



ORIGINAL

ALGONQUIN
WATER RESOURCES
— OF AMERICA, INC. —



0000100130

2845 Bristol Circle
Oakville, Ontario
Canada L6H 7H7

Tel: 905.465.4500
Fax: 905.465.4514

June 22, 2009

Docket Control Center
Arizona Corporation
1200 W. Washington Street
Phoenix, AZ 85007

RE: Docket NO: SW-04316A-06-038^a Decision NO: 69412 Dated 4/16/2007

This letter is sent in accordance with the requirements of the above-mentioned Docket and Decision. The information includes drawings as submitted for ADEQ approval by the developer, Ranch 160, L.L.C., for the required New Lift Station and Main to serve the extension area of the extended Certificate of Convenience and Necessity of Entrada Del Oro Company.

If you have any questions or comments, please feel free to contact the undersigned.

Algonquin Water Resources of America Inc.
(operating manager - Entrada Del Oro Sewer Company)

Gaetan Mercier
Manager – Regulatory Affairs
(905) 465-4533
gaetan.mercier@algonquinpower.com

Arizona Corporation Commission

DOCKETED

JUN 29 2009

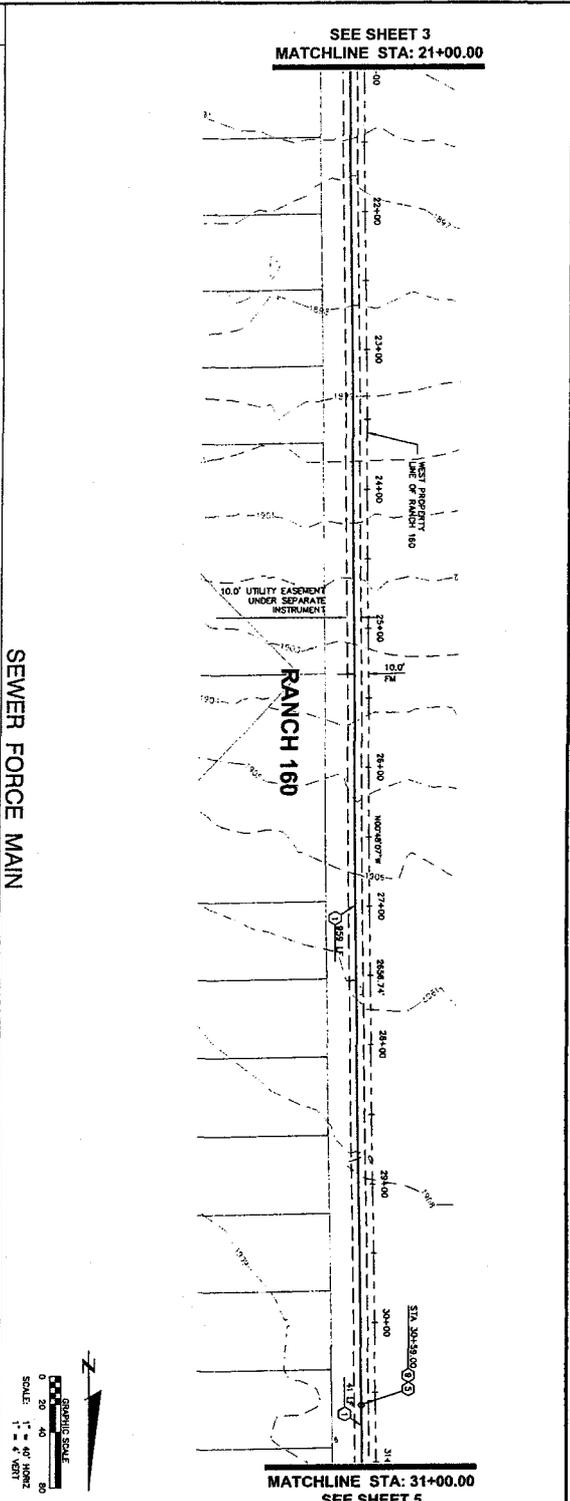
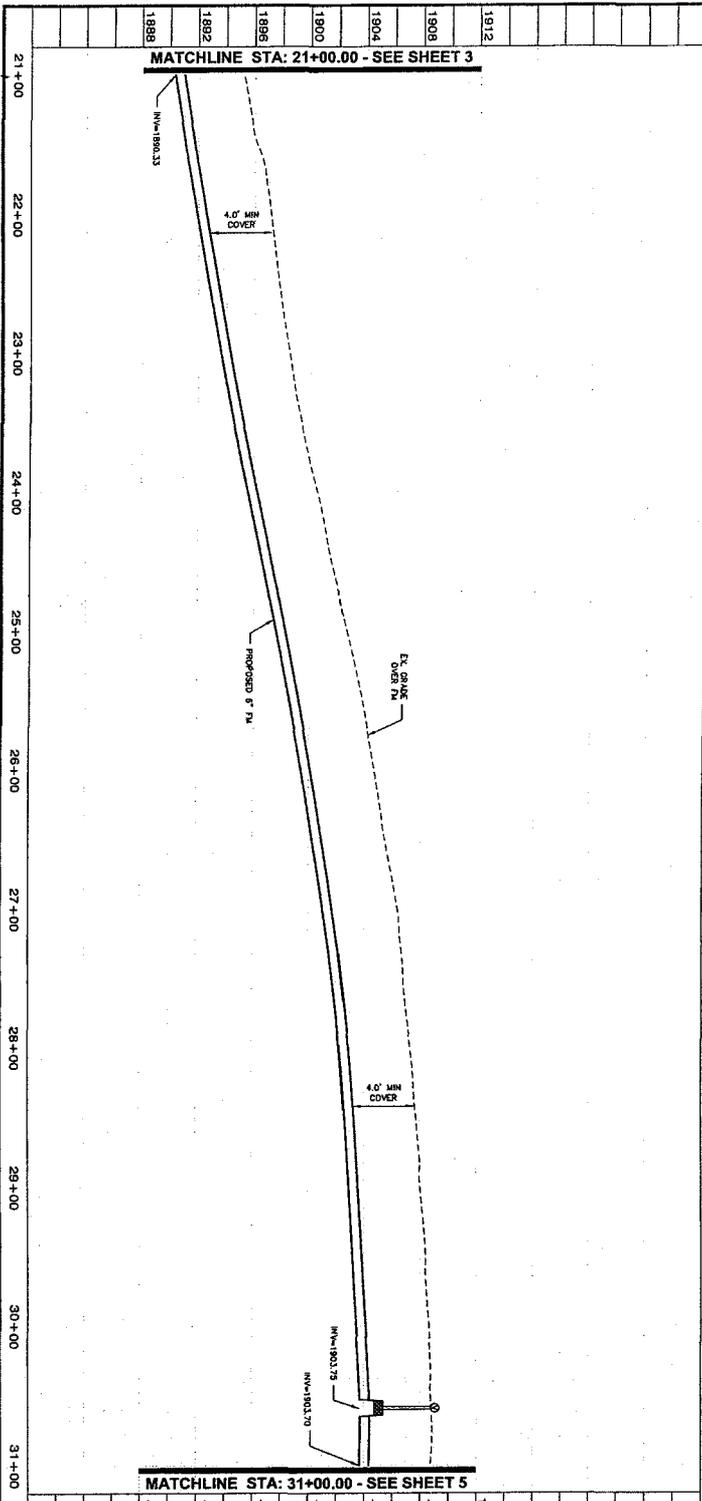
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Attachments – 31 drawings (1 original and 13 copies)

AZ CORP COMMISSION
DOCKET CONTROL

2009 JUN 29 P 4: 56

RECEIVED



- PAVING CONSTRUCTION NOTES**
- 1. SAMCUT AND REMOVE EXISTING PAVEMENT.
 - 2. REPLACE PAVEMENT PER M.A.C.
 - 3. SPECIFICATIONS MATCH EXISTING PAVEMENT SECTION.
- SEWER MAIN CONSTRUCTION NOTES**
- 1. REMOVE EXISTING PER CAP & CONNECT TO EXISTING 18" WATER MAIN.
 - 2. INSTALL 16" D.I.P. CLASS 350 WATER LINE.
 - 3. INSTALL 16" GATE VALVE/WALKIE BOX AND COVER PER DETAIL SHEET FN 02.
 - 4. INSTALL 16" 1" TAPPING SIZES AND 16" GATE VALVE PER AWC DTL E-3-1-1.
 - 5. INSTALL 16" 1" D.I.P. TEE RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 6. INSTALL 16" 1" 8" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 7. INSTALL 16" 1" 1" D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 8. INSTALL 16" 45° (1/2) D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 9. INSTALL 16" 11/2" (1/23) D.I.P. ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 10. INSTALL 16" 1" 1" D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 11. NOT USED.
 - 12. INSTALL WARNING SIGN PER DETAIL SHEET FN 25.
 - 13. INSTALL 1" PER CAP FOR FUTURE TIE-IN.
 - 14. LOCATE AND REMOVE EXISTING PER CAP AND CONNECT TO EXISTING FORCE MAIN.
 - 15. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL ON SHEET FN 25.
 - 16. INSTALL COMBINATION AIR/VACUUM RELEASE VALVE AND CHAMBER PER DETAIL SHEET FN 25.
 - 17. INSTALL 1" GATE VALVE/WALKIE BOX AND COVER. SEE DETAIL SHEET FN 02.
 - 18. DIRECTIONAL BORE PROPOSED SEWER FORCE MAIN. SEE DETAIL SHEET FN 02.
 - 19. FORCE MAIN AND WATER SEPARATION / PROTECTION PER M.A.C. STD. DTL. 04.
 - 20. INSTALL 5.0' DIA. SIGN MANHOLE TYPE 'X' PER M.A.C. STD. DTL. 02A.

- SEWER MAIN CONSTRUCTION NOTES**
- 1. INSTALL 6" D.I.P. CLASS 350 SEWER FORCE MAIN. EMBEDED IN SAND ON FLANS PER M.A.C. STD. DTL. 02.
 - 2. INSTALL 16" 45° (1/2) D.I.P. ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER M.A.C. STD. DTL. 033.
 - 3. INSTALL 16" 11/2" (1/23) D.I.P. ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER M.A.C. STD. DTL. 033.
 - 4. NOT USED.
 - 5. INSTALL WARNING SIGN PER DETAIL SHEET FN 25.
 - 6. INSTALL 1" PER CAP FOR FUTURE TIE-IN.
 - 7. LOCATE AND REMOVE EXISTING PER CAP AND CONNECT TO EXISTING FORCE MAIN.
 - 8. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL ON SHEET FN 25.
 - 9. INSTALL COMBINATION AIR/VACUUM RELEASE VALVE AND CHAMBER PER DETAIL SHEET FN 25.
 - 10. INSTALL 1" GATE VALVE/WALKIE BOX AND COVER PER DETAIL SHEET FN 02.
 - 11. INSTALL 5.0' DIA. SIGN MANHOLE TYPE 'X' PER M.A.C. STD. DTL. 02A.
 - 12. REMOVE EXISTING PER CAP & CONNECT TO EXISTING 18" WATER MAIN.
 - 13. INSTALL 16" D.I.P. CLASS 350 WATER LINE.
 - 14. INSTALL 16" GATE VALVE/WALKIE BOX AND COVER PER DETAIL SHEET FN 02.
 - 15. INSTALL 16" 1" TAPPING SIZES AND 16" GATE VALVE PER AWC DTL E-3-1-1.
 - 16. INSTALL 16" 1" D.I.P. TEE RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 17. INSTALL 16" 1" 8" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 18. INSTALL 16" 1" 1" D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 19. INSTALL 16" 45° (1/2) D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 20. INSTALL 16" 11/2" (1/23) D.I.P. ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 21. INSTALL 16" 1" 1" D.I.P. 90° ELBOW BEND RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 - 22. NOT USED.
 - 23. INSTALL WARNING SIGN PER DETAIL SHEET FN 25.
 - 24. WATER AND STORM WATER SEPARATION / PROTECTION PER AWC STD SPEC.
 - 25. INSTALL 2" BLOWOFF PER AWC DTL E-3-1-1.
 - 26. INSTALL 1" GATE VALVE/WALKIE BOX AND COVER PER DETAIL SHEET FN 02.
 - 27. DR. WATER LINE MIN. 2' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE PER FN 02.

DESIGNED: M.J.L.
 DRAWN: M.J.L.
 CHECKED: D.S.C.
 DATE: 04/15/08
 SCALE: 1" = 40'
 PROJ. # 2005-023
 FILE: UTL-04-PP

RANCH 160 L.L.C.
SEWER FORCE MAIN - OFFSITE
WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
 PINAL COUNTY, ARIZONA



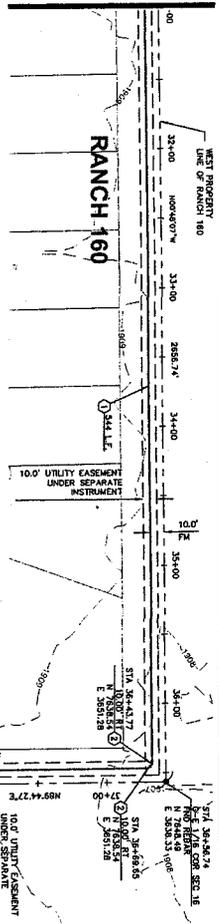
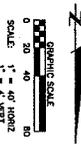
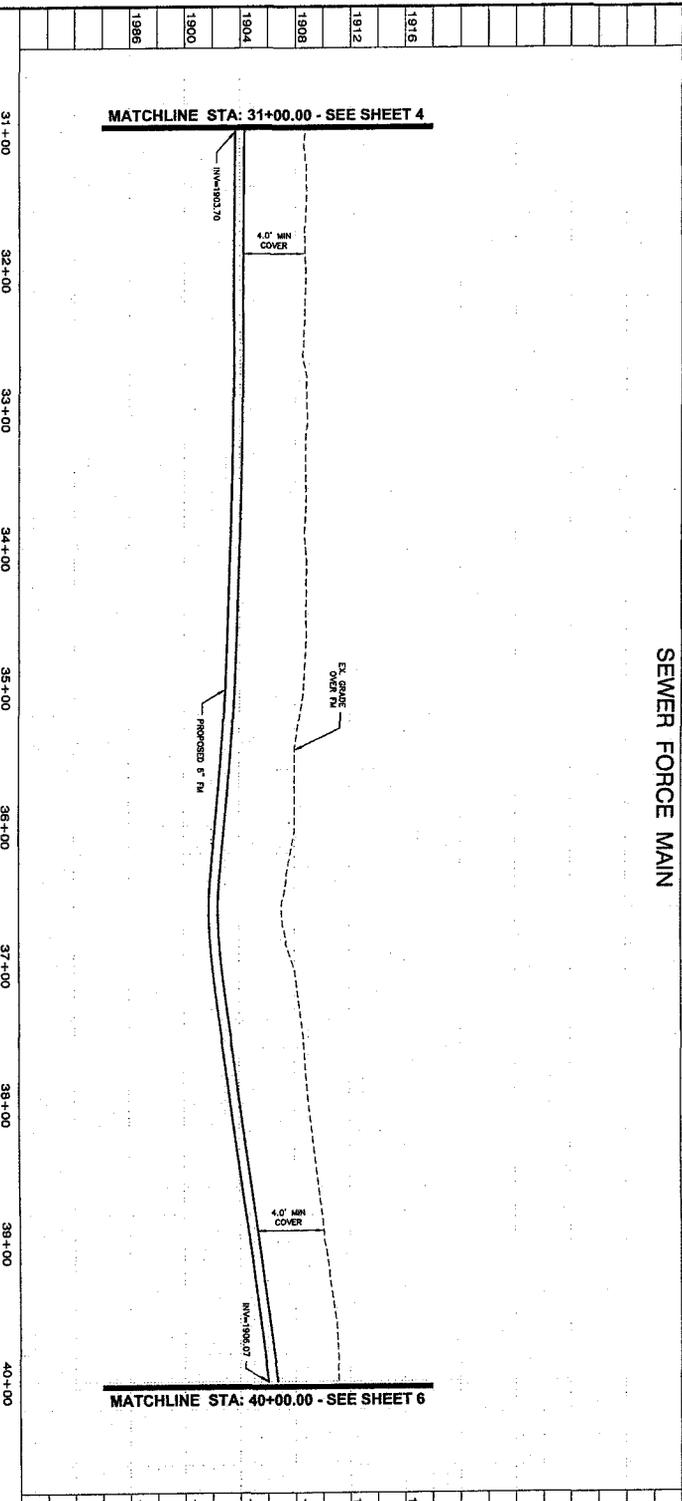
NO.	REVISION	BY	DATE

can-am
 engineering professionals
 1423 South Higley Road
 Building #2, Suite #122
 Mesa, AZ 85206
 P: 480-288-2200
 F: 480-288-2209

SEE SHEET 4
MATCHLINE STA: 31+00.00

SEWER FORCE MAIN

MATCHLINE STA: 40+00.00 SEE SHEET 6



WATER MAIN CONSTRUCTION NOTES

- 1 EXISTING EXISTING PIPE CAP & CONNECT TO EXISTING 18" WATER MAIN
- 2 INSTALL 18" D.I.P. CLASS 30A WATER LINE
- 3 INSTALL 18" D.I.P. GATE VALVE BOX AND COVER PER DETAIL SHEET FM 02
- 4 GATE VALVE PER AWC DTL E-3-1-1
- 5 INSTALL 18" x 8" D.I.P. Tee RESTRAIN JOINTS AS REQUIRED PER AWC STD SPEC.
- 6 INSTALL 18" x 8" D.I.P. CROSS RESTRAIN JOINTS AS REQUIRED PER AWC STD SPEC.
- 7 INSTALL 18" x 8" D.I.P. CROSS RESTRAIN JOINTS AS REQUIRED PER AWC STD SPEC.
- 8 RESTRAIN JOINTS AS REQUIRED PER AWC STD SPEC.
- 9 INSTALL 18" (1/2") D.I.P. ELBOW BEND SPEC.
- 10 INSTALL AIR RELEASE VALVE PER AWC DTL E-3-8-2
- 11 INSTALL 18" D.I.P. CLASS 30A WATER LINE
- 12 INSTALL 18" D.I.P. PIPE CAP
- 13 DIRECTIONAL SPORE PROPOSED WATER LINE
- 14 WATER AND STORM WATER SEPARATION/ PROTECTION PER AWC STD SPEC.
- 15 INSTALL 2" BLOWER PER AWC DTL E-3-8-1
- 16 INSTALL 2" GATE VALVE VALVE BOX AND COVER PER DETAIL SHEET FM 02
- 17 PER WATER LINE MIN. 2' BELOW SEWER FORCE MAIN COVER PER FUTURE ACCESS TO WATER MAIN

FORCE MAIN CONSTRUCTION NOTES

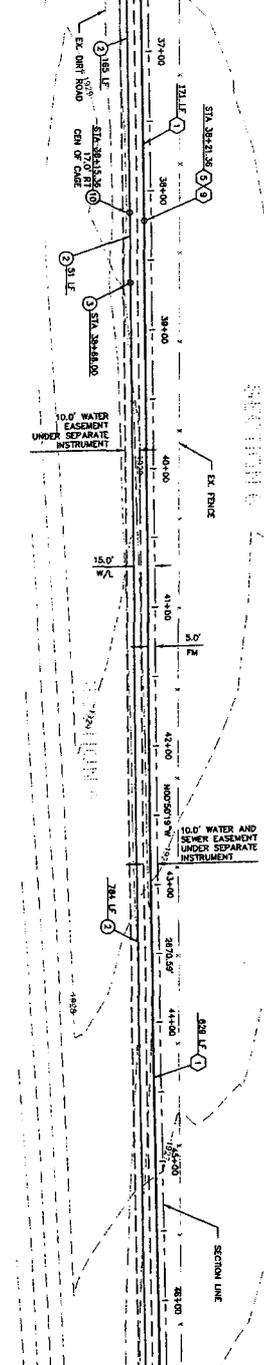
- 1 INSTALL 8" D.I.P. CLASS 30A SEWER FORCE MAIN PER DETAIL SHEET FM 25
- 2 RESTRAIN JOINTS AS REQUIRED PER M.A.G. STD. DTL. 30A
- 3 RESTRAIN JOINTS AS REQUIRED PER M.A.G. STD. DTL. 30A
- 4 NOT USED
- 5 INSTALL WASHING SIGN PER DETAIL SHEET FM 25
- 6 INSTALL 8" PIPE CAP FOR FUTURE TE-IN
- 7 LOCATE AND REMOVE EXISTING PIPE CAP AND CONNECT TO EXISTING FORCE MAIN
- 8 INSTALL FORCE MAIN DISCHARGE HANDLE PER DETAIL SHEET FM 25
- 9 INSTALL 8" GATE VALVE PER DETAIL SHEET FM 25
- 10 INSTALL 8" GATE VALVE W/BOX AND COVER PER DETAIL SHEET FM 02
- 11 DIRECTIONAL SPORE PROPOSED SEWER FORCE MAIN
- 12 FORCE MAIN AND WATER SEPARATION/ PROTECTION PER M.A.G. STD. DTL. 40A
- 13 INSTALL 3.0' DIA. SENS. UNMANNED TIRE 'X' PER M.A.G. STD. DTL. 40A

PAVING CONSTRUCTION NOTES

- 1 SANDWICH AND REMOVE EXISTING PAVEMENT
- 2 REPLACE PAVEMENT PER M.A.G. SPECIFICATIONS; MATCH EXISTING PAVEMENT SECTION

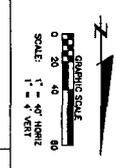
<p>can-am Engineering Services 1223 South New River Road Buckeye, AZ 85206 P: 480-288-2271 F: 480-288-2273</p>		<p>NO. _____</p> <p>REVISION _____</p> <p>BY _____</p> <p>DATE _____</p>
<p>RANCH 160 L.L.C. SEWER FORCE MAIN - OFFSITE</p> <p>WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE RANCH 160 PINAL COUNTY, ARIZONA</p>		
<p>DESIGNED: M.J.L. DRAWN: M.J.L. CHECKED: D.S.C. DATE: 04/14/09 SCALE: 1" = 40' PROJ. #: 2005-023 FILE: UTIL-05-PP</p>	<p>SHEET: 15 OF: 25</p>	

SEE SHEET 9
MATCHLINE STA: 36+50.00

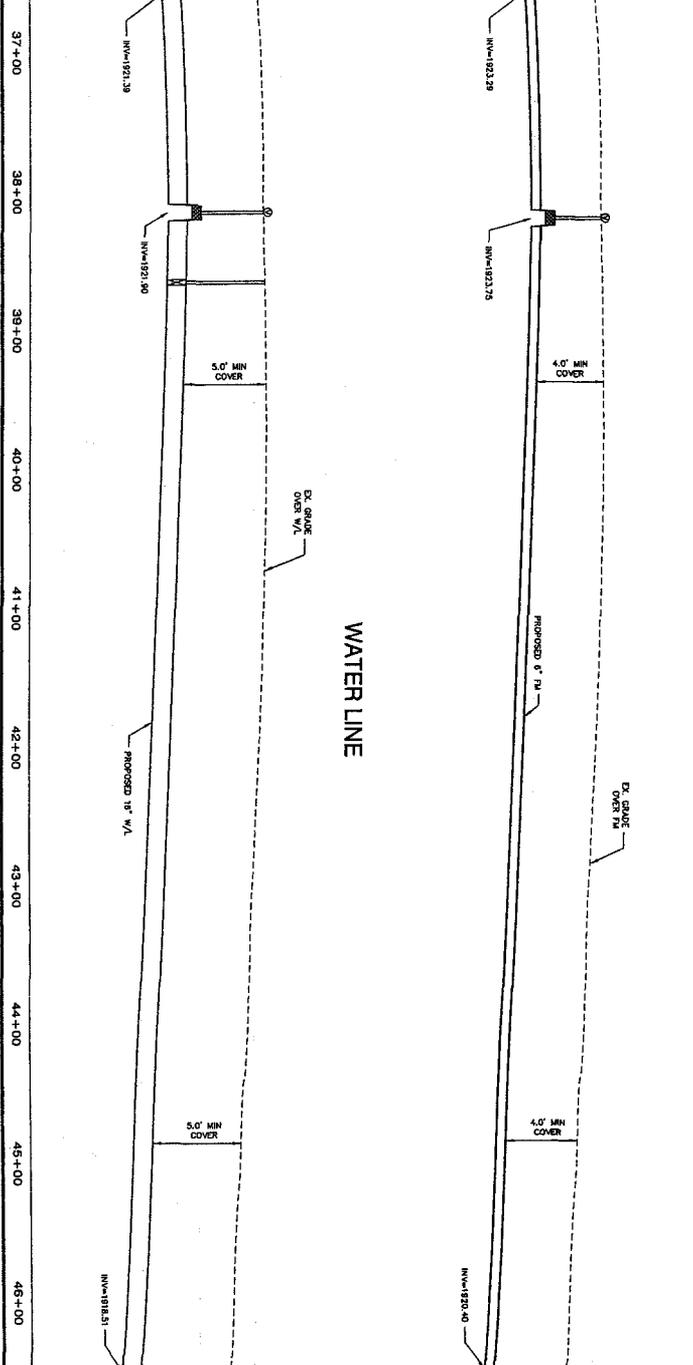


MATCHLINE STA: 46+50.00
SEE SHEET 11

SEWER FORCE MAIN



1928
1924
1920
1916



MATCHLINE STA: 46+50.00
SEE SHEET 11

- PAVING CONSTRUCTION NOTES**
1. SANDOUT AND REMOVE EXISTING PAVEMENT.
 2. REPLACE PAVEMENT PER M.A.C. SPECIFICATIONS. MAINTAIN EXISTING PAVEMENT SECTION.
- FORCE MAIN CONSTRUCTION NOTES**
1. INSTALL 12\"/>

RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE

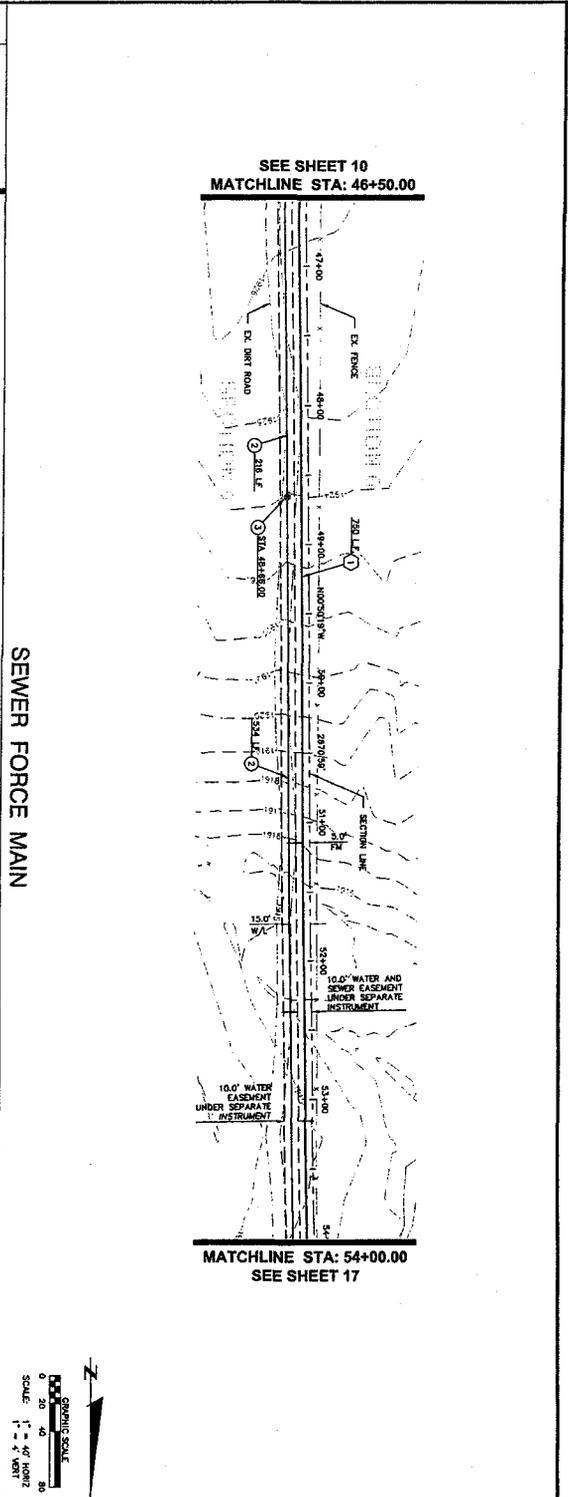
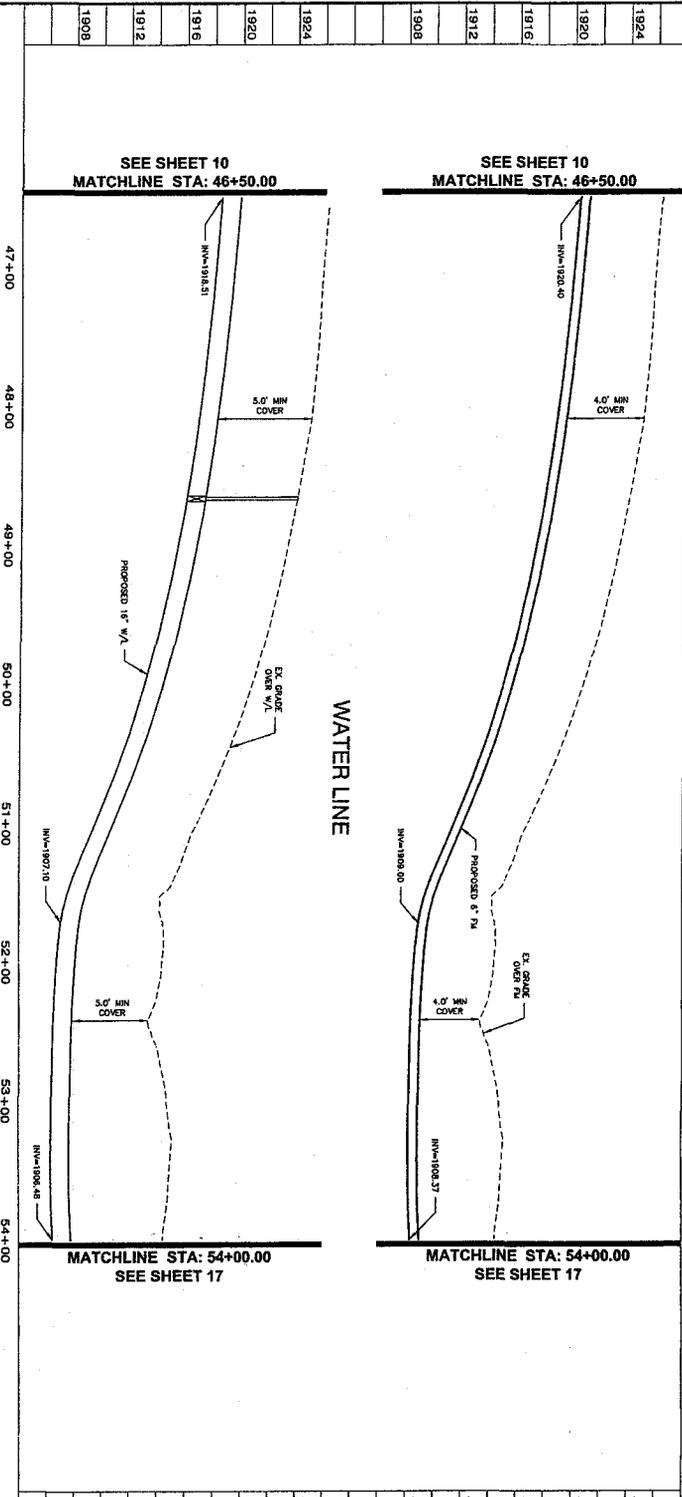
WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
PRIMA COUNTY, ARIZONA

DESIGNED: M.J.L.	DRAWN: M.J.L.	CHECKED: D.S.G.	DATE: 04/14/09
SCALE: 1" = 40'	PROJ. #: 2005-023	FILE: UTL-10-PP	SHEET: 10 OF: 25

can-am
Engineering & Construction

1423 South Highway Road
Buckeye, AZ 85326
P: 480-288-2271
F: 480-288-2259

NO.	REVISION	BY	DATE



- SEWER FORCE MAIN**
- WATER MAIN CONSTRUCTION NOTES**
1. REMOVE EXISTING WATER MAIN & CONNECT TO EXISTING WATER MAIN.
 2. INSTALL 18" DIA. CLASS 300 WATER LINE.
 3. INSTALL 18" DIA. VALVE W/VALE BOX AND 18" DIA. CROSS RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 4. GATE VALVE PER AWC DTL E-3-2-1.
 5. INSTALL 18" x 8" DIA. TEE RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 6. INSTALL 18" x 8" DIA. CROSS RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 7. INSTALL 18" x 18" DIA. CROSS RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 8. INSTALL 18" x 18" DIA. ELBOW BEND SPEC. AS REQUIRED PER AWC STD SPEC.
 9. INSTALL 18" 11.25' (1/23) DIA. ELBOW BEND, RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 10. INSTALL 18" 11.25' (1/23) DIA. ELBOW BEND, RESTRIKING JOINTS AS REQUIRED PER AWC STD SPEC.
 11. INSTALL 18" DIA. CLASS 300 WATER LINE.
 12. INSTALL 18" DIA. PIPE CAP.
 13. WATER AND STORM WATER SEPARATION/PROTECTION PER AWC STD SPEC.
 14. INSTALL 2" RADIOPER PER AWC DTL E-3-1.
 15. INSTALL 6" DATE VALVE W/VALE BOX AND 6" WATER LINE UNL. 2' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE UNL.

- SEWER FORCE MAIN CONSTRUCTION NOTES**
1. INSTALL 6" DIA. CLASS 300 SEWER FORCE MAIN UNL. 2' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE UNL.
 2. INSTALL 6" 45' (1/20) DIA. ELBOW BEND, RESTRIKING JOINTS AS REQUIRED PER AWC STD. DTL. 303.
 3. INSTALL 6" 11.25' (1/23) DIA. ELBOW BEND, RESTRIKING JOINTS AS REQUIRED PER AWC STD. DTL. 303.
 4. NOT USED.
 5. INSTALL WARNING SIGN PER DETAIL SHEET PM 25.
 6. INSTALL 6" PIPE CAP FOR FUTURE TIE-IN.
 7. LOCATE AND REMOVE EXISTING PER CAP AND CONNECT TO EXISTING FORCE MAIN.
 8. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL ON SHEET PM 25.
 9. INSTALL COMBINATION AIR/VACUUM RELEASE VALVE AS REQUIRED PER DETAIL SHEET PM 25.
 10. INSTALL 6" DATE VALVE W/BOX AND COVER. SEE DETAIL SHEET PM 02.
 11. DIRECTIONAL BORE PROPOSED SEWER FORCE MAIN. SEE DETAIL SHEET PM 02.
 12. FORCE MAIN AND WATER SEPARATION/PROTECTION PER AWC STD SPEC. PER AWC STD. DTL. 420.

PAVING CONSTRUCTION NOTES

1. REMOVE AND REGRADE EXISTING PAVEMENT.
2. REGRADE TO MATCH EXISTING PAVEMENT.
3. SPECIALTONE MATCH EXISTING PAVEMENT SECTION.

RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE
WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
 PINAL COUNTY, ARIZONA

DATE: 04/14/09
 SCALE: 1" = 40'
 PROJ. # 2005-023
 FILE: UTL-11-PP

can-am
 1703 SOUTH TRINITY ROAD
 PHOENIX, AZ 85006
 P: 480-288-2771
 F: 480-288-2728

REYSON

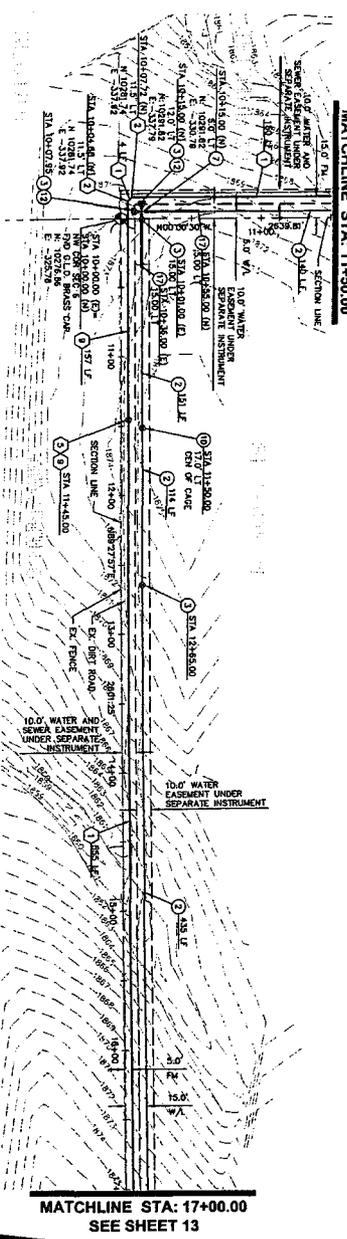
NO. _____

BY _____

DATE _____

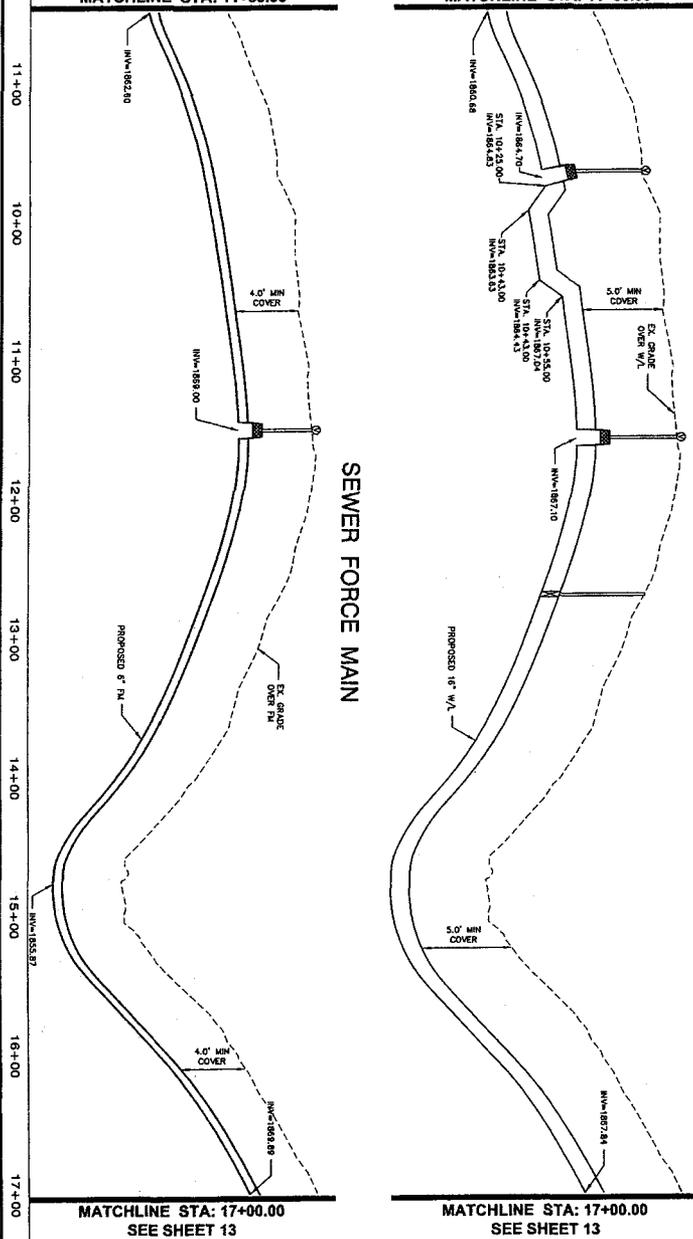
1" = 40' HORIZ
 0" = 4" VERT
 SCALE

1" = 40' HORIZ
 0" = 4" VERT
 SCALE



WATER LINE

SEWER FORCE MAIN



1880
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1804
1800

DESIGNED: M.J.L.
DRAWN: M.J.L.
CHECKED: D.S.G.
DATE: 04/14/09
SCALE: 1" = 40'
PROJ. #: 2005-023
FILE: URL-12-PP

WATER MAIN CONSTRUCTION NOTES

1. REPLACE EXISTING PER CAP & CONNECT TO EXISTING 16" WATER MAIN.
2. INSTALL 16" D.I.P. CLASS 350 WATER LINE.
3. INSTALL 16" GATE VALVE, W/VALE BOX AND COVER PER DETAIL SHEET FM 02.
4. GATE VALVE PER AWC DTL E-3-3-1.
5. INSTALL 16" 4" I.P. DIE RESTRICTION JOINTS AS REQUIRED PER AWC DTG SPEC.
6. INSTALL 16" 4" I.P. DIE CLASS 350 WATER LINE.
7. INSTALL 16" 4" I.P. DIE CROSS RESTRICTION JOINTS AS REQUIRED PER AWC DTG SPEC.
8. INSTALL 16" 4" I.P. DIE CLASS 350 WATER LINE.
9. INSTALL 16" 11/2" (1/2") D.I.P. ELBOW BEND SPEC. AS REQUIRED PER AWC DTG SPEC. E-3-3-2.
10. INSTALL 16" D.I.P. PER CAP.
11. INSTALL 16" D.I.P. PER CAP.
12. PROTECTIAL BORE PROPOSED WATER LINE.
13. WATER AND STORM WATER SEPARATION/ PROTECTION PER AWC STD SPEC.
14. INSTALL 2" BLOWOFF PER AWC DTL E-3-3-1.
15. INSTALL 2" GATE VALVE, W/VALE BOX AND COVER PER DETAIL SHEET FM 02.
16. DP WATER LINE MAX. 2' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE IN-TEN.

FORCE MAIN CONSTRUCTION NOTES

1. INSTALL 6" D.I.P. CLASS 350 SEWER FORCE MAIN, ELEVATION AS SHOWN ON PLANS PER DETAIL SHEET FM 02.
2. RESTRICTION JOINTS AS REQUIRED PER AWC STD. DTL. 303.
3. INSTALL 6" 11/2" (1/2") D.I.P. ELBOW BEND, STD. DTL. 303.
4. NOT USED.
5. INSTALL WARNING SIGN PER DETAIL SHEET FM 22.
6. INSTALL 6" PER CAP FOR FUTURE TIE-IN.
7. LOCATE AND REMOVE EXISTING PER CAP AND CONNECT TO EXISTING FORCE MAIN.
8. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL ON SHEET FM 25.
9. INSTALL COMBINATION AIR/VACUUM RELEASE VALVE AND CHAMBER PER DETAIL SHEET FM 24.
10. INSTALL 6" GATE VALVE, W/VALE BOX AND COVER PER DETAIL SHEET FM 02.
11. DIRECTIONAL BORE PROPOSED SEWER FORCE MAIN. SEE DETAIL SHEET FM 02.
12. FORCE MAIN AND WATER SEPARATION/ PROTECTION PER AWC STD. DTL. 404.
13. INSTALL 5.0' DIA. SEWER MANHOLE TYPE 'X' PER AWC STD. DTL. 524.

PAVING CONSTRUCTION NOTES

1. SANDWIT AND REMOVE EXISTING PAVEMENT.
2. REPLACE PAVEMENT PER M.A.C. SPECIFICATIONS MATCH EXISTING PAVEMENT SECTION.

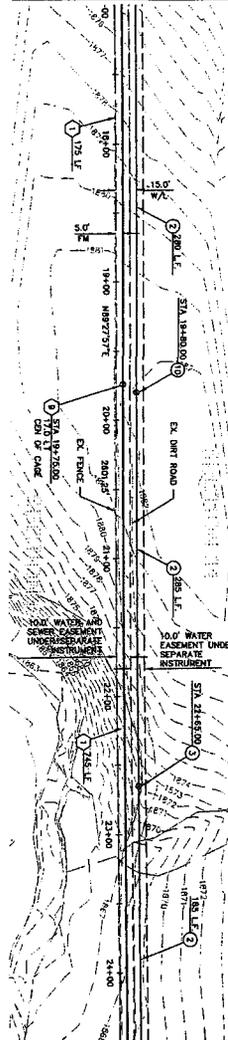
RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE
WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
 PINAL COUNTY, ARIZONA

can-am
 143 South Highway Road
 Building #2, Suite #122
 Mesa, AZ 85205
 F: 480-288-2289

NO. REVISION BY DATE

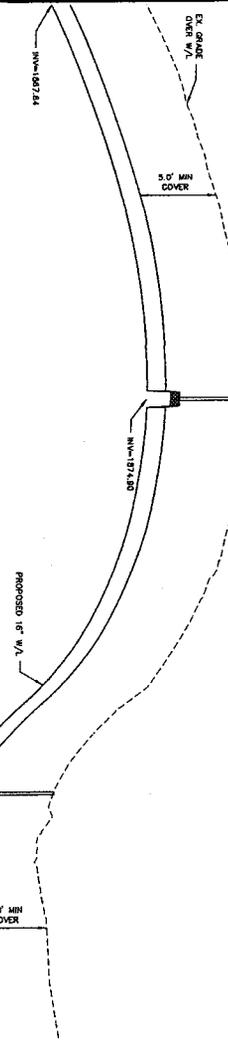
Professional Engineer Seal: M.J.L. No. 12345, State of Arizona, Exp. 12/31/10

SEE SHEET 12
MATCHLINE STA: 17+00.00



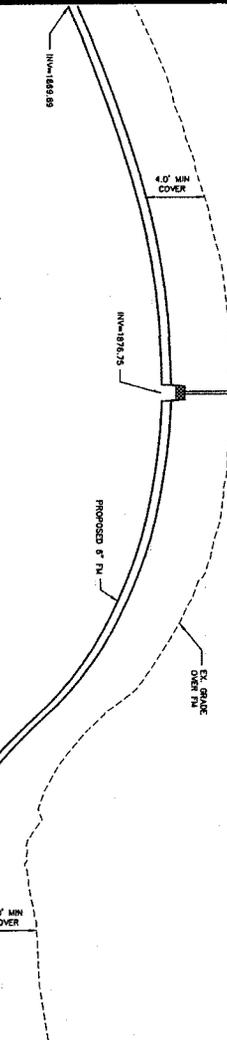
MATCHLINE STA: 24+50.00
SEE SHEET 14

SEE SHEET 12
MATCHLINE STA: 17+00.00

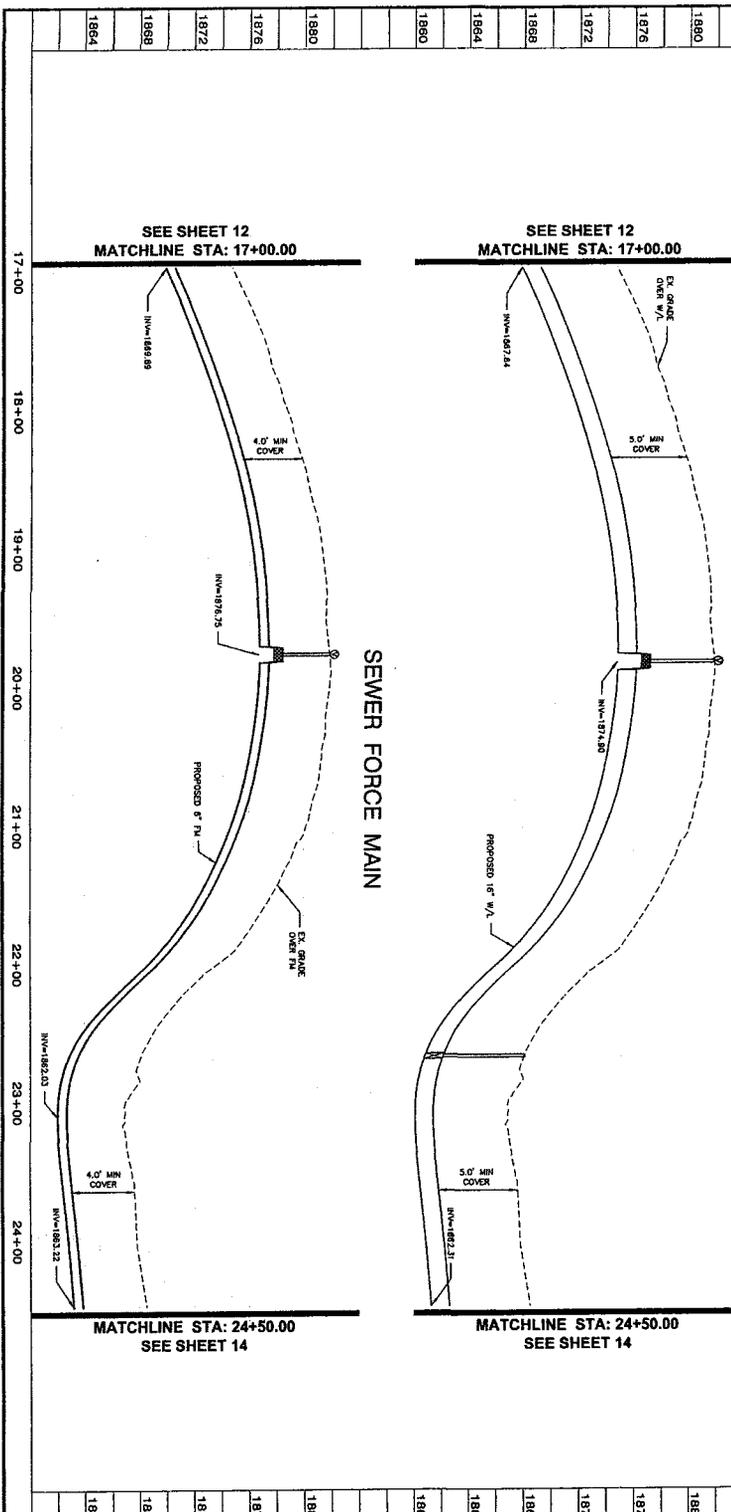


MATCHLINE STA: 24+50.00
SEE SHEET 14

SEE SHEET 12
MATCHLINE STA: 17+00.00

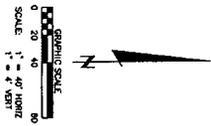


MATCHLINE STA: 24+50.00
SEE SHEET 14



WATER LINE

SEWER FORCE MAIN



FORCE MAIN CONSTRUCTION NOTES

- 1 REMOVE EXISTING PIPE CAP & CONNECT TO EXISTING WATER MAIN.
- 2 INSTALL 18\"/>
- 3 INSTALL 18\"/>
- 4 INSTALL 18\"/>
- 5 INSTALL 18\"/>
- 6 INSTALL 18\"/>
- 7 INSTALL 18\"/>
- 8 INSTALL 18\"/>
- 9 INSTALL 18\"/>
- 10 INSTALL 18\"/>
- 11 INSTALL 18\"/>
- 12 INSTALL 18\"/>
- 13 INSTALL 18\"/>
- 14 WATER AND SEWER WATER SEPARATION/ PROTECTION PER AWC STD SPEC.
- 15 INSTALL 2\"/>
- 16 18\"/>
- 17 18\"/>

WATER MAIN CONSTRUCTION NOTES

- 1 REMOVE EXISTING PIPE CAP & CONNECT TO EXISTING WATER MAIN.
- 2 INSTALL 18\"/>
- 3 INSTALL 18\"/>
- 4 INSTALL 18\"/>
- 5 INSTALL 18\"/>
- 6 INSTALL 18\"/>
- 7 INSTALL 18\"/>
- 8 INSTALL 18\"/>
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- 10 INSTALL 18\"/>
- 11 INSTALL 18\"/>
- 12 INSTALL 18\"/>
- 13 INSTALL 18\"/>
- 14 WATER AND SEWER WATER SEPARATION/ PROTECTION PER AWC STD SPEC.
- 15 INSTALL 2\"/>
- 16 18\"/>
- 17 18\"/>

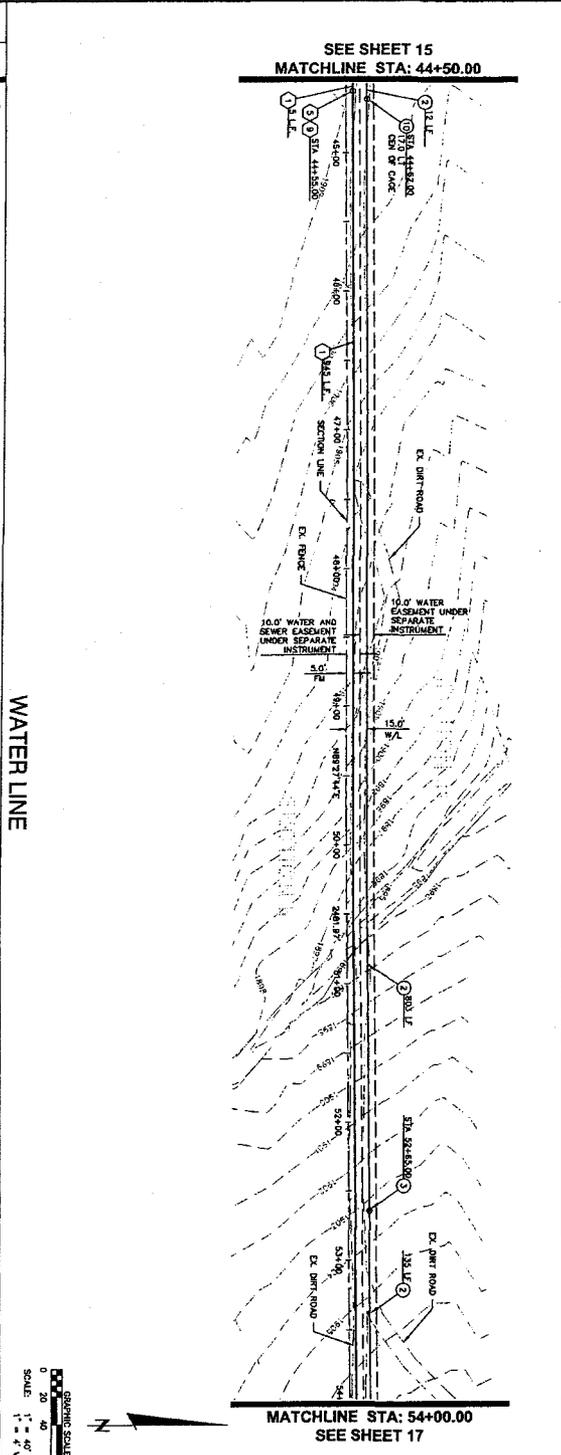
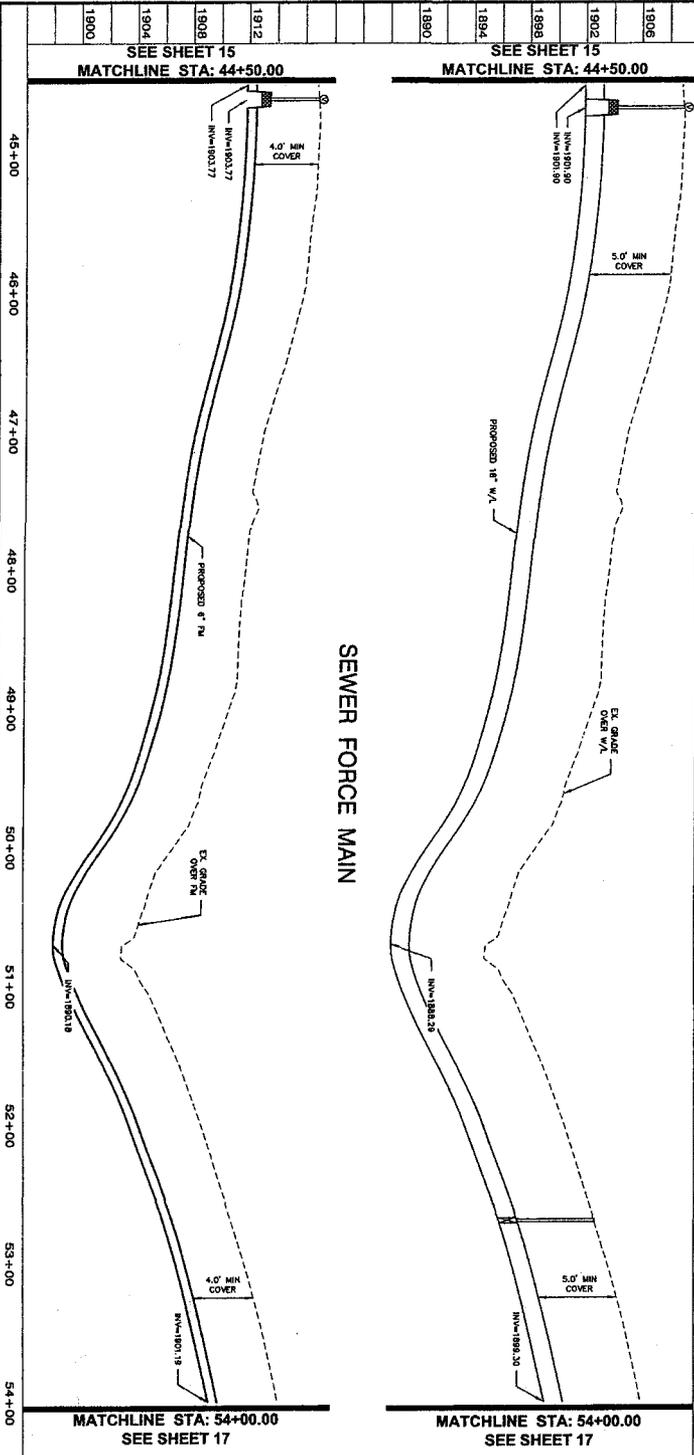
RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE

WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
PINAL COUNTY, ARIZONA

NO.	REVISION	BY	DATE

DESIGNED: M.J.L.
DRAWN: M.J.L.
CHECKED: D.S.C.
DATE: 04/14/06
SCALE: 1" = 40'
PROJ. # 2005-023
FILE: UTL-13-PP

can-am
Engineering & Construction
1423 South Highway 102
Bullhead City, AZ 85026
P: 480-266-2271
F: 480-266-2229



1906	1902	1898	1894	1890
1906	1902	1898	1894	1890

1906	1902	1898	1894	1890
1906	1902	1898	1894	1890

PAVING CONSTRUCTION NOTES

1. SANICUT AND REMOVE EXISTING PAVEMENT.
2. REPLACE PAVEMENT PER M.A.C.
3. EXISTING PAVEMENT MATCH EXISTING PAVEMENT SECTION.

FORCE MAIN CONSTRUCTION NOTES

1. INSTALL 8" D.I.P. CLASS 300, SINKER FORCE MAIN, UNDER AS SHOWN ON PLAYS PER M.A.C. RESTRAIN JOINTS AS REQUIRED PER M.A.C. STD. DTL. 303.
2. INSTALL 8" 11.25' (1/23) D.I.P. BELOW BEND, STD. DTL. 303.
3. HOT USED.
4. INSTALL WARNING SIGN PER DETAIL SHEET PA 25.
5. INSTALL 6" PIPE CAP FOR FUTURE TIE-IN.
6. LOCATE AND REMOVE EXISTING PIPE CAP AND CONNECT TO EXISTING FORCE MAIN.
7. INSTALL 3" BLOWER PER AWC DTL. C-4-B-1.
8. INSTALL 3" GATE VALVE W/VALVE BOX AND COVER PER DETAIL SHEET PA 02.
9. PER WATER LINE MIN. 7' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE TIE-IN.

DESIGNED: M.J.L.	DATE: 04/14/09
DRAWN: M.J.L.	SCALE: 1" = 40'
CHECKED: D.S.G.	PROJ. # 2005-023
SHEET: 18	FILE: UTL-16-PP

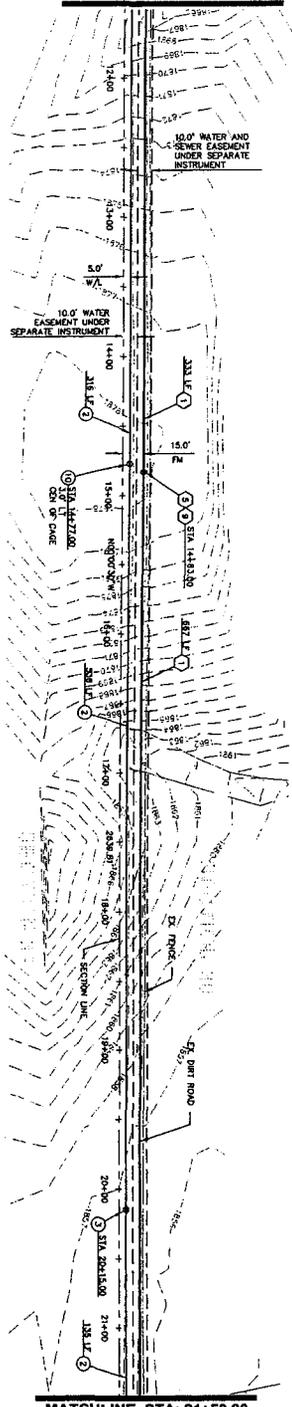
RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE

WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
 PINAL COUNTY, ARIZONA

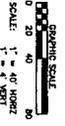
can-am
 engineering consultants
 1423 South Rigby Road
 Building #2, Suite #122
 Mesa, AZ 85206
 P: 480-288-2222
 F: 480-288-2223

NO.	REVISION	BY	DATE

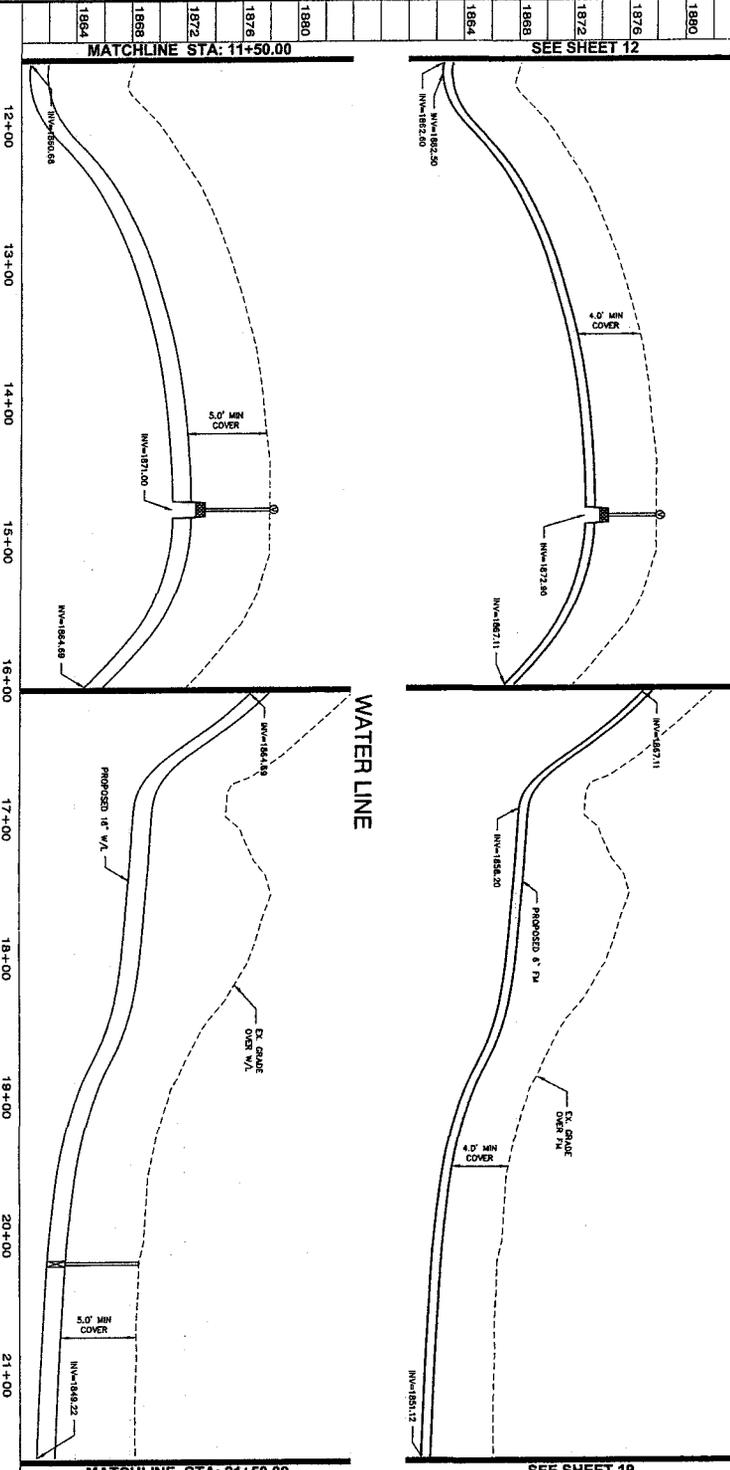
SEE SHEET 12
MATCHLINE STA: 11+50.00



MATCHLINE STA: 21+50.00
SEE SHEET 19



SEWER FORCE MAIN



MATCHLINE STA: 21+50.00
SEE SHEET 19

- WATER MAIN CONSTRUCTION NOTES**
1. LOCATE EXISTING FORCE MAIN & CONNECT TO EXISTING 18" WATER MAIN.
 2. INSTALL 18" D.I.P. CLASS 350 WATER LINE.
 3. INSTALL 18" D.I.P. VALVE W/VALE BOX AND 18" D.I.P. RELEASE VALVE PER AWC DTI E-3-1-1.
 4. INSTALL 18" X 8" D.I.P. TEE RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 5. INSTALL 18" X 8" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 6. INSTALL 18" X 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 7. INSTALL 18" X 18" D.I.P. ELBOW BENDS AS REQUIRED PER AWC STD SPEC.
 8. INSTALL 18" X 18" D.I.P. ELBOW BENDS AS REQUIRED PER AWC STD SPEC.
 9. INSTALL 18" X 18" D.I.P. ELBOW BENDS AS REQUIRED PER AWC STD SPEC.
 10. INSTALL 18" D.I.P. PER CAP.
 11. PROTECTUAL BURST PROTECTED WATER LINE.
 12. WATER AND STORM WATER SEPARATION/PROTECTION PER AWC STD SPEC.
 13. INSTALL 2" BLOWOFF PER AWC DTI E-3-3-1-1.
 14. INSTALL 8" DATE VALVE W/VALE BOX AND 8" D.I.P. RELEASE VALVE PER AWC DTI E-3-3-2.
 15. OPEN WATER LINE MAN. 2' BELOW SEWER FORCE MAIN ELEVATION FOR FUTURE ACCESS TO WATER LINE.
- FORCE MAIN CONSTRUCTION NOTES**
1. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN ON FLOWS PER DETAIL SHEET FM 22.
 2. INSTALL 8" X 45' (1/20) D.I.P. ELBOW BEND STD. DTL. 200.
 3. INSTALL 8" X 12' (1/20) D.I.P. ELBOW BEND STD. DTL. 200.
 4. RESTRICTION JOINTS AS REQUIRED PER AWC STD. DTL. 200.
 5. NOT USED.
 6. INSTALL WASHING SOIL PER DETAIL SHEET FM 22.
 7. INSTALL 8" PIPE CAP FOR FUTURE TIE-IN.
 8. LOCATE AND REMOVE EXISTING PER CAP AND CONNECT TO EXISTING FORCE MAIN.
 9. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL SHEET FM 22.
 10. WATER AND STORM WATER SEPARATION/PROTECTION PER AWC STD SPEC.
 11. INSTALL 8" DATE VALVE W/BOX AND COVER. SEE DETAIL SHEET FM 02.
 12. DIRECTIONAL BORE PROPOSED SEWER FORCE MAIN SEE DETAIL SHEET FM 02.
 13. PROTECTUAL BURST PROTECTED SEWER FORCE MAIN SEE DETAIL SHEET FM 02.
 14. INSTALL 5.0' DIA. SEWER MANHOLE TYPE 'X' PER AWC STD. DTL. 200.

PAVING CONSTRUCTION NOTES

1. SANDPIT AND REMOVE EXISTING PAVEMENT.
2. REPLACE PAVEMENT PER AWC SPECIFICATIONS MATCH EXISTING PAVEMENT SECTION.

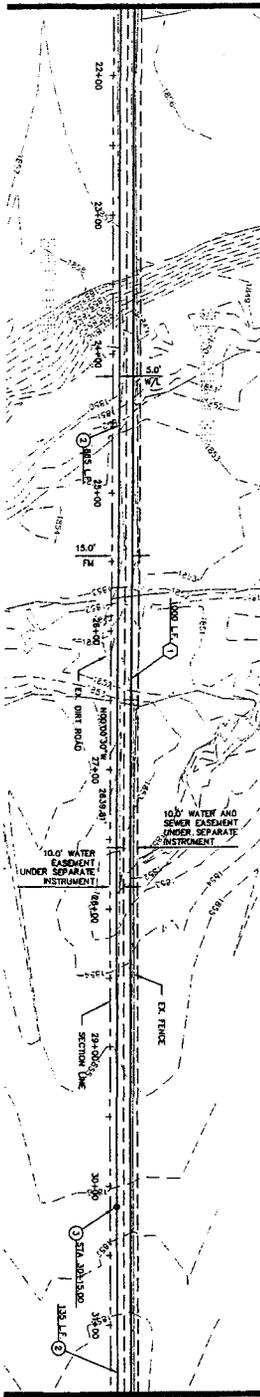
RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE
WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
PINAL COUNTY, ARIZONA

DESIGNED: M.L.L.	CHECKED: D.S.G.
DRAWN: M.L.L.	DATE: 04/14/09
SCALE: 1" = 40'	PROJ. # 2005-023
SHEET: 18	FILE: UTL-18-PP

can-am
4033 SOUTH 199TH ROAD
MESA, AZ 85205
P: 480-288-2271
F: 480-288-2329

UTL-18-PP

SEE SHEET 18
MATCHLINE STA: 21+50.00



MATCHLINE STA: 31+50.00
SEE SHEET 20

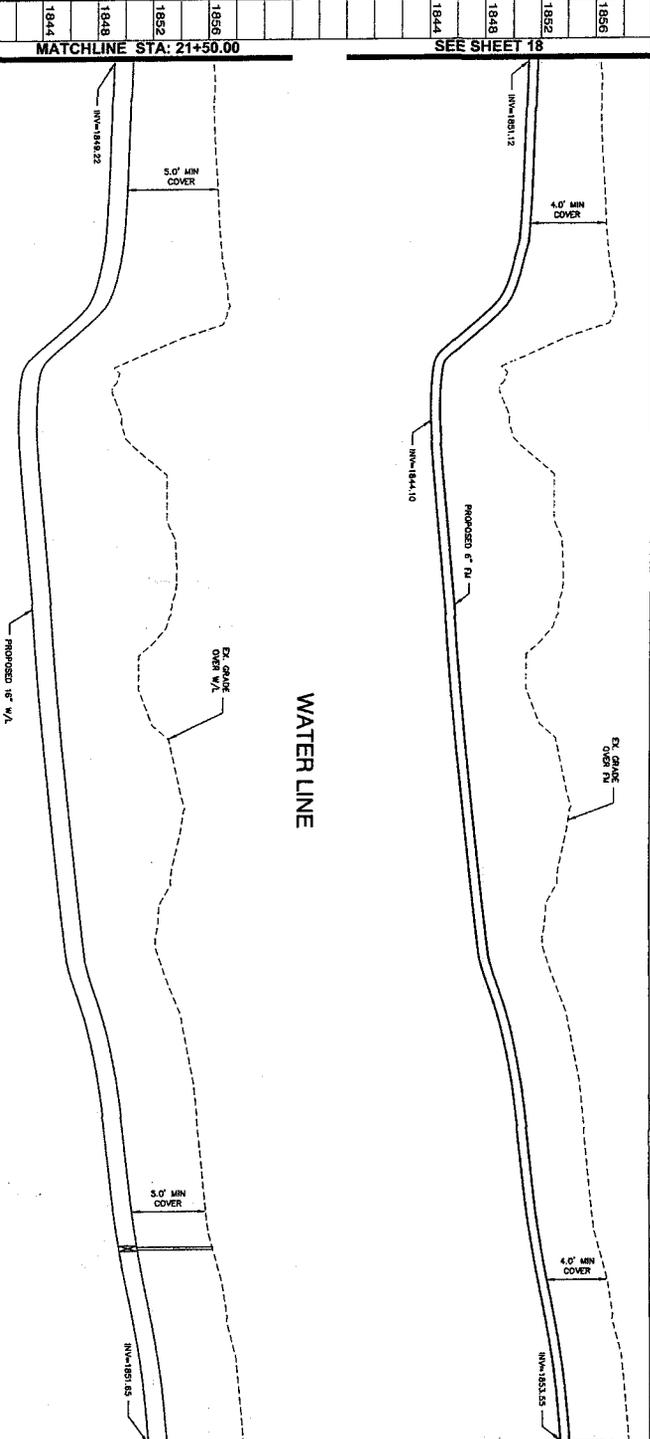
SEWER FORCE MAIN



FORCE MAIN CONSTRUCTION NOTES

1. INSTALL 6" D.I.P. CLASS 300, SLOPE FORCE MAIN PER DETAIL SHEET PA 20.
2. INSTALL 18" (1.25' DIA.) D.I.P. ELBOW BEHIND S.D. DIT. BOX.
3. INSTALL 18" (1.25' DIA.) D.I.P. ELBOW BEHIND S.D. DIT. BOX.
4. NOT USED.
5. INSTALL WARNING SIGN PER DETAIL SHEET PA 20.
6. INSTALL 6" PIPE CAP FOR FUTURE TIE-IN.
7. LOCATE AND REMOVE EXISTING PIPE CAP AND CONNECT TO EXISTING FORCE MAIN.
8. INSTALL FORCE MAIN DISCHARGE MANHOLE PER DETAIL SHEET PA 20.
9. WATER AND STORM WATER SEPARATION/ PROTECTION PER AWC STD SPEC.
10. INSTALL 2" BLOWER PER AWC DIT. E-3-B-1-1 PER DETAIL SHEET PA 02.
11. INSTALL 6" GATE VALVE/WALKER BOX AND COVER PER DETAIL SHEET PA 02.
12. DP WATER LINE MIN. 2' BELOW SEWER FORCE MAIN PER DETAIL SHEET PA 02.

WATER LINE



MATCHLINE STA: 31+50.00
SEE SHEET 20

PAVING CONSTRUCTION NOTES

1. SAWCUT AND REMOVE EXISTING PAVEMENT.
2. REPLACE PAVEMENT PER M.A.C. SPECIFICATIONS; MATCH EXISTING PAVEMENT SECTION.

DESIGNED: M.J.L.	CHECKED: D.S.C.
DATE: 04/14/09	SCALE: 1" = 40'
PROJECT: 2005-023	FILE: UTL-19-PP

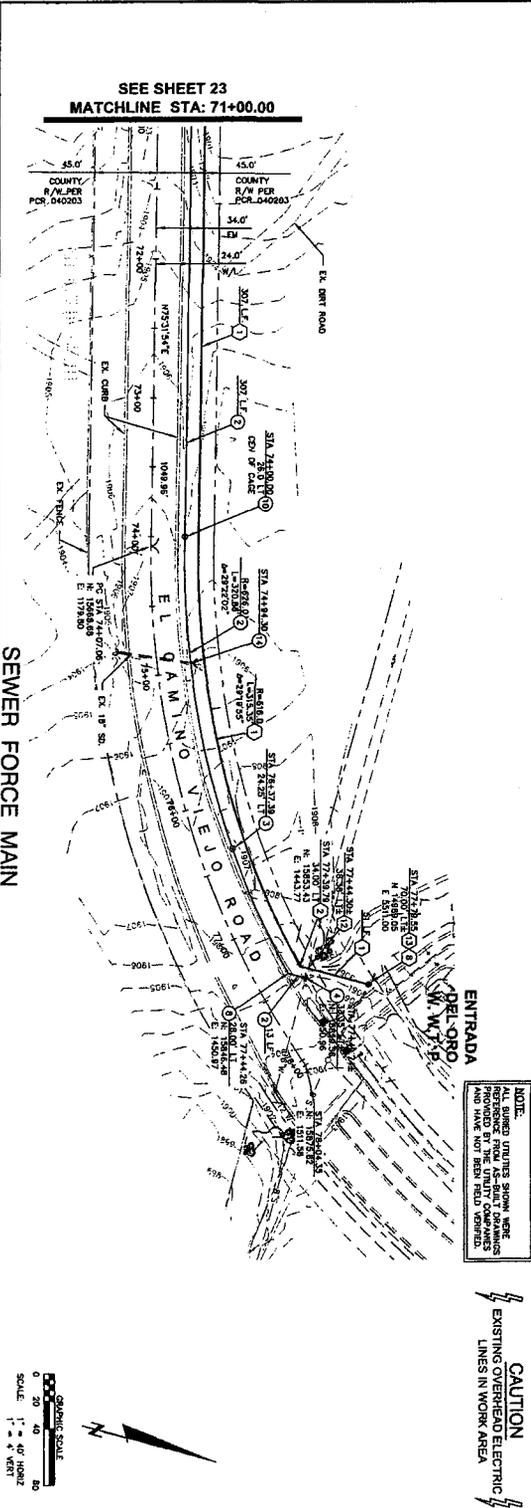
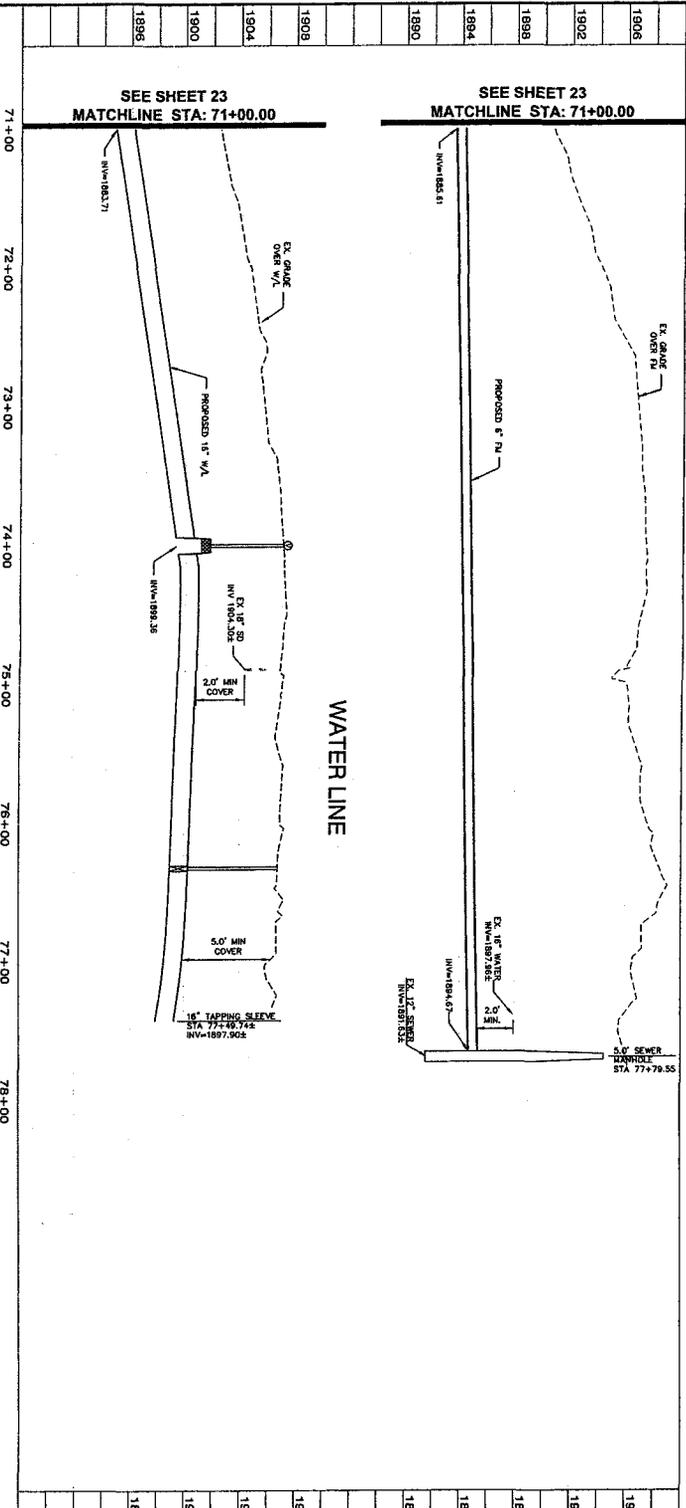
RANCH 160 L.L.C.
WATER MAIN AND SEWER FORCE MAIN - OFFSITE

WATER MAIN & SEWER FORCE MAIN PLAN AND PROFILE
RANCH 160
PINAL COUNTY, ARIZONA



NO.	REVISION	BY	DATE

can-am
1225 South Imperial Road
Buckeye, AZ 85626
P: 480-288-2271
F: 480-288-2239



- WATER MAIN CONSTRUCTION NOTES**
1. REMOVE EXISTING PIPE, CAP & CONNECT TO EXISTING WATER MAIN.
 2. INSTALL 18" D.I.P. CLASS 350 WATER LINE.
 3. INSTALL 18" D.I.P. GATE VALVE, W/VALE BOX AND 18" D.I.P. TEE RESTRICTION JOINTS.
 4. INSTALL 18" x 18" D.I.P. TEE RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 5. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 6. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 7. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 8. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 9. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 10. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 11. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 12. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 13. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 14. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 15. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 16. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 17. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 18. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 19. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.
 20. INSTALL 18" x 18" D.I.P. CROSS RESTRICTION JOINTS AS REQUIRED PER AWC STD SPEC.

- SEWER MAIN CONSTRUCTION NOTES**
1. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 2. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 3. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 4. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 5. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 6. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 7. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 8. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 9. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 10. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 11. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 12. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 13. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 14. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 15. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 16. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 17. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 18. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 19. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.
 20. INSTALL 8" D.I.P. CLASS 350 SEWER FORCE MAIN.

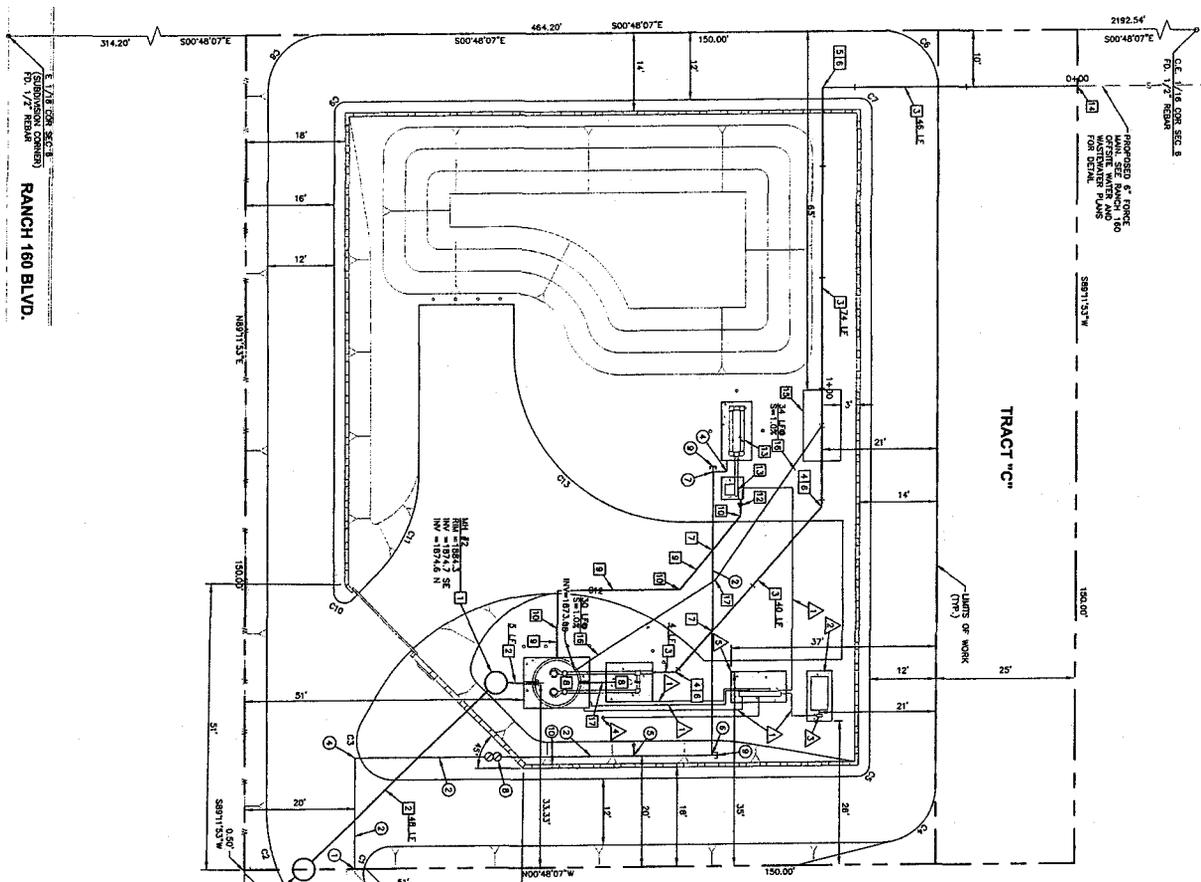
PAVING CONSTRUCTION NOTES

1. SANICUT AND REMOVE EXISTING PAVEMENT.
2. REGRADE PAVEMENT PER PLANS.
3. SPECIFICATIONS MATCH EXISTING PAVEMENT SECTION.

can-am
 1033 SOUTH 99TH ROAD
 MESA, AZ 85208
 P: 480-288-2271
 F: 480-288-2259

can-am
 1033 SOUTH 99TH ROAD
 MESA, AZ 85208
 P: 480-288-2271
 F: 480-288-2259

can-am
 1033 SOUTH 99TH ROAD
 MESA, AZ 85208
 P: 480-288-2271
 F: 480-288-2259



PROPOSED 10" SEWER WATER & SEWER PLAN AND PROFILE FOR DETAIL

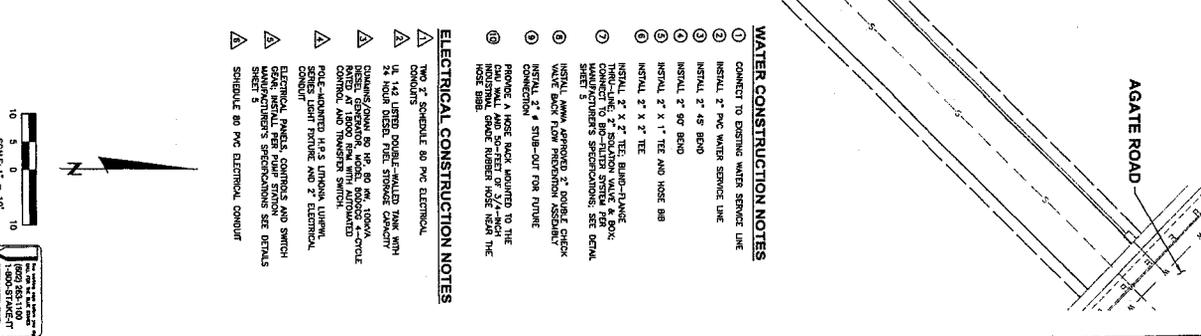
PROPOSED 2" WATER 140 WATER & SEWER PLAN AND PROFILE FOR DETAIL

CHAIN LENGTH	WADDS	INVERT	REMARKS
C1	15.7	10.00	15.7
C2	15.7	10.00	15.7
C3	15.7	10.00	15.7
C4	15.7	10.00	15.7
C5	15.7	10.00	15.7
C6	15.7	10.00	15.7
C7	15.7	10.00	15.7
C8	15.7	10.00	15.7
C9	15.7	10.00	15.7
C10	15.7	10.00	15.7
C11	15.7	10.00	15.7
C12	15.7	10.00	15.7
C13	15.7	10.00	15.7
C14	15.7	10.00	15.7
C15	15.7	10.00	15.7
C16	15.7	10.00	15.7
C17	15.7	10.00	15.7
C18	15.7	10.00	15.7
C19	15.7	10.00	15.7
C20	15.7	10.00	15.7
C21	15.7	10.00	15.7
C22	15.7	10.00	15.7
C23	15.7	10.00	15.7
C24	15.7	10.00	15.7
C25	15.7	10.00	15.7
C26	15.7	10.00	15.7
C27	15.7	10.00	15.7
C28	15.7	10.00	15.7
C29	15.7	10.00	15.7
C30	15.7	10.00	15.7
C31	15.7	10.00	15.7
C32	15.7	10.00	15.7
C33	15.7	10.00	15.7
C34	15.7	10.00	15.7
C35	15.7	10.00	15.7
C36	15.7	10.00	15.7
C37	15.7	10.00	15.7
C38	15.7	10.00	15.7
C39	15.7	10.00	15.7
C40	15.7	10.00	15.7
C41	15.7	10.00	15.7
C42	15.7	10.00	15.7
C43	15.7	10.00	15.7
C44	15.7	10.00	15.7
C45	15.7	10.00	15.7
C46	15.7	10.00	15.7
C47	15.7	10.00	15.7
C48	15.7	10.00	15.7
C49	15.7	10.00	15.7
C50	15.7	10.00	15.7
C51	15.7	10.00	15.7
C52	15.7	10.00	15.7
C53	15.7	10.00	15.7
C54	15.7	10.00	15.7
C55	15.7	10.00	15.7
C56	15.7	10.00	15.7
C57	15.7	10.00	15.7
C58	15.7	10.00	15.7
C59	15.7	10.00	15.7
C60	15.7	10.00	15.7
C61	15.7	10.00	15.7
C62	15.7	10.00	15.7
C63	15.7	10.00	15.7
C64	15.7	10.00	15.7
C65	15.7	10.00	15.7
C66	15.7	10.00	15.7
C67	15.7	10.00	15.7
C68	15.7	10.00	15.7
C69	15.7	10.00	15.7
C70	15.7	10.00	15.7
C71	15.7	10.00	15.7
C72	15.7	10.00	15.7
C73	15.7	10.00	15.7
C74	15.7	10.00	15.7
C75	15.7	10.00	15.7
C76	15.7	10.00	15.7
C77	15.7	10.00	15.7
C78	15.7	10.00	15.7
C79	15.7	10.00	15.7
C80	15.7	10.00	15.7
C81	15.7	10.00	15.7
C82	15.7	10.00	15.7
C83	15.7	10.00	15.7
C84	15.7	10.00	15.7
C85	15.7	10.00	15.7
C86	15.7	10.00	15.7
C87	15.7	10.00	15.7
C88	15.7	10.00	15.7
C89	15.7	10.00	15.7
C90	15.7	10.00	15.7
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C95	15.7	10.00	15.7
C96	15.7	10.00	15.7
C97	15.7	10.00	15.7
C98	15.7	10.00	15.7
C99	15.7	10.00	15.7
C100	15.7	10.00	15.7

- SEWER CONSTRUCTION NOTES**
- INSTALL 6" DIAMETER CONCRETE MANHOLE PER STD DTL 303-1
 - INSTALL 10" DIAMETER 30'-0" PVC SEWER
 - INSTALL 6" DIAMETER 90' PVC MANHOLE
 - INSTALL 6" 90' 45' BEND
 - INSTALL 6" 90' 45' BEND
 - INSTALL THREAT BLOCK PER AWC STD DTL E-3-3-1
 - CONSTRUCT WATER AND SEWER SEPARATION PACKAGE LIFT STATION PER DETAIL SHEET 5
 - 3" DIAMETER HOPE COOR LINE, BART PER MANUFACTURER'S SPECIFICATIONS
 - 3" HOPE 45' BEND
 - INSTALL HOPE 6" X 3" REDUCER
 - CONSTRUCT BQ-FILTER BLOWER WORKS AND MEDIA BED PER DETAILS SHEET 4
 - INSTALL 6" FORCE MAIN 90' RADIUS TO OFFSITE WATER & SEWER FORCE MAIN PLANS FOR CONTINUATION
 - INSTALL 2" PVC DRAIN LINE, LENGTH AND SLOPE AS NOTED
 - INSTALL 2" 22.5' PVC ELBOW BEND.

- ELECTRICAL CONSTRUCTION NOTES**
- TYPE 2 SCHEDULE 80 PVC ELECTRICAL CONDUIT
 - CONDUIT TO BE PERMITS-ALLOWED TYPE WITH 1/4" HOLES DRILLED, FIELD STORAGE CAPACITY
 - CONDUIT SHALL BE 90' TO 90' MIN. 100VAC
 - NEEDS GENERATOR, MOTOR, PUMP, CYCLE CONTROL, AND TRANSFER SWITCH
 - FIELD-INDICATED H.E.S. LUMINA LUMINA, SERIES LIGHT FIXTURE AND 2" ELECTRICAL CONDUIT
 - CONDUIT SHALL BE PER AWC STD DTL E-3-3-1
 - MANUFACTURER'S SPECIFICATIONS SEE DETAILS SHEET 5
 - SCHEDULE 80 PVC ELECTRICAL CONDUIT

- WATER CONSTRUCTION NOTES**
- CONNECT TO EXISTING WATER SERVICE LINE
 - INSTALL 2" PVC WATER SERVICE LINE
 - INSTALL 2" 45' BEND
 - INSTALL 2" 90' BEND
 - INSTALL 2" X 1" TE AND NOSE BB
 - INSTALL 2" X 2" TE
 - INSTALL 2" X 2" TE, BURN-CLANG THRU-LINE 2" SOLUTION VALVE & BOND MANUFACTURER'S SPECIFICATIONS SEE DETAIL SHEET 5
 - INSTALL 2" 45' BEND
 - INSTALL 2" X 1" TE AND NOSE BB
 - INSTALL 2" X 2" TE
 - INSTALL 2" X 2" TE, BURN-CLANG THRU-LINE 2" SOLUTION VALVE & BOND MANUFACTURER'S SPECIFICATIONS SEE DETAIL SHEET 5
 - CONDUIT SHALL BE PERMITS-ALLOWED TYPE WITH 1/4" HOLES DRILLED, FIELD STORAGE CAPACITY
 - CONDUIT SHALL BE 90' TO 90' MIN. 100VAC
 - NEEDS GENERATOR, MOTOR, PUMP, CYCLE CONTROL, AND TRANSFER SWITCH
 - FIELD-INDICATED H.E.S. LUMINA LUMINA, SERIES LIGHT FIXTURE AND 2" ELECTRICAL CONDUIT
 - CONDUIT SHALL BE PER AWC STD DTL E-3-3-1
 - MANUFACTURER'S SPECIFICATIONS SEE DETAILS SHEET 5
 - SCHEDULE 80 PVC ELECTRICAL CONDUIT



DESIGNED: M.J.L.
 DRAWN: P.F.
 CHECKED: D.S.G.
 DATE: 06/16/09
 SCALE: 1"=10'
 PERM. NO. 2005023
 FILE: PS-02-SITE.DWG

**RANCH 160 L.L.C.
 WASTE WATER PUMP STATION**

SITE AND UTILITIES PLAN

RANCH 160

PRIMA COUNTY, ARIZONA

can-am
 engineering geomatics

1033 South Taylor Road
 Mesa, AZ 85206
 F: 480-258-2200

REVISION

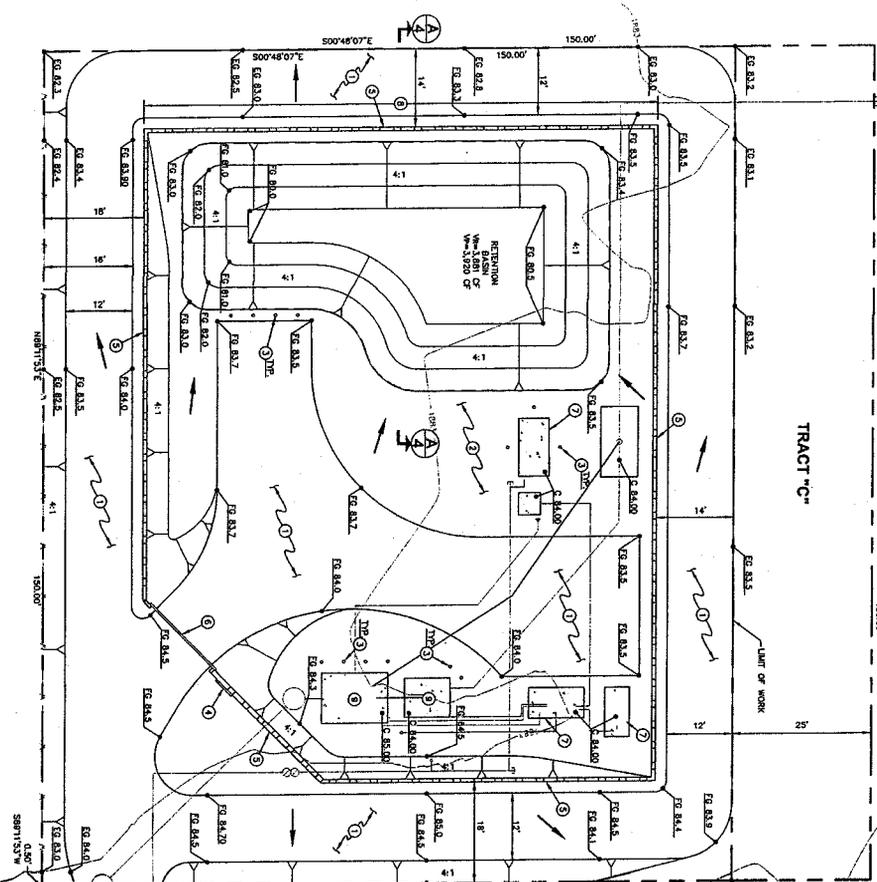
NO.	REVISION	BY	DATE

1000 STAKE-IT
 800.283.1100
 1800 STAKE-IT

SCALE: 1" = 10'

10 0 10

1000 STAKE-IT
 800.283.1100
 1800 STAKE-IT



RETENTION VOLUME CALCULATIONS
 RETENTION REQUIRED
 W- C X A X P / 12
 WHERE: W = REQUIRED RETENTION (CUBIC FEET)
 C = REQUIRED NUMBER OF COMPARTMENTS (0.40)
 A = DRAINAGE AREA (SQUARE FEET)
 P = 100% - 24% (ANNUAL DEPTH IN INCHES - 2.78)
 2.81 ft x 420 x 1025 x 24 / 12
 RETENTION PROVIDED
 W = 3282 ft³

CONSTRUCTION NOTES

1. 8" TYPICAL MINIMUM ROUGH CONCRETE OVER COMPLETED SURFACING
2. PROVIDE 1" TYPICAL JAIL OF #4-SIZED (5/8" NOMINAL DIAMETER) REINFORCING BARS OVER ALL RETAINED AREAS OF THE STRUCTURE
3. STEEL BARS BOLLARDS/SAFETY ROSS BBS 480 5/8" DIA. 1/4" SPACED AT 4' FROM CENTER
4. SITE SURFACE - TO BE PROVIDED BY OWNER
5. CONCRETE CURBING AND FINISH BLOCK FLOOR PER MAG SPECIFICATION 9.10
6. 1/2" WIRE MESH SHALL BE USED OVER CONCRETE OF CONCRETE PAD WITH W/W-4" OC
7. INSTALL REINFORCE WEEP HOLES 4" FEET ON CENTER PER DETAIL ON SHEET A-1
8. CONSTRUCT CONCRETE FOUNDATION PER SPECIFICATIONS

AGATE ROAD



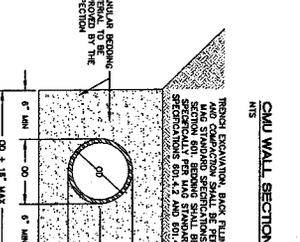
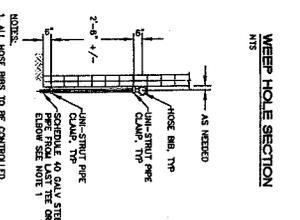
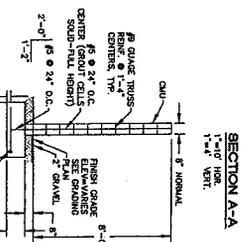
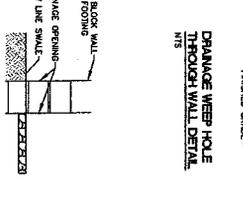
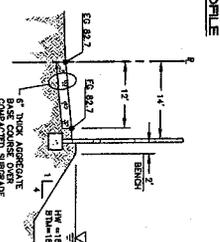
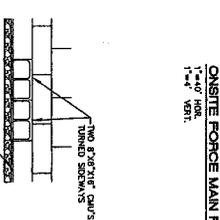
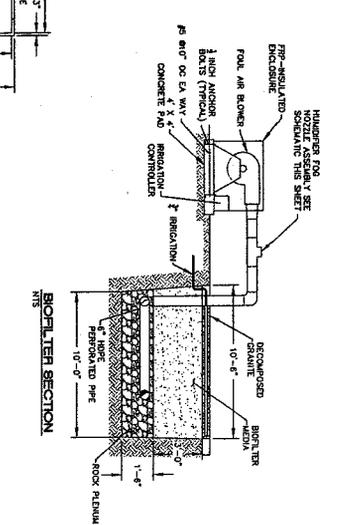
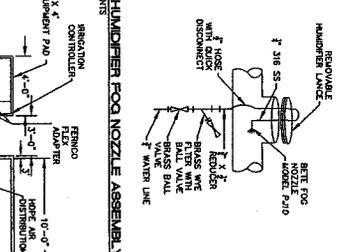
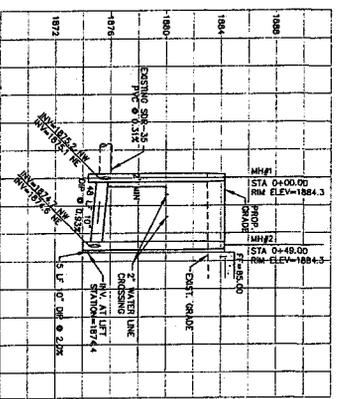
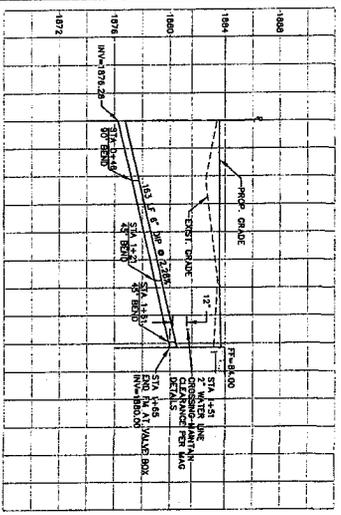
DESIGNED: M.J.L.	DRAWN: P.F.
CHECKED: D.S.C.	DATE: 06/18/09
SCALE: 1"=10'	PROJ. NO: 2005023
SHEET: 3	FILE: PS-03-G0.WC

RANCH 160 L.L.C.
WASTE WATER PUMP STATION
GRADING AND DRAINAGE PLAN
RANCH 160
 PINAL COUNTY, ARIZONA



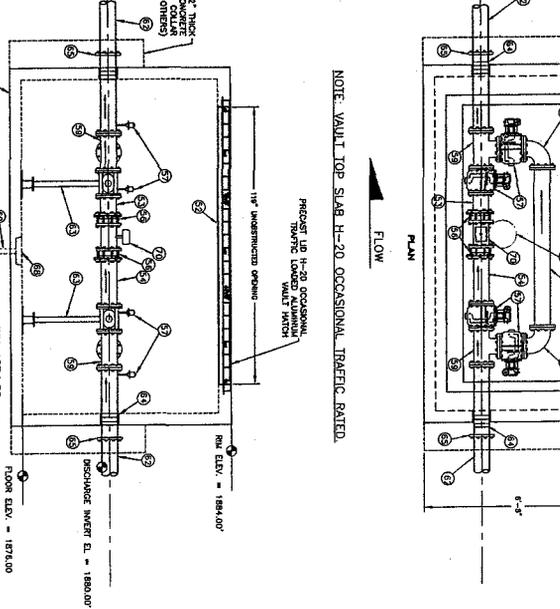
NO.	REVISION	BY	DATE

can-am
 engineering geotechnical
 1423 South Highway Road
 Building #9, Suite #122
 Mesa, AZ 85205
 P: 480-288-5200
 F: 480-288-5201



- WALL DESIGN NOTES:
1. ALL HOSE BARS TO BE CONTROLLED BY INDIVIDUAL SHUTTER VALVES (CALL ON PLAN SHEETS)
 2. 2\"/>

1. NOT USED.
2. 1\"/>



GENERAL CONSTRUCTION NOTES

1. PROPERTY LINES: THE OWNER'S RESPONSIBILITY IS TO OBTAIN THE CORRECT LOCATION OF THE PROPERTY LINES AND TO PROVIDE THE SAME TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE PROPERTY LINES AND FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
2. ACCESS TO THE PUMP STATION SITE IS OF VARYING WIDTHS. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES. ACCESS TO THE PUMP STATION SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
3. PROTECT EXISTING UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND PROTECTING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
4. PROTECT EXISTING STRUCTURES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND PROTECTING ALL EXISTING STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
5. PROTECT EXISTING LANDSCAPE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND PROTECTING ALL EXISTING LANDSCAPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
6. STORM DRAINAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STORM DRAINAGE SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
7. EROSION CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND CONSTRUCTING EROSION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
10. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS AS SHOWN ON THE DRAWINGS AND AS APPROVED BY THE COUNTY ENGINEER AND THE TOWN ENGINEER.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
12. NOTIFY THE PUBLIC COUNTY ENGINEER AND PUBLIC WORKS DEPARTMENT (520-461-4411) AND THE TOWN ENGINEER OF ANY CONSTRUCTION ACTIVITIES THAT MAY AFFECT THE PUBLIC RIGHT-OF-WAY.
13. IF THE CONTRACTOR IS REQUIRED TO EXCAVATE EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
17. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION BEFORE THE APPROVAL OF THE COUNTY ENGINEER AND THE TOWN ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
18. ANY CHANGES TO THE APPROVED PLANS MUST BE SUBMITTED TO THE COUNTY ENGINEER AND THE TOWN ENGINEER FOR APPROVAL.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
20. APPROVED CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.
21. APPROVAL OF THESE PLANS IS FOR A 12-MONTH PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE COUNTY ENGINEER AND THE TOWN ENGINEER.

MATERIAL SPECIFICATIONS

1. PRE-CAST/CAST-IN-PLACE CONCRETE: ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS AS SHOWN ON THE DRAWINGS AND AS APPROVED BY THE COUNTY ENGINEER AND THE TOWN ENGINEER.
2. CONCRETE SHALL BE SUPPLIED BY THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS AS SHOWN ON THE DRAWINGS AND AS APPROVED BY THE COUNTY ENGINEER AND THE TOWN ENGINEER.
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6. CONCRETE SHALL BE SUPPLIED BY THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS AS SHOWN ON THE DRAWINGS AND AS APPROVED BY THE COUNTY ENGINEER AND THE TOWN ENGINEER.
7. ALL CHECK VALVES: PROVIDE BALL CHECK VALVES AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
8. SOLENOID VALVES: PROVIDE NON-LUBRICATED EXHAUSTIVE FLUID VALVES AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
9. FLOW METER: PROVIDE FLOW METER AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
10. PUMP CONTROL: PROVIDE PUMP CONTROL AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
11. ELECTRICAL: PROVIDE ELECTRICAL MATERIALS AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
12. PUMP: PROVIDE PUMP AS MANUFACTURED BY THE FOLLOWING MANUFACTURERS: HANCOCK, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY, HANCOCK VALVE COMPANY.
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DESIGNED BY: M. J. L.
 CHECKED BY: P. F.
 DRAWN BY: D. S. G.
 DATE: 06/29/09
 SCALE: NTS
 PLOT NO: 2005023
 SHEET: 6 OF 6

**RANCH 160 L.L.C.
 WASTE WATER PUMP STATION**

GENERAL CONSTRUCTION NOTES SHEET

RANCH 160
 PINAL COUNTY, ARIZONA



NO.	REVISION	DATE	BY

can-am
 CONSTRUCTION PRODUCTS

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 Phoenix, AZ 85036
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 F: 602-988-2273