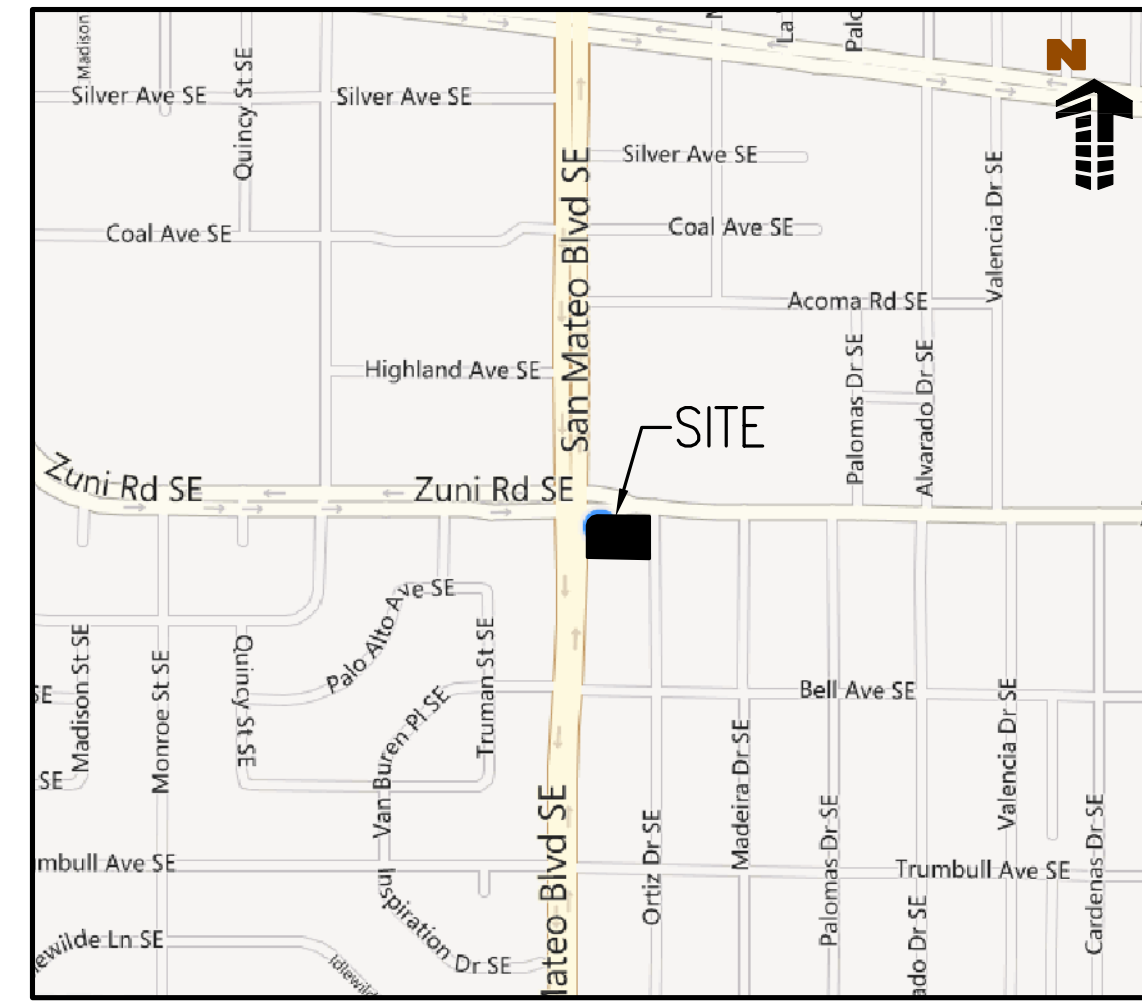
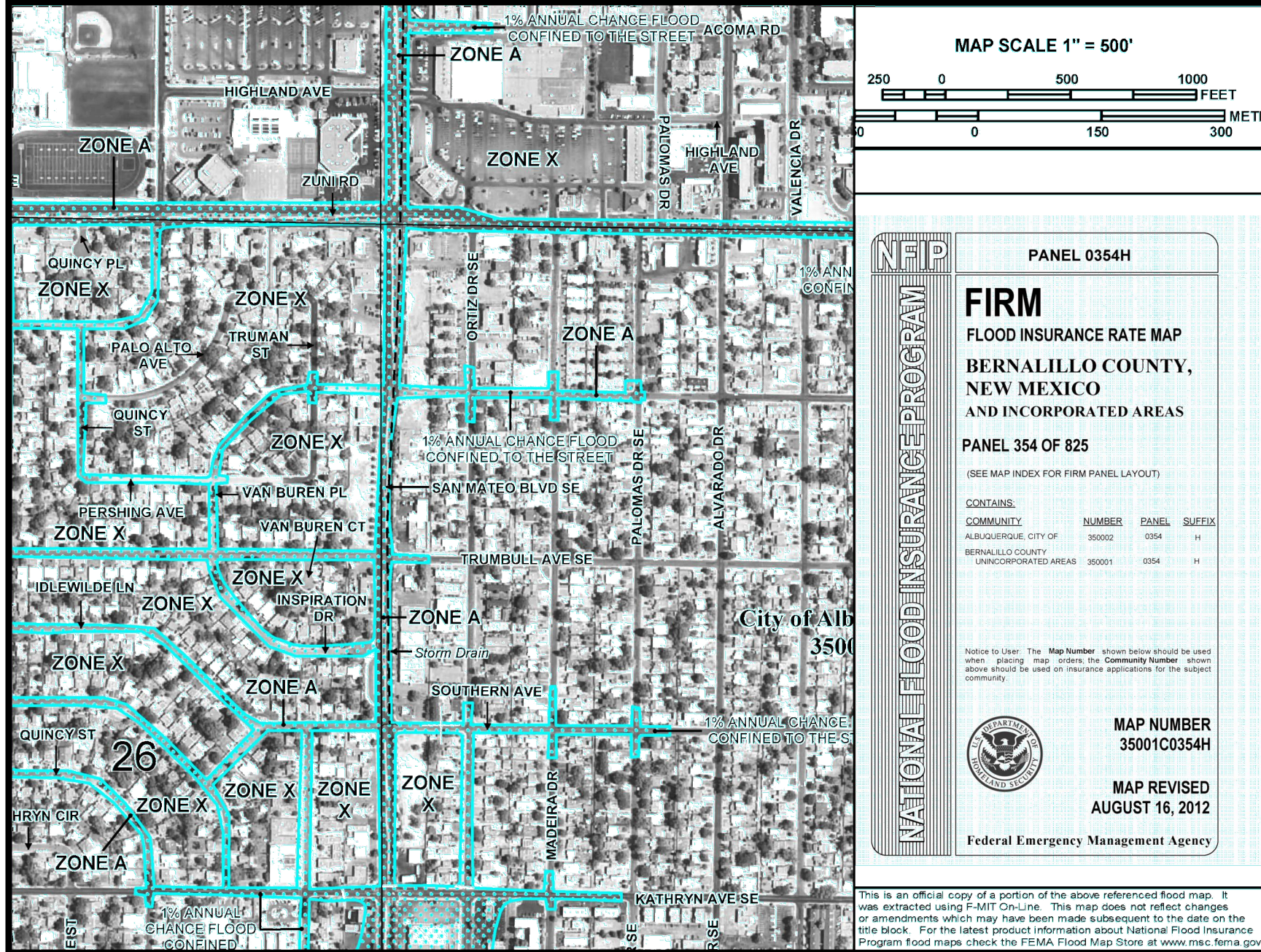
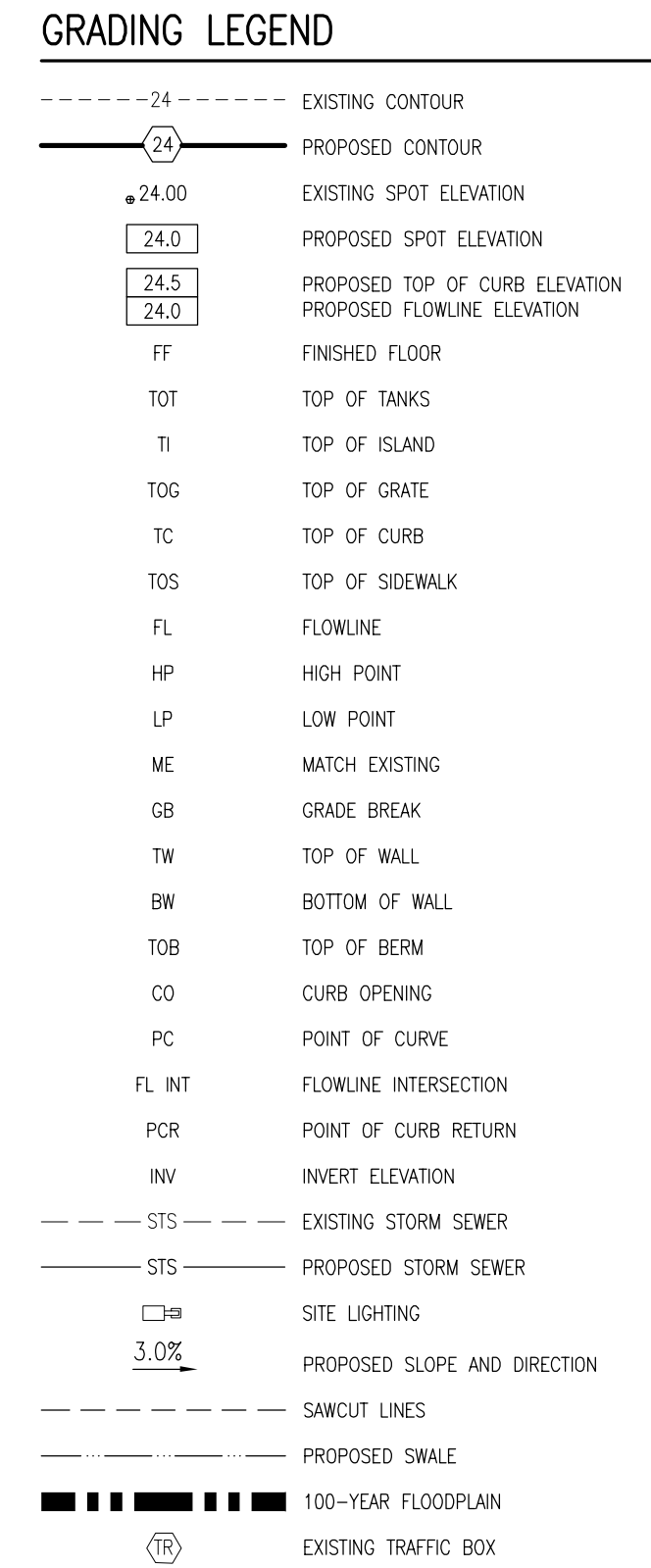


TRACT A, LANDS OF TOSTA NEW MEXICO
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
DRAINAGE AND GRADING PLAN



VICINITY MAP
SCALE: 1" = 2500'



SITE GRADING NOTES

1. CONTRACTOR SHALL REFERENCE THE EROSION AND SEDIMENT CONTROL PLAN PRIOR TO CONSTRUCTION START.
2. CONTRACTOR SHALL NOTE THAT EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON A TOPOGRAPHICAL SURVEY CONDUCTED BY ENGINEERING SERVICE COMPANY IN FEBRUARY 2012.
3. ALL CUT AND FILL SLOPES IN LANDSCAPE AREAS SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
4. PRE-CAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION.
5. STORM SEWER PIPE SHALL BE CLASS II REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS, ANY ALTERNATE PIPE MATERIAL MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
6. EXISTING GRADING CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS. PROPOSED GRADING CONTOUR INTERVALS SHALL BE 2 FEET.
7. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
8. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
9. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
10. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 10H:1V OR STEEPER AFTER SEEDING. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
11. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE COVERING CODES AND BE CONSTRUCTED TO SAME.
12. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
13. ALL PROPOSED SPOT GRADES POINTING TO CURB REPRESENT FLOWING ELEVATIONS, UNLESS OTHERWISE NOTED.
14. CONTRACTOR SHALL VERIFY THAT SLOPES WITHIN DESIGNATED ADA AREAS COMPLY WITH ALL ADA REQUIREMENTS (NO MORE THAN 3% CROSS-SLOPE AND 3% IN THE DIRECTION OF TRAVEL).
15. PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE OWNER AND THE ENGINEER OF ANY DEFICIENCIES OR REQUIRED DEVIATIONS FROM THE PLAN PRIOR TO CONSTRUCTION. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
16. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND EXPOSED UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE REIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL AT THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
17. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE REIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL AT THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
18. REFER TO GEOTECHNICAL REPORT FOR SPECIFIC SITE SOIL CONDITIONS AND CONSIDERATIONS.
19. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING OR OTHER MEANS OF PROTECTING EXCAVATIONS TO TO BE LIMITED TO THE EXCAVATION ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
20. ALL LANDSCAPING AREAS WITHIN THE PROPERTY SHALL BE DEPRESSED WHERE POSSIBLE.

DRAINAGE NARRATIVE

[illegible]

No.	REVISION	DES. BY	DRAWN BY	DATE
1	PER CITY COMMENTS	BAR	ROG	7/17/13

Galloway
Planning, Architecture, Engineering.
5300 DTC Parkway, Suite 100
Greenwood Village, CO 80111
303.770.8884 O
303.770.3636 F
www.gallowayUS.com

**MURPHY
EXPRESS**

MURPHY OIL U.S.A. INC.
422 NORTH WASHINGTON
EL DORADO, ARKANSAS 71730

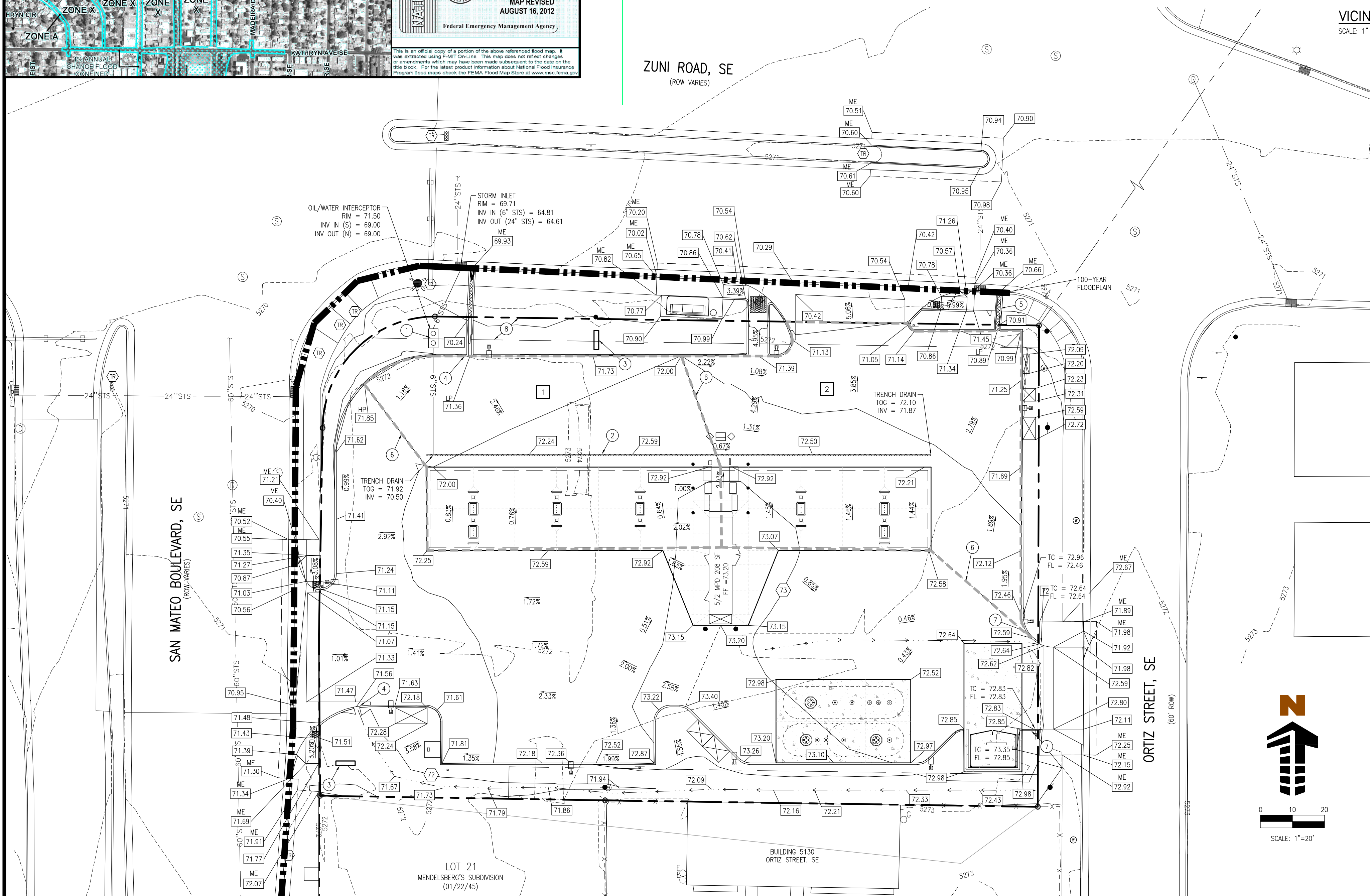
**MURPHY OIL
CONSTRUCTION DRAWINGS
MURPHY EXPRESS SITE**

SAN MATEO BLVD SE & ZUNI RD SE
ALBUQUERQUE, NEW MEXICO

Project No:	MOC000023
Sheet Scale:	1" = 20'
Designed By:	BAR
Drawn By:	EVR
Date:	MAY 2013
Disk File:	MOC023_C05-Grading

GRADING AND DRAINAGE PLAN

C05



LEGAL DESCRIPTION

TRACT A, LANDS OF TOSTA NEW MEXICO

BENCHMARK

ELEVATIONS ARE BASED ON AGRS MONUMENTS 5_K181A (EL=5280.137) 6_K281A (EL=5249.996) (NAVD 1988)

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS A LINE FROM BETWEEN AGRS MONUMENTS 5_K181A TO 6_K181A BEARING N28°17'18" AND A DISTANCE 25000.17

SIDEWALK NOTE

NO SIDEWALK SHALL BE INSTALLED WITH A CROSS SLOPE GREATER THAN 2 PERCENT

FLOODPLAIN NOTE

BY GRAPHIC PLOTTING ONLY THE SUBJECT PROPERTY IS SITUATED IN FLOOD ZONE "X" AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 08059C0218 E LAST REVISED JUNE 17, 2003. NO OFFICE CALCULATIONS OR FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS INFORMATION.

BASE ELEVATIONS

TO ALL PROPOSED GRADE INFORMATION (CONTOUR LABELS, INVERTS, ETC.) ADD 5200 FOR MEAN SEA ELEVATION.

SCHEDULE

- ① PROPOSED 504 GALLON OIL/WATER SEPARATOR (SEE SHEET C10 FOR SPECIFICATION).
- ② PROPOSED TRENCH DRAIN SLOPED AT 0.9% (SEE DETAIL SHEET C10).
- ③ PROPOSED MONUMENT SIGN.
- ④ PROPOSED CURB CUT.
- ⑤ PROPOSED SIDEWALK CULVERT (REF COA STD DETAIL #2236). BOLTS MUST BE TACK WELDED AT THE PLATE.
- ⑥ PROPOSED RIDGE LINE IN PAVEMENT.
- ⑦ PROPOSED CURB AND GUTTER VERTICAL TRANSITION.
- ⑧ EXISTING 7' WIDE PAVEMENT AND MISTAK EASEMENT (09/09/1975, BK. MS. 439-PG. 151)
- ⑨ EXISTING 7' WIDE PAVEMENT AND EASEMENT (09/10/1975, BK. MS. 440-PG. 375)
- ⑩ EXISTING 7' WIDE OVERHANG WIRE EASEMENT (11/06/69, BK. D515-PG. 487)

GENERAL NOTES

1. FOR IMPROVEMENTS OUTSIDE OF THE PROPERTY LINE (INSIDE CITY RIGHT-OF-WAY) REFER TO "RIGHT-OF-WAY" IMPROVEMENT PLANS FOR ADDITIONAL INFORMATION.

OVERALL DRAINAGE COMPARISON

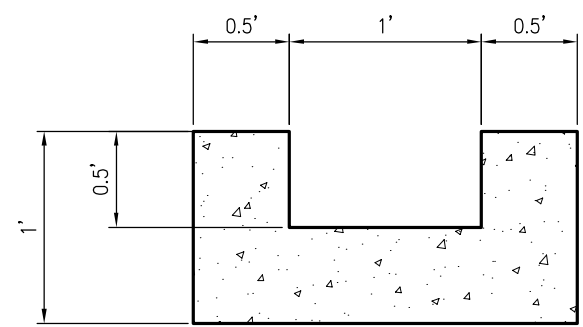
	AREA (ACRES)	TREATMENT B AREA (SF)	TREATMENT D AREA (SF)	RUNOFF – CFS	
				2 YEAR	100 YEAR
EXISTING	0.76	1,923	31,353	1.48	3.72
PROPOSED	0.76	5,935	27,341	1.31	3.50

* RUNOFF WAS CALCULATED PER THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL - VOL. II, CHAPTER 22 ASSUMING ZONE 3 AND LAND TREATMENT D.

SIDEWALK CULVERT TABLE*

CHANNEL	AREA (ACRES)	CHANNEL CAPACITY (CFS)	CULVERT CAPACITY (CFS)	RUNOFF - CFS	
				2 YEAR	100 YEAR
1	0.076	6.35	3.21	0.16	0.38
2	0.157	3.21	3.21	0.32	0.79

* RUNOFF WAS CALCULATED PER THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL - VOL. II, CHAPTER 22 ASSUMING ZONE 3 AND LAND TREATMENT D. CHANNELS AND CULVERTS WERE SIZED USING FLOWMASTER VBI.



CONCRETE CHANNEL DETAIL

MAINTENANCE NOTE

ALL STORM WATER AND WATER QUALITY FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED

SOIL PREPARATION AND PAVEMENT DESIGN NOTE

SOIL PREPARATION AND PAVEMENT DESIGN SHALL BE PER RECOMMENDATIONS FROM A GEOTECHNICAL REPORT PREPARED FOR THIS SITE AS FOLLOWS:

GEOTECHNICAL ENGINEER: X8E VINYARD
REPORT No: 12-1-196
DATED: JANUARY 18, 2013

THE CONTRACTOR MUST FULLY REVIEW THIS REPORT PRIOR TO CONSTRUCTION. INFORMATION IN THE GEOTECHNICAL REPORT SUPERSEDES ANY CONFLICTING INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. REFER TO GENERAL STRUCTURAL NOTES FOR SPECIFIC SOIL PREPARATION AT SITE STRUCTURES.