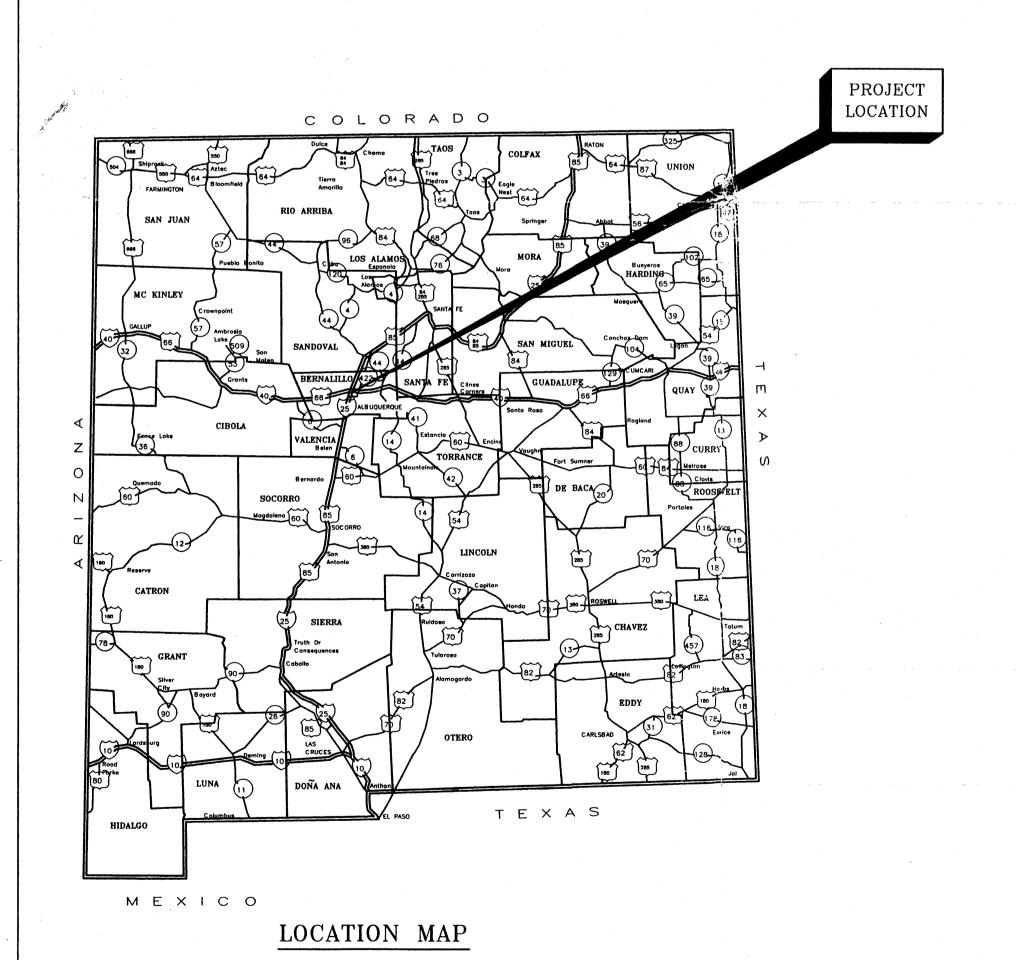


PUBLIC SERVICE COMPANY OF NEW MEXICO PLANS FOR GRADING AND DRAINAGE PLAN FOR SNOW VISTA SUBSTATION



APRIL 2012

ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS INSTRUMENT ARE OWNED BY AND ARE THE PROPERTY OF MILLER ENGINEERING CONSULTANTS, AND WERE CREATED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE IDEAS, DESIGNS, ARRANGEMENTS, OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF MILLER ENGINEERING CONSULTANTS.

THESE DRAWINGS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

CERTIFICATION:

APR 0 5 20 2
HYDROLOGY

I, VERLYN A. MILLER, REGISTERED PROFESSIONAL ENGINEER NO. 14507
HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE
UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



NEW MEXICO PROFESSIONAL ENGINEER

P.E. 14507



PROPRIETARY STATEMENT

THIS DOCUMENT AND ALL PREVIOUS ISSUES MY. THE PROPERTY OF PUBLIC SERVICE COMPANY OF INSTANCE AND THE PROPERTY OF PUBLIC SERVICE COMPANY OF INSTANCE AND THE PROPERTY OF PUBLIC SERVICE CONTROL THE PROPERTY OF INSTANCE AND THE PROPERTY OF PUBLIC SERVICE CONTROL THE PROPERTY OF INSTANCE AND THE PROPERTY INSTANCE OF INSTANCE AND THE PROPERTY INSTANCE

PIM PUBLIC SERVICE COMPAN OF NEW MEXICO

COVER SHEET
GRADING AND DRAINAGE DESIGN

SNOW VISTA SUBSTATION

DR: JAL TR: DATE: 04/02/12

CKD: OK: SCALE: NTS

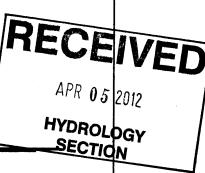
ACAD FILE: USS-8202-01 USS-8202-01

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS TO THE CONSTRUCTION LIMITS SHOWN ON PLANS. DISTURBANCE TO PRIVATE PROPERTIES SHALL BE KEPT TO A MINIMUM. ANY COSTS ASSOCIATED WITH THE REPAIR TO PUBLIC OR PRIVATE PROPERTIES, CAUSED BY CONSTRUCTION ACTIVITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 2. THE CONTRACTOR SHALL DEVELOP THE TRAFFIC CONTROL PLAN AND SHALL PROVIDE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES AND CONSTRUCTION SIGNING IN ACCORDANCE WITH THE "MUTCD" (LATEST EDITION) DURING THE CONSTRUCTION PERIOD (WORKING AND NON-WORKING HOURS). ANY NECESSARY DEVIATION FROM THE "MUTCD" SHALL HAVE PRIOR WRITTEN APPROVAL OF THE ENGINEER OR CONSTRUCTION INSPECTOR. THE CONTRACTOR SHALL SUBMIT A COPY OF THE PROPOSED TRAFFIC CONTROL PLAN TO THE ENGINEER AND THE CITY PROJECT COORDINATOR AT THE PRE-CONSTRUCTION MEETING. THIS PLAN SHALL SATISFY THE CITY OF ALBUQUERQUE REQUIREMENTS FOR PUBLIC SAFETY AND TRAVELING PUBLIC AS WELL AS THE REQUIREMENTS OF "MUTCD" AND SHALL BE REVISED AS NECESSARY TO MEET THE REQUIREMENTS DURING THE CONSTRUCTION PERIOD. THIS PLAN SHALL INCLUDE AN ADEQUATE NUMBER OF TRAFFIC CONTROL SIGNS & DEVICES AS DEEMED NECESSARY BY THE CITY PROJECT COORDINATOR. PAYMENT FOR DEVELOPING THE TRAFFIC CONTROL PLAN AND FOR ALL TRAFFIC CONTROL SIGNS AND DEVICES WILL BE MADE UNDER THE TRAFFIC CONTROL PLAN ITEM AND NO ADDITIONAL PAYMENT WILL BE MADE. THE SECTIONS OF ROADWAY WHICH ARE OPEN TO TRAFFIC SHALL BE KEPT IN GOOD RIDING CONDITION AND CLEAR OF HAZARDS TO TRAFFIC. THE SAFETY AND COMFORT OF THE TRAVELING PUBLIC AND ACCESS TO RESIDENCES AND OTHER TURNOUTS SHALL BE OF PRIMARY CONSIDERATION. THE TRAFFIC CONTROL MANAGEMENT REQUIRED WILL BE INCLUDED IN THE PAYMENT FOR THE TRAFFIC CONTROL PLAN ITEM AND NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE.
- 3. ANY EXCESS MATERIAL (UNCLASSIFIED EXCAVATION) THAT CAN NOT BE USED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE HAULED OFF—SITE TO A LOCATED AS DIRECTED BY PNM AND PNM REPRESENTATIVES. THE CONTRACTOR SHALL RECEIVE WRITTEN CONCURRENCE FROM THE CONSTRUCTION COORDINATOR AND INSPECTOR ON THE LOCATION OF THIS SITE. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE UNCLASSIFIED EXCAVATION ITEM AND NO ADDITIONAL PAYMENT WILL BE MADE.
- 4. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION. THE CONTRACTOR MUST CONTACT THE UTILITY LINE LOCATING SERVICE (811) TWO WORKING DAYS PRIOR TO ANY EXCAVATION FOR THE LOCATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND THE SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 48 HOURS BEFORE COMMENCING WORK IN THE AREAS NEAR UNDERGROUND UTILITY LINES. CONTRACTOR SHALL NOT INTERFERE WITH UTILITY LINE OPERATION AND SHALL COORDINATE ALL WORK AFFECTING EXISTING UTILITIES WITH THE APPROPRIATE AUTHORITY FOR EACH UTILITY, AND THE CONSTRUCTION INSPECTOR SHALL BE PROMPTLY NOTIFIED OF ANY PROBLEMS OR CONFLICTS ENCOUNTERED.
- 5. DURING THE CONSTRUCTION OF THIS PROJECT, SOME OVERHEAD AND/OR UNDERGROUND UTILITY ADJUSTMENTS MAY HAVE TO BE ACCOMPLISHED CONCURRENTLY BY THE UTILITY OWNERS (COUNTY AND/OR PRIVATELY OWNED). THE CONTRACTOR SHALL COORDINATE AND ADVISE THE UTILITY OWNERS, ALLOWING ENOUGH TIME SO THAT THE REQUIRED UTILITY ADJUSTMENTS DO NOT IMPEDE THE CONTRACTOR'S WORK. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS, INCONVENIENCE, OR DAMAGE SUSTAINED DUE TO ANY INTERFERENCE FROM SAID UTILITY APPURTENANCES.
- 6. THE USE OF HEAVY ROLLING EQUIPMENT (GREATER THAT 35 TONS STATIC) AND/OR VIBRATORY ROLLERS TO OBTAIN THE REQUIRED DENSITIES IN EMBANKMENT, EMBANGMENT FOUNDATION, MISCELLANEOUS FILLS, SUBGRADE & PAVEMENT WILL NOT BE PERMITTED IN URBAN OR OTHER AREAS WHERE THE USE OF SUCH EQUIPMENT WOULD DAMAGE UNREINFORCED MASONRY STRUCTURES, UNDERGROUND UTILITY FACILITIES OR OTHER PERMANENT INSTALLATION.
- 7. ALL AGGREGATES AND SUITABLE MATERIAL MAY BE OBTAINED FROM COMMERCIAL SOURCES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING A SUITABLE SOURCE MEETING ALL REQUIREMENTS OF THIS CONTRACT.
- 8. THE CONTRACTORS SHALL NOT EXCEED LEGAL LOADS ON EXISTING PAVED ROADWAYS.
- 9. TOPOGRAPHIC DATA, BENCHMARKS, REFERENCE POINTS, P.I.'S, STRUCTURE TIES, AND ALL OTHER MISCELLANEOUS SURVEY INFORMATION WAS OBTAINED FROM PREVIOUS FIELD SURVEYS. IT IS ENTIRELY POSSIBLE THAT THESE POINTS MAY NO LONGER EXIST IN THE FIELD. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO RE-ESTABLISH ANY MISSING BENCH MARKS, REFERENCE POINTS, OR P.I.'S REQUIRED FOR CONSTRUCTION OF THIS PROJECT AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY BETWEEN ADJACENT REFERENCE POINTS, BENCH MARKS, AND P.I.'S PRIOR TO THEIR USE IN CONSTRUCTING THIS PROJECT TO ASSURE THE INTEGRITY OF EACH POINT.
- 10. ALL EXISTING STREET SIGNS WILL BE REMOVED AS NECESSARY TO PERFORM CONSTRUCTION ACTIVITIES AND REPLACED IN A LOCATION TO BE DETERMINED BY THE PROJECT COORDINATOR. NO PAYMENT OR MEASUREMENT WILL BE MADE FOR THIS WORK.
- 11. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH PNM SPECIFICATIONS. IN THE EVENT THAT THE PNM SPECIFICATIONS DO NOT ADDRESS A SPECIFIC ELEMENT OF WORK OUTLINED IN THESE DRAWINGS, THE GOVERNING SPECIFICATION THAT SHALL BE UTILIZED AND REFERENCED BY THE CONTRACTOR SHALL BE THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS. ALL WORK SHALL ALSO BE IN COMPLIANCE WITH ALL CITY OF ALBUQUERQUE, STATE, AND FEDERAL REGULATIONS.
- 12. DURING THE CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR WILL BE RESPONSIBLE FOR BUILDING, MANAGING, AND IMPLEMENTING THE TEMPORARY DRAINAGE MEASURES SPECIFIED IN THE SWPPP DOCUMENT PROVIDED BY PNM. ANY DAMAGES TO PUBLIC OR PRIVATE PROPERTY OR IMPROVEMENTS CONSTRUCTED BY THE CONTRACTOR RESULTING FROM STORM WATER FLOWS IN THE PROJECT VICINITY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- 13. FILL/BACK-FILL SHALL BE PLACED IN EIGHT INCH LIFTS MAXIMUM AND COMPACTED TO 95 PERCENT OPTIMUM DENSITY AS PER ASTM D-1577 AND 95 PERCENT UNDER STRUCTURES INCLUDING DRIVEWAYS.
- 14. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
- 15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES. INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT. PNM WILL BE SOLELY RESPONSIBLE FOR DEVELOPING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENT FOR THE PROJECT AND PROVIDING THE DOCUMENT FOR THE PROJECT. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR BUILDING, MANAGING AND MAINTAINING ALL BEST MANAGEMENT PRACTICES (BPM'S) AND TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED IN THE SWPPP DOCUMENT.
- 16. TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO AUGUST 2011.
- 17. PROJECT BENCHMARK IS A FOUND U.S.C.&G.S. SURVEY CONTROL BRASS DISC SET IN CONCRETE STAMPED "TRANS 1969" LOCATED 1.2 MILES SOUTH OF THE INTERSECTION OF 98th STREET AND SNOW VISTA BLVD., THENCE SOUTHEAST ALONG SNOW VISTA BLVD. AND THE CO-OP ELECTRIC TRANSMISSION LINE 0.85 MILES TO A PYLON NUMBERED 52. ELEVATION = 5,121.09 FEET (NAVD 1988 VERTICAL DATUM).
- 18. TEMPORARY BENCHMARK IS A TERRA LAND SURVEY 5/8" REBAR WITH AN ALUMINUM CAP STAMPED "CP 100". ELEVATION=5,133.34 FEET (NAVD 88 VERTICAL DATUM)
- 19. COORDINATES ARE GROUND/PROJECT VALUES BASED ON NEW MEXICO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 27 DATUM.
- 20. TOPOGRAPHIC SURVEY WAS COMPILED UTILIZING GROUND COORDINATES REFERENCED TO THE NAD 83 NEW MEXICO CENTRAL ZONE COORDINATE SYSTEM. PRIMARY HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED UTILIZING GPS RTK METHODS (COMBINED GROUND TO GRID FACTOR = 0.999682702).
- 21. CONTRACTOR SHALL OBTAIN A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO ANY GRADING OR CONSTRUCTION.
- 22. THE SUBJECT PROPERTY APPEARS TO LIE WITHIN "ZONE X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP 35001C0336G, MAP REVISED SEPTEMBER 26, 2008.
- 23. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE PNM ENVIRONMENTAL DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED, AND IN ACCORDANCE WITH, THE LANDSCAPING PLAN. THE CONTRACTOR SHALL REFERENCE THE LANDSCAPING PLAN FOR ALL SEEDING REQUIREMENTS.
- 24. THE CONTRACTOR SHALL BEAR THE RESPONSIBILITY FOR MAINTENANCE OF THE STORM WATER FACILITIES SPECIFIED ON THESE DRAWINGS FOR THE DURATION OF THIS PROJECT. MAINTENANCE OF THESE FACILITIES SHALL BE THE REPONSIBILITY OF PNM ONCE THE PROJECT IS COMPLETED. THE SNOW VISTA SUBSTATION CONVEYANCE DITCHES, CHANNEL, BERMS, DIKES, THE RETENTION PONDS, AND RELATED ELEMENTS WILL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED AND REPAIRED BY PNM AS REQUIRED TO INCLUDE EROSION REPAIRS, SILT REMOVAL, AND OTHER DRAINAGE MAINTENANCE.

DRAWING INDEX:



SHEET NO.	SHEET TITLE
USS-8202-01	COVER SHEET
USS-8202-02	GENERAL NOTES AND DRAWING INDEX
USS-8202-03	SITE PLAN
USS-8202-04	VICINITY MAP, FLOOD ZONE MAP, DRAINAGE BASINS, HYDROLOGY AND HYDROLOGIC CALCULATIONS
USS-8202-05	GRADING AND DRAINAGE PLAN
USS-8202-06	MISCELLANEOUS DETAILS
USS-8202-07	MISCELLANEOUS DETAILS
USS-8202-08	SECTION DETAILS



PROPRIETARY STATEMENT

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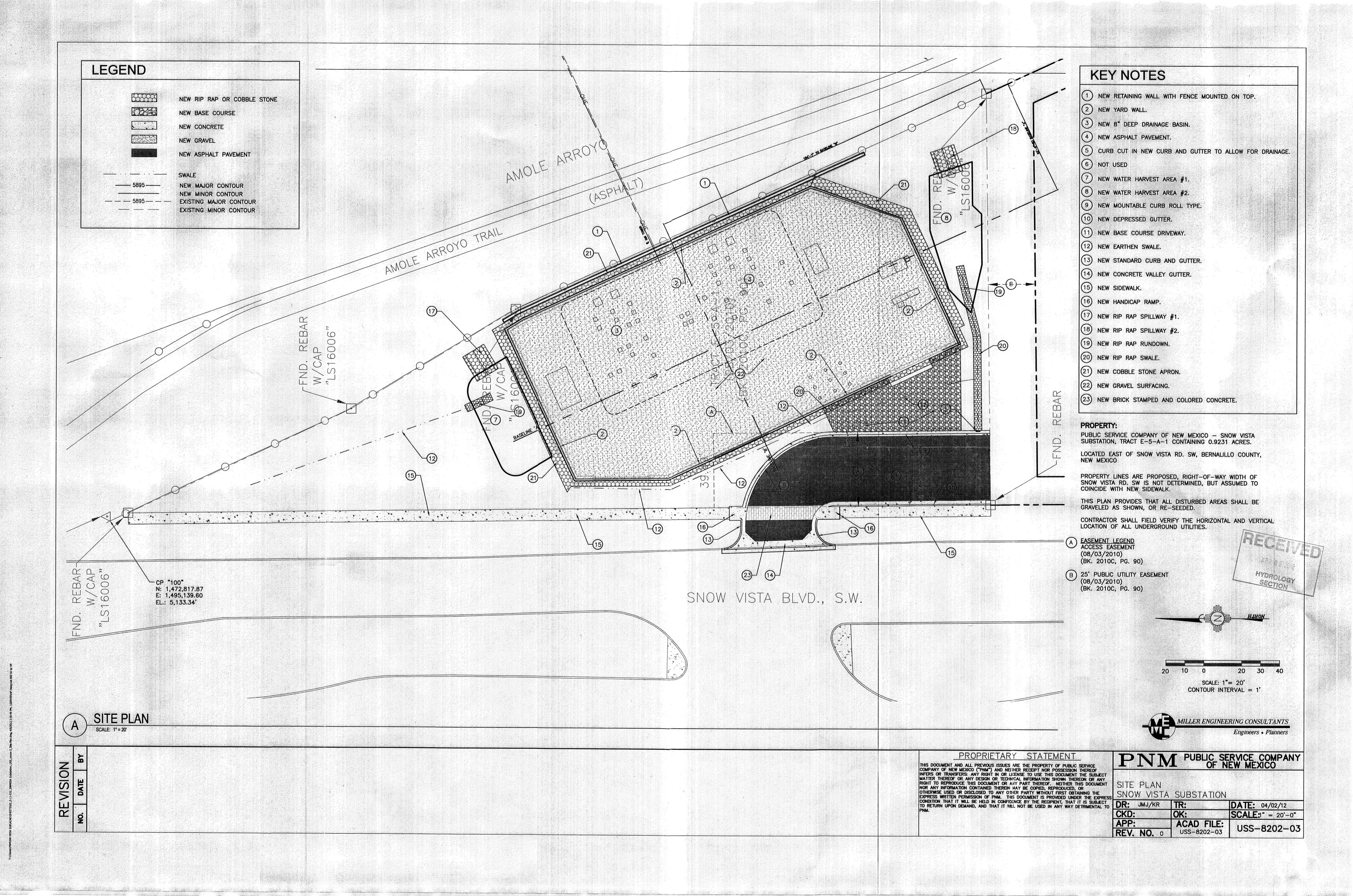
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	GENERAL NOTES AND INDEX					
•	GRADING AND DRAINAGE DESIGN					
SS	GENERAL NOTES AND INDEX GRADING AND DRAINAGE DESIGN SNOW VISTA SUBSTATION					
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REVISION





FLOOD ZONE MAP

FLOOD ZONE MAP 35001C0136G

EXISTING ON SITE CONDITIONS THE PROJECT SITE CONSISTS OF 1.17 ACRES (MORE OR LESS) AND IS CURRENTLY UNDEVELOPED AND CONSISTS OF BARE LAND WITH SPARSE NATIVE VEGETATION. THE PROJECT SITE SLOPES TO THE SOUTHEAST, TO THE AMOLE ARROYO ALONG THE EASTERN PROPERTY LINE. THE PROPERTY SLOPES MODERATELY AT ABOUT 4% TO 6% TO THE SOUTHEAST. THE EASTERN PROPERTY JUST OUTSIDE THE PROPERTY LINE SLOPES 4' TO 10' DOWN AT AN APPROXIMATE SLOPE OF 5:1 TO THE AMOLE TRAIL. THE SUBJECT PROPERTY IS BORDERED ON THE WEST BY SNOW VISTA BOULEVARD SW, ON THE SOUTH BY A PRIVATE OWNER (VACANT LAND) AND ON THE EAST BY THE AMOLE TRAIL AND AMOLE ARROYO. THE EXISTING LAND TREATMENTS FOR THE SITE ARE CATEGORIZED AS 100% A, 0% B, 0% C AND 0% D.

PROPOSED CONDITIONS

THE PROPOSED IMPROVEMENTS WILL CONSIST OF A 217'x110' PNM ELECTRICAL SUBSTATION. THE SUBSTATION HAS PNM EQUIPMENT INSIDE OF DECORATIVE BLOCK WALLS. THE SURFACE INSIDE THE WALLS WILL BE SURFACED WITH A GRAVEL MATERIAL. PNM REQUIRES THAT ALL STORM WATER RUNOFF WITHIN THE SUBSTATION WALLS BE CONTAINED WITHIN THE WALLS OF THE SUBSTATION WITHIN A 8" DEEP DEPRESSION AS INDICATED ON THE GRADING PLAN. THE SUBSTATION WILL BE ACCESSED BY A 34' WIDE ASPHALT PAVED DRIVEWAY FROM SNOW VISTA BOULEVARD S.W. LOCATED WEST OF THE PROPOSED SUBSTATION. THE ONLY IMPERVIOUS AREAS ARE SMALL CONCRETE FOOTINGS WITHIN THE SUBSTATION WALLS, THE TOP OF THE SUBSTATION WALLS, AND THE ENTRANCE DRIVEWAY WHICH WILL CONSIST OF CURB AND GUTTER AND ASPHALT. THE SITE HAS BEEN DELINEATED INTO TWO EXISTING ON-SITE BASINS (BASINS A AND B), AND THREE ONSITE BASINS. (BASINS A, B, and C) AS INDICATED ON THE EXISTING AND PROPOSED DRAINAGE BASIN MAPS ON THIS SHEET. THE PROPOSED LAND TREATMENTS ARE PROVIDED IN THE HYDROLOGY TABLES DIRECTLY BELOW THE EXISTING AND PROPOSED DRAINAGE BASIN MAPS ON THIS SHEET.

STORMWATER ROUTING

THE RUNOFF FROM BASIN A WILL BE CONTAINED IN WATER HARVEST AREA #1. THE WATER FROM BASIN B WILL BE CONTAINED WITHIN THE SUBSTATION WALLS AND THE WATER FROM BASIN C WILL BE CONTAINED IN WATER HARVEST AREA #2.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.-1.

CONCLUSION

WHEN FULLY DEVELOPED, THE WATER HARVEST AREAS WILL CONTAIN THE RUNOFF VOLUME GENERATED FROM THE 100-YEAR 24 HOUR STORM EVENT. THE VOLUME CALCULATIONS FOR THE WATER HARVEST AREAS ARE PROVIDED IN THE SUPPLEMENTAL DRAINAGE CALCULATIONS ON THIS SHEET. EROSION PROTECTION WILL BE PLACED AT AREAS SUSCEPTIBLE TO CONCENTRATED FLOWS AND ALL DISTURBED AREAS WILL BE RE-VEGETATED IN ACCORDANCE WITH NMAPWA REQUIREMENTS.



VICINITY MAP

GENERAL NOTES:

TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO AUGUST 2011.

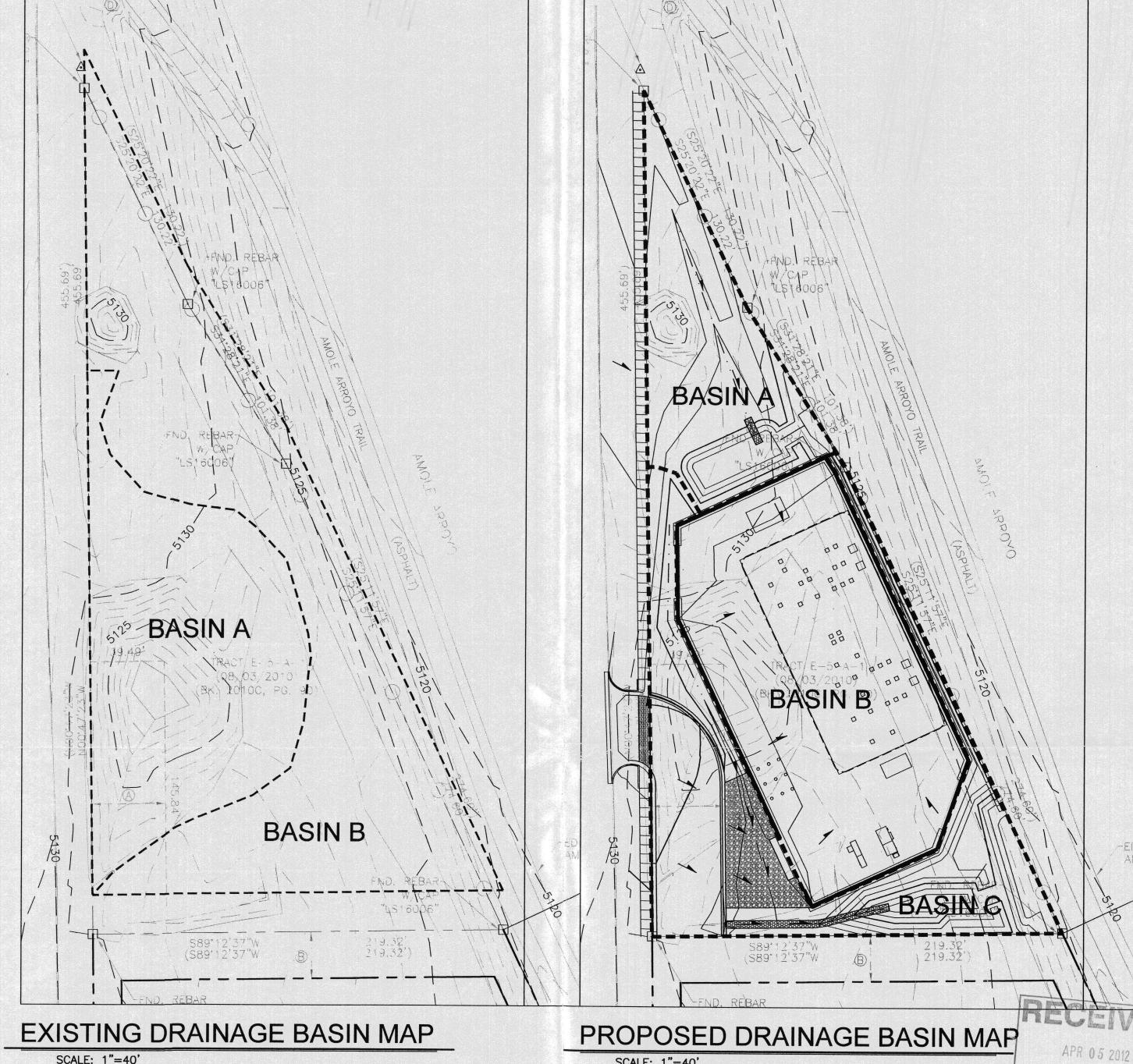
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- TOPOGRAPHIC SURVEY WAS COMPILED L'TILIZING GROUND COORDINATES REFERENCED TO THE NAD 83 NEW MEXICO CENTRAL ZONE COORDINATE SYSTEM. PRIMARY HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED UTILIZING GPS RTK METHODS (COMBINED GROUND TO GRID FACTOR = 0.999682702).
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- 8. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- 10. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
- 11. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 12. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X. DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 336G.

- 13. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.

SCALE: 1"=40'

CONTPUR INTERVAL=1'

- 15. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
- 16. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
- 17. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- 18. IN THE EVENT THAT THE PNM SPECIFICATIONS DO NOT ADDRESS A SPECIFIC ELEMENT OF WORK OUTLINED IN THESE DRAWINGS, THE GOVERNING SPECIFICATION THAT SHALL BE UTILIZED AND REFERENCED BY THE CONTRACTOR SHALL BE THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (LATEST EDITION).



SCALE: 1"=40'

DRAINAGE DATA

Precipita	tion Zone 1	- 100-year	Storm	P(360) =	2.20	in	P(1440):	2.66	in
	Basin	Land Treatment Factors						74 74	
Basin	Area	Α	В	С	D	Ew	V(100-6)	V(100-24)	Q(100)
	(Ac)		(Acres	;)		(in)	(af)	(af)	(cfs)
Existing Conditions									
Α	0.45	0.45	0.00	0.00	0.00	0.44	0.017	0.017	0.58
В	0.72	0.72	0.00	0.00	0.00	0.44	0.026	0.026	0.93
Total	1.17								1.51
Proposed	d Conditions	3							
Α	0.27	0.13	0.00	0.14	0.00	0.73	0.016	0.016	0.57
В	0.52	0.00	0.00	0.49	0.03	1.05	0.045	0.047	1.54
С	0.38	0.03	0.00	0.24	0.11	1.23	0.039	0.043	1.21
Total	1.17								3.32

Precipita	tion Zone 1	- 10-year S	torm	P(360) =	1.47	in	P(1440) =	1.78	in
	Basin Land Treatment Factors								
Basin	Area	Α	В	С	D	Ew	V(10-6)	V(10-24)	Q(10)
	(Ac)		(Acres	s)		(in)	(af)	`(af)	(cfs)
Existing (Conditions					•			
A	0.45	0.45	0.00	0.00	0.00	0.08	0.003	0.003	0.11
В	0.72	0.72	0.00	0.00	0.00	0.08	0.005	0.005	0.17
Total	1.17								0.28
Proposed	d Conditions								
A	0.27	0.13	0.00	0.14	0.00	0.27	0.006	0.006	0.24
В	0.52	0.00	0.00	0.49	0.03	0.49	0.021	0.022	0.82
C	0.38	0.03	0.00	0.24	0.11	0.64	0.020	0.023	0.68
Total	1.17								1.74

SCALE: 1"=40'



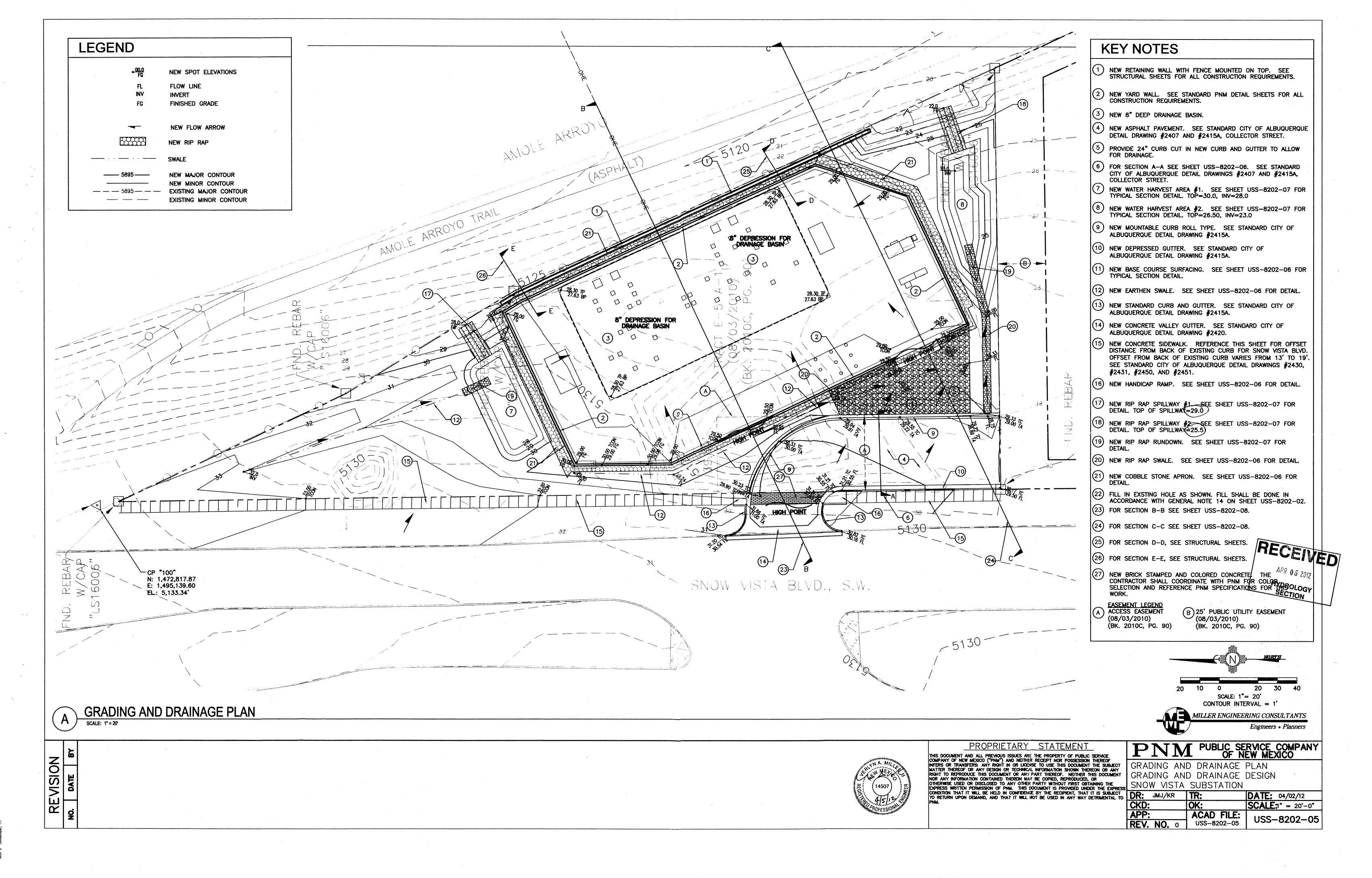
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PIM PUBLIC SERVICE COMPANY
OF NEW MEXICO VICINITY MAP, FLOOD ZONE MAP, DRAINAGE BASINS, AND CALCULATIONS SNOW VISTA SUBSTATION

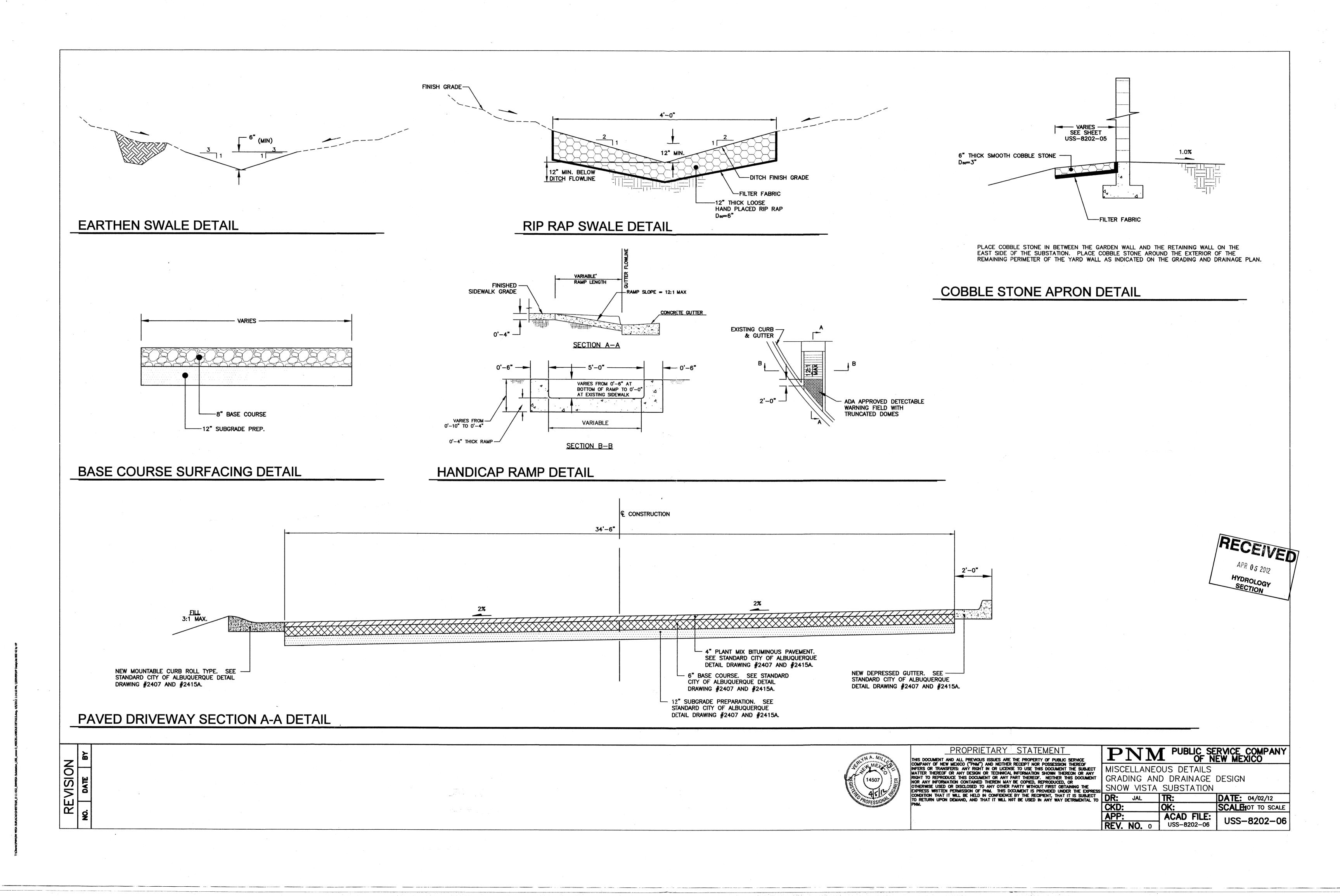
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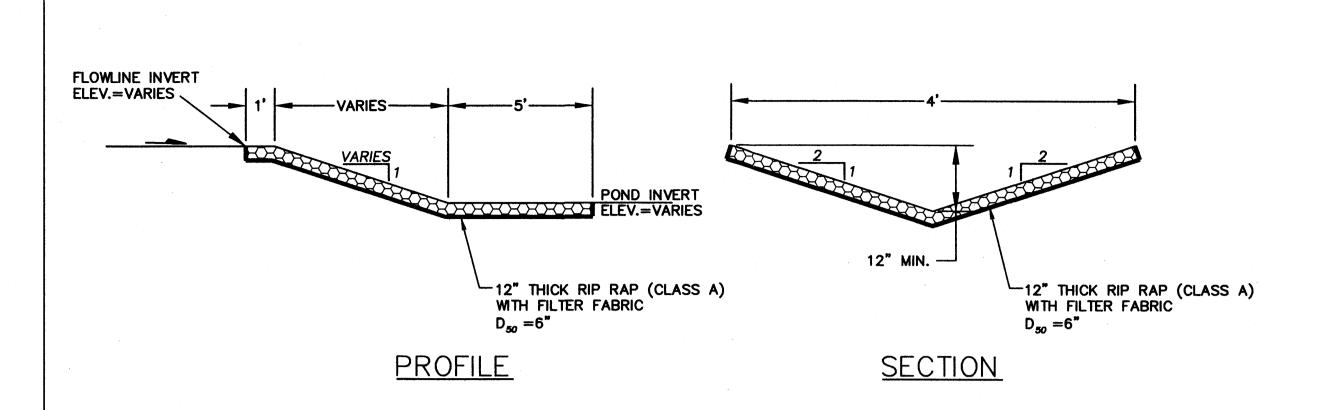
HYDROLOGY

SECTION

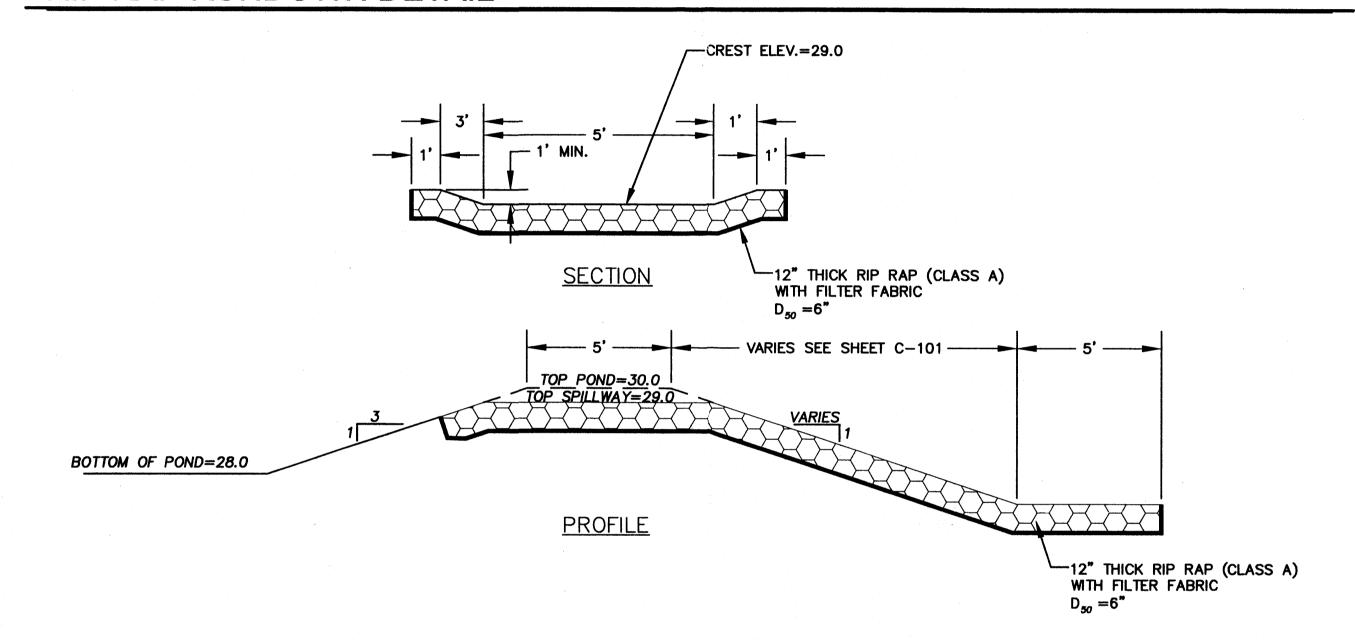


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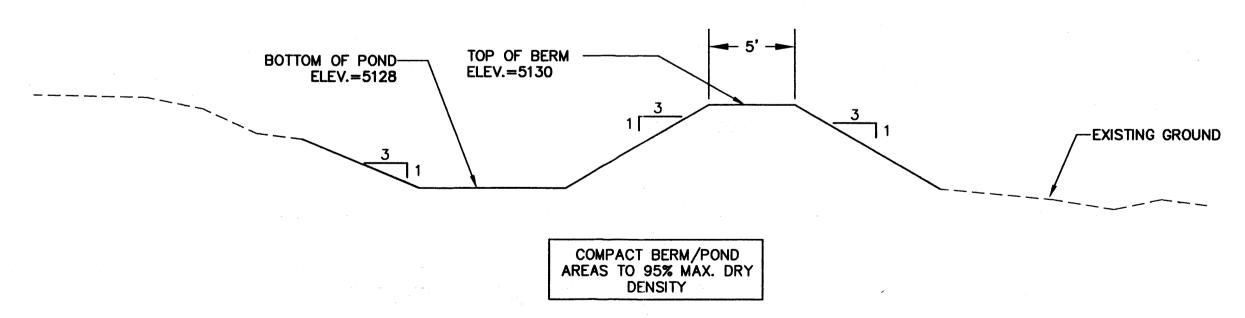




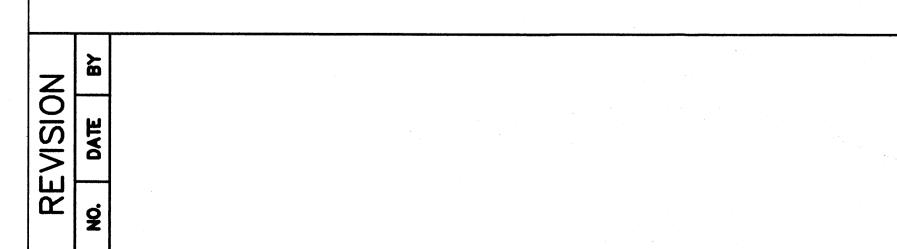
RIP RAP RUNDOWN DETAIL

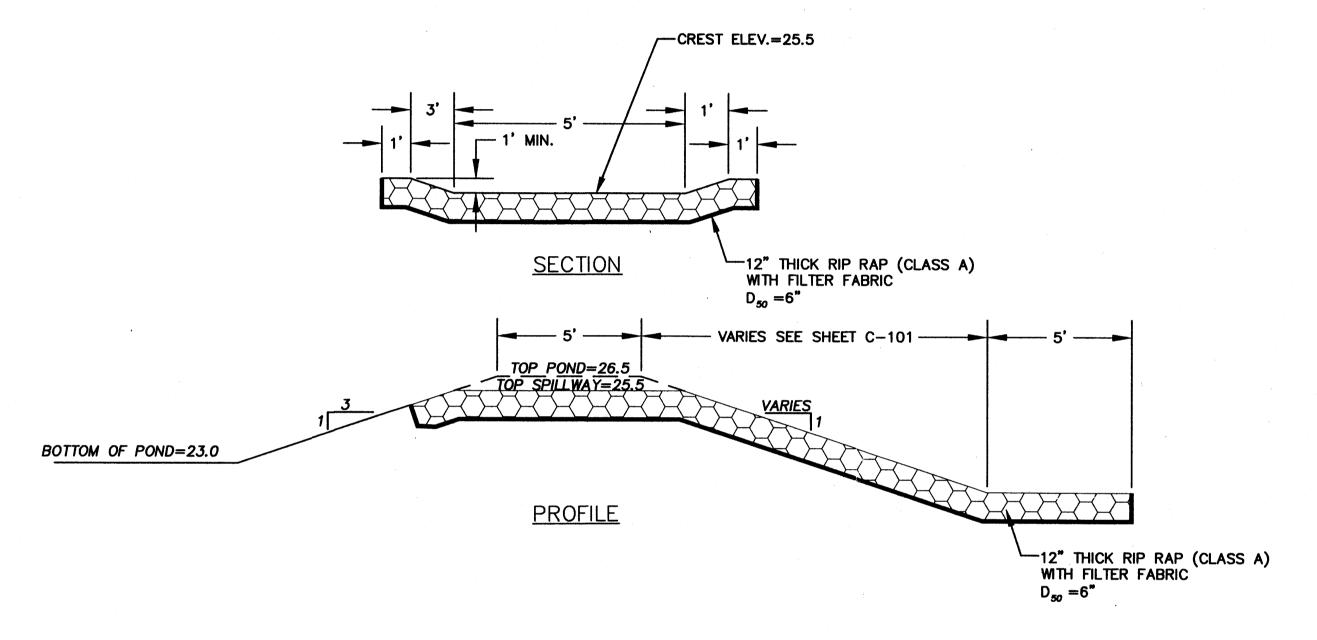


RIP RAP SPILLWAY #1 DETAIL

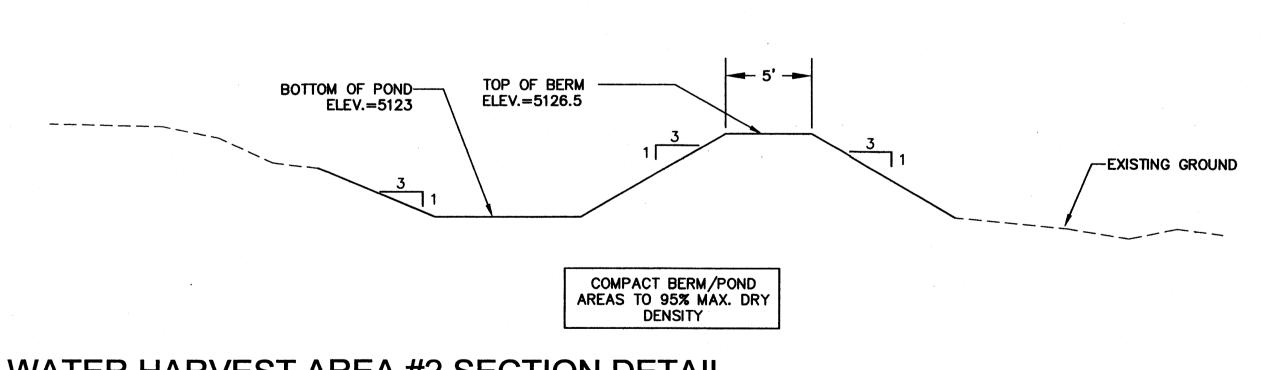


WATER HARVEST AREA #1 SECTION DETAIL





RIP RAP SPILLWAY #2 DETAIL



WATER HARVEST AREA #2 SECTION DETAIL



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APR 05 2012

MISCELLANEOUS DETAILS
GRADING AND DRAINAGE DESIGN
SNOW VISTA SUBSTATION

DR: JAL	IR:	DATE: 04/02/12
CKD:	OK:	SCALENOT TO SCALE
APP:	ACAD FILE:	USS-8202-07
REV. NO. o	USS-8202-07	033-6202-07

