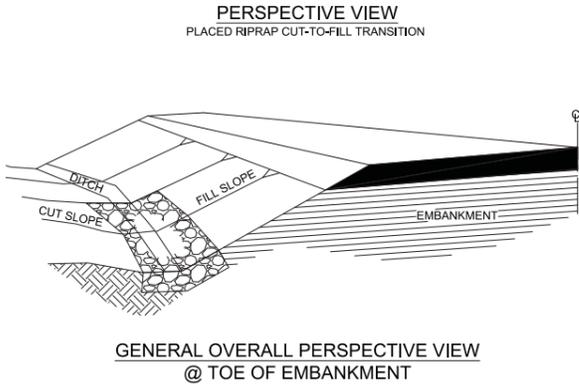
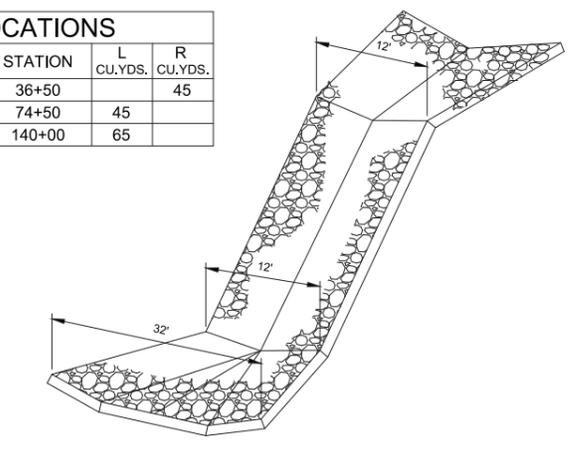
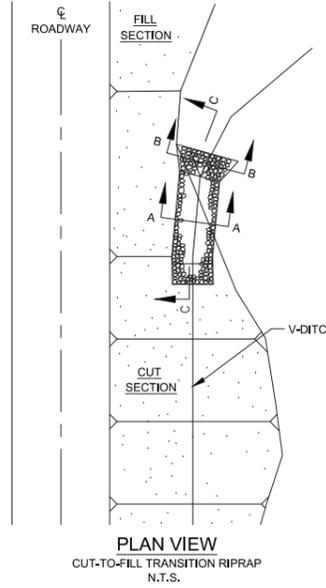
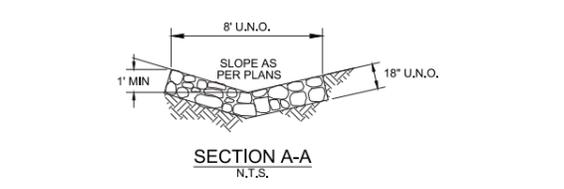
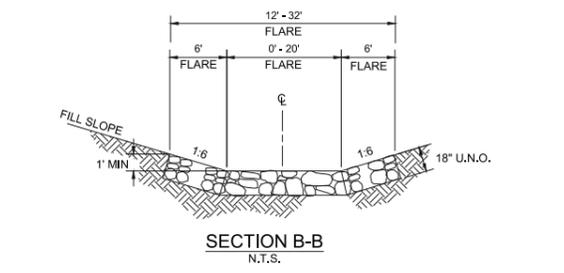
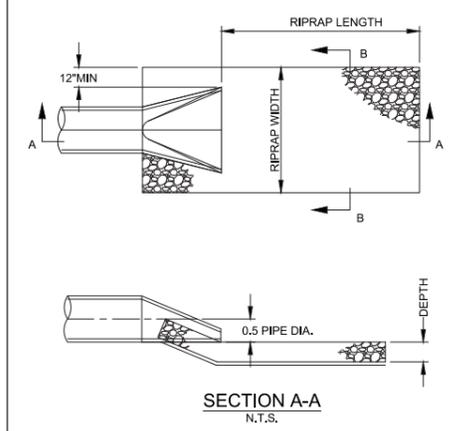


TRANSITION LOCATIONS				
ROAD	STATION	L CU.YDS.	R CU.YDS.	
BURNHAM SOUTH ROAD	36+50		45	
BURNHAM SOUTH ROAD	74+50	45		
BURNHAM SOUTH ROAD	140+00	65		



RIPRAP CUT-TO-FILL TRANSITION DETAILS  
N.T.S.

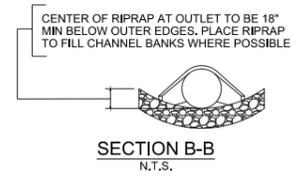
- GENERAL NOTES:**
- RIPRAP TO BE PLACED ON ENGINEERING FABRIC WITH A MINIMUM UNIT WEIGHT OF 8 OZ/SF. STONE SHALL BE 6" MIN. DIMENSION.
  - THE TOP OF THE RIPRAP SHALL BE INSTALLED TO MATCH THE EXISTING OR FINISHED GROUND ELEVATIONS.
  - EXTEND DOWN DRAIN 10' BEYOND END OF FILL SECTION.



RIPRAP TABLE - CLASS 2 (6")					
Culvert No.	Road Station	Depth (ft)	Length (ft)	Width @ End (ft)	Riprap (cy)
CP-401	16+77	1.7	14	20	17.0
CP-402	29+71	1.7	8	11	5.5
CP-404	50+38	1.8	17	24	26.4
CP-405	76+10	1.7	8	11	5.5

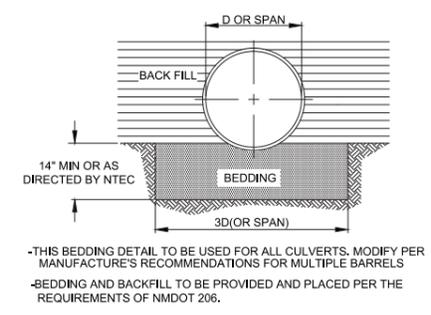
  

RIPRAP TABLE - CLASS 3 (10")					
Culvert No.	Road Station	Depth (ft)	Length (ft)	Width @ End (ft)	Riprap (cy)
CP-403	35+98	2.0	15	19	21.1



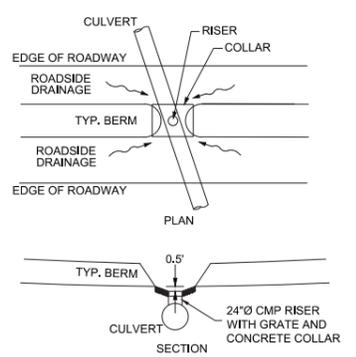
PIPE OUTLET RIPRAP DETAIL  
N.T.S.

- CULVERT NOTES:**
- ALL DRAINAGE STRUCTURES SHALL BE STAKED AND GRADED TO DRAIN TO THE CONSTRUCTION LIMITS. EARTHEN DITCH BLOCKS, DIKES AND DITCHES MAY BE ADDED AT LOCATIONS DESIGNATED BY NTEC AND/OR AS SHOWN ON THESE PLANS.
  - ALL CULVERTS ARE TO BE INSTALLED AT THE NATURAL FLOWLINE OF THE WASH, ARROYO OR DITCH, IF PLAN ELEVATIONS DO NOT MATCH FIELD CONDITIONS CONTACT NTEC FOR DIRECTION BEFORE PROCEEDING.
  - SHAPE AND GRADE DRAINAGE CHANNELS AS NECESSARY TO PROVIDE A SMOOTH CONNECTION BETWEEN FORD OR CULVERT AND EXISTING FEATURE.
  - ALL CULVERTS ARE TO INCLUDE FLARED END SECTIONS AT BOTH ENDS UNLESS OTHERWISE NOTED, CULVERTS 3'-0" AND SMALLER TO INCLUDE SAFETY SLOPE END SECTIONS AT BOTH ENDS.
  - RIPRAP IS TO BE INSTALLED AT THE OUTLET END OF CULVERTS PER THE RIPRAP SCHEDULE IMMEDIATELY UPON COMPLETION OF CULVERT INSTALLATION.
  - RIPRAP TO BE NON-ENCLOSED WITH MINIMUM DIMENSION AS SHOWN AND INSTALLED ON ENGINEERING FABRIC WITH A MINIMUM UNIT WEIGHT OF 8 OZ/SY.
  - IN LIEU OF RIPRAP SHOWN CONTRACTOR MAY USE WIRE ENCLOSE RIPRAP CLASS A PER NMDOT STANDARD DRAWING 602-01-1/1.
  - COST OF FABRIC, BEDDING AND BACKFILL TO BE CONSIDERED INCIDENTAL TO CULVERT INSTALLATION.

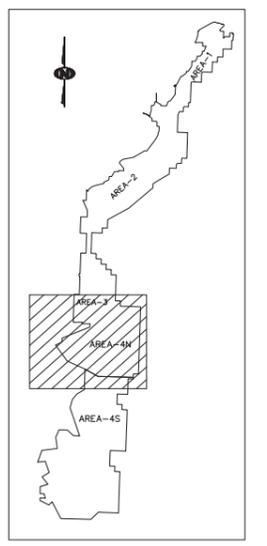
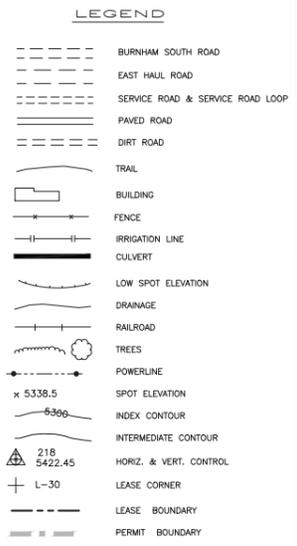


PIPE BEDDING DETAIL  
N.T.S.

BURNHAM SOUTH ROAD - CULVERT TABLE																	
Culvert No.	Station	Area (Ac)	Discharge (cfs)	Size (ft-in)	Corrugation (in)	Corner Radius (in)	Gage	Minimum Cover (in)	Inlet Invert Elev.	Outlet Invert Elev.	Headwater Elev.	Barrels	Skew Angle	Run Length (ft)	Total Length (ft)	Outlet Velocity (ft/sec)	Outflow Protection
CP-401	16+77	23.948	38.11	3'-6"	2-2/3 X 1/2	N/A	16	24	5424.08	5422.58	5426.85	1	71	89	89	7.47	RIPRAP
CP-402	29+71	6.330	10.07	2	2-2/3 X 1/2	N/A	16	24	5438.94	5435.51	5440.59	1	68	107	107	6.84	RIPRAP
CP-403	35+98	21.778	34.66	3	2-2/3 X 1/2	N/A	16	24	5441.76	5437.08	5444.64	1	109	119	119	10.06	RIPRAP
CP-404	50+38	38.909	61.92	3	2-2/3 X 1/2	N/A	16	24	5450.91	5450.45	5453.97	2	90	88	176	6.98	RIPRAP
CP-405	76+10	9.491	15.10	2	2-2/3 X 1/2	N/A	16	24	5430.87	5426.75	5433.09	1	90	117	117	7.82	RIPRAP
CP-406	115+90	9.629	12.36	2'-6"	2-2/3 X 1/2	N/A	16	24	5380.95	5380.00	5382.89	1	68	180	180	5.42	N/A



- TYP. DROP INLET N.T.S.**
- DROP INLET NOTES:**
- PROVIDE DROP INLETS AT LOCATIONS SHOWN ON THE PLANS.
  - REMOVE 10"+/- OF THE SAFETY BERM TO INSTALL THE DROP INLET. GRADE AREA TO DRAIN TO GRATE.
  - 24"Ø RISER TO BE FACTORY FABRICATED AS AN INTEGRAL PART OF THE CULVERT.
  - CONCRETE COLLAR TO BE 10" SQUARE x 8" THICK WITH #5 BARS AT 12" E.W. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS AND SHALL BE PLACED WITH AN AIR CONTENT OF 5-8% AND A MAX. SLUMP OF 4".



**CERTIFICATION STATEMENT**  
I, GEORGE A. MADRID, P.E., HEREBY CERTIFY THAT THIS DRAWING WAS REVIEWED BY ME AND THAT THE INFORMATION SHOWN IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

**George A. Madrid**  
Professional Engineer  
9110  
Digitally signed by George A. Madrid  
DN: cn=George A. Madrid, o=GEOMAT Inc., ou=Engineering, email=george.madrid@geomatinc.com, c=US  
Date: 2014.05.27 08:55:11 -0500

**GEOMAT INC.**  
915 Malta Avenue • Farmington, NM 87401 • (505) 327-7928

REV. NO.	DATE	DESCRIPTION
2	05-23-14	REVISED TITLE BLOCK
1	03-15-12	REVISED TITLE & TITLE BLOCK
0	02-07-12	INITIAL PERMIT SUBMITTAL

**EXHIBIT 40.6-1**

**NTEC**  
Navajo Transitional Energy Company, LLC  
Navajo Mine

P.O. Box 1717  
Fruitland, New Mexico, 87416  
Phone: 505-598-4200  
Fax: 505-568-3361

**PINABETE PERMIT**

BURNHAM SOUTH ROAD DESIGN  
CULVERT TABLE & DRAINAGE DETAILS  
SHEET: 10 OF 11

PREPARED BY: BT&PR DRAWN BY: BT&PR SCALE: AS SHOWN  
APPROVED BY: GM DATE: 02-07-2012

GEOMAT PROJECT NO. 112-1434

THE DESIGN FEATURES SHOWN ON THESE DESIGN PLANS ARE REASONABLE REPRESENTATIONS OF THE PROPOSED WORK BASED ON THE INFORMATION AVAILABLE AT THE TIME OF SUBMITTAL OF THIS PERMIT PACKAGE. ACTUAL CONSTRUCTION DETAILS MAY VARY FROM THOSE SHOWN.

**NOT ISSUED FOR CONSTRUCTION**