OPERATIONS, INCLUDING BUT NOT LIMITED TO: CLEARING, GRUBBING, SUBGRADE PREPARATION, STRUCTURAL, TRENCH EXCAVATION AND BACKFILL, MATERIAL TESTING, TOGETHER WITH PLACEMENT OF FILL. SAID ENGINEER SHALL CERTIFY IN WRITING, THAT ALL SOILS OPERATIONS AND MATERIALS USED FOR THIS DEVELOPMENT WERE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS AS SET FORTH IN THE GEOTECHNICAL INVESTIGATION OF RECORD AND ARE IN CONFORMANCE WITH THE ACCEPTED PLANS AND SPECIFICATIONS. CERTIFICATION, IN WRITING, ARE TO BE RECEIVED BY THE TOWN OF ORD VALLEY PRIOR TO THE REQUEST FOR FINAL INSPECTION AND RELEASE OF ASSURANCES.

**GRADING NOTES - CONTINUED**

- GRADING BOUNDARIES SHALL BE CLEARLY MARKED, AND ALL WORK WILL BE CONFINED TO APPROVED PROJECT LIMITS AS SHOWN ON THESE PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE SURVEYOR PROVIDING THE CONSTRUCTION LAYOUT TO VERIFY THE BENCHMARK AND COMPARE THE SITE CONDITIONS WITH THE PLANS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OBSERVED. SHOULD ANY BENCHMARK, GRADE OR DESIGN INDICATED ON THE PLANS BE SUSPECT, THE ENGINEER SHALL BE NOTIFIED OF SAID BENCHMARK, GRADE OR DESIGN PROBLEM AT LEAST TWENTY-FOUR HOURS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN ON THE AFFECTED AREA.
- IT SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER(S), THEIR SUCCESSORS OR ASSIGNS, (AND/OR THEIR CONTRACTOR, THEIR SUCCESSORS OR ASSIGNS AS APPLICABLE) TO PURSUE ANY NEGOTIATIONS, OBTAIN ANY AGREEMENTS AND/OR PERMITS, ETC., FROM ALL NECESSARY OWNERS, PRIVATE AND/OR GOVERNMENTAL AGENCIES IN CHARGE OF PROPERTIES AND/OR RIGHTS-OF-WAY ADJACENT TO (OR NEIGHBORING) THIS PROJECT, THAT MAY BE REQUIRED TO DO ANY WORK (CONSTRUCTION, ACCESS, MODIFICATIONS, GRADING, DRAINAGE, STRUCTURES, ROADS, ETC.) ENCRDACHING OR AFFECTING, DIRECTLY OR INDIRECTLY, ON THESE ADJACENT PROPERTIES AND RIGHTS-OF-WAY IN ANY CONCEIVABLE MANNER, REGARDLESS OF WHETHER OR NOT THIS WORK IS SHOWN OR DESCRIBED ON THESE PLANS (OR) ON THIS PLAT.
- THE PROFESSIONAL ENGINEER OF RECORD SHALL SUBMIT AS-BUILT RECORD DRAWINGS AND CERTIFY IN WRITING THAT ALL IMPROVEMENTS, WHETHER PRIVATE OR PUBLIC, HAVE BEEN CONSTRUCTED, PLACED, INSTALLED, ETC. IN SUBSTANTIAL CONFORMANCE WITH THE ACCEPTED PLANS FOR THE DEVELOPMENT. CERTIFICATIONS IN WRITING AND THE AS-BUILT RECORD DRAWINGS ARE TO BE RECEIVED BY THE TOWN OF ORD VALLEY A MINIMUM OF TWO (2) WEEKS PRIOR TO THE REQUEST FOR CERTIFICATES OF OCCUPANCY AND/OR FINAL INSPECTION BY THE DEPARTMENT OF PUBLIC WORKS AND THE RELEASE OF ASSURANCES, EXCEPT FOR MODEL HOMES INTENDED TO BE USED FOR SALES PURPOSES. IF THE PROJECT IS PHASED, THE ABOVE PERTAINS TO EACH PHASE.
- THE TOWN WILL, UPON RECEIPT OF ALL NECESSARY CERTIFICATIONS AS OUTLINED ON THE IMPROVEMENT PLANS AND FINAL PLAT, PERFORM A FIELD REVIEW OF THE DEVELOPMENT. FIELD CONDITIONS, DESIGN OVERSIGHTS, ETC. MAY REQUIRE ADDITIONAL WORK AND/OR IMPROVEMENTS AS A RESULT OF SAID REVIEW.
- ALL EASEMENTS MUST BE ACQUIRED BY OWNER/BUILDER PRIOR TO CONSTRUCTION.

**RICK ENGINEERING GENERAL NOTES**

- CURB RADII ARE MEASURED TO FRONT FACE OF CURB.
- THE CONTRACTOR SHALL VERIFY EXISTENCE OF ALL UTILITIES BY CALLING ARIZONA 811 AT 811 TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION. THE PLAN LOCATIONS OF EXISTING UTILITIES BEING SHOWN ARE APPROXIMATE.
- THE CONTRACTOR AGREES TO PROTECT ALL ADJACENT PROPERTY AND EXISTING IMPROVEMENTS, INCLUDING POSITIVE CONTROL OF EARTH SPILLAGE, CONSTRUCTION WATER, AND RUNOFF WATERS.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE EXISTENCE AND LOCATION OF ANY EXISTING UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A REPRESENTATION OF THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEANS TO PROTECT ANY UTILITY NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COSTS INCURRED AS A RESULT OF DAMAGE TO UTILITIES CAUSED BY HIS OPERATIONS.
- IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT (520) 795-1000.
- RETAINING WALLS AND/OR SCREEN WALLS REFERENCED ON THIS PLAN ARE TO BE DESIGNED BY OTHERS. ELEVATIONS SHOWN HEREON ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL CONFIRM EXACT ELEVATIONS. ALL RETAINING WALLS AND/OR SCREEN WALLS REQUIRE A SEPARATE BUILDING PERMIT AND ARE NOT COVERED UNDER THE GRADING PERMIT FOR THIS PROJECT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALCULATE HIS OWN EARTHWORK QUANTITIES AND SUBMIT HIS BID THEREON. EARTHWORK QUANTITIES SHOWN HEREON ARE ESTIMATED FOR PERMITTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING OR PAYMENT QUANTITIES.
- ALL NOTES SHALL CROSS-APPLY TO ALL CONSTRUCTION DISCIPLINES INVOLVED WITH THIS PROJECT.
- FACE OF CURB REVEAL IS 6 INCHES UNLESS OTHERWISE SHOWN.
- SOME ELEVATIONS ARE SHORTENED FOR CLARITY, REMOVING THE THOUSAND AND HUNDRED UNIT VALUES. SEE BASIS OF ELEVATION FOR FULL ELEVATION REFERENCE.
- CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE NATIVE VEGETATION WITHIN ALL OPEN SPACE AREAS AND CONFINE HIS OPERATIONS TO THE GRADING LIMITS SHOWN.
- WRITTEN PERMISSION SHALL BE OBTAINED IN ADVANCE FOR ANY OFF-SITE GRADING.
- THE CONTRACTOR SHALL FACILITATE THE WORK OF THE SOILS ENGINEER DURING HIS OBSERVATIONS AND COMPACTION TESTS DURING THE FILLING AND COMPACTION OPERATIONS.

**RICK ENGINEERING GENERAL NOTES - CONTINUED**

- ALL EARTHWORK OPERATIONS SHALL BE DONE UNDER THE OBSERVATION OF A SOILS ENGINEER AND IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS SET FORTH IN THE SOILS REPORT. THE SOILS ENGINEER SHALL OBSERVE, INSPECT, AND TEST ALL EARTHWORK OPERATIONS, INCLUDING, BUT NOT LIMITED TO, CLEARING AND GRUBBING, SUBGRADE PREPARATION, STRUCTURAL AND TRENCH EXCAVATION AND BACKFILL, AND PLACEMENT AND COMPACTION OF FILL.
- CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A UNIFORM CROSS-SECTION. THE SLOPE OF THE EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS SHOWN ON THE PLANS AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPES SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PRESERVE ALL STAKES SET FOR THE LINES, LEVELS OR MEASUREMENTS OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEERS. ANY EXPENSE INCURRED IN REPLACING ANY STAKES WHICH THE CONTRACTOR OR HIS SUBORDINATES MAY HAVE FAILED TO PRESERVE, SHALL BE CHARGED TO THE CONTRACTOR.
- PRIOR TO THE START OF GRADING, ALL VEGETATION AND OBSTRUCTIONS, AS WELL AS TRASH, SHALL BE REMOVED FROM CUT AND FILL AREAS AND LEGALLY DISPOSED OF OFF-SITE. ANY EXISTING IRRIGATION, DRAINAGE OR UTILITY LINES OR OTHER ABANDONED SUBSURFACE STRUCTURES SHALL BE REMOVED, DESTROYED OR ABANDONED IN COMPLIANCE WITH SPECIFICATIONS OF THE APPROPRIATE BUILDING OFFICE OR THE SOILS ENGINEER. BRUSH SHALL BE REMOVED ONLY WITHIN THE AREA TO BE GRADED.
- THE FINAL TEST RESULTS AND APPROVAL FROM THE SOILS ENGINEER SHALL CONTAIN THE TYPE OF FIELD TESTING PERFORMED AND SUBMITTED TO THE OWNER. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE, DRIVE RING, OR NUCLEAR DENSITY GAUGE.
- EXISTING MANHOLE RIMS, VALVE COVERS, ETC., TO REMAIN IN PLACE, SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE AND/OR FINISHED SURFACE ELEVATIONS.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL RIP RAP SLOPE TREATMENT REQUIREMENTS WITH THE LANDSCAPE CONTRACTOR. LANDSCAPE PLANTINGS AND IRRIGATION LINES WITHIN AREAS TO BE RIP RAPPED SHALL BE COORDINATED TO FACILITATE THE WORK OF THE LANDSCAPE CONTRACTOR BEFORE THE RIP RAP IS PLACED. SEE LANDSCAPE PLANS FOR PLANTINGS AND IRRIGATION LINES WITHIN AREAS TO BE RIP RAPPED.
- THE GRADING CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL BENEATH ALL PROPOSED RIP RAP AREAS SUCH THAT THE FINISHED SURFACE OF THE RIP RAP WILL MATCH THE FINISHED SURFACE ELEVATION AND SLOPE AS CALLED OUT ON THESE PLANS.
- ALL RIP RAP IS NOT SHOWN FOR CLARITY. REFER TO THE TYPICAL SLOPE TREATMENT BOX FOR SURFACE TREATMENT OF FINISHED SLOPE FACES.
- THE GRADING CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL BENEATH ALL DECOMPOSED GRANITE AREAS SO THAT THE FINISHED SURFACE OF THE DECOMPOSED GRANITE WILL MATCH THE FINISHED SURFACE ELEVATION AS CALLED OUT ON THESE PLANS. WATER HARVESTING AREAS SHALL BE KEPT LOW TO ACHIEVE THE FULL DEPTH OF WATER HARVESTING TO THE FINISHED SURFACE OF THE DECOMPOSED GRANITE. SEE LANDSCAPE PLANS FOR DECOMPOSED GRANITE AREAS.
- THE BOTTOMS OF ALL WATER HARVESTING AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS TO FACILITATE GROUNDWATER INFILTRATION. DECOMPOSED GRANITE USED IN WATER HARVESTING AREAS SHALL BE SCREENED PRIOR TO PLACEMENT TO REMOVE ALL FINE MATERIAL. WATER HARVESTING AREAS SHALL NOT BE UTILIZED FOR WORKER PARKING OR MATERIAL STORAGE AT ANYTIME DURING CONSTRUCTION.
- THE BOTTOMS OF ALL RETENTION AND/OR DETENTION BASINS SHALL BE COMPACTED IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS TO FACILITATE GROUNDWATER INFILTRATION AND SHALL REMAIN NATURAL, I.E. DECOMPOSED GRANITE, RIP RAP, HYDROSEED OR OTHER GROUND COVER SHALL NOT BE PLACED IN THE BASIN BOTTOMS. WHENEVER POSSIBLE IRRIGATION LINES AND EQUIPMENT SHALL ALSO NOT BE PLACED WITHIN THE BASIN BOTTOMS. RETENTION AND/OR DETENTION BASINS/AREAS SHALL NOT BE UTILIZED FOR WORKER PARKING OR MATERIAL STORAGE AT ANYTIME DURING CONSTRUCTION. THE CONTRACTOR SHALL SCARIFY ALL RETENTION AND/OR DETENTION BASIN BOTTOMS IMMEDIATELY PRIOR TO REMOVING EARTHWORK EQUIPMENT FROM PROJECT SITE AND/OR BEGINNING LANDSCAPING ACTIVITIES. CONTRACTOR SHALL COORDINATE AND CONFIRM WITH THE SOILS ENGINEER THE SPECIFIC COMPACTION/TREATMENT SPECIFICATION REQUIREMENTS FOR THE BASIN BOTTOMS.
- THE CONTRACTOR SHALL CONFIRM THAT ALL RETENTION AND/OR DETENTION BASINS ARE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SHALL CONFIRM THE REQUIRED STORAGE VOLUMES PRIOR TO BEGINNING ANY LANDSCAPING ACTIVITIES WITHIN OR ADJACENT TO THE BASINS. IT IS STRONGLY RECOMMENDED THAT ALL RETENTION AND/OR DETENTION BASINS BE BLUE TOPPED FOR FINAL GRADE CONTROL. ALL BASINS SHALL BE AS-BUILT IN THEIR ENTIRETY BY A REGISTERED LAND SURVEYOR. SEALED AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR VOLUME CONFIRMATION PRIOR TO BEGINNING ANY LANDSCAPING ACTIVITIES WITHIN OR ADJACENT TO THE BASINS.
- REFER TO THE FINAL PLAT FOR THIS PROJECT FOR ADDITIONAL HORIZONTAL CONTROL AND RECORDING INFORMATION.
- ALL REMAINING DISTURBED AREAS, EXCEPT RETENTION AND/OR DETENTION BASIN BOTTOMS, NOT OTHERWISE ALREADY TREATED, SHALL BE STABILIZED IN A FINAL MANNER IN CONFORMANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. A NOTICE OF TERMINATION TO CLOSE OUT THE SWPPP'S NOTICE OF INTENT CANNOT BE FILED WITH ADEQ UNTIL THESE FINAL STABILIZATION MEASURES ARE IN PLACE.
- ALL ROCK RIP RAP EROSION PROTECTION SHALL BE CORONADO BROWN COLOR.

**STORM DRAIN NOTES**

- SUBSTITUTION OF ANY MATERIALS FOR CONSTRUCTION OF STORM DRAIN WILL NOT BE ALLOWED UNLESS FIRST APPROVED BY THE ENGINEER OF WORK.
- STORM DRAINS ARE TO BE CONSTRUCTED IN COMPLIANCE WITH PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND STANDARD DETAILS FOR PUBLIC IMPROVEMENTS, 2015 EDITIONS. THESE MAY BE MODIFIED AND/OR SUPPLEMENTED BY THE REQUIREMENTS OF THESE PLANS.
- SRP STORM DRAIN SHALL BE CONTECH ULTRA-FLO ALUMINIZED STEEL PIPE 3/4" X 3/4" X 7-1/2" CORRUGATIONS OR EQUIVALENT. 18-INCH TO 48-INCH PIPE SHALL BE 14 GAGE THICKNESS. PIPE AND BEDDING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAIL NO. 108.
- RCP CIRCULAR STORM DRAIN SHALL BE REINFORCED CONCRETE PIPE, CLASS V OR EQUIVALENT WITH TYPE 1 BEDDING PER AMERICAN CONCRETE PIPE ASSOCIATION STANDARDS. PIPE AND BEDDING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAIL NO. 108.
- TRENCH DRAIN SHALL BE NEENAH FOUNDRY R-4999 (BOLTED) VANED TYPE L SERIES OR EQUIVALENT. USE L6 FRAMES AND GRATES, TOTAL NUMBER AND/OR LENGTH PER PLAN. TRENCH DRAIN AND BEDDING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAIL NO. 108.
- HDPE STORM DRAIN SHALL BE ADS N-12 OR EQUIVALENT HIGH DENSITY CORRUGATED POLYETHYLENE PIPE (HDPE). PIPE AND BEDDING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAIL NO. 108.

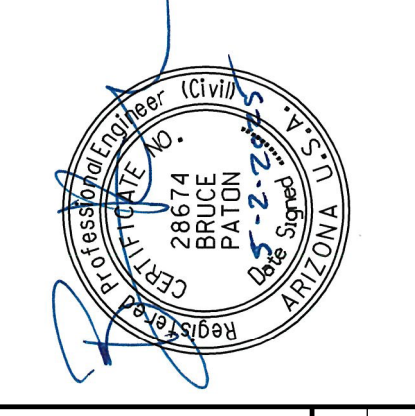
ADVANCED DRAINAGE SYSTEMS, INC.  
ATTN: PHILLIP MCDONELL  
PHONE: (480) 263-3470

**EARTHWORK QUANTITIES:**

CUT: 9,350 CY  
FILL: 17,950 CY  
IMPORT: 8,600 CY

NOTE: EARTHWORK QUANTITIES ARE ESTIMATED FOR PERMITTING PURPOSES ONLY AND ARE NOT USED FOR PAYMENT QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES.

NO.	BY	DATE	UPDATED LOTS NUMBERS	REVISION
1	RICK	11/2024		



J-4824-A  
3945 EAST FORT LOWELL ROAD - SUITE 111  
TUCSON, AZ 85712  
520-795-1000  
Rick Engineering, Inc.  
San Diego • Riverside • Orange • Sacramento • San Jose • Chicago • Phoenix • Denver

DESIGNED BY: BRM  
DRAWN BY: BRM  
CHECKED BY: BMP  
APPROVED BY: BMP

DATE: 04/19  
DATE: 04/19

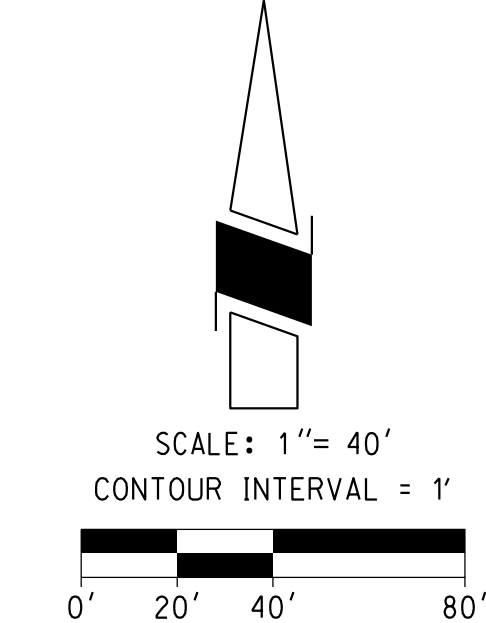
GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER  
OF SECTION 12, TOWNSHIP 12, SOUTH RANGE 13  
EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORD VALLEY, PIMA COUNTY, ARIZONA.

PERMIT #2402455 REV #1



1901060	
OV 1801921	
HORIZ	: N/A
VERT	: N/A
SHEET 5 OF 12	





**WORK TO BE DONE**

THE IMPROVEMENTS AND GRADING CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND SPECIFICATIONS AND STANDARD DETAILS:

**STANDARD SPECIFICATIONS**

1) STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (2015 EDITION), PIMA ASSOCIATION OF GOVERNMENTS (PAG).

**STANDARD DETAILS/DRAWINGS**

1) STANDARD DETAILS FOR PUBLIC IMPROVEMENTS (2015 EDITION), PIMA ASSOCIATION OF GOVERNMENTS (PAG).

**LEGEND**

ITEM	STANDARD DETAIL	SYMBOL
TOP OF CURB ELEVATION		TC 52.50
FINISHED SURFACE ELEVATION		FS 52.0
FINISHED GRADE ELEVATION		FG 57.0
FLOW ELEVATION		FL 52.00
TOP OF BERM		TB 64.0
BEGIN VERTICAL CURVE		BVC
POINT OF VERTICAL CURVE		PI
END OF VERTICAL CURVE		EVC
HIGH POINT		HP
LOW POINT		LP
TOP OF WALL		TW 64.0
EXIST ELEVATION		X (49.50)
PAD ELEVATION		PAD 49.5
RIDGE LINE		=====
STORM DRAIN	SD 108. SEE NOTES	=====
RIP RAP PAD		=====
DETAIL REFERENCE	A = DETAIL IDENTIFICATION, 1 = SHEET SHOWING DETAIL	(A) (1)
PROPOSED SLOPE		-1%
RIP RAP SLOPE PROTECTION	SEE TYPICAL SLOPE TREATMENT NOTE. SEE THIS SHEET	=====
EXIST CONTOUR		-----2750-----
PROPOSED CONTOUR		-----2800-----
DAYLIGHT LINE		====  ====
EASEMENT LINE		-----  -----
DIRECTION OF FLOW OR SWALE		----->-----
42" RAILING		----- -----
0100DISCHARGE		----- -----
PROPOSED 100-YEAR FLOOD PRONE LIMITS		----- -----
EXIST SEWER AND MANHOLE		-----S-----
EXIST WATERLINE W/VALVE		-----W-----
EXIST UNDERGROUND ELECTRIC LINE		-----E-----
EXIST OVERHEAD ELECTRIC LINE		-----OHE-----
EXIST GAS LINE		-----G-----
EXIST TELEPHONE		-----T-----
EXIST CURB & PAVEMENT		=====
PROJECT BOUNDARY		----- -----
EXISTING ROW LINE		----- -----
CENTERLINE		----- -----
VARIABLE SLOPE		----- -----
LOT NUMBERS		114
CONCRETE HEADWALL	ADOT 6.30	=====

**KEYNOTES**

- 10' PUBLIC UTILITY EASEMENT GRANTED TO ALL PUBLIC UTILITY COMPANIES BY FINAL PLAT
- 5'x10' RIP RAP APRON WITH 2 LAYERS DUMPED ANGULAR ROCK, D50-8"; T=16" OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT
- 5' x 5' RIP RAP BAND WITH 1 LAYER DUMPED ANGULAR ROCK RIP RAP PROTECTION, D50-8"; T=8" OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT
- 8' WIDE MAINTENANCE ACCESS RAMP
- 4" WATER HARVESTING AREA
- SEDIMENT MARKER PER (11)
- 10'x10' RIP RAP APRON WITH 2 LAYERS DUMPED ANGULAR ROCK, D50-12"; T=24" OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT
- LIMITS OF EXIST WATERMAIN WITHIN PROJECT TO BE LOCATED, CUT, PLUGGED, AND REMOVED

CONTRACTOR TO PREPARE TEP EQUIPMENT PAD AREAS PER TEP SD SR-208, WHERE GRADING DIFFERENTIAL IS SUCH THAT RETAINING WALLS OR RIP RAP SLOPE IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH OWNER AND TEP TO DETERMINE THE DESIRED TREATMENT, ON A CASE BY CASE BASIS.

**TYPICAL SLOPE TREATMENT**

FINAL SLOPE TREATMENT (UNLESS OTHERWISE NOTED IN THE SOILS REPORT OR ON THIS PLAN) SHALL BE AS FOLLOWS:

STEEPER THAN 1:1	- RETAINING WALL	(M)
1:1 TO 1.99:1 OVER 2' IN HEIGHT	- GROUTED ROCK RIP RAP PER DETAIL	(M)
2:1 TO 2.99:1 OVER 2' IN HEIGHT	- DUMPED ANGULAR ROCK RIP RAP D50-8" MIN, T=16" MIN (UON) OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT	(M)
3:1 OR FLATTER	- REVEGETATED PER LANDSCAPE PLAN	(M)

CONTRACTOR SHALL LOCATE, CUT, PLUG, AND REMOVE THE EXISTING WATERMAIN WITHIN PROJECT LIMITS AS SHOWN. CONTRACTOR SHALL ALSO LOCATE, CUT, AND PLUG NEAR THE VALVE WITHIN THE R/W AT THE INTERSECTION OF SHORE CLIFF DRIVE AND BREARLEY DRIVE.

STOP SIGN WITH "TRAIL CROSSING" SIGN ON BOTH SIDES

SEE SHEET 10 FOR STORM DRAIN PROFILE  
NEENAH TRANSVERSE VANED GRATES (R-4999-L6). SEE PAVING PLANS FOR DETAILS  
SEE SHEET 10 FOR STORM DRAIN PROFILE

BASIN 1  
0100 (IN) 25 cfs  
0100 (OUT) 22 cfs  
VOL DETAINED 0.2' ac-ft  
WSL 2560.7  
BASIN BOTTOM 2558.0  
10' WEIR AT 2559.9  
OUTLET 18" ORIFICE  
FL= 58.0

**CAUTION III**  
CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF GAS LINE. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF GAS LINES BY CONTACTING SOUTHWEST GAS AT 794-6021 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR TO RELOCATE THOSE PORTIONS OF EXISTING UTILITIES AS NECESSARY TO ACCOMMODATE PROPOSED IMPROVEMENTS.

**CAUTION III**  
CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF EXISTING UNDERGROUND ELECTRIC AND TELEPHONE LINES. FIELD VERIFY AND CONTACT UTILITY OWNER PRIOR TO BEGINNING CONSTRUCTION.

**CAUTION III**  
CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF EXISTING FIBER OPTIC LINES. FIELD VERIFY AND CONTACT UTILITY OWNER PRIOR TO BEGINNING CONSTRUCTION.

NOTE: NOT ALL RIP RAP SHOWN FOR CLARITY. SEE ENGINEER'S NOTE 23, SHEET 5.

RIVERS EDGE  
(1-69)  
BK 46, PG 32  
CR-5

DATE: MAY 2, 2025

REMOVED RETAINING WALLS & EASTERLY STORM DRAIN.  
REVISED GRADING.

NO. BY DATE

1. RICK 11/2024

DESIGNED BY: BRM DATE: 04/19  
CHECKED BY: BMP DATE: 04/19  
DRAWN BY: BRM DATE: 04/19  
APPROVED BY: [Signature]

J-4824-A  
3945 EAST FORT LOWELL ROAD - SUITE 111  
TUCSON, AZ 85712  
520-935-1000  
rickengineering.com  
San Diego • Riverside • Orange • Sacramento • Salt Lake City • Phoenix • Denver

**RICK**  
ENGINEERING COMPANY

GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER 13  
OF SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13  
EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORO VALLEY, PIMA COUNTY, ARIZONA.

Contact Arizona 911 at least two full working days before you begin excavation  
**ARIZONA**  
Call 911 or click Arizona911.com

1901060  
OV 1801921  
HORIZ : 1" = 40'  
VERT : N/A

SHEET 6 OF 12

PERMIT #2402455 REV #1

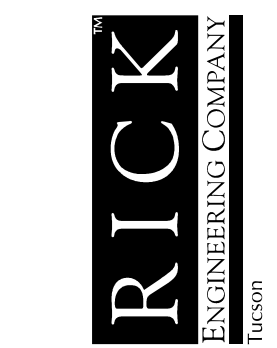


**NOT USED**

DATE: MAY 2, 2025



GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER  
OF SECTION 12, TOWNSHIP 12, SOUTH, RANGE 13  
EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORO VALLEY, PIMA COUNTY, ARIZONA.



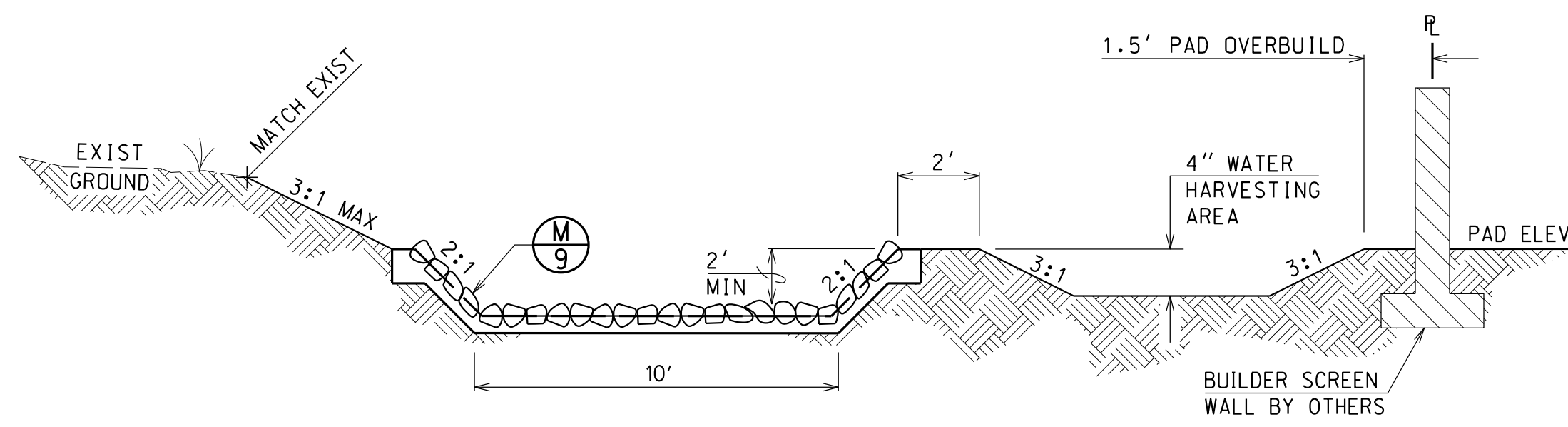
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NO.	BY	DATE	REVISION
1	BRUCE RICK	11/2024	REMOVED RETAINING WALLS, SHEET NO LONGER NEEDED

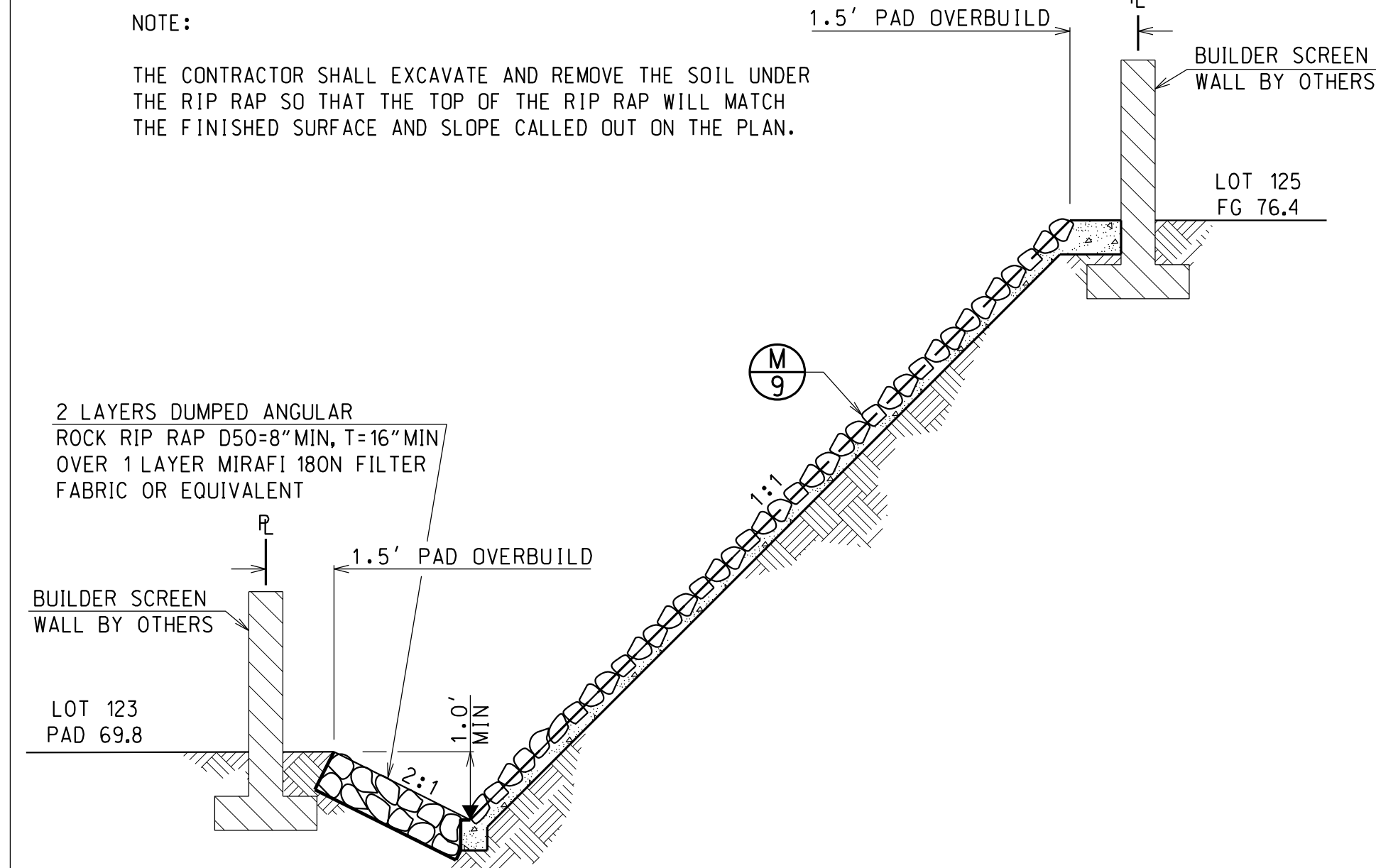
1901060  
OV 1801921  
HORIZ : 1" = 30'  
VERT : N/A  
SHEET 7 OF 12

OV #1901060 PERMIT #2402455 REV #1



**H CHANNEL** NO SCALE

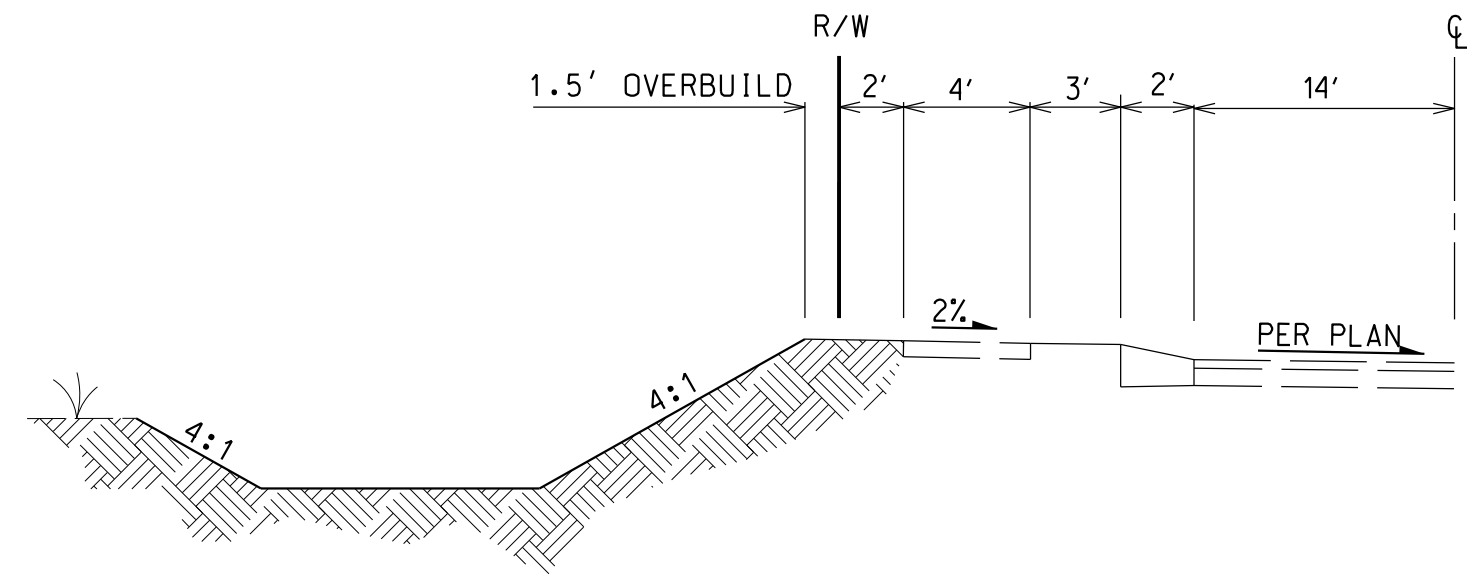
NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.



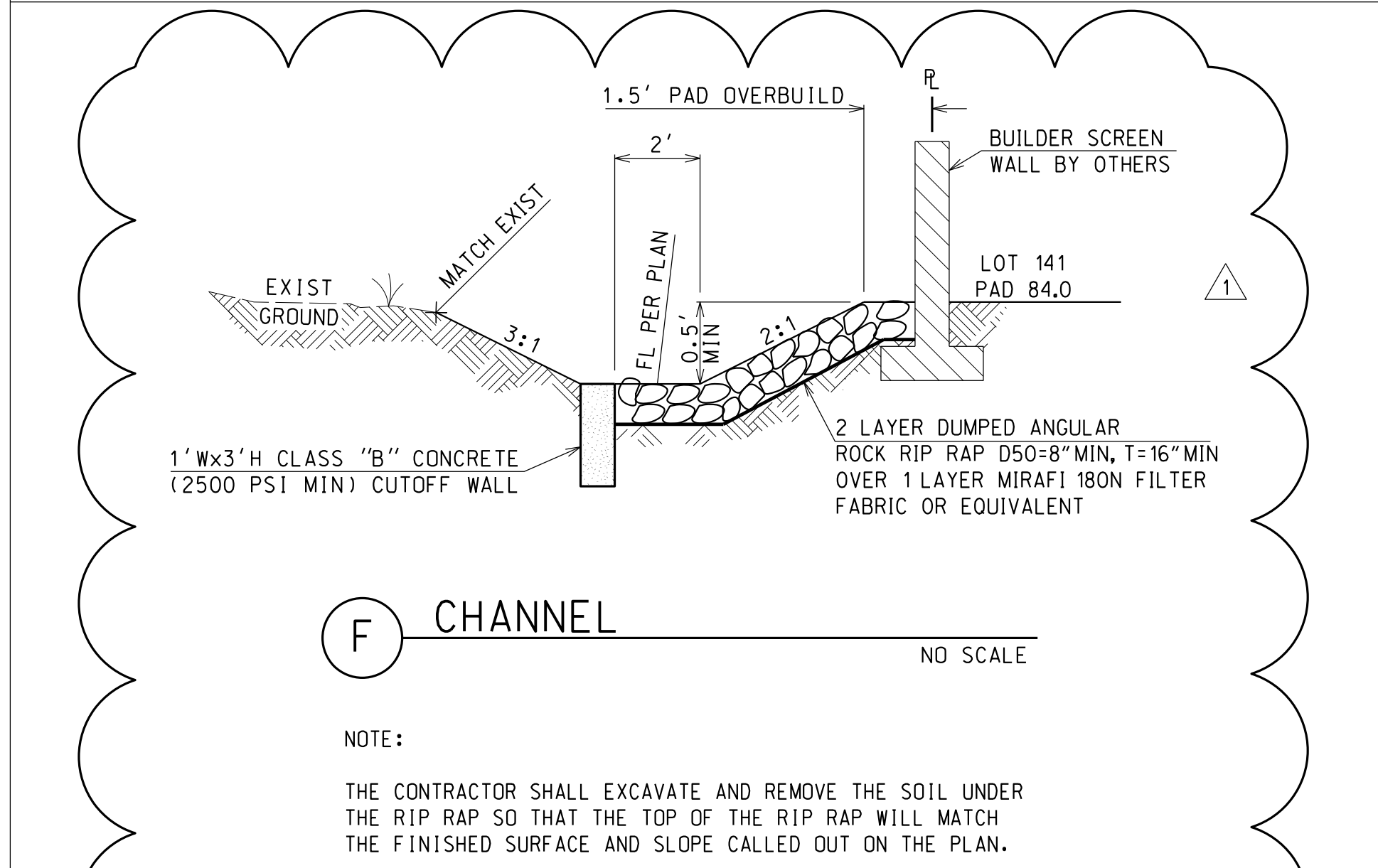
**E CHANNEL** NO SCALE  
▼ FLOWLINE ELEVATION PER PLAN

NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

2 LAYERS DUMPED ANGULAR ROCK RIP RAP D50-8" MIN, T=16" MIN OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT

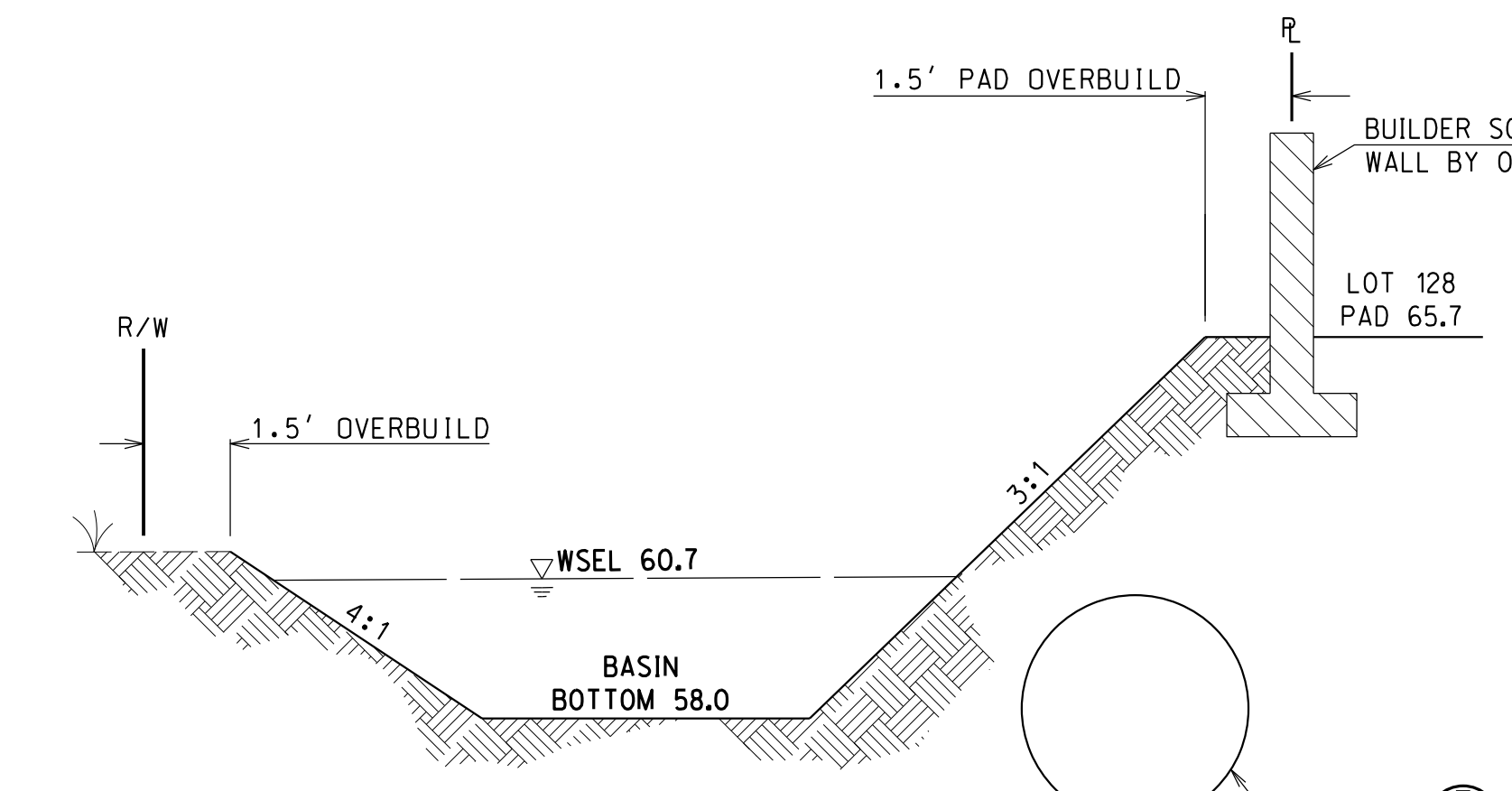


**I CROSS SECTION** NO SCALE

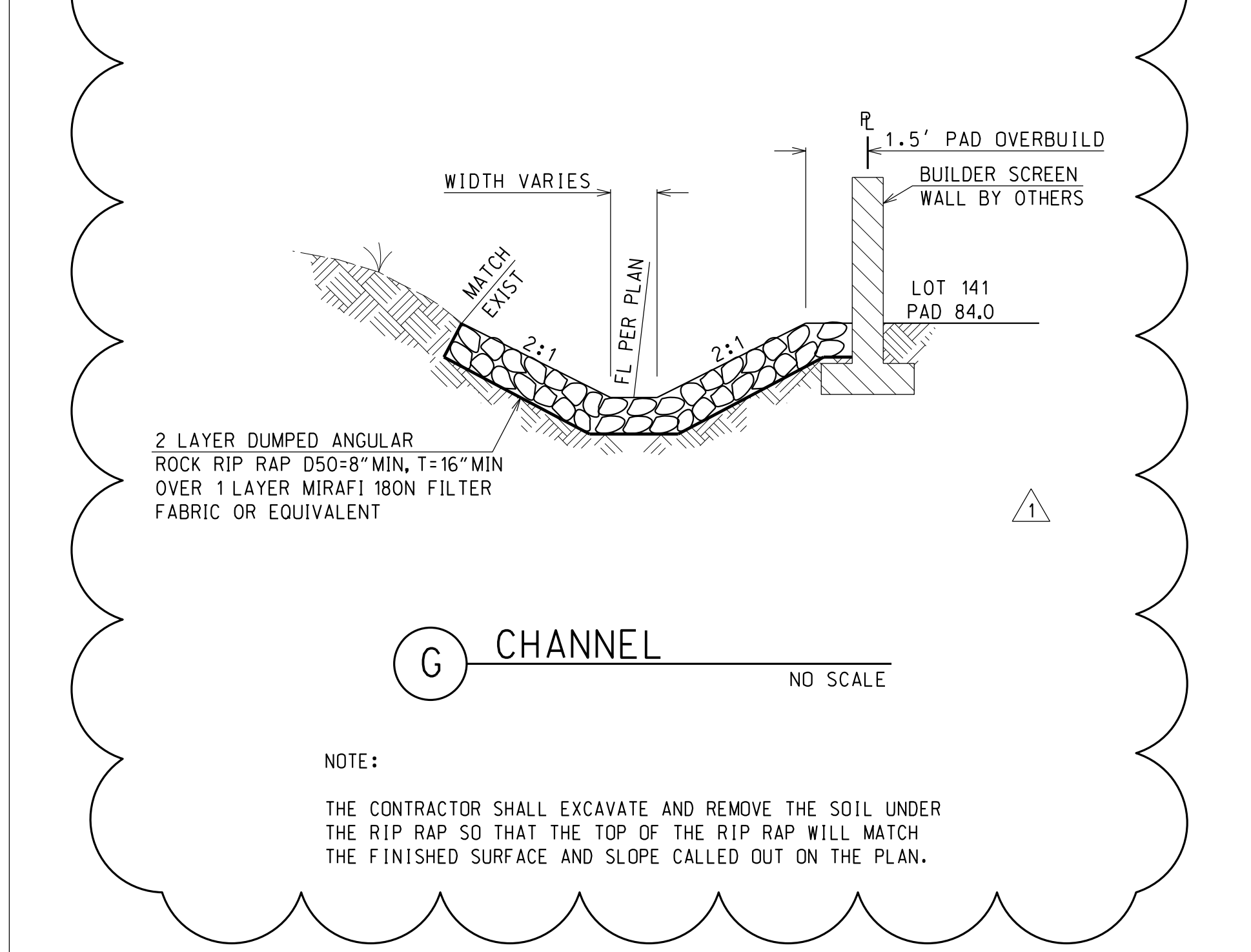


**F CHANNEL** NO SCALE

NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

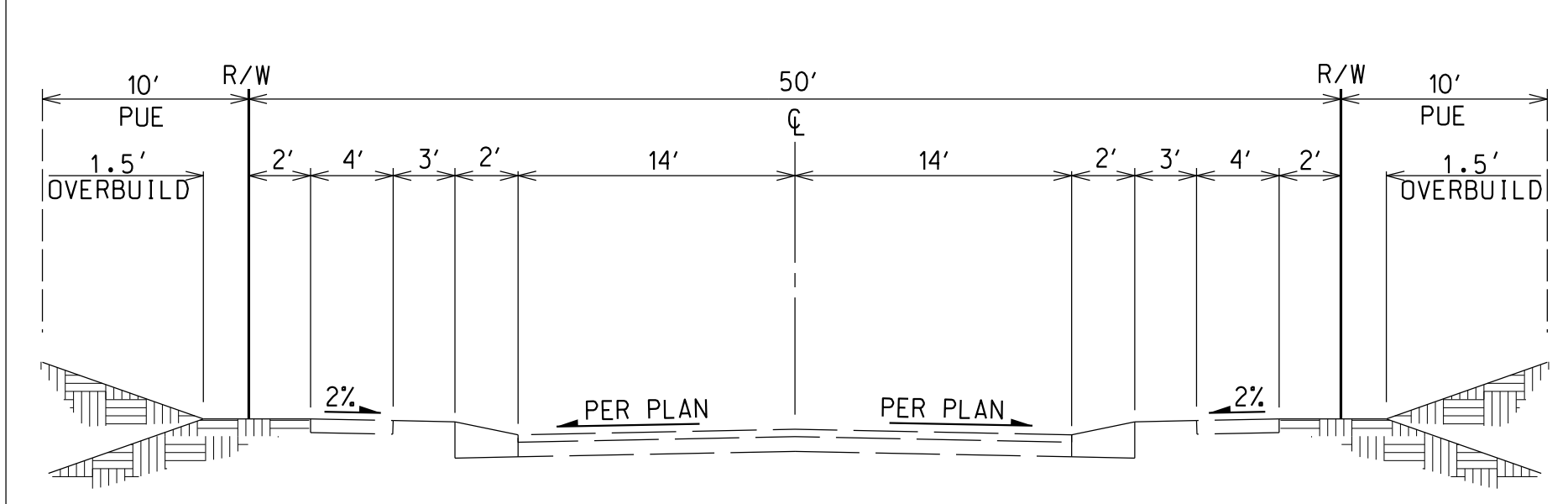


**J BASIN - CROSS SECTION** NO SCALE

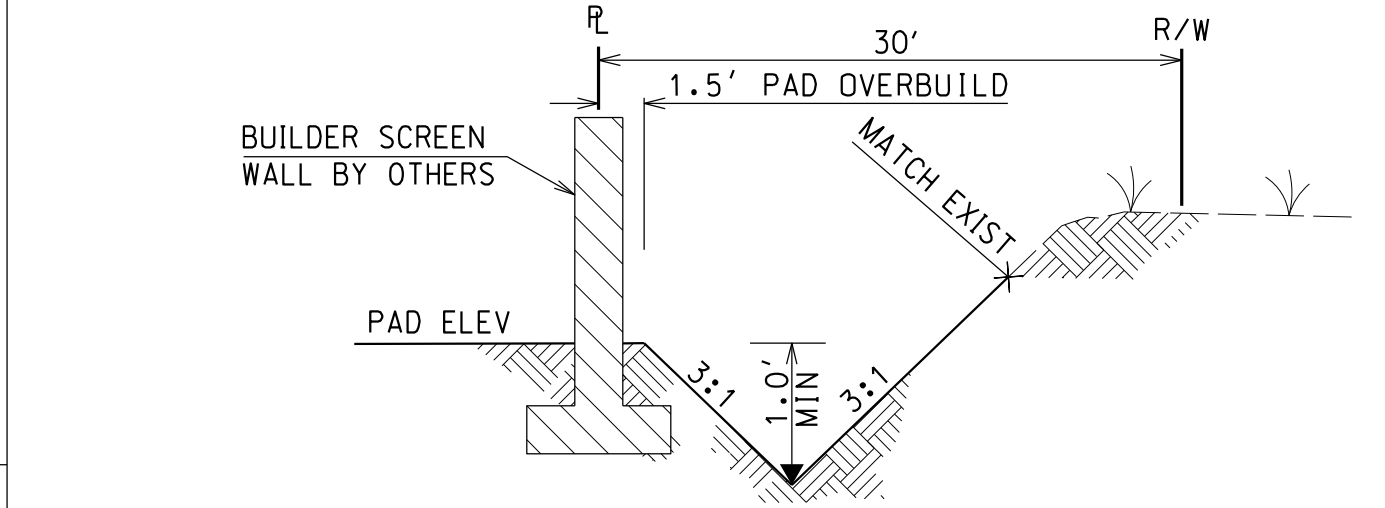


**G CHANNEL** NO SCALE

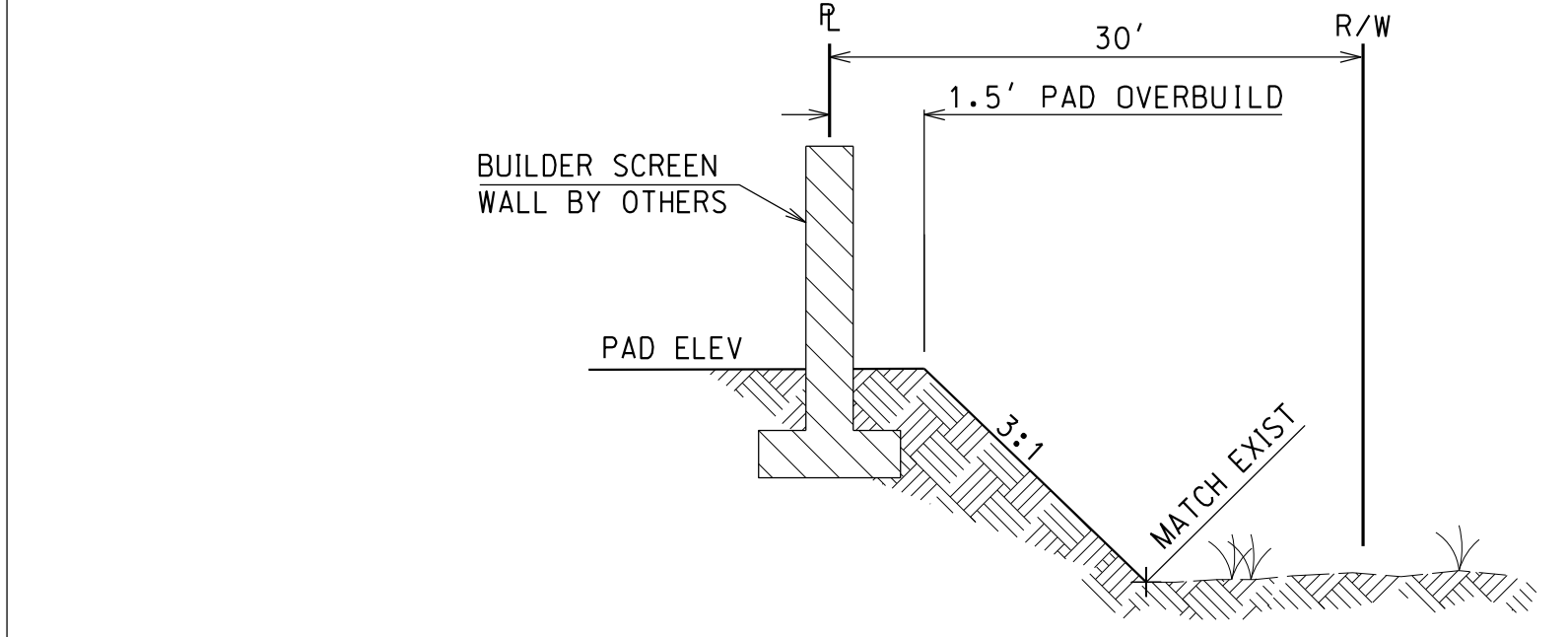
NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.



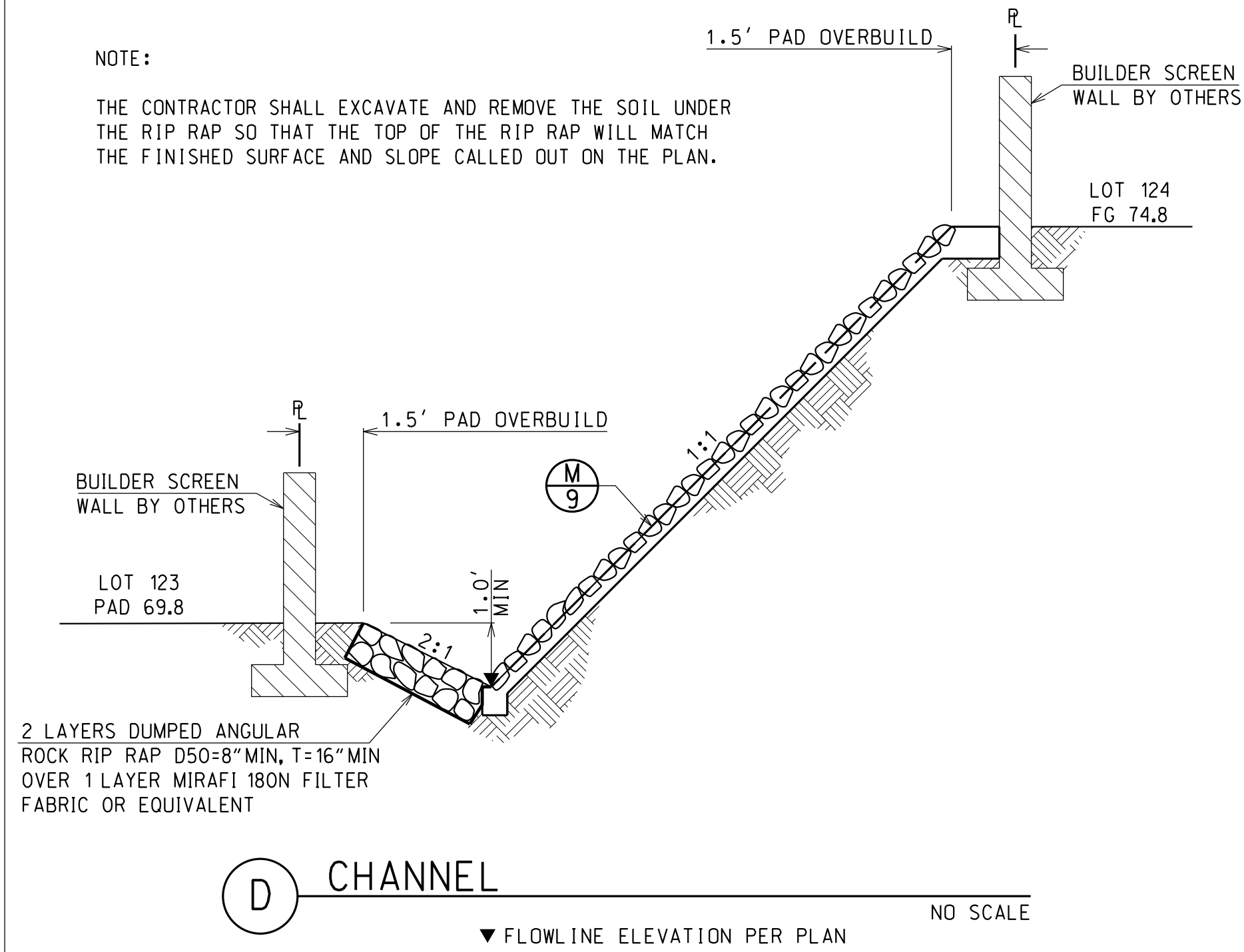
**A 50' R/W STREET SECTION** NO SCALE  
\*SEE PAVING PLANS FOR IMPROVEMENTS WITHIN R/W



**B CHANNEL** NO SCALE  
▼ FLOWLINE ELEVATION PER PLAN



**C CROSS SECTION** NO SCALE



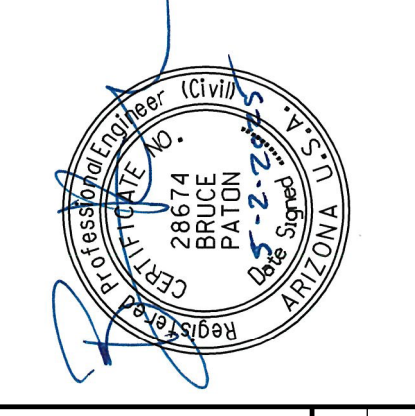
**D CHANNEL** NO SCALE  
▼ FLOWLINE ELEVATION PER PLAN

NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

2 LAYERS DUMPED ANGULAR ROCK RIP RAP D50-8" MIN, T=16" MIN OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT

DATE: MAY 2, 2025

NO.	BY	DATE	REVISION
1	RICK	11/2024	UPDATED DETAILS F & G



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**RICK**  
ENGINEERING COMPANY  
Tucson

DESIGNED BY: BRM  
CHECKED BY: BMP  
DATE: 04/19

DRAWN BY: BRM  
APPROVED BY: BMP  
DATE: 04/19

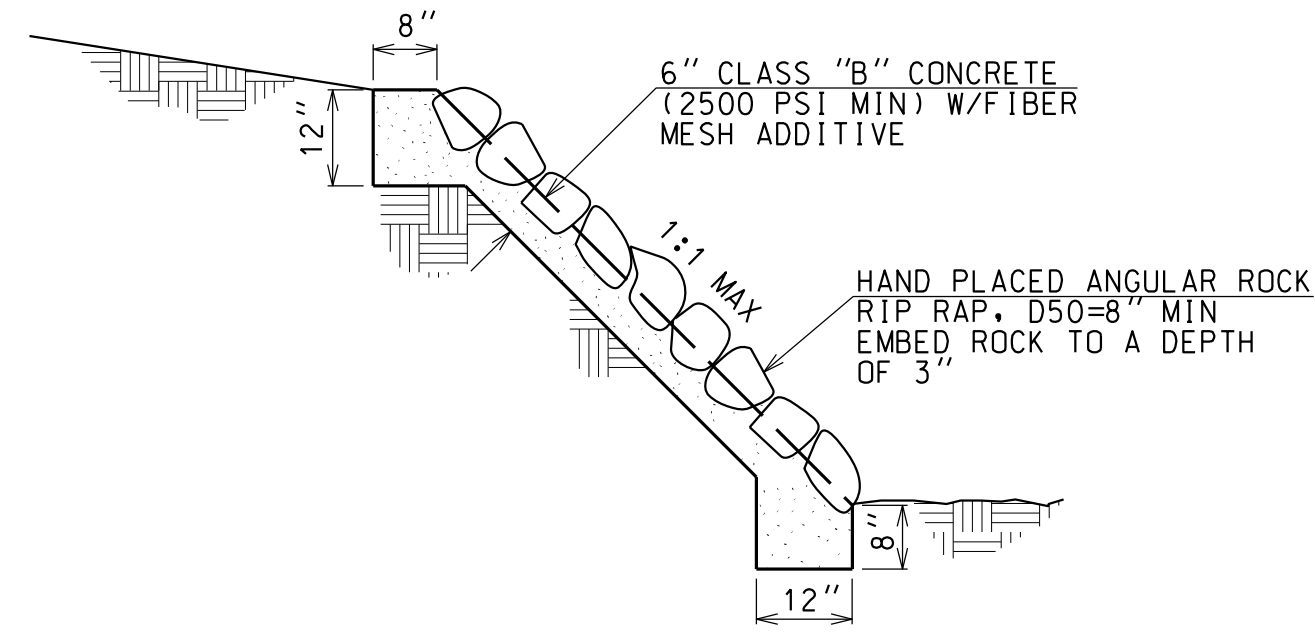
DATE: 04/19

GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER 13  
OF SECTION 12, TOWNSHIP 12, SOUTH RANGE 13  
EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORO VALLEY, PIMA COUNTY, ARIZONA.

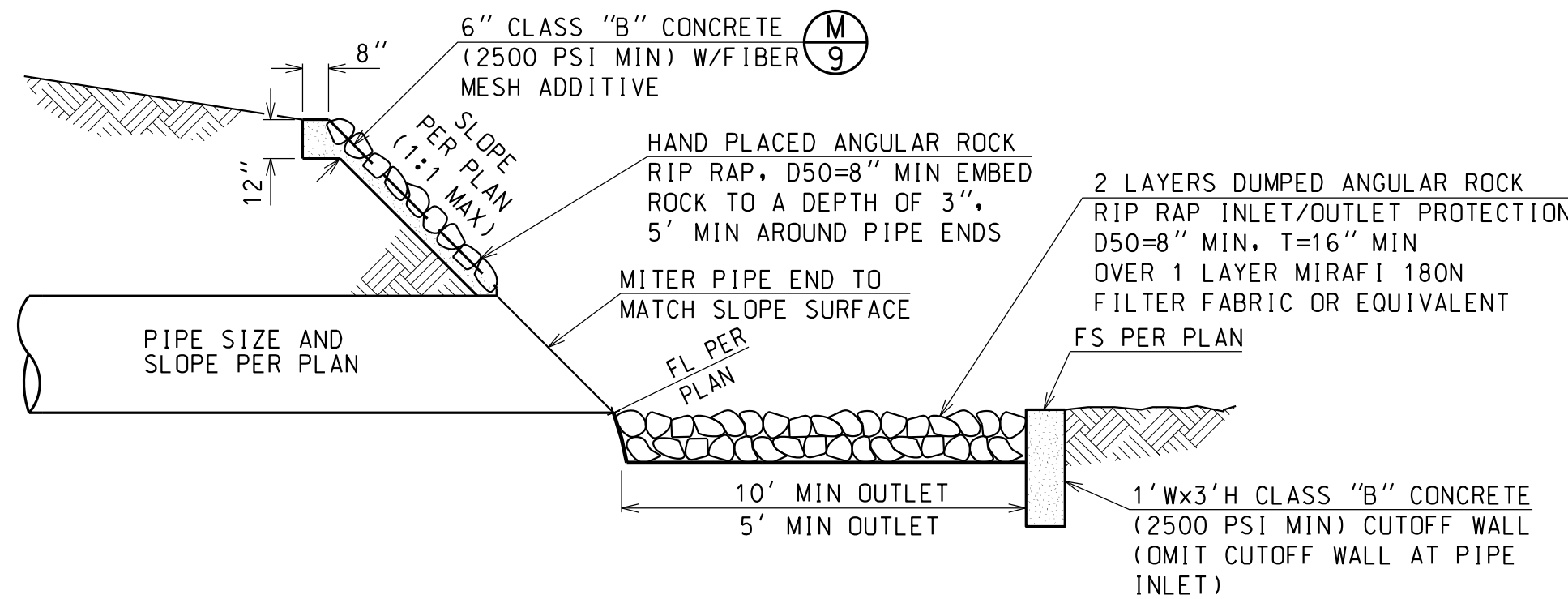


1901060
OV 1801921
HORIZ : N/A
VERT : N/A
SHEET 8 OF 12

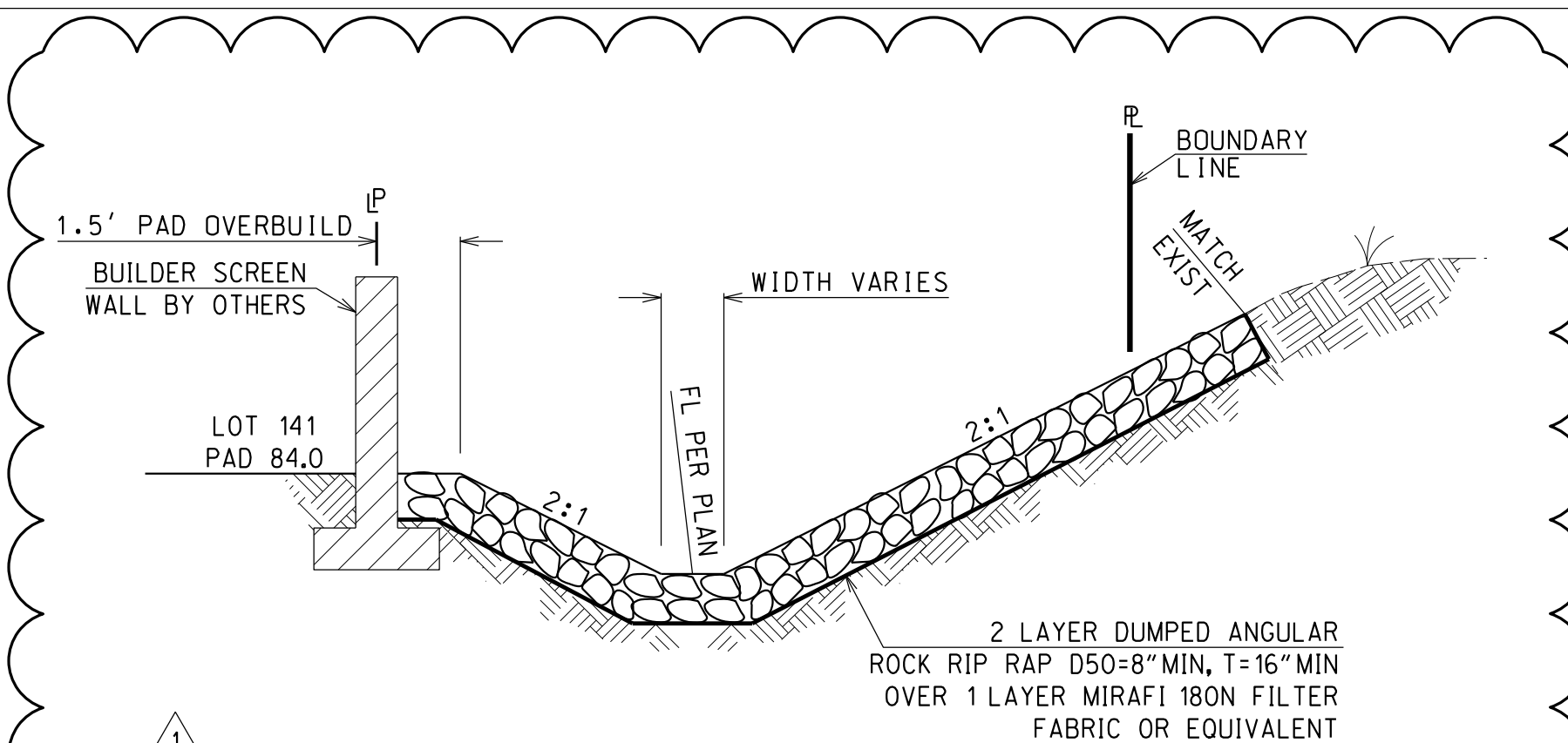




**M** GROUTED RIP RAP SLOPE TREATMENT  
DTL: GRRSLOPES NO SCALE

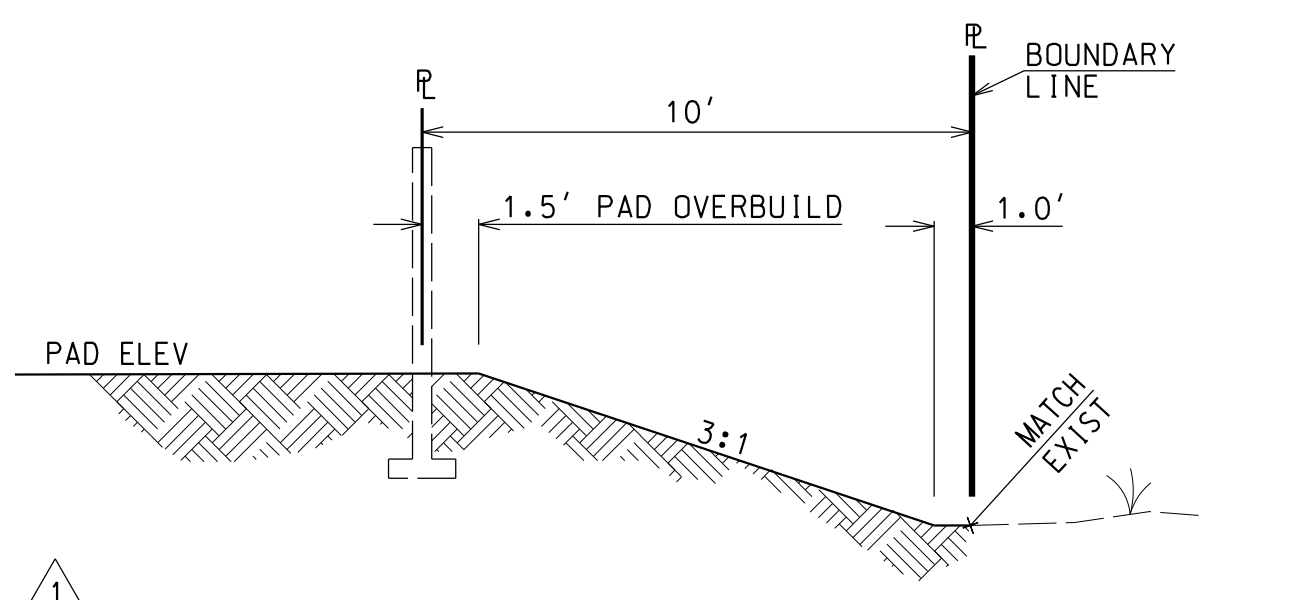


**N** INLET & OUTLET GROUTED RIP RAP SLOPE TREATMENT  
DTL: GRRSLOPES NO SCALE

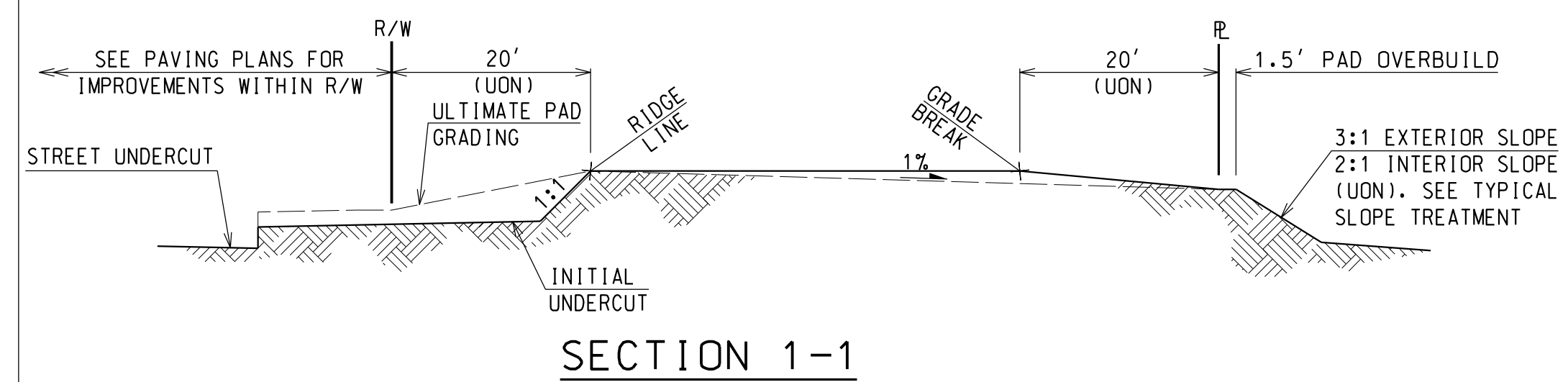


NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

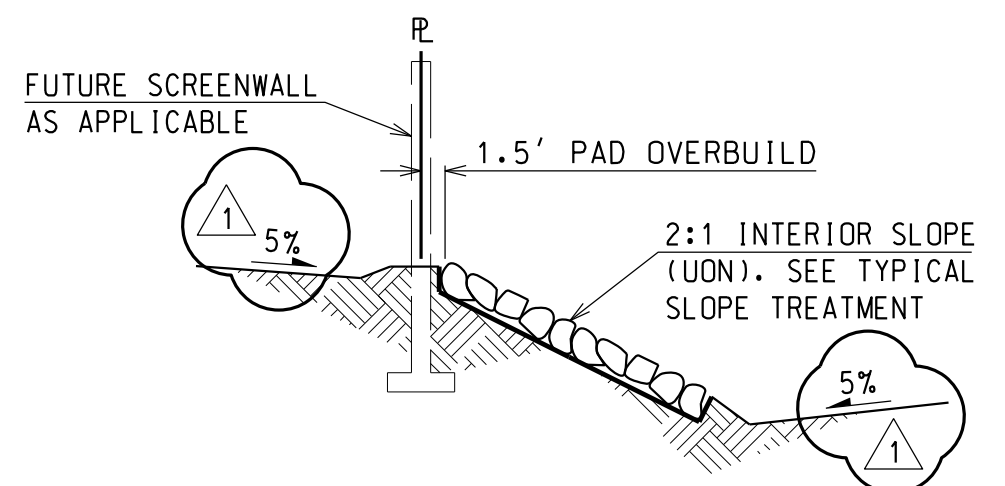
**O** CROSS SECTION NO SCALE



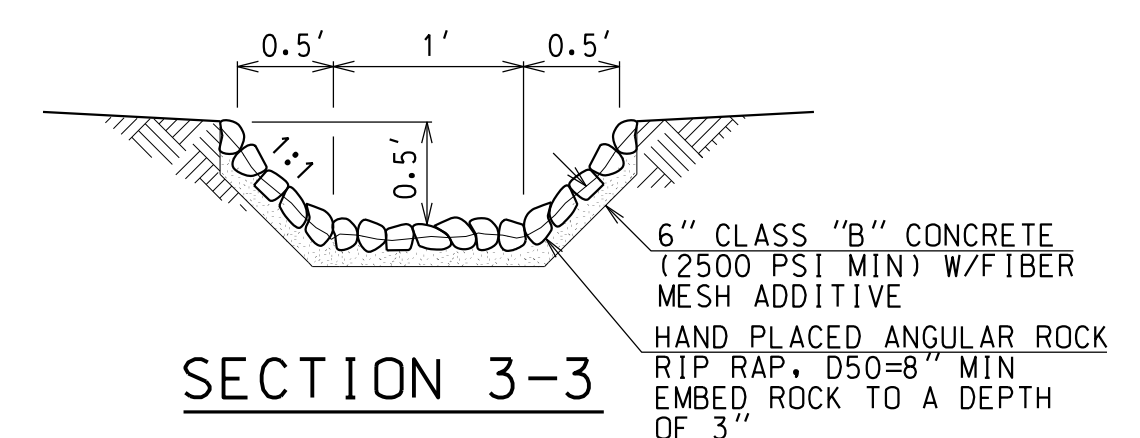
**P** CROSS SECTION NO SCALE



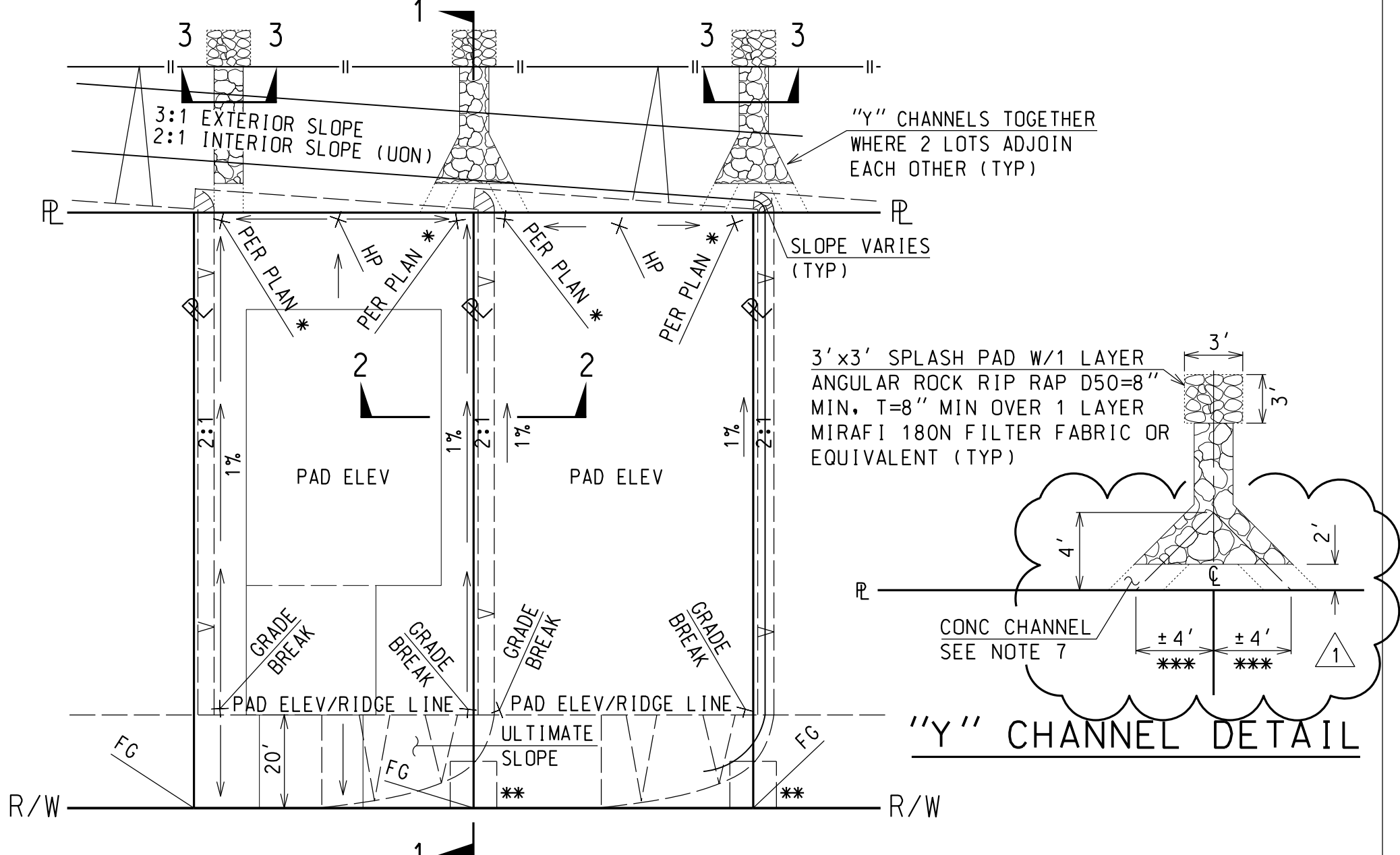
SECTION 1-1



SECTION 2-2



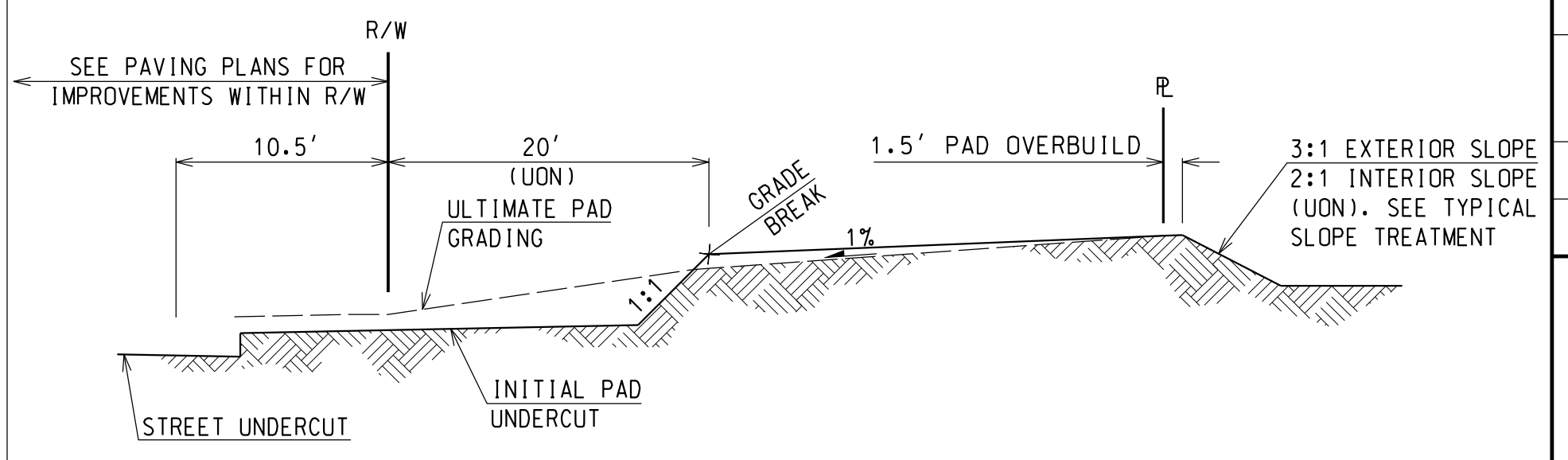
SECTION 3-3



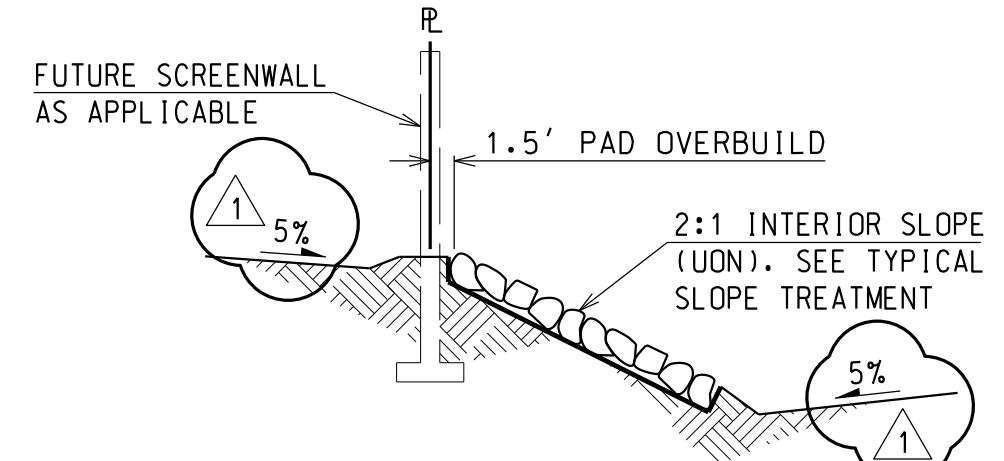
"Y" CHANNEL DETAIL

- NOTES:
- \* REMOVE ONE BLOCK NEAR EACH CORNER AT FINISHED GRADE.
  - \*\* CONTRACTOR TO PREPARE TEP EQUIPMENT PAD AREAS PER TEP SD SR-208. WHERE GRADING DIFFERENTIAL IS SUCH THAT RETAINING WALLS OR RIP RAP SLOPE IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH OWNER AND TEP TO DETERMINE THE DESIRED TREATMENT, ON A CASE BY CASE BASIS.
  - \*\*\* FINAL SWALE LOCATION TO BE ADJUSTED AS NECESSARY TO MATCH WALL OPENING.
  - THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP MATCHES THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.
  - SEE PLANS FOR ADDITIONAL CHANNEL LOCATIONS ON LARGER LOTS.
  - SEE PAVING PLANS FOR IMPROVEMENTS WITHIN R/W.
  - THE FINAL 2' LENGTH "CHANNEL TO WALL" SEGMENT SHALL BE COMPLETED BY THE LANDSCAPE CONTRACTOR AFTER CONSTRUCTION OF THE SCREEN WALL UNLESS OTHERWISE DIRECTED BY OWNER.
  - GROUTED DOWNSLOPE CHANNEL (SECTION 3-3) IS OPTIONAL FOR REAR YARD SLOPE HEIGHTS LESS THAN 2'. THE 3'x3' RIP RAP SPLASH PAD IS STILL REQUIRED AT WALL OPENING.

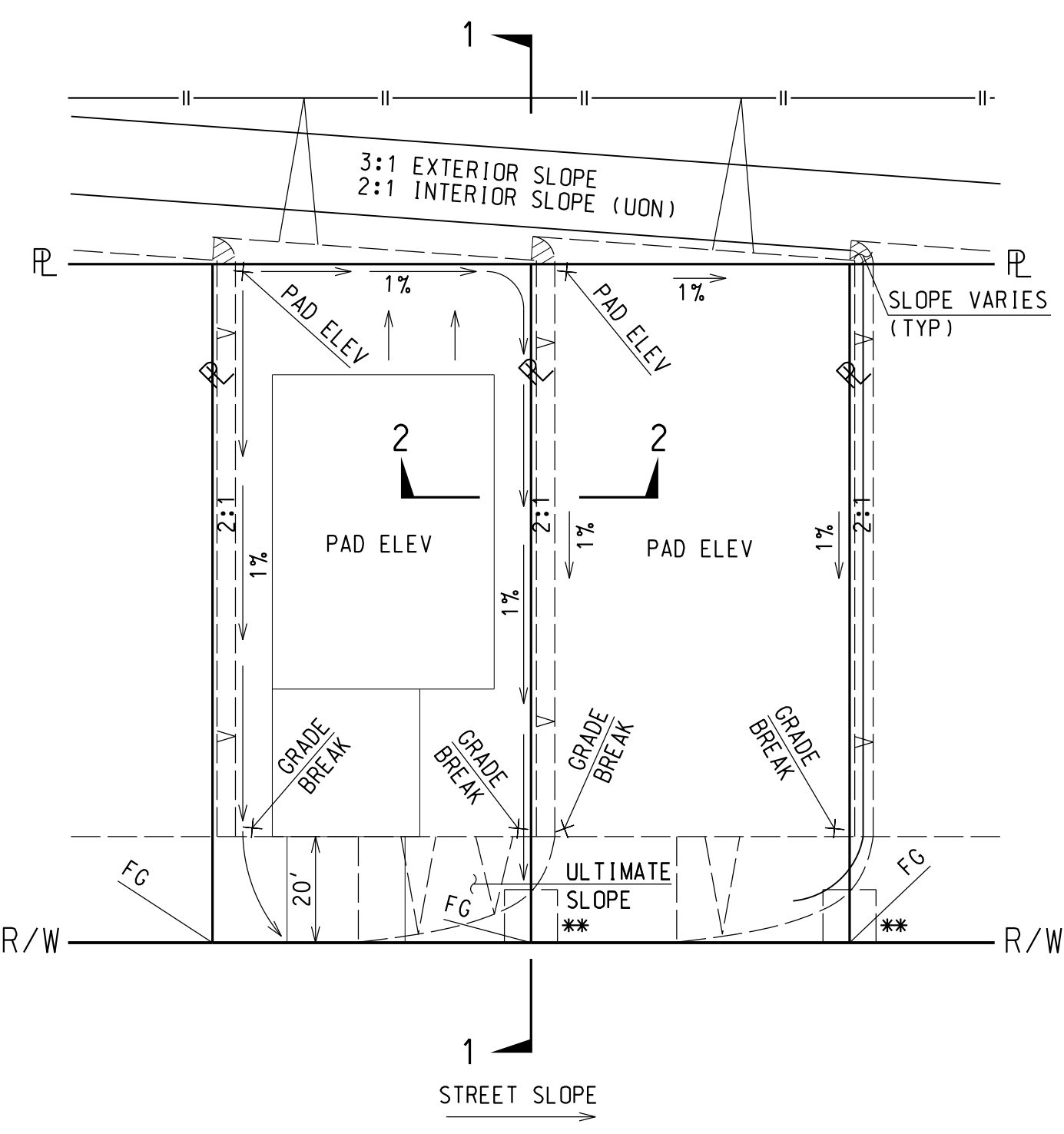
**L** TYPICAL BACK DRAINAGE LOT GRADING  
DTL: LOTDRAIN (08/2019) NO SCALE



SECTION 1-1



SECTION 2-2



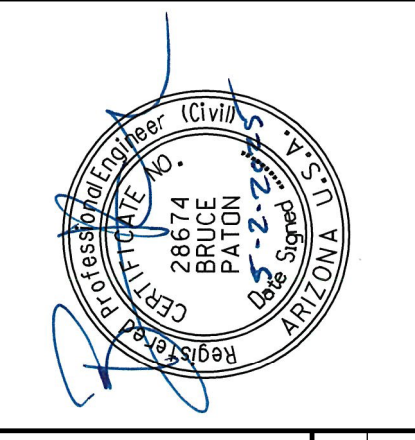
SECTION 1-1

- NOTES:
- \*\* CONTRACTOR TO PREPARE TEP EQUIPMENT PAD AREAS PER TEP SD SR-208. WHERE GRADING DIFFERENTIAL IS SUCH THAT RETAINING WALLS OR RIP RAP SLOPE IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH OWNER AND TEP TO DETERMINE THE DESIRED TREATMENT, ON A CASE BY CASE BASIS.
  - THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP MATCHES THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.
  - DRAINAGE SWALES SHALL NOT OVERLAP OR CHANNEL FLOW OVER WATER BOXES OR OTHER SURFACE BASED UTILITY INFRASTRUCTURE.
  - SEE PAVING PLANS FOR IMPROVEMENTS WITHIN R/W.

**K** TYPICAL FRONT DRAINAGE LOT GRADING  
DTL: LOTDRAIN (10/2018) NO SCALE

DATE: MAY 2, 2025

NO.	BY	DATE	REVISION
1	RICK	4/2025	REVISED DETAILS K, L, O, & P



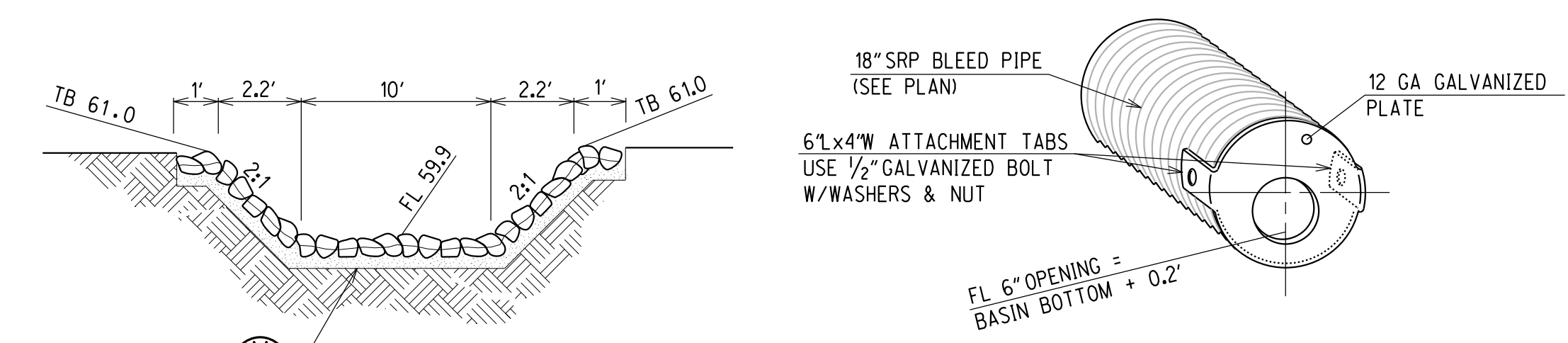
J-4824-A  
3945 EAST FORT LOWELL ROAD - SUITE 111  
TUCSON, AZ 85712  
520/935-1000  
RICK ENGINEERING COMPANY  
ENGINEERING COMPANY  
TUCSON  
San Diego - Riverside - Orange - Sacramento - San Jose - Phoenix - Denver  
DESIGNED BY: BRM  
CHECKED BY: BMP  
DATE: 04/19  
APPROVED BY: BMP  
DATE: 04/19

GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER 13  
OF SECTION 12, TOWNSHIP 12, SOUTH RANGE 13  
OF EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORO VALLEY, PIMA COUNTY, ARIZONA.

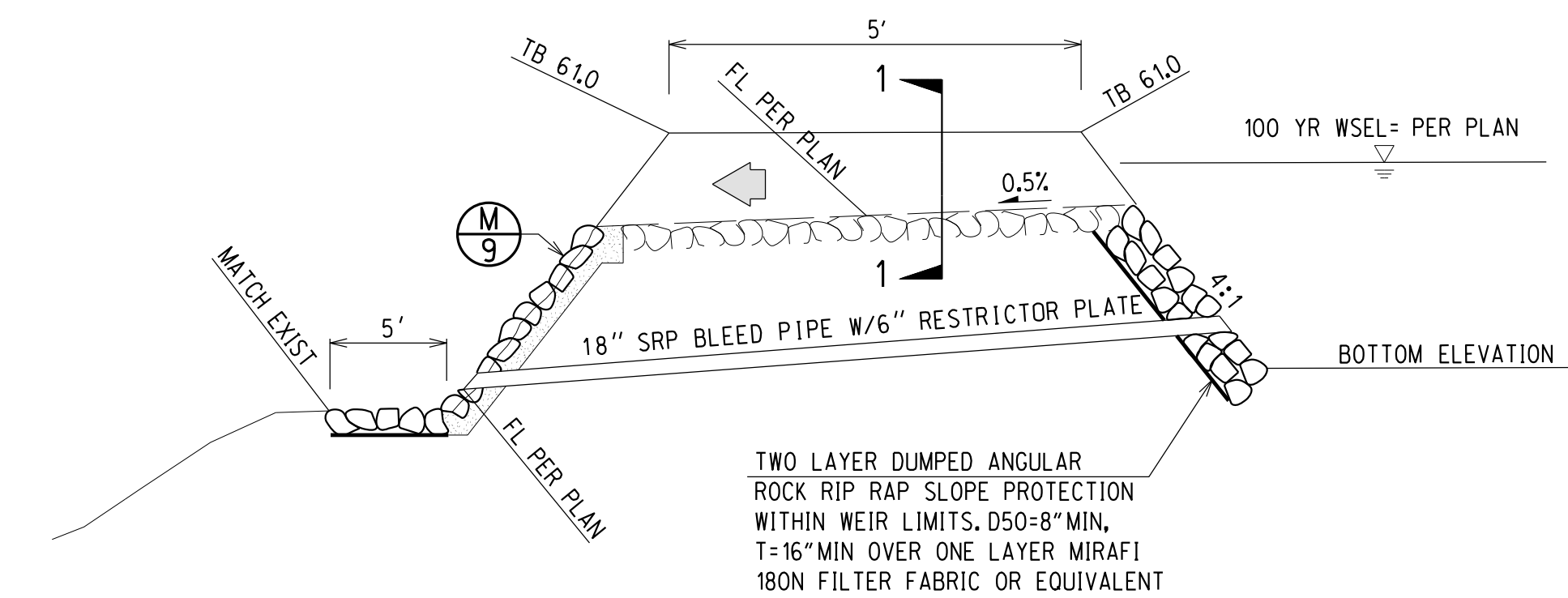


1901060
OV 1801921
HORIZ : N/A
VERT : N/A
SHEET 9 OF 12





**18" BASIN BLEED PIPE W/RESTRICTOR PLATE**  
NO SCALE

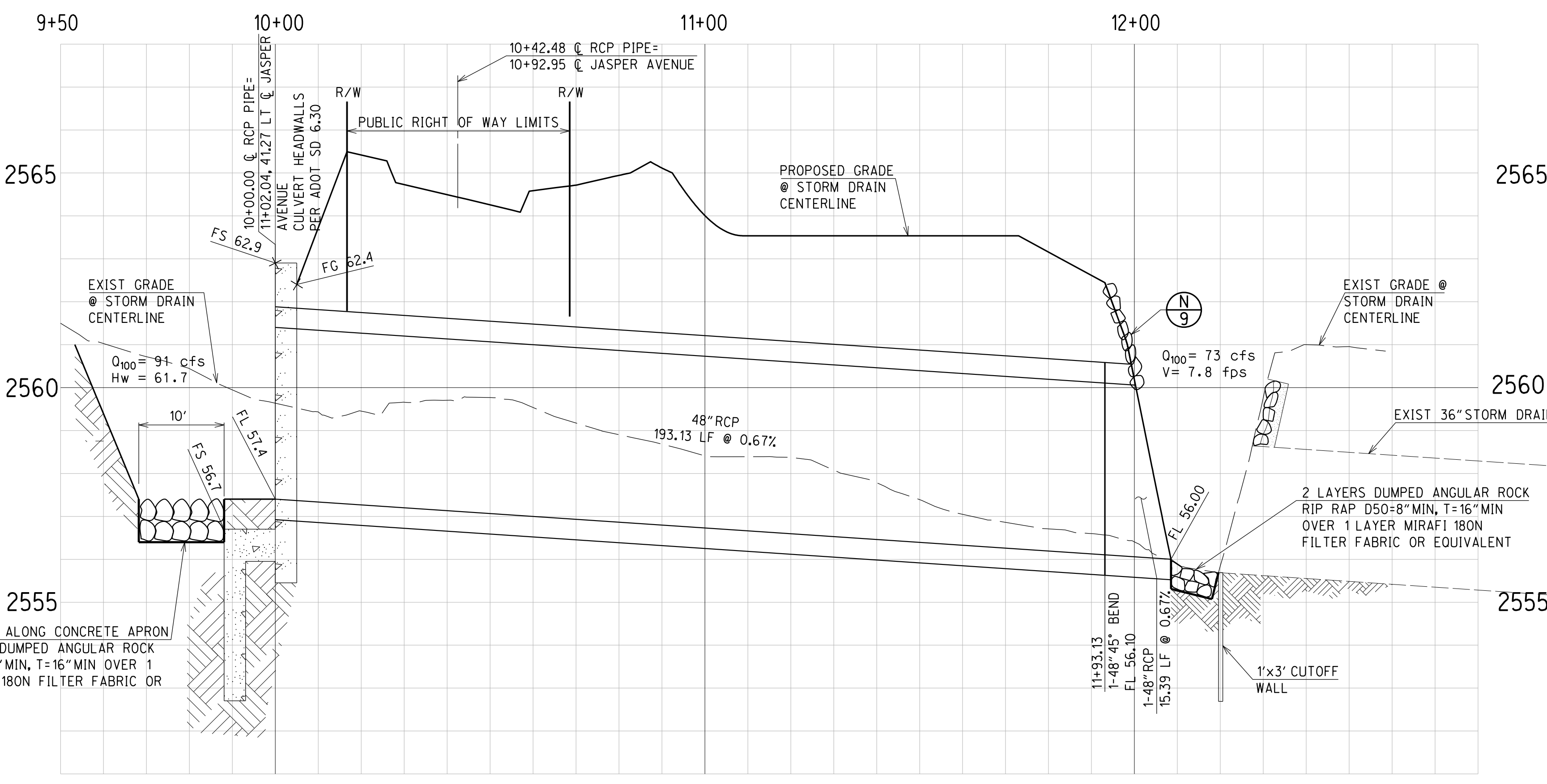


**Q BASIN OUTLET WEIR**  
DTL: WEIROS NO SCALE

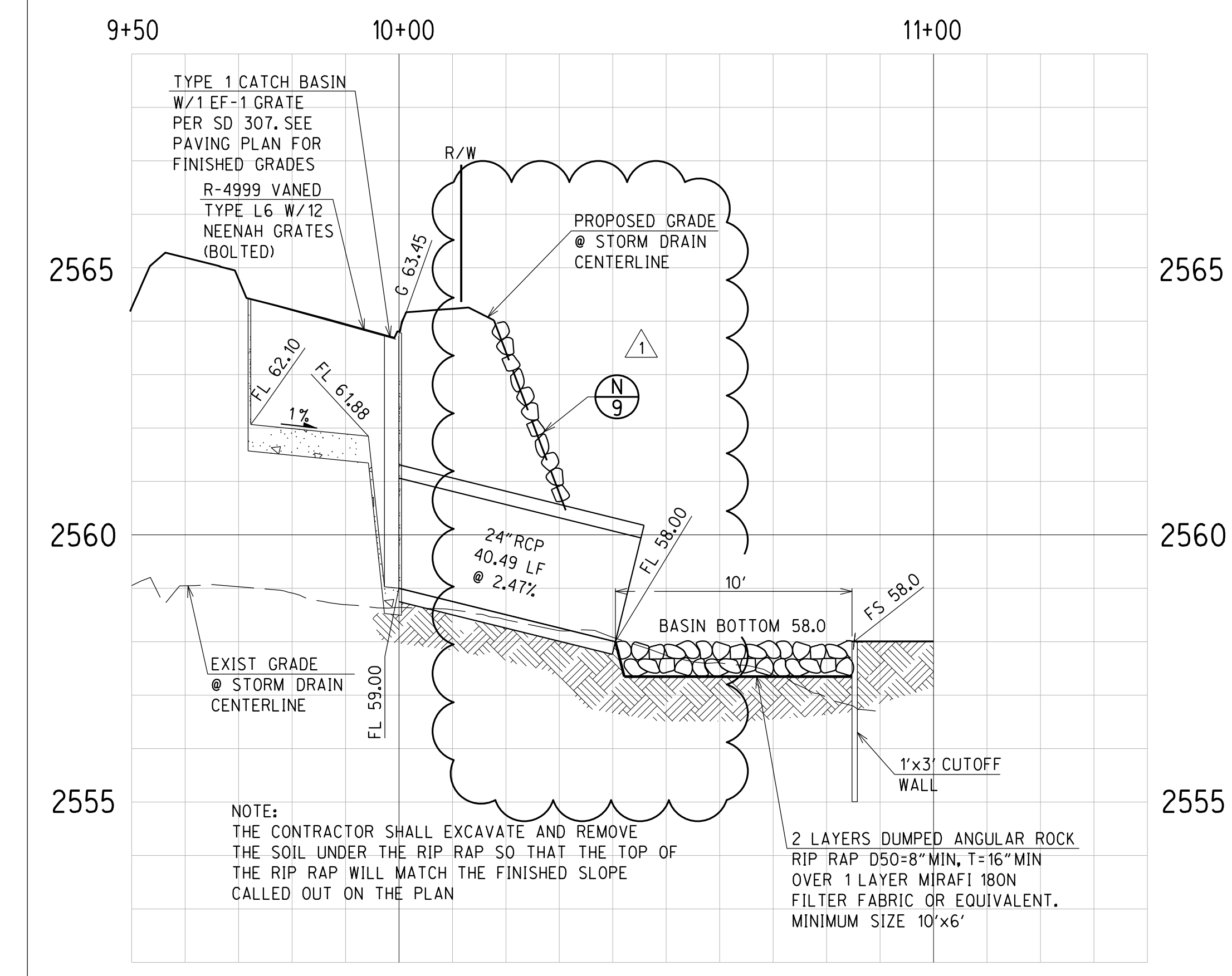
NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SLOPE CALLED OUT ON THE PLAN

% PASSING	SIZE	RIP RAP DESIGN GRADATIONS						
		D <sub>50</sub> CLASS						
100-90	2.0 D <sub>50</sub>	16	24	36	40	48	60	72
85-70	1.5 D <sub>50</sub>	12	18	27	30	36	45	54
50-30	1.0 D <sub>50</sub>	8	12	18	20	24	30	36
15-5	0.67 D <sub>50</sub>	5	8	12	14	16	20	24
5-0	0.33 D <sub>50</sub>	3	4	6	7	8	10	12

**S NOT USED**  
NO SCALE



**T 48" RCP STORM DRAIN PROFILE**  
HORIZ: 1"=20'  
VERT: 1"=2'



**R 24" RCP STORM DRAIN PROFILE**  
HORIZ: 1"=20'  
VERT: 1"=2'

RECK  
ENGINEERING COMPANY  
TUCSON

DESIGNED BY: BRM  
DRAWN BY: BRM

CHECKED BY: BMP  
APPROVED BY: BMP

DATE: 04/19  
DATE: 04/19

DATE: 04/19  
DATE: 04/19

GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER 13  
OF SECTION 12, TOWNSHIP 12 SOUTH, RANGE 13  
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ORO VALLEY, PIMA COUNTY, ARIZONA.

Contact Arizona 811 at least two full working days before you begin excavation  
**ARIZONA 811**  
Call 811 or click Arizona811.com

1901060  
OV 1801921

HORIZ: N/A  
VERT: N/A

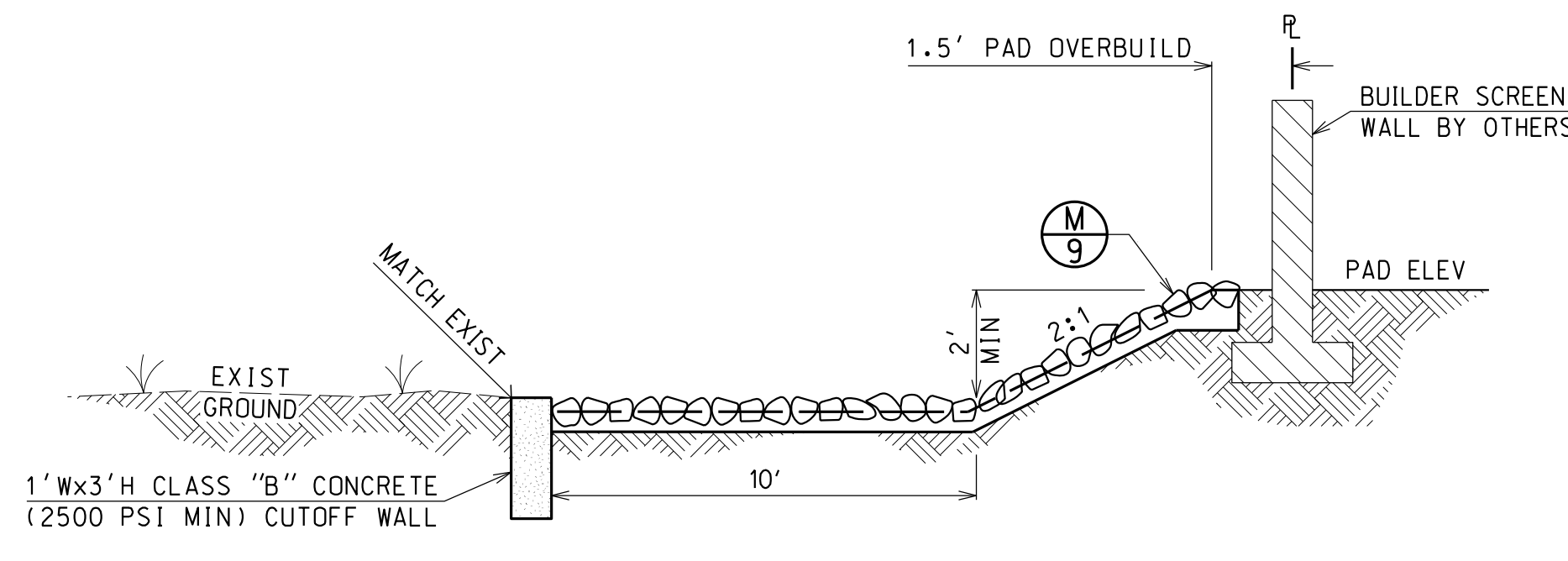
SHEET 10 OF 12

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DATE: MAY 2, 2025

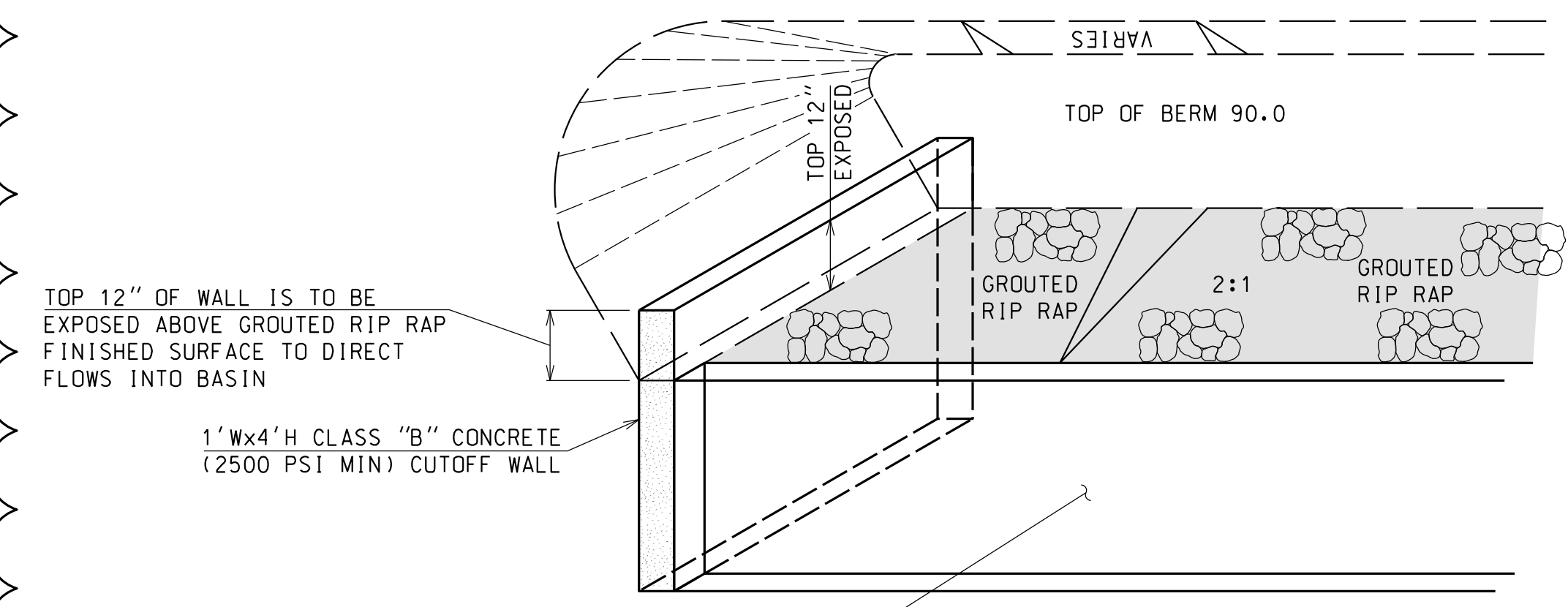
PERMIT #2402455 REV #1





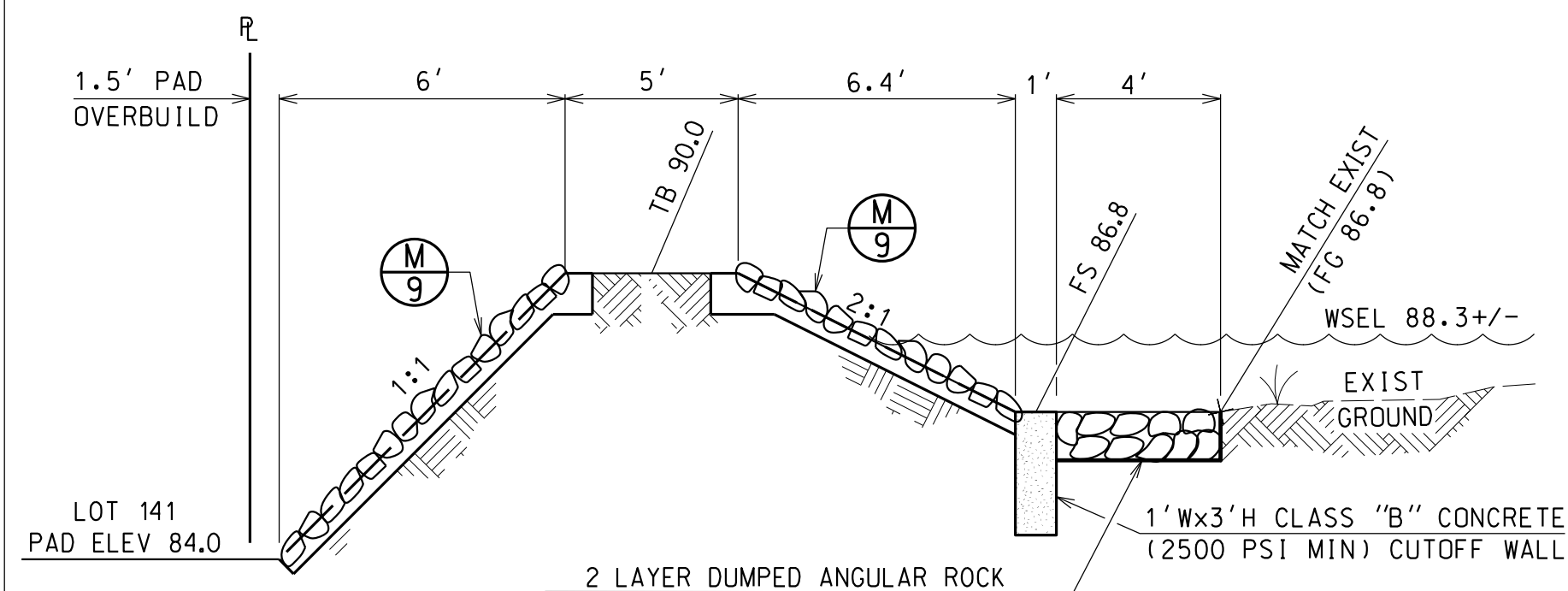
NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

**U** CHANNEL CROSS SECTION  
NO SCALE



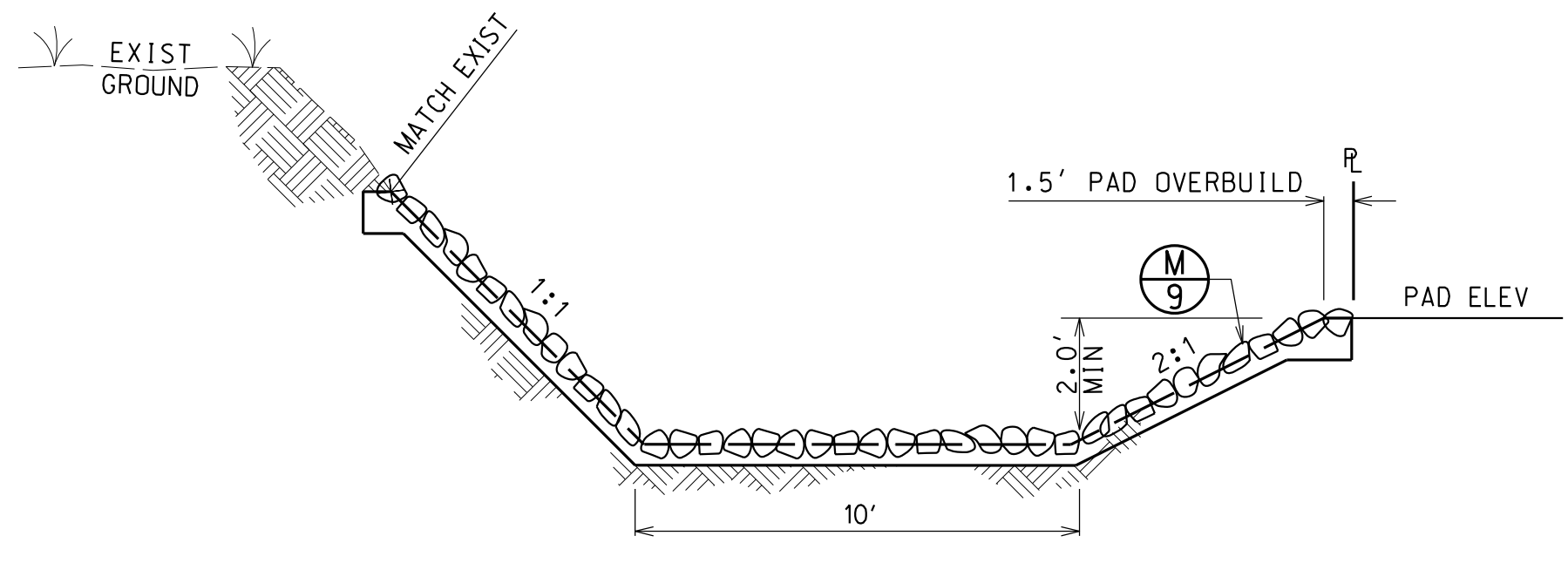
NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

**X** EXPOSED CUTOFF WALL DETAIL  
NO SCALE



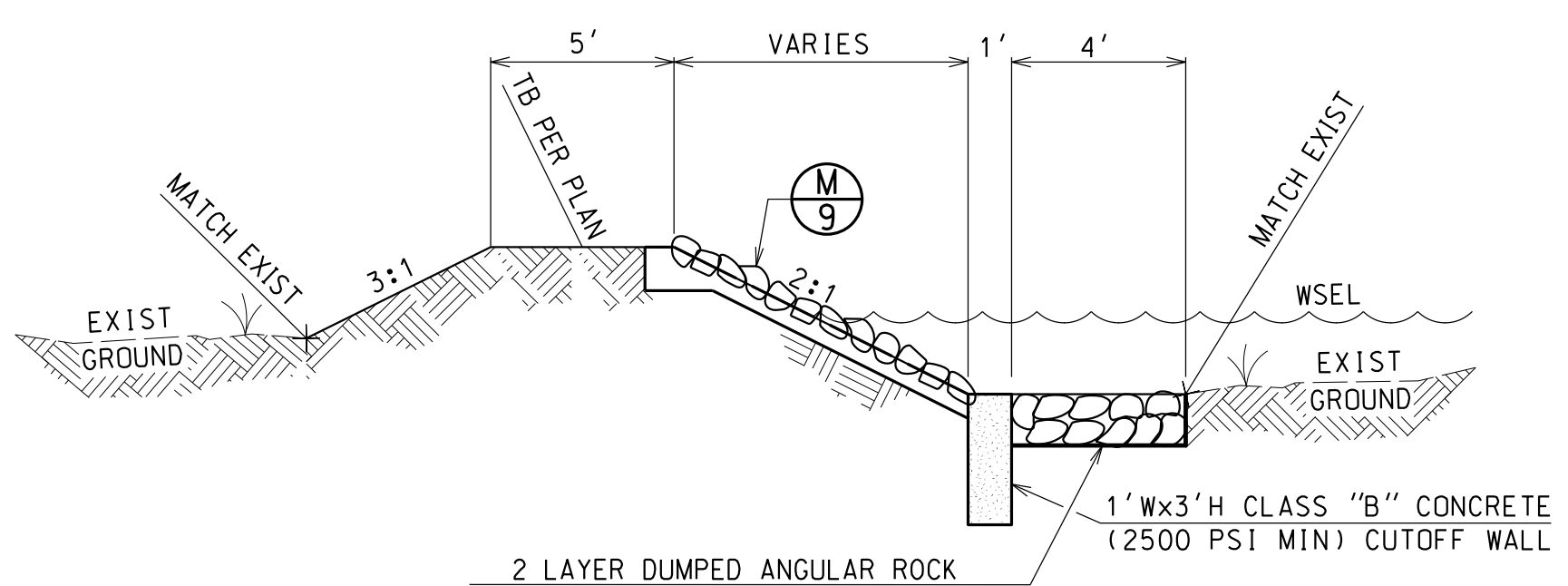
NOTE:  
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**AA** LOT 141/BERM CROSS SECTION  
NO SCALE



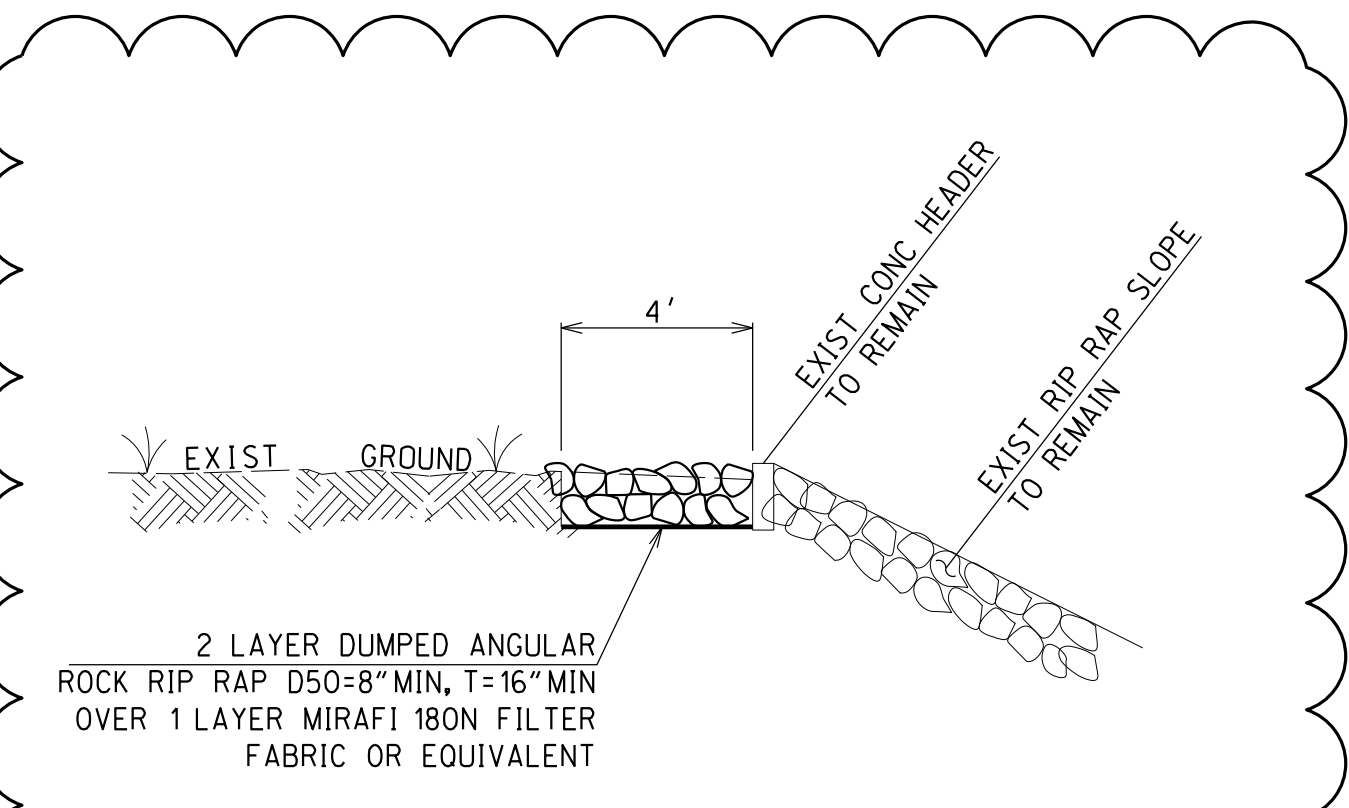
NOTE:  
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**V** CHANNEL CROSS SECTION  
NO SCALE



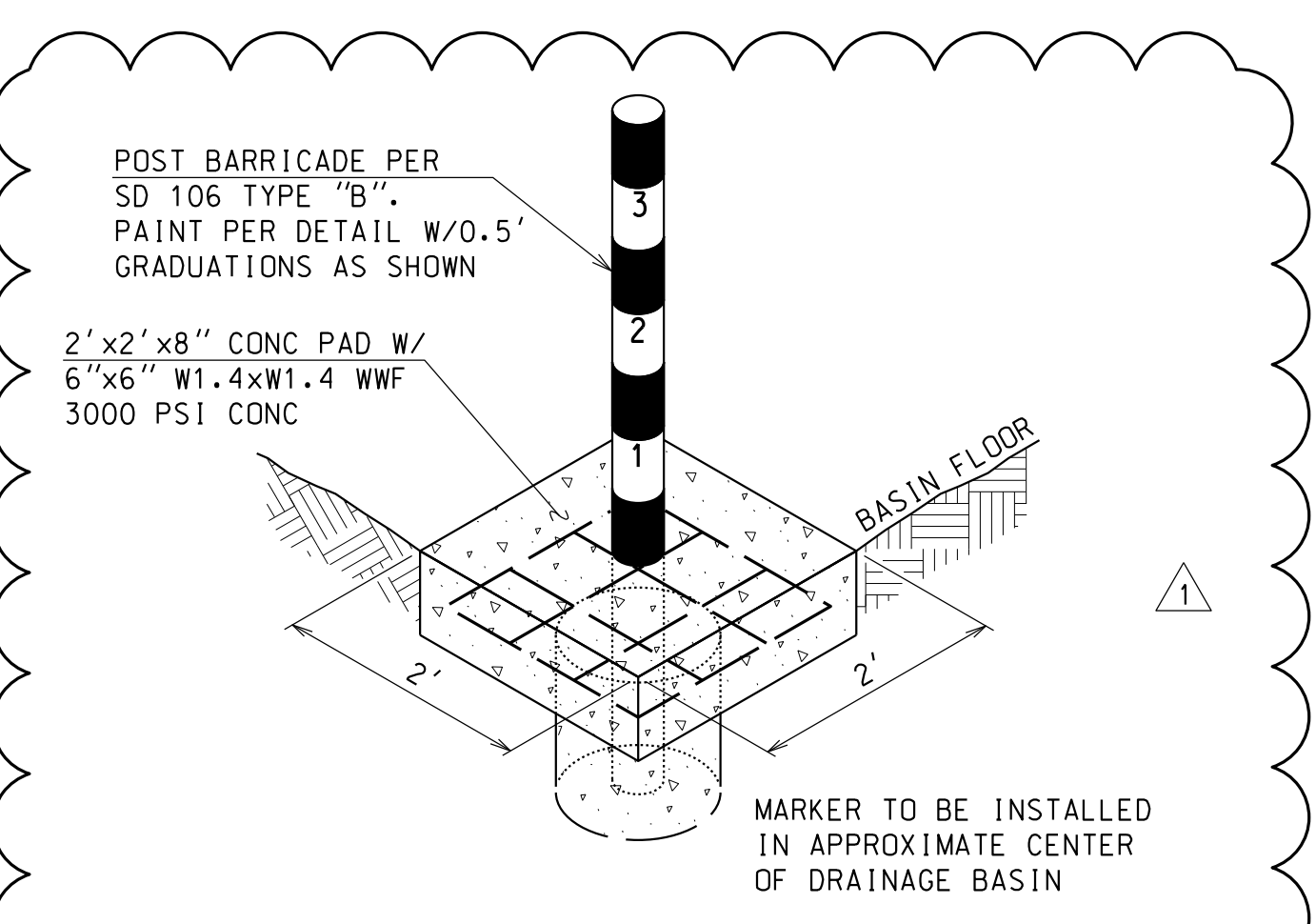
NOTE:  
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**Y** BERM CROSS SECTION  
NO SCALE

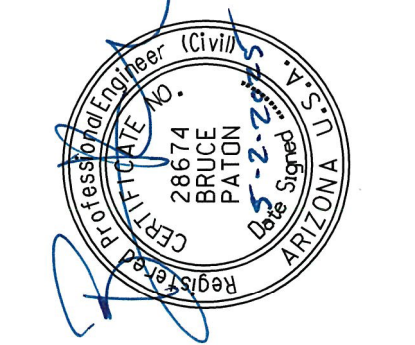


NOTE:  
THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE SOIL UNDER THE RIP RAP SO THAT THE TOP OF THE RIP RAP WILL MATCH THE FINISHED SURFACE AND SLOPE CALLED OUT ON THE PLAN.

**W** CROSS SECTION  
NO SCALE



**Z** SEDIMENT MARKER  
NO SCALE



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DESIGNED BY: BRM  
CHECKED BY: BMP  
DATE: 04/19  
DRAWN BY: BRM  
APPROVED BY: BMP  
DATE: 04/19  
DATE: 04/19

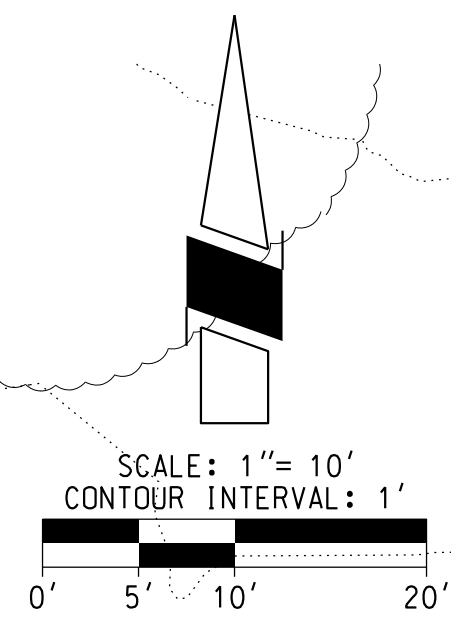
GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
BEING A PORTION OF THE SOUTHEAST QUARTER  
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EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
ORO VALLEY, PIMA COUNTY, ARIZONA.



1901060  
OV 1801921  
HORIZ : N/A  
VERT : N/A  
SHEET 11 OF 12

DATE: MAY 2, 2025





SECTION 71 - WSEL 90.7  
 SECTION 36 - WSEL 89.3

1'x3'H CONCRETE CUTOFF WALL, TOP FLUSH WITH TOE OF SLOPE

ENTIRE 2:1 SLOPE FACE TO BE GROUTED RIP RAP PER (M) 9

4' WIDE BAND RIP RAP, 2 LAYERS DUMPED ANGULAR ROCK RIP RAP PROTECTION, D50=8", T=16" OVER 1 LAYER MIRAFI 180 N FILTER FABRIC OR EQUIVALENT

EXIST CONC HEADER TO REMAIN

EXIST 24" STORM DRAIN PIPE TO REMAIN

REMOVE EXIST DUMPED RIP RAP AND REPLACE WITH GROUTED RIP RAP PER (M) 9

EXIST CONC HEADER TO REMAIN

EXIST RIP RAP SLOPE TO REMAIN

EXIST CONC HEADER TO REMAIN

1'x4'H CONCRETE CUTOFF WALL, TOP 12" OF WALL IS TO BE ABOVE GROUTED RIP RAP FINISHED SURFACE TO DIRECT FLOWS INTO BASIN

EXIST RIP RAP SLOPE TO REMAIN

141  
 FFE 84.7  
 FPE 84.0

FG 80.2

140

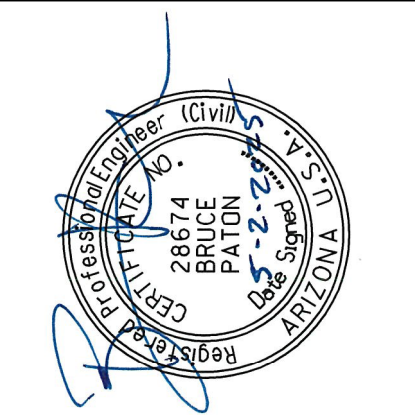
(X) DETAIL: AREA BLOW UP  
 SCALE: 1"=10'

■ DENOTES AREA OF SLOPE TO BE GROUTED RIP RAP

NOTE: NOT ALL RIP RAP SHOWN FOR CLARITY. SEE ENGINEER'S NOTE 23, SHEET 5.

**TYPICAL SLOPE TREATMENT**  
 FINAL SLOPE TREATMENT (UNLESS OTHERWISE NOTED IN THE SOILS REPORT OR ON THIS PLAN) SHALL BE AS FOLLOWS:

STEEPER THAN 1:1	- RETAINING WALL
1:1 TO 1.99:1 OVER 2' IN HEIGHT	- GROUTED ROCK RIP RAP PER DETAIL (M) 9
2:1 TO 2.99:1 OVER 2' IN HEIGHT	- DUMPED ANGULAR ROCK RIP RAP
	- D50=8" MIN, T=16" MIN (UOM) OVER 1 LAYER MIRAFI 180N FILTER FABRIC OR EQUIVALENT
3:1 OR FLATTER	- REVEGETATED PER LANDSCAPE PLAN



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 Tucson, Arizona  
 San Diego - Riverside - Orange - Sacramento - Salt Lake City - Phoenix - Denver

GRADING PLANS PREPARED FOR:  
**RIVERS EDGE**  
 LOTS 121-141 & COMMON AREAS "A" & "B-1" - "B-3"  
 BEING A PORTION OF THE SOUTHEAST QUARTER  
 OF SECTION 12, TOWNSHIP 12, SOUTH RANGE 13  
 EAST, GILA & SALT RIVER MERIDIAN, TOWN OF  
 ORO VALLEY, PIMA COUNTY, ARIZONA.

Contact Arizona 811 at least two full working days before you begin excavation  
**ARIZONA 811**  
 Call 811 or click Arizona811.com

1901060  
 OV 1801921  
 HORIZ : N/A  
 VERT : N/A  
 SHEET 12 OF 12

NO.	BY	DATE	REVISION
1	RICK	4/20/25	REVISED ENTIRE SHEET, ADDED BERM DETAIL AREA