SOUTHERN SANDOVAL COUNTY
ARROYO FLOOD CONTROL AUTHORITY

RAINBOW POND
AND
DOWNSTREAM CHANNEL

WATER TRUST BOARD PROJECT NO. 3560-WTB 16

Southern Sandoval County
Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
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www.sscafca.com

ANDRÉS SANCHEZ
NEW MEXICO
PROFESSIONAL ENGINEER
4-4-18

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18	STA 7+00 TO 15+00
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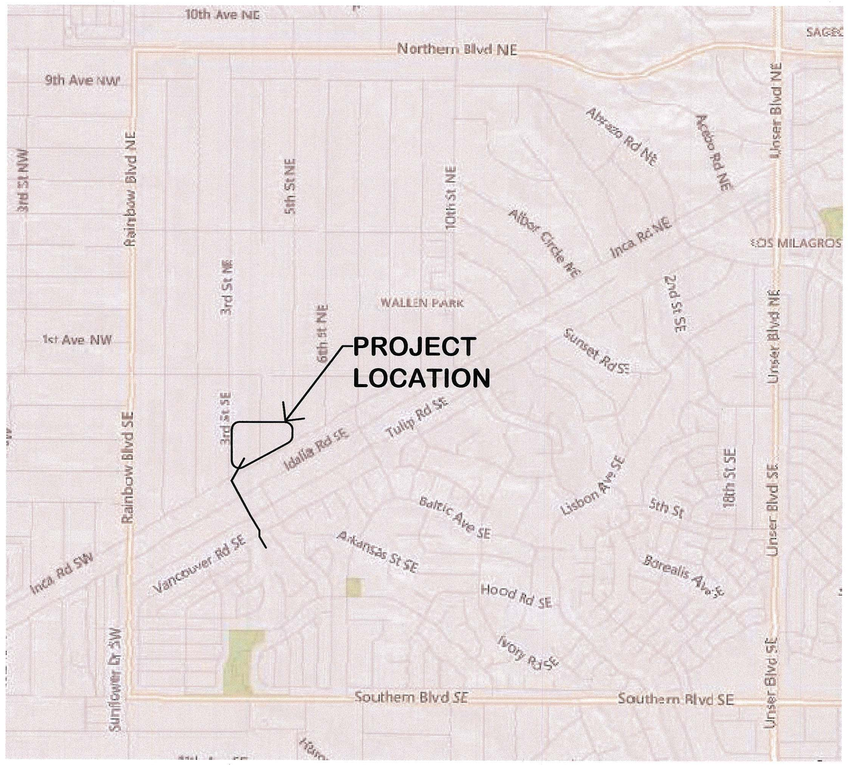

VICINITY MAP

RAINBOW POND FACILITY DATA	
DESIGN STORM	100-YEAR, 24-HOUR
PEAK INFLOW, CFS	1,071
PEAK OUTFLOW, CFS	193
INFLOW VOLUME, AC-FT	78.5
PEAK STORAGE VOLUME, AC-FT	48.6
POND INVERT ELEVATION, FT	5670.57
PEAK WATER SURFACE ELEVATION, FT	5678.7
EMERGENCY SPILLWAY ELEVATION, FT	5678.8
TOP OF POND EMBANKMENT, FT	5680.5
DOWNSTREAM TOE ELEVATION (AT PRINCIPAL SPILLWAY ALIGNMENT), FT	5675
TOP WIDTH OF EMERGENCY SPILLWAY, FT	100
TOP WIDTH OF EMBANKMENT, FT	TYP. 12
UPSTREAM EMBANKMENT SLOPE (H:V)	6:1
UPSTREAM EMBANKMENT SLOPE (H:V)	6:1
OVERALL POND AREA, AC	11

APPROVALS

SSCAFCA: _____ DATE: 4-5-18
EXECUTIVE ENGINEER

CITY OF RIO RANCHO: _____ DATE: 4/5/18
DEVELOPMENT SERVICES DEPARTMENT

RAINBOW POND AND DOWNSTREAM CHANNEL

COVER SHEET

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/3/2018

1

Wednesday, April 04, 2018 10:18:35 AM – Kathy Fournier
Q:\SSCAFCA_Project_Files\Rainbow\RA_P0001\AutoCAD\Civil3D\Production Drawings\Plan_Sets\RA_P0001_G-001.dwg

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH 1) THE PROJECT CONSTRUCTION PLANS, 2) THE PROJECT SPECIFICATIONS, AND 3) NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, APWA NM CHARTER, LATEST EDITION, IN THAT ORDER OF PRECEDENCE AT THE TIME OF CONSTRUCTION BID.

2. THE CONTRACTOR AGREES THAT HE / SHE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

3. NO MODIFICATIONS TO THESE PLANS SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER, ENGINEER AND ALL APPROVAL SIGNATORIES. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS OR TECHNIQUES OR FOR THE PROSECUTION OF THE WORK AS SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR OTHER PERSONS PERFORMING ANY WORK, AS SHOWN IN THE PROJECT CONTRACT DOCUMENTS.

4. UNLESS OTHERWISE PROVIDED AS PART OF THE CONSTRUCTION PLANS, A COMPLETE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR WHEN ANY PORTION OF THE WORK IMPACTS THE TRAVELING PUBLIC, EITHER VEHICULAR OR PEDESTRIAN. ALL CONSTRUCTION SIGNING, BARRICADING AND CHANNELIZATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD), LATEST EDITION. THE PLAN SHALL BE SUBMITTED TO THE CITY OF RIO RANCHO DEVELOPMENT SERVICES DEPARTMENT ENGINEERING SECTION FOR APPROVAL AT LEAST 7 DAYS PRIOR TO THE DESIRED START OF CONSTRUCTION. THE CONTRACTOR SHALL NOT IMPLEMENT THE TRAFFIC CONTROL PLAN UNTIL APPROVAL OF THE PLAN HAS BEEN RECEIVED.

5. THE CONTRACTOR SHALL DESIGNATE AT LEAST ONE EMERGENCY CONTACT PERSON, AND SHALL PROVIDE TELEPHONE NUMBERS WHERE THIS PERSON CAN BE CONTACTED AT ANY TIME. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER / ENGINEER (SSCAFCA), THE CITY OF RIO RANCHO DEPARTMENT OF PUBLIC SAFETY (505-891-5900) AND THE CITY OF RIO RANCHO DEVELOPMENT SERVICES DEPARTMENT (505-891-5005)

6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL JURISDICTIONAL AUTHORITIES PRIOR TO START OF CONSTRUCTION.

7. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY, HEALTH, AND ENVIRONMENTAL PROTECTION.

8. EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. THE WORK SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION OF THE REPAIRS. REPAIRS MUST BE ACCEPTED BY THE OWNER PRIOR TO FINAL PAYMENT.

9. THE CONTRACTOR SHALL ONLY UTILIZE THE DESIGNATED STAGING AREAS FOR STORAGE OF ALL EQUIPMENT AND MATERIALS. THE OWNER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR CONTRACTOR'S EQUIPMENT AND MATERIAL IN THE STAGING AREA. SECURITY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IF NO STAGING AREA IS DESIGNATED ON THESE PLANS, AN OFF-SITE STAGING AREA SHALL BE PROVIDED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE, OR THE CONTRACTOR MAY NEGOTIATE WITH THE OWNER TO USE AN ON-SITE AREA.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING, IN ADVANCE OF HIS / HER CONSTRUCTION OPERATIONS, IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC., ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION IS EVIDENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COSTS ASSOCIATED WITH THIS EFFORT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

11. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS ON THE CONSTRUCTION DOCUMENTS, ARE SHOWN APPROXIMATE AND IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION, AND COMPLETENESS OF THIS INFORMATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHOULD BE VERIFIED, BY ANY MEANS NECESSARY, PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE OWNER / ENGINEER (SSCAFCA) AT 505-892-7246 IMMEDIATELY.

12. IT IS MANDATORY THAT A PRE-CONSTRUCTION MEETING BE HELD PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER / ENGINEER (SSCAFCA) AT 505-892-7246 TO DETERMINE THE TIME AND LOCATION OF THE PRE-CONSTRUCTION MEETING.

13. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE OWNER / ENGINEER (SSCAFCA).

14. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE OWNER / ENGINEER (SSCAFCA) AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

15. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND TAKE WHATEVER MEASURES ARE NECESSARY TO ENSURE THAT ALL ROADS ARE MAINTAINED IN A CLEAN, MUD AND DUST-FREE CONDITION AT ALL TIMES.

16. THE CONTRACTOR SHALL CONTACT NEW MEXICO ONE CALL AT 811 OR 1-800-321-2537, FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION FOR UTILITY SPOTS IN ACCORDANCE WITH APPLICABLE STATE LAW.

17. CONTRACTOR WILL NOTIFY THE OWNER / ENGINEER (SSCAFCA) AT 505-892-7246 A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK.

18. THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHTS-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.

19. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO KEEP THE JOB SITE FREE FROM TRASH ON A DAILY BASIS, AND ALL MATERIALS WILL BE NEATLY ORGANIZED. TRASH AND/OR NON-USED MATERIALS SHALL NOT BE BURIED ON-SITE.

20. CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES SO AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.

GENERAL NOTES (CONTINUED)

21. CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING UTILIZING APPROVED CONSTRUCTION PLANS, THE APPROPRIATE RIGHT-OF-WAY MAPS, RECORDED PLATS, AND CITY OF RIO RANCHO STANDARD DETAILS. EACH REVISION TO THE PLANS SHALL BE RECORDED IN THE PLAN REVISION BLOCK. PLANS SHALL INCLUDE LOCATION MAP WITH LEGAL DESCRIPTION AND LOCATION GRID.

22. THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THE FINAL AS-BUILT PLANS, REFLECTING ANY AND ALL CHANGES TO THE ORIGINAL PLAN, SHALL BE SUBMITTED TO THE OWNER / ENGINEER (SSCAFCA) PRIOR TO FINAL PAYMENT.

23. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES, PERMITTING, AND SUBMITTALS ARE IN ACCORDANCE WITH THE SSCAFCA / CITY OF RIO RANCHO DEVELOPMENT PROCESS MANUAL (DPM) AND LOCAL ORDINANCES.

24. NO WORK SHALL BE PERFORMED IN A FEMA FLOODPLAIN WITHOUT WRITTEN AUTHORIZATION FROM THE LOCAL FLOODPLAIN MANAGER.

25. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF HIS WORK FROM STORMWATER FLOWS AS OUTLINED IN THE SUPPLEMENTAL TECHNICAL SPECIFICATIONS PROVIDED IN THE CONTRACT DOCUMENTS.

26. UNLESS OTHERWISE SPECIFIED, ALL CONCRETE SHALL BE A MINIMUM OF 3,500 PSI.

27. IF APPLICABLE, THE CONTRACTOR SHALL COMPLY WITH ALL CONSTRUCTION RELATED REQUIREMENTS OF THE PROJECT'S CORP OF ENGINEERS 404 PERMIT. COPIES OF THE PERMIT TERMS MAY BE OBTAINED FROM THE OWNER.

EROSION CONTROL / ENVIRONMENTAL PROTECTION / STORMWATER POLLUTION PREVENTION PLAN

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULFILLING ALL NECESSARY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), OBTAINING AN NPDES PERMIT PRIOR TO CONSTRUCTION, FILLING OUT THE NOTICE OF INTENT (NOI) APPLICATION, AND FILLING OUT THE NOTICE OF TERMINATION (NOT) APPLICATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION OF AND INSPECTION REPORTS FOR THE SWPPP.

2. THE CONTRACTOR SHALL SUBMIT THE SWPPP WITH THE PROPOSED CONSTRUCTION STAGING AREA AND TEMPORARY SANITARY FACILITIES CLEARLY SHOWN. ANY CHECK DAMS, SILT FENCES, OR OTHER BEST MANAGEMENT PRACTICES (BMPS) THAT ARE REQUIRED IN THE APPROVED SWPPP SHALL BE INCLUDED IN AND ARE INCIDENTAL TO THE SWPPP BID AMOUNT.

3. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED SWPPP ON-SITE AT ALL TIMES AND SHALL COMPLY WITH THE REQUIREMENTS INDICATED ON THAT PLAN AND SHALL PROVIDE AN ADDITIONAL FULLY EXECUTED COPY TO THE OWNER.

4. THE CONTRACTOR SHALL EITHER PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR INSTALL BMPS IDENTIFIED IN THE APPROVED SWPPP TO PREVENT DISCHARGE OF EXCAVATED MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY DURING A RAIN OR WIND EVENT.

5. THE CONTRACTOR SHALL IMPLEMENT THE APPROVED SWPPP, IF APPLICABLE, AND ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.

6. THE CONTRACTOR SHALL MITIGATE EROSION OF TEMPORARY OR PERMANENT DIRT SWALES BY INSTALLING BMPS IDENTIFIED IN THE APPROVED SWPPP IN THE SWALES PERPENDICULAR TO THE DIRECTION OF FLOW, AND AT INTERVALS AS SPECIFIED IN THE SWPPP.

7. CONSTRUCTION AREAS SHALL BE WATERED FOR DUST CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SUPPLYING WATER AS REQUIRED. WATERING, AS REQUIRED FOR CONSTRUCTION AND DUST CONTROL, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO MEASUREMENT OR PAYMENT SHALL BE MADE THEREFOR.

8. ANY AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY AN IMPERVIOUS SURFACE SHALL BE REVEGETATED WITH NATIVE GRASS SEEDING. WHEN CONSTRUCTION ACTIVITIES CEASE AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME WITHIN 14 DAYS, STABILIZATION MEASURES MUST BE INITIATED.

9. ALL WASTE PRODUCTS FROM THE CONSTRUCTION SITE, INCLUDING ITEMS DESIGNATED FOR REMOVAL, CONSTRUCTION WASTE, CONSTRUCTION EQUIPMENT WASTE PRODUCTS (OIL, GAS, TIRES, ETC.) GARBAGE, GRUBBING, EXCESS CUT MATERIAL, VEGETATIVE DEBRIS, ETC. SHALL BE APPROPRIATELY DISPOSED OF OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMITS REQUIRED TO HAUL OR DISPOSE OF WASTE PRODUCTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE WASTE DISPOSAL SITE COMPLIES WITH GOVERNMENT REGULATIONS REGARDING THE ENVIRONMENT, ENDANGERED SPECIES, AND ARCHAEOLOGICAL RESOURCES.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS ASSOCIATED WITH THE CONSTRUCTION SITE. HAZARDOUS MATERIALS INCLUDE GASOLINE, DIESEL FUEL, MOTOR OIL, SOLVENTS, CHEMICALS, PAINTS, ETC. WHICH MAY BE A THREAT TO THE ENVIRONMENT. THE CONTRACTOR SHALL REPORT THE DISCOVERY OF PAST OR PRESENT SPILLS TO THE NEW MEXICO ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT 505-827-9329.

11. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING SURFACE AND UNDERGROUND WATER. CONTACT WITH SURFACE WATER BY CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL BE MINIMIZED. EQUIPMENT MAINTENANCE AND REFUELING OPERATIONS SHALL BE PERFORMED IN AN ENVIRONMENTALLY SAFE MANNER IN COMPLIANCE WITH GOVERNMENT REGULATIONS.

12. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING CONSTRUCTION NOISE AND HOURS OF OPERATION.

13. WHERE STORM INLETS ARE SUSCEPTIBLE TO INFLOW OF SILT OR DEBRIS FROM CONSTRUCTION ACTIVITIES, PROTECTION SHALL BE PROVIDED ON THEIR UPSTREAM SIDE UTILIZING BMPS IDENTIFIED IN THE APPROVED SWPPP.

SOILS

1. UNLESS OTHERWISE SPECIFIED SUBGRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE ASTM D-1557 MAXIMUM DENSITY.

MATERIALS	PERCENT (%) COMPACTION
STRUCTURAL FILL IN THE BUILDING AREA	95
SUB BASE FOR SLAB SUPPORT	95
MISCELLANEOUS BACKFILL BELOW STRUCTURAL FILL OR ROAD	95
MISCELLANEOUS BACKFILL BELOW UNPAVED, NON-BUILDING AREAS	90
ROAD SUB GRADE	95
SIDEWALK / TRAIL SUB GRADE	95
CURB AND GUTTER SUBGRADE	95

2. GEOTECHNICAL REPORT (NV5, 10/28/2016) SHALL GOVERN CONSTRUCTION OF THE POND EMBANKMENT AND OTHER PROJECT ELEMENTS, UNLESS OTHERWISE NOTED OR APPROVED BY A GEOTECHNICAL ENGINEER.

ABBREVIATIONS

AP	ANALYSIS POINT
@	AT
BC	BEGIN CURVE
BCR	BEGIN CURB RETURN
BK	BOOK
BLDG	BUILDING
BM	BENCH MARK
BOA	BEGINNING OF ALIGNMENT
BOP	BEGINNING OF PROJECT
BVC	BEGIN VERTICAL CURVE
BW	BASE OF WALL
CATV	CABLE TV LINE
CB	CATCH BASIN
CF	CURB FACE
CG	CURB AND GUTTER
CLF	CHAIN LINK FENCE
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CONC	CONCRETE
CORR	CITY OF RIO RANCHO
CY	CUBIC YARDS
DUE	DRAINAGE UTILITY EASEMENT
DI	DROP INLET
DIA	DIAMETER
Δ	DELTA
EA	EACH
EC	END CURVE
ECR	END CURB RETURN
ELEV	ELEVATION
EOA	END OF ALIGNMENT
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EST	ESTIMATE
EVC	END VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FOC	FACE OF CURB
FP	FINISHED PAD
G	GAS
GM	GAS METER
GV	GATE VALVE
HORIZ	HORIZONTAL
INT	INTERSECTION
INV	INVERT
INV EL	INVERT ELEVATION
LF	LINEAR FEET
LP	LIGHT POLE
LT	LEFT
MH	MANHOLE
MID	MID-POINT
NG	NATURAL GROUND
OC	ON CENTER
OHE	OVER HEAD ELECTRIC
PB	PULL BOX
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PG	PAGE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
QTY	QUANTITY
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REF	REFERENCE
RP	RADIUS POINT
RT	RIGHT
R/W,ROW	RIGHT-OF-WAY
S	SLOPE
SAS, SS	SANITARY SEWER LINE
SD	STORM DRAIN
SF	SQUARE FEET
STA	STATION
STD	STANDARD
SW	SIDEWALK
SY	SQUARE YARDS
T	TANGENT
TA	TOP OF ASPHALT
TAC	TOP OF ASPHALT CURB
TBC	TOP BACK OF CURB
TC	TOP OF CONCRETE
TEL	TELEPHONE LINE, RISER OR BOX
TP	TOP OF PIPE
TRANS	TRANSVERSE
TW	TOP OF WALL
TYP	TYPICAL
UE	UNDERGROUND ELECTRICAL LINE
UT	UNDERGROUND TELEPHONE LINE
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W	WATER LINE
WM	WATER METER
WQ	WATER QUALITY
WSEL	WATER SURFACE ELEVATION
WV	WATER VALVE

Southern Sandoval County Arroyo Flood Control Authority
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ANDRÉS SANCHEZ
NEW MEXICO
20362
4-4-18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

GENERAL NOTES & ABBREVIATIONS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/3/2018

Wednesday, April 04, 2018 10:21:00 AM – Kathy Fournier
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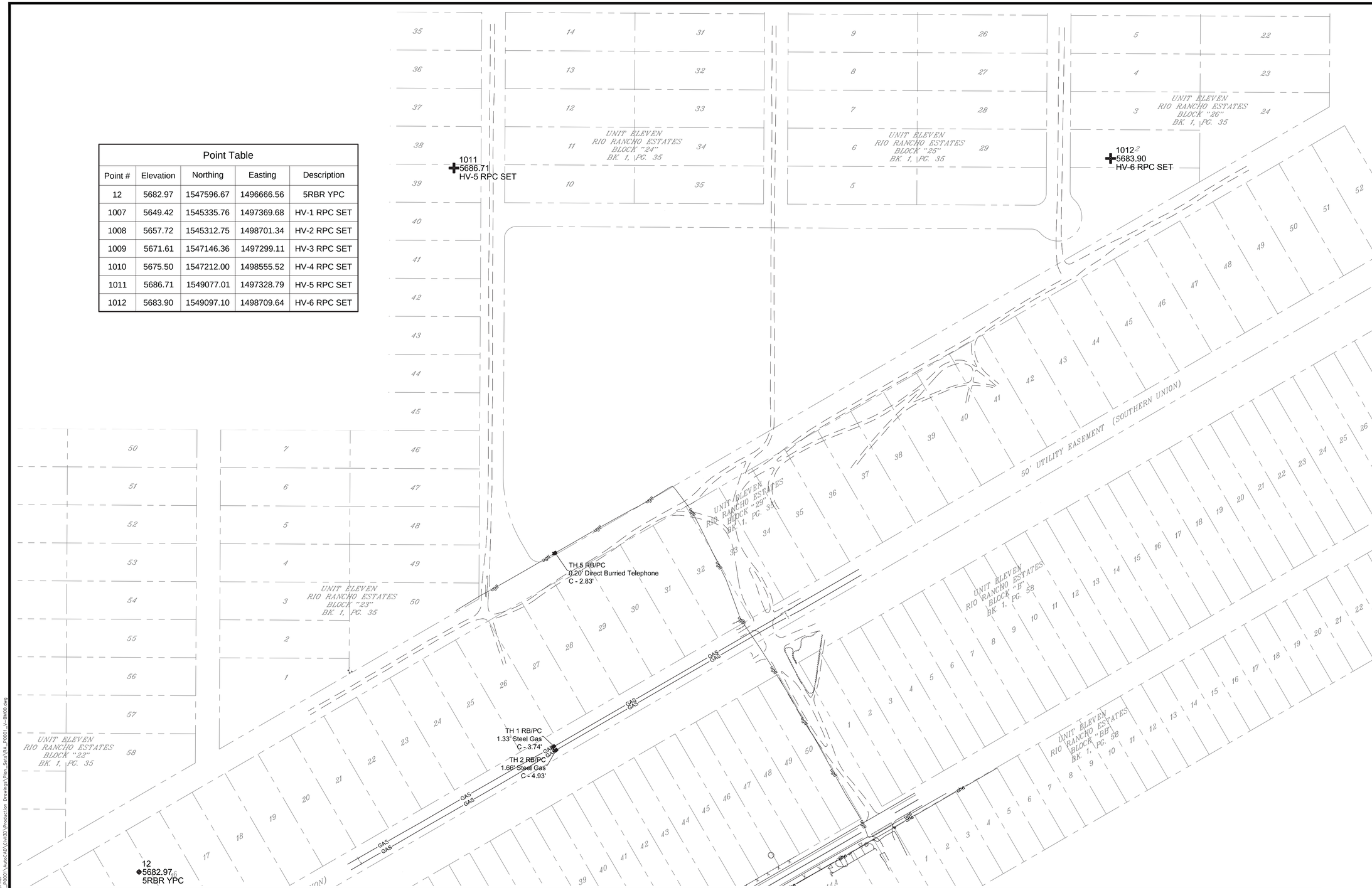
Point Table				
Point #	Elevation	Northing	Easting	Description
12	5682.97	1547596.67	1496666.56	5RBR YPC
1007	5649.42	1545335.76	1497369.68	HV-1 RPC SET
1008	5657.72	1545312.75	1498701.34	HV-2 RPC SET
1009	5671.61	1547146.36	1497299.11	HV-3 RPC SET
1010	5675.50	1547212.00	1498555.52	HV-4 RPC SET
1011	5686.71	1549077.01	1497328.79	HV-5 RPC SET
1012	5683.90	1549097.10	1498709.64	HV-6 RPC SET



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0 100 200 Feet

Flight Date:
January 12, 2016

ATM #NM1215-044

Map Scale 1"=50'
Plot Scale 1"=100'

Legend

AERIAL PANELS
N 80000 GRID TEXT
GRID TICK
2980.5 SPOT ELEVATION
CACTUS
PALM TREE
SINGLE TREE
FLAG
GATE
SIGNS
BILLBOARD
OVERHEAD SIGNS
STREET SIGN
POST / BOLLARD
FIRE HYDRANT
METER / UTILITY
MANHOLE
VALVE
CATCH BASIN
CULVERT
UTILITY POLE
TRANSMISSION
TV DISH
LIGHT POLE
TRAFFIC SIGNAL
PEDESTRIAN SIGNAL
STREET LIGHT
STRAIGHT ARROWS
DIRECTIONAL ARROWS
MINE
BIKE LANE
HANDICAP
EXIT STOP TRAFFIC PAINT
AHEAD ONLY YIELD TRAFFIC PAINT
BUILDING
SWIMMING POOL
BRIDGE
CANOPY
ROCKS
TRAFFIC LANE PAINT
PARKING STRIPES
ROAD / PAVEMENT
DIRT ROAD / TRAIL
CURB / GUTTER
CONCRETE
RAILROAD
FENCE
RETAINING WALL
GUARD RAIL
3130 INDEX CONTOUR / TEXT
INTER CONTOUR
3130 INDEX DEPRESSION / TEXT
INTER DEPRESSION
WASH / WATER
VEGETATION LINE
GOLF FAIRWAY
GOLF GREEN / TEE
GOLF SANDTRAP
FIELD / GRASS

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 3/29/2018

3

SHEET 3 OF 28

Wednesday, April 04, 2018 - Kathy Fournier
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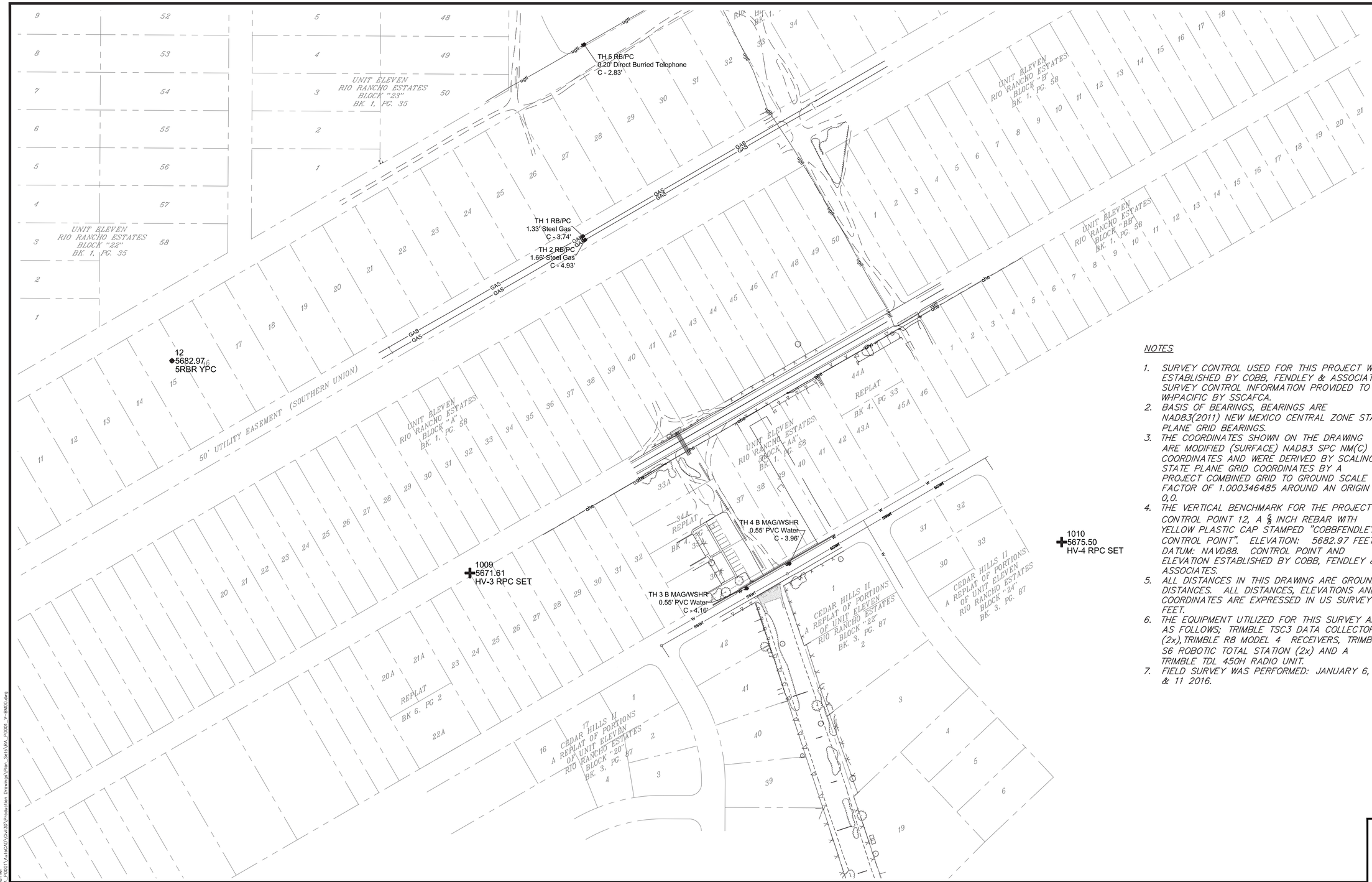

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0 100 200 Feet

NOTES

1. SURVEY CONTROL USED FOR THIS PROJECT WAS ESTABLISHED BY COBB, FENDLEY & ASSOCIATES. SURVEY CONTROL INFORMATION PROVIDED TO WHPACIFIC BY SSCAFCA.
2. BASIS OF BEARINGS, BEARINGS ARE NAD83(2011) NEW MEXICO CENTRAL ZONE STATE PLANE GRID BEARINGS.
3. THE COORDINATES SHOWN ON THE DRAWING ARE MODIFIED (SURFACE) NAD83 SPC NM(C) COORDINATES AND WERE DERIVED BY SCALING STATE PLANE GRID COORDINATES BY A PROJECT COMBINED GRID TO GROUND SCALE FACTOR OF 1.000346485 AROUND AN ORIGIN OF 0,0.
4. THE VERTICAL BENCHMARK FOR THE PROJECT IS CONTROL POINT 12, A ⅝ INCH REBAR WITH YELLOW PLASTIC CAP STAMPED "COBBFENDLEY CONTROL POINT". ELEVATION: 5682.97 FEET. DATUM: NAVD88. CONTROL POINT AND ELEVATION ESTABLISHED BY COBB, FENDLEY & ASSOCIATES.
5. ALL DISTANCES IN THIS DRAWING ARE GROUND DISTANCES. ALL DISTANCES, ELEVATIONS AND COORDINATES ARE EXPRESSED IN US SURVEY FEET.
6. THE EQUIPMENT UTILIZED FOR THIS SURVEY ARE AS FOLLOWS; TRIMBLE TSC3 DATA COLLECTORS (2x), TRIMBLE R8 MODEL 4 RECEIVERS, TRIMBLE S6 ROBOTIC TOTAL STATION (2x) AND A TRIMBLE TDL 450H RADIO UNIT.
7. FIELD SURVEY WAS PERFORMED: JANUARY 6, 7 & 11 2016.

Flight Date:
January 12, 2016

ATM #NM1215-044

Map Scale 1"=50'
Plot Scale 1"=100'

Legend

- AERIAL PANELS
- GRID TEXT (N 80000)
- GRID TICK
- SPOT ELEVATION (2980.5)
- CACTUS
- PALM TREE
- SINGLE TREE
- FLAG
- GATE
- SIGNS
- BILLBOARD
- OVERHEAD SIGNS
- STREET SIGN
- POST / BOLLARD
- FIRE HYDRANT
- METER / UTILITY
- MANHOLE (MH)
- VALVE
- CATCH BASIN
- CULVERT
- UTILITY POLE
- TRANSMISSION
- TV DISH
- LIGHT POLE
- TRAFFIC SIGNAL
- PEDESTRIAN SIGNAL
- STREET LIGHT
- STRAIGHT ARROWS
- DIRECTIONAL ARROWS
- MINE
- BIKE LANE
- HANDICAP
- TRAFFIC PAINT (EXIT STOP)
- TRAFFIC PAINT (HEAD ONLY YIELD)
- BUILDING
- SWIMMING POOL
- BRIDGE
- CANOPY
- ROCKS
- TRAFFIC LANE PAINT
- PARKING STRIPES
- ROAD / PAVEMENT
- DIRT ROAD / TRAIL
- CURB / GUTTER
- CONCRETE
- RAILROAD
- FENCE
- RETAINING WALL
- GUARD RAIL
- INDEX CONTOUR / TEXT (3130)
- INTER CONTOUR
- INDEX DEPRESSION / TEXT (3130)
- INTER DEPRESSION
- WASH / WATER
- VEGETATION LINE
- GOLF FAIRWAY
- GOLF GREEN / TEE
- GOLF SANDTRAP
- FIELD / GRASS

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 3/29/2018

Wednesday, April 04, 2018 - Kathy Fournier
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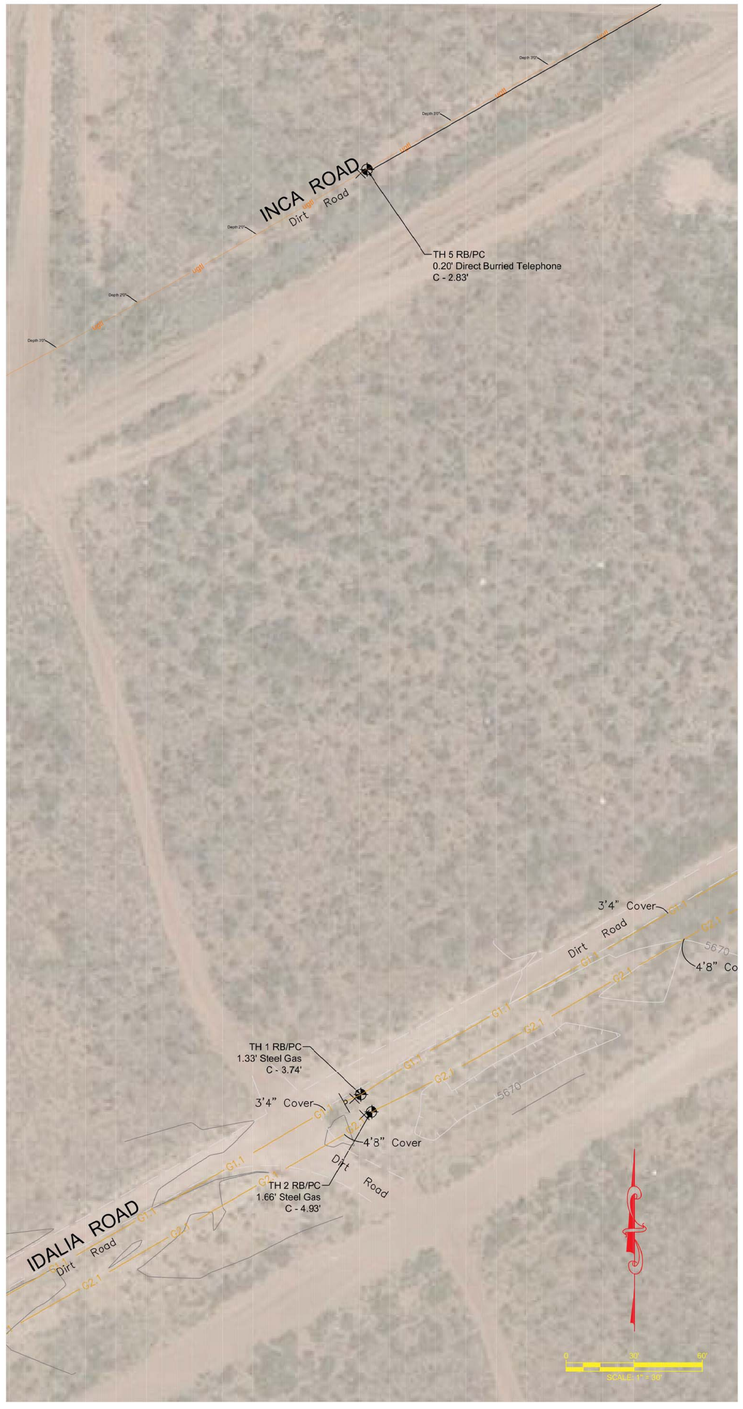
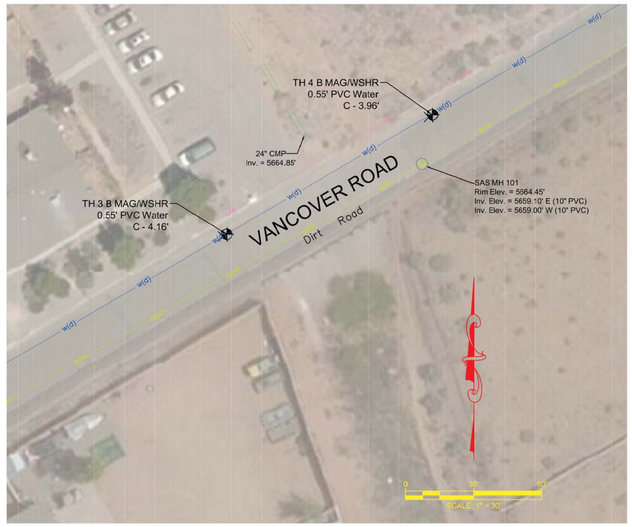




LEGEND

Quality Level B	Quality Level C/D	Utility:
ugtl		TELEPHONE - Century Link
CTV1.1	CTV1.1(D)	CATV - Cable One
uge		ELECTRIC - PNM
	ohe	OH ELECTRIC - PNM
W1.1	W1.1(D)	WATER - City of Rio Rancho
sswr		SANITARY SEWER -City of Rio Rancho
G1.1	G1.1(D)	GAS - NEW MEXICO GAS
unk		UNKNOWN UNDERGROUND UTILITY

- TEST HOLE
- T — TELEPHONE PEDESTAL
- SS — SANITARY SEWER MANHOLE
- WATER VALVE
- WM — WATER METER
- PP — POWER POLE
- GM — GAS METER
- TV — CATV PEDESTAL

General Notes

1. Bearings are based upon New Mexico State Plane Grid Bearings (NAD 83— Central Zone) and were derived by static GPS observations to the existing S.S.C.A.F.C.A. control monument "SP–2" and verified by an NGS OPUS solution.

2. Elevations are based upon the NAVD 88 datum, and are referred to the S.S.C.A.F.C.A. control monument "SP–2" (published elevation = 5623.03').

3. Distances shown hereon are horizontal ground distances expressed in U.S. Survey Feet. Project CF = 0.999653636.

4. Field surveys were performed on July 25 and July 27, 2017.

5. Coordinates shown hereon are local project (surface) coordinates and were derived by scaling the State Plane coordinates by the project combined factor around an origin of 0,0.

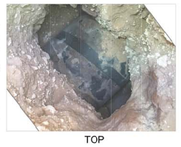
6. Depth of cover shown hereon was obtained through the use of electromagnetic line locating equipment. Depths are to the top of pipe and should be considered approximate: this information is not intended for design purposes.

7. Gas lines as shown hereon and existing within the current project limits were constructed with no vertical curves or bends per New Mexico Gas Company personnel (Mr. Ruben Garcia, Inspector).

8. This drawing has been revised to include additional field survey data obtained on July 31, 2017.

TEST HOLE 01 DATA

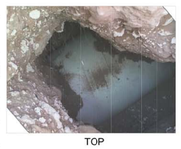
A. Northing	1547860.85	
Easting	1497539.16	
B. Depth of Utility	3.74'	
C. Reference Marker (RM)	Rebar / Cap	
Elevation @ RM	5671.00	
D. Elev. @ Top of Utility	5667.26	
E. Elev. @ Bottom of Utility	5665.94	(Calc.)
F. Width or Dia. of Utility	1.33'	
G. Material of Utility	Wrapped Steel	
H. General Condition	Good	
I. Thickness of Pvmt. Base, etc.	N / A	
J. Description of Soil	Sand / Rock	


TOP

PROFILE FACING NE

TEST HOLE 02 DATA

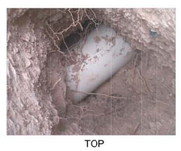
A. Northing	1547853.22	
Easting	1497543.93	
B. Depth of Utility	4.93'	
C. Reference Marker (RM)	Rebar / Cap	
Elevation @ RM	5671.30	
D. Elev. @ Top of Utility	5666.37	
E. Elev. @ Bottom of Utility	5664.71	(Calc.)
F. Width or Dia. of Utility	1.66'	
G. Material of Utility	Wrapped Steel	
H. General Condition	Good	
I. Thickness of Pvmt. Base, etc.	N / A	
J. Description of Soil	Sand / Rock	


TOP

PROFILE FACING NE

TEST HOLE 03 DATA

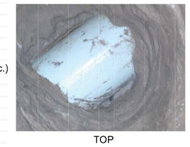
A. Northing	1547113.82	
Easting	1497887.19	
B. Depth of Utility	4.16'	
C. Reference Marker (RM)	Nail / Disc	
Elevation @ RM	5664.85	
D. Elev. @ Top of Utility	5660.69	
E. Elev. @ Bottom of Utility	5660.14	(Calc.)
F. Width or Dia. of Utility	0.55'	
G. Material of Utility	PVC	
H. General Condition	Good	
I. Thickness of Pvmt. Base, etc.	Asphalt / 0.40' N / A	
J. Description of Soil	Sand / Rock	


TOP

PROFILE FACING NE

TEST HOLE 04 DATA

A. Northing	1547166.28	
Easting	1497977.65	
B. Depth of Utility	3.96'	
C. Reference Marker (RM)	Nail / Disc	
Elevation @ RM	5664.76	
D. Elev. @ Top of Utility	5660.80	
E. Elev. @ Bottom of Utility	5660.25	(Calc.)
F. Width or Dia. of Utility	0.55'	
G. Material of Utility	PVC	
H. General Condition	Good	
I. Thickness of Pvmt. Base, etc.	Asphalt / 0.40' N / A	
J. Description of Soil	Sand / Rock	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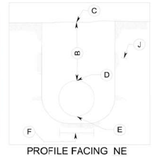
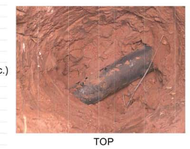


PROFILE FACING NE

TEST HOLE 05 DATA

A. Northing	1548267.69	
Easting	1497541.87	
B. Depth of Utility	2.83'	
C. Reference Marker (RM)	Rebar / Cap	
Elevation @ RM	5670.04	
D. Elev. @ Top of Utility	5667.21	
E. Elev. @ Bottom of Utility	5667.01	(Calc.)
F. Width or Dia. of Utility	0.20'	
G. Material of Utility	Direct Buried Cable	
H. General Condition	Good	
I. Thickness of Pvmt. Base, etc.	N / A N / A	
J. Description of Soil	Sand / Rock	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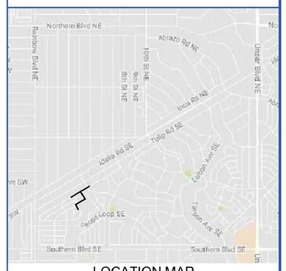
PROFILE FACING NE

KEYED NOTES



LOCATION MAP

CobbFendley
3820 Academy Parkway North N.E.
Albuquerque, New Mexico 87109
505.508.0786 I fax 505.508.0837 I www.cobbfendley.com

PETER LEE BORSACK NEW MEXICO 18430 PROFESSIONAL ENGINEER

RIO RANCHO
SANDOVAL COUNTY
RAINBOW POND
UTILITY TEST HOLES

DRAWING SCALE 1:30

SHEET NO. 01 - 01

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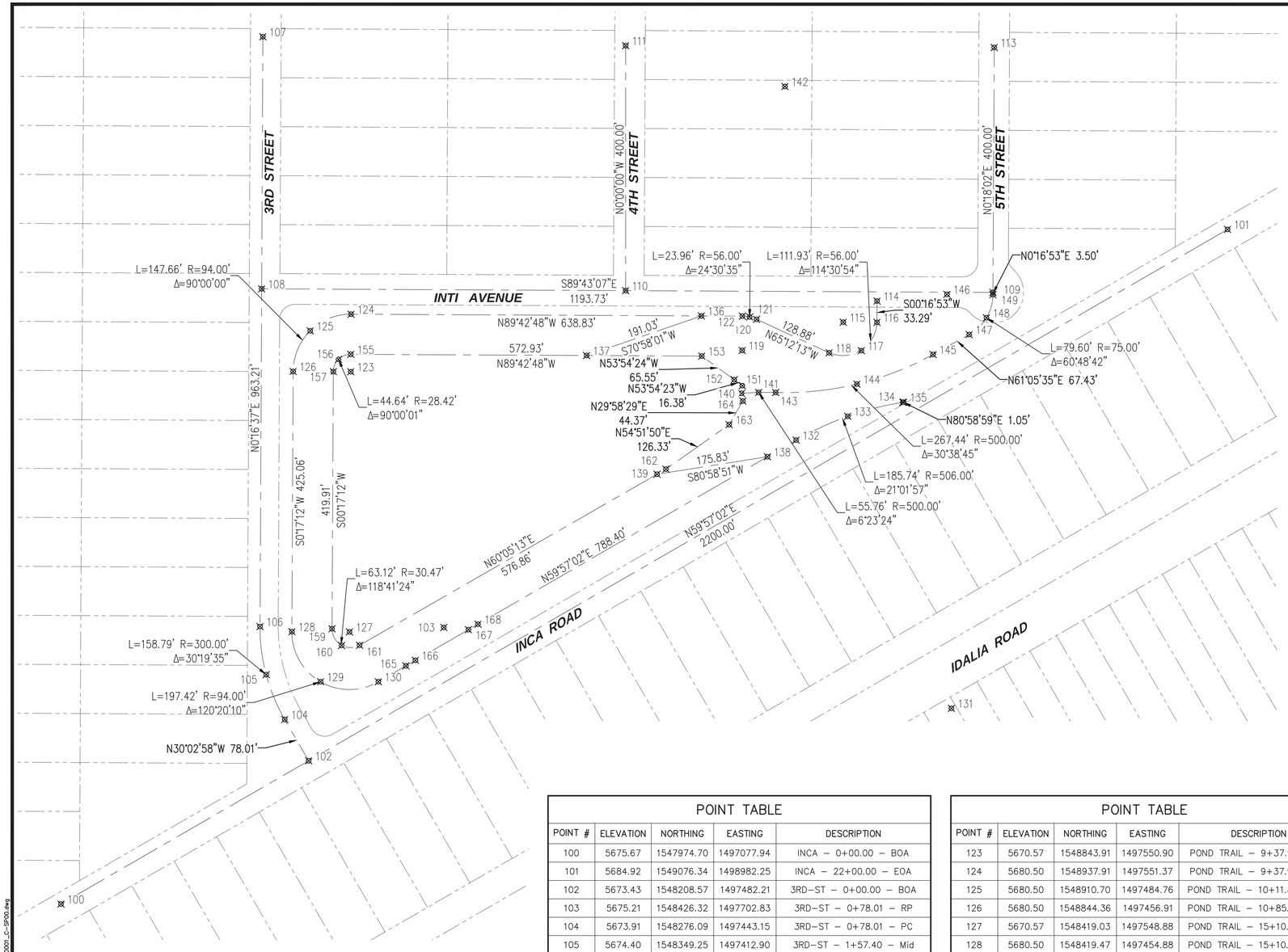

POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
100	5675.67	1547974.70	1497077.94	INCA – 0+00.00 – BOA
101	5684.92	1549076.34	1498982.25	INCA – 22+00.00 – EOA
102	5673.43	1548208.57	1497482.21	3RD–ST – 0+00.00 – BOA
103	5675.21	1548426.32	1497702.83	3RD–ST – 0+78.01 – RP
104	5673.91	1548276.09	1497443.15	3RD–ST – 0+78.01 – PC
105	5674.40	1548349.25	1497412.90	3RD–ST – 1+57.40 – Mid
106	5675.21	1548427.77	1497402.83	3RD–ST – 2+36.79 – PT
107	5692.20	1549390.97	1497407.49	3RD–ST – 12+00.00 – EOA
108	5683.49	1548979.28	1497405.50	INTI–AVE – 0+00.00 – BOA
109	5681.57	1548973.42	1498599.22	INTI–AVE – 11+93.73 – EOA
110	5680.60	1548976.36	1497999.67	4TH–ST – 0+00.00 – BOA
111	5683.00	1549376.36	1497999.67	4TH–ST – 4+00.00 – EOA
113	5685.00	1549373.41	1498601.32	5TH–ST – 4+00.00 – EOA
114	5682.03	1548959.35	1498410.05	POND TRAIL – 0+00.00 – BOA
115	5685.00	1548924.78	1498354.88	POND TRAIL – 0+34.84 – RP
116	5682.34	1548924.51	1498409.88	POND TRAIL – 0+34.84 – PC
117	5681.80	1548878.37	1498384.40	POND TRAIL – 0+89.80 – Mid
118	5681.26	1548874.85	1498331.81	POND TRAIL – 1+44.77 – PT
119	5678.29	1548878.71	1498189.92	POND TRAIL – 2+75.20 – RP
120	5680.74	1548929.55	1498213.40	POND TRAIL – 2+75.20 – PC
121	5680.62	1548933.38	1498202.08	POND TRAIL – 2+87.18 – Mid
122	5680.50	1548934.71	1498190.20	POND TRAIL – 2+99.16 – PT

POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
123	5670.57	1548843.91	1497550.90	POND TRAIL – 9+37.99 – RP
124	5680.50	1548937.91	1497551.37	POND TRAIL – 9+37.99 – PC
125	5680.50	1548910.70	1497484.76	POND TRAIL – 10+11.82 – Mid
126	5680.50	1548844.36	1497456.91	POND TRAIL – 10+85.66 – PT
127	5670.57	1548419.03	1497548.88	POND TRAIL – 15+10.55 – RP
128	5680.50	1548419.47	1497454.88	POND TRAIL – 15+10.55 – PC
129	5680.50	1548337.71	1497501.72	POND TRAIL – 16+09.25 – Mid
130	5680.50	1548337.66	1497595.95	POND TRAIL – 17+07.96 – PT
131	0.00	1548294.24	1498531.39	POND TRAIL – 24+95.93 – RP
132	5680.50	1548732.23	1498278.01	POND TRAIL – 24+95.93 – PC
133	5680.14	1548771.12	1498362.20	POND TRAIL – 25+88.79 – Mid
134	5679.40	1548793.99	1498452.06	POND TRAIL – 26+81.65 – PT
135	5679.40	1548794.20	1498453.39	POND TRAIL – 26+83.00 – EOA
136	5680.50	1548935.05	1498123.27	POND TRAIL – RAMP
137	5670.57	1548870.40	1497935.89	POND TRAIL – RAMP
138	5680.50	1548705.09	1498231.09	POND TRAIL – RAMP
139	5670.57	1548676.52	1498050.94	POND TRAIL – RAMP
140	5670.57	1548808.56	1498188.85	RUNDOWN – 0+00.00 – BOA
141	5671.22	1548810.04	1498216.68	RUNDOWN – 0+27.88 – Mid
142	5671.86	1549309.74	1498259.74	RUNDOWN – 0+55.76 – RP
143	5671.86	1548809.98	1498244.56	RUNDOWN – 0+55.76 – PRC
144	5674.97	1548823.73	1498377.17	RUNDOWN – 1+89.48 – Mid

POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
145	5678.07	1548872.04	1498501.43	RUNDOWN – 3+23.20 – PT
146	5679.64	1548970.29	1498524.20	RUNDOWN – 3+90.63 – RP
147	5679.64	1548904.63	1498560.46	RUNDOWN – 3+90.63 – PC
148	5680.56	1548932.01	1498588.70	RUNDOWN – 4+30.43 – Mid
149	5681.49	1548969.92	1498599.20	RUNDOWN – 4+70.23 – PT
151	5670.72	1548821.20	1498190.17	POND BOTTOM – 0+00.00 – BOA
152	5670.57	1548830.85	1498176.93	POND BOTTOM – 0+16.38 – PI
153	5670.57	1548869.46	1498123.97	POND BOTTOM – 0+81.92 – PI
155	5670.57	1548872.33	1497551.05	POND BOTTOM – 6+54.85 – PC
156	5670.57	1548864.11	1497530.91	POND BOTTOM – 6+77.17 – Mid
157	5670.57	1548844.05	1497522.48	POND BOTTOM – 6+99.49 – PT
159	5670.57	1548424.15	1497520.38	POND BOTTOM – 11+24.38 – PC
160	5670.57	1548396.85	1497536.02	POND BOTTOM – 11+54.33 – Mid
161	5670.57	1548397.19	1497565.35	POND BOTTOM – 11+84.28 – PT
162	5670.57	1548684.86	1498065.36	POND BOTTOM – 17+64.46 – PI
163	5670.57	1548757.57	1498168.67	POND BOTTOM – 18+90.79 – PI
164	5670.72	1548796.00	1498190.84	POND BOTTOM – 19+35.16 – EOA
165	5680.50	1548363.63	1497640.84	EMERGENCY SPILLWAY
166	5678.80	1548372.65	1497656.43	EMERGENCY SPILLWAY
167	5678.80	1548422.64	1497743.03	EMERGENCY SPILLWAY
168	5680.50	1548431.65	1497758.62	EMERGENCY SPILLWAY

Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
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www.sscafca.com

ANDRÉS SANCHEZ NEW MEXICO 15686 PROFESSIONAL ENGINEER 4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

COORDINATE CONTROL PLANS ROADS, POND & TRAIL

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 3/29/2018

6

SHEET 6 OF 28

Wednesday, April 04, 2018 10:52:27 AM – Kathy Fournier
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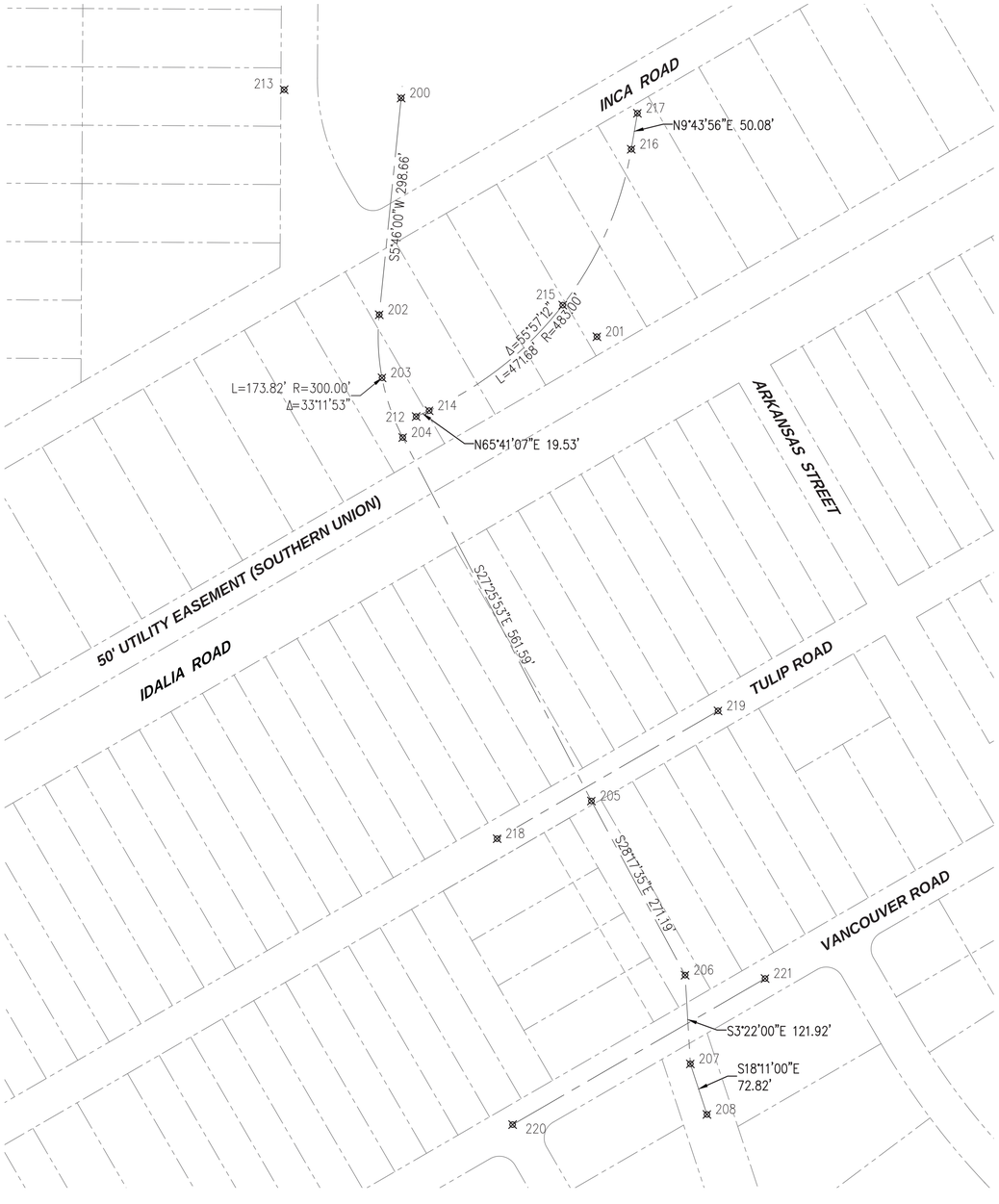

0 100 200 Feet

POINT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
200	5670.57	1548402.93	1497547.25	CHANNEL – 0+00.00 – BOA
201	5669.57	1548075.65	1497815.73	CHANNEL – 2+98.66 – RP
202	5669.57	1548105.79	1497517.25	CHANNEL – 2+98.66 – PC
203	5669.26	1548019.27	1497521.07	CHANNEL – 3+85.57 – Mid
204	5668.94	1547937.44	1497549.46	CHANNEL – 4+72.48 – PT
205	5665.01	1547438.99	1497808.18	CHANNEL – 10+34.07 – PI
206	5661.30	1547200.20	1497936.71	CHANNEL – 13+05.26 – PI
207	5660.48	1547078.50	1497943.87	CHANNEL – 14+14.18 – PI
208	5658.49	1547009.18	1497966.64	CHANNEL – 15+00.00 – EOA
212	5673.00	1547966.18	1497567.85	BERM – 0+00.00 – BOA
213	5674.89	1548414.38	1497386.77	BERM – 0+19.53 – RP
214	5673.14	1547974.22	1497585.65	BERM – 0+19.53 – PC
215	5674.47	1548118.95	1497768.89	BERM – 2+55.37 – Mid
216	5673.11	1548332.73	1497862.82	BERM – 4+91.21 – PT
217	5672.74	1548382.09	1497871.29	BERM – 5+41.29 – EOA
218	5670.26	1547387.31	1497678.88	TULIP – 0+00.00 – BOA
219	5670.57	1547562.57	1497981.83	TULIP – 3+50.00 – EOA
220	5667.38	1546995.24	1497700.11	VANCOUVER – 0+00.00 – BOA
221	5665.68	1547195.54	1498046.34	VANCOUVER – 4+00.00 – EOA

Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
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ANDRES SANCHEZ NEW MEXICO 15686 PROFESSIONAL ENGINEER 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

COORDINATE CONTROL PLANS CONCRETE BOX CULVERT & CHANNEL ALIGNMENT

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 3/29/2018

7

SHEET 7 OF 28

Wednesday, April 04, 2018 10:53:28 AM – Kathy Fournier
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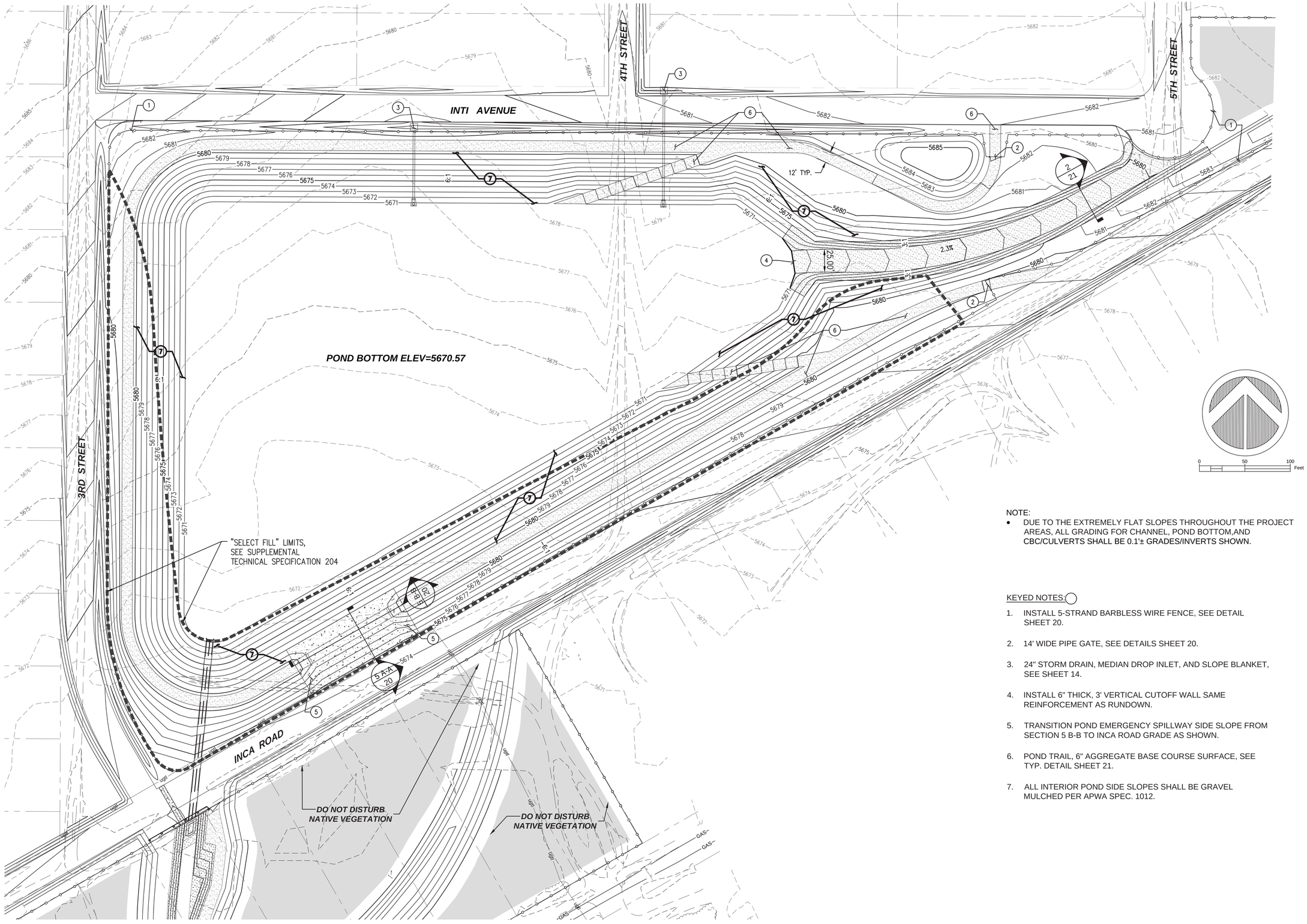

NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:◯

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
3. 24" STORM DRAIN, MEDIAN DROP INLET, AND SLOPE BLANKET, SEE SHEET 14.
4. INSTALL 6" THICK, 3' VERTICAL CUTOFF WALL SAME REINFORCEMENT AS RUNDOWN.
5. TRANSITION POND EMERGENCY SPILLWAY SIDE SLOPE FROM SECTION 5 B-B TO INCA ROAD GRADE AS SHOWN.
6. POND TRAIL, 6" AGGREGATE BASE COURSE SURFACE, SEE TYP. DETAIL SHEET 21.
7. ALL INTERIOR POND SIDE SLOPES SHALL BE GRAVEL MULCHED PER APWA SPEC. 1012.

Southern Sandoval County Arroyo Flood Control Authority
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Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
www.sscafca.com

ANDRES SANCHEZ — NEW MEXICO — 15696 — PROFESSIONAL ENGINEER — 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

RAINBOW POND GRADING PLAN

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/4/2018

8

SHEET 8 OF 28

Wednesday, April 04, 2018 12:11:11 PM – Kathy Fournier
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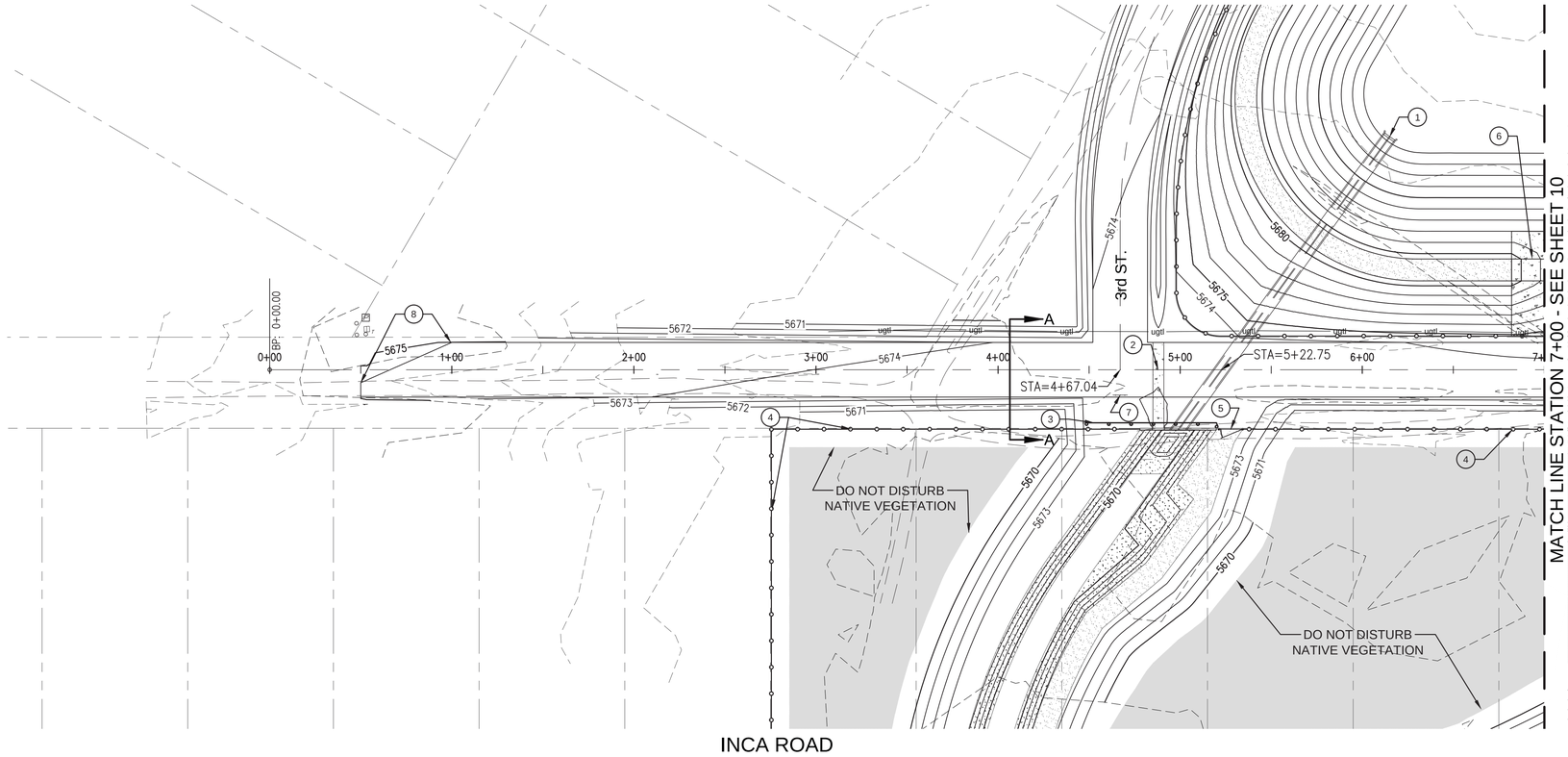
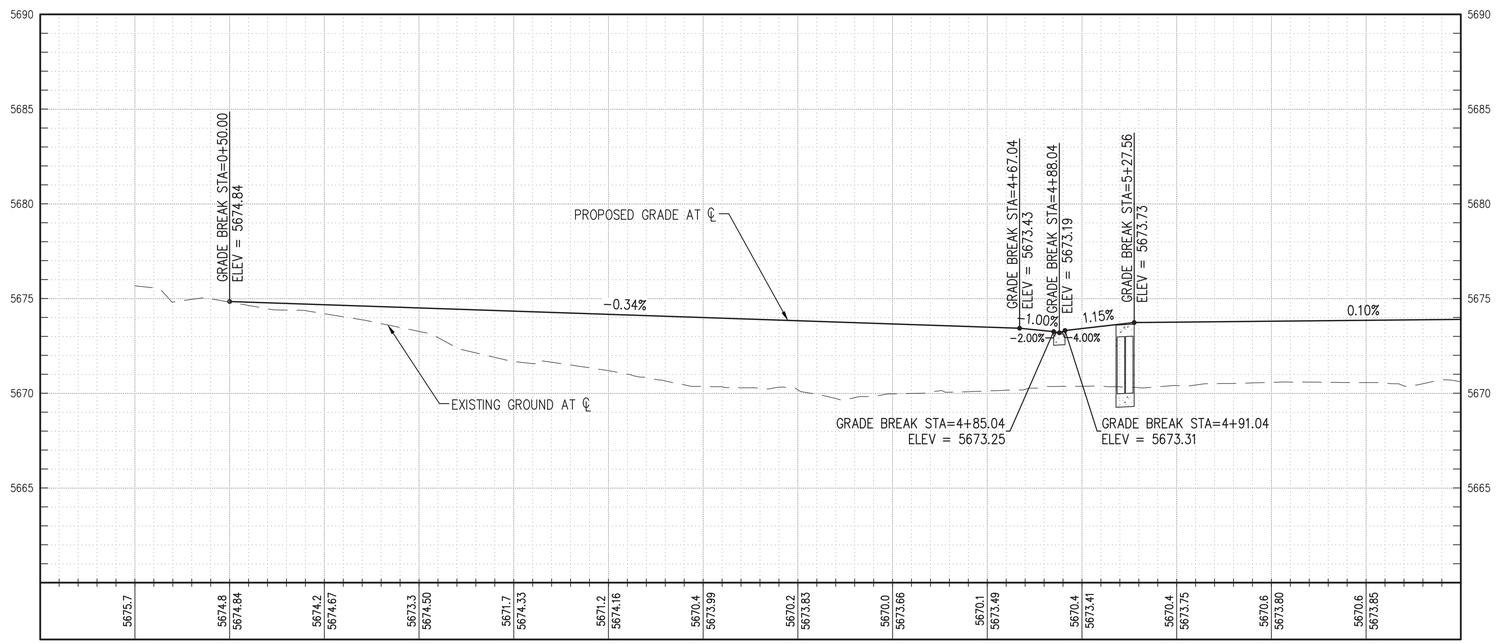


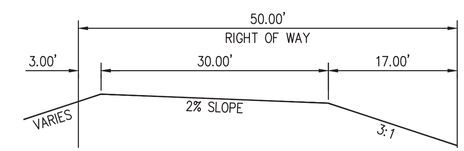


NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. 2-CELL 3'X3' CBC, SEE SHEET 17.
2. STA. 4+88.04 INSTALL 47 LF VALLEY GUTTER PER CORR STD. DWG. VG-01.
3. STA. 4+34.44, 29.11' RT. TO STA. 5+20.32, 32.61' RT., INSTALL SINGLE FACE W-BEAM GUARDRAIL NMDOT ITEM 606001 WITH W-BEAM END ANCHOR NMDOT ITEM 606053.
4. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
5. INSTALL 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
6. POND EMERGENCY SPILLWAY, SEE DETAILS SHEET 20.
7. STA. 4+67.04, 14' RT. INSTALL BARRICADE PER CORR STD. DWG. TCSS-01 W1-7.
8. TRANSITION FROM EXISTING ROADWAY WIDTH OF 8'± AT STA. 0+50, TO PROPOSED 30' ROADWAY WIDTH AT STA. 1+00.



TYPICAL SECTION A-A
INCA ROAD
STA. 0+50 TO 4+50
STA. 5+60 TO 9+00

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ANDRÉS SANCHEZ NEW MEXICO 20868 PROFESSIONAL ENGINEER 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

INCA ROAD PLAN & PROFILE STA 0+00 TO 7+00

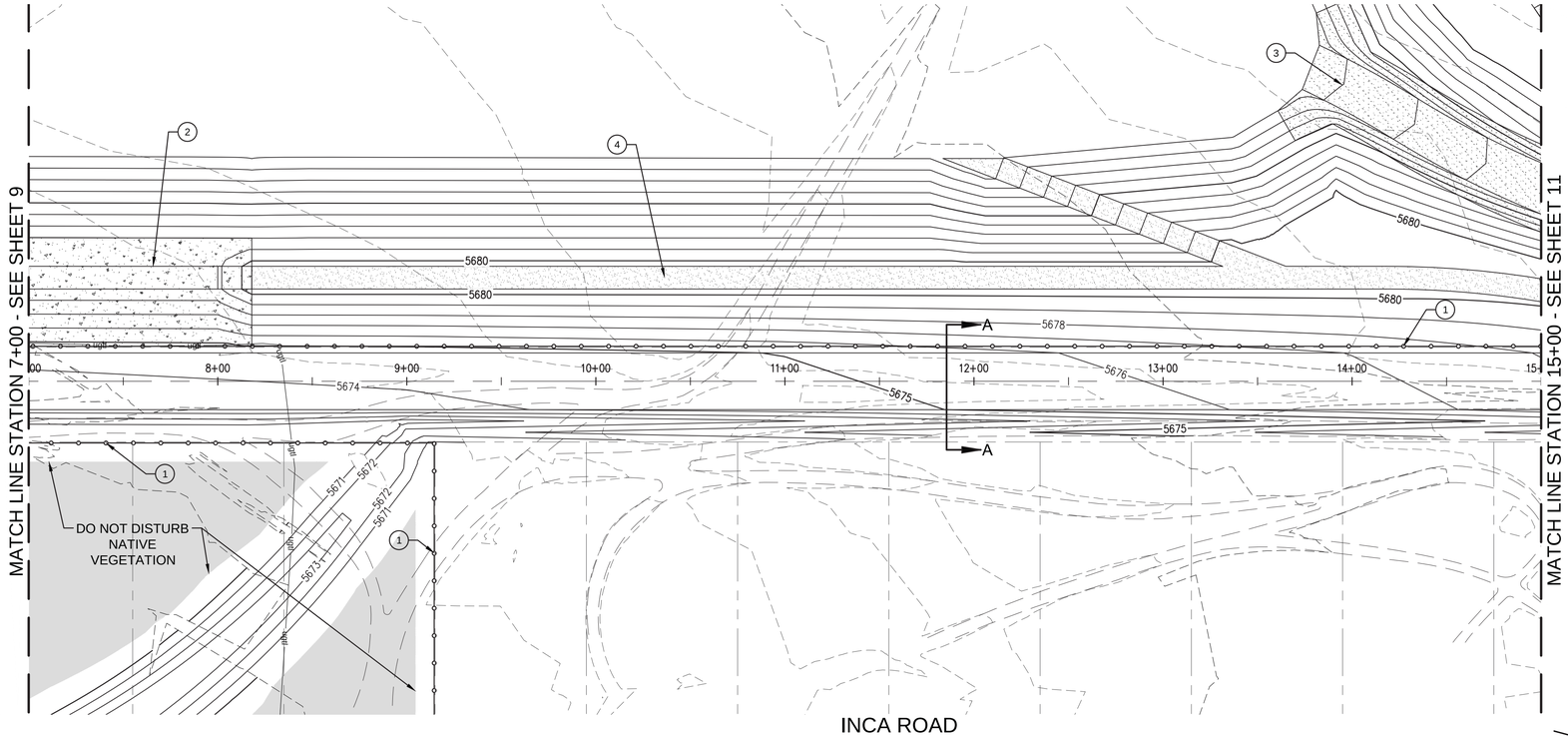
REVISIONS & CHANGE NOTICES

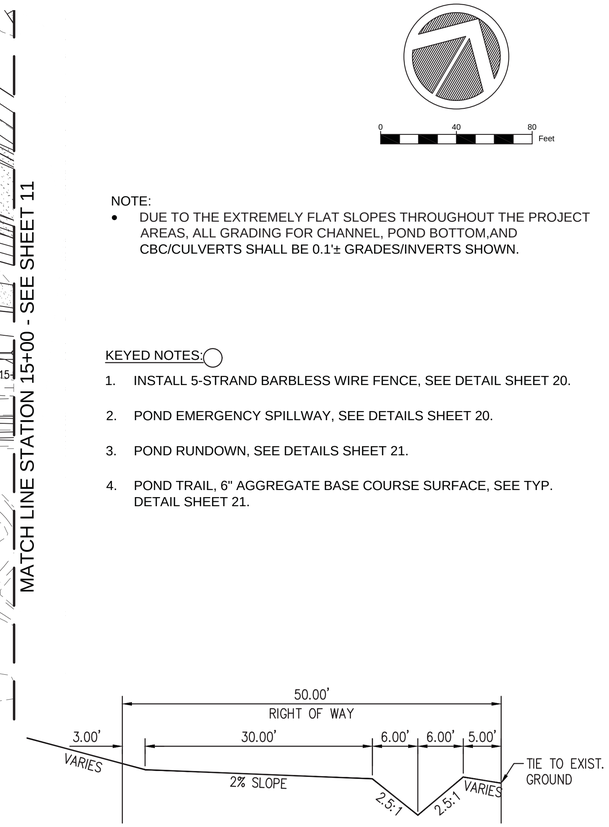
MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 3/30/2018

9

SHEET 9 OF 28





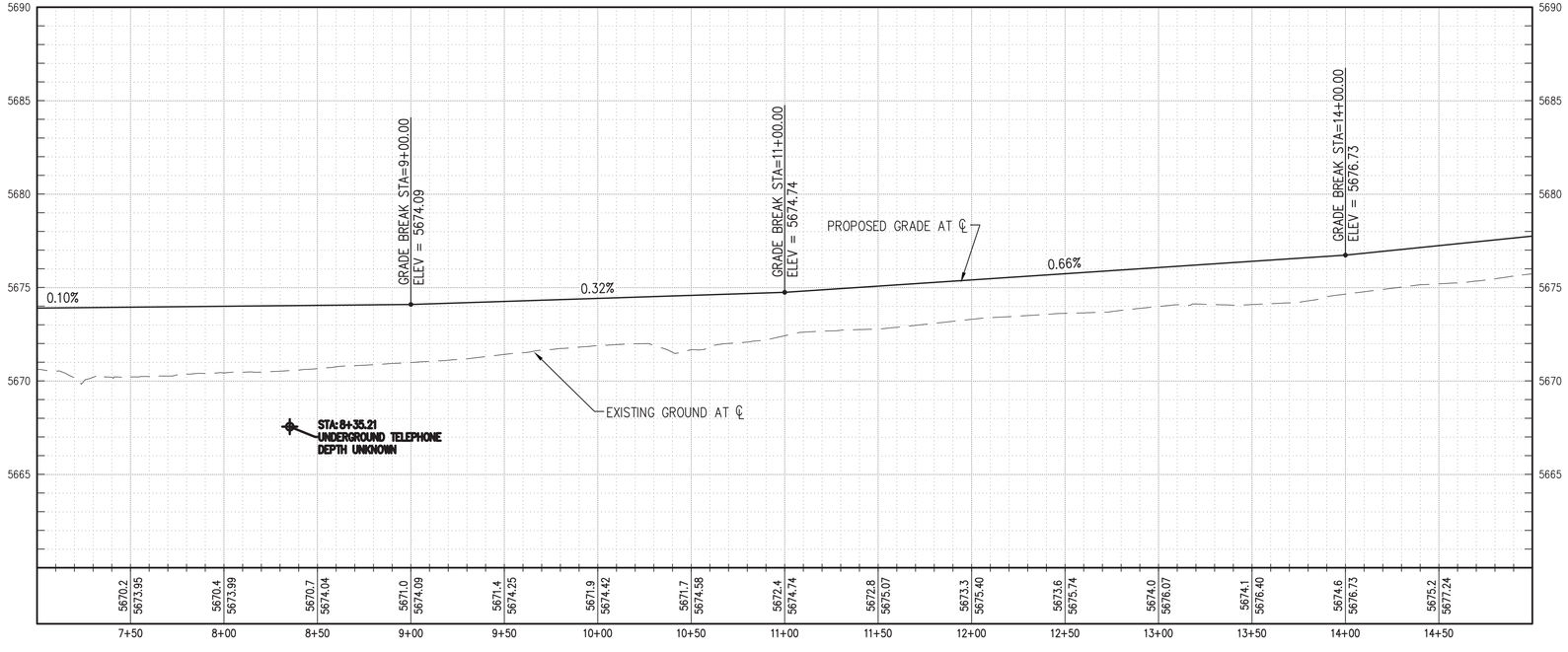
NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. POND EMERGENCY SPILLWAY, SEE DETAILS SHEET 20.
3. POND RUNDOWN, SEE DETAILS SHEET 21.
4. POND TRAIL, 6" AGGREGATE BASE COURSE SURFACE, SEE TYP. DETAIL SHEET 21.

TYPICAL SECTION A-A
INCA ROAD
STA. 9+00 TO 20+00



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ANDRÉS SANCHEZ
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20868
4.4.18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

INCA ROAD PLAN & PROFILE
STA 7+00 TO 15+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 3/30/2018

10

Wednesday, April 04, 2018 12:25:02 PM - Kathy Fournier
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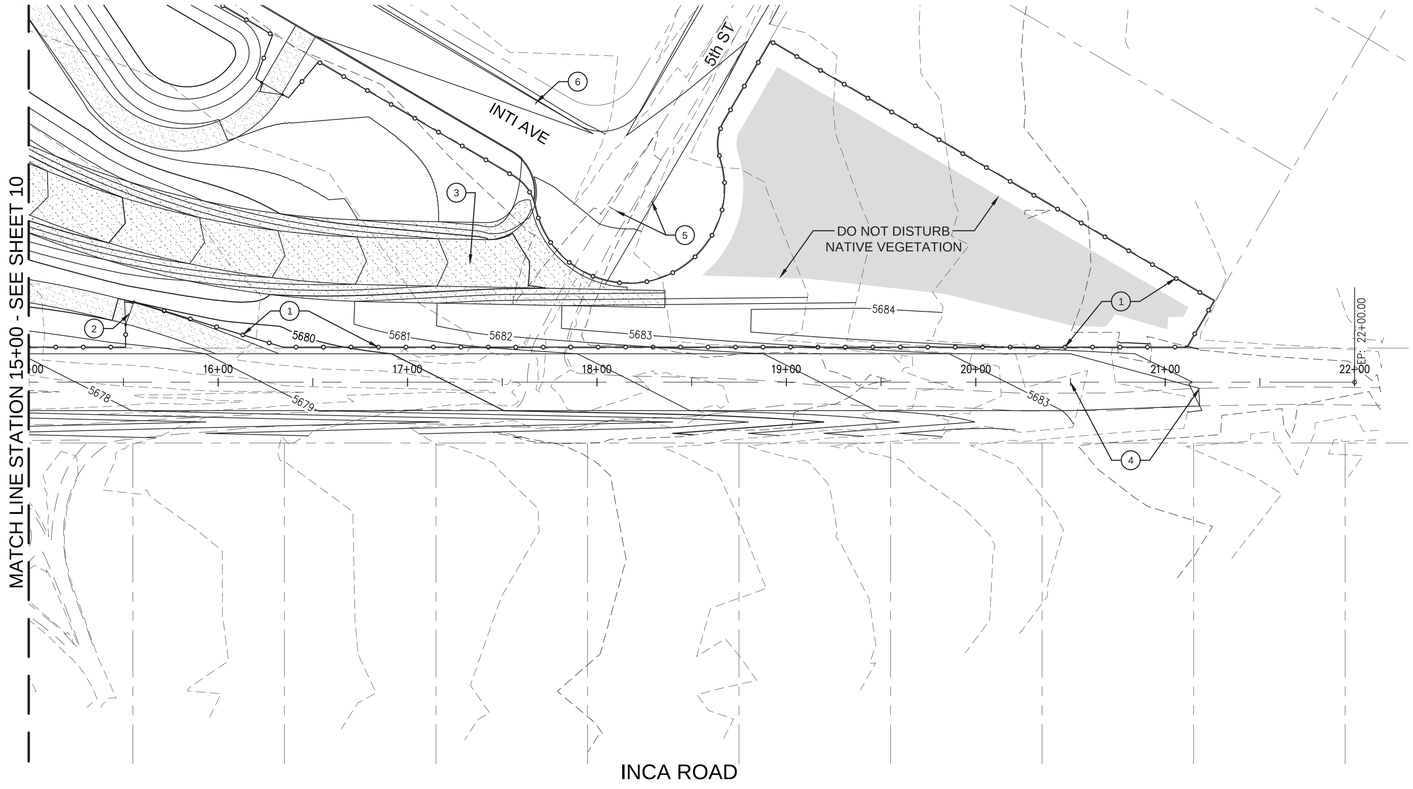

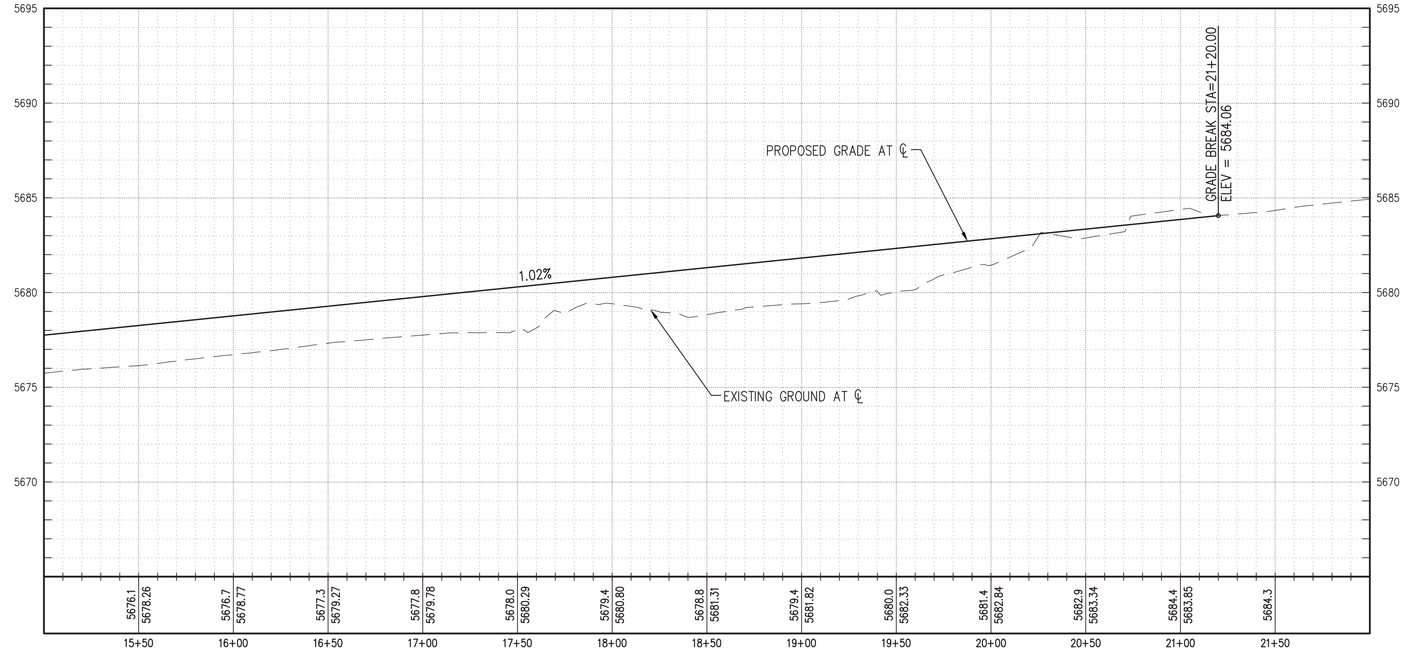

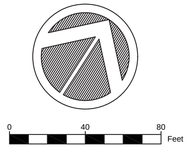

NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
3. POND RUNDOWN, SEE DETAILS SHEET 21.
4. TRANSITION FROM 30' PROPOSED ROADWAY STA. 20+50 TO 9'± EXISTING ROADWAY WIDTH AT STA. 21+20±.
5. BARRICADE, SEE SHEET 15, KEYED NOTES 8 & 9.
6. "UNMAINTAINED ROAD AHEAD" SIGN, SEE SHEET 15, KEYED NOTE 7.

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ANDRES SANCHEZ — NEW MEXICO — 15654 — 4.4.18 — PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

INCA ROAD PLAN & PROFILE STA 15+00 TO 22+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 3/30/2018

11

SHEET 11 OF 28

Wednesday, April 04, 2018 12:29:30 PM — Kathy Fournier
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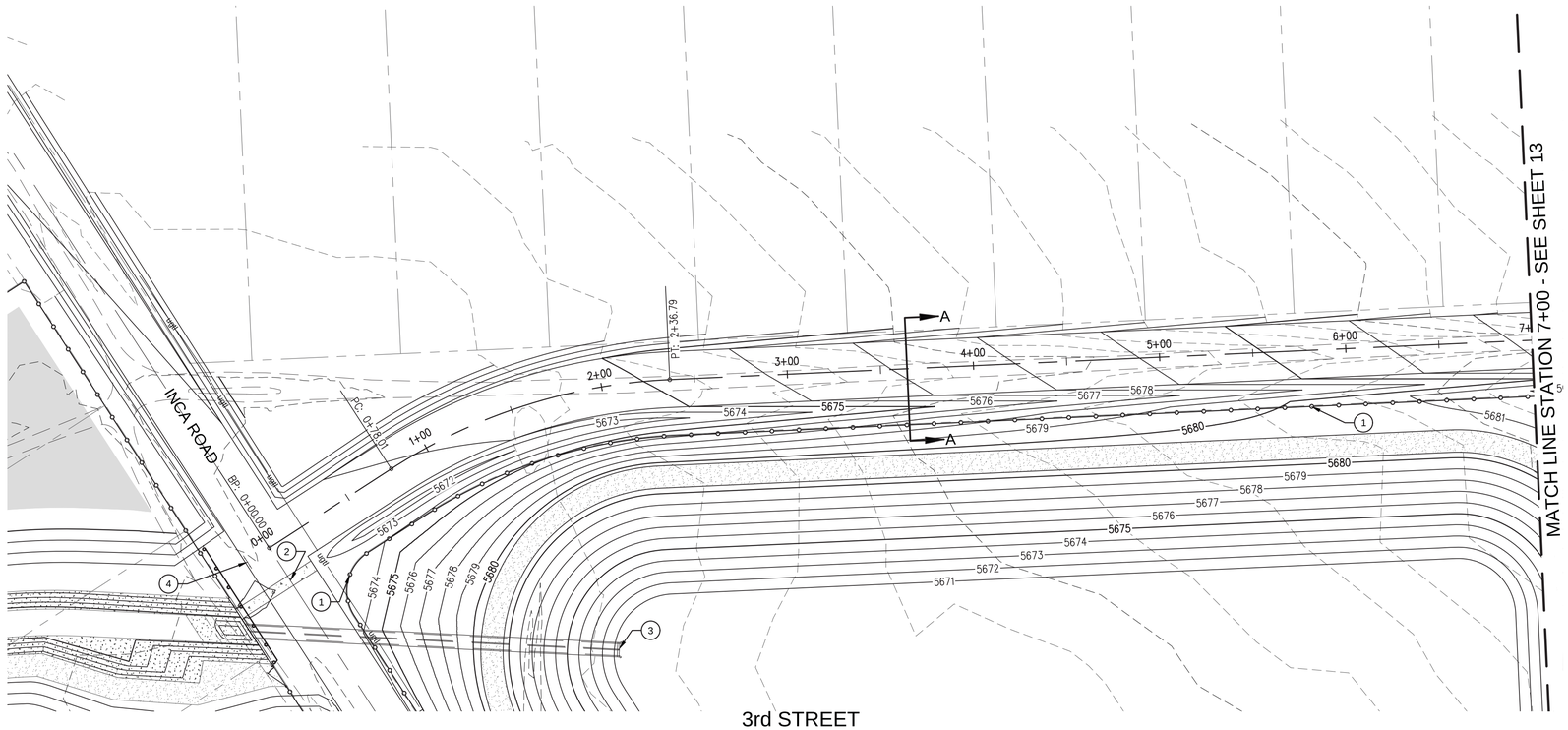
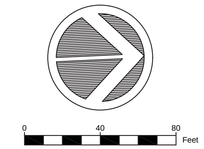


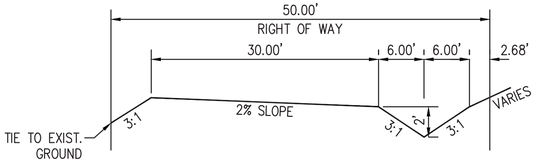


NOTE:

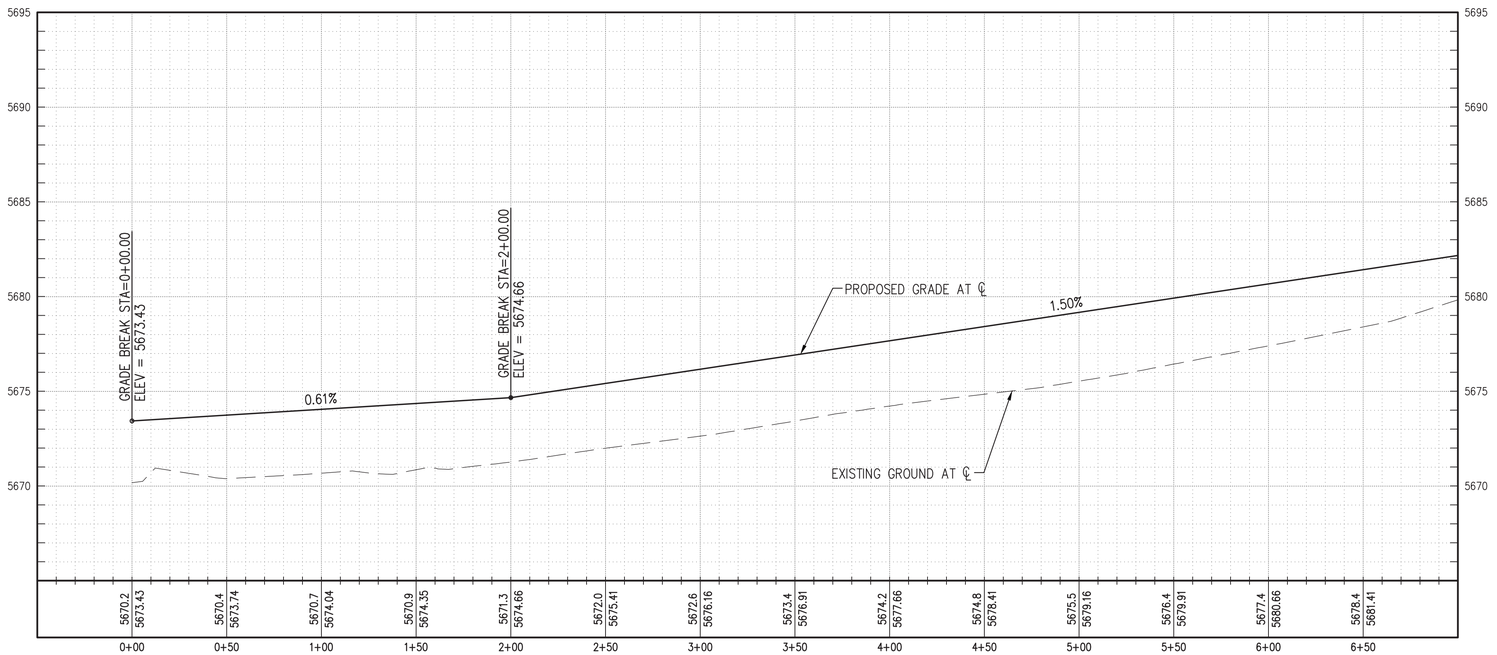
- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. VALLEY GUTTER, SEE SHEET 9.
3. 2-CELL 3'X3' CBC, SEE SHEET 17.
4. BARRICADE, SEE SHEET 9.



TYPICAL SECTION A-A
3rd STREET
STA. 2+36.79 TO 7+50
STA. 8+09.31 TO 9+00



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NEW MEXICO
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4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

3RD STREET PLAN & PROFILE
STA 0+00 TO 7+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/4/2018

Wednesday, April 04, 2018 12:49:35 PM -- Kathy Fournier
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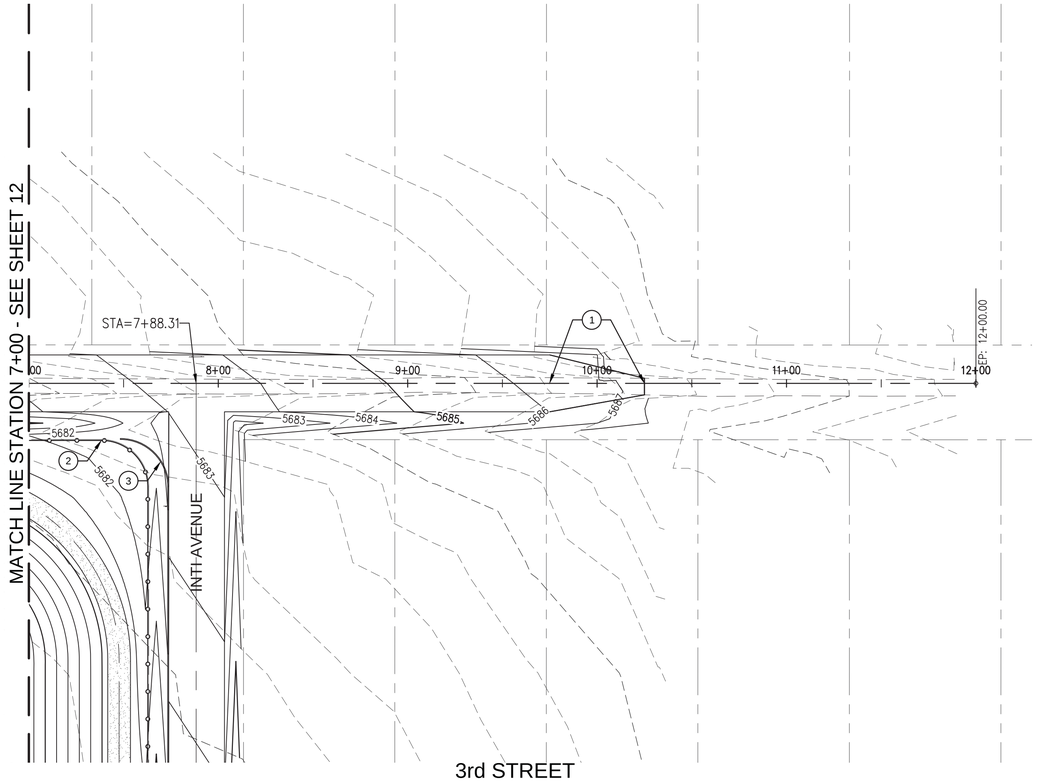

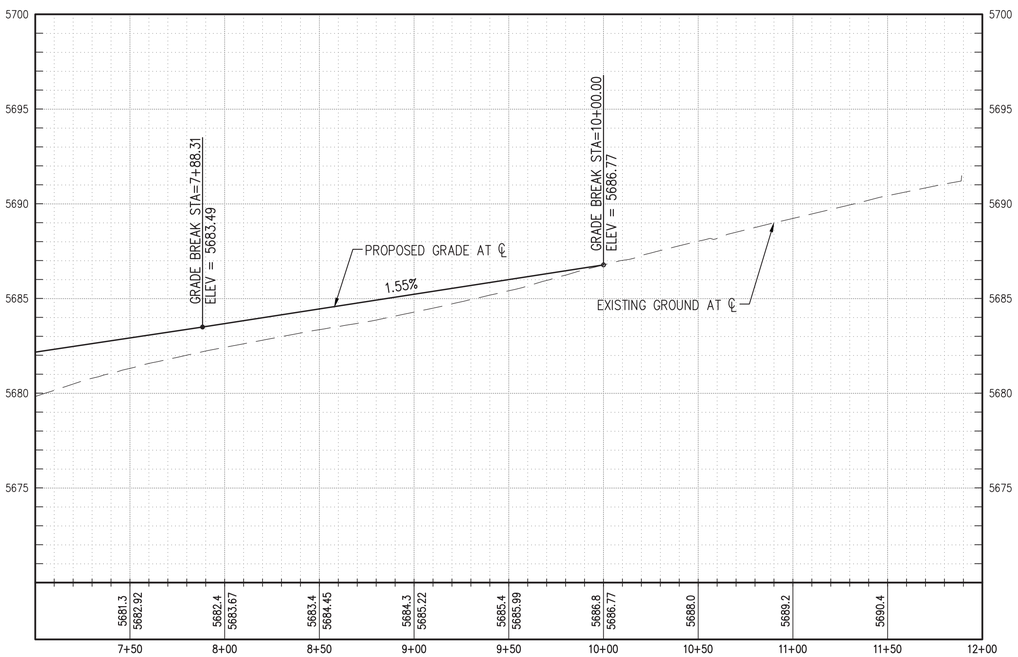

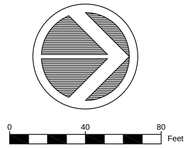

NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:◯

1. TRANSITION FROM PROPOSED 30' ROADWAY WIDTH AT STA. 9+75 TO EXISTING ROADWAY 9'± WIDTH AT STA. 10+25.
2. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
3. HEADER CURB, SEE SHEET 14.

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ANDRES SANCHEZ — NEW MEXICO — 15684 — PROFESSIONAL ENGINEER — 4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

3RD STREET PLAN & PROFILE STA 7+00 TO 12+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/4/2018

13

SHEET 13 OF 28

Wednesday, April 04, 2018 12:51:18 PM – Kathy Fournier
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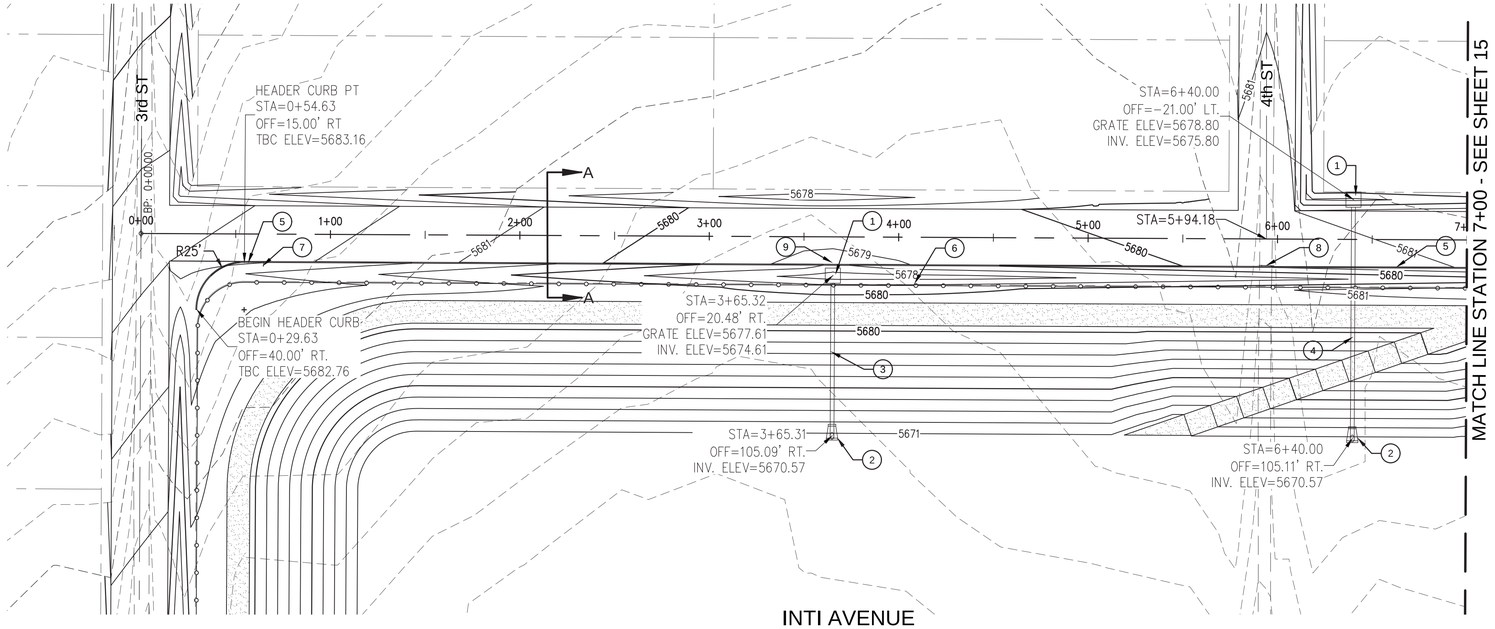
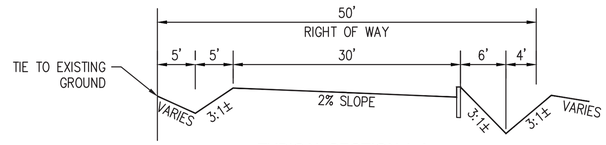
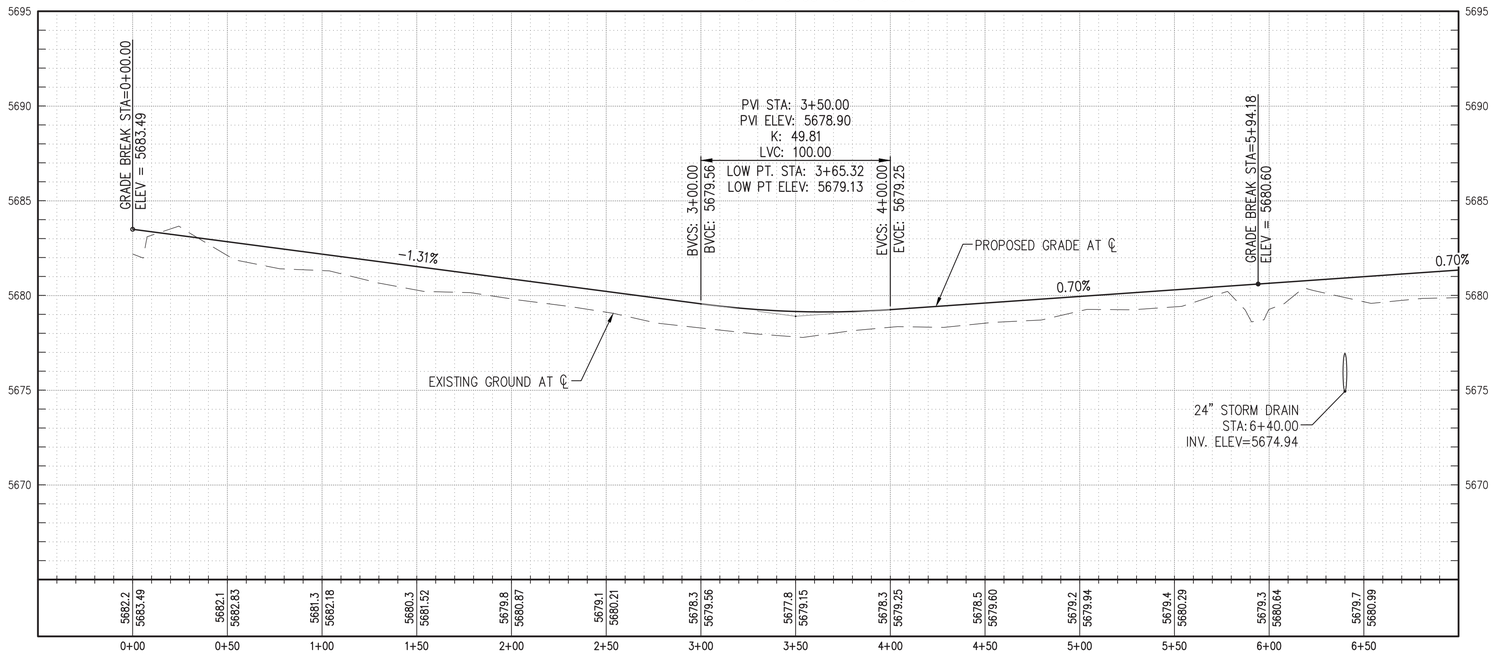


INTI AVENUE



TYPICAL SECTION A-A
INTI AVENUE
STA. 0+65 TO 5+79.18
STA. 6+09.18 TO 10+00



NOTE:

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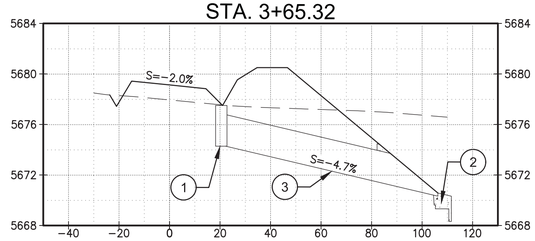
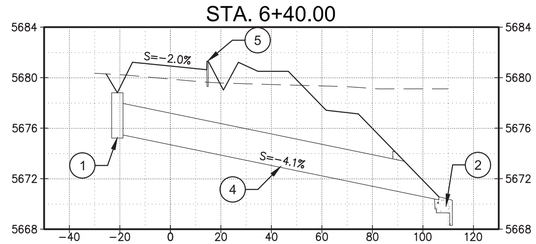
KEYED NOTES:

1. MEDIAN DROP INLET, TYPE 1, URBAN USE GRATE, PER NMDOT STD. DWG. 623-02-1/1.
2. INSTALL CONCRETE BLANKET MITERED TO SLOPE PER NMDOT STD. DWG. 511-11A-1&2/2.
3. INSTALL 85 LF 24" RCP.
4. INSTALL 126 LF 24" RCP.
5. INSTALL 8" HEADER CURB, SEE DETAIL SHEET 21.
6. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
7. STA. 0+65.00 16' RT. INSTALL " UNMAINTAINED ROAD AHEAD" SIGN, SEE DETAIL SHEET 20.
8. STA. 5+94.18 14' RT. INSTALL BARRICADE PER CORR STD. DWG. TCSS-01 W1-7.
9. INSTALL 8" HEADER CURB TRANSITION WITH 6' OPENING CENTERED ON STA. 3+65.32 15' RT, SEE DETAIL SHEET 21.

STA. 3+65.32



STA. 6+40.00



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ANDRÉS SANCHEZ
NEW MEXICO
4-4-18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

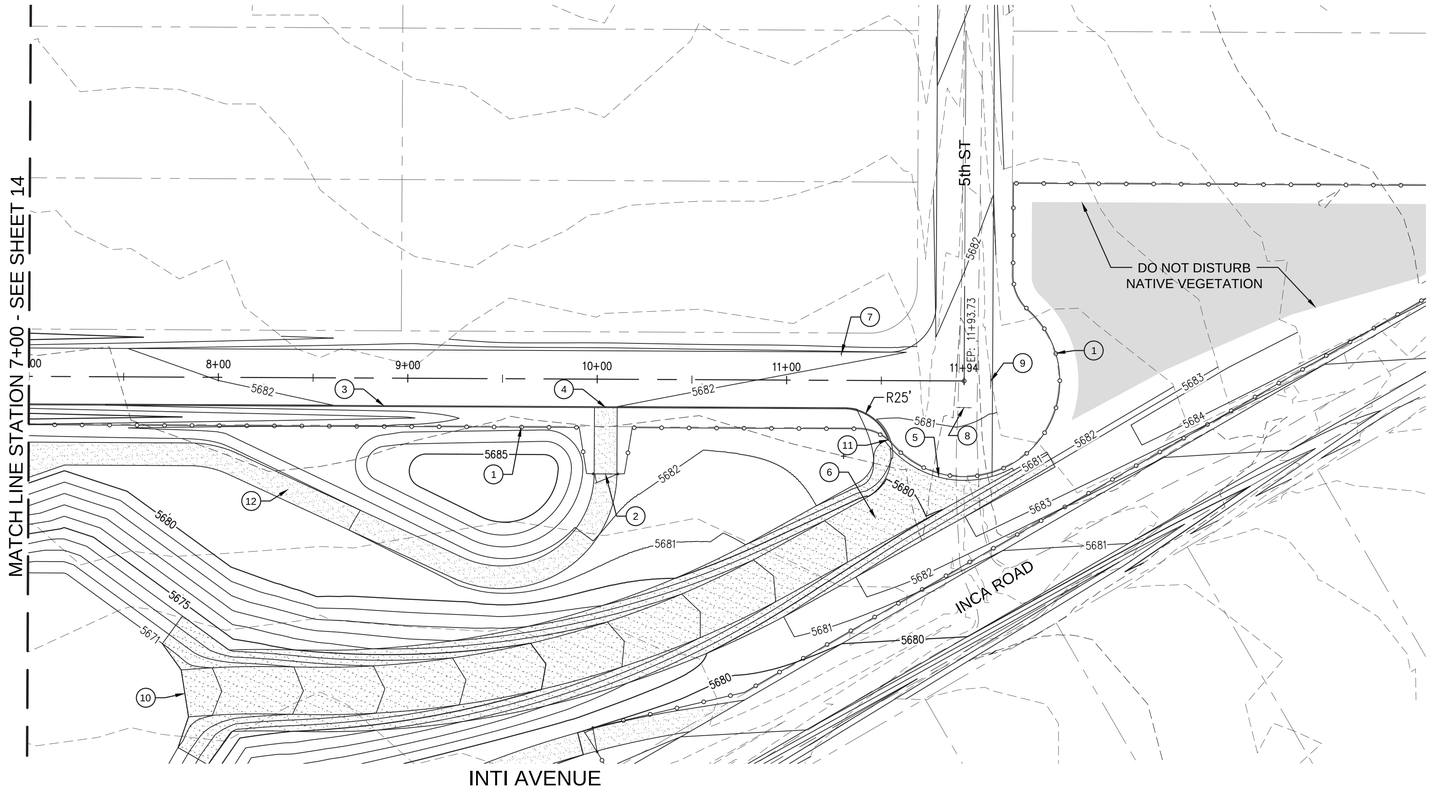
INTI AVENUE PLAN & PROFILE
STA 0+00 TO 7+00

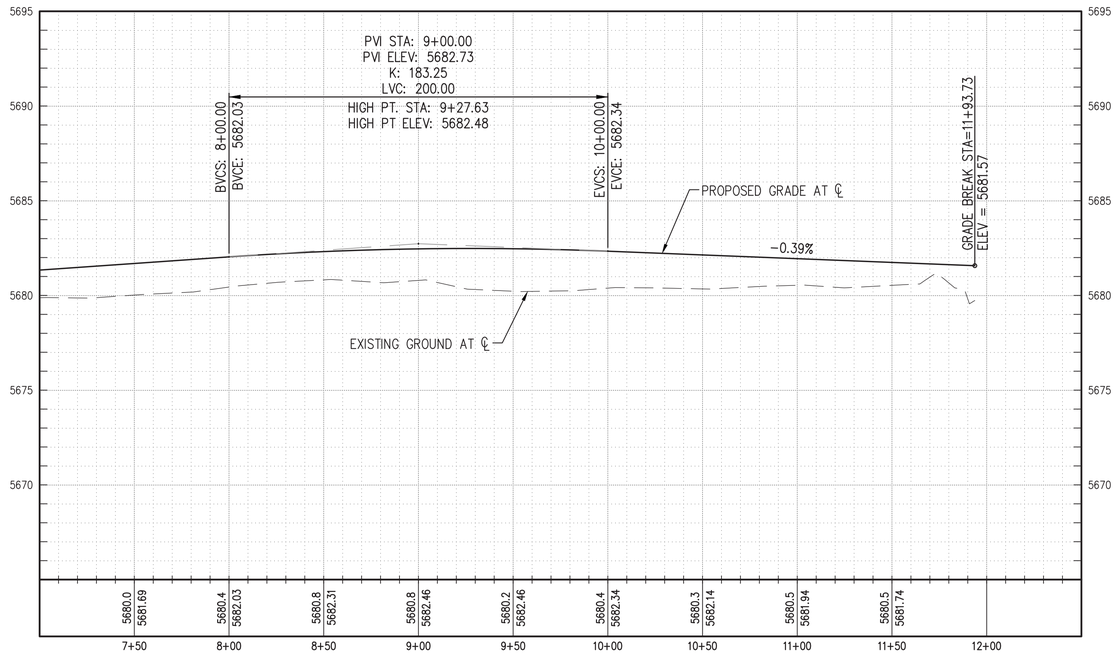
REVISIONS & CHANGE NOTICES

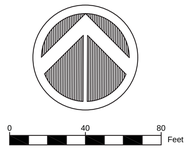
MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/3/2018

14







NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. INSTALL 14' WIDE PIPE GATE, SEE DETAIL SHEET 20.
3. INSTALL 8" HEADER CURB, SEE DETAIL SHEET 21.
4. INSTALL 8" HEADER CURB TRANSITION WITH 14' OPENING CENTERED ON STA. 10+04.63 15' RT., SEE DETAIL SHEET 21.
5. POND RUNDOWN THICKENED EDGE, SEE DETAILS SHEET 21.
6. POND RUNDOWN, SEE DETAILS SHEET 21.
7. STA. 11+28.96 14' LT. INSTALL " UNMAINTAINED ROAD AHEAD" SIGN, SEE DETAIL SHEET 20.
8. STA. 11+93.73 14' RT. INSTALL BARRICADE PER CORR STD. DWG. TCSS-01 W1-6R.
9. BARRICADE, SEE SHEET 16.
10. INSTALL 6" THICK, 3' VERTICAL CUTOFF WALL SAME REINFORCEMENT AS RUNDOWN.
11. END HEADER CURB AT STA. 11+53.74, 31.36' RT., TBC ELEV. 5681.34. TRANSITION TO POND RUNDOWN.
12. POND TRAIL, 6" AGGREGATE BASE COURSE SURFACE, SEE TYP. DETAIL SHEET 21.

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ANDRES SANCHEZ NEW MEXICO 15694 4-4-18 PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

INTI AVENUE PLAN & PROFILE STA 7+00 TO 11+93.73

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/4/2018

15

SHEET 15 OF 28

Wednesday, April 04, 2018 1:01:04 PM – Kathy Fournier
O:\sscafca_project_files\Rainbow\RA_P0001\AutoCAD\Civil3D\production Drawings\plan_sets\RA_P0001_C-PP03.dwg

NOTE:
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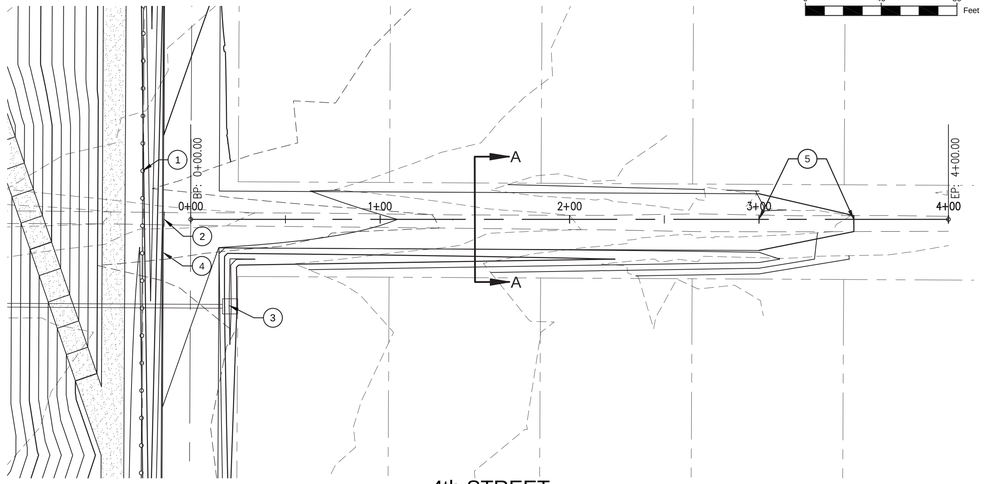
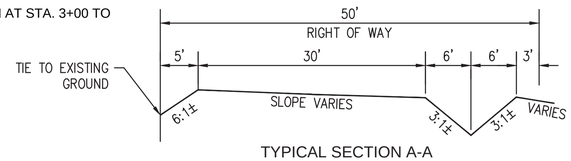


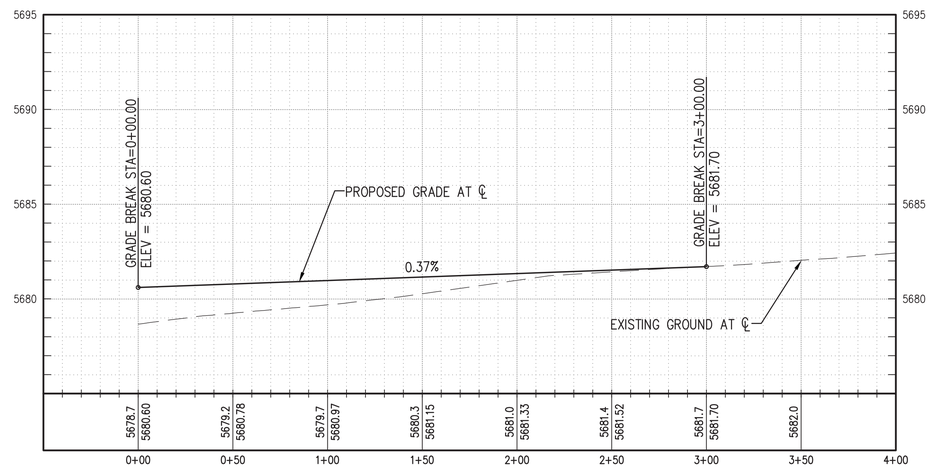
4th STREET

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. BARRICADE, SEE SHEET 14.
3. MEDIAN DROP INLET, SEE SHEET 14.
4. 8" HEADER CURB, SEE SHEET 14.
5. TRANSITION FROM 30' PROPOSED ROADWAY WIDTH AT STA. 3+00 TO EXISTING ROADWAY OF 8.5'± AT STA. 3+50.



TYPICAL SECTION A-A
4th STREET
STA. 0+25 TO 3+00



NOTE:
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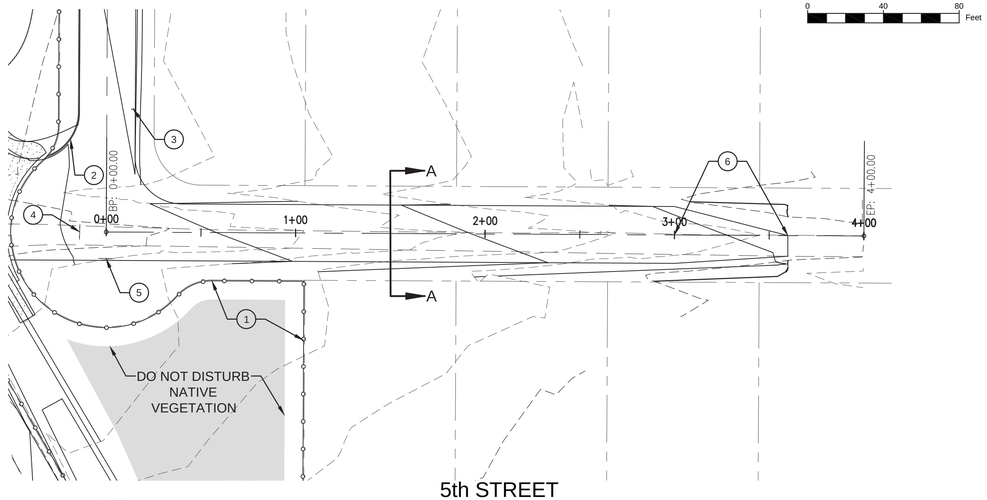
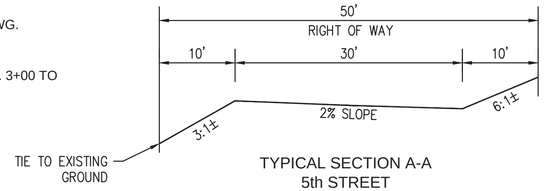


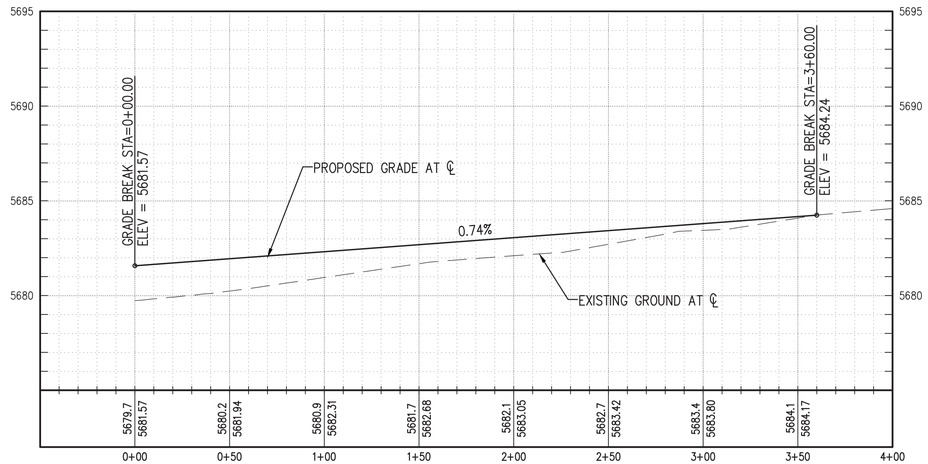
5th STREET

KEYED NOTES:

1. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
2. 8" HEADER CURB, SEE SHEET 15.
3. "UNMAINTAINED ROAD AHEAD" SIGN, SEE SHEET 15.
4. BARRICADE, SEE SHEET 15.
5. STA. 0+00.00 14' RT. INSTALL BARRICADE PER CORR STD. DWG. TCSS-01 W1-6L.
6. TRANSITION FROM 30' PROPOSED ROADWAY WIDTH AT STA. 3+00 TO EXISTING ROADWAY WIDTH OF 10'± AT STA. 3+60.



TYPICAL SECTION A-A
5th STREET
STA. 0+25 TO 3+00



Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
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ANDRÉS SANCHEZ NEW MEXICO 20868 PROFESSIONAL ENGINEER 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

4TH & 5TH STREET PLAN & PROFILE
STA 0+00 TO 4+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/4/2018

16

Wednesday, April 04, 2018 1:47:12 PM - Kathy Fournier
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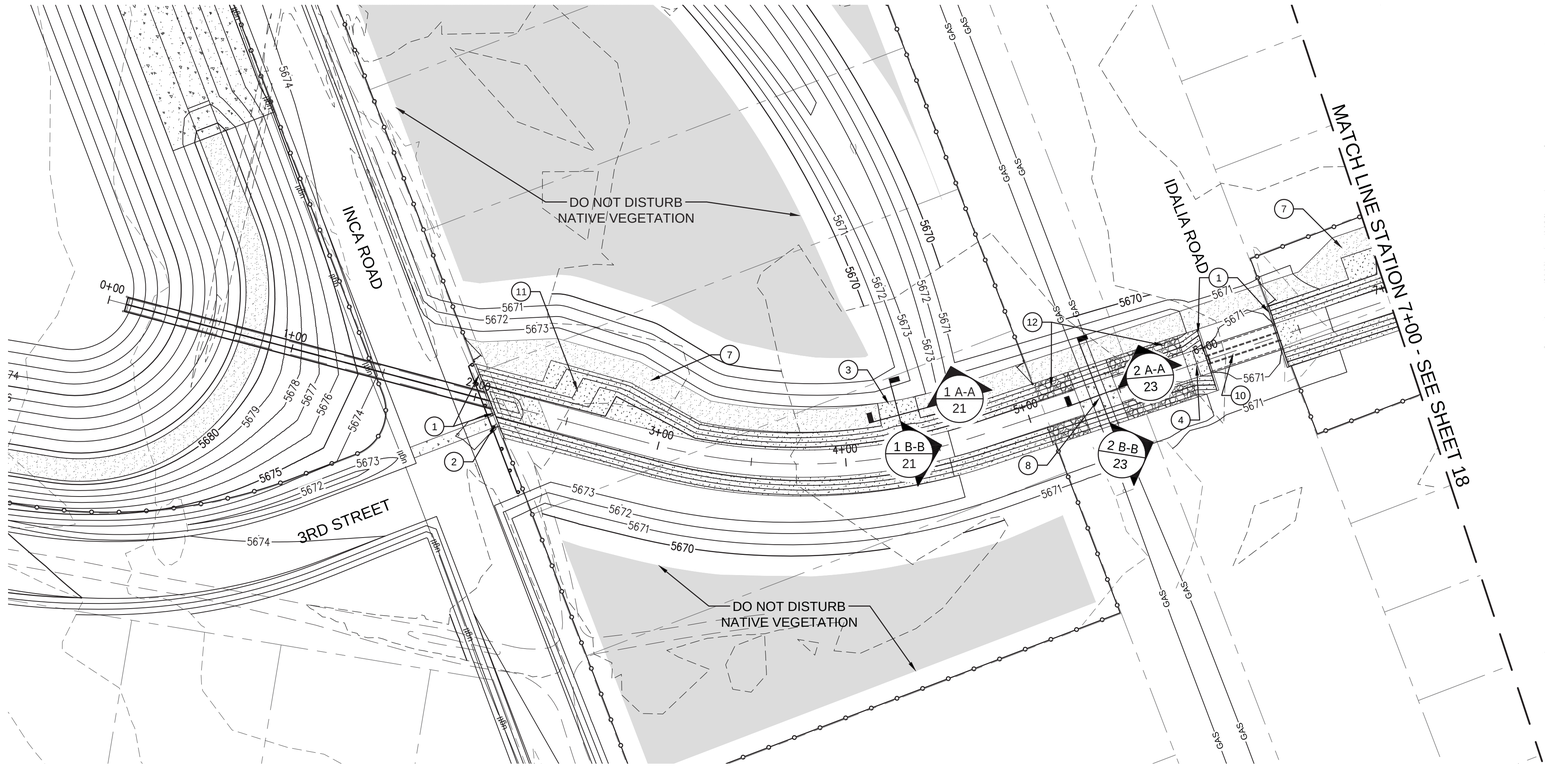
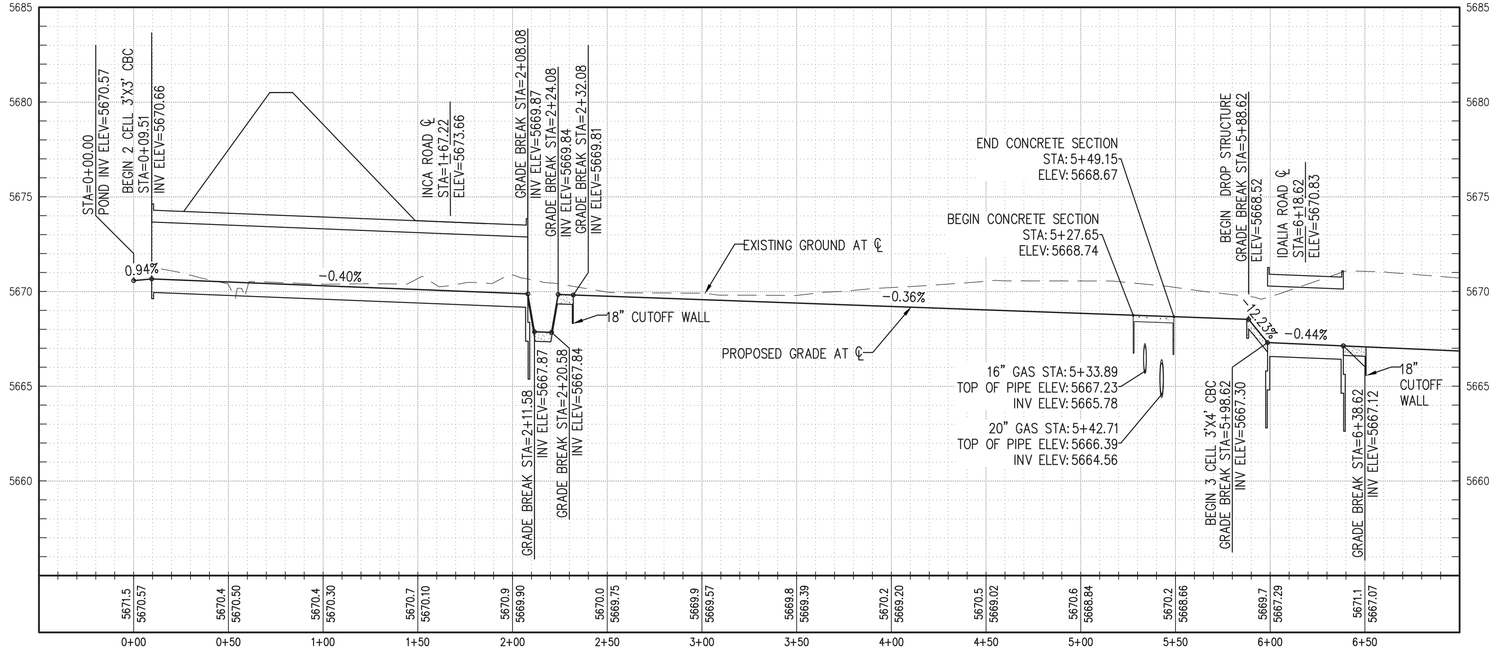
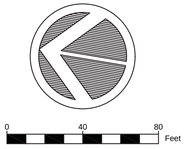


DOWNSTREAM CHANNEL



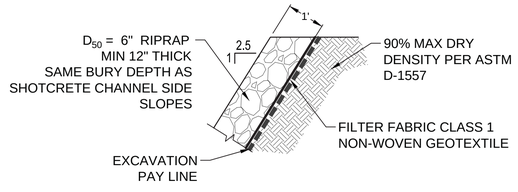


NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:◯

1. BUILD HEADWALL PER NMDOT STD. DWG. 511-80-1,2 &3/3, H=5', 1' BETWEEN TOEWALL & COMPACTED SOIL, HEADWALL REINFORCEMENT SHALL TIE TO CBC REINFORCEMENT.
2. MATCH HEADWALL ELEVATION TO VALLEY GUTTER INVERT ELEVATION, WHERE VALLEY GUTTER INTERSECTS HEADWALL ONLY.
3. OVERFLOW WEIR, SEE DETAIL SHEET 21.
4. BUILD DROP STRUCTURE, REINFORCEMENT TIED TO CBC AND HEADWALL, SEE DETAIL SHEET 20.
5. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
6. INSTALL 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
7. MAINTENANCE ROAD, 6" AGGREGATE BASE COURSE SURFACE, SEE DETAIL SHEET 21.
8. STA. 5+27.65 TO 5+49.15 INSTALL 4" CONCRETE SLOPE PAVEMENT SECTION, SEE DETAIL SHEET 23.
9. STA. 0+09.51 TO 2+08.08 INSTALL 2-CELL 3'X3' CBC PER NMDOT STD. DWG. 511-62-1 & 2/2,TIE REINFORCEMENT TO HEADWALL REINFORCEMENT.
10. STA. 5+98.62 TO 6+38.62 INSTALL 3-CELL 3'X4' CBC PER NMDOT STD. DWG. 511-64-1, 2 & 3/3, TIE REINFORCEMENT TO HEADWALL REINFORCEMENT.
11. SHOTCRETE ACCESS RAMP, SEE DETAIL SHEET 23.
12. INSTALL D_{50} = 6" RIPRAP SIDE SLOPES, STA. 5+07.52 TO 5+27.65 AND STA. 5+49.15 TO 5+88.62, SEE DETAIL BELOW.



Southern Sandoval County Arroyo Flood Control Authority
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Rio Rancho, New Mexico 87124
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ANDRÉS SANCHEZ — NEW MEXICO — Licensed — 4-4-18 — PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

CHANNEL ALIGNMENT PLAN & PROFILE STA 0+00 TO 7+00

REVISIONS & CHANGE NOTICES

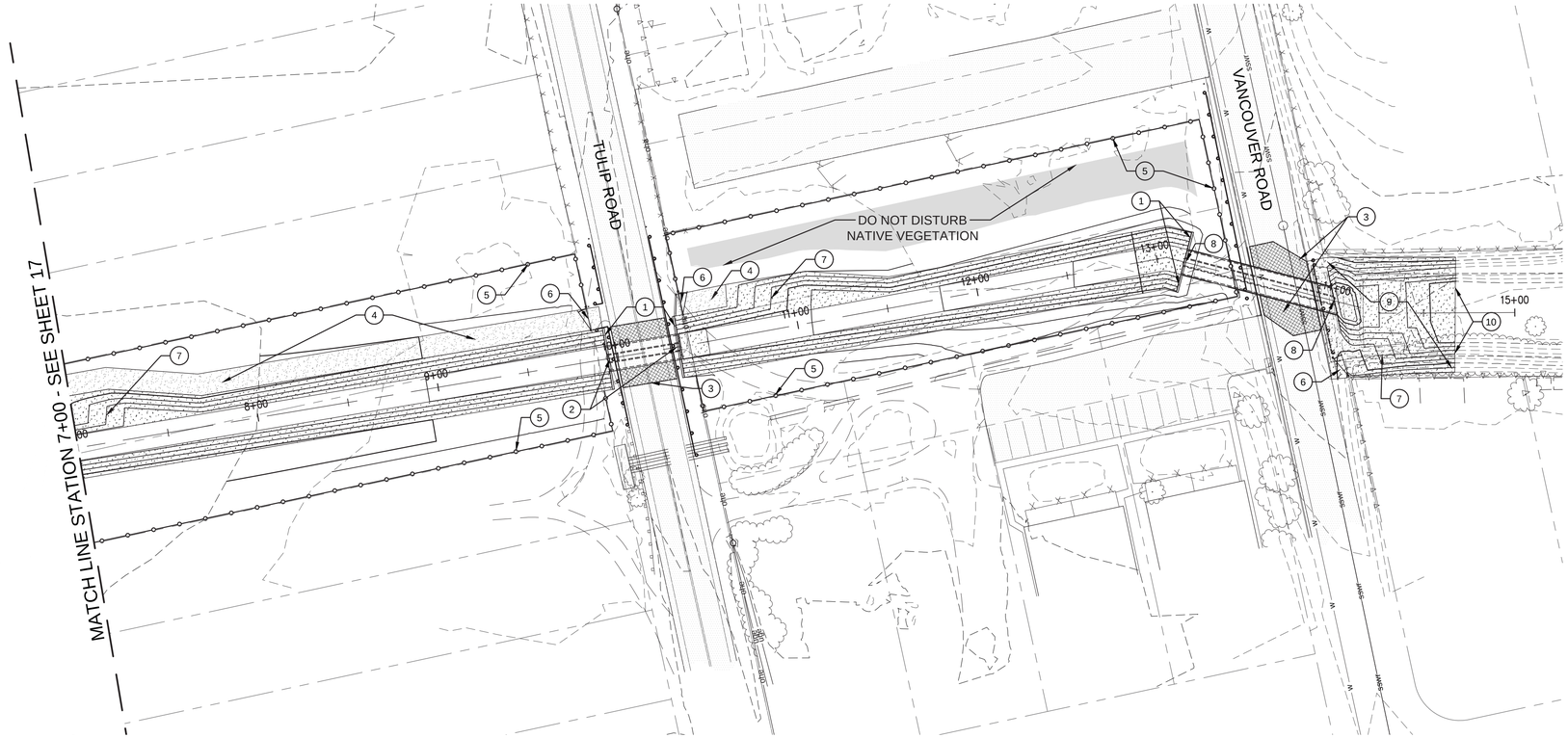
MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/5/2018

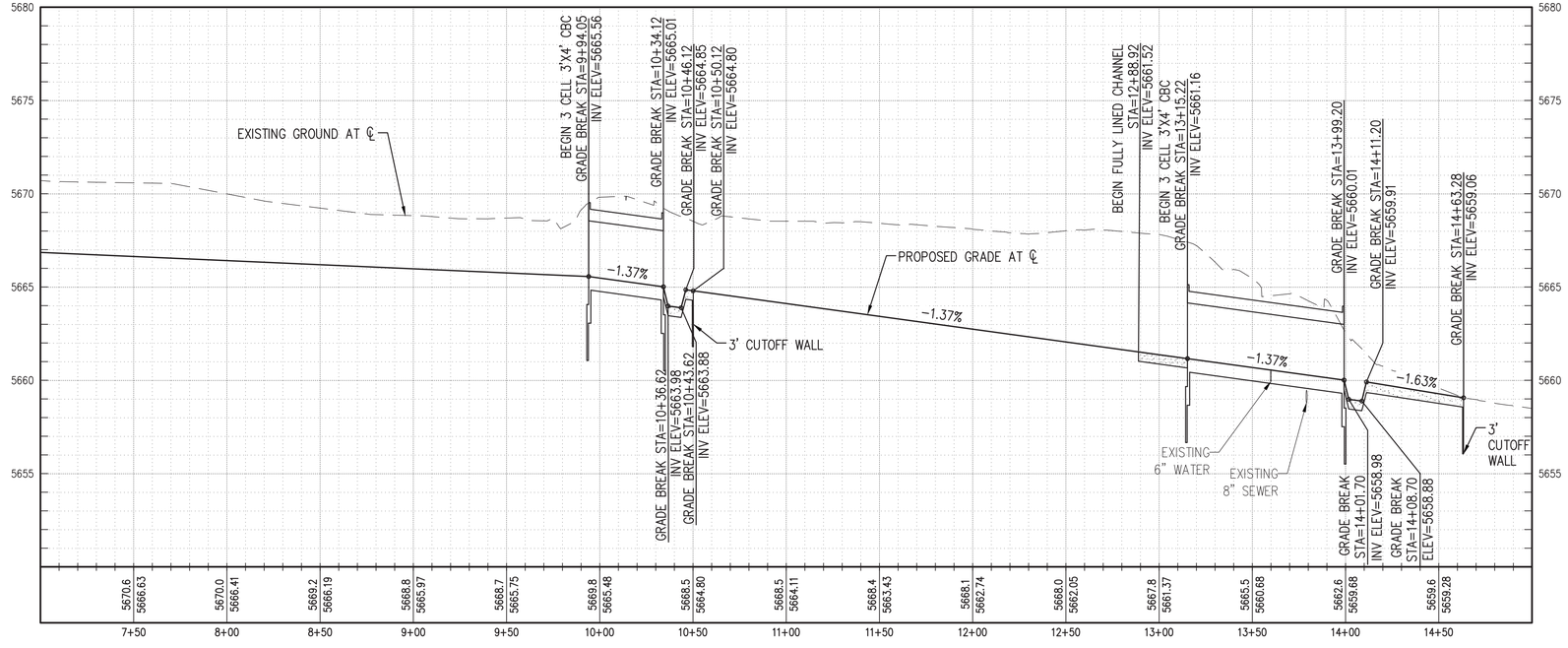
17

SHEET 17 OF 28

Thursday, April 05, 2018 1:33:59 PM – Kathy Fournier
O:\SSCAFCA_Project_Files\Rainbow\RA_P0001\AutoCAD\Civil3D\Production Drawings\Plan_Sets\RA_P0001_C-FP06.dwg



DOWNSTREAM CHANNEL



0 40 80 Feet

NOTE:

- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.

KEYED NOTES:

1. BUILD HEADWALL PER NMDOT STD. DWG. 511-80-1,2 &3/3, H=5', 1' BETWEEN TOEWALL & COMPACTED SOIL, HEADWALL REINFORCEMENT SHALL TIE TO CBC REINFORCEMENT.
2. STA. 9+94.05 TO 10+34.12 INSTALL 3-CELL 3'X4' CBC PER NMDOT STD. DWG. 511-64-1, 2 & 3/3, TIE REINFORCEMENT TO HEADWALL REINFORCEMENT.
3. SEE SHEET 19 FOR TULIP ROAD AND VANCOUVER ROAD REMOVALS AND IMPROVEMENTS.
4. MAINTENANCE ROAD, 6" AGGREGATE BASE COURSE SURFACE, SEE DETAIL SHEET 21.
5. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
6. INSTALL 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
7. SHOTCRETE ACCESS RAMP, SEE DETAIL SHEET 23.
8. STA. 13+15.22 TO 13+99.20 INSTALL 3-CELL 3'X4' CBC PER NMDOT STD. DWG. 511-64-1, 2 & 3/3,TIE REINFORCEMENT TO HEADWALL REINFORCEMENT.
9. FOR BLOW-UP AND DIMENSIONS, SEE DETAILS SHEET 22.
10. STA. 14+63.28 BUILD 6" THICK, 3' VERTICAL CUTOFF WALL USE SAME REINFORCEMENT AS TYPICAL SHOTCRETE SECTION.

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ANDRÉS SANCHEZ NEW MEXICO 20868 PROFESSIONAL ENGINEER 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

CHANNEL ALIGNMENT PLAN & PROFILE STA 7+00 TO 15+00

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

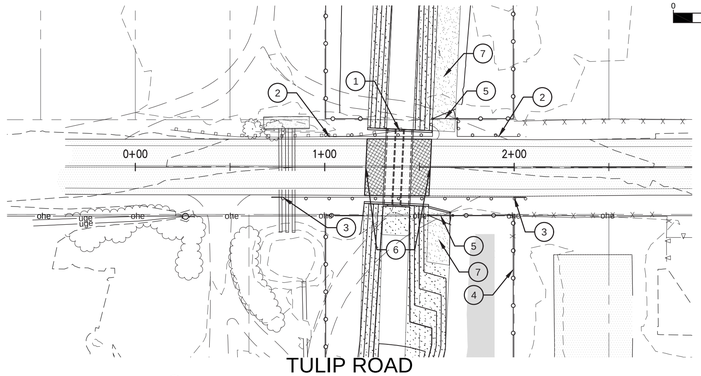
PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/5/2018

18

SHEET 18 OF 28

Thursday, April 05, 2018 2:06:37 PM – Kathy Fournier
Q:\SSCAFCA_Project_Files\Rainbow\RA_P0001\AutoCAD\Civil3D\Production Drawings\Plan_Sets\RA_P0001_C-PP05.dwg

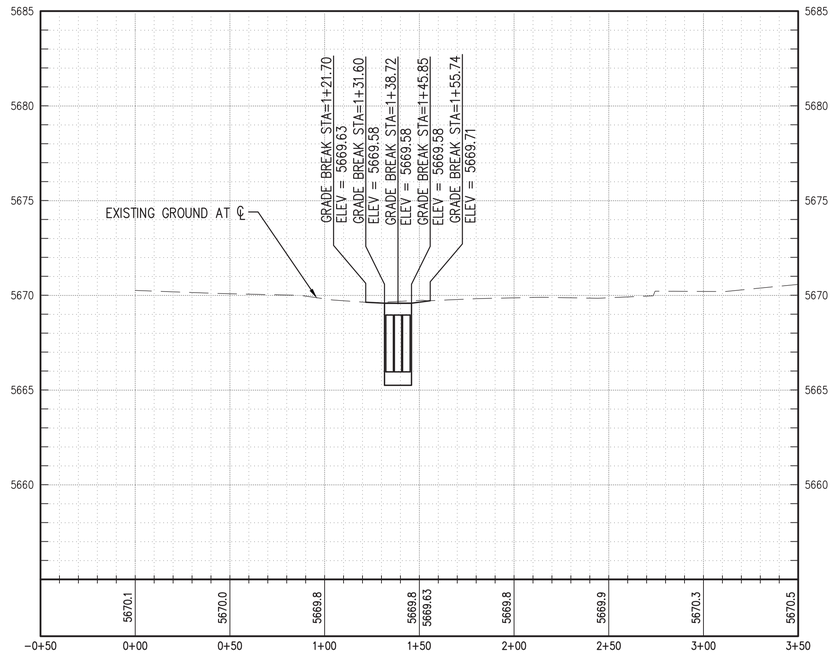
NOTE:
- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.



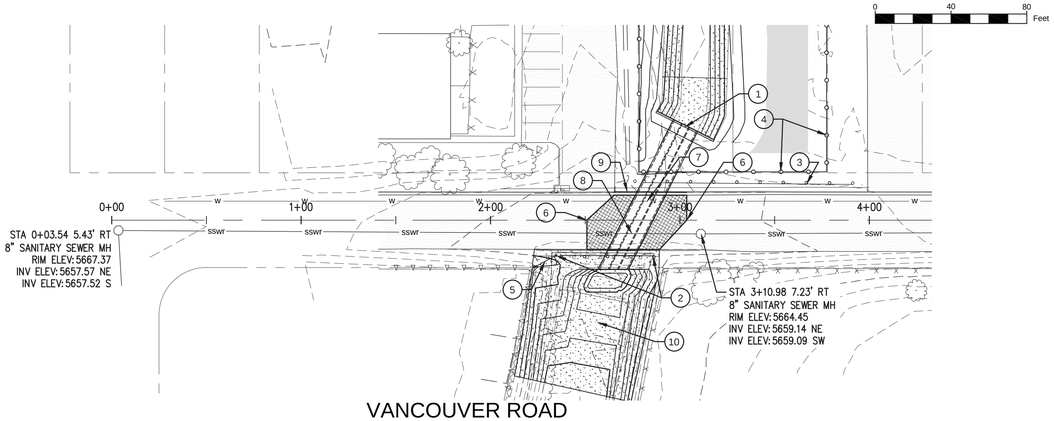
TULIP ROAD

KEYED NOTES:

1. 3-CELL 3'X4' CBC, SEE SHEET 18.
2. STA. 1+00 TO 1+44 16' LT. REMOVE APPROXIMATELY 44 LF GUARDRAIL AND INSTALL SINGLE FACE W-BEAM GUARDRAIL NMDOT ITEM 606001 WITH W-BEAM END ANCHOR NMDOT ITEM 606053 FROM STA. 1+00± TO STA.1+57 AND FROM STA.1+71 TO 2+06. TIE NEW GUARDRAIL TO EXISTING GUARDRAIL.
3. STA. 0+72 TO 2+06, 16' RT. INSTALL SINGLE FACE W-BEAM GUARDRAIL NMDOT ITEM 606001 WITH W-BEAM END ANCHOR NMDOT ITEM 606053.
4. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
5. INSTALL 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
6. STA. 1+21.70 TO 1+55.74 SAWCUT AND REMOVE APPROXIMATELY 1021± SF ASPHALT AND REPLACE PER CORR STD. DWG. PS-01 RESIDENTIAL SECTION - OPTION 2.
7. MAINTENANCE ROAD, 6" AGGREGATE BASE COURSE SURFACE, SEE DETAIL SHEET 21.



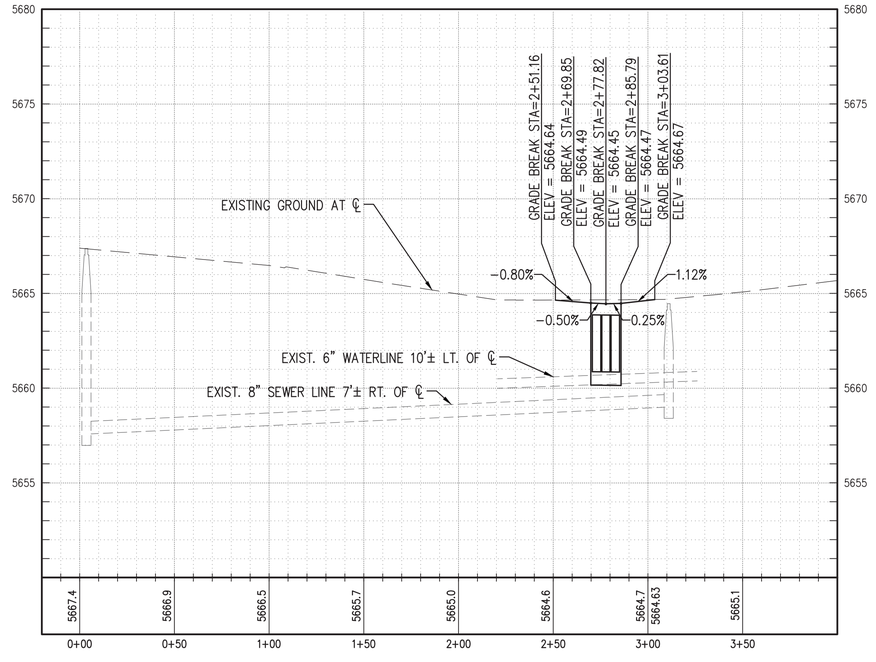
NOTE:
- DUE TO THE EXTREMELY FLAT SLOPES THROUGHOUT THE PROJECT AREAS, ALL GRADING FOR CHANNEL, POND BOTTOM,AND CBC/CULVERTS SHALL BE 0.1'± GRADES/INVERTS SHOWN.



VANCOUVER ROAD

KEYED NOTES:

1. 3-CELL 3'X4' CBC, SEE SHEET 18.
2. STA. 2+25 TO 2+89 19' RT. REMOVE APPROXIMATELY 64 LF GUARDRAIL AND INSTALL SINGLE FACE W-BEAM GUARDRAIL NMDOT ITEM 606001 W/ W-BEAM END ANCHOR NMDOT ITEM 606053 FROM STA. 2+35 TO 2+89.
3. STA. 2+76 TO 3+96 19' LT. INSTALL SINGLE FACE W-BEAM GUARDRAIL NMDOT ITEM 606001 W/ W-BEAM END ANCHOR NMDOT ITEM 606053.
4. INSTALL 5-STRAND BARBLESS WIRE FENCE, SEE DETAIL SHEET 20.
5. INSTALL 14' WIDE PIPE GATE, SEE DETAILS SHEET 20.
6. STA. 2+50.86 TO 3+03.61 SAW CUT AND REMOVE APPROXIMATELY 1305± SF ASPHALT AND REPLACE PER CORR STD. DWG. PS-01 RESIDENTIAL SECTION - OP.2.
7. RELOCATE WATERLINE UNDER PROPOSED CBC, SEE DETAIL SHEET 22.
8. STA. 2+62 TO 2+86 ENCASE 24 LF 8" SEWER LINE PER CORR STD. DWG. S-5.
9. STA. 2+66 TO 3+04 15' LT. REMOVE AND REPLACE 38 LF CURB AND GUTTER PER CORR STD. DWG. CG-01.
10. FOR BLOW-UP AND DIMENSIONS, SEE DETAILS SHEET 22.



Southern Sandoval County Arroyo Flood Control Authority
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ANDRES SANCHEZ NEW MEXICO 15685 PROFESSIONAL ENGINEER
Signed 5.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

TULIP & VANCOUVER ROAD PLAN & PROFILE STA 0+00 4+00

REVISIONS & CHANGE NOTICES

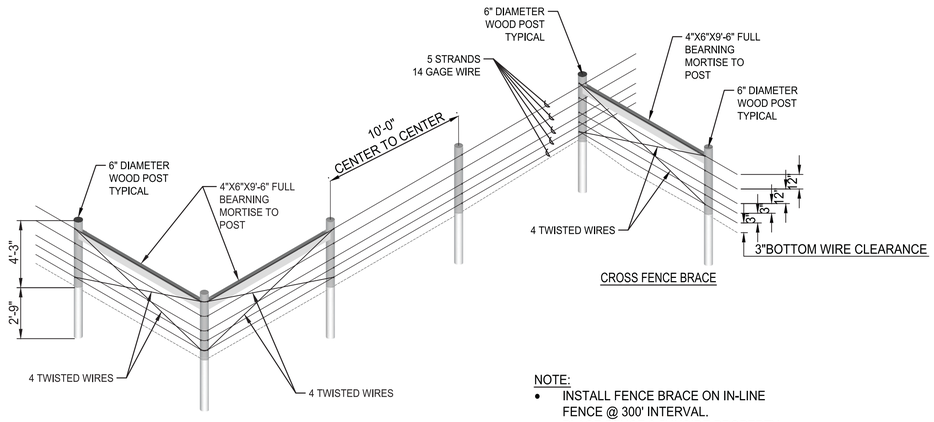
MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/4/2018

19

SHEET 19 OF 28

Wednesday, April 04, 2018 3:26:56 PM – Kathy Fournier
O:\sscafca_project_files\Rainbow\RA_P0001\Vuloc240\Vuloc240\production Drawings\plan_sets\RA_P0001_C-19P06.dwg



CROSS FENCE BRACE

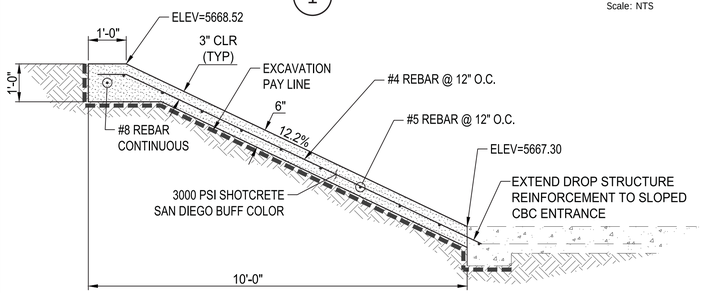
CORNER BRACE

NOTE:

- INSTALL FENCE BRACE ON IN-LINE FENCE @ 300' INTERVAL.
- PLACE FENCE 0.5' INSIDE PROPERTY LINE UNLESS OTHERWISE SHOWN.

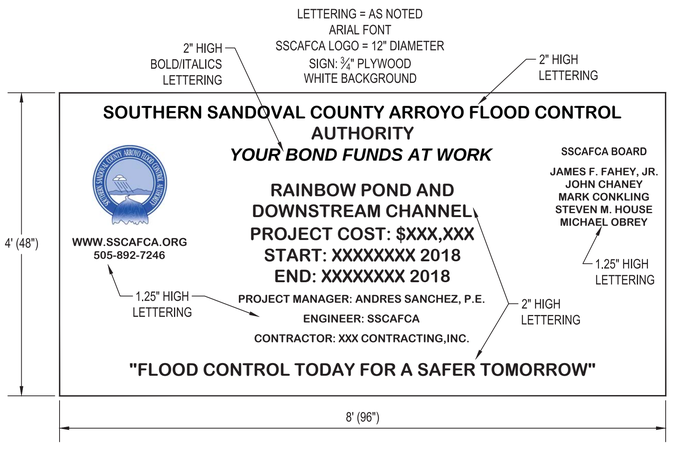
1 5 STRAND BARBLESS WIRE FENCE

Scale: NTS



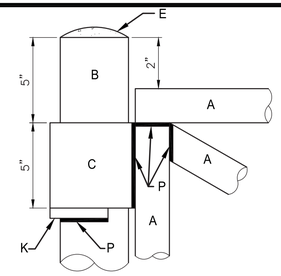
3 DROP STRUCTURE DETAIL

Scale: NTS

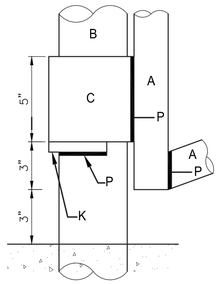


4 PROJECT SIGN DETAIL

Scale: NTS



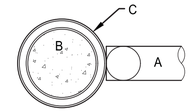
DETAIL 1



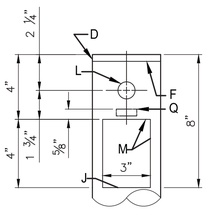
DETAIL 2

GENERAL NOTES:

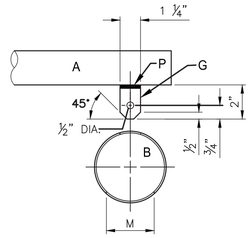
1. ALL WELDED AND CUT AREAS TO BE CLEANED THOROUGHLY WITH A WIRE BRUSH AND OR SAND BLAST AND REGALVANIZED.
2. REGALVANIZING SHALL BE WITH SHERWIN WILLIAMS ZINC CLAD 7 PRIMER OR EQUAL.
3. AFTER PRIMING, PAINT ALL PIPE, HINGES, LOCKING MECHANISM, ETC. WITH TWO (2) COATS OF OSHA SAFETY BLUE.



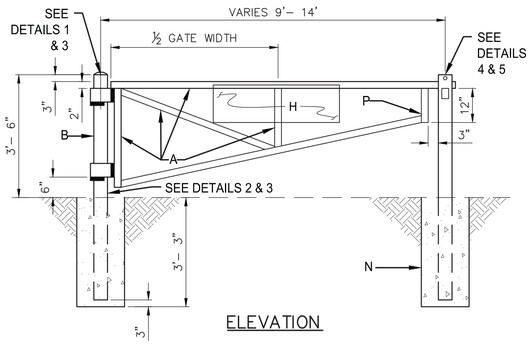
DETAIL 3



DETAIL 4



DETAIL 5



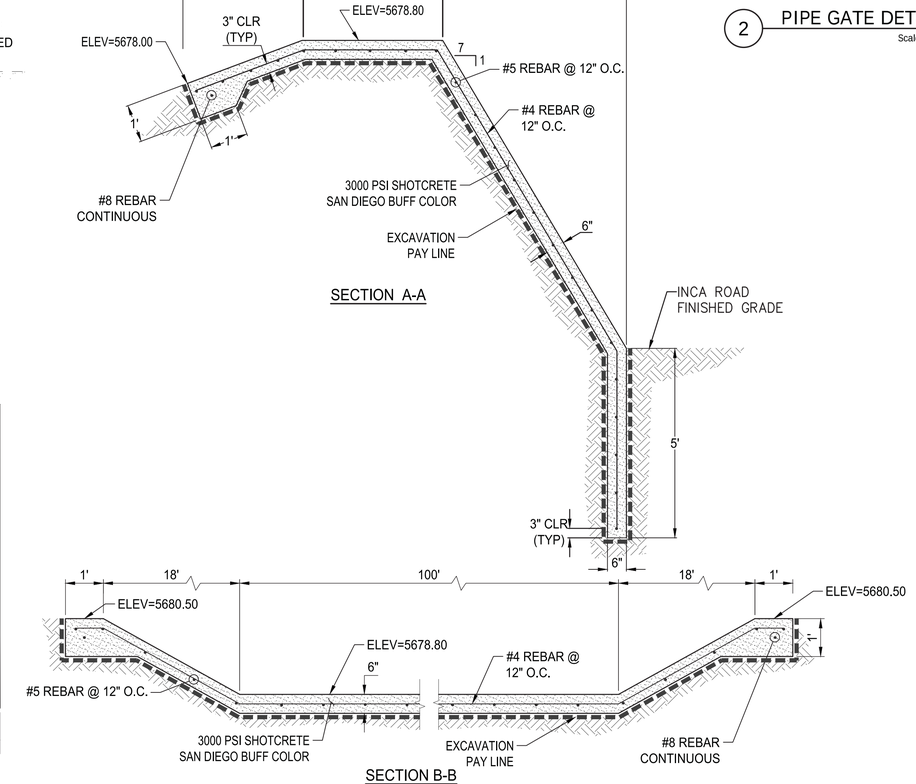
ELEVATION

CONSTRUCTION NOTES:

A. 2" NOMINAL DIA. GALV. PIPE, MIN. WEIGHT PER FOOT 3.65 LBS.
B. 4" DIA. BLACK STEEL PIPE, MIN. 10.79 LBS./FT., CONC. FILLED.
C. 5" DIA. BLACK STEEL PIPE, MIN. 14.62 LBS./FT.
D. ¼" BUTT WELD ALL AROUND.
E. CONCRETE ROUNDED AT TOP OF POST.
F. ⅜" X 4 ¼" DIA. STEEL PLATE.
G. ⅜" STEEL PLATE FLANGE.
H. REFLECTIVE SIGN STATING, AUTHORIZED VEHICLES ONLY, WILL BE PROVIDED AND INSTALLED BY SSCAFCA.
J. STOP CONC. IN PIPE AT THIS POINT.
K. ½" SQ. STEEL BAR FOR HINGE SUPPORT. POSITION BAR TO ALLOW UNRESTRICTED GATE ROTATION THROUGH ENTIRE SWING OF GATE OPENING.
L. 1" DIA. FINGER HOLE.
M. MAKE A 3" X 4" CUT IN PIPE.
N. 3,000 PSI AIR ENTRAINED FLY ASH CONC.
P. WELD ALL 2" PIPE & FIXTURE CONNECTIONS WITH ⅜" FILLET ALL AROUND.
Q. 1 ½" X ⅝" SLOT FOR STEEL PLATE FLANGE.

2 PIPE GATE DETAIL

Scale: NTS

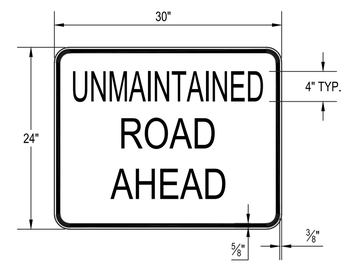


SECTION A-A

SECTION B-B

5 POND EMERGENCY SPILLWAY DETAIL

Scale: NTS



6 "UNMAINTAINED ROAD" SIGN DETAIL

Scale: NTS

Southern Sandoval County Arroyo Flood Control Authority
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Rio Rancho, New Mexico 87124
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ANDRES SANCHEZ NEW MEXICO 15681 PROFESSIONAL ENGINEER 4.4.18

RAINBOW POND AND DOWNSTREAM CHANNEL

DETAILS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/4/2018

20

SHEET 20 OF 28

Wednesday, April 04, 2018 3:53:54 PM — Kathy Fournier
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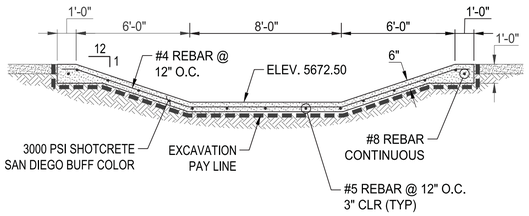
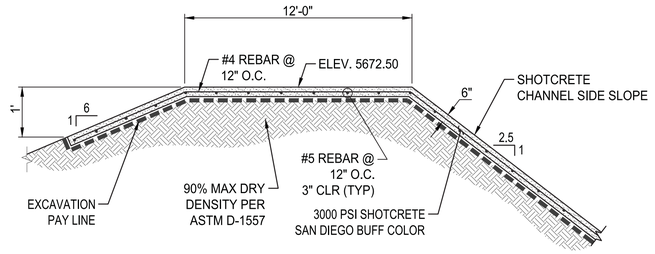


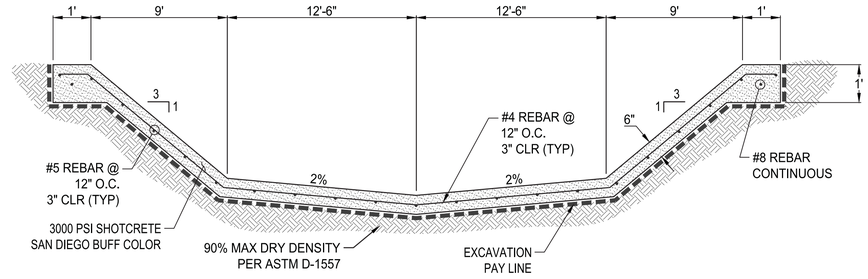
SECTION A-A



SECTION B-B

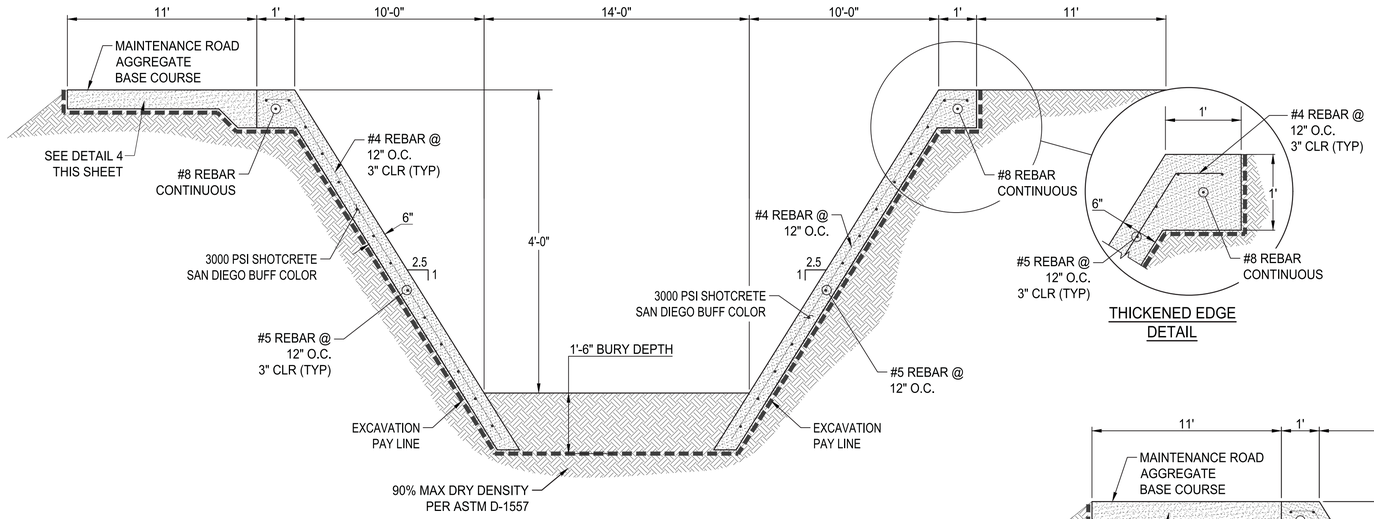
1 OVERFLOW WEIR DETAIL

Scale: NTS



2 POND RUNDOWN TYPICAL SECTION DETAIL

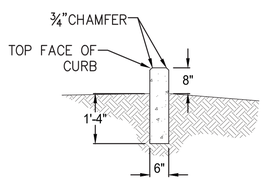
Scale: NTS



NOTE:
MAINTENANCE ROAD BETWEEN TULIP ROAD AND VANCOUVER ROAD ONLY WHERE SHOWN ON SHEET 18. FROM TULIP TO ACCESS RAMP ONLY.

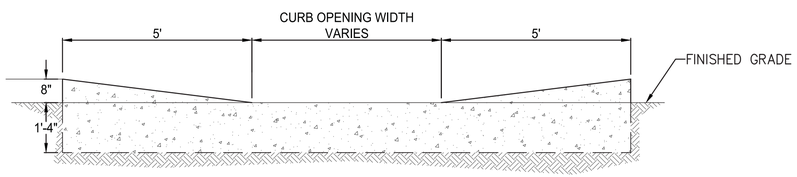
3 SHOTCRETE CHANNEL TYPICAL SECTION DETAIL

Scale: NTS



5 HEADER CURB DETAIL

Scale: NTS



6 HEADER CURB TRANSITION DETAIL

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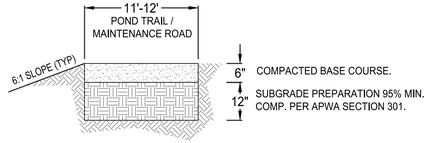
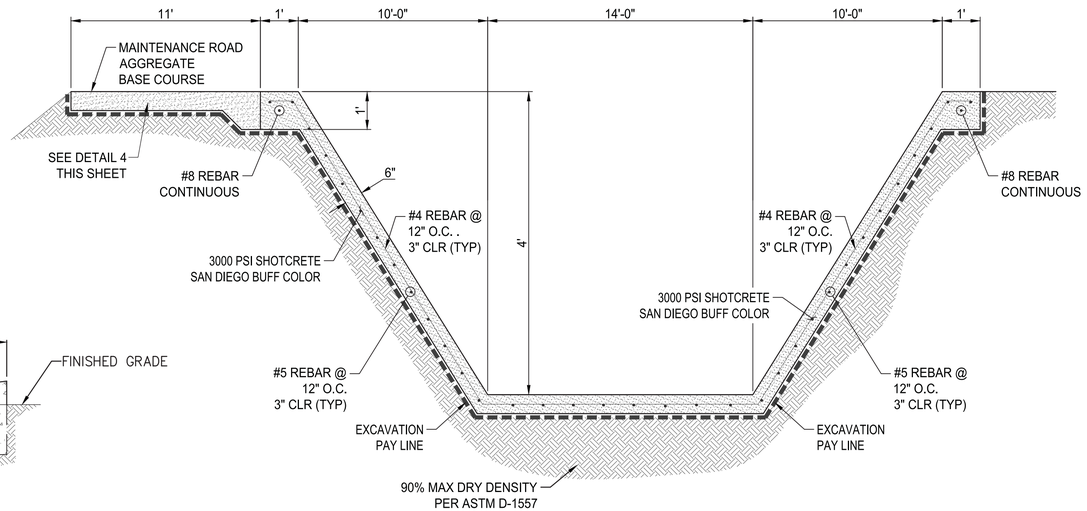


4 POND TRAIL / MAINTENANCE ROAD, 6" AGGREGATE BASE COURSE

Scale: NTS



7 FULLY-LINED CHANNEL TYPICAL SECTION DETAIL

Scale: NTS

Southern Sandoval County Arroyo Flood Control Authority
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ANDRES SANCHEZ — NEW MEXICO — 15694 — 4-4-18 — PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

DETAILS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/4/2018

21

Wednesday, April 04, 2018 4:49:21 PM -- Kathy Fournier
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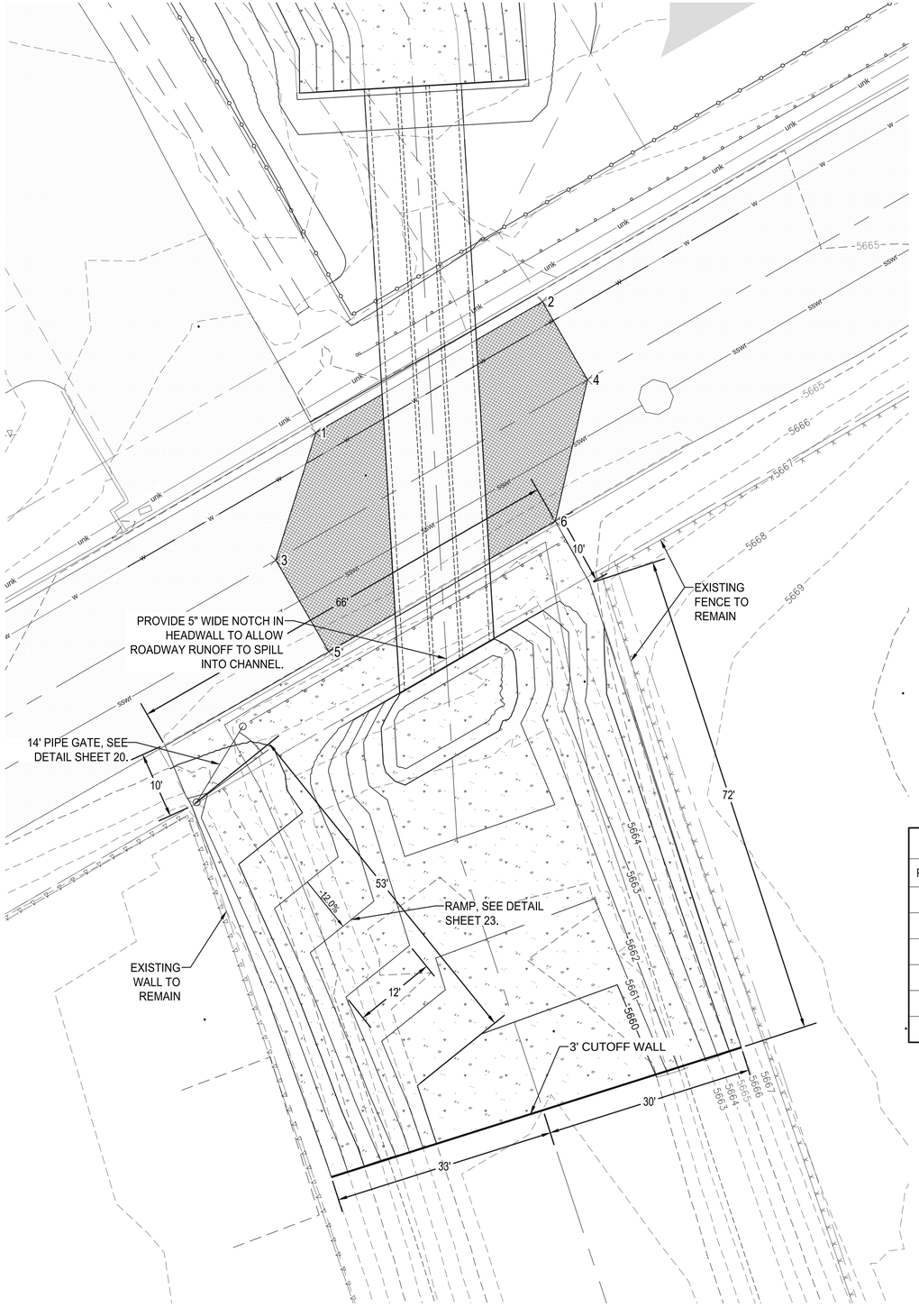
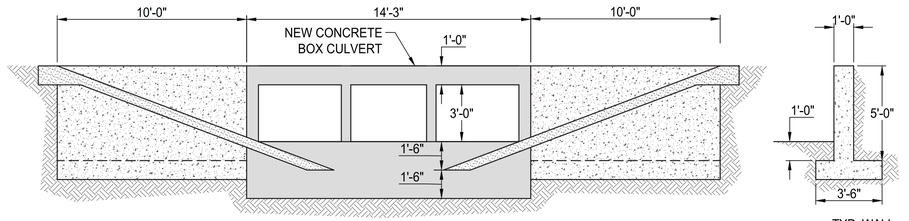


1 DOWNSTREAM CHANNEL OUTFALL DETAIL
Scale: NTS

Point Table				
Point #	Elevation	Northing	Easting	Description
1	5664.54	1547139.54	1497923.13	MATCH PVMT
2	5664.59	1547158.72	1497956.28	MATCH PVMT
3	5664.65	1547120.86	1497917.24	MATCH PVMT
4	5664.67	1547147.27	1497962.91	MATCH PVMT
5	5664.27	1547107.44	1497925.01	MATCH PVMT
6	5664.30	1547126.54	1497958.20	MATCH PVMT



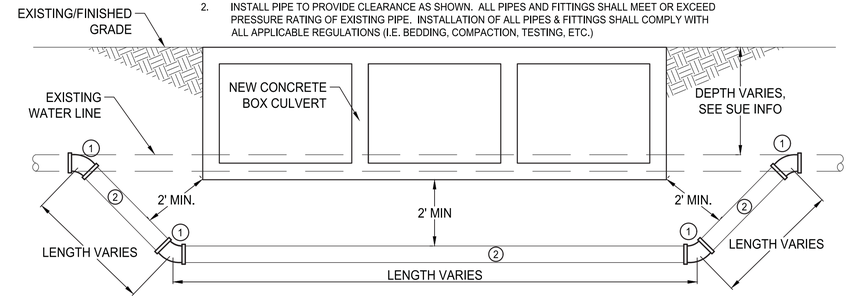
BUILD HEADWALL PER NMDOT STD. DWG. 511-80-1,2 &3/3, H=5', 1' BETWEEN TOEWALL & COMPACTED SOIL, HEADWALL REINFORCEMENT SHALL TIE TO CBC REINFORCEMENT.

3-CELL 3'X4' CBC PER NMDOT STD. DWG. 511-64-1, 2 & 3/3, TIE REINFORCEMENT TO HEADWALL REINFORCEMENT.

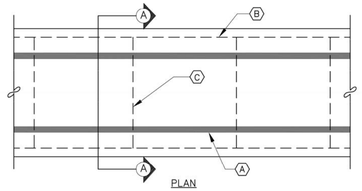
2 CBC HEADWALL DETAIL
Scale: NTS

CONSTRUCTION NOTES

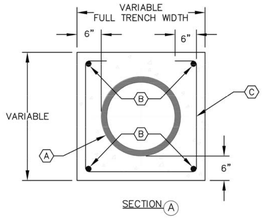
1. INSTALL 45 DEG. ELL, FULLY RESTRAINED, SIZE PER EXISTING PIPE.
2. INSTALL PIPE TO PROVIDE CLEARANCE AS SHOWN. ALL PIPES AND FITTINGS SHALL MEET OR EXCEED PRESSURE RATING OF EXISTING PIPE. INSTALLATION OF ALL PIPES & FITTINGS SHALL COMPLY WITH ALL APPLICABLE REGULATIONS (I.E. BEDDING, COMPACTION, TESTING, ETC.)



3 TYPICAL WATERLINE ADJUSTMENT DETAIL
Scale: NTS



PLAN
CONCRETE ENCASEMENT



SECTION (A)

GENERAL NOTES:

1. WHERE A WATER LINE PASSES BENEATH, OR LESS THAN 18" ABOVE AN EXISTING SANITARY SEWER LINE OR RECYCLED WATER LINE, THE WATER LINE SHALL BE ENCASED IN CONCRETE, 6" THICK MEASURED FROM THE OUTSIDE WALL OF THE PIPE, AS DETAILED, FOR AT LEAST 10' ON EACH SIDE OF THE WATER LINE, OR THE SANITARY SEWER LINE OR RECYCLED WATER LINE SHALL BE AMERICAN WATER WORKS ASSOCIATION C-900 OR C-905 POLYVINYL CHLORIDE PIPE WITH PRESSURE-TYPE JOINTS FOR AT LEAST 10' ON EACH SIDE OF THE WATER LINE. THIS SHALL ALSO APPLY WHERE A PARALLEL WATER LINE IS LESS THAN 10' HORIZONTALLY AND LESS THAN 18" ABOVE THE SANITARY SEWER LINE OR RECYCLED WATER LINE.

KEYNOTES:

(A) SANITARY SEWER LINE AS SHOWN ON PLANS

(B) 4-NUMBER 4 BARS, CONTINUOUS WITH MINIMUM 3" CLEARANCE TO OUTSIDE EDGE OF CONCRETE.

(C) STIRRUPS WITH NUMBER 4 BARS, AT 36" ON CENTER WITH MINIMUM 3" CLEARANCE TO OUTSIDE EDGE OF CONCRETE.

DATE MODIFIED: APRIL 2016

City of Rio Rancho
Department of Public Works

PIPE ENCASEMENT

DWG. NO. S-05 APRIL 22, 2016

Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
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505-892-7241 (Fax)
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ANDRES SANCHEZ NEW MEXICO 15694 PROFESSIONAL ENGINEER 4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

DETAILS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/5/2018

22

SHEET 22 OF 28

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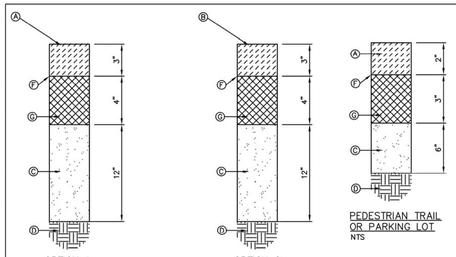
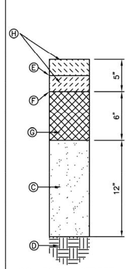


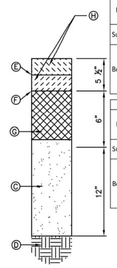
OPTION 1
RESIDENTIAL STREET
NTS

OPTION 2
RESIDENTIAL STREET
NTS

PEDESTRIAN TRAIL
OR PARKING LOT
NTS



COLLECTOR STREET
NTS



ARTERIAL STREET
NTS

KEYED NOTES:

Ⓐ ASPHALT CONCRETE TYPE SP-IV, PLACED IN LIFTS AS SHOWN

Ⓑ ASPHALT CONCRETE TYPE SP-III, PLACED IN LIFTS AS SHOWN.

Ⓒ SUBGRADE PREPARATION, 95% MIN. COMPACTION PER ASTM D 1557.

Ⓓ COMPACTED FILL OR UNDISTURBED EARTH, 90% MIN. COMPACTION PER ASTM D 1557.

Ⓔ TACK COAT, AS REQUIRED BY THE ENGINEER.

Ⓕ PRIME COAT, AS REQUIRED BY THE ENGINEER, OR BASE COURSE SHALL BE MOISTURE CONTROLLED AT COMPACTION MOISTURE RANGE.

Ⓖ AGGREGATE BASE COURSE.

Ⓗ ASPHALT MATERIAL AND PG BINDER TO BE IN ACCORDANCE WITH TABLE 1A OR 1B. CONSTRUCTION PLANS WILL SPECIFY. ASPHALT LIFT THICKNESS SHALL COMPLY WITH THE STANDARDS SET HERETO.

GENERAL NOTES:

1. ANY DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY FOR PRIOR APPROVAL.
2. ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE CITY.
3. IN LIEU OF USING THE MINIMUM PAVEMENT DESIGN PROVIDED ON PS-01, A PROJECT/SITE SPECIFIC PAVEMENT DESIGN, INCLUDING BASE COURSE, MAY BE SUBMITTED FOR APPROVAL BY THE CITY. DESIGN MUST CONFORM TO THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES PROCEDURE, 1993 (OR CURRENT EDITION IF APPLICABLE), USING A MINIMUM OF 10 ESALs. NOMOGRAPHS SHALL NOT BE USED.
4. AN ASPHALT CERT. LETTER SHALL BE PROVIDED TO THE CITY BEFORE ANY PAVING BEGINS. THIS CERT. MUST REFERENCE AN APPROVED/CURRENT MIX DESIGN FROM THE NMDOT. PLEASE STATE CLEARLY THE SML MIX DESIGN NUMBER & NMDOT LAB NUMBER.
5. THE ASPHALT BINDER SHALL BE PG 64-22 IN COMPLIANCE WITH APPENDIX A OF THE 2008 NMDOT PAVEMENT DESIGN DIRECTIVE. IT MAY BE ADJUSTED BASED ON TABLE 1A OR 1B AND THE 20-YEAR DESIGN ESALS IN ACCORDANCE WITH TABLE A-7 BELOW.

Table 1A: New Construction or Complete Reconstruction

		20-Year Traffic ESALs			
HMA Layer	Material	< 10 Million		≥ 10 Million	
		< 5.5" New HMA	≥ 5.5" New HMA	< 8" New HMA	≥ 8" New HMA
Surface Layer	HMA	SP-III or SP-IV	SP-IV at 3" thick	SP-II or SP-III	SP-III at 5" thick
	PG Binder	PG 64-22 Adjusted for ESALs and Traffic Speed			
Bottom Layer	HMA	Same SP Material as Surface	SP-III for remainder of thickness	Same SP Material as Surface	SP-II for remainder of thickness
	PG Binder	Same as Surface	64-22; No Adjustment	Same as Surface	64-22; No Adjustment

Table 1B: Rehabilitation or Overlay Construction

		20-Year Traffic ESALs			
HMA Layer	Material	< 10 Million		≥ 10 Million	
		< 5.5" New HMA	≥ 5.5" New HMA	< 8" New HMA	≥ 8" New HMA
Surface Layer	HMA	SP-III or SP-IV	SP-IV at 3" thick	SP-II or SP-III	SP-III at 5" thick
	PG Binder	PG 64-22 Adjusted for ESALs and Traffic Speed			
Bottom Layer	HMA	Same SP Material as Surface	SP-III for remainder of thickness	Same SP Material as Surface	SP-II for remainder of thickness
	PG Binder	Same PG Binder as Surface			

HMA Type	Lift Thickness (Inches)	
	Minimum	Maximum
SP-II	3	3.5
SP-III	2.5	3.5
SP-IV	1.5	3

Table A-7: PG Base Grade Modification

20-Year Design ESALs (Millions)	Adjustments to PG Base Grade Binder[1] Traffic Loading Rate		
	Standing[2]	Slow[3]	Standard[4]
< 0.3	1	-	-
0.3 to < 3	2	1	-
3 to < 10	2	1	-
> 10	2	1	1

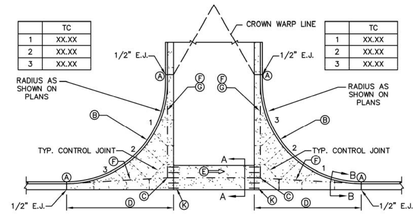
1. Increase the high end temperature grade by the number of grade(s) indicated (one grade is equivalent to 6°C).
2. Average traffic speed is less than 15 mph.
3. The average traffic speed ranges from 15 mph to less than 45 mph.
4. The average traffic speed is 45 mph or greater.

DATE MODIFIED: NOV 06, 2017

City of Rio Rancho
Department of Public Works

PAVEMENT SECTIONS

DWG. NO. PS-01 MAY 22, 2008



PLAN

KEYED NOTES

A. END OF CURB RETURN.

B. CONSTRUCT CURB RAMP WHERE SHOWN ON PLANS. ADJUST CURB HEIGHT TO MATCH RAMP CONFIGURATION.

C. INTERSECTION OF FLOWLINES.

D. VALLEY GUTTER FILLET AREAS AND CURB SHALL BE CONSTRUCTED MONOLITHICALLY.

E. DIRECTION OF FLOW.

F. FLOWLINE.

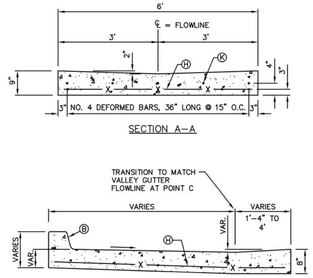
G. PROJECTED GUTTER FLOWLINE.

H. 6x6–6/6 WELDED WIRE FABRIC IS THE PREFERRED REINFORCEMENT FOR VALLEY GUTTER AND FILLET AREAS.

K. NO. 4 DEFORMED BARS CENTERED BETWEEN VALLEY GUTTER AND FILLET, 6" LONG @ 15" ON CENTER.

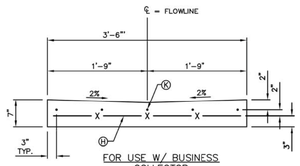
GENERAL NOTES

1. ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE CITY.
2. SEE PLANS FOR FINISH GRADE ELEVATIONS (TOP OF CURB) FOR END OF CURB RETURNS, AT QUARTERPOINTS ALONG CURB RETURN (IN THE CLOCKWISE DIRECTION) AND FLOWLINE ELEVATIONS AT THE INTERSECTIONS OF PROJECTED FLOWLINES.
3. VALLEY GUTTER CONSTRUCTION SHALL PROVIDE A SMOOTH AND WELL DEFINED FLOW PATH ACROSS THE INTERSECTION. ABRUPT CHANGES IN GRADE OR CROSS SECTION WILL NOT BE PERMITTED.
4. VALLEY GUTTER, INCLUDING FILLET AREAS, SHALL BE REINFORCED WITH 6X6–W2.9xW2.9 WELDED WIRE FABRIC. SEE NOTE H.
5. FOR NEW CONSTRUCTION, THE VALLEY GUTTER SHALL BE CONSTRUCTED PRIOR TO ADJACENT PAVEMENT.
6. PRIOR TO CONSTRUCTION OF A NEW VALLEY GUTTER ON EXISTING STREETS, PAVEMENT REMOVALS AS SHOWN ON PLANS SHALL BE COMPLETED.
7. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE 3000 PSI MINIMUM @ 28 DAYS. AIR ENTRAINMENT SHALL BE 5% MINIMUM TO 9% MAXIMUM. A CLASS F FLY ASH ADDITIVE IS ALLOWED UP TO 20% BY WEIGHT.



SECTION A–A

SECTION B–B



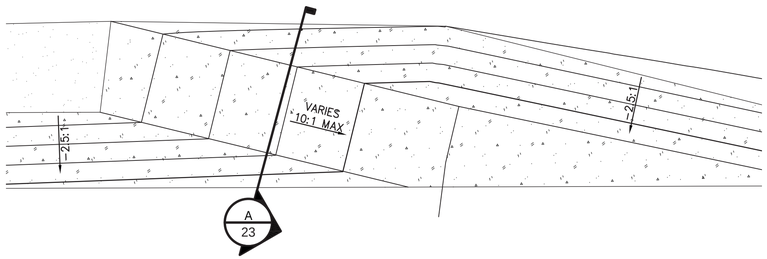
FOR USE W/ BUSINESS COLLECTOR

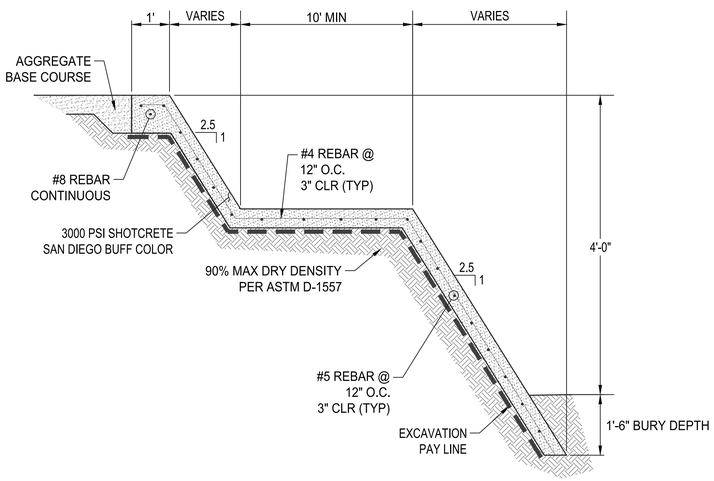
DATE MODIFIED: DEC 14, 2017

City of Rio Rancho
Department of Public Works

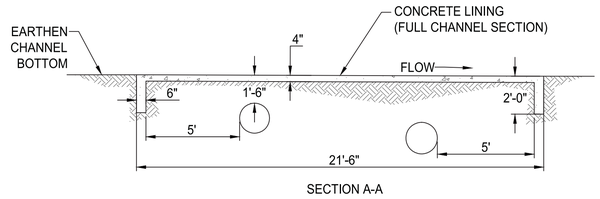
VALLEY GUTTER
AT INTERSECTION

DWG. NO. VG-01 OCT 2, 2008

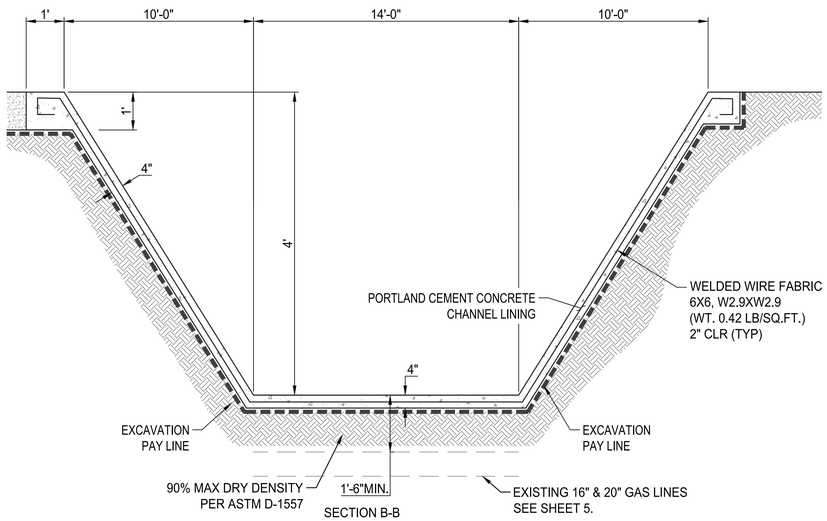




1 SHOTCRETE RAMP DETAIL
Scale: NTS



SECTION A-A



SECTION B-B

2 4" CONCRETE SLOPE PAVEMENT SECTION
Scale: NTS

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NEW MEXICO
15680
4.4.18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

DETAILS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: DDG
DATE: 4/5/2018

23

SHEET 23 OF 28

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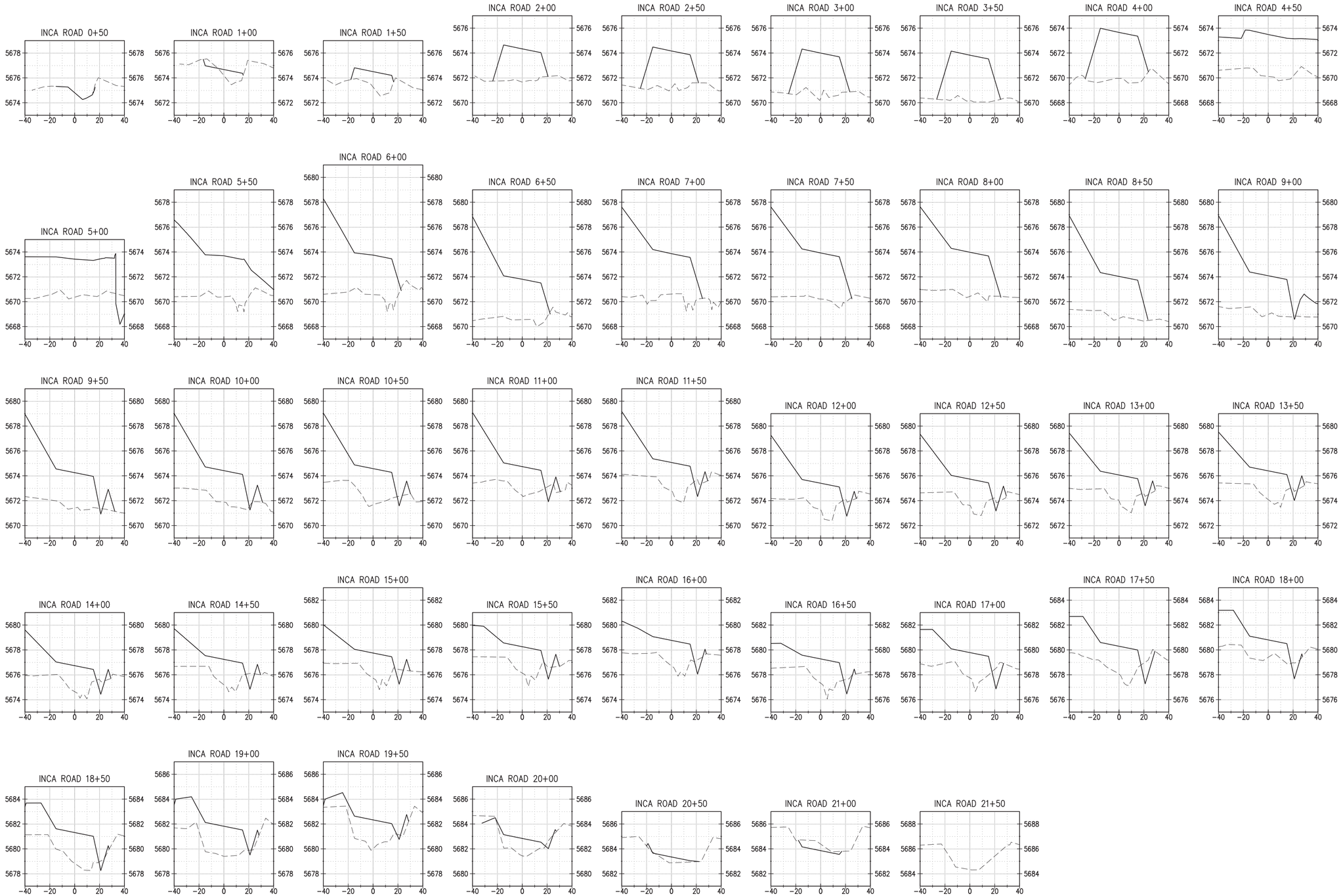

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ANDRÉS SANCHEZ
NEW MEXICO
PROFESSIONAL ENGINEER
4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

INCA ROAD CROSS SECTIONS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/3/2018

24

SHEET 24 OF 28

Thursday, April 05, 2018 9:20:14 AM - Kathy Fournier
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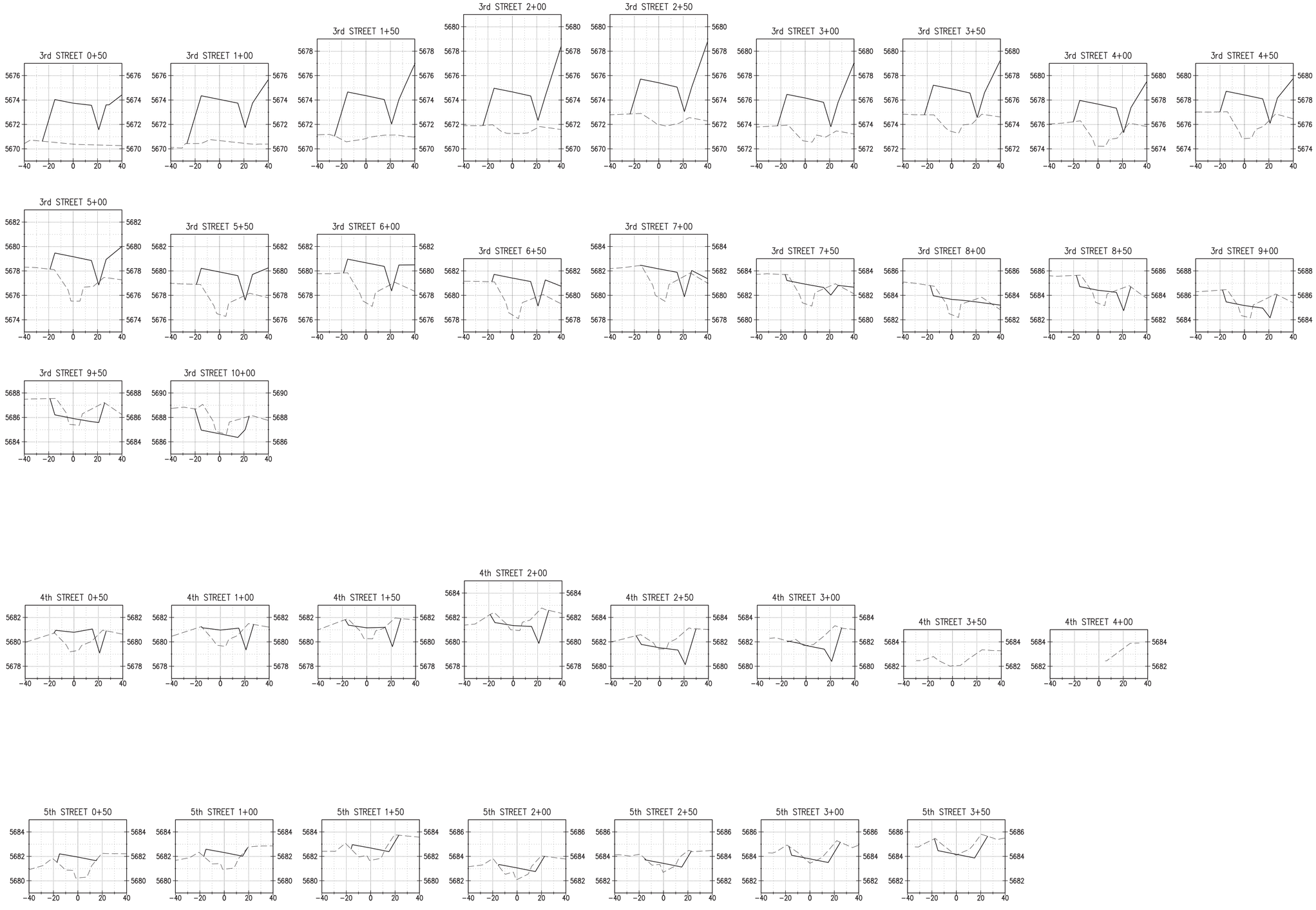

0 40 80 Feet

Southern Sandoval County Arroyo Flood Control Authority
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ANDRÉS SANCHEZ
NEW MEXICO
4.4.18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

3RD, 4TH & 5TH STREET CROSS SECTIONS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/3/2018

25

SHEET 25 OF 28

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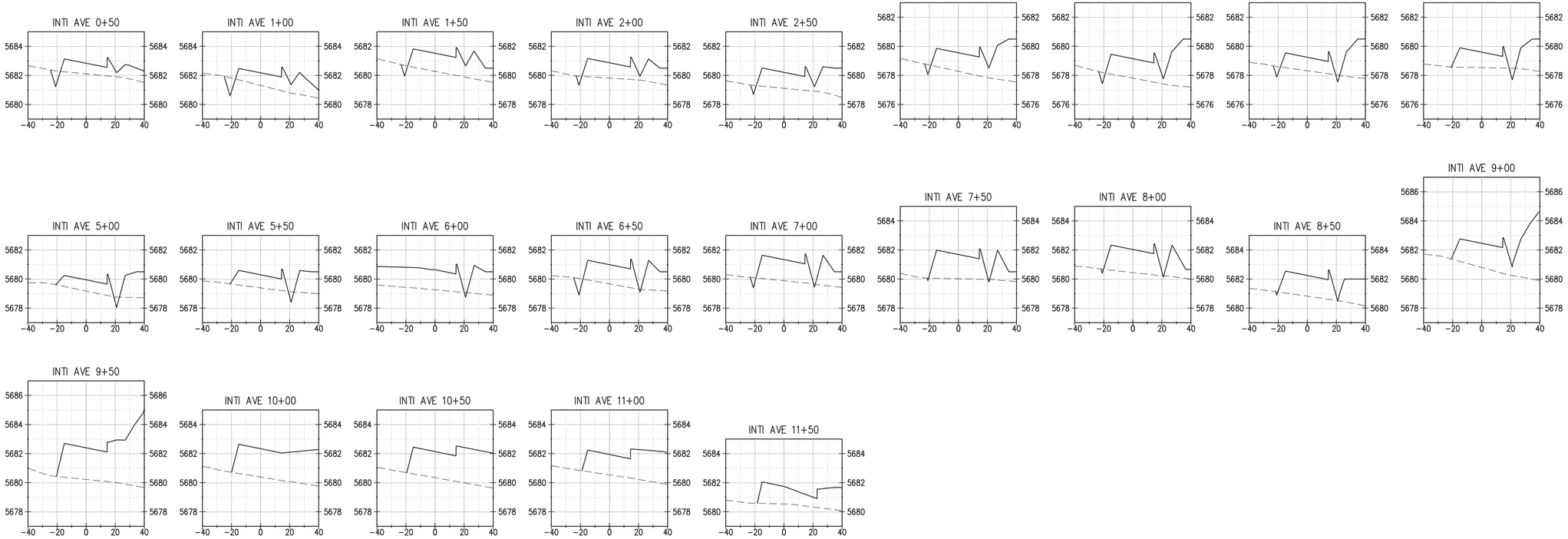

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ANDRÉS SANCHEZ
NEW MEXICO
PROFESSIONAL ENGINEER
4-4-18

RAINBOW POND AND DOWNSTREAM CHANNEL

INTI AVENUE CROSS SECTIONS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/3/2018

26

SHEET 26 OF 28

Thursday, April 05, 2018 9:21:12 AM – Kathy Fournier
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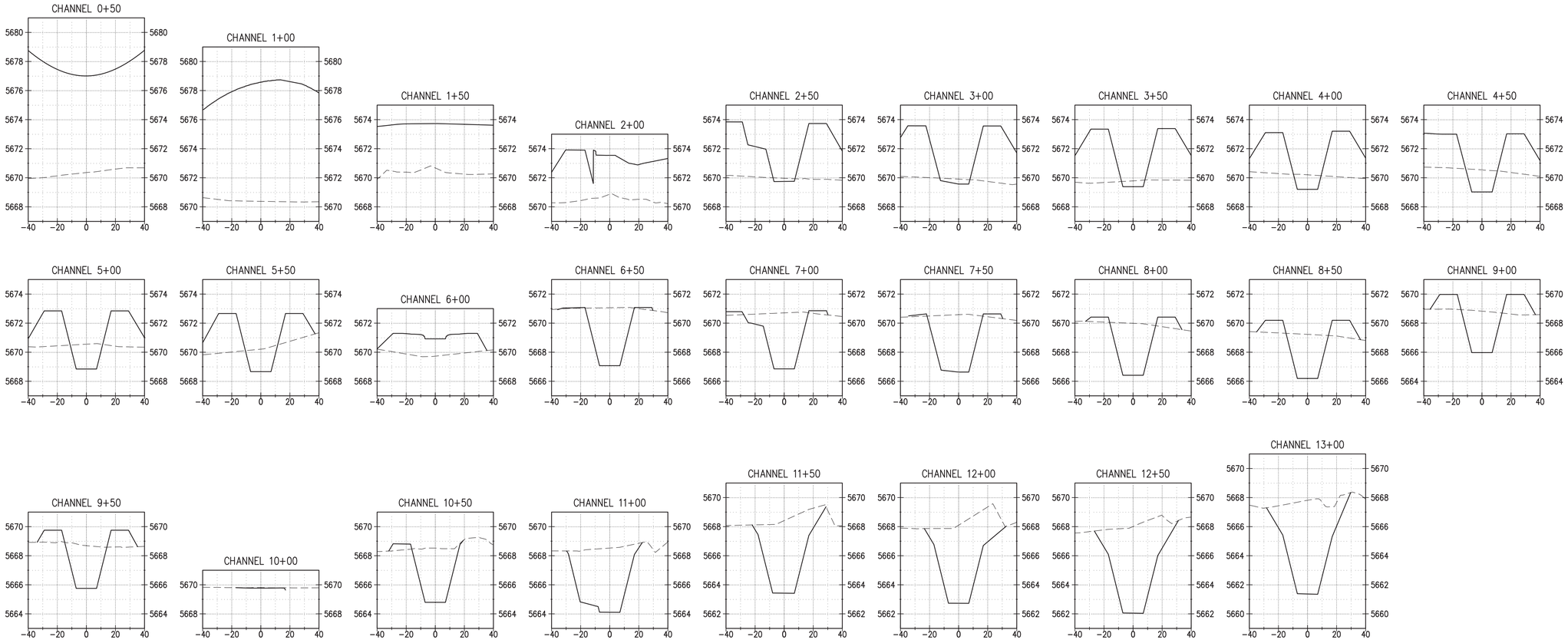

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ANDRES SANCHEZ NEW MEXICO 15668 4-4-18 PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

CHANNEL CROSS SECTIONS

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: JB
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/3/2018

27

SHEET 27 OF 28

Thursday, April 05, 2018 9:22:21 AM - Kathy Fournier
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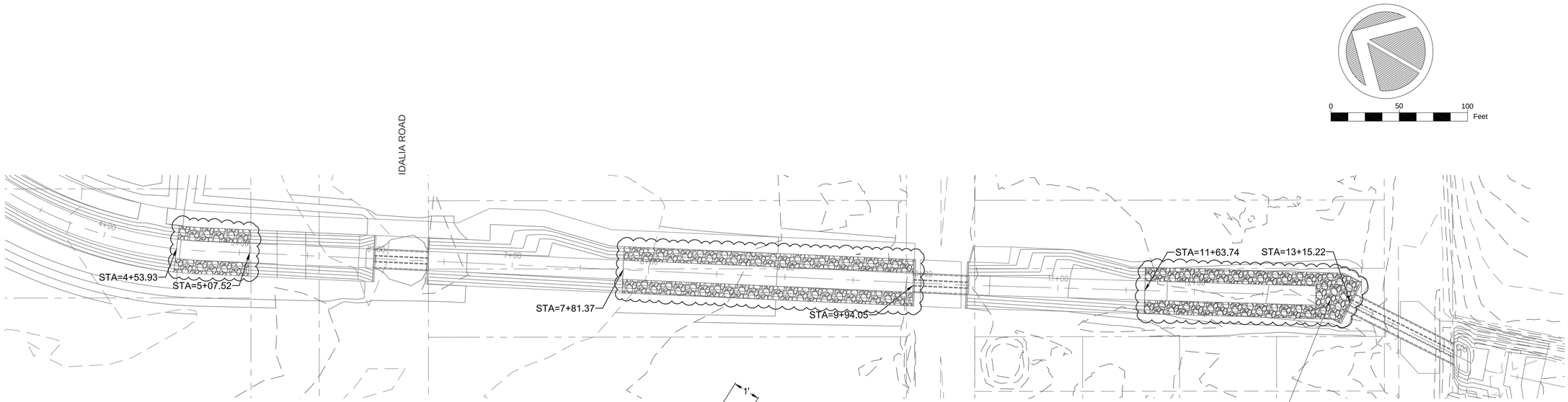
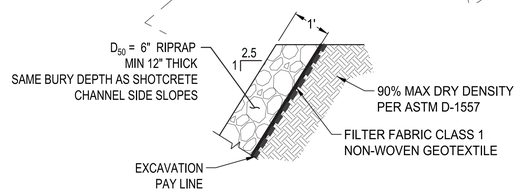
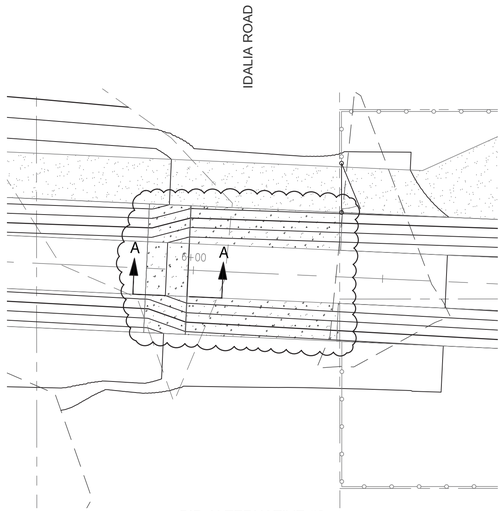
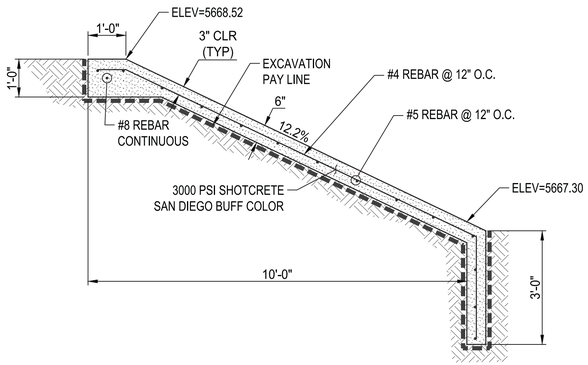




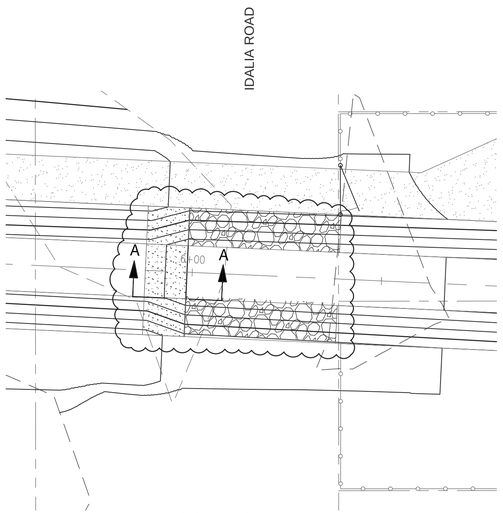
BID ALTERNATIVE #1
DUMPED RIPRAP CHANNEL SIDE SLOPES



BID ALTERNATIVE #2
IDALIA ROAD RPCC BOX CULVERT AND APRON REMOVED
SHOTCRETE CHANNEL SIDE SLOPES



A-A DROP STRUCTURE DETAIL
Scale: NTS



BID ALTERNATIVE #3
IDALIA ROAD RPCC BOX CULVERT AND APRON REMOVED
DUMPED RIPRAP CHANNEL SIDE SLOPES

Southern Sandoval County Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, New Mexico 87124
505-892-RAIN (7246)
505-892-7241 (Fax)
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ANDRES SANCHEZ
NEW MEXICO
Licensed
4.4.18
PROFESSIONAL ENGINEER

RAINBOW POND AND DOWNSTREAM CHANNEL

BID ALTERNATES

REVISIONS & CHANGE NOTICES

MARK	DESCRIPTION	DATE

PROJECT NO: RA_P0001
DESIGNED BY: AES
DRAWN BY: KLF
CHECKED BY: AES
DATE: 4/5/2018

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SHEET 28 OF 28

Thursday, April 05, 2018 12:04:50 PM – Kathy Fournier
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