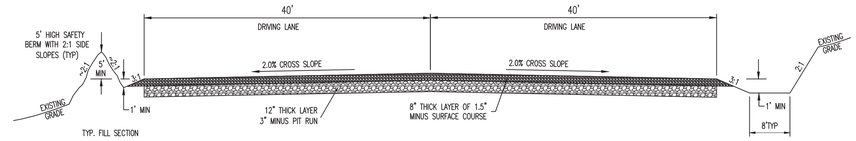
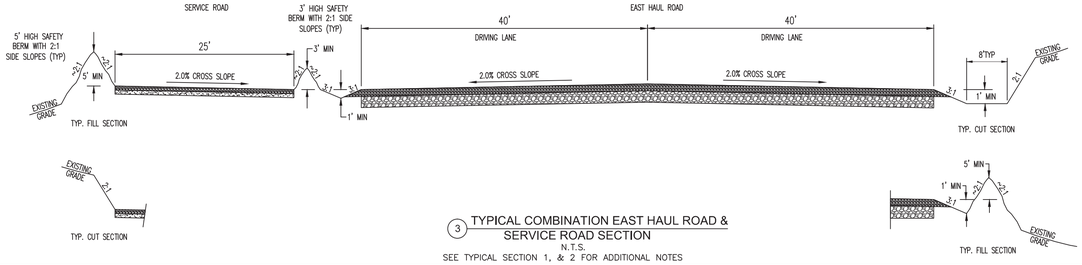


EAST HAUL ROAD TYP. SECTION NOTES:

1. ALL EMBANKMENT AND SUB-GRADE TO BE COMPACTED PER NMDOT SECTION 207.
2. NATIVE SUB-GRADE TO BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO 95% MIN OF T99 PROCTOR AT NEAR OPTIMUM MOISTURE.
3. SUB-BASE PIT RUN TO BE OBTAINED FROM A BORROW AREA AS DESIGNATED BY NTEC. COMPACT PIT RUN SUB-BASE TO 95% MIN OF T99 PROCTOR AT NEAR OPTIMUM MOISTURE.
4. SURFACE COURSE TO BE AGGREGATE BASE COURSE COMPACTED TO 95% MIN OF T180 PROCTOR AT NEAR OPTIMUM MOISTURE.

1 TYPICAL EAST HAUL ROAD SECTION

N.T.S.



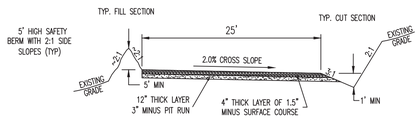
3 TYPICAL COMBINATION EAST HAUL ROAD & SERVICE ROAD SECTION

N.T.S.

SEE TYPICAL SECTION 1, & 2 FOR ADDITIONAL NOTES

LEGEND

- BURNHAM SOUTH ROAD
- EAST HAUL ROAD
- SERVICE ROAD & SERVICE ROAD LOOP
- PAVED ROAD
- DIRT ROAD
- TRAIL
- BUILDING
- FENCE
- IRRIGATION LINE
- CULVERT
- LOW SPOT ELEVATION
- DRAINAGE
- RAILROAD
- TREES
- POWERLINE
- × 5338.5 SPOT ELEVATION
- 5300 INDEX CONTOUR
- INTERMEDIATE CONTOUR
- 218 5422.45 HORIZ. & VERT. CONTROL
- L-30 LEASE CORNER
- LEASE BOUNDARY
- PERMIT BOUNDARY

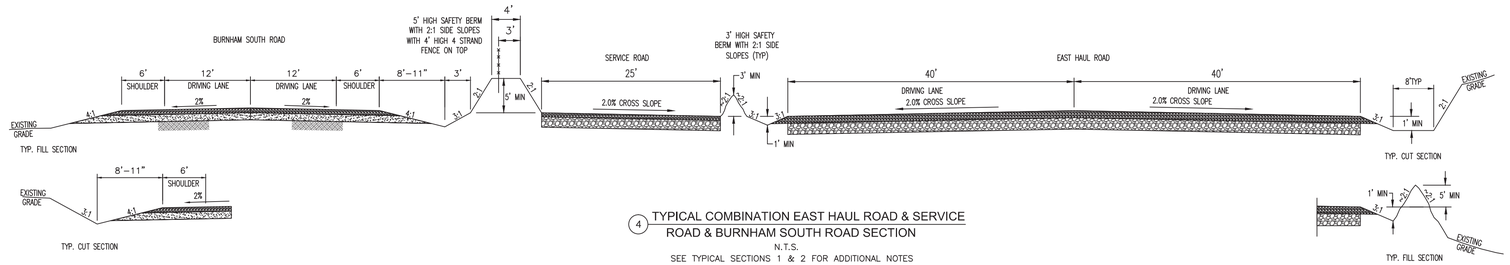


SERVICE ROAD LOOP NOTES:

1. ALL EMBANKMENT AND SUB-GRADE TO BE COMPACTED PER NMDOT SECTION 207.
2. NATIVE SUB-GRADE TO BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO 95% MIN OF T99 PROCTOR AT NEAR OPTIMUM MOISTURE.
3. SURFACE COURSE TO BE AGGREGATE BASE COURSE COMPACTED TO 95% MIN OF T180 PROCTOR AT NEAR OPTIMUM MOISTURE.
4. CROSS-SLOPE DIRECTION TO BE AS INDICATED ON THE PLAN. TYPICAL CROSS-SLOPE IS TO THE INSIDE OF CURVES.

2 TYPICAL SERVICE ROAD LOOP SECTION

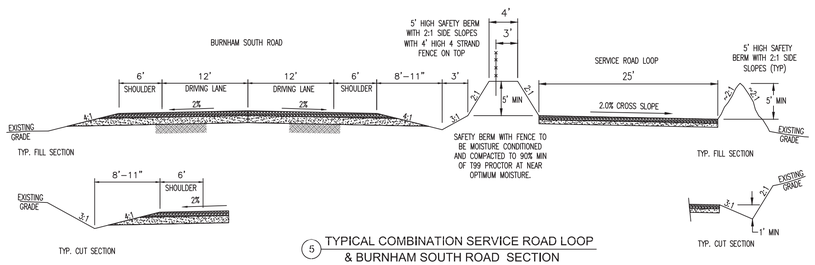
N.T.S.



4 TYPICAL COMBINATION EAST HAUL ROAD & SERVICE ROAD & BURNHAM SOUTH ROAD SECTION

N.T.S.

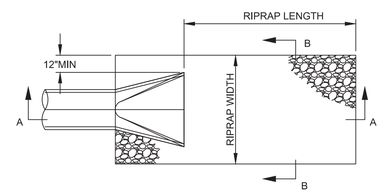
SEE TYPICAL SECTIONS 1 & 2 FOR ADDITIONAL NOTES



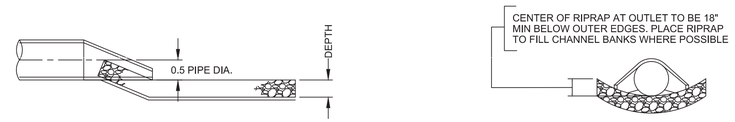
5 TYPICAL COMBINATION SERVICE ROAD LOOP & BURNHAM SOUTH ROAD SECTION

N.T.S.

SEE TYPICAL SECTION 2 FOR ADDITIONAL NOTES



RIPRAP TABLE - CLASS 2 (6")					
Culvert No.	Road Station	Depth (ft)	Length (ft)	Width @ End (ft)	Riprap (cy)
CP-408	189+89	1.7	8	11	5.5
CP-411	251+84	1.7	28	39	66.5
CP-412	274+66	1.7	17	24	24.9
CP-414	15+00	1.7	21	29	37.4
RIPRAP TABLE - CLASS 4 (14")					
Culvert No.	Road Station	Depth (ft)	Length (ft)	Width @ End (ft)	Riprap (cy)
CP-407	167+20	2.6	42	49	199.6
CP-409	200+62	2.6	30	35	97.8
CP-410	211+31	2.6	42	48	191.6

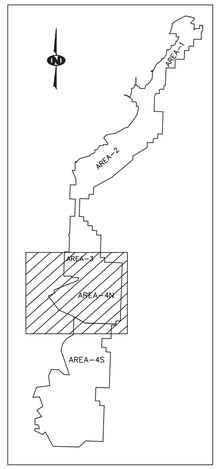


SECTION A-A
N.T.S.

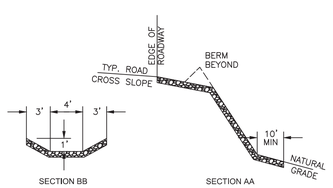
SECTION B-B
N.T.S.

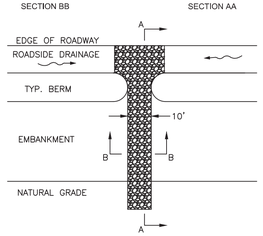
PIPE OUTLET RIPRAP DETAIL

N.T.S.



RELIEF DITCH LOCATIONS				
RELIEF DITCH NUMBER	ROAD STATION	DEPTH FT.	D50 IN.	RIPRAP CYDS.
EHR-RD1	167+65	2.3	12	28
EHR-RD2	190+85	2.0	9	47
EHR-RD3	200+50	2.3	12	39
EHR-RD4	205+15	2.0	9	30
EHR-RD5	214+50	2.0	9	24
EHR-RD6	276+60	2.0	9	24
SRL-RD7	00+90	2.0	9	27
SRL-RD8	16+10	2.3	12	27
SRL-RD9	24+85	1.7	6	80



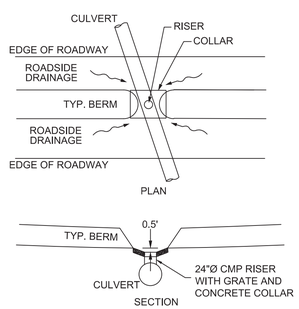


TYP. RIPRAP RUNDOWN

N.T.S.

RIPRAP RUNDOWN NOTES:

1. PROVIDE RIPRAP RUNDOWN AT LOCATIONS SHOWN ON THE PLANS.
2. REMOVE 10'+/- OF THE SAFETY BERM TO INSTALL THE RIPRAP RUNDOWN. GRADE AREA TO DRAIN TO RUNDOWN.
3. DIMENSIONS TO BE AS SHOWN UNLESS OTHERWISE SHOWN ON THE PLANS.

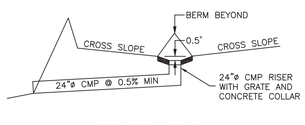


TYP. DROP INLET

N.T.S.

DROP INLET NOTES:

1. PROVIDE DROP INLETS AT LOCATIONS SHOWN ON THE PLANS.
2. REMOVE 10'+/- OF THE SAFETY BERM TO INSTALL THE DROP INLET. GRADE AREA TO DRAIN TO GRATE.
3. 24"Ø RISER TO BE FACTORY FABRICATED AS AN INTEGRAL PART OF THE CULVERT.
4. 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".



TYP. DOWN DRAIN

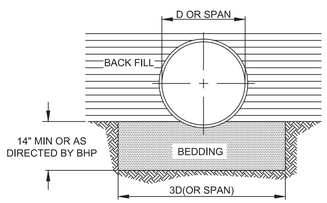
N.T.S.

DOWN DRAIN NOTES:

1. PROVIDE DOWN DRAINS AT LOCATIONS SHOWN ON THE PLANS.
2. REMOVE 10'+/- OF THE SAFETY BERM TO INSTALL THE DOWN DRAIN. GRADE AREA TO DRAIN TO GRATE.
3. 24"ø RISER TO BE FACTORY FABRICATED AS AN INTEGRAL PART OF THE DRAIN.
4. 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".

CULVERT NOTES:

1. 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 BHP AND/OR AS SHOWN ON THESE PLANS.
2. 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 BNCC FOR DIRECTION BEFORE PROCEEDING.
3. SHAPE AND GRADE DRAINAGE CHANNELS AS NECESSARY TO PROVIDE A SMOOTH CONNECTION BETWEEN FORD OR CULVERT AND EXISTING FEATURE.
4. 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
5. RIPRAP IS TO BE INSTALLED AT THE OUTLET END OF CULVERTS PER THE RIPRAP SCHEDULE IMMEDIATELY UPON COMPLETION OF CULVERT INSTALLATION.
6. RIPRAP TO BE NON-ENCLOSED WITH MINIMUM DIMENSION AS SHOWN AND INSTALLED ON ENGINEERING FABRIC WITH A MINIMUM UNIT WEIGHT OF 8 OZ/SY.
7. IN LIEU OF RIPRAP SHOWN CONTRACTOR MAY USE WIRE ENCLOSE RIPRAP CLASS A PER NMDOT STANDARD DRAWING 602-01-1/1.
8. COST OF FABRIC, BEDDING AND BACKFILL TO BE CONSIDERED INCIDENTAL TO CULVERT INSTALLATION.



-THIS BEDDING DETAIL TO BE USED FOR ALL CULVERTS. MODIFY PER MANUFACTURE'S RECOMMENDATIONS FOR MULTIPLE BARRELS

-BEDDING AND BACKFILL TO BE PROVIDED AND PLACED PER THE REQUIREMENTS OF NMDOT 206.

PIPE BEDDING DETAIL

N.T.S.

EAST HAUL ROAD - CULVERT TABLE

Culvert No.	Road	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-406	BURNHAM SOUTH ROAD	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
CP-407	EAST HAUL ROAD	167+20	448.365	218.40	5	2-2/3 X 1/2	N/A	12	4'	5274.48	5270.70	5278.91	2	90	220	440	9.79	RIPRAP
CP-408	EAST HAUL ROAD	189+89	6.728	11.14	2	2-2/3 X 1/2	N/A	16	2'	5303.63	5292.87	5305.39	1	102	252	252	7.83	RIPRAP
CP-409	EAST HAUL ROAD	200+62	148.159	116.30	3'- 6	2-2/3 X 1/2	N/A	16	4.5	5301.62	5296.71	5305.37	2	70	227	454	9.08	RIPRAP
CP-410	EAST HAUL ROAD	211+31	248.872	192.94	4	2-2/3 X 1/2	N/A	14	4'	5305.03	5301.11	5308.64	3	91	216	648	8.76	RIPRAP
CP-411	EAST HAUL ROAD	251+84	266.740	176.20	4	2-2/3 X 1/2	N/A	14	4'	5323.96	5321.71	5327.64	3	79	217	651	7.82	RIPRAP
CP-412	EAST HAUL ROAD	274+66	76.550	52.01	3	2-2/3 X 1/2	N/A	14	2.5'	5352.89	5351.39	5355.52	2	73	177	354	6.55	RIPRAP
CP-413	SERVICE ROAD LOOP	3+40	4.112	6.54	2	2-2/3 X 1/2	N/A	16	24	5332.33	5331.06	5333.73	1	77	98	98	4.73	N/A
CP-414	SERVICE ROAD LOOP	15+00	156.076	90.31	3	2-2/3 X 1/2	N/A	16	24	5335.84	5334.94	5338.70	3	90	97	291	6.90	RIPRAP

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

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 NEW MEXICO 9110 REGISTERED PROFESSIONAL ENGINEER

George A. Madrid

Digitally signed by George A. Madrid
DN: cn=George A. Madrid, o=GEOMAT Inc., ou=Engineering, email=george.madrid@geomatinc.com, c=US
Date: 2014.05.23 13:56:54 -06'00'

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

REV. No.	DATE	COMMENT
3	05-15-14	REVISED TITLE BLOCK
2	12-17-13	REVISED PER OSM COMMENT
1	03-15-12	REVISED TITLE & TITLE BLOCK
0	02-07-12	INITIAL PERMIT SUBMITTAL

EXHIBIT 23.2-2

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

TYPICAL ROAD SECTIONS, GUARDRAIL TABLE & DETAILS, CULVERT TABLE & DRAINAGE DETAILS

SHEET: 12 OF 13

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

GEOMAT PROJECT NO. 112-1434