

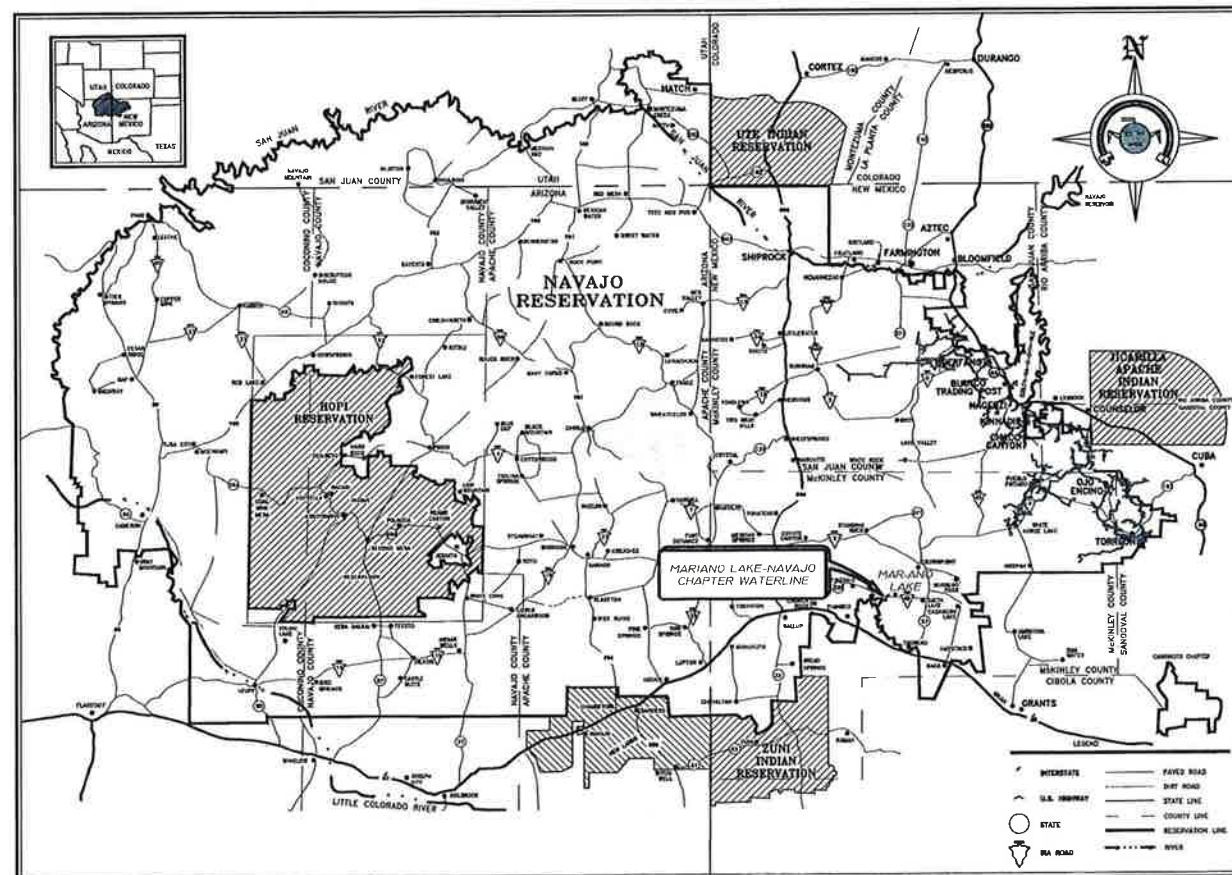
19



PROJECT DESCRIPTION

THE PROJECT CONSISTS OF CONSTRUCTION OF APPROXIMATELY
 34,800 LF OF 6" - 8,700 LF OF 4" - 3,800 LF OF 2" WATERLINES
 AND 25 WATER SERVICES WITH ASSOCIATED APPURTENANCES

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DT-5	STANDARD WATER DETAILS
DT-6	PRESSURE REDUCING VALVE STATION

NAVAJO RESERVATION
PROJECT SITE MAP

GENERAL NOTES

1. SOUDER, MILLER AND ASSOCIATES SHALL HEREINAFTER BE KNOWN AS THE ENGINEER. THERE WILL BE A PERSON PROVIDED BY THE ENGINEER THAT WILL ACT AS CONSTRUCTION OBSERVER WHO WILL BE THE CONTACT FOR QUESTIONS FROM THE CONTRACTOR TO THE ENGINEER.
2. THERE WILL BE A PERSON OR PERSONS (HEREINAFTER KNOWN AS THE OWNER'S REPRESENTATIVE) CHOSEN BY THE NAVAJO NATION (HEREINAFTER KNOWN AS THE OWNER) TO ACT AS A CONTACT PERSON BETWEEN THE OWNER AND THE ENGINEER. THE OWNER'S REPRESENTATIVE WILL OBSERVE, AND PROVIDE INFORMATION, AND PROVIDE CRITICAL LOCATIONS THROUGH THE ENGINEER TO THE CONTRACTOR IN THE FIELD.
3. THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND IS NOT LIABLE FOR PROBLEMS THAT MAY ARISE FROM THE CONTRACTOR'S FAILURE TO FOLLOW THESE DRAWINGS, SPECIFICATIONS, AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS ARISING FROM FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS.
4. ARCHAEOLOGICAL DISCOVERY: NO ARCHAEOLOGICAL SITES ARE TO BE EXCAVATED OR OTHERWISE DISTURBED. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION-RELATED ACTIVITIES TO AREAS THAT HAVE RECEIVED PRIOR ARCHAEOLOGICAL CLEARANCE, AS INDICATED BY THE ENGINEER. IF A HIDDEN ARCHAEOLOGICAL SITE IS DISCOVERED WITHIN THE APPROVED CONSTRUCTION RIGHT-OF-WAY, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THAT AREA AND NOTIFY THE ENGINEER. THE CONTRACTOR SHOULD BE AWARE OF HIS/HER RESPONSIBILITIES UNDER THE HISTORIC PRESERVATION ACT OF 1966.
5. CONTRACTOR SHALL COMPLY WITH ALL ENVIRONMENTAL REQUIREMENTS IMPOSED BY THE BUREAU OF INDIAN AFFAIRS, NAVAJO NATION AND ANY OTHER AGENCY WITH JURISDICTION OVER THE PROJECT AREA.
6. ALL WORK IN THE VICINITY OF LIVE STREAMS, WATER IMPOUNDMENTS, WETLANDS OR IRRIGATION SUPPLIES SHALL BE EFFECTED IN SUCH A MANNER AS TO MINIMIZE VEGETATION REMOVAL, SOIL DISTURBANCE AND EROSION. CROSSINGS OF LIVE STREAMS WITH HEAVY EQUIPMENT SHALL BE MINIMIZED, AS DETERMINED BY THE PROJECT MANAGER. EQUIPMENT REFUELING, MAINTENANCE AND CEMENT DUMPING IN THE VICINITY OF WATER COURSES IS STRICTLY PROHIBITED AND SHALL BE PERFORMED IN PROPER CONTAINMENT AREAS.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE LOCATION OF ALL UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE GENERAL LOCATION OF KNOWN EXISTING UTILITIES HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS TO INDICATE THAT CAUTION MUST BE EXERCISED WHEN WORKING IN THESE AREAS. IN MANY CASES THE EXACT LOCATION OF THE FACILITIES IS NOT KNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL OVERHEAD AND UNDERGROUND UTILITIES WITHIN THE VICINITY OF THE NEW CONSTRUCTION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR, WORKING WITH THE RESPECTIVE UTILITY COMPANIES, SHALL ACCURATELY LOCATE AND MARK ALL BURIED FACILITIES, INCLUDING SERVICE LINES. ALL EQUIPMENT LABOR, ETC. NECESSARY TO PROPERLY LOCATE THE EXISTING UTILITIES SHALL BE FURNISHED BY THE CONTRACTOR, THE COST OF WHICH SHALL BE INCLUDED IN THE UNIT PRICES ON VARIOUS BID ITEMS.
8. CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY LOCATION, PROTECTION, AND VERIFICATION. CONTRACTOR MUST NOTIFY NEW MEXICO ONE CALL SYSTEM, INC. AT 811 OR 1-800-321-2537 AND ALL LOCAL UTILITY PROVIDERS THREE (3) DAYS BEFORE STARTING UTILITY CONSTRUCTION.
9. THROUGHOUT THE LIFE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE EXISTING UTILITY SYSTEMS OPERATING. THE CONTRACTOR SHALL REPORT SHUT-OFFS OF ANY OR ALL CONNECTIONS TO THE OWNER AND ENGINEER AT LEAST TWENTY-FOUR (24) HOURS IN ADVANCE OF THE SHUT-OFFS. ALL LOCAL RESIDENTS AND BUSINESSES SHALL BE CONTACTED BEFORE ANY DISCONNECTION OF ANY SERVICE. ANY INTERRUPTION OF SERVICE SHALL BE KEPT TO THE MINIMUM LENGTH OF TIME POSSIBLE.
10. CONTRACTOR SHALL CONFINE ALL CONSTRUCTION OPERATIONS TO THE LIMITS OF THE PROJECT EASEMENTS DEFINED IN THESE DRAWINGS, AND IN NO WAY ENCR OACH ONTO ADJACENT PROPERTIES, UNLESS LEGAL EASEMENTS ARE PROVIDED. CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR ANY AGREEMENTS NEEDED, OR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY, INCLUDING UTILITIES.
11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTING THE PROJECT ACCORDING TO CURRENT NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (NMSSPWC) AWWA SPECS, AND NAVAJO NATION/ NTUA STANDARDS, INCLUDING WHERE PARTICULAR WORK ITEMS ARE NOT SPECIFIED HEREIN.
12. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS SET FORTH IN THE TECHNICAL SPECIFICATIONS AND CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE ENGINEER REGARDING ANY QUESTION ARISING FROM ANY ASPECT OF THIS PROJECT NOT SPECIFICALLY COVERED IN THE PLANS AND TECHNICAL SPECIFICATIONS, OR ANY CHANGES OR CORRECTIONS TO THE PLANS AND SPECS.
13. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL (OSHA), STATE, TRIBAL AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P - EXCAVATIONS.
14. CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING BUILDING PERMITS, ROAD CROSSING PERMITS AND ANY OTHER PERMITS, WHICH HAVE NOT ALREADY BEEN OBTAINED BY THE OWNER OR ENGINEER.
15. THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO ANY LOCAL BUSINESSES AND RESIDENTS AS REQUIRED FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES AT LEAST 24 HOURS IN ADVANCE WITH PROPERTY OWNERS AND THE ENGINEER.
16. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH NMDOT, BIA NRO-DOT AND COUNTY ROAD DEPARTMENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ANY APPLICABLE SPECIAL PROVISION AND/OR SUPPLEMENTAL SPECIFICATION, AS WELL AS THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, UNLESS OTHERWISE SPECIFIED HEREIN.
17. AS PART OF THE TRAFFIC CONTROL PLAN AND TRAFFIC CONTROL MANAGEMENT, THE CONTRACTOR SHALL HAVE PERSONNEL AVAILABLE 24 HOURS PER DAY, 7 DAYS PER WEEK, TO INSPECT AND MAINTAIN DETOURS AND TRAFFIC CONTROL DEVICES.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED BY THE PLANS WHETHER SPECIFICALLY LISTED OR NOT TO COMPLETE THE PROJECT. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND THE CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR UNLISTED REMOVALS.
19. OBSTRUCTIONS REMOVED FROM THE WORK AREAS SHALL BE DISPOSED OF BY THE CONTRACTOR. CONTAMINATED MATERIAL WITHIN THE "MINING RECLAMATION AREA" SHALL BE DISPOSED OF / TRANSPORTED TO DESIGNATED SITE. DISPOSAL OF USABLE MATERIALS (E.G. EXCESS DIRT, GRAVEL, ETC.) SHALL BE AT A SITE DESIGNATED BY THE OWNER DURING CONSTRUCTION. ALL OTHER WASTE SHALL BE DISPOSED OF AT AN APPROVED LANDFILL. ALL DISPOSAL SITES MUST BE APPROVED BY THE ENGINEER AND OWNER PRIOR TO DISPOSAL OF ANY WASTE.
20. THE CONTRACTOR SHALL SALVAGE ANY OBSTRUCTIONS NOTED ON THE CONTRACT DRAWINGS AS WELL AS REUSABLE ITEMS FOUND DURING CONSTRUCTION. SUCH ITEMS, IF ANY, SHALL BE DELIVERED TO THE PROPERTY OWNER AS DIRECTED BY THE ENGINEER AND/OR OWNER DURING CONSTRUCTION.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AN EQUIPMENT STORAGE YARD. THE LOCATION OF THE YARD MUST BE APPROVED BY THE OWNER. NO DIRECT PAYMENT WILL BE MADE FOR THE YARD. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SITE SECURITY.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE FOR CONSTRUCTION UNLESS OTHERWISE PROVIDED. NO DIRECT PAYMENT WILL BE MADE FOR WATER. ALL PERMITS, FEES, EQUIPMENT, HAUL, ETC. RELATIVE TO OBTAINING WATER SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS BID ITEMS.
23. THE CONTRACTOR SHALL TAKE ANY NECESSARY MEASURES TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS FROM DAMAGE DURING CONSTRUCTION. IF DURING EXECUTION OF THE PROJECT, THE CONTRACTOR'S ACTIVITIES DISTURB OR DESTROY SUCH MONUMENTS, THE CONTRACTOR SHALL RE-ESTABLISH THEM IN ACCORDANCE WITH ESTABLISHED STANDARDS AND PROCEDURES.
24. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES FREE OF DUST AND/OR CONSTRUCTION DEBRIS AT ALL TIMES DURING THE EXECUTION OF THE PROJECT. ALL EXISTING AND NEW STRUCTURES SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ALL COSTS RELATED TO THIS ITEM SHALL BE INCIDENTAL TO THE WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR.
25. CONTRACTOR SHALL REPAIR ANY EXISTING STRUCTURE OR UTILITY DAMAGED DURING THE EXECUTION OF THE PROJECT, AT NO ADDITIONAL COSTS TO THE OWNER.
26. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF MATERIALS AND EQUIPMENT PRIOR TO AND AFTER THEIR INSTALLATION AS APPLICABLE, UNTIL THE PROJECT'S FINAL ACCEPTANCE BY THE OWNER.
27. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR EROSION CONTROL INCIDENTAL TO THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROVIDE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THIS SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT REQUIREMENT FOR ALL CONSTRUCTION ACTIVITIES.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND OTHER MATERIALS WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING PAST SPILLS ENCOUNTERED DURING CONSTRUCTION AND OF CURRENT SPILLS NOT ASSOCIATED WITH CONSTRUCTION. REPORTS SHALL BE MADE IMMEDIATELY TO THE NAVAJO NATION EPA AT (928) 871-7701 AND TO THE PROJECT ENGINEER. ANY UNREPORTED SPILLS IDENTIFIED AFTER CONSTRUCTION AND THE ASSOCIATED CLEANUP COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
29. THE CONTRACTOR SHALL PREPARE AND MAINTAIN UP-TO-DATE "AS-BUILT" DRAWINGS AS PER THE CONTRACT DOCUMENTS. UPDATING SUCH DRAWINGS SHALL BE DONE NOT LESS THAN ONCE EVERY WEEK. THE OWNER AND ENGINEER'S PROJECT REPRESENTATIVES SHALL BE ALLOWED TO REVIEW THESE DRAWINGS AT ANY TIME DURING CONSTRUCTION. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER COMPLETE AS-BUILT DRAWINGS AS PER CONTRACT DOCUMENTS. TWO SETS OF "AS-BUILT DRAWINGS" WILL BE SUBMITTED, UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS. ANY EXISTING UTILITIES NOT SHOWN IN THESE DRAWINGS SHALL BE LOCATED AND SHOWN IN AS-BUILT DRAWINGS.
30. CONTRACTOR SHALL SUBMIT ASTM OR AASHTO CERTIFICATES OF MATERIAL'S COMPLIANCE TO THE OWNER'S PROJECT REPRESENTATIVE, NO LESS THAN 5 DAYS PRIOR TO INITIATING ANY WORK INVOLVING SUCH MATERIALS.
31. ANY EXCEPTIONS TO PLACEMENT OR DEPTH OF MATERIALS AND EQUIPMENT MUST BE AUTHORIZED BY THE ENGINEER.
32. TESTING SHALL BE PERFORMED BY THE CONTRACTOR AS PER CONTRACT DOCUMENTS.
33. ALL WATERLINES, BUILDING PLUMBING AND MATERIALS SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE AS PER CONTRACT DOCUMENTS.
34. OVER-EXCAVATION OF TRENCHES SHALL NOT BE PERFORMED UNLESS IT IS DETERMINED TO THE SATISFACTION OF THE ENGINEER THAT THE SUBSOIL IS NOT SUITABLE FOR PIPE BEDDING AND MUST BE REPLACED WITH IMPORTED FILL. OVER-EXCAVATION PERFORMED UNNECESSARILY BY THE CONTRACTOR SHALL BE REMEDIED WITH CLASSIFIED FILL AND COMPACTION AS REQUIRED BY THE SPECIFICATIONS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR IMPORTED FILL UNDER ANY CIRCUMSTANCES.
35. ALL FINISHED SLOPES (BOTH SIDE-SLOPES AND ALONG THE CENTERLINE) SHALL BE 3:1 OR SHALLOWER.
36. IMPORTED PADDING AND BACK FILL MATERIAL, IF REQUIRED, SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE. SEPARATE PAYMENT WILL NOT BE MADE FOR PADDING AND BACK FILL MATERIAL OR HAUL. ALL PADDING AND BACK FILL MATERIAL OR HAUL SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS WORK ITEMS. THE CONTRACTOR SHALL SECURE A SUITABLE PADDING AND BACK FILL MATERIAL PIT IF MATERIAL IS REQUIRED TO COMPLETE THE PROJECT.
37. BACK FILL DENSITY TESTS SHALL BE PERFORMED AS PER SPECIFICATIONS. MINIMUM REQUIREMENTS ARE HORIZONTALLY FOR EACH 1,000 LINEAR FEET OF PIPELINE, OR ANY STRUCTURE THAT REQUIRES COMPACTED FOUNDATION OR CONTROLLED BACK FILL. ADDITIONAL COMPACTION TESTS SHALL ALSO BE TAKEN EVERY 3 VERTICAL FEET OF BACK FILL.
38. ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES OF THIS PROJECT SHALL BE RESTORED AND RE-GRADED IN A MANNER ACCEPTABLE TO THE OWNER AND ENGINEER. AREAS REQUIRING RESEEDING SHALL BE RESEEDDED PER THE NAVAJO NATION DEPARTMENT OF AGRICULTURE REQUIREMENTS.
39. CONTRACTOR SHALL WARRANTEE ALL MATERIALS AND LABOR FOR A PERIOD OF NOT LESS THAN 12 MONTHS FROM THE DATE OF FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT.
40. CONTRACTOR SHALL SUBMIT PERMISSION TO TAP APPLICATION TO NTUA AT LEAST THREE (3) WEEKS PRIOR TO TAPPING ANY EXISTING NTUA WATERLINE.
41. INSTALL COMBINATION AIR RELEASE VALVE ASSEMBLIES AT HIGH POINTS. ADJUST STATIONING OF AIR VALVES FROM THOSE SHOWN ON PLANS, IF NEEDED, TO ENSURE AIR VALVES ARE AT HIGH POINTS. CONTRACTOR SHALL NOT INSTALL THE PIPE WITH ANY HIGH SPOTS WITHOUT AN APPROVED AIR VALVE.
42. CONTRACTOR SHALL COMPLY WITH REQUIREMENTS REGARDING WORK IN "MINING RECLAMATION AREA", AS OUTLINED IN THE SPECIFICATIONS. CONTRACTOR SHALL NOT WORK WITHIN THE "MINING RECLAMATION AREA" WITHOUT AN ENVIRONMENTAL COMPLIANCE OFFICER PRESENT.
43. WATER SERVICE LOCATIONS SHOWN ON PLANS ARE APPROXIMATIONS ONLY. ACTUAL LOCATIONS OF TAPPING SADDLES, METER ASSEMBLIES, AND HYDRANTS SHALL BE DETERMINED IN THE FIELD BY ENGINEER.

CONTACT INFORMATION:

NAVAJO NATION WATER MANAGEMENT BRANCH (OWNER):	JASON JOHN (928) 729-4004
SOUDER, MILLER & ASSOCIATES (ENGINEER):	GEORGE MIHALIK, P.E. (OFFICE) (505) 299-0942
NAVAJO TRIBAL UTILITY AUTHORITY (NTUA)	LUCY CAYATINETO

ABBREVIATIONS

ACI	AMERICAN INSTITUTE OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AC	AMERICAN CONCRETE INSTITUTE
AC-FT.	ACRE FEET
ACS	ACRES
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALUM	ALUMINUM
ARV	AIR RELEASE VALVE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVR	AIR RELIEF VALVE
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
C or CL	CENTERLINE
CF5	CUBIC FEET PER SECOND
CI	CAST IRON
CLR.	CLEAR
CO	CLEAN OUT
COMM.	COMMUNICATION
CONC.	CONCRETE
CONT.	CONTINUOUS
COUP.	COUPLING
CP	CONTROL POINT
DI	DUCTILE IRON
DIA.	DIAMETER
E	EASTING
EA	EACH
E.G.	FOR EXAMPLE
ELEC.	ELECTRICAL
ELEV.	ELEVATION
ESMT.	EASEMENT
EX	EXISTING
FIG.	FIGURE
FND.	FOUND
FL	FLANGE
FNPT	FEMALE NATIONAL PIPE THREAD
FO	FIBER OPTIC
FT.	FEET
GA.	GAUGE
GALV.	GALVANIZED
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ.	HORIZONTAL
HP	HORSE POWER
HWY	HIGHWAY
I.D.	INNER DIAMETER
IN.	INCH
J-BOX	JUNCTION BOX
KSI	KILO POUNDS PER SQUARE INCH
L	LENGTH
LEN	LENGTH
LF	LINEAR FEET
LT	LEFT
MAX.	MAXIMUM
MIL.	ONE THOUSANDTHS OF AN INCH
MIN.	MINIMUM
M.J.	MECHANICAL JOINT
MNPT	MALE NATIONAL PIPE THREAD
N	NORTHING
NG	NORTH
NGS	NATURAL GAS
N.O.A.A.	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
NM	NEW MEXICO
NMDOT	NEW MEXICO DEPARTMENT OF TRANSPORTATION
NMED	NEW MEXICO ENVIRONMENT DEPARTMENT
NO.	NUMBER
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
O.C.	ON CENTER
O.D.	OUTER DIAMETER
OHE	OVERHEAD ELECTRICAL
PE	PLAIN END
PRV	PRESSURE RELIEF VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLY VINYL CHLORIDE
Q	FLOW
R	RADIUS
ROW	RIGHT OF WAY
RT	RIGHT
SCH.	SCHEDULE
SCS	SOIL CONSERVATION SERVICE
SDR	STANDARD DIMENSION RATIO
SPECS.	SPECIFICATIONS
SS	STAINLESS STEEL
STA.	STATION
STD.	STANDARD
T	TOWNSHIP
TELE.	TELEPHONE
TYP.	TYPICAL
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
USGS	UNITED STATES GEOLOGICAL SURVEY
V	VOLUME
VERT.	VERTICAL
VLF	VERTICAL LINEAR FOOT
W	WATER
WI	WITH
WL	WATERLINE
WW	WATER VALVE

LEGEND - EXISTING

	WATER VALVE
	WATER METER
	HYDRANT
	GAS VALVE
	GAS METER
	POWER POLE
	GUY ANCHOR
	ELECTRICAL J-BOX
	TELEPHONE PEDESTAL
	STORM DRAIN INLET
	EXISTING DRAINAGE WASH
	BUILDING
	CATTLE GUARD
	ROAD SIGN
	GUARD RAIL
	ROAD EDGE
	ROAD CENTER
	CONTOUR MAJOR
	CONTOUR MINOR
	SECTION CORNER
	ARCHEOLOGICAL SITE
	SECTION LINE
	QUARTER SECTION LINE
	TOWNSHIP / RANGE LINE
	SECTION NUMBER
	CURRENT LAND STATUS (OWNER)
	FENCE
	OVERHEAD POWER LINE
	UNDERGROUND POWER LINE
	OVERHEAD TELEPHONE LINE
	UNDERGROUND TELEPHONE LINE
	WATER LINE
	GAS LINE

LEGEND - PROPOSED

	WATER LINE
	BUTTERFLY VALVE
	GATE VALVE
	AIR VALVE
	FLUSH VALVE
	WATER METER
	DIRECTION OF FLOW
	PRESSURE REDUCING VALVE STATION



Know what's below.
Call before you dig.

CLIENT: The Navajo Nation

TOWN: Mariano Lake

GENERAL NOTES AND LEGEND

WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

MCKINLEY COUNTY, NEW MEXICO

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Designed	Drawn	Checked
GMM	JGG	AGR

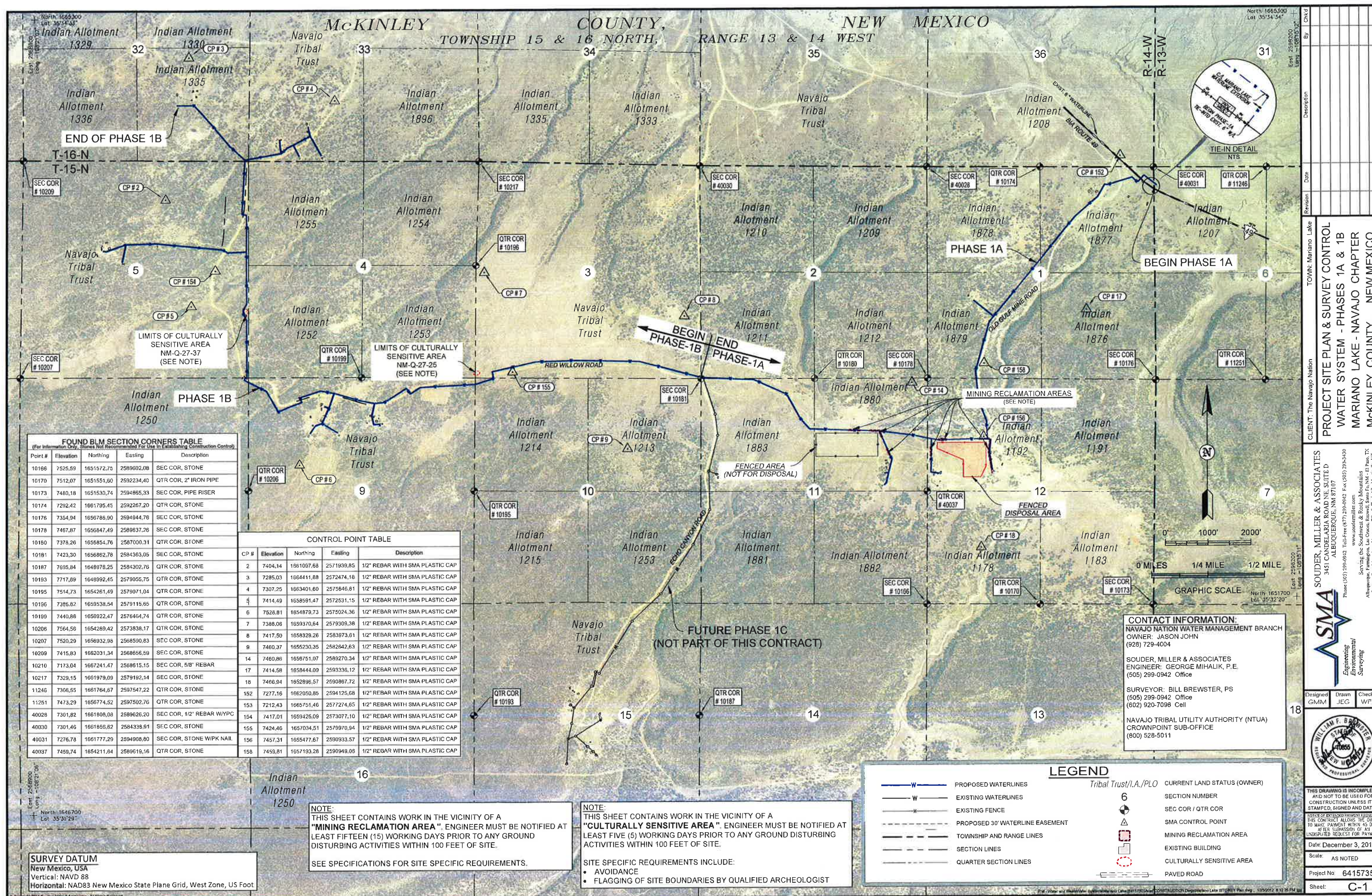
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED BY THE ENGINEER.
THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

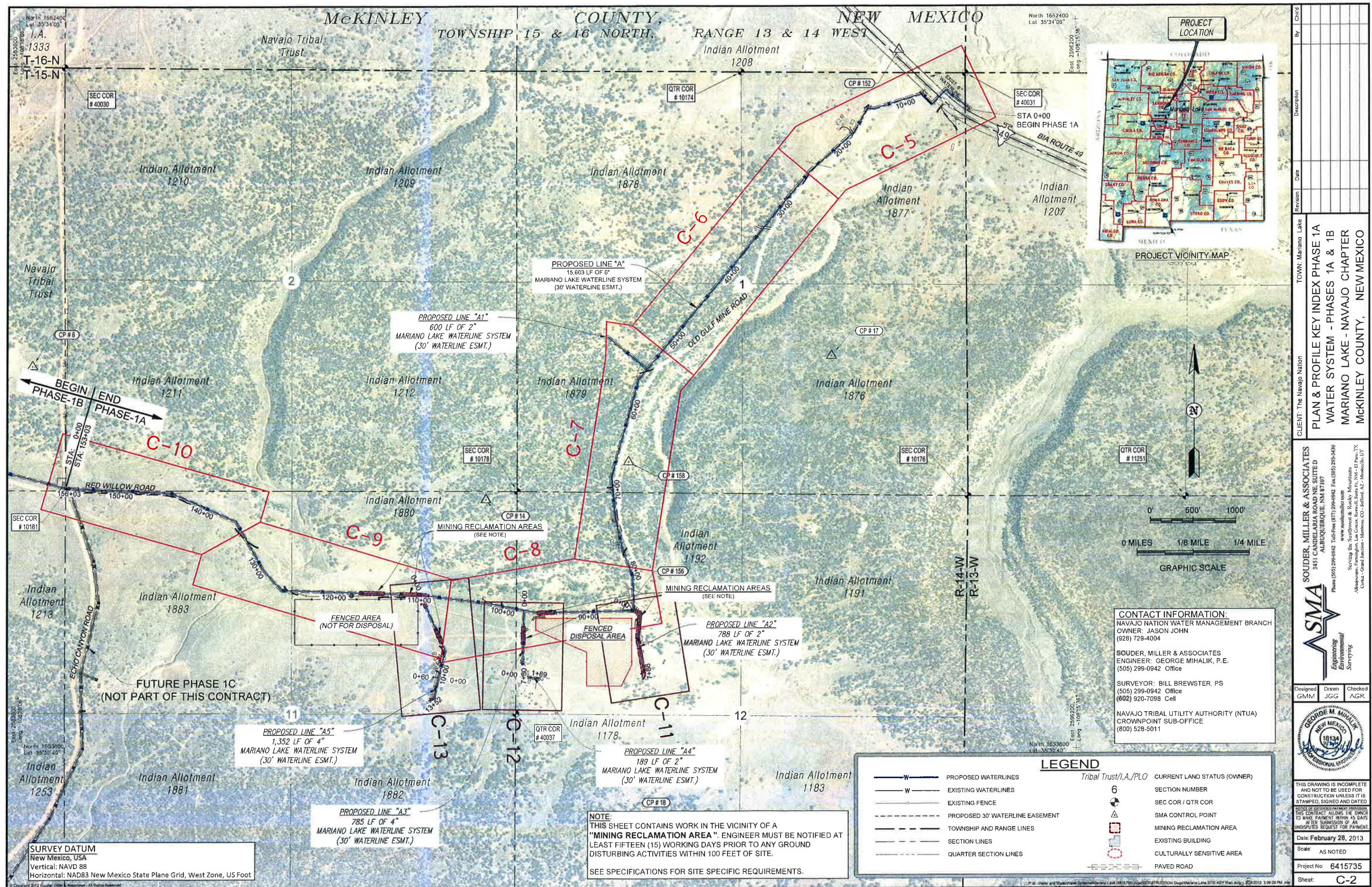
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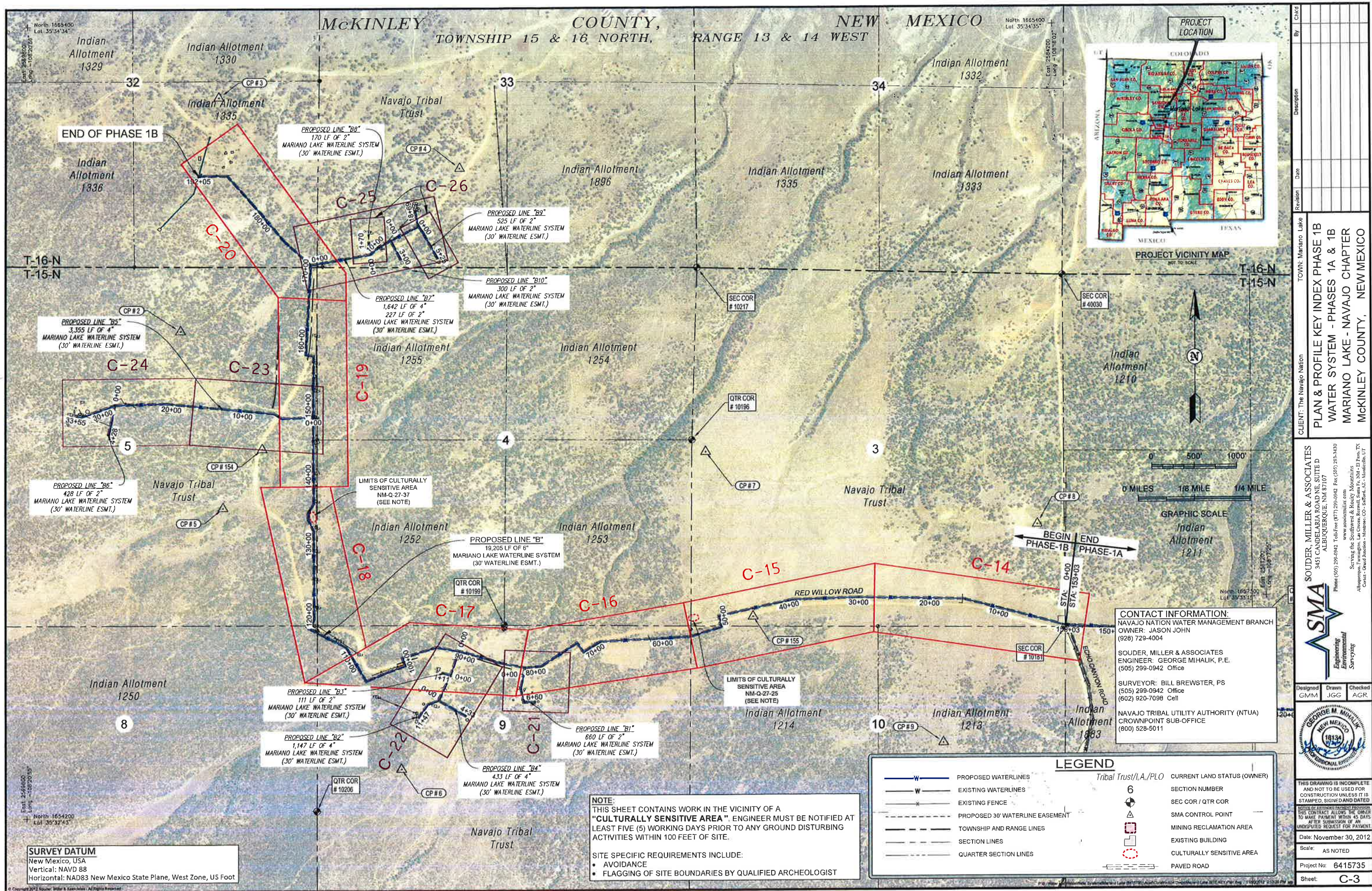
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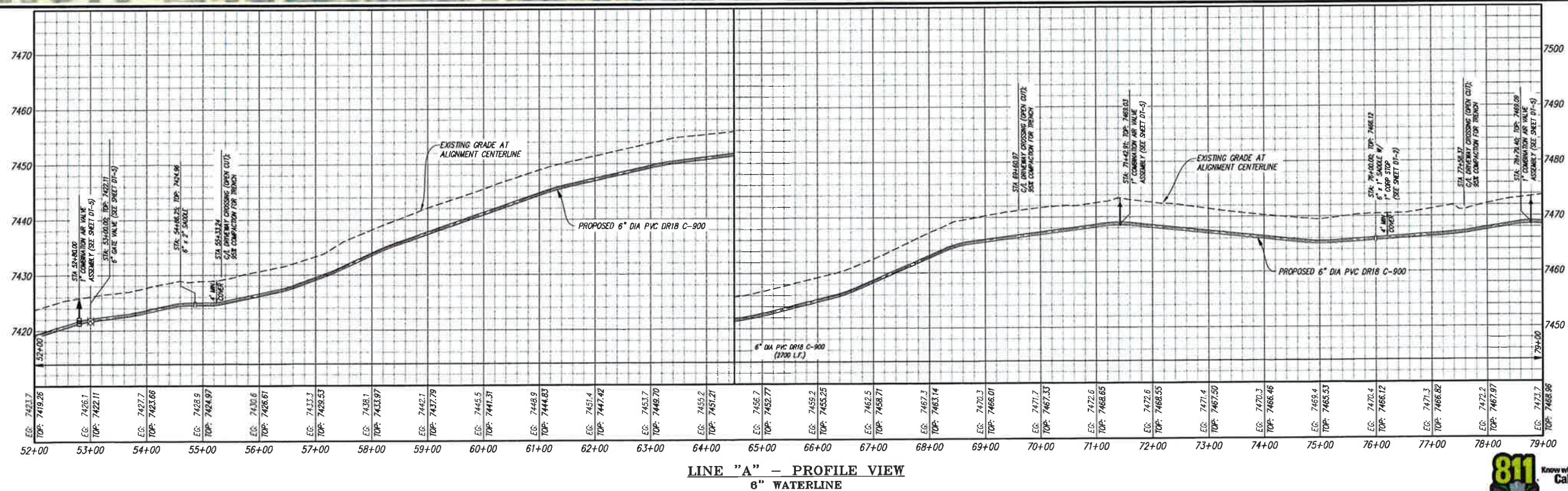
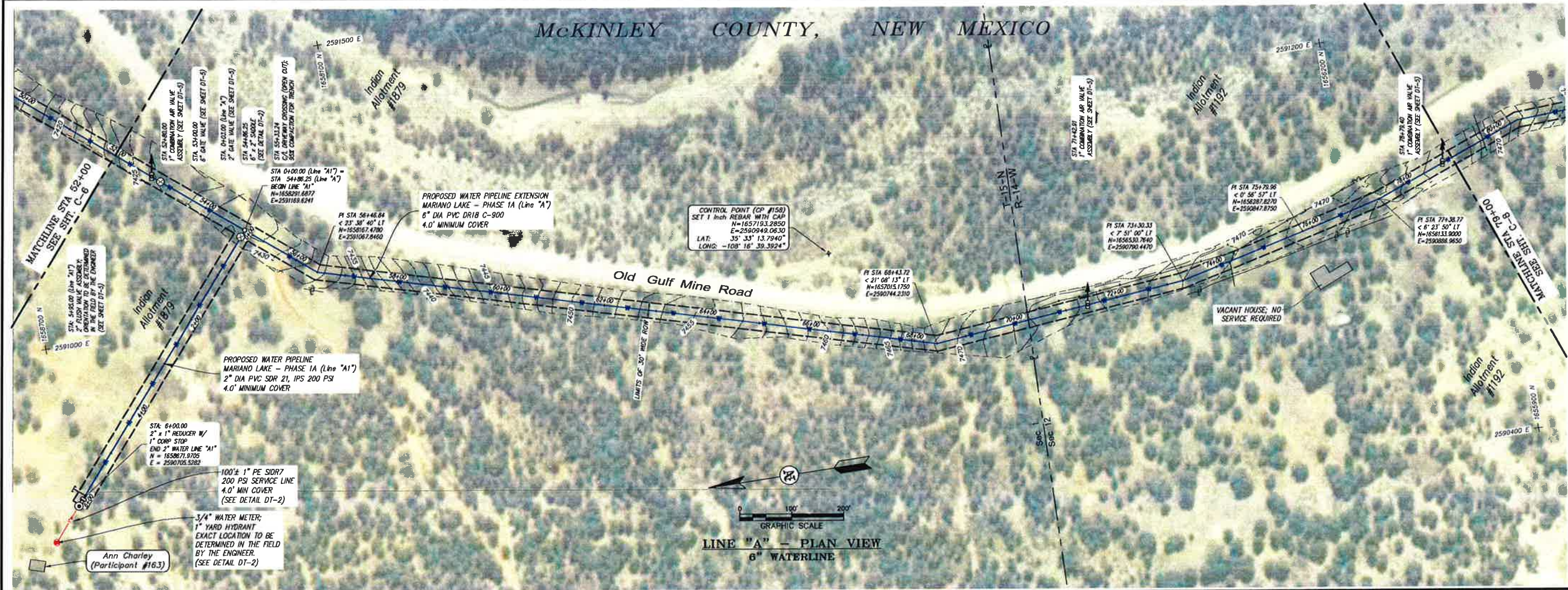
Project No: 6415735

Sheet: G-2









CLIENT: The Navajo Nation

TOWN: Mariano Lake

PLAN & PROFILE LINE "A" STA 52+00 TO 79+00 & LINE "A1"

WATER SYSTEM PHASES 1A & 1B

MARIANO LAKE NAVAJO CHAPTER

McKINLEY COUNTY, NEW MEXICO

DESIGNED: GMM

DRAWN: JGG

CHECKED: AGR

DATE: November 30, 2012

PROJECT NO: 6415735

SHEET: C-7

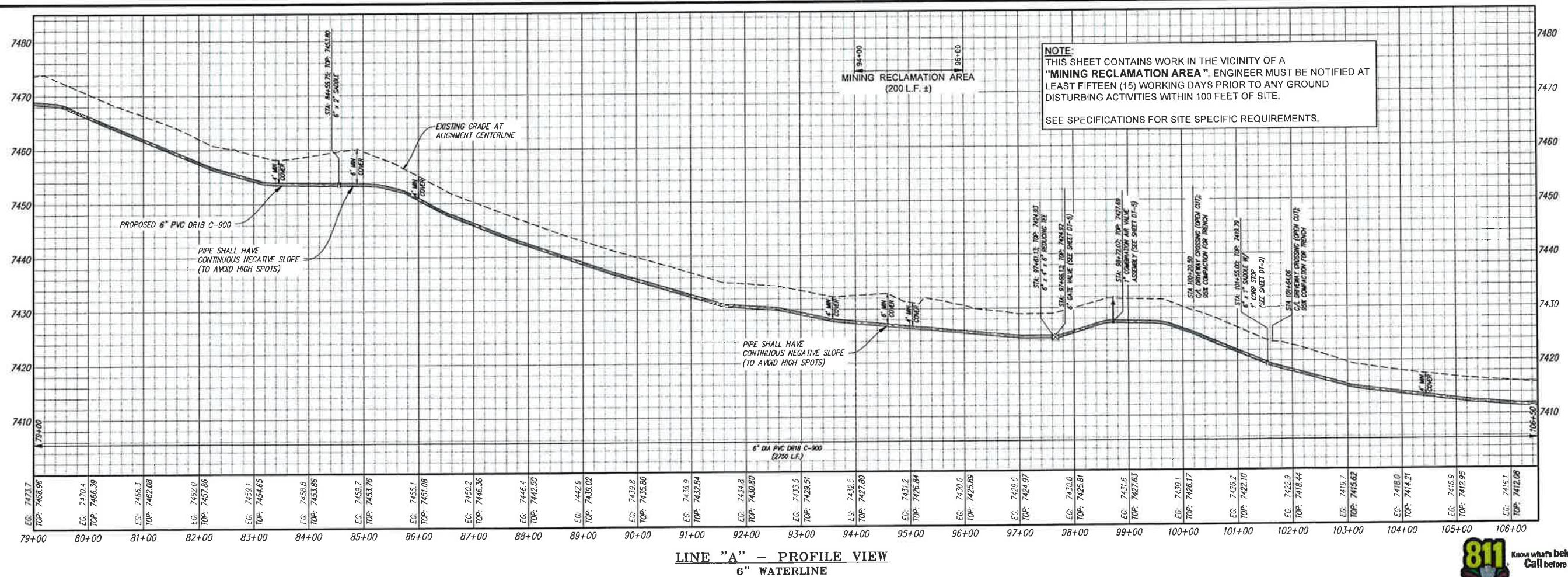
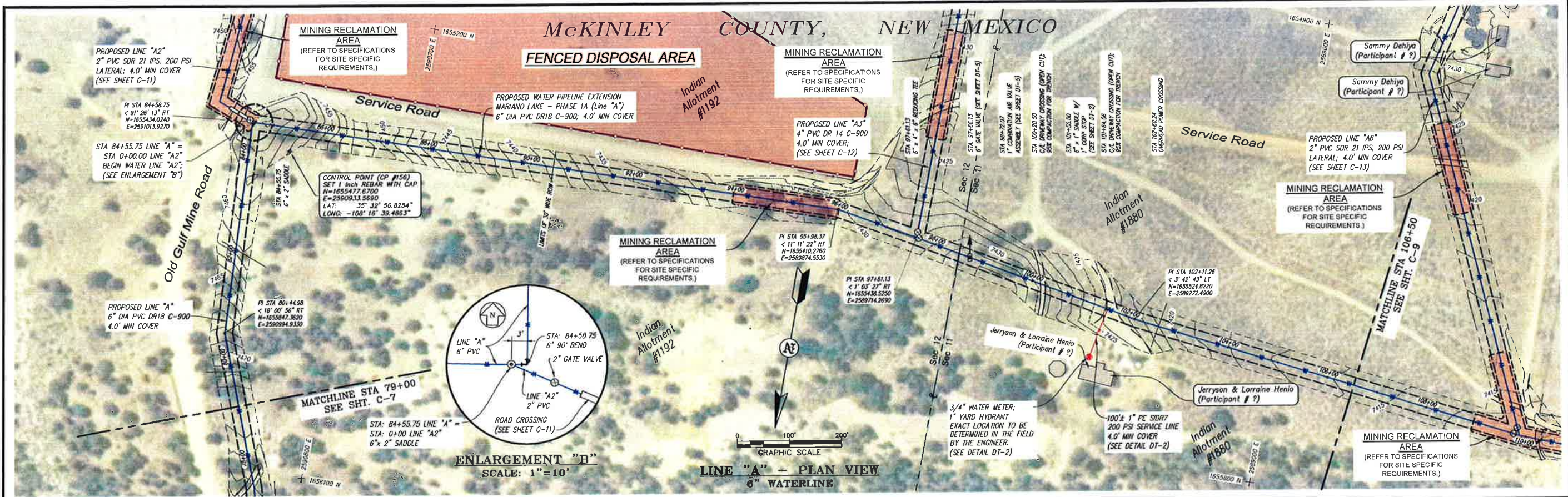
Scale: AS NOTED

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DATE OF NEXT REVIEW: 12/15/2012

811 Know what's below. Call before you dig.

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Contact: Geoff Souders - Manager, CV - Souders, P.E. - Assistant, LT



By	Description	Date	Revision
Chkd			
By			
Chkd			
By			
Chkd			

TOWN: Mariano Lake

CLIENT: The Navajo Nation

PLAN & PROFILE LINE "A" STA 79+00 TO 106+50

WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

McKINLEY COUNTY, NEW MEXICO

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Designed: GMM
Drawn: JGG
Checked: AGR

GEORGE M. MINALIK
18134
PROFESSIONAL ENGINEER

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DATE OF SUBMITTAL: 11/30/2012

DATE: November 30, 2012

Scale: AS NOTED

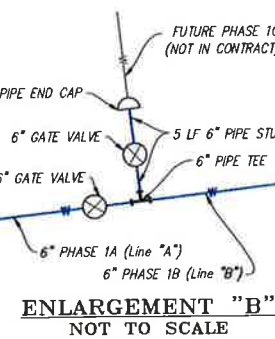
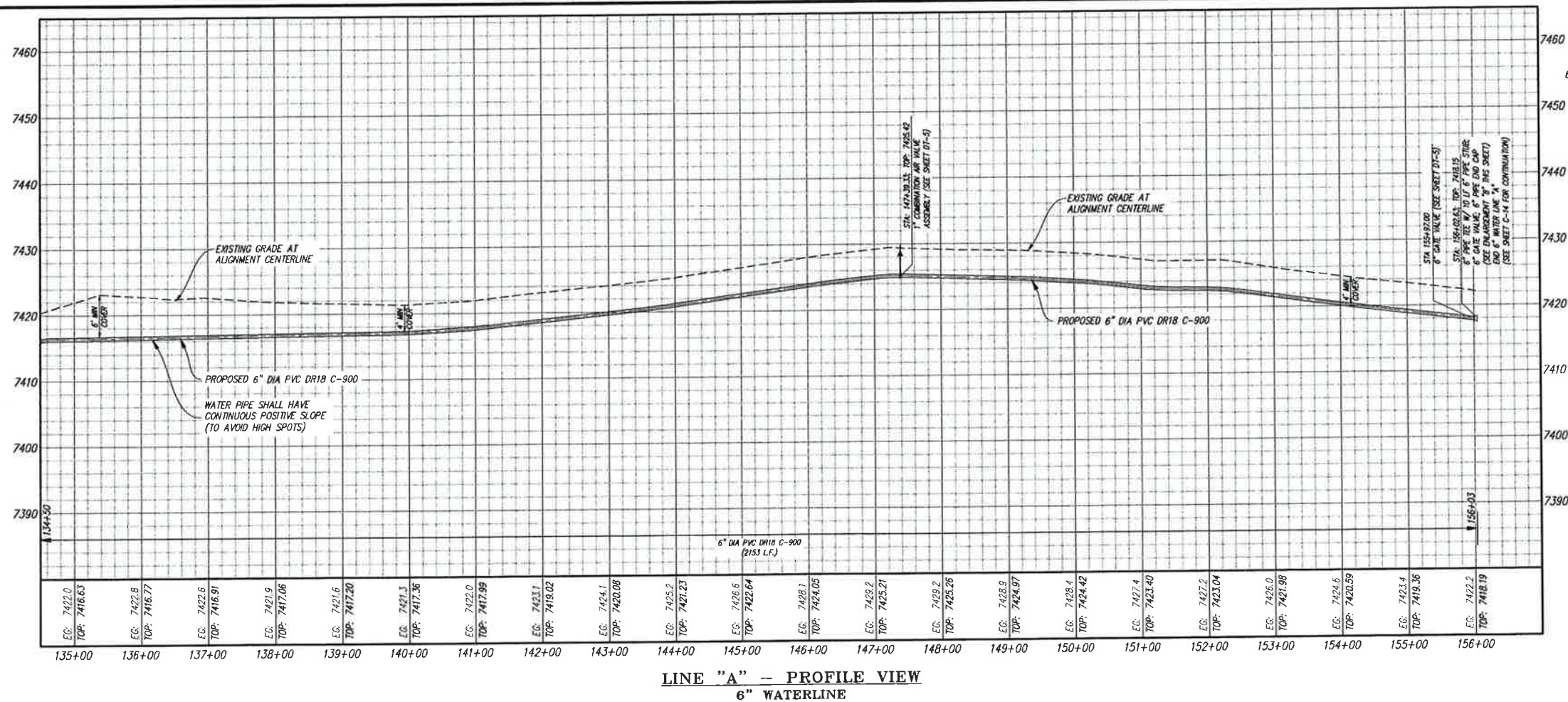
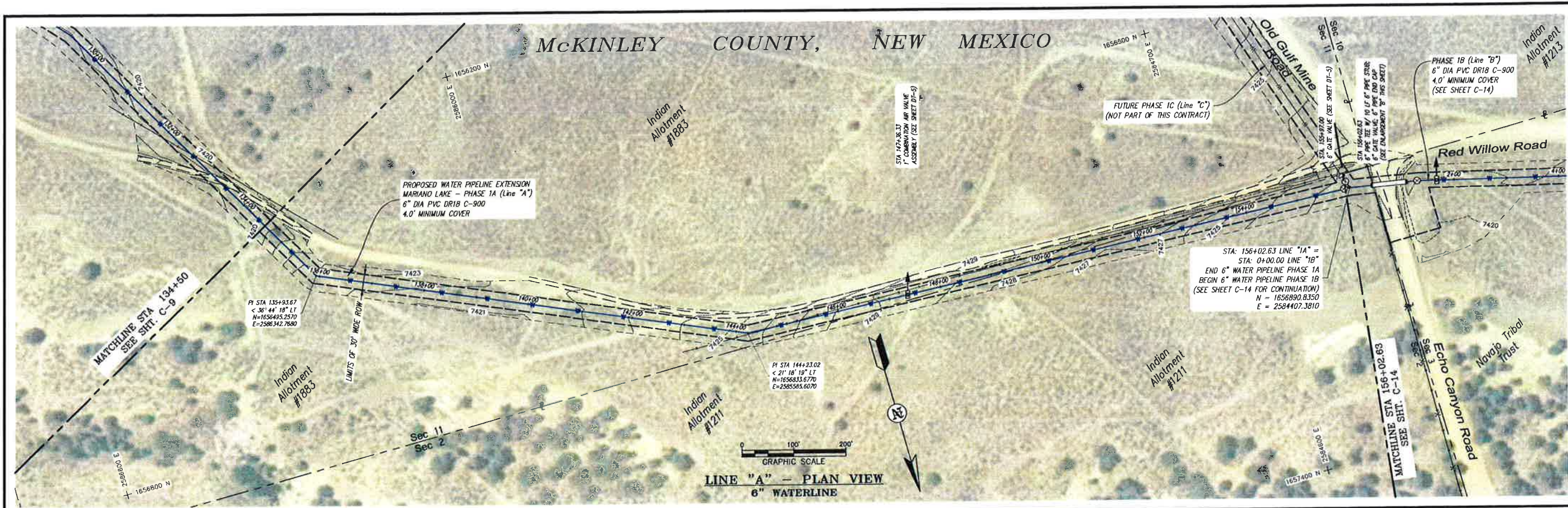
Project No: 6415735

Sheet: C-8

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1118 - Water and Wastewater Systems/Mariano Lake (6415735) (Avalanche Construction Design/Mariano Lake P&P Phase 1A (C-8.dwg) - 11/30/2012 2:17:42 PM jgg



CLIENT: The Navajo Nation

TOWN: Mariano Lake

PLAN & PROFILE LINE "A" STA 134+50 TO 156+02.63

WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

McKINLEY COUNTY, NEW MEXICO

DESIGNED: GMM

DRAWN: JGG

CHECKED: AGR

DATE: November 30, 2012

SCALE: AS NOTED

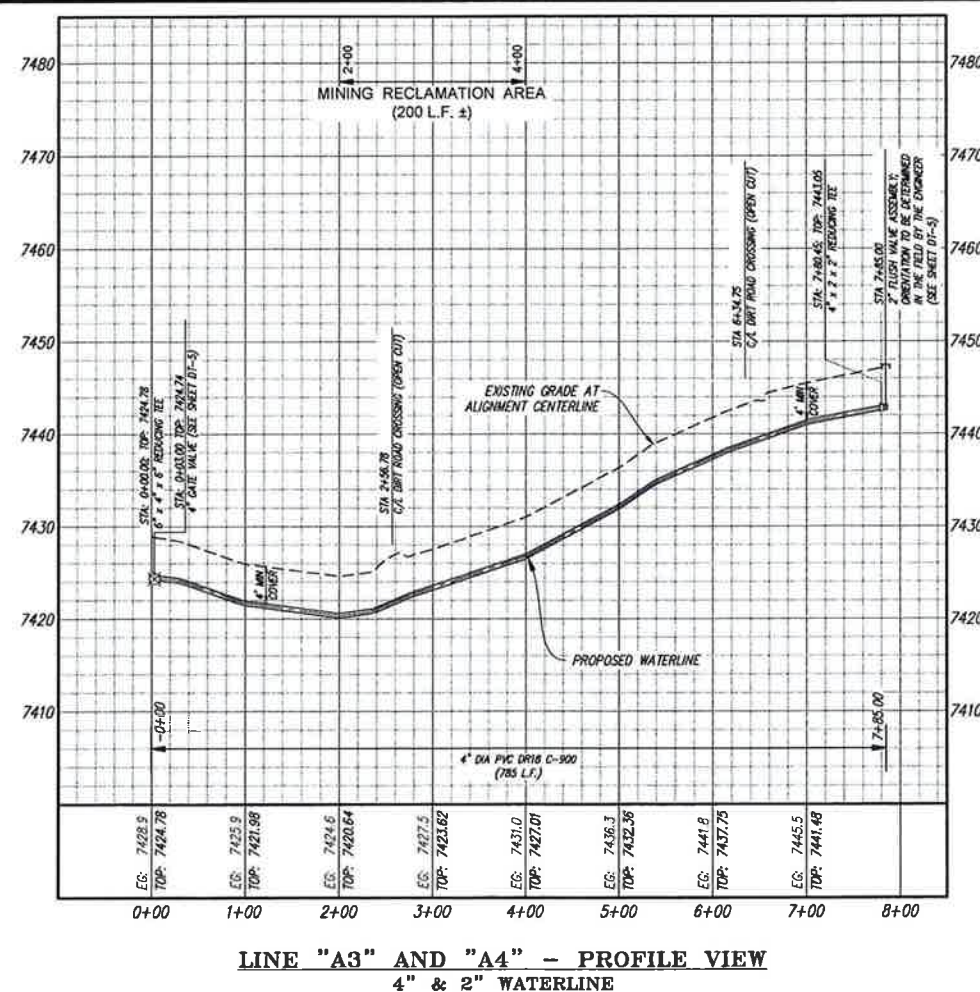
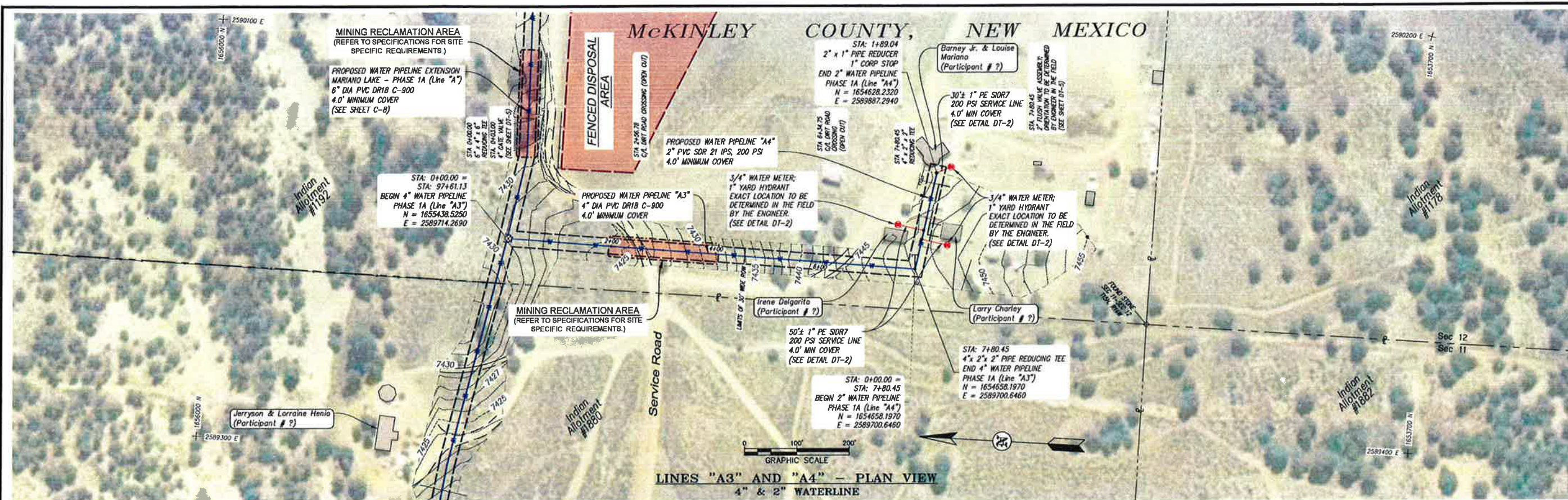
PROJECT NO: 6415735

SHEET: C-10

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P:\M - Water and Wastewater Systems\Mariano Lake (6415735)\NewConstruction\Drawings\Mariano Lake Plan\Phase 1A (B) Aug. 1, 11\0202012 2:29 PM JGG

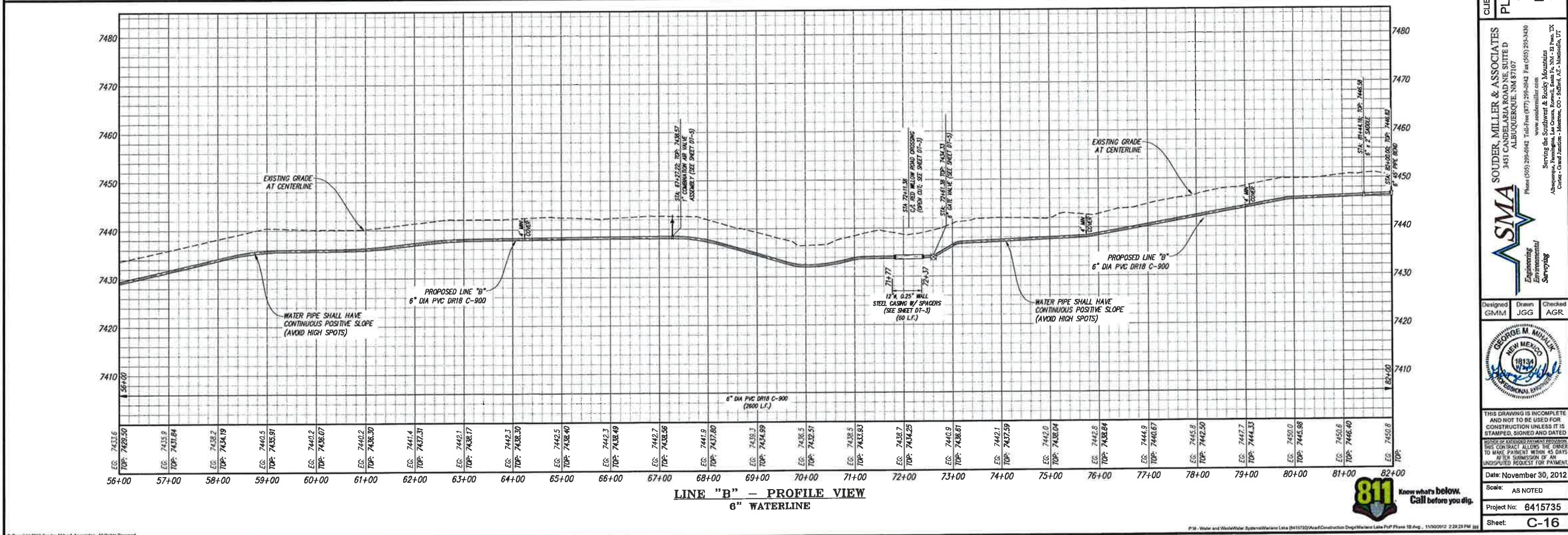
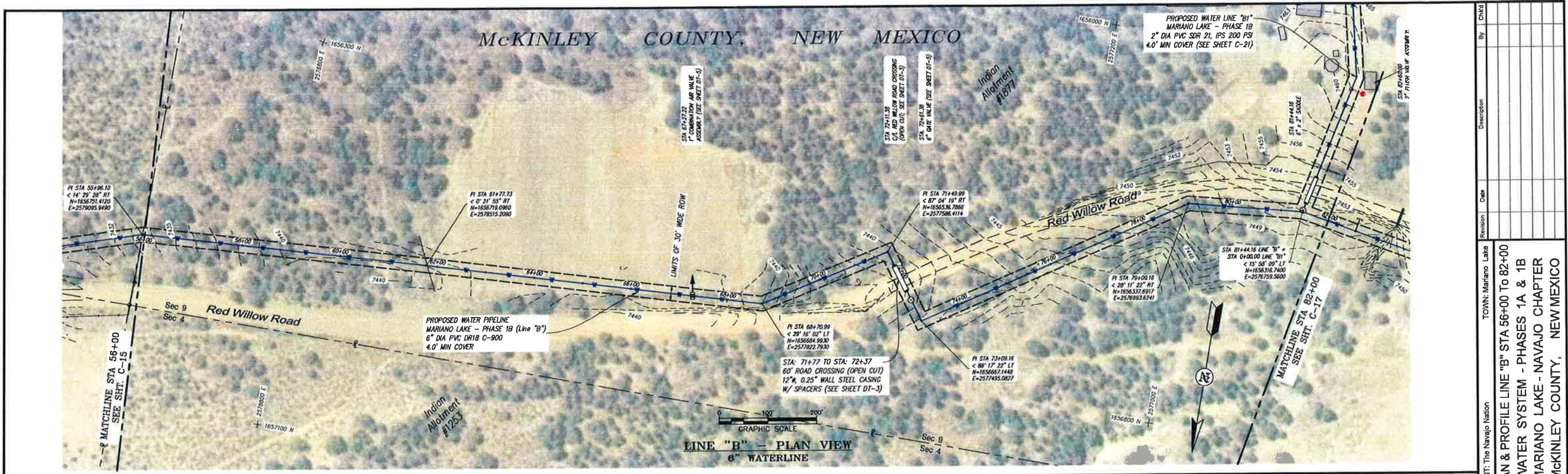


NOTE:
THIS SHEET CONTAINS WORK IN THE VICINITY OF A
"MINING RECLAMATION AREA". ENGINEER MUST BE NOTIFIED AT
LEAST FIFTEEN (15) WORKING DAYS PRIOR TO ANY GROUND
DISTURBING ACTIVITIES WITHIN 100 FEET OF SITE.

SEE SPECIFICATIONS FOR SITE SPECIFIC REQUIREMENTS.



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Client: The Navajo Nation

TOWN: Mariano Lake

PLAN & PROFILE LINE "B" STA 56+00 TO 82+00

WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

MCKINLEY COUNTY, NEW MEXICO

Designed: GMM

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Project No: 6415735

Sheet: C-16

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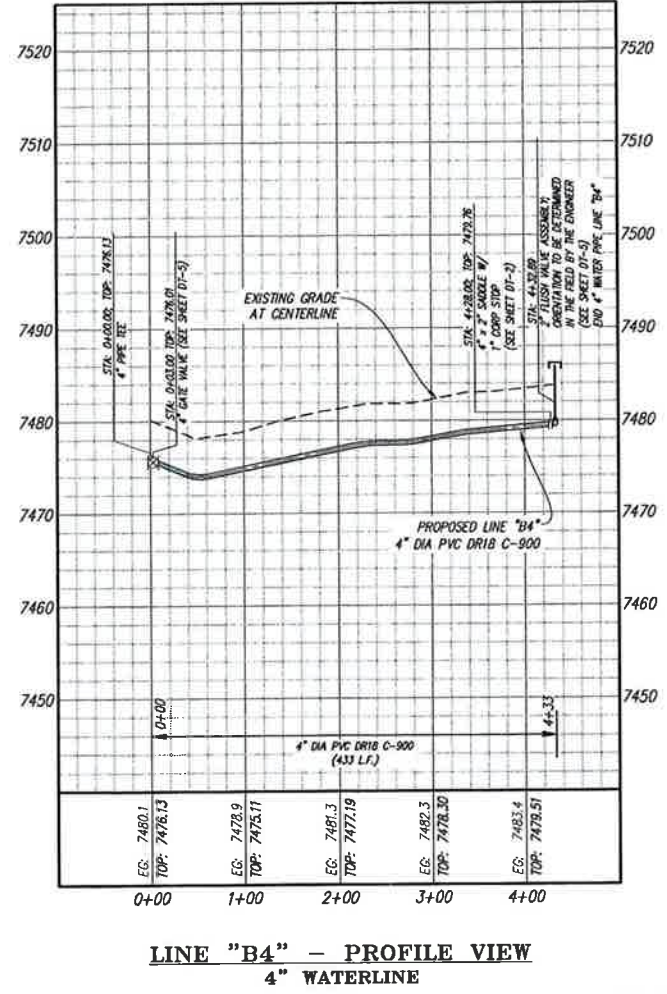
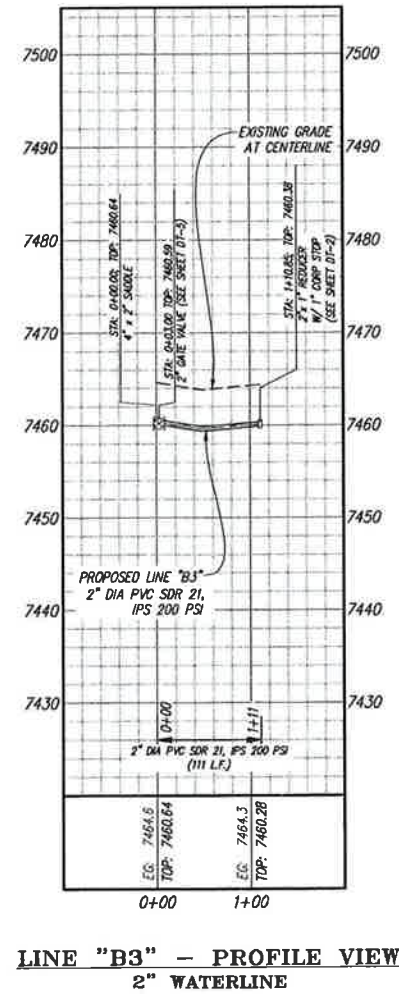
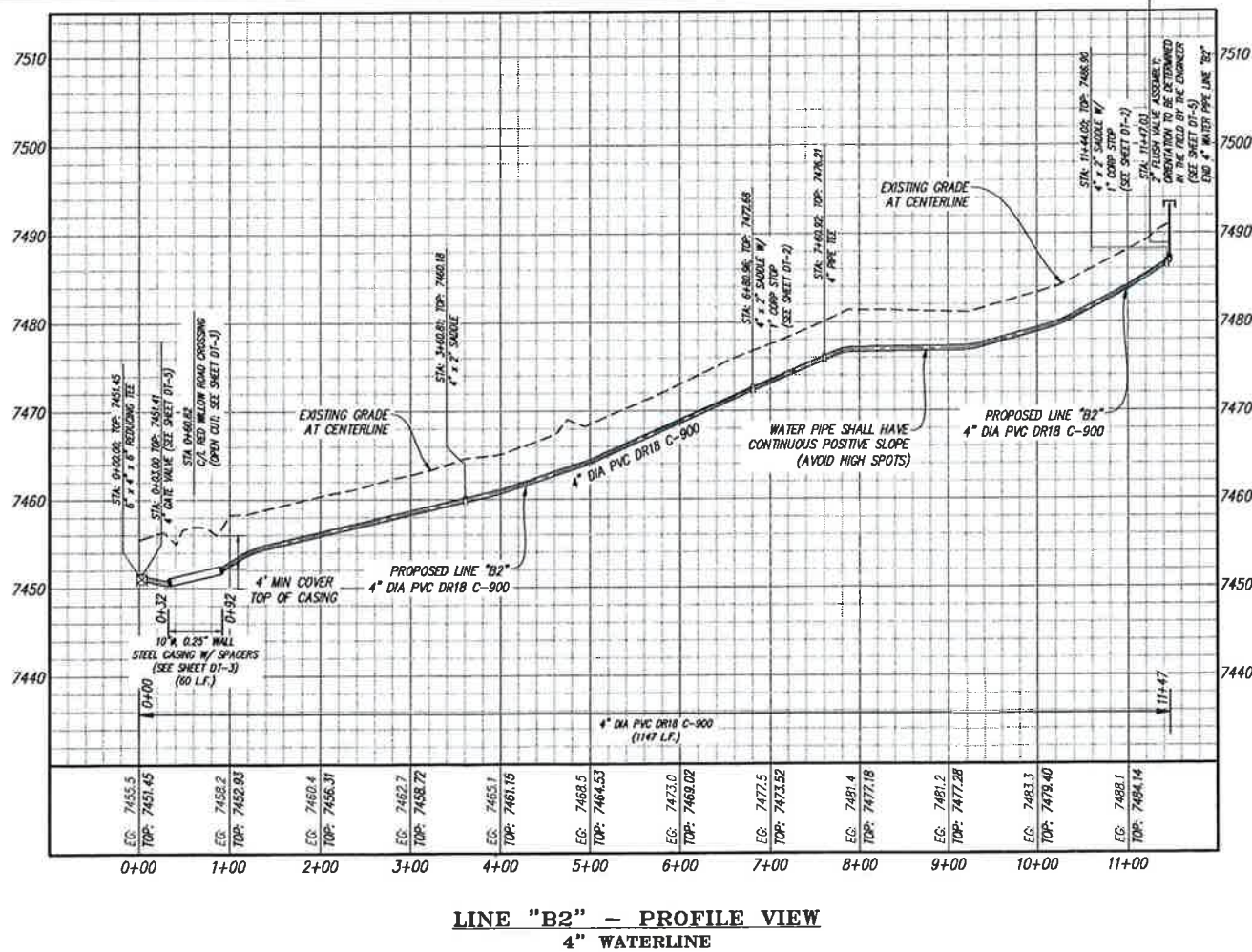
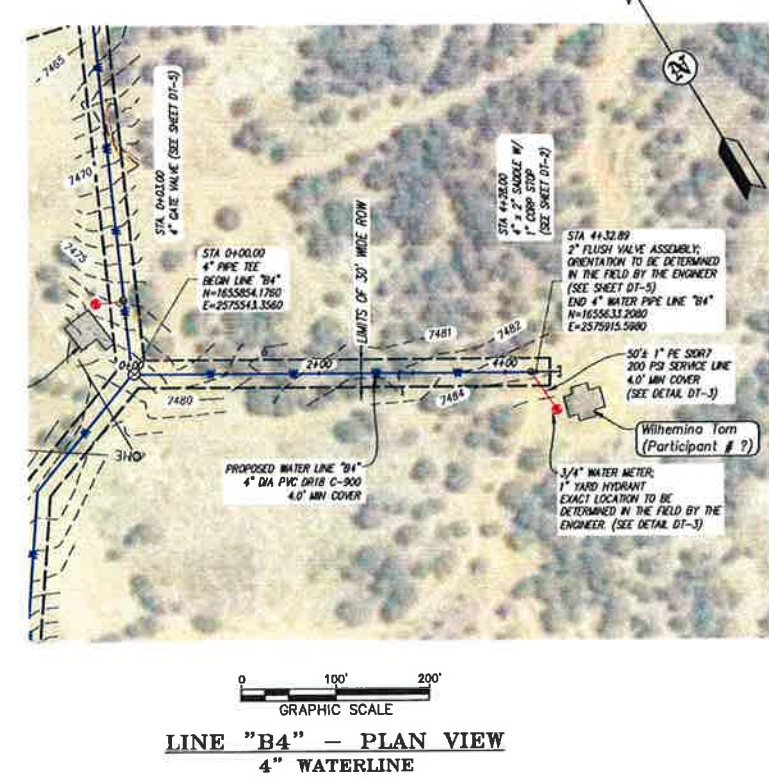
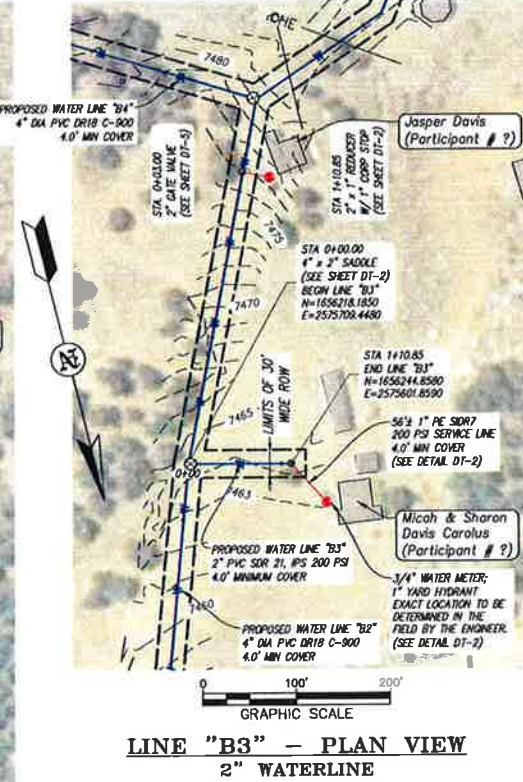
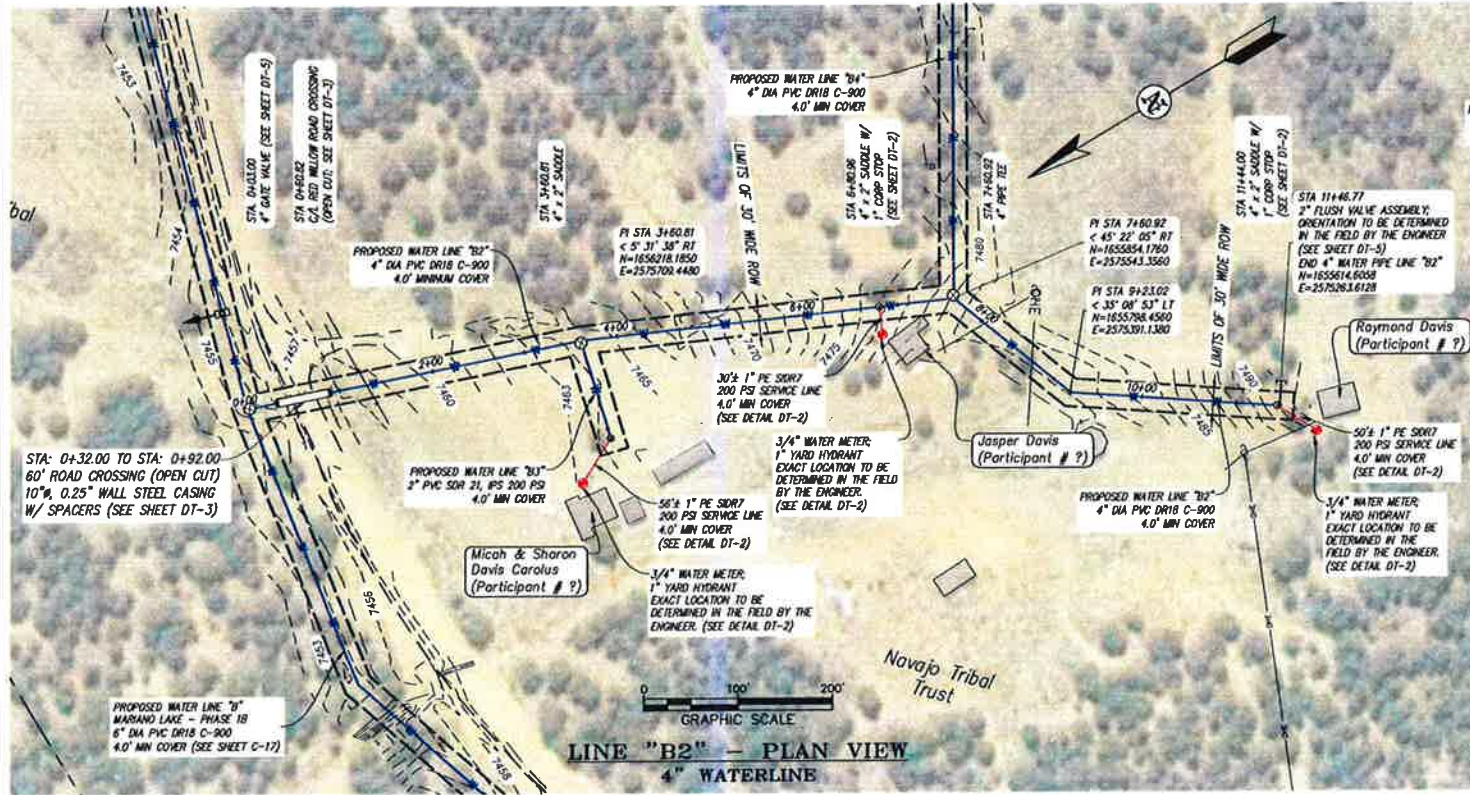
DATE OF PREPARED: November 30, 2012

Scale: AS NOTED

Project No: 6415735

Sheet: C-16

McKINLEY COUNTY, NEW MEXICO



CLIENT: The Navajo Nation

TOWN: Mariano Lake

Date _____

Description	Amount
...	...

by	chk'd

PLAN & PROFILE LINES "B2", "B3", & "B4"
WATER SYSTEM - PHASES 1A & 1B
MARIANO LAKE - NAVAJO CHAPTER
MCKINLEY COUNTY, NEW MEXICO

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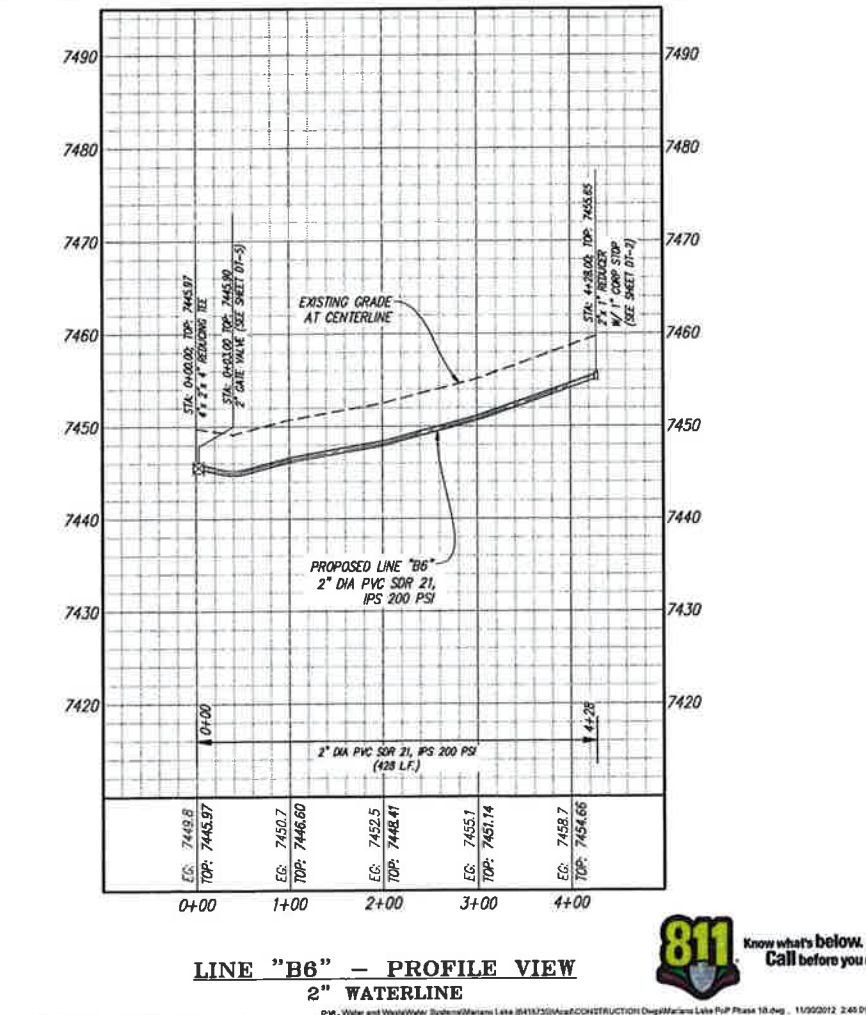
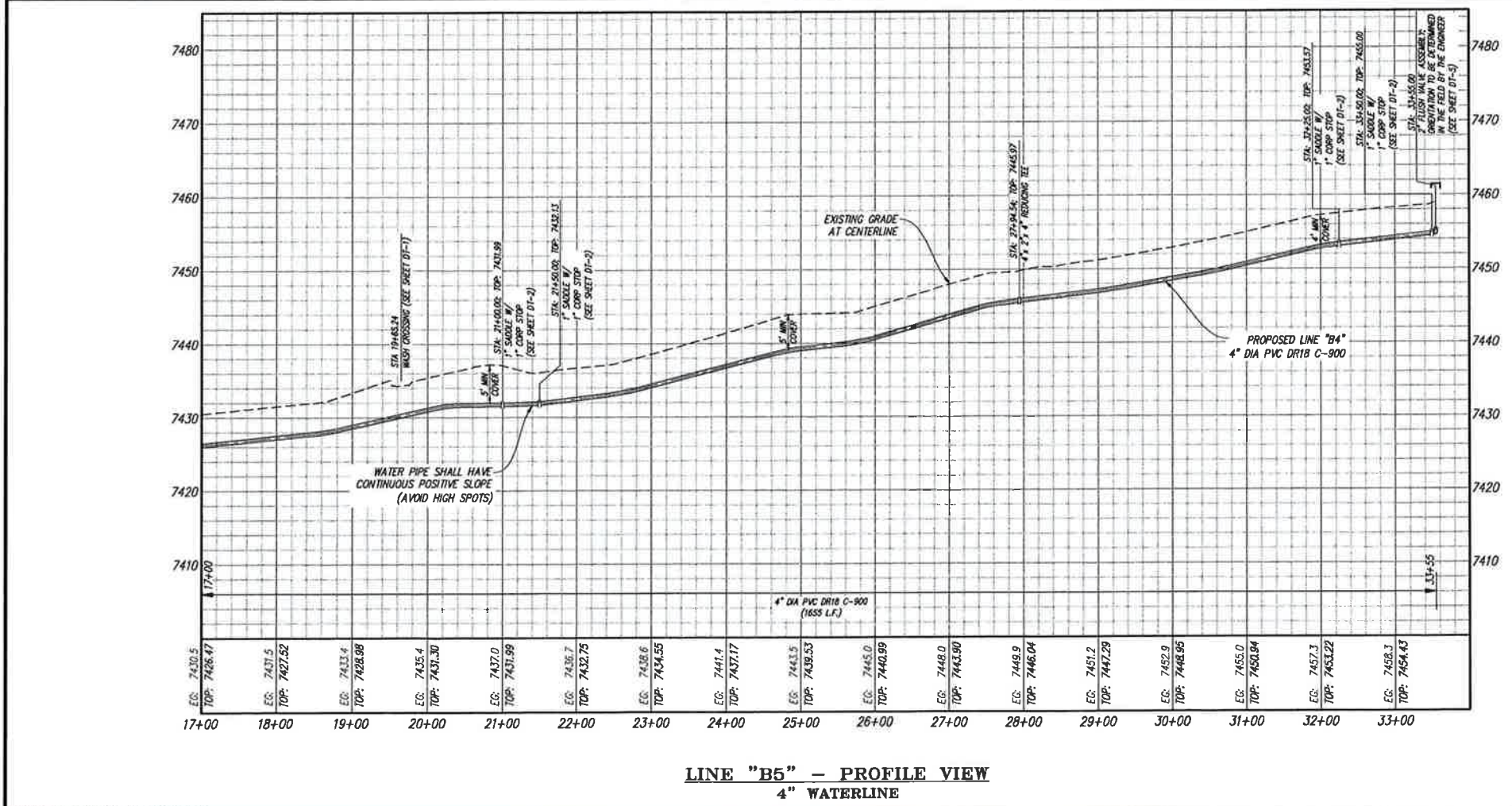
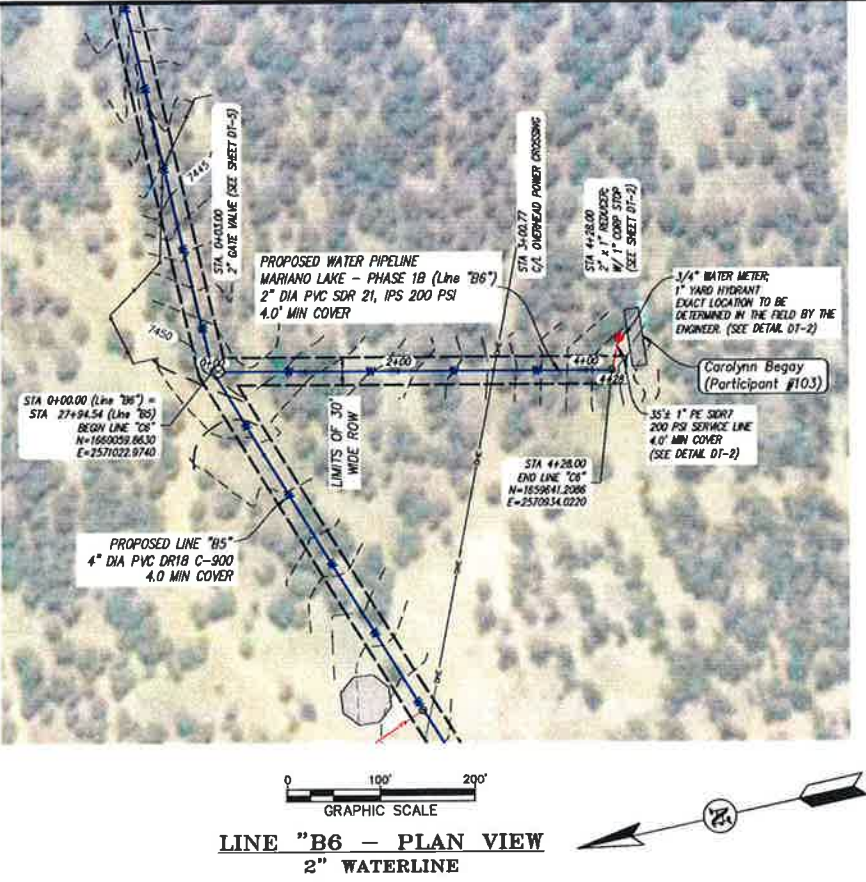
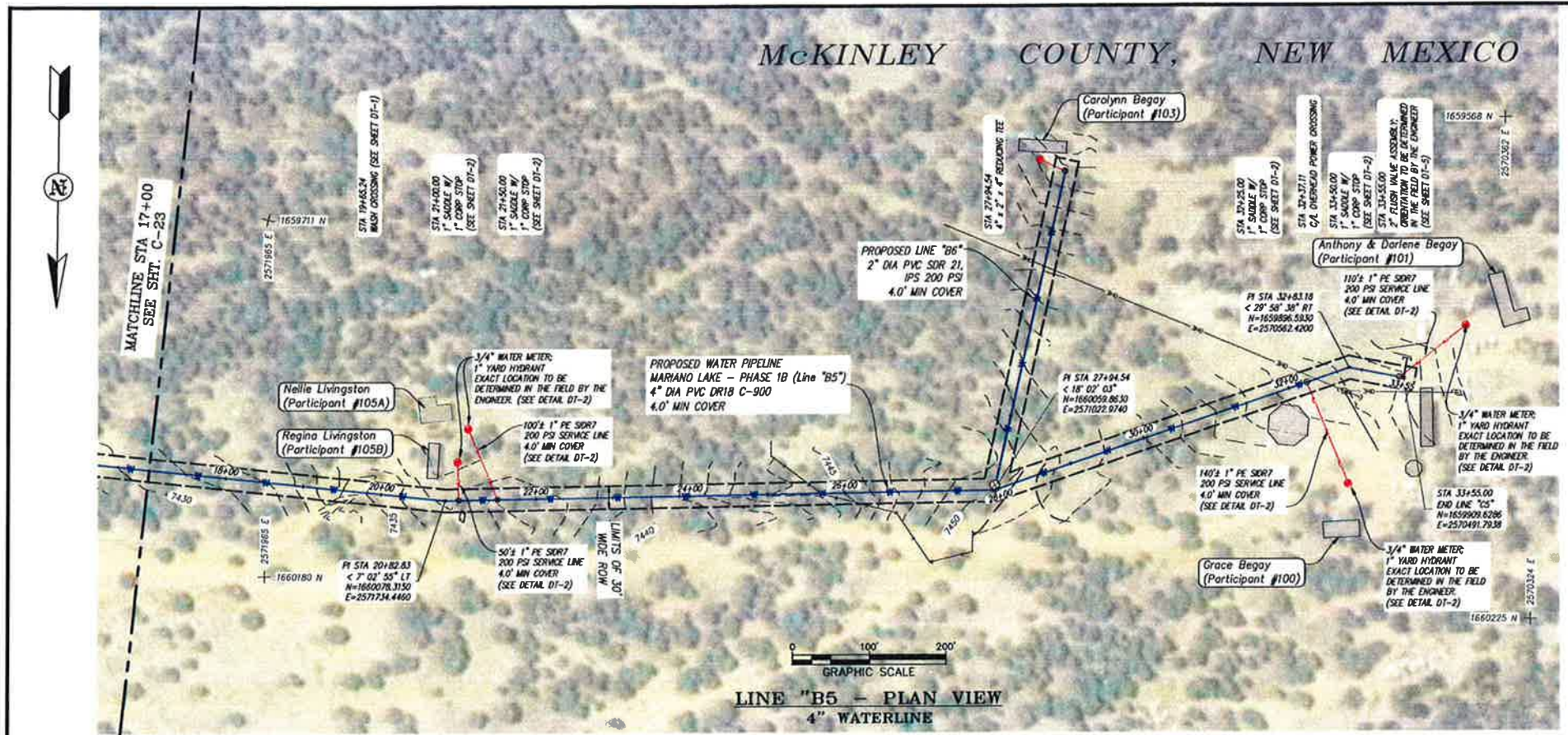
OFFICE OF EXTENDED PAYMENT PROVISION
THIS CONTRACT ALLOWS THE OWNER
TO MAKE PAYMENT WITHIN 45 DAYS
AFTER SUBMISSION OF AN
UNDISPUTED REQUEST FOR PAYMENT.

Date: November 30, 2012

Scale: AS NOTED

Project No: 6415735

Sheet: C-22



CLIENT: The Navajo Nation

TOWN: Mariano Lake

PLAN & PROFILE LINES "B5" (CONTD) & "B6" WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

McKINLEY COUNTY, NEW MEXICO

DESIGNED: GMM **DRAWN:** JGG **CHECKED:** AGR

Date: November 30, 2012

Scale: AS NOTED

Project No: 6415735

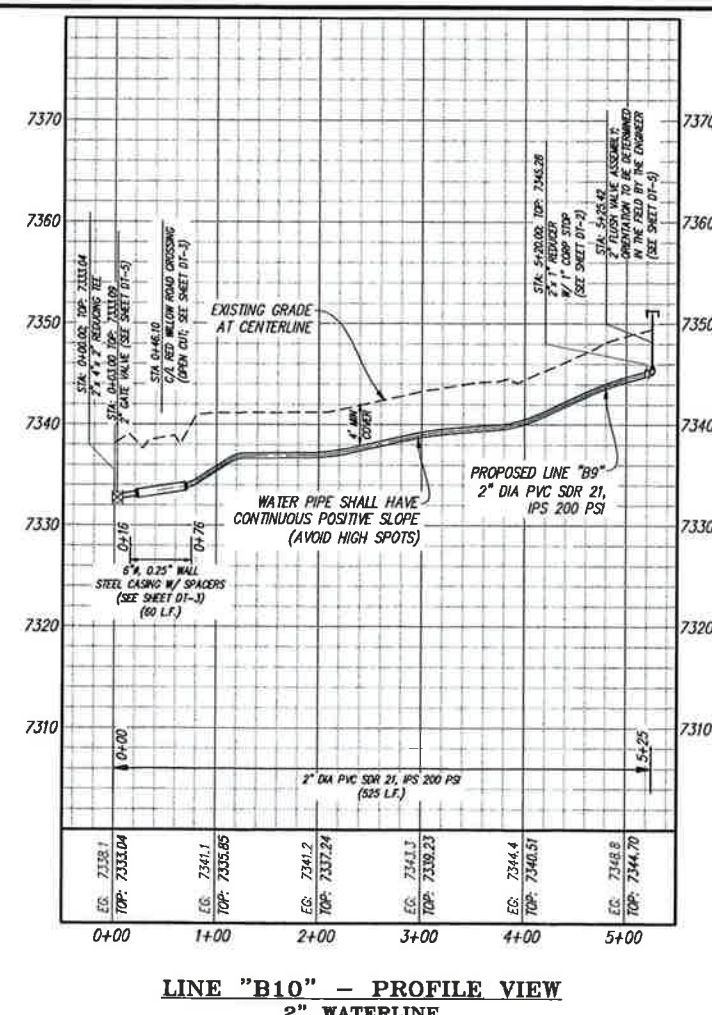
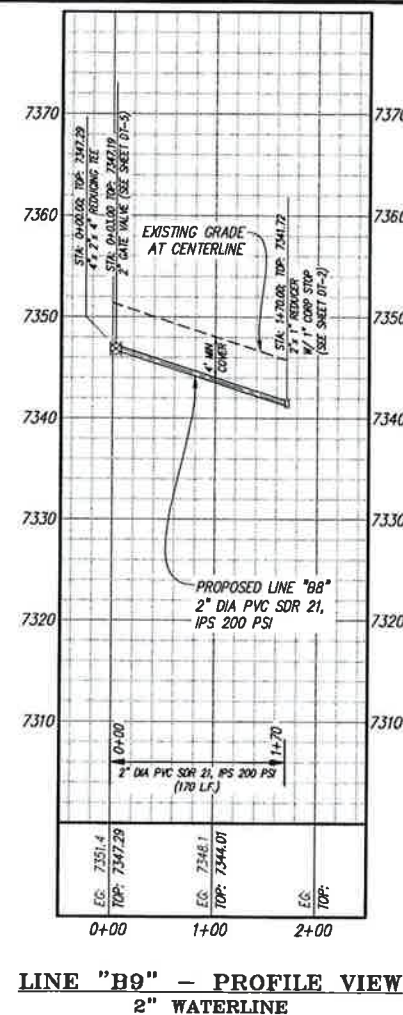
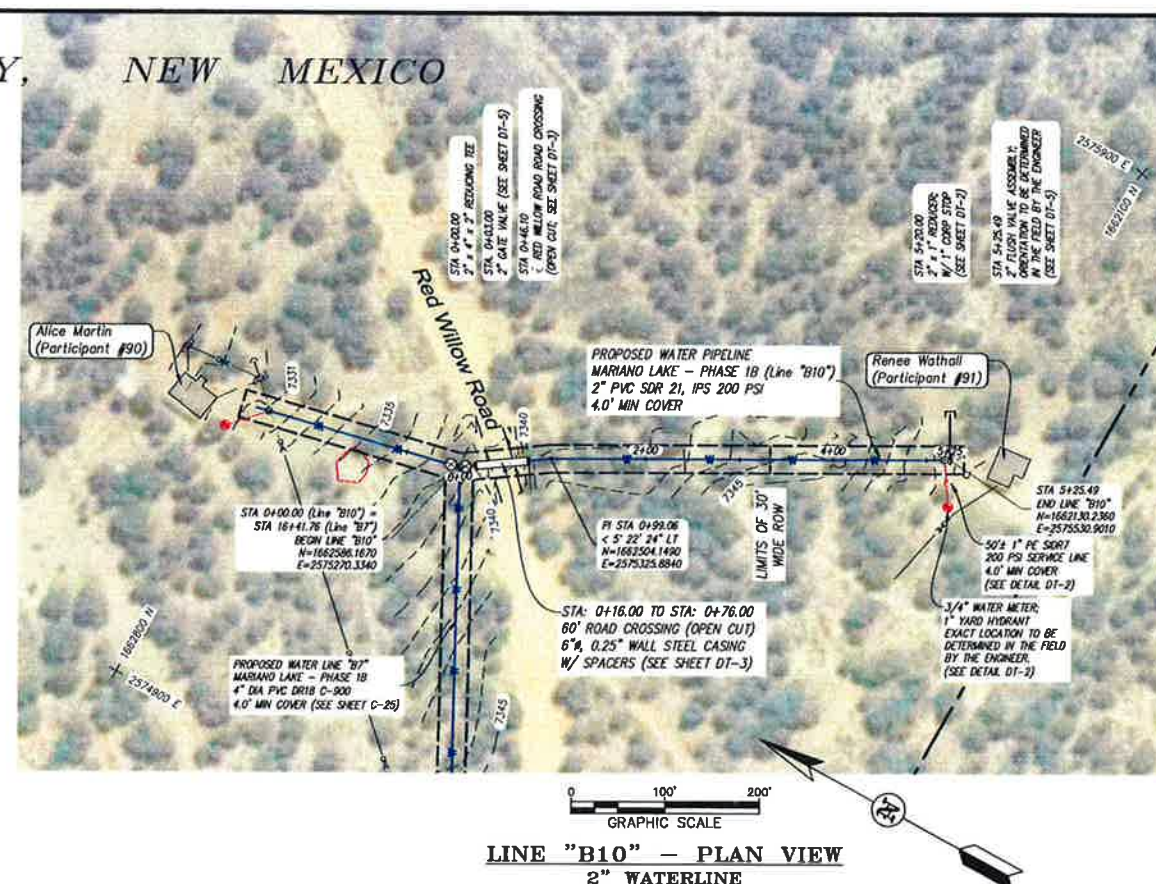
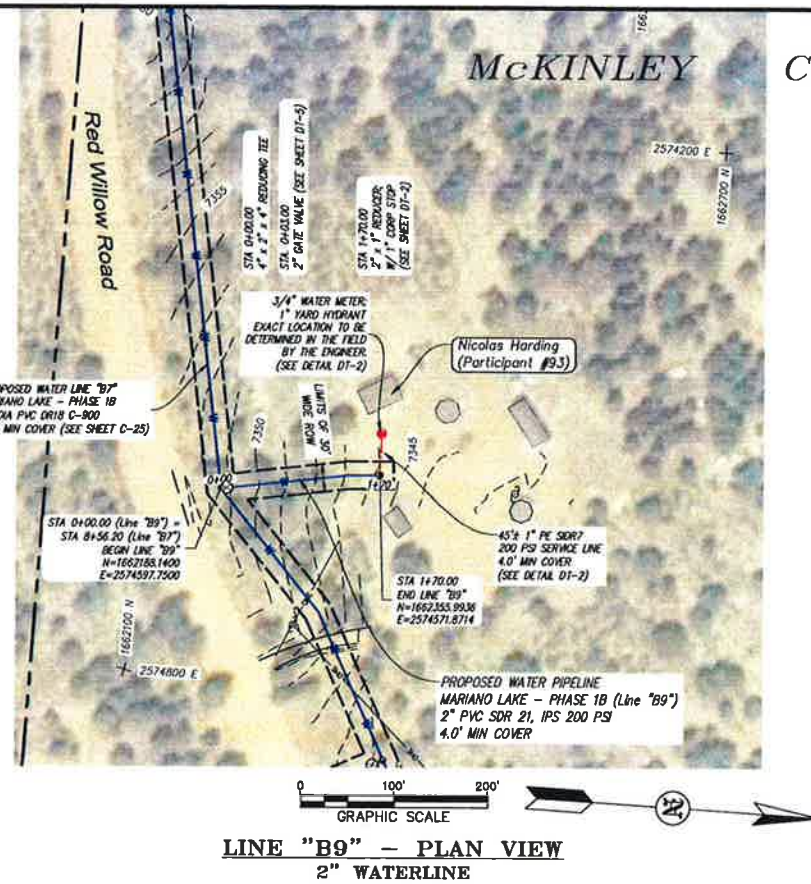
Sheet: C-24

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THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED BY THE ENGINEER.

THIS CONTRACTOR AGREES TO HOLD THE OWNER HARMLESS FROM ANY AND ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST OR INCURRED BY THE OWNER AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR WILLFUL MISFEASANCE IN THE PERFORMANCE OF THE CONTRACT.

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Designed: GMM Drawn: JGG Checked: AGR

GEORGE M. MILLER
19134
PROFESSIONAL ENGINEER

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED.

THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

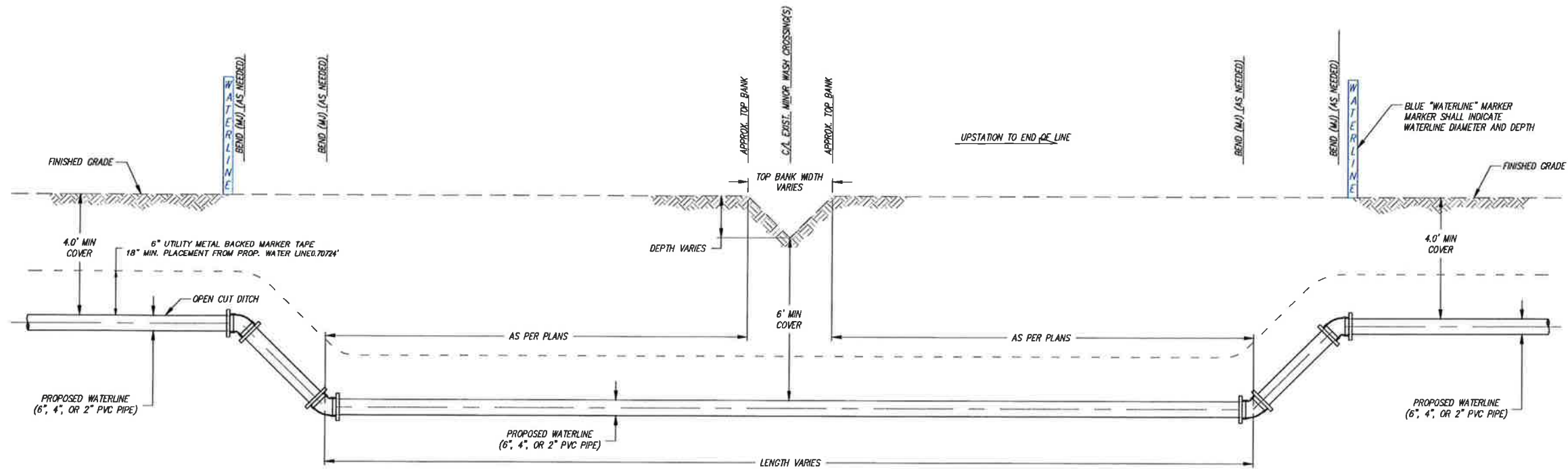
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Project No: 6415735

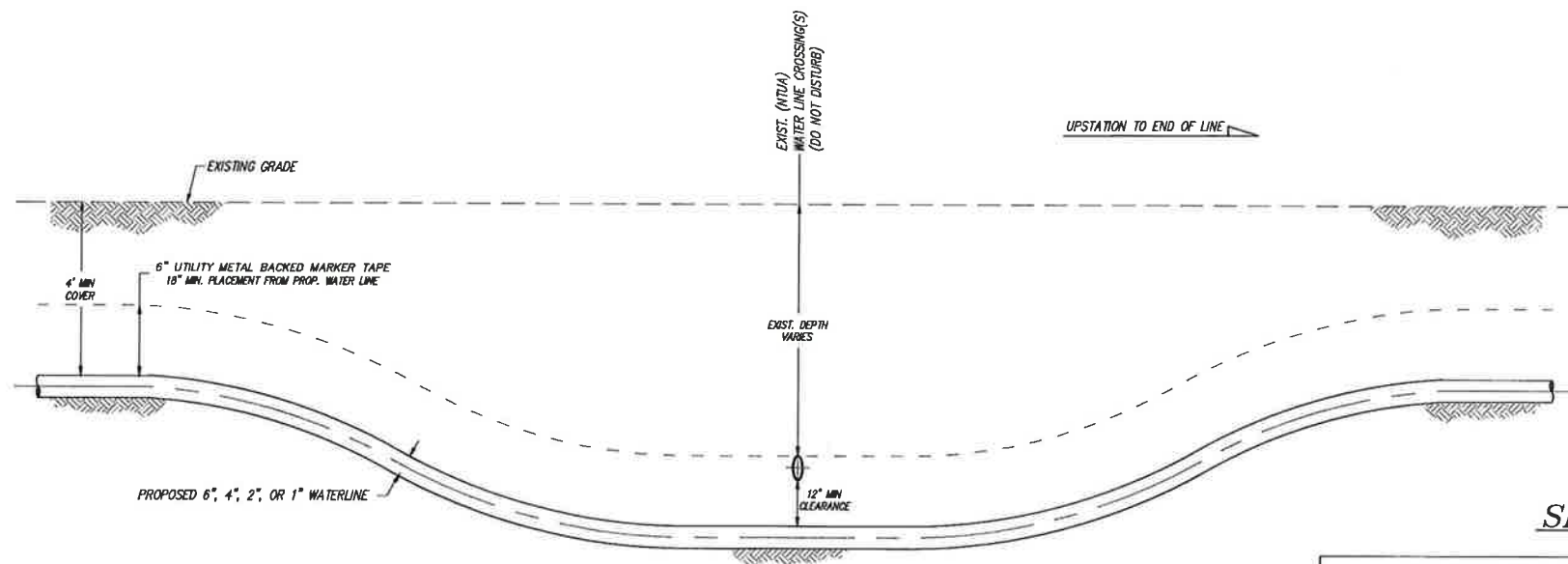
Sheet: C-26

Client: The Navajo Nation	TOWN: Mariano Lake	Revision	Date	Description	By	CHK
PLAN & PROFILE LINES "B9" & "B10" WATER SYSTEM - PHASES 1A & 1B MARIANO LAKE - NAVAJO CHAPTER McKINLEY COUNTY, NEW MEXICO						



TYPICAL MINOR WASH CROSSING DETAIL
SCALE: NTS

NOTE:
MULTIPLE MINOR WASH CROSSINGS LOCATED IN
CLOSE PROXIMITY TO EACH OTHER MAY BE
SPANNED USING SINGLE WASH CROSSING.



TYPICAL SINGLE (NTUA) WATER LINE CROSSING DETAIL
NOT TO SCALE

UTILITY COMPANY CONTACT

NAVAJO TRIBAL UTILITY AUTHORITY (NTUA)
CROWNPOINT OFFICE: 800-528-5011

SPECIAL NOTES – EXISTING WATERLINE CROSSING

- NTUA REPRESENTATIVE MUST BE PRESENT DURING ALL CONSTRUCTION ACTIVITIES WITHIN RIGHT-OF-WAY OF EXISTING WATERLINE CROSSING
- CROSS UNDER EXIST. WATER LINE WITH 12 INCHES MIN. CLEARANCE.
- BURY 6" WIDE WARNING TAPE LABELED "WATER LINE" 18" ABOVE NEW WATERLINE.
- CONTRACTOR RESPONSIBLE FOR VERIFYING ACTUAL LOCATION, DEPTH, SIZE & REQUIREMENTS FOR CROSSINGS AND NOTIFYING NTUA, NEW MEXICO ONE CALL, AND ENGINEER AT LEAST 48 HOURS PRIOR TO ALL CROSSINGS.



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Designed: GMM Drawn: JEG Checked: AGR



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BY THE ENGINEER.
THIS CONTRACT PROVIDES THE OWNER
TO MAKE PAYMENT WITHIN 45 DAYS
AFTER SUBMISSION OF AN
UNDISPUTED REQUEST FOR PAYMENT.

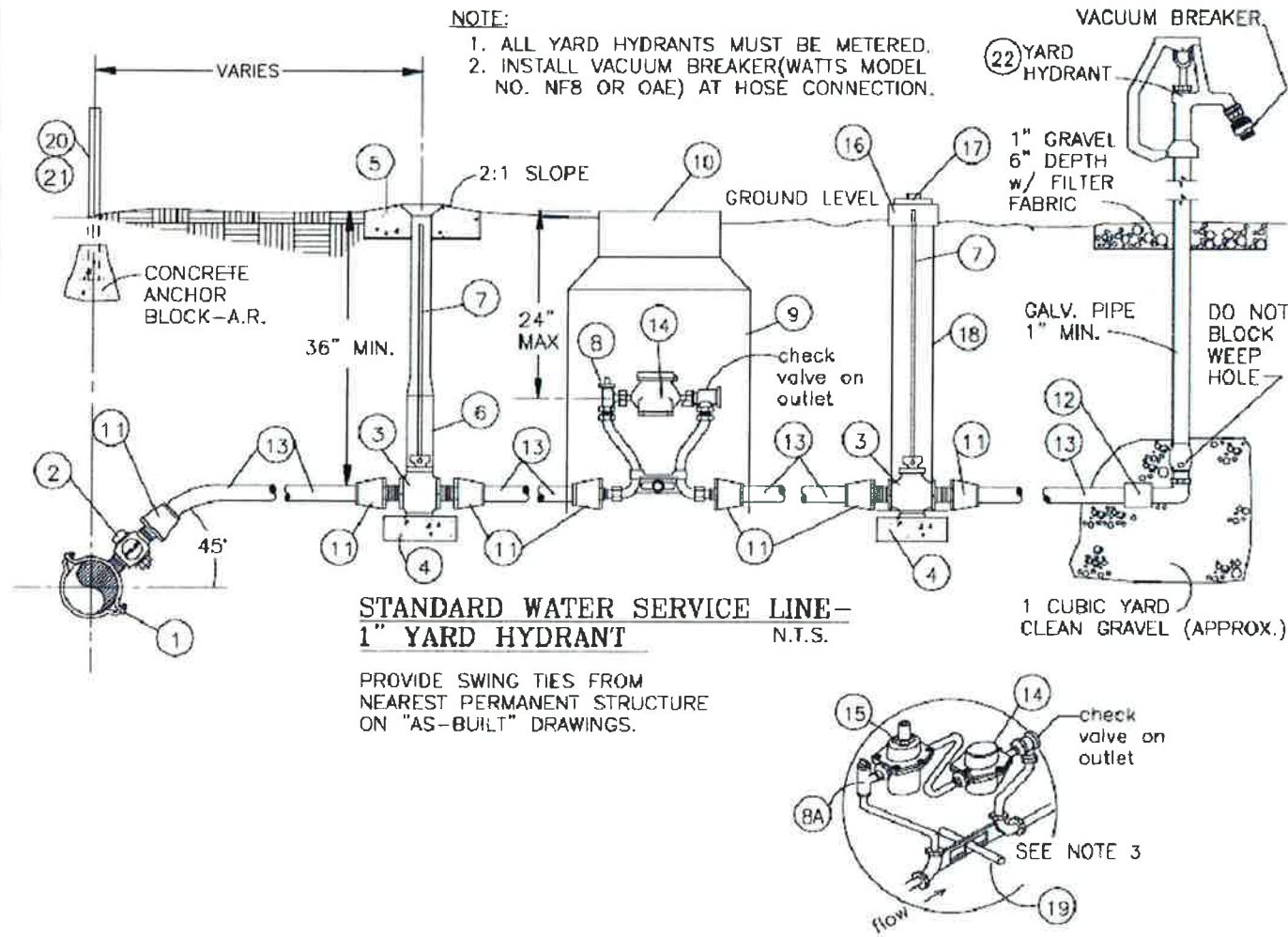
Date: November 30, 2012

Scale: AS NOTED

Project No: 6415735

Sheet: DT-1





MATERIAL LIST		
ITEM	QUAN.	DESCRIPTION
1	1	SADDLE, BRASS, 1" FIPT x APPROPRIATE PIPE TYPE, O.D. AND LINE PRESSURE
2	1	CORPORATION STOP, 1" MIPT x 1" FIPT. MUELLER H-10046, OAE
3	1	CURB STOP, 1" FIPT x 1" FIPT, MINNEAPOLIS PATTERN WITH RESILIENT O-RINGS, MUELLER H-10287, OAE
4	*A.R.	CONCRETE BLOCK OR BRICK
5	A.R.	CONCRETE COLLAR 18" SQUARE x 4" THICK, W/ #4 REBARS E.W.O.C.
6	1	CURB VALVE BOX, 54" EXTENSION TYPE, MUELLER H-10302, WITH 2" x 1-1/2" BUSHING
7	2	STATIONARY ROD (CURB STOP OPERATOR), 33" LONG (MUELLER PART #84338), SECURED TO THE CURB STOP WITH A COTTER PIN.
8	1	COPPERSETTER WITH VALVED 12" RISER, 1" FIPT END CONNECTORS FOR 5/8" x 3/4" METER, FORD NO. VH72-12W-FF-44, WITH 1" IP UNION NUT/SWIVEL ASSEMBLY CONNECTION AND BRACING EYE, OAE
8A	1	TANDEM COPPERSETTER WITH VALVED 12" RISERS, 1" FIPT END CONNECTORS FOR 5/8" x 3/4" METER (FORD NO. TVH72-12W-FF-44, OAE) WITH TWO REGULATOR ADAPTERS FOR THE PRV.
9	1	METER CAN 20" I.D. x 30" LONG 0.450 THICK, PVC CLASSIFICATION 12344 PER ASTM D-1784, SONOLOC BROCHURE NO. 2706, OAE
10	1	METER BOX COVER WITH DOUBLE LID (FROST PLATE), FOR 20" LD. CAN, 11-1/2" MINIMUM LID OPENING CASTING M-70
11	7	INSTA-TITE FITTINGS, 1" MIPT x 1" STAB FOR ASTM D-2239 P.E. PIPE, MUELLER H-15426
12	1	CONNECTOR/ADAPTER, 1" MIPT x APPROPRIATE PIPE TYPE AND O.D.
13	A.R.	PIPE, 1" P.E. ASTM D-2239. SIDR 7, 200 PSI, 100 FEET MAXIMUM TOTAL LENGTH
14	1	METER, POSITIVE DISPLACEMENT, 5/8" x 3/4" (PROVIDED BY N.T.U.A.)
15	1	PRV, 3/4", WILKENS 600 OR WATTS 25 AUB, 3/4" FIPT, 6" LONG
16	1	ADAPTER, 3", HUB x FIPT, PVC-DWV, ASTM D-2665
17	1	CLEANOUT PLUG, 3", MIPT, PVC-DWV, ASTM D-2665
18	1	RISER, 3" x 36" LONG, PVC-DWV, ASTM D-2665
19	1	STABILIZER, 1/2" O.D. x 12" LONG PIPE, PVC, SCH. 40
20	A.R.	BLUE CARSONITE MARKER POST
21	A.R.	WATERLINE WARNING DECAL
22	1	HYDRANT, FROST FREE, 1" x 6', MERRIL MFG.; MODEL NO. 7503, OAE

- NOTES:
- ON YARD HYDRANT INSTALLATION, USE COPPERSETTER WITH ANGLE CHECK VALVE ON OUTLET.
 - ALL MATERIAL RATED TO AT LEAST 160 psi
 - INSTALL PRV ASSEMBLY (ITEMS 8A & 15) AT LOCATIONS INDICATED ON PLANS.

NTUA YARD HYDRANT SERVICE (INDIVIDUALLY METERED)
NOT TO SCALE

NTUA YARD HYDRANT SERVICE - MATERIAL LISTING (MODIFIED)

CLIENT: The Navajo Nation

TOWN: Mariano Lake

YARD HYDRANT DETAILS

WATER SYSTEM - PHASES 1A & 1B

MARIANO LAKE - NAVAJO CHAPTER

McKINLEY COUNTY, NEW MEXICO

DESIGNED: GMM

DRAWN: JGG

CHECKED: AGR

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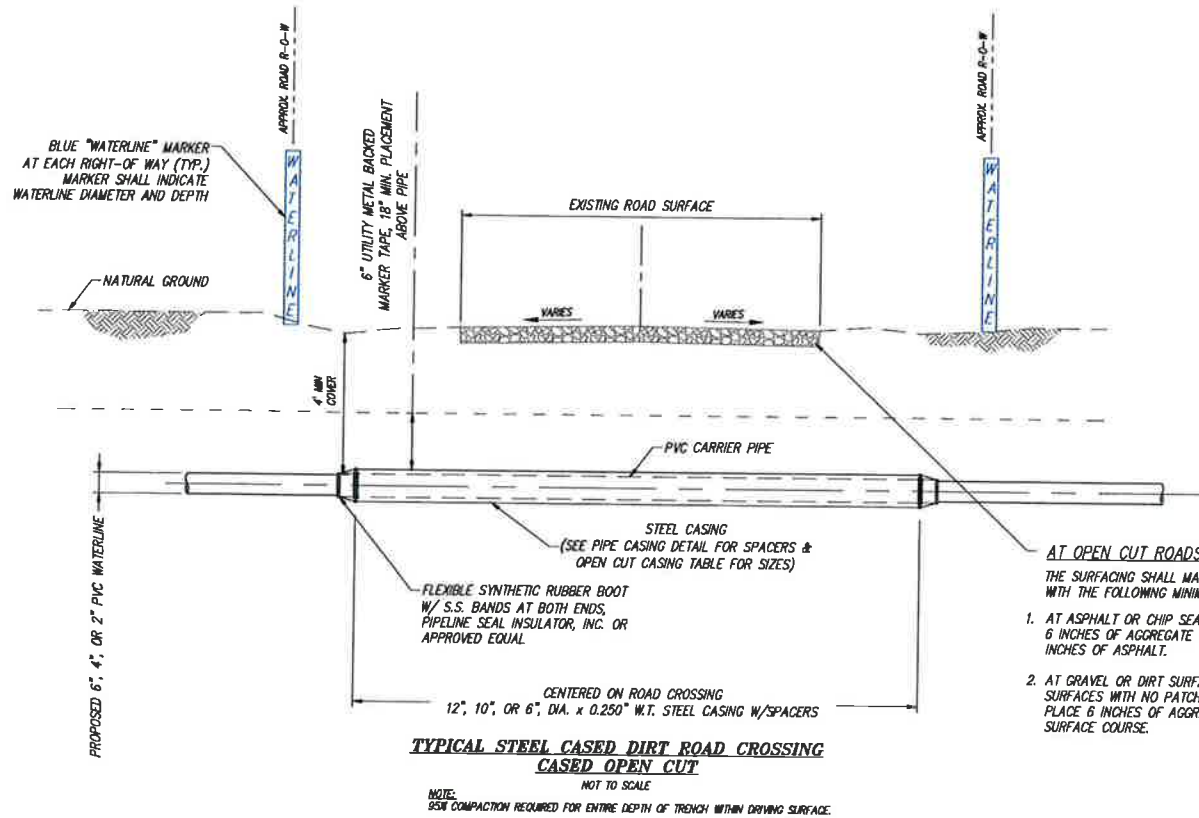
NOTICE OF PAYMENT: THIS CONTRACT PROVIDES THAT THE OWNER SHALL MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

Date: November 30, 2012

Scale: AS NOTED

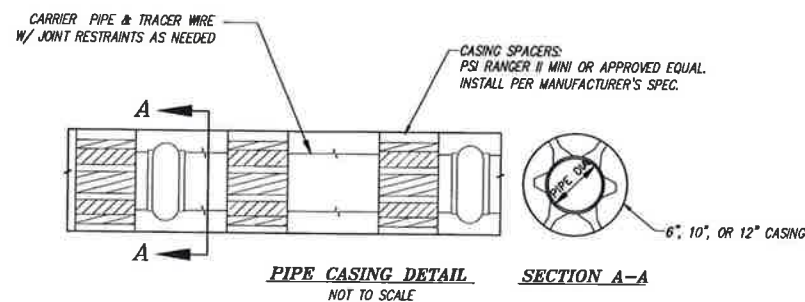
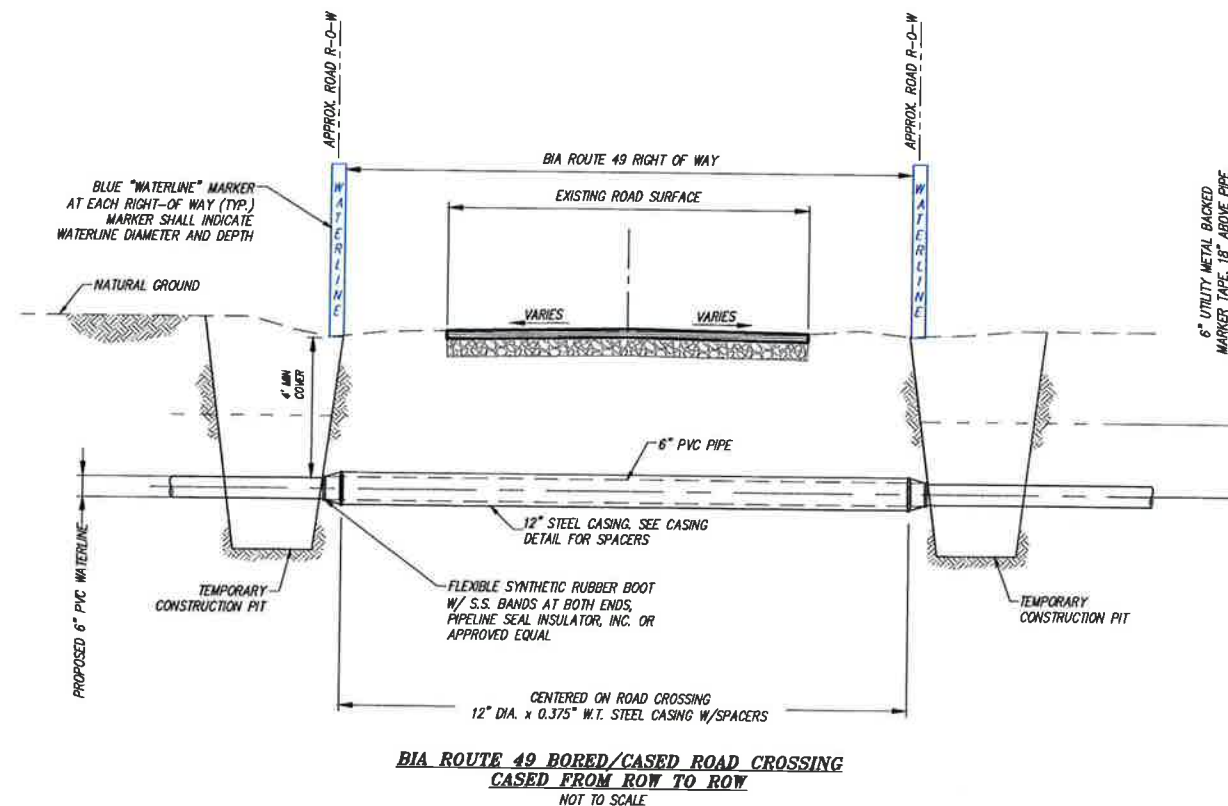
Project No: 6415735

Sheet: DT-2



OPEN CUT CASING TABLE	
CARRIER PIPE DIA	CASING DIA
2"	6"
4"	10"
6"	12"

- AT OPEN CUT ROADS:**
THE SURFACING SHALL MATCH THE EXISTING WITH THE FOLLOWING MINIMUMS:
1. AT ASPHALT OR CHIP SEAL SURFACES, PLACE 6 INCHES OF AGGREGATE BASE COURSE WITH 3 INCHES OF ASPHALT.
 2. AT GRAVEL OR DIRT SURFACES, AND ASPHALT SURFACES WITH NO PATCH REQUIREMENT PLACE 6 INCHES OF AGGREGATE BASE OR SURFACE COURSE.



CONSTRUCTION NOTES:

1. WATERLINE SHALL BE INSTALLED BY BORE AND JACK UNDER BIA ROUTE 49 WITH CASING FROM ROW TO ROW AS PER BIA REQUIREMENTS (SEE PERMIT).
2. CASING SHALL CROSS THE ROADWAY AT 90 DEGREE ANGLE. BORED ROAD CROSSINGS SHALL BE CASED PER DETAIL. DIRT ROAD CROSSINGS MAY BE OPEN CUT, BUT ONE LANE ACCESS MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
3. EXCAVATIONS OUTSIDE THE ROADWAY FORESLOPES SHALL BE COMPACTED PER SPECIFICATIONS. EXCAVATION WITHIN THE TOE OF THE FORESLOPES SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO METHOD T-99 OR EQUIVALENT.
4. CONTRACTOR SHALL REFER TO THE "PERMISSION FOR UTILITY CROSSING WITHIN BIA RIGHT-OF-WAY" IN THE APPENDIX OF THE CONTRACT DOCUMENTS FOR THE CROSSING REQUIREMENTS OF BIA ROUTE 49.
5. PERMANENT CROSSING MARKERS SHALL BE PLACED NEXT TO THE ROAD RIGHT-OF-WAY LINES FOR ALL WATERLINE ROAD CROSSINGS.

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Designed GMM Drawn JGG Checked AGR



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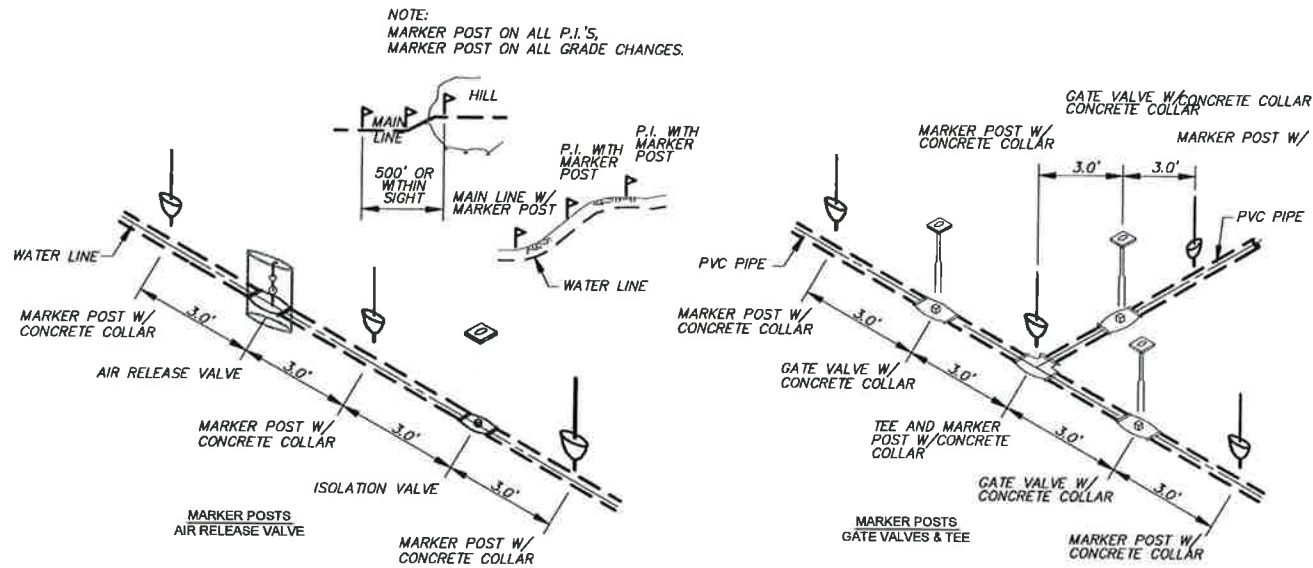
NOTICE OF EXTENDED PAYMENT PROVISION: THIS CONTRACT PROVIDES THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

Date: November 30, 2012

Scale: AS NOTED

Project No: 6415735

Sheet: DT-3



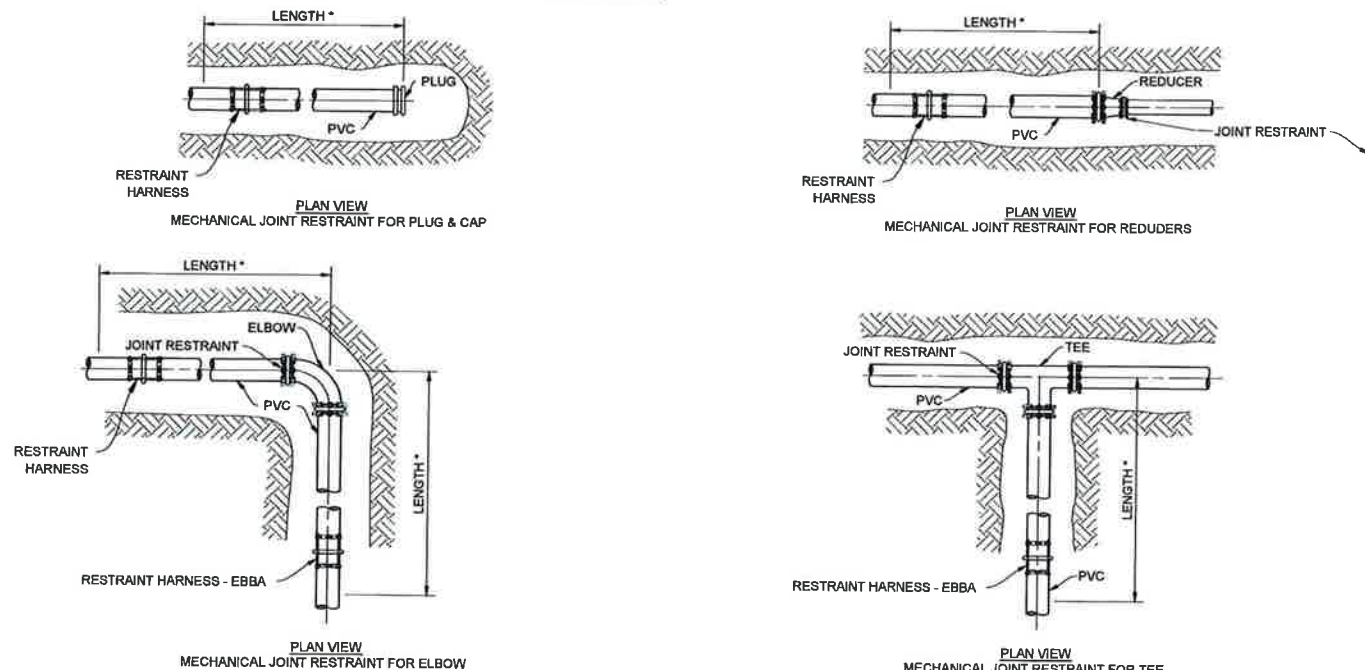
TYPICAL MARKER POSTS
NOT TO SCALE

Estimated Joint Restraint Lengths			Estimated Joint Restraint Lengths		
Joint Type	Assumed Test Pressure	Restraint Length	Joint Type	Assumed Test Pressure	Restraint Length
Reducer 6"x4"	250	48 feet	90° Bend	250	42 feet
Reducer 4"x2"	250	55 feet	45° Bend	250	30 feet
Tee 6"x6"x6"	250	86 feet	22.5° Bend	250	18 feet
Tee 6"x4"x6"	250	55 feet	Dead End/Gate Valve	250	9 feet
Tee 4"x2"x4"	250	47 feet			66 feet
Tee 2"x2"x2"	250	49 feet			55 feet

NOTES:

- JOINT RESTRAINTS SHALL BE RATED TO THE REQUIRED TEST PRESSURE OF PIPE.
- JOINT RESTRAINTS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- ALL BURIED METALLIC PARTS SHALL BE FUSION BONDED EPOXY COATED AND WRAPPED IN >8 MIL POLYETHYLENE.
- EBAA IRON, MEGALUG JOINT RESTRAINTS OR APPROVED EQUAL.

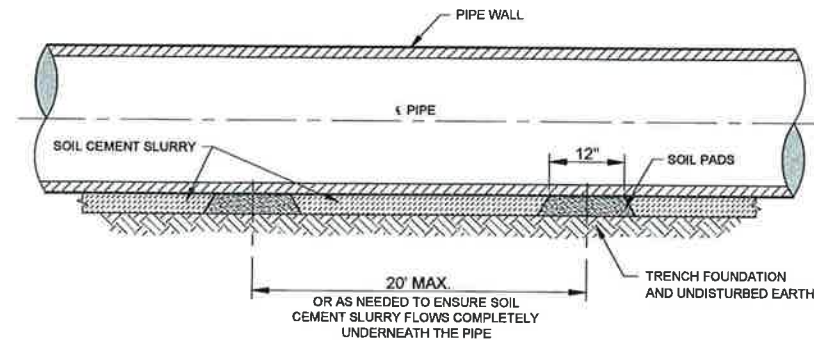
* LENGTHS AS PER TABLE.



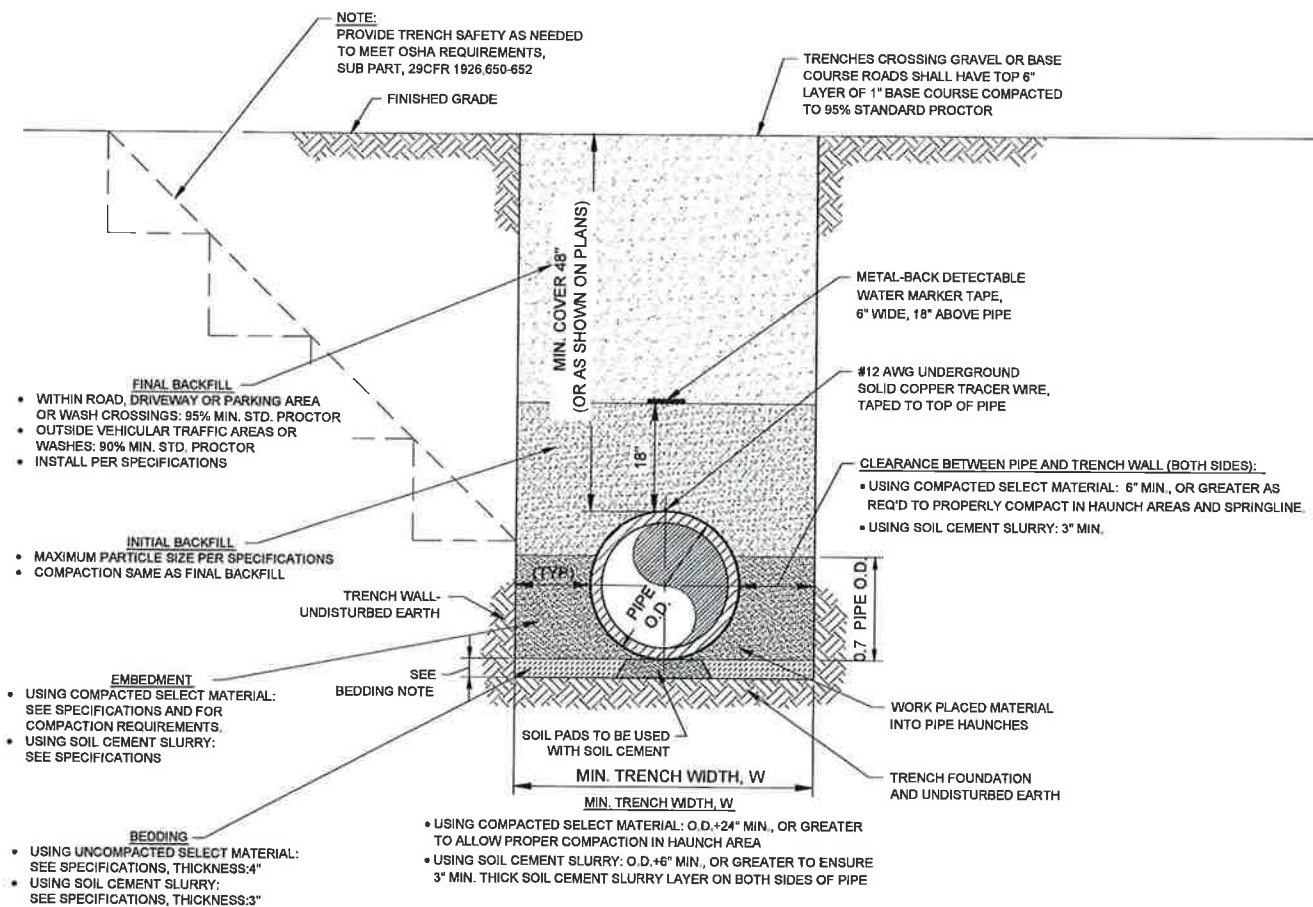
MECHANICAL JOINT RESTRAINTS
NOT TO SCALE

NOTES:

- EMBEDMENT WITHIN DRIVING SURFACES OF ALL ROADS, DRIVEWAYS AND PARKING AREAS SHALL BE COMPACTED TO AT LEAST 95% STD. PROCTOR, REGARDLESS OF SOIL TYPE. SOIL CEMENT MAY BE USED IN LIEU OF COMPACTED SELECT MATERIAL AT CONTRACTOR'S OPTION AND EXPENSE.
- ANY SECTION OF PIPE EMBEDDED IN COMPACTED SELECT MATERIAL THAT FAILS TO MEET SOIL CLASSIFICATION AND/OR COMPACTION REQUIREMENTS SHALL BE DUG UP, RE-BURIED, RE-COMPACTED, AND RE-TESTED AT CONTRACTOR'S SOLE EXPENSE.
- MINIMUM CLEARANCES BETWEEN PIPE AND TRENCH WALL MUST BE MET PRIOR TO PLACING EMBEDMENT (WHETHER COMPACTED SELECT MATERIAL OR SOIL CEMENT SLURRY). INCREASE CLEARANCES AND/OR TRENCH WIDTH AS NEEDED TO ALLOW FOR COMPACTION AND/OR TO ENSURE ADEQUATE SOIL CEMENT SLURRY LAYER THICKNESS IN HAUNCH AREAS AND PIPE SPRING LINE. DO NOT ALLOW PIPE TO REST AGAINST TRENCH WALL.
- ROUNDED TRENCH BOTTOMS MAY BE USED IN CONJUNCTION WITH SOIL CEMENT SLURRY, PROVIDED THE THICKNESS OF SOIL CEMENT AROUND THE PIPE IS AT NO POINT LESS THAN 3".



SOIL CEMENT INSTALLATION WITH SOIL PADS
NOT TO SCALE



TYPICAL TRENCH DETAIL
NOT TO SCALE

SMA
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Designed GMM Drawn JEG Checked AGR



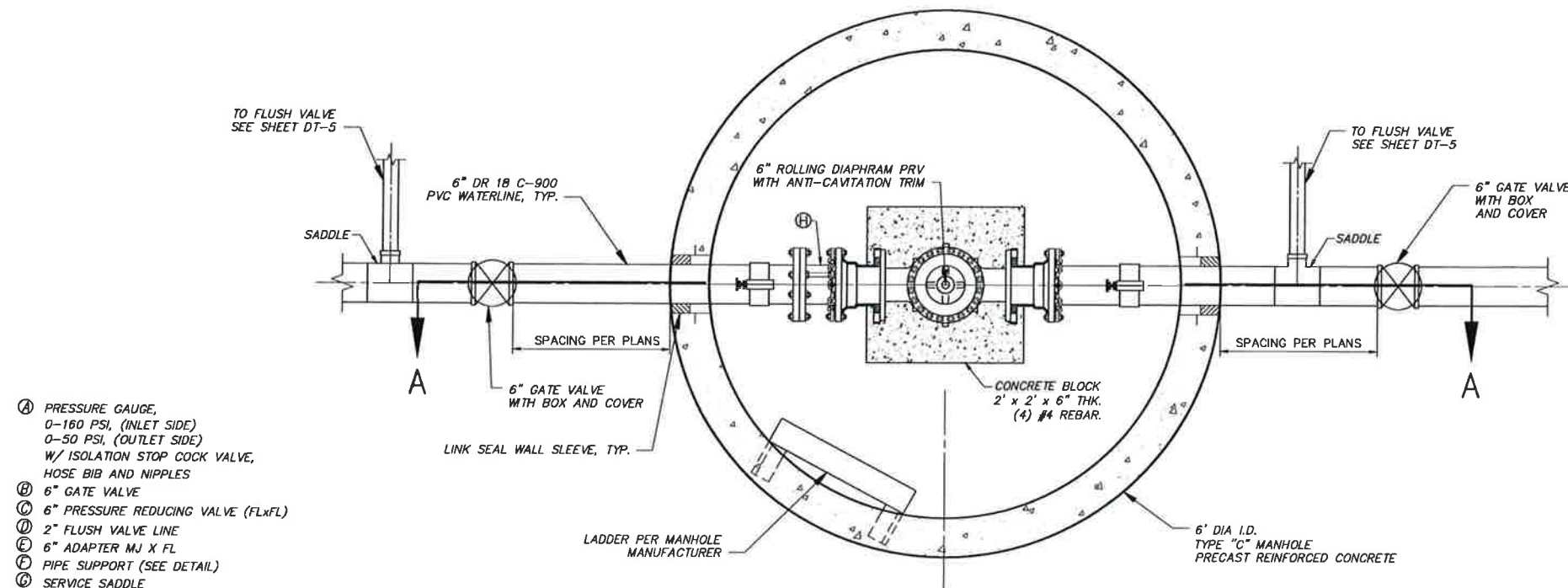
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED BY THE DESIGNER. THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.

Date: November 30, 2012

Scale: AS NOTED

Project No: 6415735

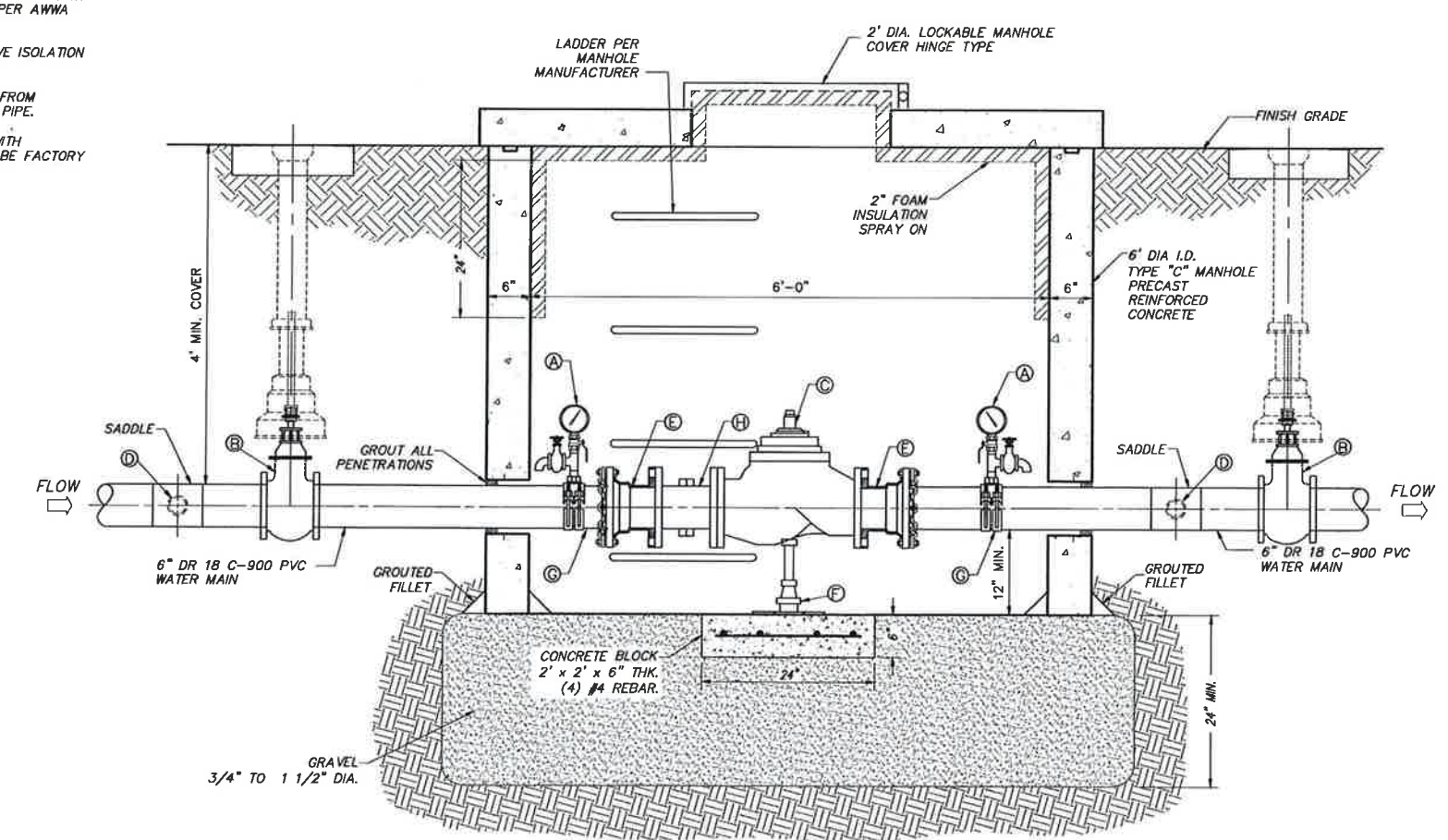
Sheet: DT-4



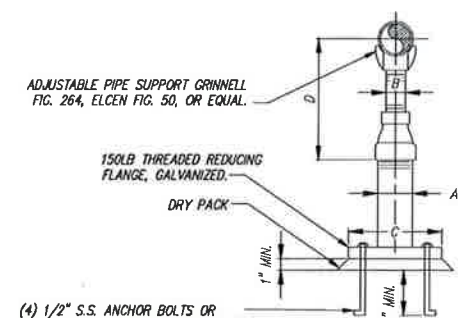
- (A) PRESSURE GAUGE, 0-160 PSI, (INLET SIDE)
 0-50 PSI, (OUTLET SIDE)
 W/ ISOLATION STOP COCK VALVE,
 HOSE BIB AND NIPPLES
 (B) 6" GATE VALVE
 (C) 6" PRESSURE REDUCING VALVE (FLxFL)
 (D) 2" FLUSH VALVE LINE
 (E) 6" ADAPTER MJ X FL
 (F) PIPE SUPPORT (SEE DETAIL)
 (G) SERVICE SADDLE
 (H) RESTRAINED DISMANTLING JOINT
 ROMAC DJ400-06

- NOTES:**
 1. BURIED G.I. PIPE SHALL BE WRAPPED WITH CORROSION RESISTANT TAPE, PER AWWA C209.
 2. PRESSURE GAUGES SHALL HAVE ISOLATION VALVES.
 3. REDUCE/ADAPT AS REQUIRED FROM MAINLINE PIPE TO PRV VAULT PIPE.
 4. 6" ROLLING DIAPHRAGM PRV WITH ANTI-CAVITATION TRIM SHALL BE FACTORY SET TO 21 PSI.

PRESSURE REDUCING VALVE ASSEMBLY PLAN
 SCALE: 1"=1'-0"



MANHOLE SECTION A-A FOR 6" PRESSURE REDUCING VALVE
 SCALE: 1"=1'-0"



- NOTES:**
 1. SUPPORTS SHALL BE EPOXY COATED, HOT-DIPPED GALVANIZED, OR STAINLESS STEEL.

ADJUSTABLE PIPE SUPPORT APPROXIMATE DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D MIN.	D MAX.
6	3	2 1/2	9	11 5/8	15 1/4

ADJUSTABLE PIPE SUPPORT DETAIL
 NOT TO SCALE

CLIENT: The Navajo Nation
 TOWN: Mariano Lake
 PROJECT: PRESSURE REDUCING VALVE STATION
 WATER SYSTEM - PHASES 1A & 1B
 MARIANO LAKE - NAVAJO CHAPTER
 MCKINLEY COUNTY, NEW MEXICO

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Engineering
 Environmental
 Surveying

Designed: GMM
 Drawn: JEG
 Checked: AGR

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED
 NOTICE OF AUTOMATIC PAYMENT REMITTANCE
 THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT.
 Date: November 30, 2012
 Scale: AS NOTED
 Project No: 6415735
 Sheet: DT-6