

TUCSON WATER

PLANNING AND ENGINEERING

NEW AREA DEVELOPMENT (NAD) AND ENGINEERING DEPARTMENT

DESIGN STANDARDS ILLUSTRATIONS 2023 (DSI)

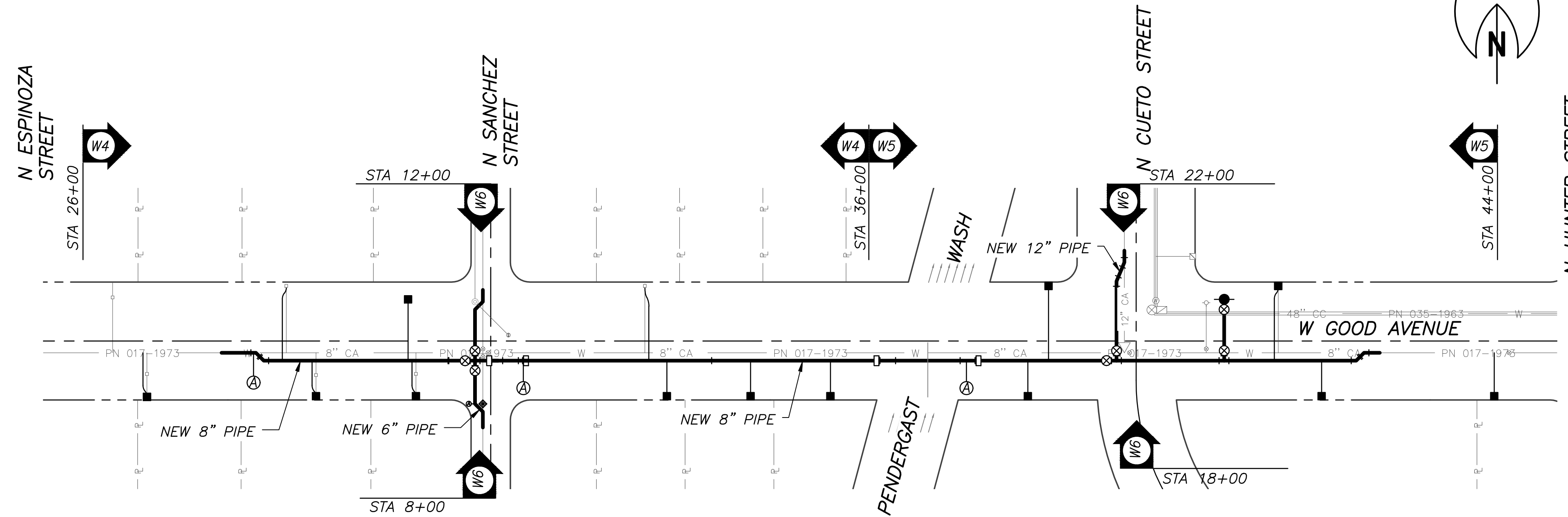
NOTES

1. THE DRAWING SHEET SIZE SHALL NOT EXCEED 24" X 36".

GENERAL CONSTRUCTION NOTES:

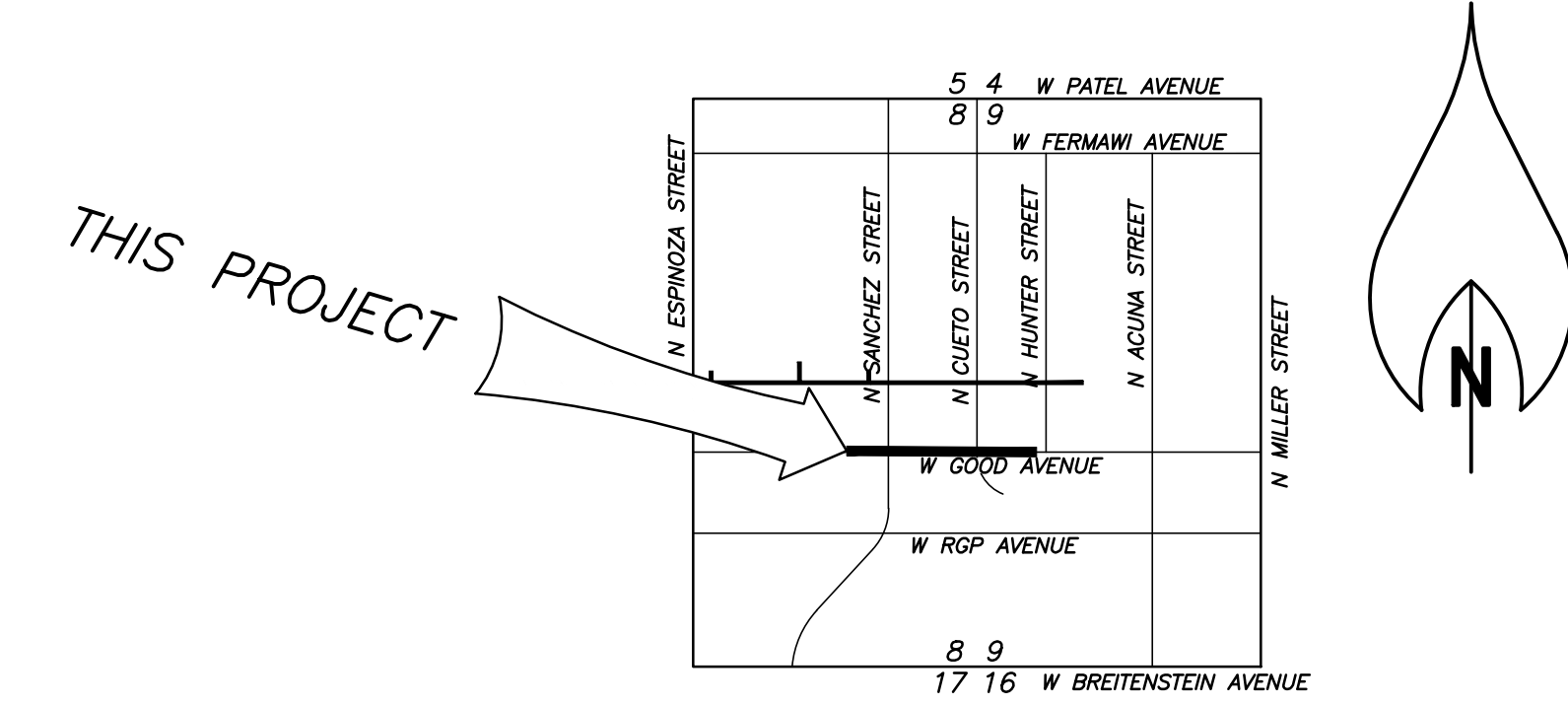
1. TUCSON WATER STANDARD DETAIL NO. 105, "GENERAL CONSTRUCTION NOTES," SHALL APPLY TO AND BECOME AN INTEGRAL PART OF THIS CONTRACT. ALL DESIGN STANDARDS, MATERIALS, AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, 2017 EDITION AND ENGINEERING DIRECTIVES AND POLICIES.
2. CONSTRUCTION WATER FOR PRESSURE TESTING, CHLORINATING AND FLUSHING SHALL BE PROVIDED THROUGH THE EXISTING WATER SYSTEM AND SHALL COST \$ _____, PLUS TAX. CONSTRUCTION WATER FOR TRENCH BACKFILL AND COMPACTION AND OTHER CONSTRUCTION NEEDS SHALL BE THROUGH AN APPROVED METERED WATER SOURCE OBTAINED FROM TUCSON WATER CUSTOMER SERVICE DIVISION UNDER A SEPARATE PERMIT/AGREEMENT.
3. THIS WATER SYSTEM IS DESIGNED TO ACCOMMODATE _____ GPM FIRE FLOW, FOR _____ HOURS.
4. AT THE TIME OF PLAN APPROVAL, THIS DEVELOPMENT IS LOCATED WITHIN _____ ZONE. MINIMUM DESIGN PRESSURES FOR THIS DEVELOPMENT ARE AS FOLLOWS:
 1. STATIC PRESSURE: _____ PSI.
 2. PEAK DAY PRESSURE: _____ PSI.
 3. PEAK DAY + FIRE FLOW: _____ PSI.
 DUE TO WATER SYSTEM OPERATIONAL VARIANCES PRESSURE WILL VARY AS MUCH AS 10 PSI +/- .
5. _____ L.F. OF NEW PIPELINE (EXCLUDING WATER SERVICE LINE 2" AND LESS IN DIAMETER) WILL BE INSTALLED PER THIS PROJECT. A PIPELINE INSPECTION FEE OF \$7.00 PER LINEAR FOOT OF PIPELINE INSTALLED WILL BE ASSESSED PRIOR TO ISSUANCE OF "NOTICE TO PROCEED".
6. EFFECTIVE AUGUST 11, 2003 PAYMENT OF THE WATER SYSTEM EQUITY FEE IS REQUIRED AT THE TIME OF WATER METER APPLICATION, PER ORDINANCE NO. 9842, AMENDMENT TO THE TUCSON CODE, SECTION 27-36.
7. EFFECTIVE MONDAY, JULY 9, 2007, THE CAP WATER RESOURCE FEE SHALL BE ASSESSED IN ADDITION TO THE SYSTEM EQUITY FEE FOR ALL NEW POTABLE WATER METER CONNECTIONS.
8. AFTER JANUARY 4, 2014, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE, FITTINGS, APPURTENANCES OR ANY OTHER MATERIALS TO BE IN CONTACT WITH POTABLE WATER IN ACCORDANCE WITH THE LEAD-FREE REQUIREMENTS DEFINED BY THE "REDUCTION OF LEAD IN DRINKING WATER ACT OF 2011" AMENDING SECTION 1417 OF THE SAFE DRINKING WATER ACT.
9. RESERVED.
10. THIS PROJECT FALLS WITHIN AN AREA THAT REQUIRES LOCKING FIRE HYDRANTS.
11. NO PERMANENT STRUCTURES, INCLUDING WALLS AND FENCES MAY BE CONSTRUCTED WITHIN THE WATER EASEMENTS SHOWN ON THIS PLAN. THE OWNER SHALL INDEMNIFY TUCSON WATER (CITY OF TUCSON) AGAINST ANY AND ALL DAMAGE TO PRIVATE FACILITIES PLACED WITHIN THESE EASEMENTS.
12. IF ANY WELLS(S) ARE ENCOUNTERED DURING CONSTRUCTION OF THIS PROJECT, THEY ARE TO BE PROPERLY REGISTERED AND ABANDONED IN ACCORDANCE WITH PROVISIONS OF ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR) REGULATION R-12-15-816. DOCUMENTATION OF WELL REGISTRATION AND ABANDONMENT MUST BE SUBMITTED TO TUCSON WATER RESOURCE MANAGEMENT DIVISION, ATTN. CHUCK FAAS, (520)837-2231, BEFORE ANY FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT.

SEE NEXT SHEET FOR ADDITIONAL NOTES TO BE ADDED AS REQUIRED.



SITE PLAN
1"=100'

NEW AREA DEVELOPMENT (NAD) COVER SHEET WITH GENERAL NOTES



LOCATION MAP

SECTIONS 8 & 9, T 16S, R 15E
G&SR B&M, PIMA COUNTY, ARIZONA
LATITUDE 32°02'57"N. LONGITUDE -110°49'32"W
WARD (CITY OF TUCSON)
DISTRICT (PIMA COUNTY)
SCALE: 3"=1 MILE

INSPECTOR'S RECORD DRAWING COMMENTS	
INSPECT:	_____
CONTR:	_____
START:	FINAL:
PIPE: <input type="checkbox"/> DI <input type="checkbox"/> PVC <input type="checkbox"/>	PIPE: <input type="checkbox"/> DI <input type="checkbox"/> PVC <input type="checkbox"/>
SVC LINE MAT:	_____
B.F.S:	_____
GATES:	_____
F.H.'S BRAND:	MAT: _____
MAGNETIC TAPE INST.	<input type="checkbox"/> YES <input type="checkbox"/> NO
TRACER WIRE INST.	<input type="checkbox"/> YES <input type="checkbox"/> NO
ALL VALVES WERE INSTALLED PER PLAN	
Signature	_____
Date	_____
GPS LAT/LONG.	<input type="checkbox"/> YES <input type="checkbox"/> NO

SHEET INDEX TABLE	
SHEET NO.	TITLE
1	COVER SHEET
2	ADDITIONAL NOTES
3	ABBREVIATIONS AND LEGEND
4	W GOOD AVENUE STA 26+00 TO STA 36+00
5	W GOOD AVENUE STA 36+00 TO STA 44+00
6	N SANCHEZ STREET STA 08+95 TO STA 10+65 N CUETO STREET STA 19+75 TO STA 21+15
7	METER SHEET
8	DETAILS SHEET
9	SURVEY CONTROL SHEET

OWNER/DEVELOPER:
NAME OF COMPANY
ATTN: NAME
ADDRESS:
PHONE:
EMAIL:



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP		APPROVED:	CITY OF TUCSON
		RESERVE FOR ENGINEER'S SEAL	TITLE OF NAD PROJECT COVER SHEET
FIRE DISTRICT _____ DATE: _____		ACCEPTED BY THE CITY OF TUCSON WATER DEPARTMENTAL NEW DEVELOPMENT UNIT FOR SUBSTANTIAL CONFORMANCE WITH STANDARD SPECIFICATIONS AND DETAILS	DATE: _____
DESIGNED BY: XXX DATE: XX/XX		SURVEY REQUEST NO: XXX	1 of XX
DRAWN BY: XXX DATE: XX/XX		SCALE: _____	
CHECKED BY: XXX DATE: XX/XX		VERT.: NTS HORIZ.: 1"=100'	

GENERAL CONSTRUCTION NOTES: CONTINUED

A. CONSTRUCTION AND EMERGENCY ACCESS NOTES TYPICALLY SHOWN ON ALL WATER PLANS:

- ALL NEW WATER MAINS SHALL BE INSTALLED WITH A MINIMUM COVER OF _____" PER S.D. 105, UNLESS OTHERWISE INDICATED ON THESE PLANS.
- ALL FITTINGS SHALL BE RESTRAINED PER TUCSON WATER STANDARD DETAIL 600, UNLESS RESULTS OF APPROVED ENGINEERING CALCULATIONS ARE PROVIDED. FOR PIPE 16" AND GREATER IN DIAMETER, APPROVED ENGINEERING CALCULATIONS MUST BE DOCUMENTED IN THIS PLAN.
- ACCESS FOR TUCSON WATER SHALL BE THE SAME AS FOR THE CITY OF TUCSON FIRE DEPARTMENT (24 HOUR EMERGENCY ACCESS) BEING: (DESCRIPTION OF ACCESS FILLED IN HERE)

B. LOW-PRESSURE AND HIGH-PRESSURE NOTES:

- THIS PROJECT MAY RECEIVE LOWER THAN NORMAL WATER PRESSURE AND MAY REQUIRE INDIVIDUAL PRESSURE BOOSTERS AS PART OF THE PRIVATE PLUMBING.

(TO BE USED WHEN THE MODELED MINIMUM PEAK DAY PRESSURE:

- FOR A SINGLE-FAMILY RESIDENTIAL DEVELOPMENT, IS LESS THAN 45 PSI.
- FOR A MULTI-FAMILY, COMMERCIAL, OR INDUSTRIAL, DEVELOPMENT IS LESS THAN 55 PSI.)

- THIS PROJECT MAY RECEIVE HIGHER THAN NORMAL WATER PRESSURE AND MAY REQUIRE INDIVIDUAL PRESSURE REGULATORS AS PART OF THE PRIVATE PLUMBING: THE INSTALLATION OF A PRESSURE REGULATOR MAY CREATE A CLOSED SYSTEM. CONSULT LOCAL PLUMBING CODES FOR PRESSURE RELIEF AND THERMAL EXPANSION REQUIREMENTS.

(TO BE USED WHEN THE MAXIMUM STATIC OR MODELED PEAK DAY PRESSURE IS ABOVE 83 PSI.)

C. LARGE (3" OR LARGER) WATER METER NOTES:

- THIS PROJECT UTILIZES A 3" OR LARGER WATER METER (I.E. LARGE METER). A LARGE METER ENCLOSURE PER SD-314 (ENGINEERING DIRECTIVE 01-2012) IS REQUIRED TO PROTECT THE METER ASSEMBLY AND BACKFLOW DEVICE. THE 4" OR LARGER SERVICE LATERAL SHALL BE DUCTILE IRON FROM THE DISTRIBUTION MAIN TO THE LARGE METER ENCLOSURE AND TERMINATE IN A VERTICAL, PLAIN END JOINT WITH A MECHANICALLY RESTRAINED END CAP SET AT 48" ABOVE GRADE. THE SERVICE LATERAL AND THE LARGE METER ENCLOSURE REQUIRE AN EASEMENT PER SD-340.
- TUCSON WATER WILL INSTALL THE 3" OR LARGER WATER METER UPON FINAL ACCEPTANCE OF THE PROJECT. FOR ADDITIONAL INFORMATION, CONTACT NEW SERVICES AT (520) 791-5164.

D. PROTECTED MAIN AND/OR FACILITY NOTES:

- THE NEW WATER MAIN DESIGNATED ON THIS PLAN AS PROTECTED WILL BE PROTECTED FOR A PERIOD OF 15 YEARS PER SECTION 27-38 OF THE TUCSON CODE STARTING ON _____ AND TERMINATING ON _____.

(TO BE USED WHEN THEN PLAN SHOWS THE CONSTRUCTION OF A NEW PROTECTED WATER MAIN. THE BLANKS FOR THE DATES IN THIS NOTE ARE TO BE FILLED OUT BY TUCSON WATER CONSTRUCTION SECTION STAFF AT THE TIME OF FINAL ACCEPTANCE.)

- THIS PROJECT CONNECTS TO A PROTECTED PUMP STATION OR OTHER PROTECTED FACILITY ESTABLISHED BY PN _____ IN ADDITION TO ALL OTHER STANDARD CONNECTION FEES, PROTECTED FACILITY FEES WILL BE DUE AT TIME OF METER APPLICATION PER TUCSON CITY CODE SECTION 27-37.

E. FIRE SPRINKLER SYSTEM NOTES:

- RESERVED.
- IF RESIDENTIAL SINGLE-FAMILY FIRE SUPPRESSION SPRINKLER SYSTEMS ARE TO BE INSTALLED, A DEDICATED 1" MINIMUM WATER SERVICE LINE AND A MINIMUM 3/8" METER ARE REQUIRED FOR EACH RESIDENCE/PARCEL.

F. BILLING AND SPECIAL CONNECTION FEE NOTES:

- THE RESPONSIBLE PARTY FOR FIRE SERVICE BILLING IS THE OWNER/DEVELOPER CALLED OUT ON THIS PLAN.
- THIS DEVELOPMENT FALLS WITHIN AN ISOLATED WATER SERVICE AREA.
- THIS DEVELOPMENT FALLS WITHIN THE _____ AREA SPECIFIC WATER SYSTEM PLAN. IN ADDITION TO THE STANDARD CONNECTION FEE, A WATER DEVELOPMENT FEE MUST BE PAID.
- THIS PROJECT IS WITHIN THE CONTINENTAL RANCH SERVICE AREA. A CONTINENTAL RANCH REIMBURSEMENT MAY APPLY. CONTACT NEW DEVELOPMENT AT (520) 791-4718 FOR PROCESSING REQUIREMENTS.
- THIS PIPELINE HAS BEEN OVERSIZED FROM _____" PIPE TO _____" PIPE FROM STA _____ TO STA _____ AT THE REQUEST OF TUCSON WATER. THE PROJECT OWNER WILL BE ELIGIBLE FOR AN OVERSIZE REFUND IN ACCORDANCE WITH TUCSON WATER CODE SECTION 27-37 (C) AND SECTION 27-38.

G. FINAL ACCEPTANCE OF CONSTRUCTION NOTES:

- NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE NEW EASEMENTS SHOWN ON THIS PLAN HAVE BEEN RECORDED, AND THE RECORDING INFORMATION FOR THE NEW EASEMENTS HAS BEEN ADDED TO THIS PLAN. SEQ. No. _____

(TO BE USED WHEN NEW WATER EASEMENTS BY SEPARATE INSTRUMENT(S) ARE SHOWN ON THE PLAN, BUT THE SEPARATE INSTRUMENT(S) HAVE NOT BEEN RECORDED PRIOR TO PLAN ACCEPTANCE. TUCSON WATER'S CONSTRUCTION SECTION STAFF ARE TO ADD THE RECORDING INFORMATION TO THE PLAN DURING THE FINAL ACCEPTANCE PROCESS.)

- NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE FINAL PLAT FOR THIS PROJECT HAS BEEN RECORDED, AND THE RECORDING INFORMATION FOR THE FINAL PLAT HAS BEEN ADDED TO THIS PLAN.

(TO BE USED WHEN THE PUBLIC WATER EASEMENTS SHOWN ON THE PLAN ARE TO BE CREATED BY FINAL PLAT, INCLUDING PRIVATE STREETS OR OTHER COMMON AREAS THAT WILL BE DEDICATED AS UTILITY EASEMENTS BY THE FINAL PLAT, AND THE FINAL PLAT HAS NOT BEEN RECORDED PRIOR TO PLAN ACCEPTANCE. TUCSON WATER'S CONSTRUCTION SECTION STAFF ARE TO ADD THE RECORDING INFORMATION TO THE PLAN DURING THE FINAL ACCEPTANCE PROCESS.)

- NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL PN(S) _____ HAS/HAVE BEEN ACCEPTED FOR USE BY TUCSON WATER.

(TO BE USED WHEN THE NEW WATER MAINS SHOWN ON THE PLAN ARE TO BE CONNECTED TO OTHER WATER MAINS THAT HAVE NOT YET BEEN ACCEPTED BY TUCSON WATER.)

- THIS PROJECT MAY IMPACT A TRANSMISSION MAIN OR METALLIC PIPELINE. NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE CORROSION REPORT HAS BEEN APPROVED. SEE SD-700. CONTACT TUCSON WATER'S CONDITION ASSESSMENT SECTION FOR TECHNICAL ASSISTANCE.

- IN ACCORDANCE WITH THE TUCSON CODE CHAPTER 27-37 (4) B, NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE PROTECTED MAIN AND/OR FACILITY FEES AS ESTABLISHED BY PN _____ HAVE BEEN PAID.

(TO BE USED WHEN THE PLAN SHOWS WATER METERS IN A PROJECT WITHIN A NON-PARTICIPATING PROPERTY CONNECTING TO A PROTECTED WATER MAIN.)

- NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE WELL(S) LOCATED ON THIS PROPERTY (REGISTRY # _____) HAS BEEN PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR) REGULATION R-12-15-816. DOCUMENTATION OF WELL ABANDONMENT MUST BE SUBMITTED TO TUCSON WATER HYDROLOGY DIVISION, ATTN: CHARLES FAAS, BEFORE PROJECT FINALIZATION.

(TO BE USED WHEN THERE ARE PRIVATE WELLS ON THE PROPERTY THAT SHOULD BE ABANDONED.)

- NO FINAL ACCEPTANCE LETTER MAY BE ISSUED FOR THIS PROJECT UNTIL THE OWNER OF THE WELL LOCATED ON THIS PROPERTY (REGISTRY # _____) HAS FILED A WAIVER WITH ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR) ALLOWING TUCSON WATER TO EXCEED 10 FT OF ADDITIONAL CUMULATIVE DRAW-DOWN OVER A 5-YEAR PERIOD. DOCUMENTATION VERIFYING ADWR WAIVER MUST BE SUBMITTED TO TUCSON WATER HYDROLOGY DIVISION, ATTN: CHARLES FAAS, BEFORE PROJECT FINALIZATION. ALSO, ALL TUCSON WATER METERED CONNECTIONS IN THIS DEVELOPMENT WILL REQUIRE BACKFLOW PROTECTION.

(TO BE USED WHEN A PRIVATE WELL THAT DISTRIBUTES WATER INSIDE THE PROJECT WILL NOT BE ABANDONED AND WILL CONTINUE TO BE USED.)

NEW AREA DEVELOPMENT (NAD) CONTINUED GENERAL NOTES



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE

CITY OF TUCSON TITLE OF NAD PROJECT CONTINUED ADDITIONAL NOTES			
RESERVE FOR ENGINEER'S SEAL		2 of XX X-XXX-XXXX	
DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO. XXX	SCALE: XXX
DRAWN BY: XXX	DATE: XX/XX	VERT: NTS	PLAN NO.
CHECKED BY: XXX	DATE: XX/XX	HORIZ: NTS	

LEGEND

WATER SYMBOLS

UTILITY SYMBOLS

ABBREVIATIONS

FEATURE	NEW	EXISTING
WATER MAIN (LATERAL)		
RECLAIMED WATER MAIN		
BEND (SOLID SLEEVE, 11.25, 22.5, 45, 90)		
TEE, CROSS, VERTICAL BEND PLAN VIEW		
REDUCER/INCREASER		
PIPE MATERIAL CHANGE		
CORROSION TEST STATION (CTS)		
CORROSION TEST STATION (CTS) W/ ANODES		
COMBINATION AIR RELEASE AND VACUUM VALVE ASSEMBLY AND SIZE (ARV)		
BLOW-OFF VALVE AND SIZE (BOV)		
BACKFLOW PREVENTER		
GATE VALVE, RECLAIMED		
BUTTERFLY VALVE, RECLAIMED		
DRAIN VALVE ASSEMBLY, RECLAIMED		
MODIFIED DRAIN VALVE ASSEMBLY, RECLAIMED		
FIRE HYDRANT		
FIRE SERVICE		
PRESSURE REDUCING VALVE (PRV)		
WATER METER		
WATER MANHOLE		
WATER VALVE IN MANHOLE		
WATER POTABLE WELL		
WATER QUALITY SAMPLING		
GATE VALVE (PROFILE)		
BUTTERFLY VALVE (PROFILE)		
RECLAIMED WATER (PROFILE)		
RELOCATION SERVICE LINE RENEWAL (M/R)		
SERVICE LINE RENEWAL (R)		
METER RELOCATION SERVICE LINE ADJUSTMENT		
SERVICE STUB (S)		
SERVICE LINE ADJUSTMENT (S/A)		
PRIVATE PLUMBING		
REMOVE & DISPOSE (CUT & PLUG)		
SACRIFICIAL ANODES		

FEATURE	SYMBOL
EXIST SANITARY SEWER	
EXIST BUSINESS CONNECTION SEWER	
EXIST HOUSE CONNECTION SEWER	
EXIST STORMDRAIN	
EXIST GAS	
EXIST UNDERGROUND ELECTRIC	
EXIST OVERHEAD ELECTRIC	
EXIST UNDERGROUND TELEPHONE	
EXIST OVERHEAD TELEPHONE	
EXIST UNDERGROUND CABLE TV	
EXIST OVERHEAD CABLE TV	
EXIST UNDERGROUND FIBER OPTIC	
EXIST OVERHEAD FIBER OPTIC	
EXIST SEWER MANHOLE	
EXIST SEWER CLEAN-OUT	
EXIST STORMDRAIN MANHOLE	
EXIST GAS METER	
EXIST GAS VALVE	
EXIST ELECTRIC BOX (CABINET)	
EXIST POWER POLE W/GUY	
EXIST ELECTRIC MANHOLE	
EXIST ELECTRIC PEDESTAL	
EXIST ELECTRIC PULLBOX	
EXIST TRAFFIC PULLBOX	
EXIST ELECTRIC TRANSFORMER	
EXIST STREET LIGHT (WITH MAST)	
EXIST TRAFFIC LIGHT	
EXIST TELEPHONE MANHOLE	
EXIST MANHOLE (FIBER OPTIC)	
EXIST TELEPHONE PEDESTAL	
EXIST TELEPHONE POST	
EXIST UNKNOWN PEDESTAL	
EXIST MANHOLE (UNKNOWN)	
EXIST CABLE TV PEDESTAL	
EXIST COMMUNICATION PULLBOX	
POST UTILITY MARKER (WATER, RECLAIMED WATER, GAS FIBER OPTIC)	
EXIST IRRIGATION CONTROL VALVE	
EXIST IRRIGATION CONTROL VALVE RECLAIMED	
SURVEY CONTROL LINE	
POTHOLE SYMBOL AND NO	
SOIL BORING LOCATION AND NO	

&	AND	NPI	NON PAY ITEM
ℓ	PROPERTY LINE	NTS	NOT TO SCALE
AHD	AHEAD	OHE	OVERHEAD ELECTRIC
APPROX	APPROXIMATELY	PAG	PIMA ASSOCIATION OF GOVERNMENTS
ARV	AIR RELEASE VALVE	PC	POINT OF CURVATURE
ASM	ALUMINUM SURVEY MONUMENT	PCDOT	PIMA COUNTY DEPT OF TRANSPORTATION
B & C	BOX & COVER	PCFCD	PIMA COUNTY FLOOD CONTROL DISTRICT
BM	BENCH MARK	PCRWRD	PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT
BFV	BUTTERFLY VALVE	PE	PLAIN END OR POLYETHYLENE
BK	BACK	PED	PEDESTAL
BSM	BRASS SURVEY MONUMENT	PN	PLAN NUMBER
BTWN	BETWEEN	PP	POWER POLE
CA	CEMENT ASBESTOS	PT	POINT OR POINT OF TANGENCY
CALC	CALCULATED	PVC	POLYVINYL CHLORIDE
CAV	COMBINATION AIR RELEASE VALVE	R/W	RIGHT-OF-WAY
CIR	CIRCLE	RB	REBAR
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
CTS	CORROSION TEST STATION	RD	ROAD
CU	COPPER	RED	REDUCER
℄	CENTER LINE	RO	ROTATED
DET	DETAIL	RT	RIGHT
DIP	DUCTILE IRON PIPE	S	SOUTH
DR	DRIVE	SD-XXX	STANDARD DETAIL
DVA	DRAIN VALVE ASSEMBLY	SHT	SHEET
E	EAST	SMH	SANITARY MANHOLE
ECC	ECCENTRIC	SQ	SQUARE
EG	EXISTING GRADE	SS	STAINLESS STEEL OR SANITARY SEWER (PCWMD)
ELEC	ELECTRIC	ST	STREET OR SPIRAL TO TANGENT
ELEV	ELEVATION	STA	STATION
EPNG	EL PASO NATURAL GAS	STL	STEEL
EXIST	EXISTING	SW	SOUTHWEST
FG	FINISH GRADE	TELE	TELEPHONE OR TELEGRAPH
FH	FIRE HYDRANT	THK	THICK
FIK	FLANGED INSULATION KIT	TS&V	TAPPING SLEEVE AND VALVE
FLG	FLANGE	TV	CABLE TV
FTG	FOOTING	TW	TUCSON WATER
G	NATURAL GAS	UNK	UNKNOWN
GM	GAS METER	VCP	VITRIFIED CLAY PIPE
GV	GATE VALVE	VERT	VERTICAL
HCS	HOUSE CONNECTION SEWER	W	WEST
HDPE	HIGH DENSITY POLYETHYLENE	WE	WATER EASEMENT
HORIZ	HORIZONTAL	WO	WORK ORDER
HWY	HIGHWAY	X	BY
INV	INVERT	YD	YARD
LF	LINEAR FEET		
LMA	LARGE METER ASSEMBLY		
LP	LIGHT POLE		
LT	LEFT		
MAX	MAXIMUM		
MH	MAN HOLE		
MIN	MINIMUM		
MJ	MECHANICAL JOINT		
N	NORTH		

PHYSICAL CULTURE

NEW PAVEMENT REPLACEMENT	
EXIST TREE(MESQ., PALO VERDE, PALM, PINE, STUMP)	
NEW PAVEMENT CHIP SEAL	
NEW BRICK	
NEW CONCRETE	
NEW GRAVEL	
EXIST BRICK	
EXIST CONCRETE	
EXIST RIPRAP	
EXIST CURB	
EXIST PAVED ROADWAY	
EXIST PAVED ROADWAY WITH CURB	
EXIST PAVED ROADWAY WITH GUTTER AND CURB	
EXIST FENCE LINE	
EXIST CHAIN LINK FENCE LINE	
EXIST WROUGHT IRON FENCE LINE	
EXIST GUARD RAIL	

BOUNDARY AND MARKER SYMBOLS


100-YEAR FLOOD PLAIN	
EASEMENT	
LIMITS OF CONSTRUCTION	
PROPERTY LINE	
RIGHT-OF-WAY (R/W)	
SCOUR LIMITS	
SECTION LINE	
SURVEY BRASS OR ALUMINUM MONUMENTS	
SURVEY COTTON SPINDLE	
SURVEY CUT OR CHISELED CROSS	
SURVEY CUT OR CHISELED CROWS FOOT	
SURVEY IRON PINS	
SURVEY NAILS	
SURVEY PIPES	
SURVEY RAILROAD SPIKE	
SURVEY STONE MONUMENT	

SHEET INDEX SYMBOL


SHEET INDEX	
-------------	--

PAGE NUMBERS FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W3 OF W12



TUCSON WATER
A proud part of the City of Tucson



CITY OF TUCSON

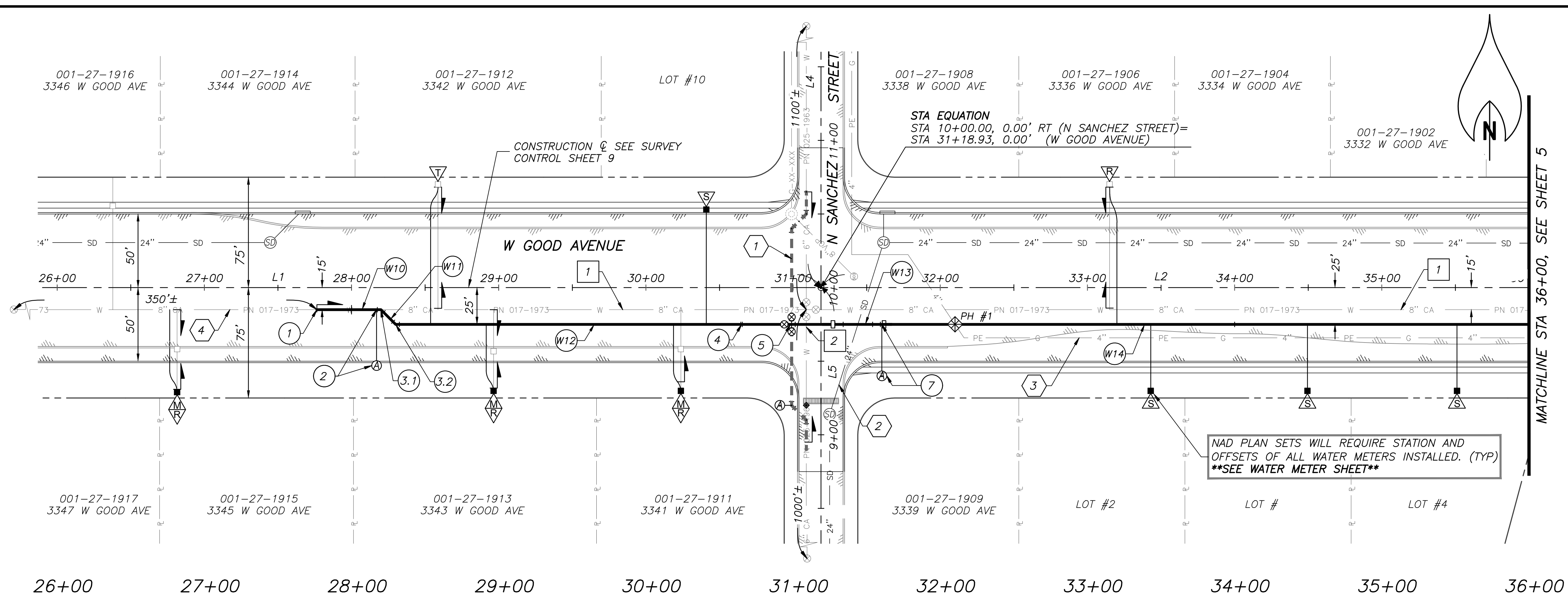
TITLE OF PROJECT
ABBREVIATIONS, AND LEGEND

RESERVE FOR
ENGINEER'S
SEAL

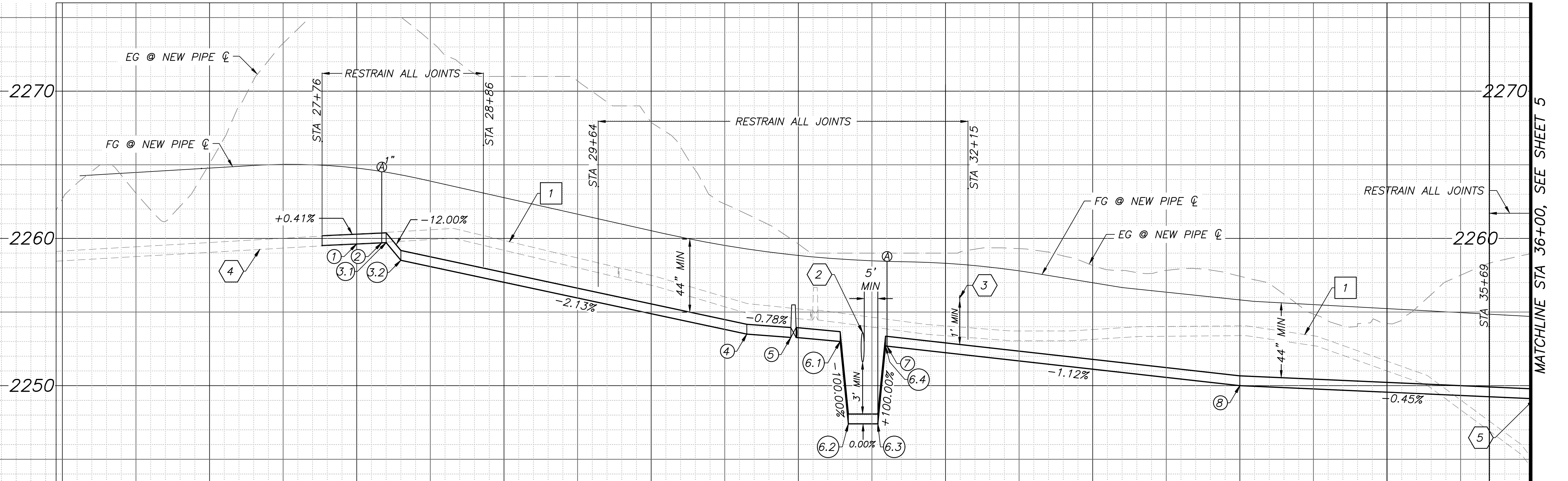
DESIGNED BY:	DATE:	FIELD BOOK NO.:	SCALE:	PLAN NO.:
XXX	XX/XX	XXX		3 of XX
XXX	XX/XX		NTS	
XXX	XX/XX		NTS	X-XXX-XXXX



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE



- REMOVE/ ABANDON NOTES
- 1 STA 28+00, 15' RT TO STA 36+00, 15' RT
REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALES WITH BOX & COVER 800± LF
 - 2 SEE SHEET 6
- CONSTRUCTION NOTES
- 1 START CONSTRUCTION
STA 27+76.43, 15.00' RT
INV ELEV=2259.51
CONNECT TO EXIST. 8" CA PIPE(SEE PN17-1973)
 - 2 STA 28+17.00, 15.0' RT (LOCATION OF TAP)
INV ELEV=2259.70
STA 28+17.00, 53.0' RT (LOCATION OF ARV)
1" AIR RELEASE VALVE (PER SD-330) 1 EA
 - 3.1 STA 28+20.00, 15.0' RT (RO)
INV ELEV=2259.71
8" X 45° BEND 1 EA
 - 3.2 STA 28+30.00, 25.0' RT (RO)
INV ELEV=2258.51
8" X 45° BEND 1 EA
 - 4 STA 30+65.00, 25.00' RT
INV ELEV=2253.50
GRADE BREAK
8" SOLID SLEEVE 1 EA
 - 5 STATION EQUATION
STA 30+98.93, 25.00' RT (W GOOD AVENUE) =
STA 9+75.00, 20.00' LT (N SANCHEZ STREET)
INV. ELEV=2253.27
8" X 6" CROSS 1 EA
8" GATE VALVE, B&C 1 EA
6" GATE VALVE, B&C 2 EA
 - 6.1 STA 31+28.41, 25.00' RT (VERT.)
INV ELEV=2253.00
 - 6.2 STA 31+34.00, 25.00' RT (VERT.)
INV ELEV=2247.41
 - 6.3 STA 31+54.00, 25.00' RT (VERT.)
INV ELEV=2247.41
 - 6.4 STA 31+59.28, 25.00' RT (VERT.)
INV ELEV=2252.69
8" X 45° BEND 4 EA
 - 7 STA 31+60.28, 25.00' RT (LOCATION OF TAP)(VERT)
INV ELEV=2252.68
STA 31+60.28, 60.00' RT (LOCATION OF ARV)
1" AIR RELEASE VALVE (PER SD-330) 1 EA
 - 8 STA 34+00.00, 25.00' RT
INV ELEV=2250.00
GRADE BREAK
8" SOLID SLEEVE 1 EA



- REFERENCE NOTES
- 1 LATERAL WATER MAIN PLAN & PROFILE, SEE SHEET 6
 - 2 STA 31+44, 25.0' RT
INV ELEV=2250.90
PROPOSED 24" STORM DRAIN, PAGE ***
 - 3 STA 32+10, 25.0' RT
INV ELEV=UNK
EXIST 4" GAS
 - 4 EXIST 8" CA PIPE (TO REMAIN)
 - 5 STA 36+00.00, 25.0' RT
INV ELEV=2249.08
MATCHLINE

PAGE NUMBERS FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W4 OF WXX

SERVICE WORK				
ADDRESS/STA	EXIST SERV	SERV WORK	EXIST CONNECTION DIA-MATL	NEW CONNECTION DIA-MATL
3342 W GOOD AVE	M (1")	T	1" - CU	1" - CU
STATION 30+41± (IRRIGATION)	-	S	-	2" - CU
3345 W GOOD AVE	M (5/8")	M/R	3/4" - CU	1" - CU
3343 W GOOD AVE	M (5/8")	M/R	3/4" - CU	1" - CU
3341 W GOOD AVE	M (5/8")	M/R	3/4" - CU	1" - CU
3336 W GOOD AVE	M (5/8")	R	1" - CU	1" - CU

WATERLINE TABLE			
W#	BEARING	LENGTH	SIZE / MATERIAL
W10	N90°00'00"E	43.6 LF	8" PVC PC305 (DR14)
W11	S45°00'00"E	14.1 LF	8" PVC PC305 (DR14)
W12	N90°00'00"E	298.4 LF	8" PVC PC305 (DR14)
W13	N90°00'00"E	47.0 LF	8" DIP CL350
W14	N90°00'00"E	439.7 LF	8" PVC PC305 (DR14)

FOR NAD ONLY: SEE METER SHEET



CONSULTANT LOGO

NO.	BY	DATE	REVISION	APPR.	DATE

RESERVE FOR ENGINEER'S SEAL

CITY OF TUCSON

TUCSON WATER
A proud part of the City of Tucson

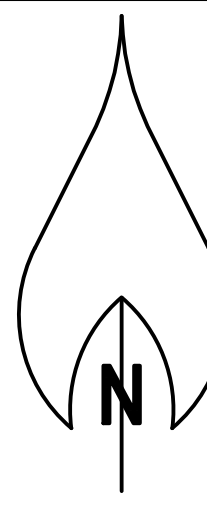
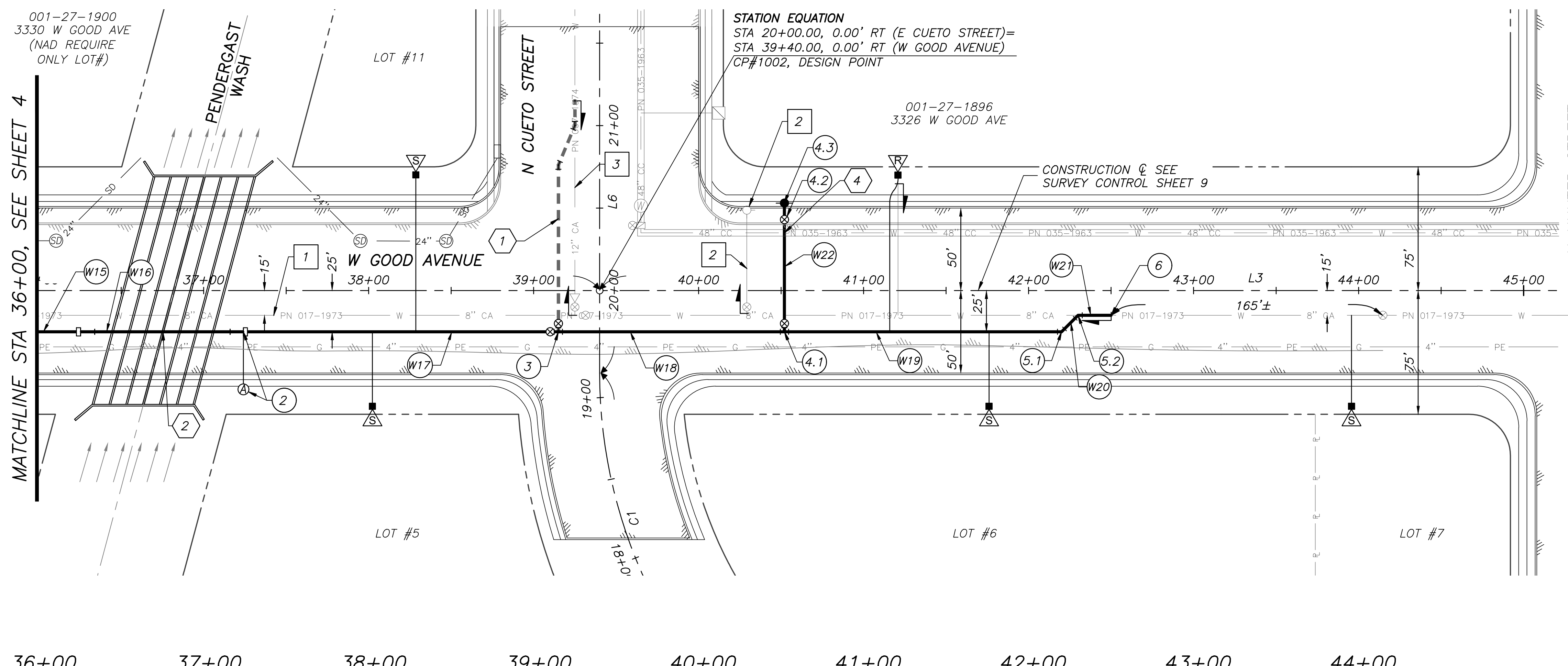
TITLE OF PROJECT
STREET NAME
STATIONING ON THIS SHEET

DESIGNED BY: XXX
DATE: XX/XX
SCALE: XXX

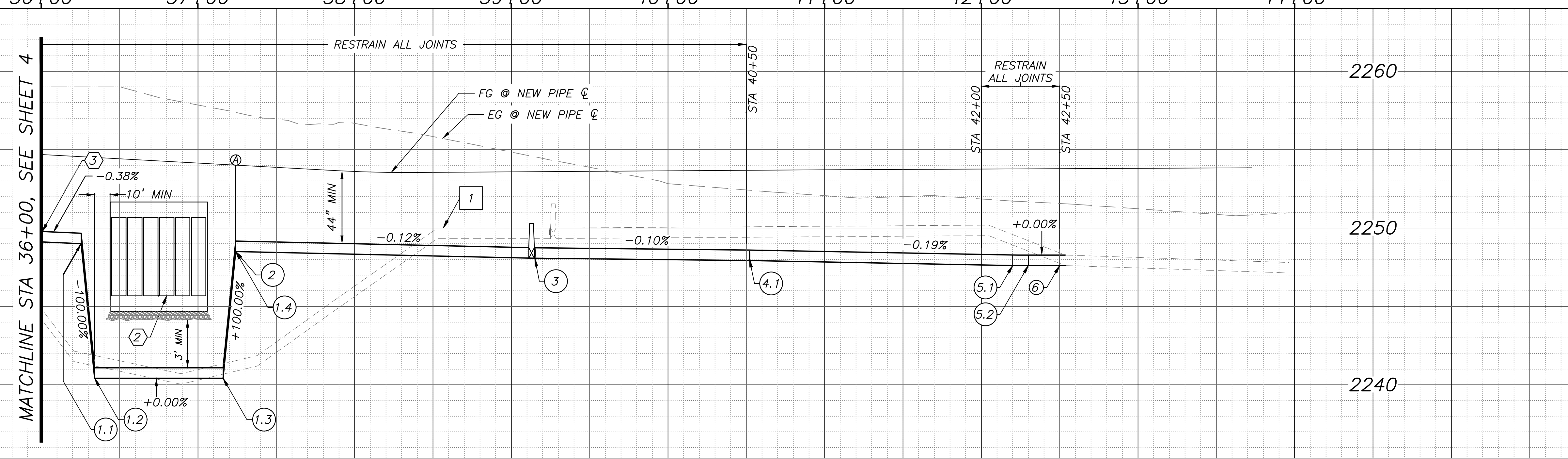
CHECKED BY: XXX
DATE: XX/XX
HORIZ: 1"=40'

FIELD BOOK NO: XXX
PAGE NO: 4 of XX

PLAN NO: X-XXX-XXXX
(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX



- REMOVE / ABANDON NOTES
- 1 STA 36+00, 15' RT TO STA 42+50, 15' RT
REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT, AND GATE VALVES WITH BOX AND COVER. 650± LF
 - 2 STA 40+29, 49' LT
REMOVE EXIST FIRE HYDRANT ASSEMBLY, APPURTENANCES, EXIST. 6" DIP, & GATE VALVE BOX & COVER 1 EA
 - 3 SEE SHEET 6
- CONSTRUCTION NOTES
- 1.1 STA 36+25.42, 25.00' RT (VERT.)
INV ELEV=2249.00
 - 1.2 STA 36+34.00, 25.00' RT (VERT.)
INV ELEV=2240.42
 - 1.3 STA 37+16.00, 25.00' RT (VERT.)
INV ELEV=2240.42
 - 1.4 STA 37+24.08, 25.00' RT (VERT.)
INV ELEV=2248.50
8" X 45' BEND 4 EA (NPI)
 - 2 STA 37+24.08, 25.0' RT (LOCATION OF TAP)
INV ELEV=2248.50
STA 37+24.09, 60.0' RT (LOCATION OF ARV)
1" ARV PER SD-330 1 EA
- STATION EQUATION
STA 39+15.00, 25.0' RT (W GOOD AVENUE)=
STA 19+75.00, 25.0' LT (E CUETO STREET)
INV ELEV=2248.07
8" X 12" TEE
8" GATE VALVE, B & C (W) 1 EA (NPI)
- 4.1 STA 40+52.00, 25.00' RT
INV ELEV=2248.01
8" X 6" TEE
8" GATE VALVE, B & C (E) 1 EA (NPI)
6" GATE VALVE, B & C (N) 1 EA
 - 4.2 STA 40+52.00, 43.00' LT
INV. ELEV.= 2252.21
6" GATE VALVE, B & C (INLINE) 1 EA
 - 4.3 STA 40+52.00, 53.00' LT
INV. ELEV.= 2252.14
FIRE HYDRANT ASSEMBLY PER SD-500 1 EA
 - 5.1 STA 42+20.00, 25.00' RT (HORIZ.)
INV ELEV=2247.61
 - 5.2 STA 42+30.00, 15.00' RT (HORIZ.)
INV ELEV=2247.61
8" X 45' BEND 2 EA (NPI)
 - 6 STA 42+50.00, 15.00' RT
INV ELEV=2247.61
CONNECT TO EXIST 8" CA PIPE 1 EA (NPI)
- REFERENCE NOTES
- 1 LATERAL WATER MAIN PLAN & PROFILE, SEE SHEET W6
 - 2 STA 36+75.00, 25.0' RT
INV ELEV=2245.67
NEW DRAINAGE STRUCTURE CROSSING
 - 3 STA 36+00.00, 25.0' RT
INV ELEV=2249.08
MATCHLINE
 - 4 STA 40+52.00, 43.1' LT
EXIST. 48" CCP & NEW 8" PIPE
NEW 8" PIPE IS 2' ABOVE EXIST. 48" CCP
INV 8" WATER=2248.01
TOP OF 48" WATER=2246.01



WATERLINE TABLE			
W#	BEARING	LENGTH	SIZE / MATERIAL
W15	N90°00'00"E	14.0 LF	8" PVC PC305 (DR14)
W16	N90°00'00"E	121.0 LF	8" DIP CL350
W17	N90°00'00"E	180.0 LF	8" PVC PC305 (DR14)
W18	N90°00'00"E	136.9 LF	8" PVC PC305 (DR14)
W19	N90°00'00"E	168.1 LF	8" PVC PC305 (DR14)
W20	N45°00'00"E	14.1 LF	8" PVC PC305 (DR14)
W21	N90°00'00"E	20.0 LF	8" PVC PC305 (DR14)
W22	N00°00'11"E	78.0 LF	6" PVC DR14 (CL305)

PAGE NUMBERS FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W5 OF WXX

RESERVE FOR ENGINEER'S SEAL

CITY OF TUCSON

TUCSON WATER
A proud part of the City of Tucson

TITLE OF PROJECT
STREET NAME
STATIONING ON THIS SHEET

DESIGNED BY: XXX DATE: XX/XX FIELD BOOK NO: XXX
DRAWN BY: XXX DATE: XX/XX SCALE: 1"=4'
CHECKED BY: XXX DATE: XX/XX HORIZ: 1"=40'
VERT: 1"=40'

5 of XX

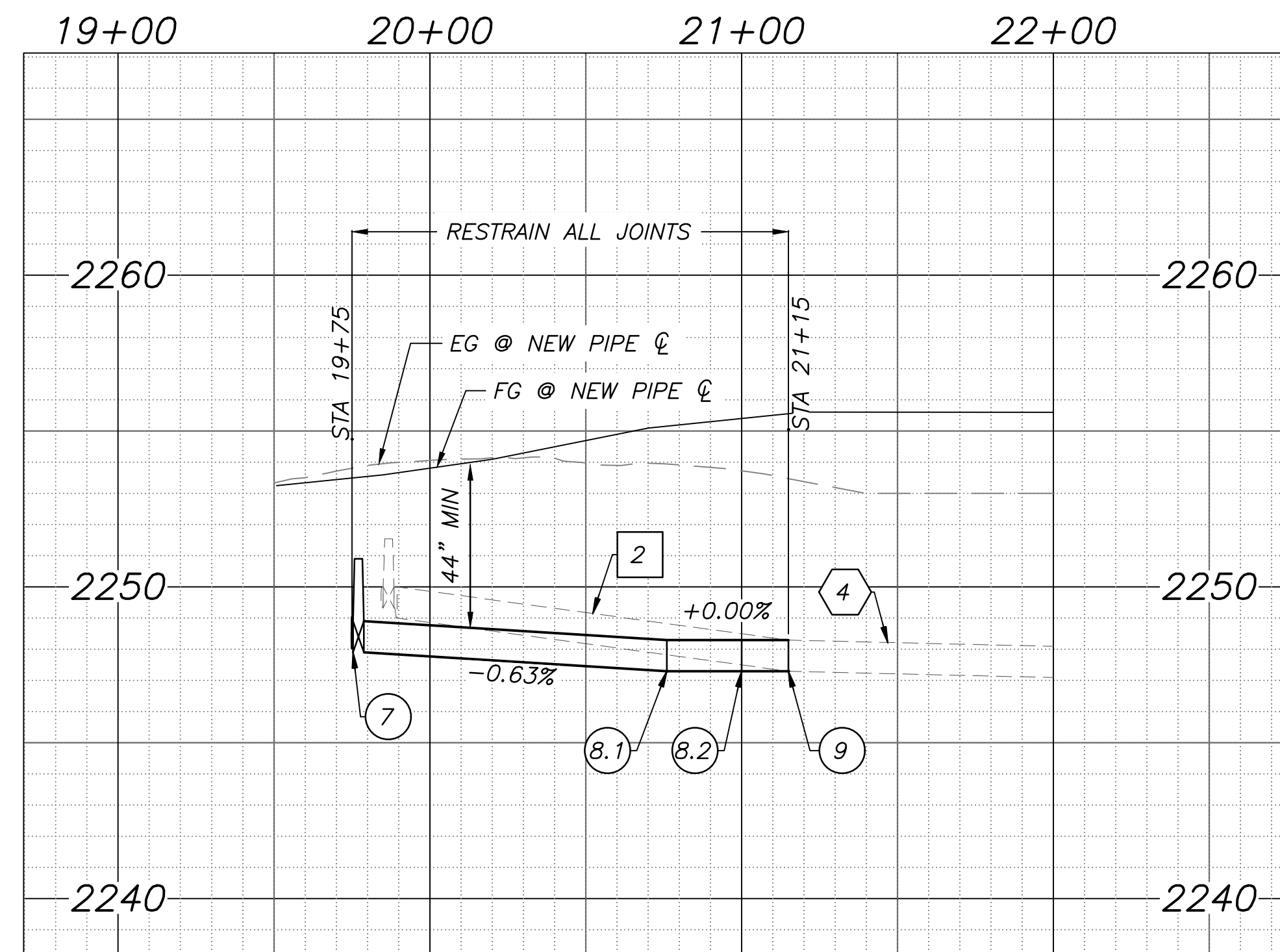
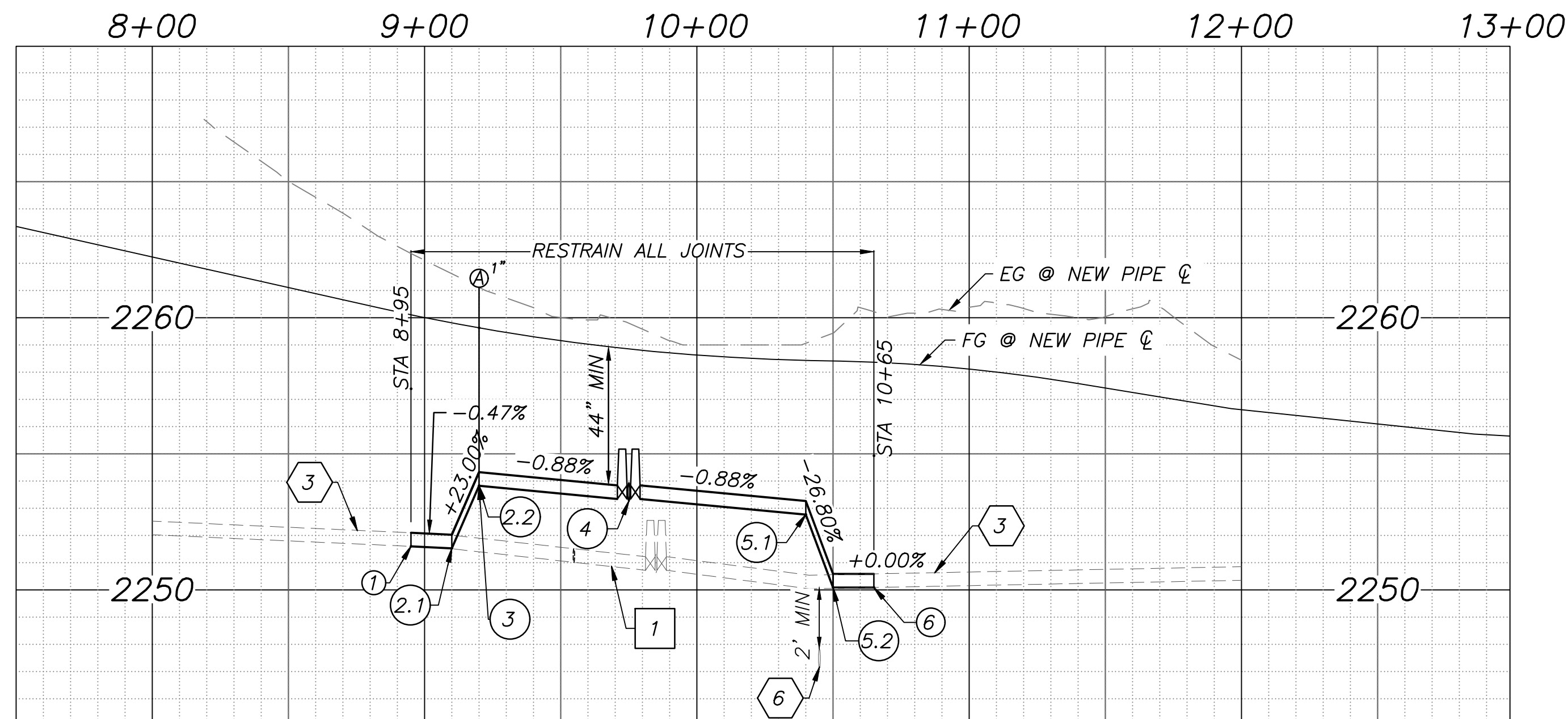
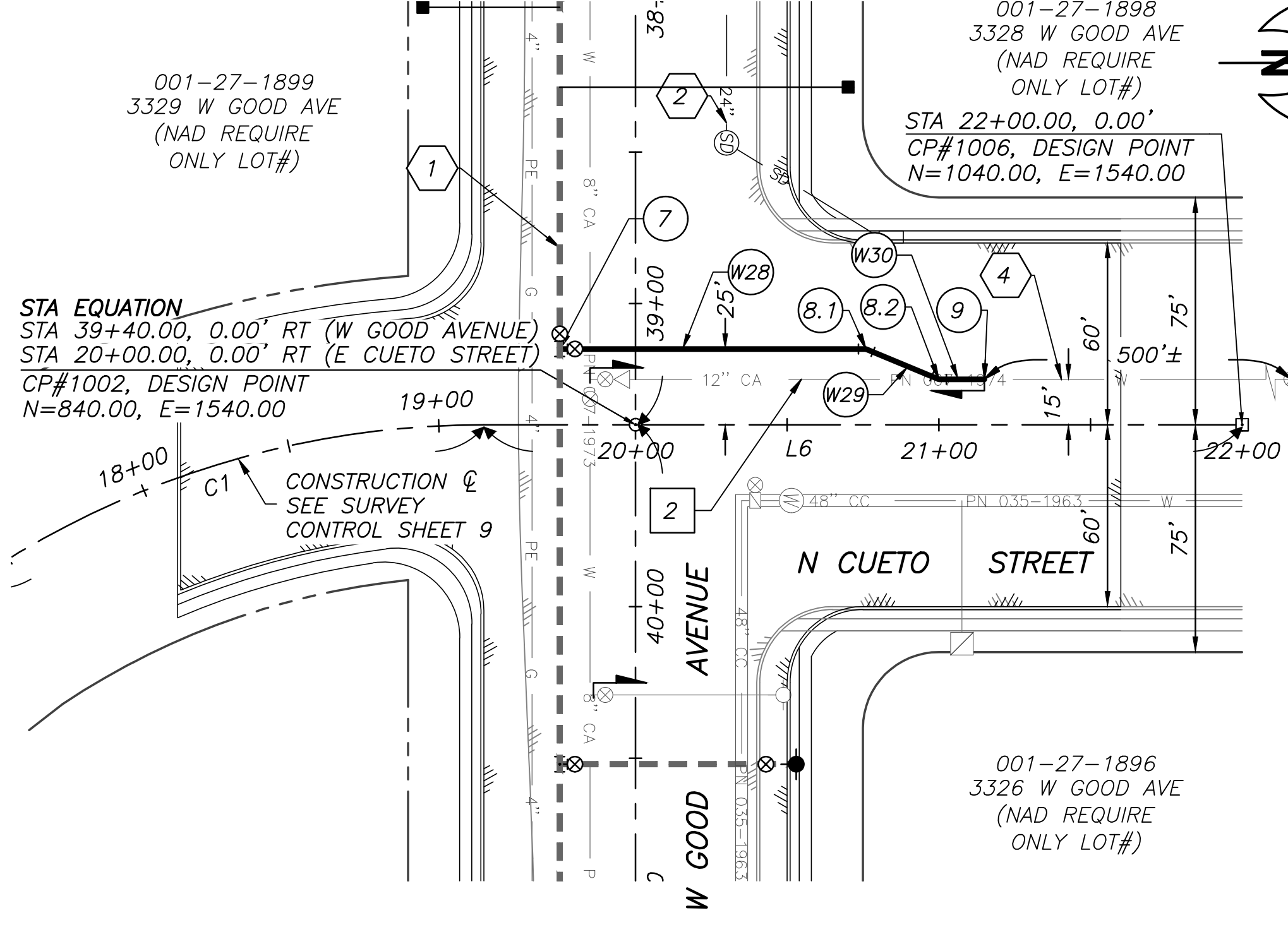
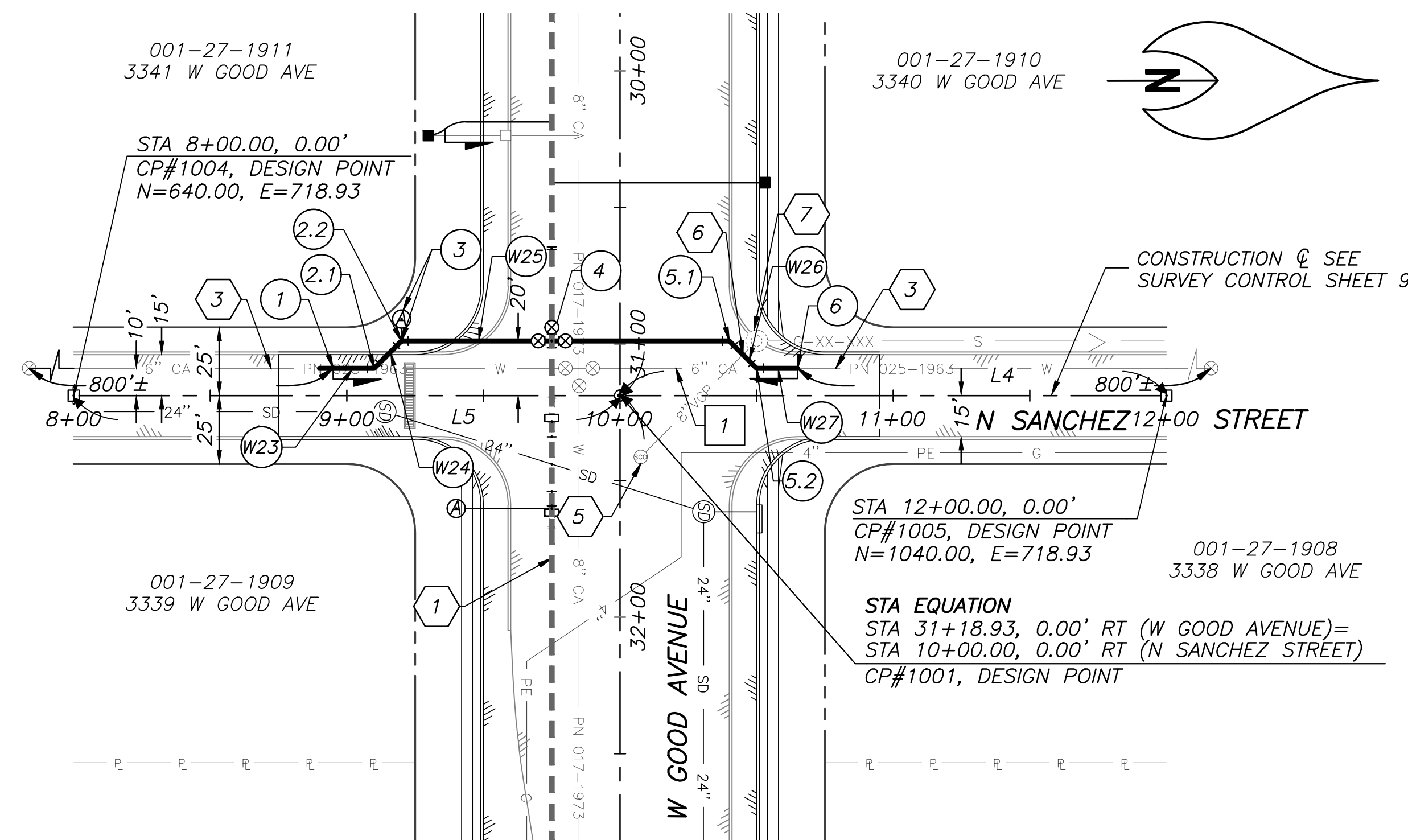
NO. BY DATE REVISION APPR. DATE

(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX



CONSULTANT LOGO

NO.	BY	DATE	REVISION	APPR.	DATE



WATERLINE TABLE			
W#	BEARING	LENGTH	SIZE / MATERIAL
W23	N00°00'00"E	20.0 LF	6" PVC PC305 (DR14)
W24	N45°00'00"W	14.1 LF	6" PVC PC305 (DR14)
W25	N00°00'00"E	120.0 LF	6" PVC PC305 (DR14)
W26	N45°00'00"E	14.1 LF	6" PVC PC305 (DR14)
W27	N00°00'00"E	15.0 LF	6" PVC PC305 (DR14)
W28	N00°00'00"E	101.0 LF	12" PVC PC305 (DR14)
W29	N22°37'12"E	26.0 LF	12" PVC PC305 (DR14)
W30	N00°00'00"E	15.0 LF	12" PVC PC305 (DR14)

- REMOVE / ABANDON NOTES
- STA 8+95, 10' LT TO STA 10+65, 10' LT
REMOVE & DISPOSE 10" CA AND SMALLER PIPE TO NEAREST JOINT 170± LF
 - STA 19+85, 15' LT TO STA 21+15, 15' LT
REMOVE & DISPOSE 12" CA AND LARGER PIPE TO THE NEAREST JOINT 130± LF

- CONSTRUCTION NOTES
- START CONSTRUCTION**
- STA 8+95.00, 10.00' LT
INV ELEV=2251.60
CONNECT TO EXIST. 6" CA PIPE (SEE PN25-1963)
 - STA 9+10.00, 10.0' LT (RO)
INV ELEV=2251.53
 - STA 9+20.00, 20.0' LT (RO)
INV ELEV=2253.83
6" X 45° BEND 2 EA (NPI)
 - STA 9+20.00, 20.0' LT (LOCATION OF TAP)
INV ELEV=2253.83
 - STA 9+20.00, 28.0' LT (LOCATION OF ARV)
INV ELEV=2259.63
1" AIR RELEASE VALVE (PER SD-330) 2 EA (NPI)
 - STATION EQUATION**
STA 30+98.93, 25.0' RT (W GOOD AVENUE)=
STA 9+75.00, 20.0' LT (N SANCHEZ STREET)
INV ELEV=2253.26
8" X 6" CROSS
8" GATE VALVE, B&C 1 EA
6" GATE VALVE, B&C 2 EA
 - STA 10+40.00, 20.0' LT (RO)
INV ELEV=2252.77
 - STA 10+50.00, 10.0' LT (RO)
INV ELEV=2250.09
6" X 45° BEND 2 EA (NPI)
 - STA 10+65.00, 10.00' LT
INV ELEV=2250.09
CONNECT TO EXIST. 6" CA PIPE (SEE PN25-1963)
 - STATION EQUATION**
STA 39+15.00, 25.0' RT (W GOOD AVENUE)=
STA 19+75.00, 25.0' LT (E CUETO STREET)
INV ELEV=2248.07
CONNECT TO 12" X 8" TEE
12" GATE VALVE, B & C (N) 1 EA
 - STA 20+76.00, 25.00' LT (HORIZ)
INV ELEV=2247.29
 - STA 21+00.00, 15.00' LT (HORIZ)
INV ELEV=2247.29
12" X 22.5° BEND 2 EA (NPI)
 - STA 21+15.00, 15.00' LT
INV ELEV=2247.29
CONNECT TO EXIST 12" CA PIPE 1 EA (NPI)

- REFERENCE NOTES
- FOR LATERAL WATER MAIN PLAN & PROFILE, SEE SHEET W4 & W5
 - PROPOSED STORM DRAIN, SEE PAGE ***
 - EXIST 8" CA PIPE (TO REMAIN)
 - EXIST 12" CA PIPE (TO REMAIN)
 - SEWER CLEANOUT #XXXX-XX
RIM ELEV=2259.0, INV ELEV=UNK
 - STA 10+45, 15.0' LT
INV ELEV=UNK
8" VCP SEWER CROSSING PER SD-106
 - SEWER MANHOLE #XXXX-XX
RIM ELEV=2259.0
INV ELEV=UNK

PAGE NUMBERS FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W6 OF WXX

CITY OF TUCSON

TUCSON WATER
A proud part of the City of Tucson

TITLE OF PROJECT
STREET NAME
STATIONING ON THIS SHEET

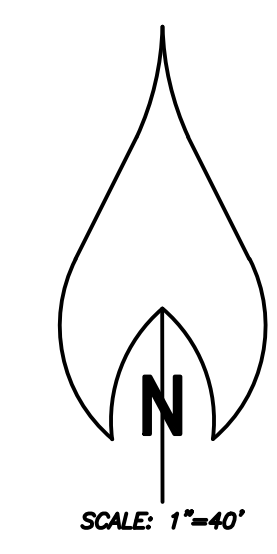
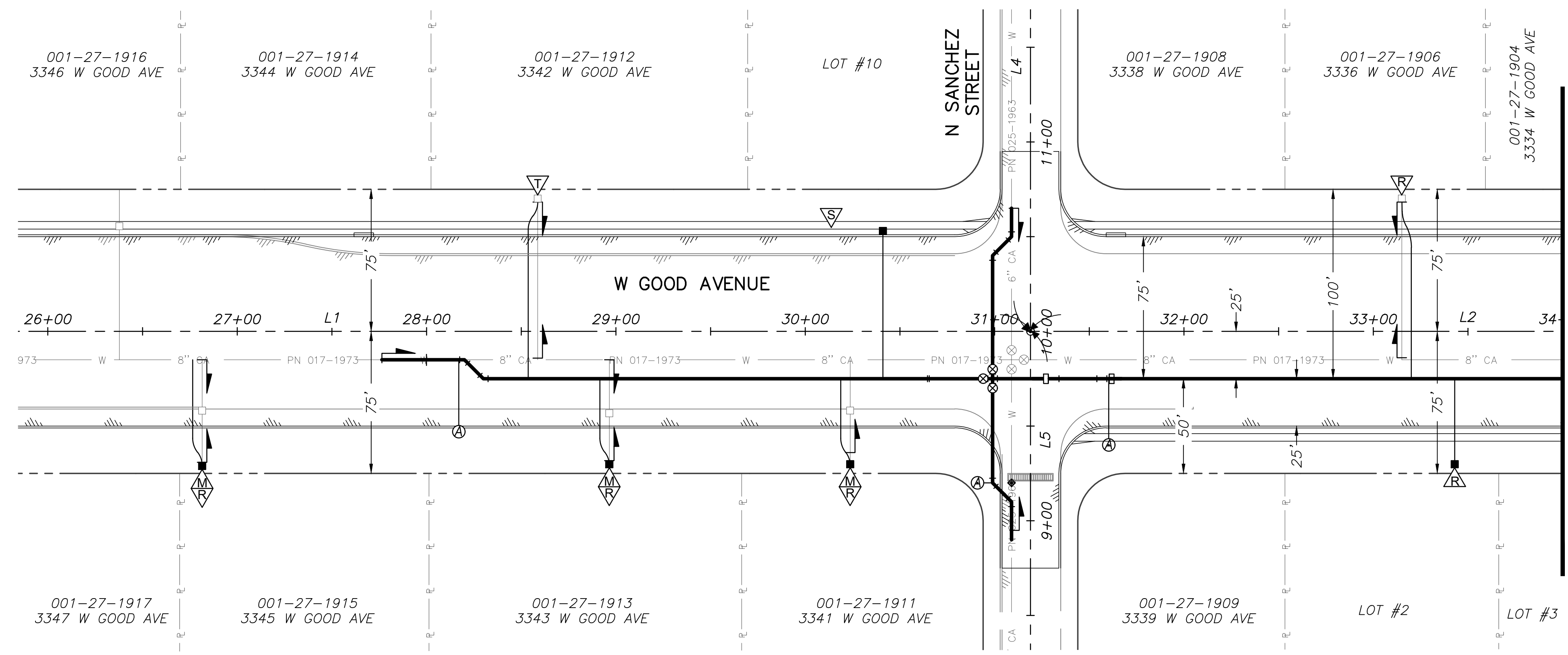
RESERVE FOR
ENGINEER'S SEAL

DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO.:	PAGE NO.:
DRAWN BY: XXX	DATE: XX/XX	SCALE:	6 of XX
CHECKED BY: XXX	DATE: XX/XX	VERT: 1"=4'	PLAN NO.:
		HORIZ: 1"=40'	X-XXX-XXXX

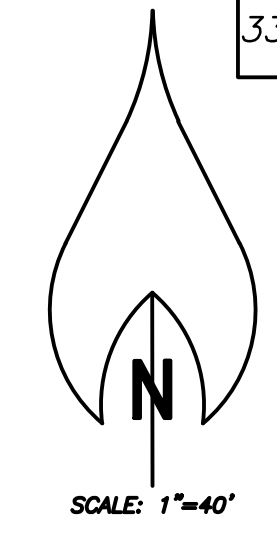
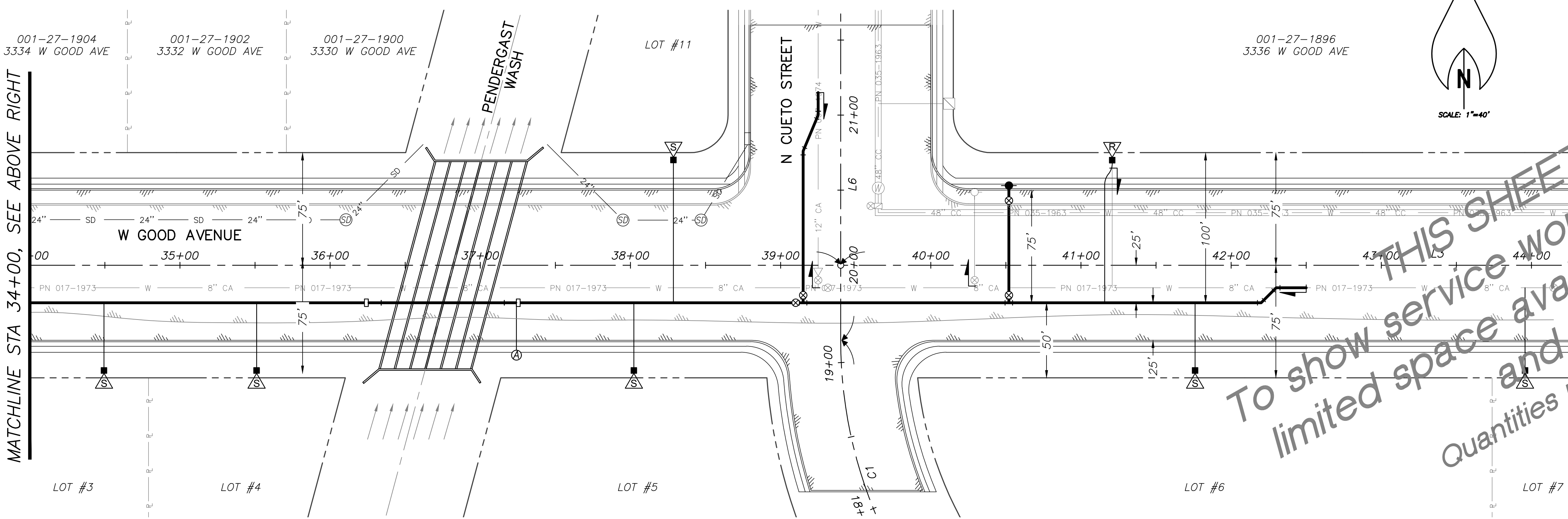
(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE



SERVICE WORK FOR NEW WATER METERS			
LOT#	STATION, OFFSET	SERVICE WORK	NEW CONNECTION DIA - MATL
LOT #2	STA 44+42.96, 25'RT (TAP) STA 44+42.96, 72'RT (METER)	S	1" - CU
LOT #3	STA 34+49.45, 25'RT (TAP) STA 34+49.45, 72'RT (METER)	S	1" - CU
LOT #4	STA 35+51.06, 25'RT (TAP) STA 35+51.06, 72'RT (METER)	S	1" - CU
LOT #5	STA 38+02.28, 25'RT (TAP) STA 38+02.28, 72'RT (METER)	S	1" - CU
LOT #6	STA 41+76.02, 25'RT (TAP) STA 41+76.02, 72'RT (METER)	S	1" - CU
LOT #7	STA 44+14.92, 15'RT (TAP) STA 44+14.92, 72'RT (METER)	S	1" - CU
1" IRRIGATION	STA 30+41.00, 25'RT (TAP) STA 30+41.00, 49'LT (METER)	S	1" - CU



SERVICE WORK FOR EXISTING WATER METERS					
ADDRESS/STATION	EXISTING METER NO.	EXIST SERV	SERV WORK	EXIST CONNECTION DIA - MATL	NEW CONNECTION DIA - MATL
3242 W GOOD AVE.	*****	M (1")	T	1" - CU	1" - CU
STATION 30+41± (IRRIGATION)	*****	-	S	-	2" - CU
3345 W GOOD AVE.	*****	M (3/8")	M/R	3/4" - CU	1" - CU
3343 W GOOD AVE.	*****	M (3/8")	M/R	3/4" - CU	1" - CU
3341 W GOOD AVE.	*****	M (3/8")	M/R	3/4" - CU	1" - CU
3336 W GOOD AVE.	*****	M (3/8")	R	1" - CU	1" - CU
3326 W GOOD AVE.	*****	M (3/8")	R	1" - CU	1" - CU

MATCHLINE STA 34+00, SEE ABOVE RIGHT

THIS SHEET OPTIONAL
To show service work only for projects with
limited space and profile sheets.
Quantities must match sheet quantities.

PAGE NUMBERS FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W7 OF WXX



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE



RESERVE FOR
ENGINEER'S

SEAL

CITY OF TUCSON

TITLE OF PROJECT
WATER METER SHEET

DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO. XXX	7 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE: XXX	
CHECKED BY: XXX	DATE: XX/XX	VERT. NO SCALE	PLAN NO. X-XXX-XXXX
HORIZ. 1"=40'			(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX

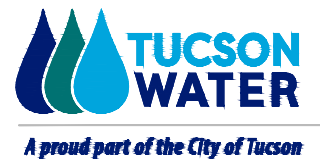

THIS SHEET OPTIONAL
 Project specific details are required, use
 space available on sheet W3 or this sheet.

FOR WATER SYSTEM
 MODIFICATIONS (MODS) ONLY

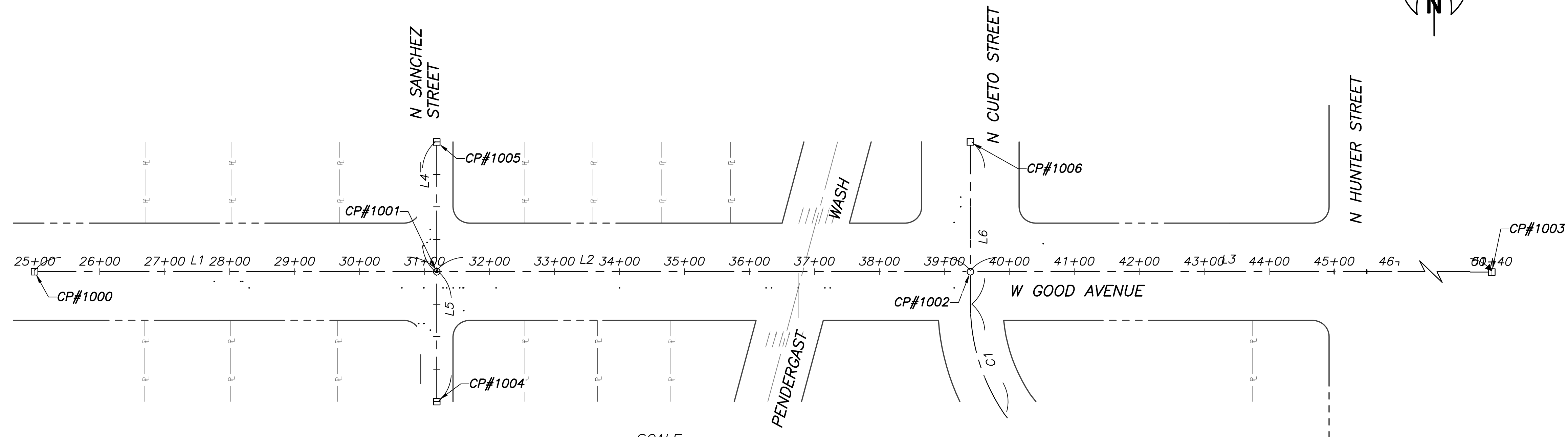
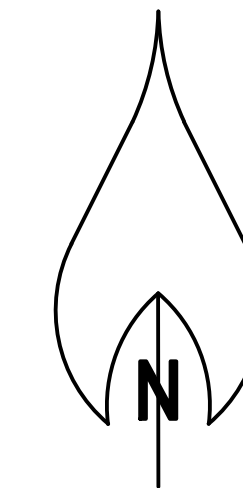
W8 OF WXX



CONSULTANT LOGO						
NO.	BY	DATE	REVISION	APPR.	DATE	

 		CITY OF TUCSON	
RESERVE FOR ENGINEER'S SEAL		TITLE OF PROJECT DETAIL SHEET	
		DETAILS	
DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO. 416	8 of XX PLAN NO. X-XXX-XXXX
DRAWN BY: XXX	DATE: XX/XX	SCALE: NTS	
CHECKED BY: XXX	DATE: XX/XX	HOURS: NTS	

INCLUDE SURVEY CONTROL LAYOUT INFORMATION NEEDED TO CONSTRUCT.
 ANY EASEMENTS DEDICATED TO THE PROJECT WILL BE ADDED TO THIS SHEET.
 (ALL CURRENT PROJECTS SHALL BE IN STATE PLANE COORDINATE SYSTEM)



FOR WATER SYSTEM NEW AREA DEVELOPMENT PROJECTS (NAD) ONLY

BASIS OF BEARING:
 SHALL DESCRIBE TWO MONUMENTS (AS FOUND AT TIME OF SURVEY) AND PROVIDE THE MEASURED OR RECORDED HORIZONTAL DISTANCE BETWEEN. THIS IS TO INSURE A PROPER BEARING AT THE START OF ANY CONSTRUCTION. ALL OTHER BEARINGS SHOWN ON PLAN OR EASEMENT DESCRIPTIONS SHALL REFLECT THIS BEARING.
 THESE REFERENCE POINTS SHOULD BE DEFINED AND DESCRIBED AS BEST AS POSSIBLE IN ORDER TO LOCATE AND ESTABLISH SPECIFIC MONUMENTATION. RECORDED DOCUMENTS MAY BE CALLED OUT AS A REFERENCE BUT COPIES SHALL BE PROVIDED TO THE REVIEWER AND CLEARLY REFLECT THE STATED MONUMENTATION. PRELIMINARY PLATS CAN BE ACCEPTED UNTIL FINAL DOCUMENT IS RECORDED UP UNTIL CONSTRUCTION IS COMPLETED.
 MINIMUM ARIZONA STATE SURVEY TOLERANCES APPLY TO MEASURED VS. RECORDED DOCUMENTATION.

BASIS OF ELEVATION:
 SHALL BE STATED IN NAVD_88 DATUM. TWO SEPARATE BENCHMARKS SHOULD BE CALLED OUT TO PROVE EACH OTHER.

FOR WATER SYSTEM CAPITAL IMPROVEMENT PROJECTS (CIP), AND MODIFICATIONS (MODS) ONLY

NOTE:
 UNLESS OTHERWISE NOTED ALL BEARINGS, DISTANCES, AND COORDINATES SHOWN ARE GRID DATA REFERENCED TO THE ARIZONA COORDINATE SYSTEM, NAD83, CENTRAL ZONE.

BASIS OF BEARING:
 THE BEARINGS FOR THIS PROJECT ARE GRID BASED ON GPS OBSERVATIONS. THE MEASURED DIRECTION BETWEEN CITY OF TUCSON WATER GEODETIC CONTROL POINT XXX AND CITY OF TUCSON WATER GEODETIC CONTROL POINT XXX IS NXX°XX'XX"E.

BASIS OF ELEVATION:
 THE ELEVATIONS FOR THIS PROJECT ARE BASED ON THE CITY OF TUCSON WATER GEODETIC CONTROL POINT 998 THE ELEVATION OF SAID POINT BEING XXXX.XXX' NAVD88.

BASIS OF COORDINATES:
 THE COORDINATES FOR THIS PROJECT ARE ARIZONA STATE PLANE-CENTRAL ZONE-INTERNATIONAL FEET BASED ON CITY OF TUCSON WATER GEODETIC CONTROL POINT XXX.

XXX HAS A COMBINED SCALE FACTOR OF 0.XXXXXXXX. THIS SHOULD BE USED WHEN CONVERTING GROUND VALUES TO ARIZONA STATE PLANE CENTRAL ZONE (NAD83) VALUES.

XXX HAS A 1/X COMBINED SCALE FACTOR OF 1.XXXXXXXX. THIS SHOULD BE USED WHEN CONVERTING ARIZONA STATE PLANE CENTRAL ZONE (NAD83) VALUES TO GROUND VALUES.

CURVE TABLE			
CURVE #	RADIUS	LENGTH	DELTA
C1	300.00	178.63	34°06'55"

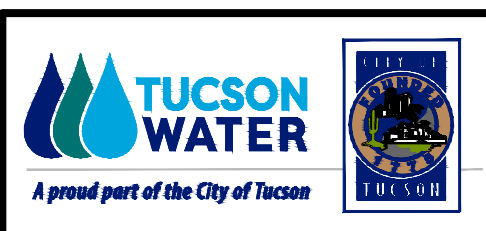
LINE TABLE		
LINE #	BEARING	LENGTH
L1	N90°00'00"E	618.93
L2	N90°00'00"E	821.07
L3	N90°00'00"E	1200.00
L4	N00°00'00"E	200.00
L5	N00°00'00"E	200.00
L6	N00°00'00"E	250.00

POINT TABLE				
CP #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1000	840.00	100.00	0.00	DESIGN POINT
1001	840.00	718.93	0.00	DESIGN POINT
1002	840.00	1540.00	0.00	DESIGN POINT
1003	840.00	2740.00	0.00	DESIGN POINT
1004	640.00	718.93	0.00	DESIGN POINT
1005	1040.00	718.93	0.00	DESIGN POINT
1006	1040.00	1540.00	0.00	DESIGN POINT

FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE



RESERVE FOR
SEAL

CITY OF TUCSON

TITLE OF PROJECT
SURVEY CONTROL LAYOUT

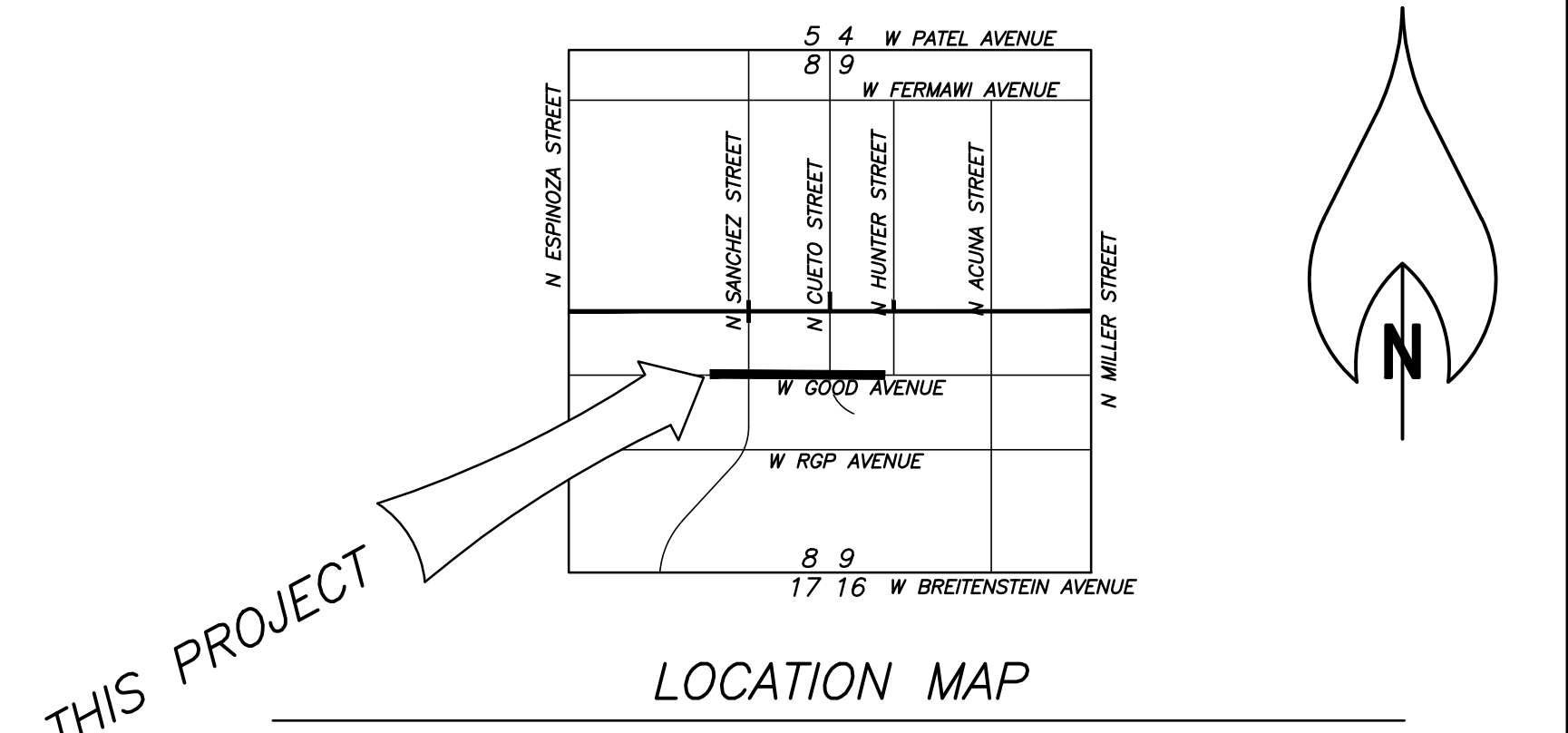
DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO. XXX	9 OF XX
DRAWN BY: XXX	DATE: XX/XX	SCALE: NO SCALE	
CHECKED BY: XXX	DATE: XX/XX	HORIZ: 1"=100'	PLAN NO. X-XXX-XXXX

(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX

W GOOD AVENUE

N ESPINOZA STREET TO N HUNTER STREET

CIP NO. WXXX / MODS PROGRAM CODE XXXX



SECTIONS 8 & 9, T 16S, R 15E
G&SR B&M, PIMA COUNTY, ARIZONA
LATITUDE 32°02'57"N. LONGITUDE 110°49'32"W
WARD (CITY OF TUCSON)
DISTRICT (PIMA COUNTY)
SCALE: 3"=1 MILE

INSPECTOR'S RECORD DRAWING COMMENTS

INSPECT: _____

CONTRACTOR: _____

START: _____ FINAL: _____

PIPE: _____ DI/C _____ PVC/C _____

SVC LINE MAT: _____

B.F.S.: _____

GATES: _____

F.H.S BRAND: _____ MAT: _____

MAGNETIC TAPE INST. YES NO

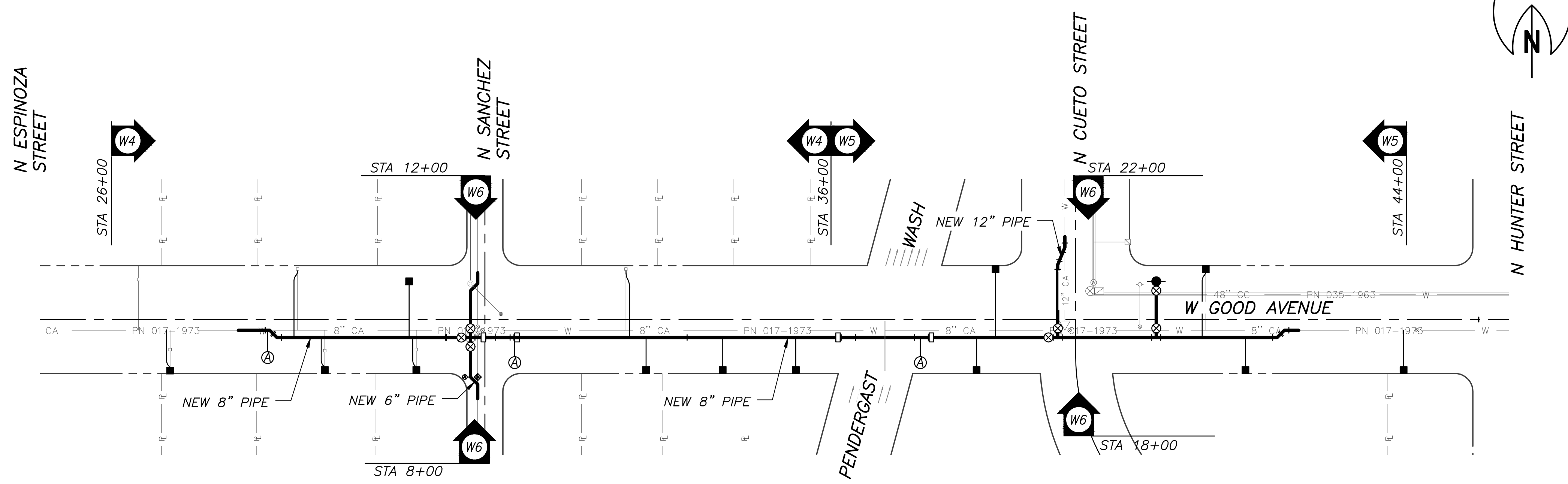
TRACER WIRE INST. YES NO

ALL VALVES WERE INSTALLED PER PLAN

Signature: _____

Date: _____

GPS LAT/LONG. YES NO



SHEET INDEX PLAN
1"=100'

SHEET INDEX TABLE		
PAGE NO.	TW SHEET NO.	DESCRIPTION
102	W10	COVER SHEET, SHEET INDEX
103	W11	GENERAL NOTES
104	W12	MATERIAL QUANTITY & AS-BUILT TABLES
105	W3	ABBREVIATIONS AND LEGEND
106	W4	W GOOD AVENUE STA 26+00 TO STA 36+00
107	W5	W GOOD AVENUE STA 36+00 TO STA 44+00
108	W6	N SANCHEZ STREET STA 08+95 TO STA 10+65 N CUETO STREET STA 19+75 TO STA 21+15
109	W7	METER SHEET
110	W8	DETAILS SHEET
111	W9	SURVEY CONTROL SHEET
112	W13	STORMWATER POLLUTION PREVENTION PLAN NOTES
113	W14	STORMWATER POLLUTION PREVENTION DETAILS
114	W15	STORMWATER POLLUTION PREVENTION CONTOURS

OVERALL PAGE NUMBER OF
DEVELOPMENT PLAN SET (MODS ONLY)



CONSULTANT LOGO					
NO.	BY	DATE	REVISION	APPR.	DATE

FOR WATER SYSTEM
MODIFICATIONS (MODS) ONLY

NOT INCLUDED IN CONTRACT (NIC)
FOR WATER SYSTEM MODIFICATIONS (MODS)

TUCSON WATER _____ Date: _____

ACCEPTANCE OF THESE PLANS IS VALID FOR THREE (3)
YEARS AFTER THE DATE OF SIGNATURE.

SIGNATURE OF AGENCIES IF REQUIRED _____ Date: _____

UPC-XXX-XXXX
W10 OF WXX

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP		APPROVED: _____	CITY OF TUCSON
		CHIEF ENGINEER _____ DATE: _____	W GOOD AVENUE N ESPINOZA STREET TO N HUNTER STREET
RESERVE FOR ENGINEER'S SEAL		DEPUTY DIRECTOR _____ DATE: _____	COVER SHEET
		DESIGNED BY: XXX DATE: XX/XX SCALE: XXX DRAWN BY: XXX DATE: XX/XX SCALE: XXX CHECKED BY: XXX DATE: XX/XX HORIZ.: 1"=100' VERT.: NTS PLAN NO. 10 of XX X-XXX-XXXX (MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX	

TUCSON WATER GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE FOLLOWING: THE CONTRACT DOCUMENTS; TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, 2017 EDITION WITH LATEST REVISIONS; AND PAG STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS VOLUME 1, 2015 EDITION; AND DRAWINGS VOLUME 2, 2015 EDITION: A COPY OF THE ABOVE REFERENCES SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES. IF A CONFLICT EXISTS BETWEEN THE SPECIAL PROVISIONS IN THE CONTRACT SPECIFICATIONS AND THE STANDARD SPECIFICATIONS AND DETAILS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- ALL WORK SHALL BE PERFORMED BY A CONTRACTOR LICENSED BY THE STATE OF ARIZONA, AS DETERMINED BY THE ARIZONA REGISTRAR OF CONTRACTORS (A, A-12, A-16, CR-80, AND KA).
- ALL NOTES IN TUCSON WATER STANDARD DETAIL (SD) SD-105, GENERAL CONSTRUCTION NOTES, SHALL APPLY TO AND BECOME AN INTEGRAL PART OF THIS PROJECT.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF THE PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. 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 THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE TO ALL WATER CUSTOMERS DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SERVICES WILL BE AFFECTED BY THIS PROJECT. IT MAY BE NECESSARY TO ACCOMPLISH TIE-OVERS, RECONNECTIONS, ETC. WHILE BUSINESS CUSTOMERS ARE CLOSED. IF INTERRUPTION OF SERVICE IS UNAVOIDABLE, THE CONTRACTOR SHALL NOTIFY THE WATER INSPECTOR A MINIMUM OF 14 DAYS IN ADVANCE TO COORDINATE SHUT-DOWNS. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION TO THE CUSTOMER. IF THE CONTRACTOR CHOOSES TO ABANDON ANY PORTION OF THE EXISTING WATER SUPPLY SYSTEM WITHOUT CONCURRENT NEW CONSTRUCTION AS CALLED FOR ON THE PLANS, THE CONTRACTOR SHALL PROVIDE ANY AND ALL MATERIALS AND CONSTRUCTION OF A TEMPORARY OR PERMANENT WATER SYSTEM TO MAINTAIN CONTINUED WATER SERVICE TO CUSTOMERS AT NO ADDITIONAL COST.
- FOURTEEN (14) DAYS PRIOR TO SHUT-DOWN OF ANY FIRE HYDRANTS OR FIRE PROTECTION SERVICE LINES, THE CONTRACTOR SHALL PROVIDE THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WITH A WRITTEN REPORT INDICATING THE LOCATION AND DURATION OF ANY FIRE HYDRANT OR FIRE PROTECTION SERVICE SHUT-DOWNS. THE CONTRACTOR SHALL NOTIFY THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION INSPECTOR WHEN FIRE HYDRANTS OR FIRE PROTECTION SERVICES ARE BACK IN SERVICE.
- THE CONTRACTOR SHALL MAINTAIN OPERATION OF EXISTING TRAFFIC SIGNALS, STREET LIGHTING, AND RELATED SYSTEMS AT ALL TIMES THROUGHOUT THE AREA OF CONSTRUCTION, AND SHALL BE RELOCATED BY CONTRACTOR AS REQUIRED. CONTACT CITY OF TUCSON DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AT (520) 791-4259 OR CONTACT PIMA COUNTY DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AT (520) 791-4259 FOR RELOCATION INSTRUCTIONS AS REQUIRED.
- THE CONTRACTOR SHALL EXERCISE CAUTION DURING CONSTRUCTION ACTIVITIES NEAR OR DIRECTLY UNDER OVERHEAD ELECTRIC FACILITIES. THE COST FOR ELECTRIC OVERHEAD PROTECTION IS BILLABLE TO THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE ELECTRIC UTILITY OWNER:
 - A. **TUCSON ELECTRIC POWER** THE CONTRACTOR SHALL COMPLETE A TUCSON ELECTRIC POWER OVERHEAD/EXCAVATION PROTECTION APPLICATION AT LEAST TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. CONTACT TUCSON ELECTRIC POWER AT BLUESTAKECOORDINATORTEP@TEP.COM OR (520) 917-2617.
 - B. **TRICO ELECTRIC COOPERATIVE** THE CONTRACTOR SHALL CONTACT TRICO ELECTRIC COOPERATIVE, AT LEAST THREE (3) DAYS PRIOR TO CONSTRUCTION NEAR OR DIRECTLY UNDER ANY TRICO OVERHEAD ELECTRIC FACILITIES, FOR A STAND-BY CREW. CONTACT LARRY ASH AT (520) 794-2944 EXT. 1368.
- THE OWNER/ENGINEER DOES NOT WARRANT THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS TO BE EXACT, NOR IS IT WARRANTED THAT ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS IN THE CITY OF TUCSON/PIMA COUNTY STANDARD SPECIFICATIONS SECTION 107-21, PAG STANDARD SPECIFICATIONS SECTION 107-21, AND WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES TITLE 40, INCLUDING PROVISIONS FOR DETERMINING THE LOCATION OF ALL UTILITIES IN THE WORK AREA PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY IMPROVEMENTS ENCOUNTERED IN THE COURSE OF THE WORK.
- THE CONTRACTOR SHALL CONTACT ARIZONA 811 (FORMERLY ARIZONA BLUE STAKE) AT 811 OR (800) 782-5348 AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION.

- ALL DIMENSIONS AND GRADES FOR EXISTING WATER LINES ARE TAKEN FROM "AS-BUILT" DRAWINGS, AND MAY SCHEMATIC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT INFORMATION REQUIRED FOR NEW CONSTRUCTION.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL TIE-IN LOCATIONS PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE DRAWINGS INCLUDING CONFLICTS THAT MAY NOT SHOWN.
- ANY SURVEY MONUMENT OR PROPERTY CORNER DISTURBED BY THIS CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF ARIZONA, AND A RECORD OF SURVEY SHALL BE REQUIRED.
- PIPELINE STATIONING AND OFFSETS FOR THIS PROJECT ARE FROM THE SURVEY CONTROL LINE, UNLESS OTHERWISE NOTED. ALL STATIONING IS ALONG THE SURVEY CONTROL LINE WITH OFFSETS TO THE PIPELINE.
- IN DEVELOPED LOCATIONS, NEW WATER MAIN SHALL BE INSTALLED WITH 44 INCHES MINIMUM COVER UNLESS OTHERWISE NOTED ON THE DRAWINGS. IN NON-DEVELOPED LOCATIONS, NEW WATER MAIN SHALL BE INSTALLED WITH 60 INCHES MINIMUM COVER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- UNLESS OTHERWISE NOTED, ALL ___" DUCTILE IRON PIPE SHALL BE PRESSURE CLASS ____, AND ALL ___" DUCTILE IRON PIPE WITH ___" STEEL PIPE CASINGS SHALL BE MINIMUM PRESSURE CLASS 250.
- UNLESS OTHERWISE NOTED, 4" TO 12" PVC PIPE SHALL BE DIMENSION RATIO 14 (DR 14), PRESSURE CLASS 305 (DUCTILE IRON OD), AND 16" PVC PIPE SHALL BE DIMENSION RATIO 18 (DR 18), PRESSURE CLASS 235 (DUCTILE IRON OD).
- THE CONTRACTOR SHALL NOT DEFLECT PVC PIPE AT GASKETED BELL AND SPIGOT JOINTS OR AS LONGITUDINAL BENDING IN THE PIPE SEGMENT. THE CONTRACTOR SHALL ONLY DEFLECT PVC PIPE AT MECHANICAL JOINT SOLID SLEEVE FITTINGS OR STANDARD DUCTILE IRON BENDS/FITTINGS. PVC PIPE MAY BE DEFLECTED AT DUCTILE IRON BENDS OR FITTINGS PROVIDED THE DEFLECTION IS WITHIN AMERICAN WATER WORKS ASSOCIATION (AWWA) AND THE MANUFACTURERS ALLOWABLE DEFLECTION FOR THE BEND OR FITTING AND THE PIPE AT THE CONNECTION POINT.
- ALL FITTINGS SHALL BE DUCTILE IRON AND CONNECTIONS SHALL BE MADE WITH APPROVED ADAPTERS. ALL DUCTILE IRON FITTINGS SHALL BE MINIMUM CLASS 250.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COMBINATION AIR RELEASE IN THE CONSTRUCTION AREA. THE LOCATION OF COMBINATION AIR RELEASE VALVES AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH THE TUCSON WATER CONSTRUCTION INSPECTOR TO DETERMINE IN THE FIELD THE MOST EFFECTIVE AND EXACT LOCATIONS FOR COMBINATION AIR RELEASE VALVES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METERS AND METER BOXES IN THE CONSTRUCTION AREA. THIS SHALL INCLUDE AND NOT BE LIMITED TO:
 - A. **REMOVAL:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE EXISTING METERS FROM THE METER BOXES, ALONG WITH THE REMOVAL OF THE EXISTING METER BOXES AND CAPPING/PLUGGING OF THE EXISTING SERVICE CONNECTION.
 - B. **RELOCATION/INSTALLATION:** DURING THIS OPERATION, METERS SHALL BE TAGGED WITH THE CORRECT ADDRESS TO VERIFY THEIR REINSTALLATION AT THE SAME LOCATION IF THE EXISTING METER IS AN AUTOMATED METER READER (AMR) WATER METER. IF THE EXISTING METER IS NOT AN AMR THE METER IS EXCHANGED/RETURNED TO TUCSON WATER FOR A NEW AMR TO BE INSTALLED AT THAT LOCATION.
 - C. **PROTECTION OF METERS:** AT ALL TIMES THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY DAMAGE TO METERS. THE CONTRACTOR SHALL PROVIDE FOR THEIR SAFE STORAGE AND THE PROPER EQUIPMENT FOR THEIR HANDLING.
 - D. **ACCESS TO METERS:** THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL IN-SERVICE METERS DURING CONSTRUCTION. AT THE CLOSE OF THE PROJECT, THE CONTRACTOR SHALL CONFIRM THAT ALL METERS AND ALL METER BOXES ARE LEFT ACCESSIBLE AND THAT ALL METER BOXES ARE ADJUSTED TO FINAL GRADE.
 - E. **MATERIALS:** TUCSON WATER SHALL SUPPLY ALL NEW AMR MODEL WATER METERS AND METER BOXES TO BE INSTALLED AS PART OF THIS PROJECT.
 - F. **DISPOSAL OF EXISTING METER BOXES:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF ALL EXISTING METER BOXES NOT SUITABLE FOR REUSE/REINSTALLATION.

- IF ANY EXISTING DETECTABLE MARKING TAPE IS DISTURBED OR DESTROYED DURING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL APPROPRIATE NEW TAPE. THERE SHALL BE NO ADDITIONAL CHARGE FOR THIS REINSTALLATION.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE, FITTINGS, APPURTENANCES OR ANY OTHER MATERIALS TO BE IN CONTACT WITH POTABLE WATER IN ACCORDANCE WITH THE LEAD-FREE REQUIREMENTS DEFINED BY THE "REDUCTION OF LEAD IN DRINKING WATER ACT OF 2011" AMENDING SECTION 1417 OF THE SAFE DRINKING WATER ACT.
- ALL EXCAVATIONS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH TUCSON WATER STANDARD SPECIFICATIONS.
- REMOVAL OF WATER LINES SHALL INCLUDE FURNISHING AND INSTALLING BACKFILL AND COMPACTION TO MATCH EXISTING GRADE. COMPACTION REQUIREMENTS SHALL BE THE REQUIREMENTS OF THE AGENCY WITH JURISDICTION.
- IF GROUTING OF ABANDONED WATER LINES IN JACKED AND BORED STEEL PIPE CASINGS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE A GROUTING PLAN IN ACCORDANCE WITH SPECIFICATIONS TO INCLUDE THE EXACT LOCATION OF GROUT INSERTION POINTS.
- SOIL BORINGS IF AVAILABLE ARE APPROXIMATELY LOCATED AND NUMBERED ON THE PLANS. LOGS AND SOIL DESCRIPTIONS ARE APPENDED TO THE SPECIFICATIONS BUT ARE NOT PART OF THE CONTRACT DOCUMENTS. INFORMATION CONTAINED IN THE BORING LOGS HAS BEEN USED FOR DESIGN PURPOSES ONLY AND THE CONTRACTOR SHALL NOT RELY ON THIS FOR CONSTRUCTION PURPOSES.

- THE EXTENT AND TYPE OF SURFACE TREATMENTS/REPAIRS INDICATED ON THE PLANS MAY NOT BE ALL INCLUSIVE OF THE WORK THAT IS NEEDED. DEPENDING ON FIELD CONDITIONS, ADDITIONAL WORK MAY BE REQUIRED.
- THE CONTRACTOR SHALL OBTAIN A FLOODPLAIN USE PERMIT FROM PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT FOR WORK WITHIN THE LIMITS OF ANY WASH SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM PIMA COUNTY TRANSPORTATION DEPARTMENT PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

CITY OF TUCSON DEPARTMENT OF TRANSPORTATION NOTES

- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE CITY OF TUCSON TRANSPORTATION DEPARTMENT PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- A PRE-CONSTRUCTION FIELD MEETING SHALL BE CONDUCTED WITH THE CITY OF TUCSON TRANSPORTATION INSPECTOR PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE EXTENT AND TYPE OF SURFACE TREATMENTS/REPAIRS INDICATED ON THE PLANS MAY NOT BE ALL INCLUSIVE OF THE WORK THAT IS NEEDED. DEPENDING ON FIELD CONDITIONS, ADDITIONAL WORK MAY BE REQUIRED.
- THE CONTRACTOR SHALL OBTAIN A FLOODPLAIN USE PERMIT FROM PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT FOR WORK WITHIN THE LIMITS OF ANY WASH SHOWN ON THESE DRAWINGS.

SEWER CONSTRUCTION NOTES

- THE CONTRACTOR SHALL CONTACT "ARIZONA 811" (DIAL 811 OR 1-800-782-5348) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL KEEP ALL UNDERGROUND FACILITY LOCATION REQUESTS UP-TO-DATE AND COMPLY WITH ARIZONA REVISED STATUTES (A.R.S.), TITLE 40, CHAPTER 1, ARTICLE 6.3, SECTION 40-360.22. CONCERNS REGARDING THE ACCURACY BETWEEN THE UNDERGROUND FACILITY MARKINGS AND THE PROJECT PLANS SHALL BE IMMEDIATELY REPORTED TO THE DESIGN ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SANITARY SEWER MANHOLES AT ALL TIMES.
- THE CONTRACTOR SHALL FIELD-VERIFY EXISTING SEWER LINE ELEVATIONS AND ALIGNMENTS PRIOR TO CONSTRUCTION. VERIFICATION MAY REQUIRE POT-HOLING.
- ANY HOUSE CONNECTION SEWER (HCS) OR BUSINESS CONNECTION SEWER (BCS) LINES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED, REPAIRED, OR REROUTED, AS THE SITUATION DICTATES, PER PCRWRD STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, DETAIL NO. RWRD 400 AND AT NO EXPENSE TO THE PROPERTY OWNER OR PCRWRD. HCS AND BCS LINES ARE NOT OWNED OR MAINTAINED BY PCRWRD. PRIVATE CONNECTION SEWERS CONSTRUCTED PRIOR TO JANUARY 2006 ARE NOT REQUIRED TO BE LOCATED AND MARKED.
- IMMEDIATELY REPORT ANY OF THE FOLLOWING TO THE PCRWRD OPERATIONS CONTROL CENTER (OCC) AT (520) 724-6500: ANY RELEASE OF SEWAGE, ANY DAMAGE TO THE PUBLIC SANITARY SEWER SYSTEM, OR THE DROPPING OF DEBRIS INTO A PUBLIC SANITARY SEWER MANHOLE. A PCRWRD REPRESENTATIVE WILL BE DISPATCHED TO THE SITE. THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CONTAIN A SANITARY SEWAGE OVERFLOW (SSO). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE SYSTEM, MITIGATE THE RELEASE OF SEWAGE, DISINFECT THE RELEASE AREAS, AND ANY REGULATORY PENALTIES LEVIED ON PCRWRD FOR SEWAGE ENTERING A NATURAL DRAINAGE WAY OR STORM WATER DRAINAGE SYSTEM. THE CONTRACTOR SHALL REPAIR ALL DAMAGE AS DIRECTED AND APPROVED BY THE PCRWRD FIELD REPRESENTATIVE.
- WORK SHALL NOT COMMENCE UNTIL: (A) THE CONTRACTOR HAS OBTAINED A PCRWRD PUBLIC SEWER OBSERVATION PERMIT (CONTACT THE PCRWRD PERMITS SECTION AT (520) 724-6649 FOR PERMIT APPLICATION REQUIREMENTS); (B) A PRE-CONSTRUCTION MEETING WITH THE ASSIGNED PIMA COUNTY PROJECT FIELD INSPECTOR IS SCHEDULED AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR MUST PROVIDE THE PCRWRD MANHOLE NUMBERS WHERE THIS WORK IS LOCATED AND A DESCRIPTION OF THE CONSTRUCTION.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION NOTES

- THE CONTRACTOR SHALL OBTAIN AN RIGHT-OF-WAY PERMIT FROM PIMA COUNTY TRANSPORTATION DEPARTMENT PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- A PRE-CONSTRUCTION FIELD MEETING SHALL BE CONDUCTED WITH PIMA COUNTY TRANSPORTATION INSPECTOR PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W11 OF WXX



CITY OF TUCSON

W GOOD AVENUE
N ESPINOZA STREET TO N HUNTER STREET

RESERVE FOR
ENGINEER'S
SEAL

GENERAL NOTES

DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO. XXX	11 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE: XXX	
CHECKED BY: XXX	DATE: XX/XX	VER: NTS	PLAN NO. X-XXX-XXXX
		HONR: NTS	

(MODIFICATIONS ONLY)TW PLAN NO X-XXX-XXXX

CONSULTANT LOGO



NO.	BY	DATE	REVISION	APPR.	DATE

MATERIAL QUANTITIES SUMMARY								
ITEM DESCRIPTION	SHEET 5		SHEET 6		SHEET 7		TOTAL	
	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT	EST.	AS BUILT
PIPE, 8" DIP, CL (350)	800±		400±		339±		1539±	
GATE VALVE, 8"			1		1		2	
TAPPING SLEEVE TEE, 8" X 8"					1		1	
BENDS, 8"-11.125°	3		4		2		9	
BENDS, 8"-45°	3				2		5	
COMBINATION AIR RELEASE VALVE (ARV), 1"	1		1				2	
REMOVE EXISTING DRAIN VALVE ASSEMBLY (DVA)							1	
PAVEMENT REPLACEMENT (SQUARE YARDS)					57		57	

VALVE, BENDS/DEFLECTIONS, AND ARV AS-BUILT TABLE

VALVE ID (CMSS)	NORTHING	EASTING	ELEVATION (Z)	STATIONING
45° BEND (RO)	518904.79	997118.77	2737.76	14+39.46
45° BEND (RO)	518908.86	997178.73	2743.25	14+99.65
45° BEND (RO)	518702.89	997375.30	2732.17	17+84.37
11 1/4° BEND (RO)	518909.50	997173.16	2742.50	14+94.05
11 1/4° BEND (VERT)	518883.29	997203.13	2748.00	15+35.00
11 1/4° BEND (VERT)	518857.97	997227.30	2747.00	15+70.00
1" ARV (TAP)	518883.29	997203.13	2748.00	15+35.00
1" ARV (CAGE)	518886.74	997206.75	2754.04	15+35.00, 5'LT.
8" GATE VALVE	518637.26	997375.54	2729.00	18+50.00
11 1/4° BEND (VERT)	518582.26	997375.74	2725.50	19+05.00
11 1/4° BEND (VERT)	518502.26	997376.04	2731.50	19+85.00
11 1/4° BEND (VERT)	518362.26	997376.56	2749.00	21+25.00
11 1/4° BEND (VERT)	518312.26	997376.75	2751.00	21+75.00
1" ARV (TAP)	518312.26	997376.75	2751.00	21+75.00
1" ARV (CAGE)	518312.28	997381.75	2756.93	21+75.00, 5'LT.
45° BEND (RO)	518274.39	997376.89	2750.50	22+12.87
45° BEND (RO)	518261.56	997391.77	2748.43	22+32.68
11 1/4° BEND (RO)	518270.90	997379.50	2750.04	22+17.25
11 1/4° BEND (VERT)	518268.84	997438.52	2743.50	22+80.00
8" X 8" TEE	518308.60	997693.77	2736.50	25+38.33
8" GATE VALVE	518308.60	997693.77	2736.50	25+38.33

FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W12 OF WXX



CITY OF TUCSON

TITLE OF PROJECT
MATERIAL QUANTITY AND
AS-BUILT TABLE

RESERVE FOR
ENGINEER'S
SEAL

DESIGNED BY: XXX	DATE: XX/XX	FIELD BOOK NO.:	12 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE:	
CHECKED BY: XXX	DATE: XX/XX	VERT: NTS	PLAN NO. X-XXX-XXXX
		HORIZ: NTS	



CONSULTANT LOGO						
NO.	BY	DATE	REVISION	APPR.	DATE	

PART 1
Completed by Tucson Water Design Engineer

I. PROJECT NAME *****

A. Owner Name and Address:
 City of Tucson
 Tucson Water
 310 W. Alameda
 Tucson, Arizona 85701

B. Project Location: *****
 City N/A County Pima
 Latitude and Longitude (NAD83)
 Lat: XX' XX' XX.XX" N Long: XXX' XX" XX.XX" E

C. Project Description and Intended Use:

D. Total Project Area: Length (Ft.) +/- *** ft Area (Ac.): +/-**

To be completed by Contractor (or Contractor's SWPPP Engineer)

E. Area to be Disturbed (Ac.): _____

F. Runoff coefficients: Existing _____ Developed _____

G. Receiving Water(s) (Include Wetlands):

 Distance from Project: _____

H. Discharge and/or soils Data Available:
 Yes _____ No _____
 If yes, is the data attached? _____

I. Identify locations of Potential Discharges to Dry Washes or MS4.

II. PRESERVATION OF EXISTING VEGETATION

A. In accordance with the specifications, existing vegetation will be preserved where possible. Clearing limits shall be confined to areas that require grading. Existing vegetation outside the boundaries of the cleared area shall be protected from damage by construction activities. Existing trees within the area to be cleared shall be preserved and protected, wherever possible. Areas where vegetation will be preserved shall be shown on the site plan

III. SOIL STABILIZATION MEASURES

A. All disturbed soil which will not be paved will be protected from erosion in accordance with the project plans and specifications.

IV. MEASURES TO CONTROL EROSION AND SEDIMENT

A. Permanent Erosion and Sediment Controls: (Refer to Project Plans, SWPPP Plan Sheets and Specifications)

BMPs

_____ Ditch/Dike
 _____ Rock Outlet Protection
 _____ Gravel/Decomposed Granite
 _____ Other Describe: _____

B. Temporary Erosion and Sediment Controls: (Refer to SWPPP Plan Sheets and Specifications)

BMPs

_____ Temporary Diversion Dikes
 _____ Sediment Log Barriers
 _____ Sediment Log Check/Dikes
 _____ Stabilized Construction Site Entrance/Exit
 _____ Silt Fence
 _____ Stormdrain Inlet Protection
 _____ Protection of Trees/Natural Areas
 _____ Other Describe: _____

V. MAINTENANCE AND INSPECTIONS

A. Frequency of Inspections: (Check one)

_____ The site will be inspected a minimum of once every 7 calendar days, or

_____ The site will be inspected a minimum of once every 14 calendar days, and also within 24 hours of each storm event of 0.5 inch or greater in 24 hours; or

_____ The site will be inspected a minimum of once per month, but not within 14 calendar days of the previous inspection and within 24 hours of the occurrence of a storm event of 0.25 inch or greater.

NOTE: The operator shall obtain rainfall information from either a properly maintained rain gauge on the site, or a weather station that is representative of the site's location

B. The following Contractor Personnel meet the requirements of "Qualified Personnel" as described in the AZPDES General Permit:

C. Maintenance:
 Clean and/or replace BMPs when design capacity is reduced by 50%.

D. The SWPPP will be modified to meet changing site conditions.

PART 2 - To be completed by Contractor (or Contractor's SWPPP Engineer)

I. SCHEDULE OF MAJOR ACTIVITIES

A. Project Schedule
 Start Date: _____ End Date: _____

B. Construction Sequencing Schedule (Attach Additional Sheet if Necessary)

Date	Construction Activity	BMP's
Begin: _____	_____	_____
End: _____	_____	_____
Begin: _____	_____	_____
End: _____	_____	_____
Begin: _____	_____	_____
End: _____	_____	_____
Begin: _____	_____	_____
End: _____	_____	_____
Begin: _____	_____	_____
End: _____	_____	_____
Begin: _____	_____	_____
End: _____	_____	_____

II. SCHEDULE OF STABILIZATION MEASURES

In areas where construction has temporarily or permanently ceased, the following stabilization measures will be implemented within fourteen (14) days.

A. Dates of major grading activity
 Begin: _____ End: _____

B. Dates when construction temporarily or permanently ceases
 Temporary Date: _____
 Location of the Site: _____
 Permanently Date: _____
 Location of the Site: _____

C. Stabilization Measures
 Date Initiated: _____ Date Completed: _____

III. INVENTORY OF POLLUTANTS

A. The materials or substances checked below are expected to be onsite during construction:

_____ Concrete	_____ Asphalt
_____ Paints	_____ Fertilizer
_____ Herbicides	_____ Wood
_____ Fuel	_____ Oil
_____ Others, List: _____	

IV. NON-STORMWATER FLOWS

_____ Dust Control Watering
 _____ Vehicle and Equipment Washing
 _____ Dewatering Operations
 _____ Waterline Flushing
 _____ Other _____

Describe BMPs to Address Non-Storm Flows

V. POLLUTION CONTROL MEASURES

A. Good Housekeeping Controls
 _____ Street Sweeping as Needed to Control Tracking
 _____ Stockpile Controls
 _____ Solid Waste Management
 _____ Equipment Maintenance Procedures
 _____ Other _____

B. Source Controls (Locate on Site Map)

_____ Designated Concrete Washout Area
 _____ Equipment Fueling Area
 _____ Contractor Staging Area
 _____ Protected Chemical and Material Storage Area
 _____ Restroom Facilities
 _____ Stabilized Construction Entrance
 _____ Secondary Containment for all Chemical Storage
 _____ Other _____

C. Will the Contractor utilize off-site material, waste, or borrow equipment storage areas?
 Yes _____ No _____

VI. OTHER REQUIREMENTS

A. This SWPPP will be kept on-site or in a readily accessible location during project work hours.

B. Copies of the NOI's and authorization number are included in this SWPPP.

C. As appropriate, this SWPPP will include measures to comply with applicable Federal, State, and Local Regulations.

D. The contractor shall be familiar with ADOT's Erosion and Pollution Control Manual and shall keep a copy with the SWPPP documents during construction. Copies are available from City of Tucson, Department of Transportation, Stormwater Management Section (520-791-4251).

VII. POLLUTION PREVENTION PLAN CERTIFICATION

A. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibilities of fine and imprisonment for knowing violations.

SWPPP Engineer

Name (Print): _____
 Signature: _____
 Title: _____
 Date: _____
 Area of Responsibility: Control of Project SWPPP Plans and Specifications

Contractor

Name (Print): _____
 Signature: _____
 Title: _____
 Company: _____
 Date: _____
 Area of Responsibility: On-site implementation of SWPPP, day to day operational control of project site.

Sub-Contractor

Name (Print): _____
 Signature: _____
 Title: _____
 Company: _____
 Date: _____
 Area of Responsibility: _____

Sub-Contractor

Name (Print): _____
 Signature: _____
 Title: _____
 Company: _____
 Date: _____
 Area of Responsibility: _____

Sub-Contractor

Name (Print): _____
 Signature: _____
 Title: _____
 Company: _____
 Date: _____
 Area of Responsibility: _____

VIII. SWPPP REVISION TABLE

The table below shall be completed whenever the SWPPP is revised or updated. Both the Engineer and the Contractor will sign and date to document each completed revision. Attach additional sheets as needed.

SIGNATURE	REVISION DESCRIPTION	RESPONSIBILITY
Contractor _____ Date: _____		
Engineer _____ Date: _____		
Contractor _____ Date: _____		
Engineer _____ Date: _____		
Contractor _____ Date: _____		
Engineer _____ Date: _____		
Contractor _____ Date: _____		
Engineer _____ Date: _____		

NOTE: Stormwater Pollution Prevention Plan (SWPPP) Sheets are included in the plans for reference only. Contractor and SWPPP Engineer are responsible for obtaining the SWPPP permit and the preparation and submittal of all associated documentation related to the approval and implementation of the SWPPP as stipulated in the project specifications.

FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

W13 OF WXX



CITY OF TUCSON

W GOOD AVENUE
N ESPINOZA STREET TO N HUNTER STREET

FOR
 INFORMATION
 ONLY

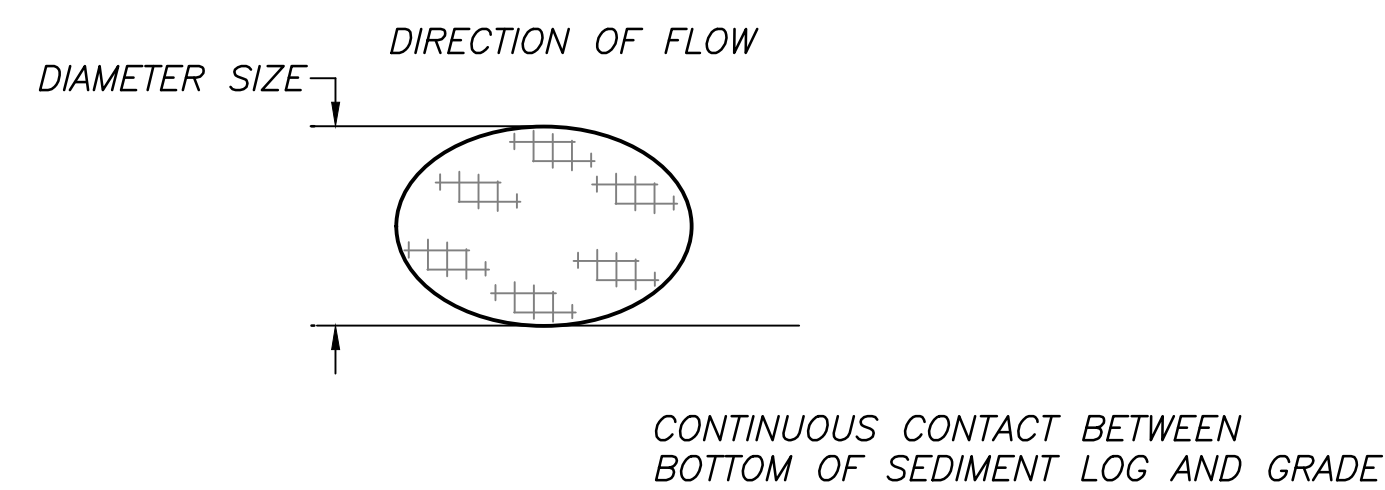
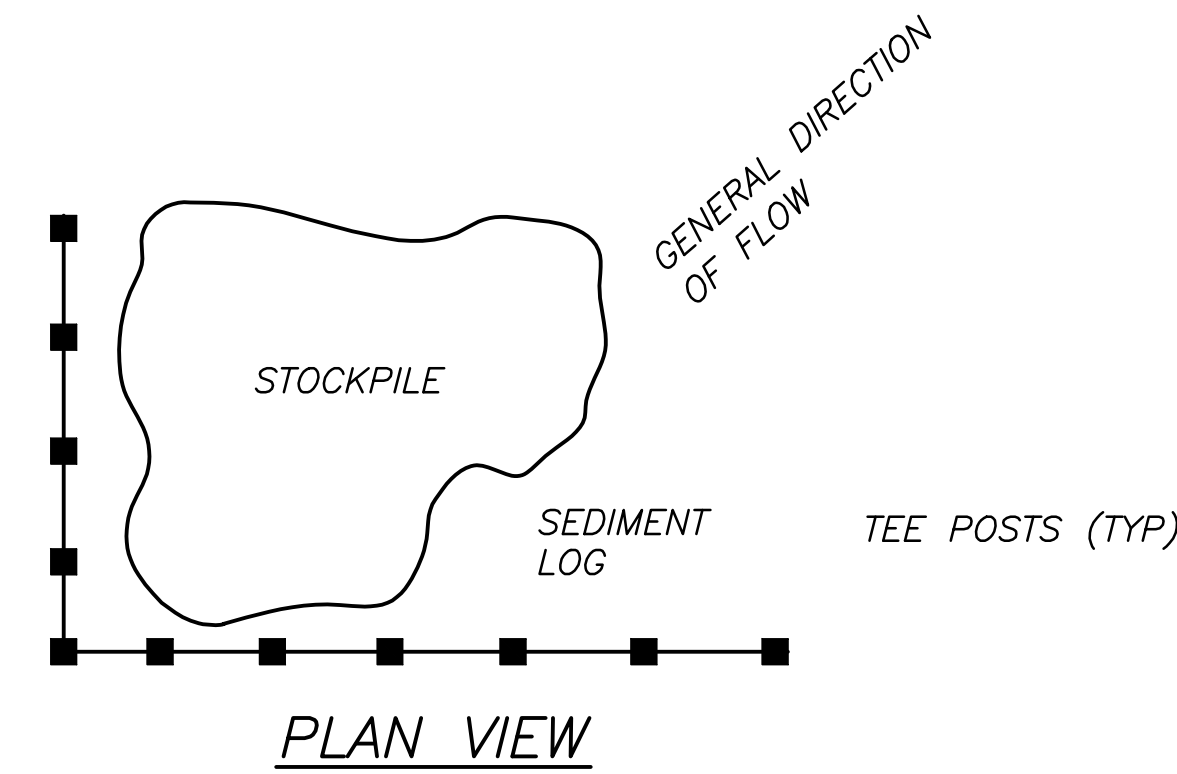
STORMWATER POLLUTION
 PREVENTION PLAN NOTES

DESIGNED BY: XXX	DATE: XX/XX	SURVEY REQUEST NO: 416	13 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE: _____	
CHECKED BY: XXX	DATE: XX/XX	VERT: NO SCALE	PLAN NO: X-XXX-XXXX
		HORIZ: NO SCALE	



CONSULTANT LOGO

NO.	BY	DATE	REVISION	APPR.	DATE

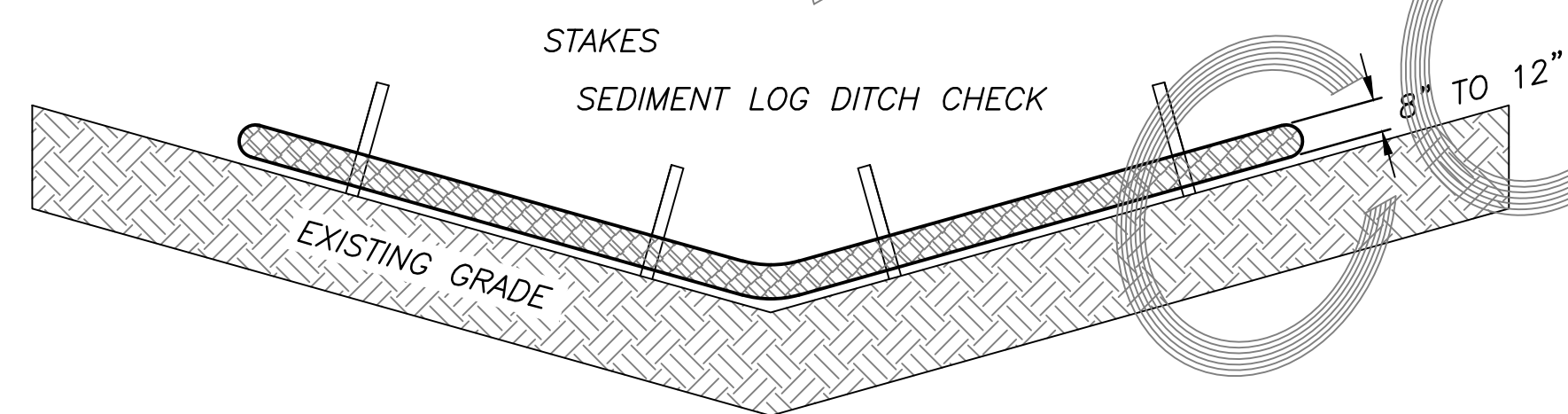


NOTES:

1. SEDIMENT LOGS SHALL BE LOCATED AS INDICATED ON SWPPP SITE PLAN OR AS DIRECTED BY THE ENGINEER.
2. LOGS SHALL BE SELECTED, INSTALLED, AND MAINTAINED WITH MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES.
3. THE CONTIGUOUS CONTACT BETWEEN THE BOTTOM OF THE LOG AND THE GROUND IS MANDATORY.
4. REMOVE SEDIMENT ONCE FINAL STABILIZATION REQUIREMENTS ARE MET. CONTRACTOR TO DISPOSE OF SEDIMENT LOGS AND DISPOSE OF TRAPPED SEDIMENT MATERIAL.

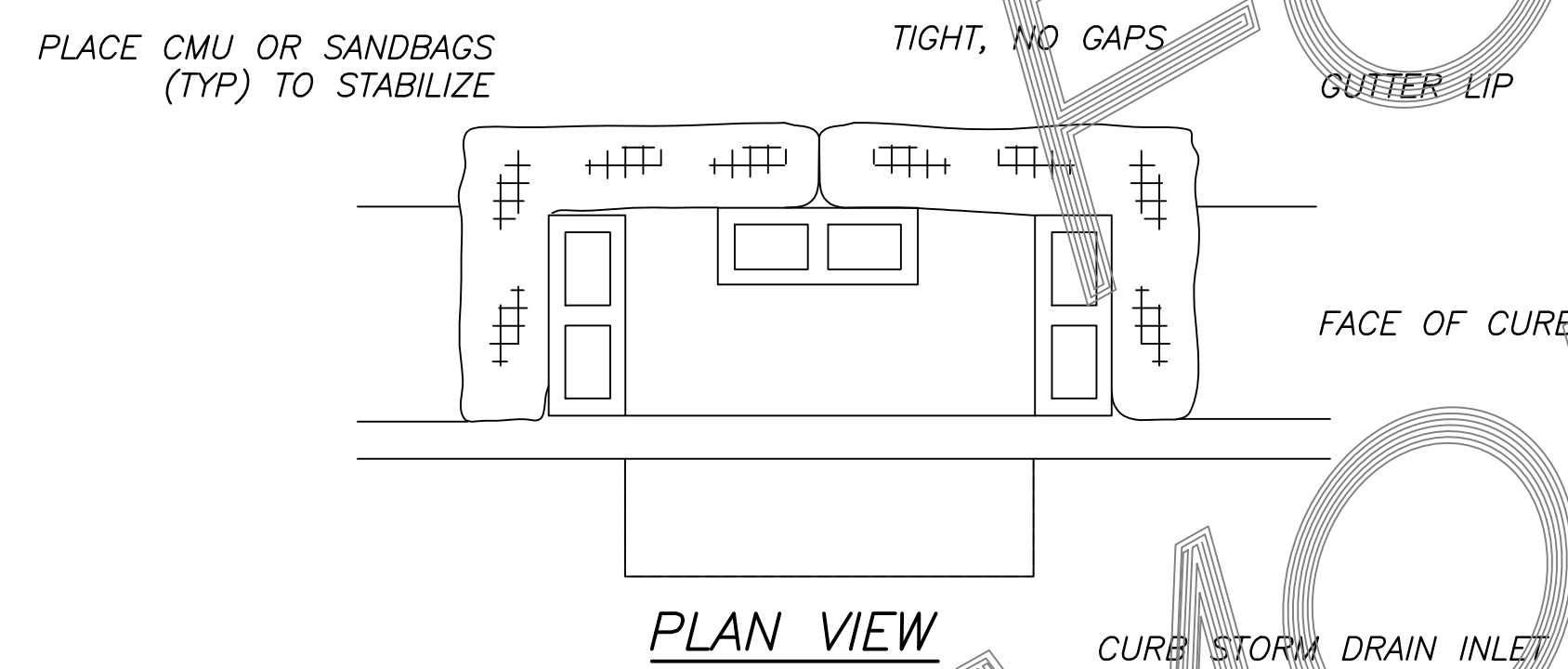
SEDIMENT LOG STOCKPILE PROTECTION DETAIL

NTS



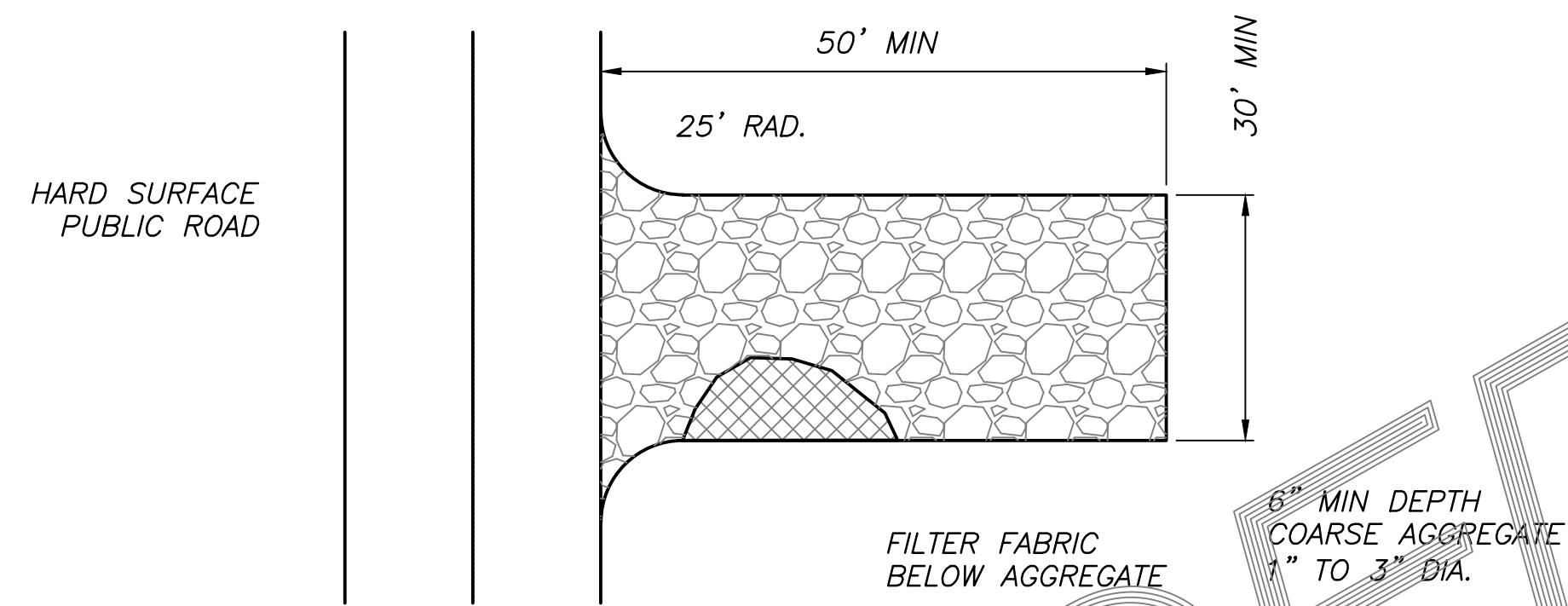
SEDIMENT LOG CHECK/DIKE DETAIL

NTS



SEDIMENT LOG CURB INLET PROTECTION DETAIL

NTS



STABILIZED CONSTRUCTION SITE ENTRANCE/EXIT

DEFINITION

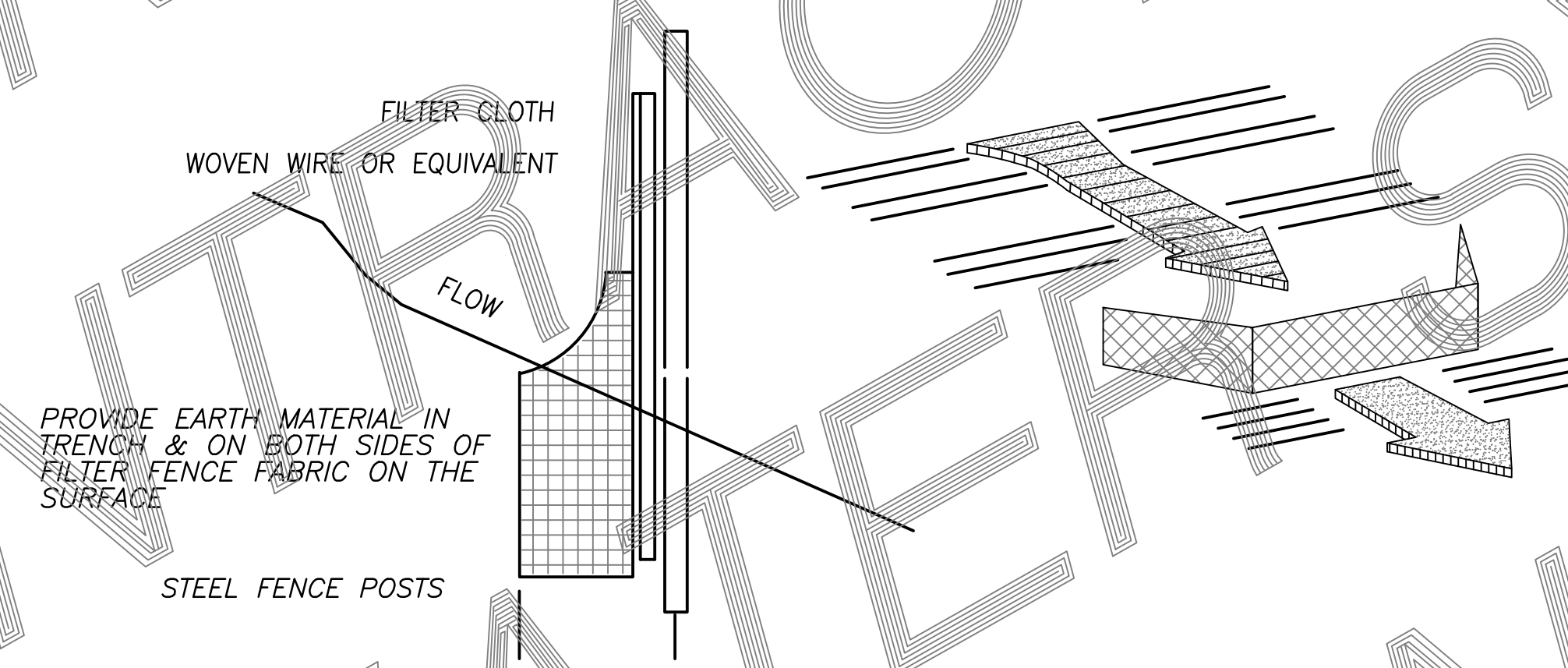
A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER CLOTH LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK OR PARKING AREA.

PURPOSE

THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. REDUCING TRACKOUT OF SEDIMENTS AND OTHER POLLUTANTS ONTO PAVED ROADS HELPS PREVENT DEPOSITION OF SEDIMENTS INTO LOCAL STORM DRAINS AND PRODUCTION OF AIRBORNE DUST.

APPROPRIATE APPLICATIONS

A STABILIZED CONSTRUCTION ENTRANCE SHOULD BE USED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS. NPDES PERMITS REQUIRE THAT APPROPRIATE MEASURES BE IMPLEMENTED TO PREVENT TRACKOUT OF SEDIMENTS ONTO ROADWAYS.

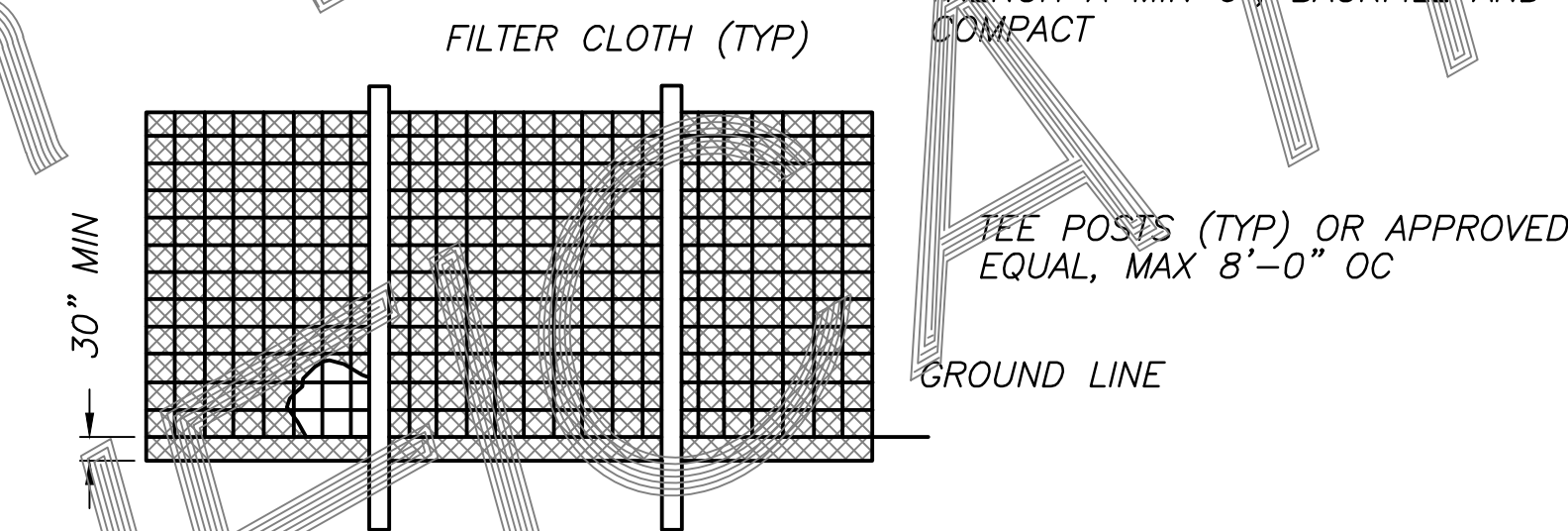


SECTION VIEW

SILT FENCE FILTER FABRIC IN THE INSTALLATION TRENCH SHALL BE BURIED A MINIMUM OF TWENTY INCHES. THE SECTION OF THE TRENCH SHALL BE A MINIMUM OF 6" (DEEP) X 8" (WIDE). FILTER FABRIC IS TO BE BURIED ALONG THE SIDE AND BOTTOM OF THE TRENCH & BACK UP TO THE UPSTREAM SLOPE GRADE. SILT FENCE FILTER FABRIC SECTION SHALL BE A "U" TO PREVENT UNDER CUTS AND CARRY STRESS FROM UPSTREAM SEDIMENT LOADING.

WOVEN WIRE FENCE AS PER STD. C-12.10

SECURE TOP EDGE OF FILTER CLOTH TO WOVEN WIRE. BURY BOTTOM EDGE IN TRENCH A MIN 6" BACKFILL AND COMPACT



SILT FENCE ELEVATION VIEW

DEFINITION

TEMPORARY SEDIMENT BARRIER CONSISTING OF FILTER FABRIC WITH WIRE FENCE AS NEEDED FOR SUPPORT

PURPOSE

1. INTERCEPT AND DETAIN SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION
2. DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNELS.

APPROPRIATE APPLICATIONS

SILT FENCES MUST BE PROVIDED JUST UPSTREAM OF THE POINT(S) OF DISCHARGE OF RUNOFF FROM THE SITE, BEFORE THE FLOW BECOMES CONCENTRATED. THEY MAY ALSO BE USED:

1. BELOW DISTURBED AREAS WHERE RUNOFF MAY OCCUR IN THE FORM OF SHEET AND RILL EROSION; WHEREVER RUNOFF HAS THE POTENTIAL TO IMPACT DOWNSTREAM RESOURCES.
2. PERPENDICULAR TO MINOR SWALES OR DITCH LINES FOR UP TO ONE ACRE CONTRIBUTING DRAINAGE AREAS.



NOTE: SIZE OF DIKE IS BASED ON INDIVIDUAL SITE. DIMENSIONS SHOWN ARE FOR GENERAL INFORMATION ONLY.

TEMPORARY DIVERSION DIKE

DEFINITION

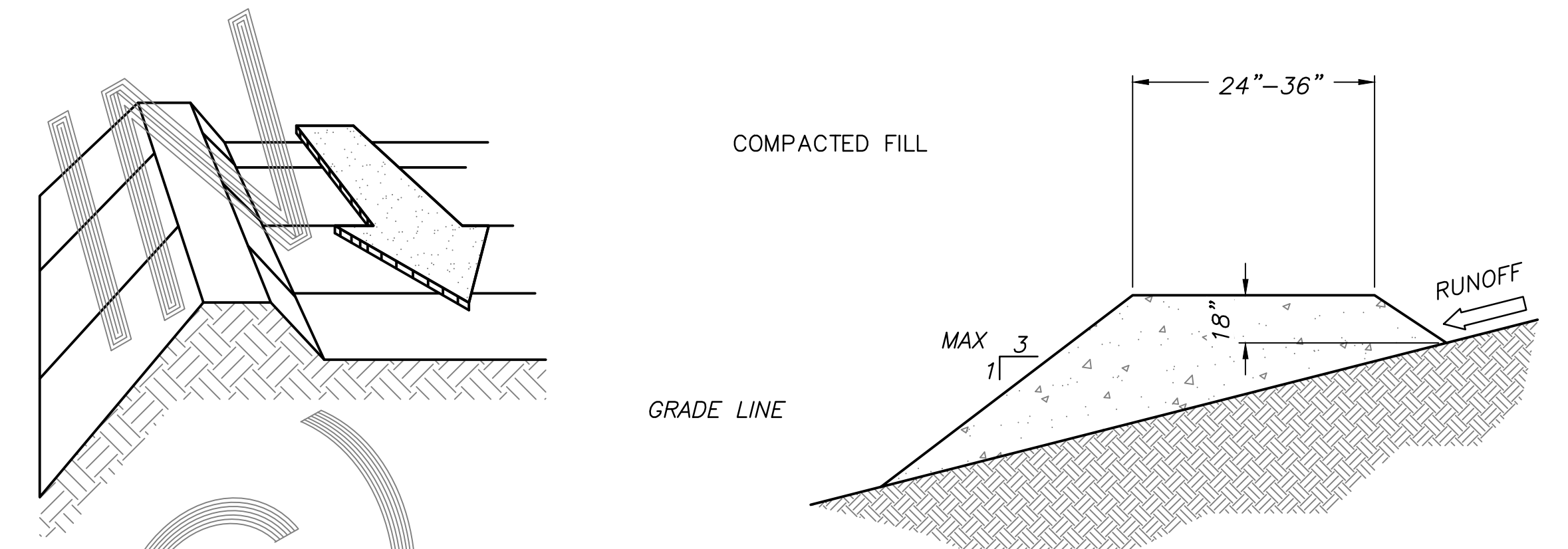
A TEMPORARY BERM OR RIDGE OF COMPACTED SOIL, LOCATED IN SUCH A MANNER AS TO CHANNEL WATER TO A DESIRED LOCATION

PURPOSE

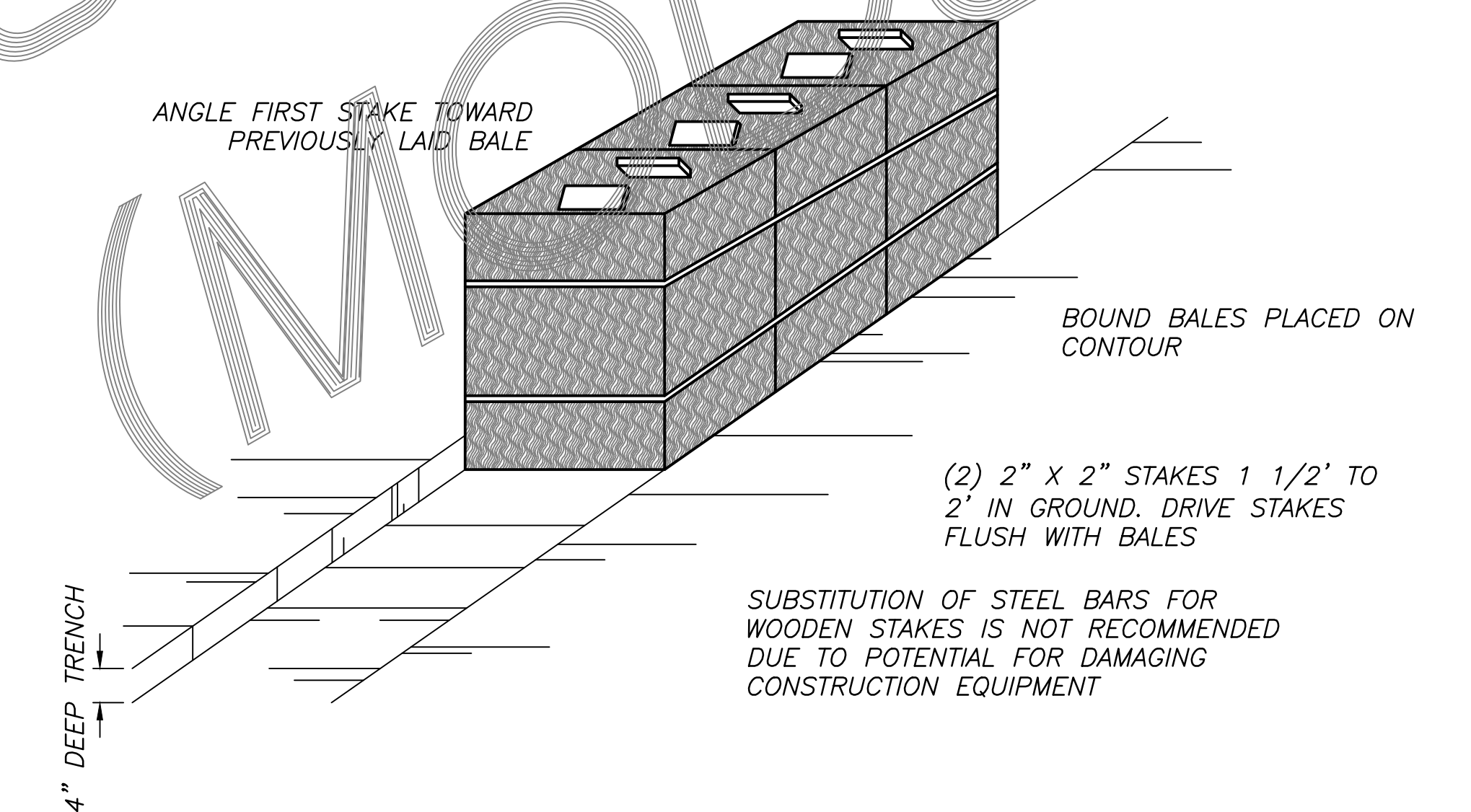
THE PURPOSE OF A TEMPORARY DIVERSION DIKE IS TO DIRECT RUNOFF TO A SEDIMENT TRAPPING DEVICE OR STABILIZED OUTLET, AND TO REDUCE THE POTENTIAL FOR EROSION. TEMPORARY DIVERSION DIKES CAN ALSO BE USED FOR DIVERTING CLEAN WATER AWAY AND SHEET FLOWS AWAY FROM DISTURBED AREAS AND UNPROTECTED SLOPES.

APPROPRIATE APPLICATIONS

TEMPORARY DIVERSION DIKES ARE OFTEN CONSTRUCTED UPSTREAM OF DISTURBED AREAS AND AROUND CONSTRUCTION SITES. THE DIKES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. THE DIKES MUST BE ON-SITE AND MAINTAIN THE INFLOW AND OUTFLOW CONDITIONS OF THE HISTORIC DRAINAGE PATTERN



ANGLE FIRST STAKE TOWARD PREVIOUSLY LAID BALE



STRAW BALE DIKE

DEFINITION

A TEMPORARY BARRIER OF STRAW BALES OR SIMILAR MATERIAL USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL.

PURPOSE

THE PURPOSE OF A STRAW BALE DIKE IS TO REDUCE RUNOFF VELOCITY AND CAUSE DEPOSITION OF THE TRANSPORTED SEDIMENT LOAD.

APPROPRIATE APPLICATIONS

THE STRAW BALE DIKE IS USED WHERE THERE ARE NO CONCENTRATIONS OF WATER IN A CHANNEL OR DRAINAGE WAY, AND WHERE EROSION WOULD OCCUR FROM SHEET FLOW. THESE BARRIERS ARE TYPICALLY CONSTRUCTED BELOW DISTURBED AREAS SUBJECT TO SHEET FLOW OF RUNOFF TO INTERCEPT AND DETAIN SEDIMENT.

FOR WATER SYSTEM MODIFICATIONS (MODS) ONLY

CONSULTANT LOGO



CITY OF TUCSON

W GOOD AVENUE
N ESPINOZA STREET TO N HUNTER STREET

FOR INFORMATION ONLY

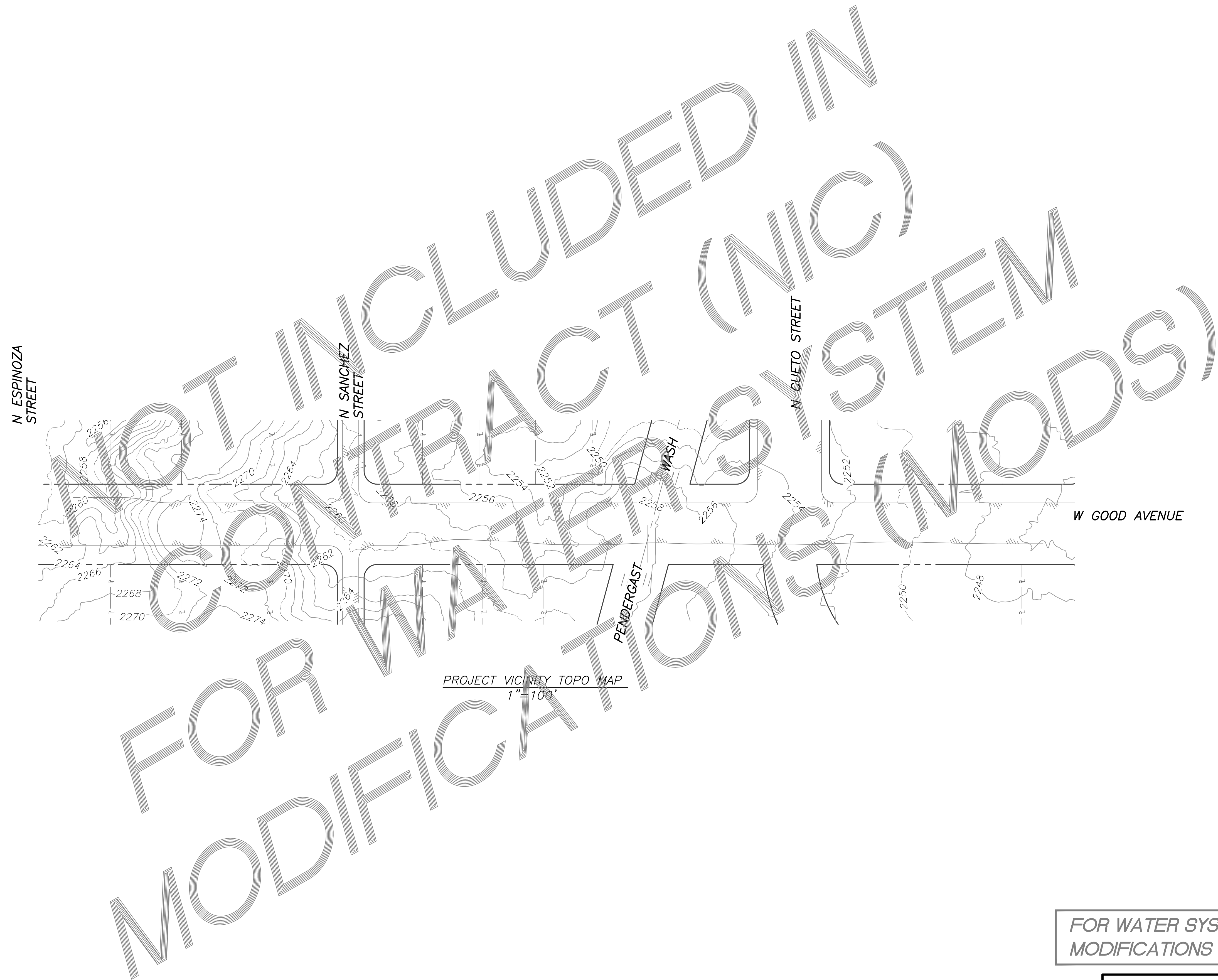
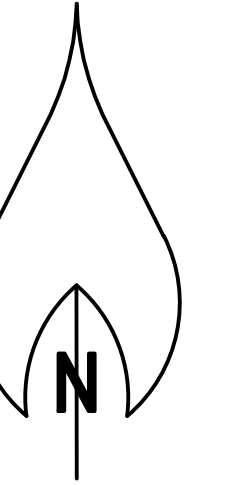
STORMWATER POLLUTION PREVENTION DETAILS

DESIGNED BY: XXX	DATE: XX/XX	SOCKET REQUEST NO: 416	14 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE:	
CHECKED BY: XXX	DATE: XX/XX	VERT: NTS HORIZ: NTS	

NO.	BY	DATE	REVISION	APPR.	DATE

W14 OF WXX

(MODIFICATIONS ONLY) TW PLAN NO X-XXX-XXXX



FOR WATER SYSTEM
MODIFICATIONS (MODS) ONLY

W15 OF WXX



CITY OF TUCSON

W GOOD AVENUE
N ESPINOZA STREET TO N HUNTER STREET

FOR
INFORMATION
ONLY

STORMWATER POLLUTION
PREVENTION CONTOUR SHT

DESIGNED BY: XXX	DATE: XX/XX	SURVEY REQUEST NO. 416	15 of XX
DRAWN BY: XXX	DATE: XX/XX	SCALE: NO SCALE	
CHECKED BY: XXX	DATE: XX/XX	HORIZ: 1"=100'	PLAN NO. X-XXX-XXXX



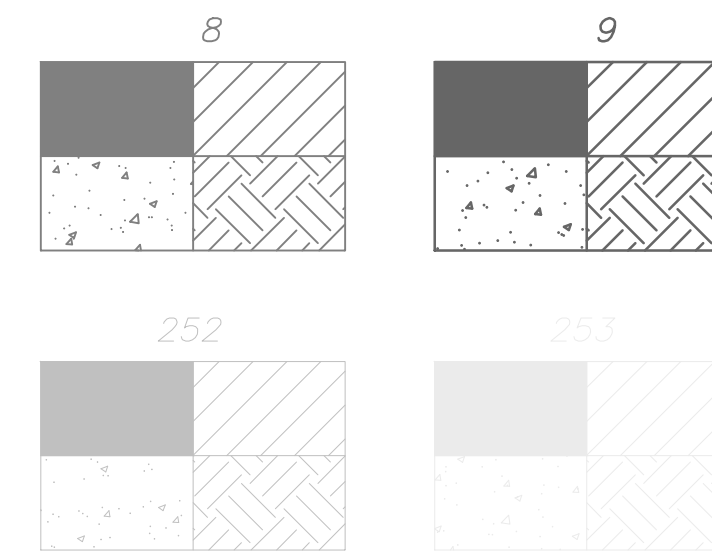
CONSULTANT LOGO

NO.	BY	DATE	REVISION	APPR.	DATE

Water Modifications
Pen Settings
Black & White

COLOR	SCREENING	LINEWEIGHT	
RED (1)	100	0.0079"	(SEE NOTE 1)
YELLOW (2)	100	0.0138"	
GREEN (3)	100	0.0197"	
CYAN (4)	100	0.0209"	
BLUE (5)	100	0.0079"	
MAGENTA (6)	100	0.0138"	
WHITE (7)	100	0.0098"	
8	40	0.0098"	(EXIST. TOPO CULTURE - LINEWORK)
9	60	0.0138"	(PROFILE GRID - MINOR)
10	60	0.0051"	(EXIST. ELECTRIC)(SEE NOTE 1)
11	100	0.0209"	(STREET NAME)
12	100	0.0079"	(EXIST. PROPERTY LINE, EASEMENT, QUARTER SECTION LINE)
13	100	0.0138"	(PROFILE GRID MAJOR)
21	90	0.0000"	(PAVEMENT REPLACEMENT AND CHIP SEAL)
30	60	0.0051"	(EXIST. COMM, TELE, CATV)(SEE NOTE 1)
33	60	0.0051"	(PROFILE GRID MID)
40	60	0.0098"	(EXIST. INTERMEDIATE CONTOUR - MINOR)
41	60	0.0138"	(EXIST. INDEX CONTOUR - MAJOR)
43	100	0.0059"	(EXIST. CONTOUR LABELS)
50	80	0.0051"	(EXIST. GAS)(SEE NOTES 1 & 2)
51	80	0.0051"	(EXIST. PETROLEUM)(SEE NOTES 1 & 2)
71	60	0.0051"	(EXIST. UNKNOWN)(SEE NOTE 1)
90	60	0.0051"	(EXIST. SEWER)(SEE NOTE 1)
100	75	0.0197"	(EXIST. CITY LIMITS, ROW, SECTION LINE)
121	60	0.0051"	(EXIST. STORMDRAIN)(SEE NOTE 1)
131	60	0.0051"	(EXIST. IRRIG)(SEE NOTE 1)
132	100	0.0472"	(COVER SHEET WATERLINE UNDER 24")
141	80	0.0051"	(EXIST. WATER)(SEE NOTE 1)
150	100	0.0276"	(NEW WATER LINE - PROFILE VIEW)
153	100	0.0177"	(NEW WATER APPURTENANCES - PROFILE VIEW)
154	100	0.0177"	(NEW WATER APPURTENANCES LATERAL - PROFILE VIEW)
160	100	0.0417"	(NEW WATER LINE UP TO 24" - PLAN VIEW)
161	100	0.0417"	(NEW WATER LINE UP TO 24" LATERAL - PLAN VIEW)(SEE NOTE 4)
162	100	0.0138"	(NEW WATER APPURTENANCES - PLAN VIEW)
163	100	0.0138"	(NEW WATER APPURTENANCES - PLAN VIEW)
170	100	0.0197"	(NEW WATER LINE 24"+ - PLAN VIEW)
171	100	0.0197"	(NEW WATER LINE 24"+ LATERAL - PLAN VIEW)(SEE NOTE 4)
200	100	0.0417"	(TITLE BLOCK - OUTER BORDER)
201	60	0.0051"	(EXIST. RECLAIMED WATER)(SEE NOTE 1)
202	100	0.0236"	(NEW RECLAIMED WATER & APPURTENANCES)
203	100	0.0236"	(NEW RECLAIMED WATER & APPURTENANCES)
211	60	0.0051"	(EXIST. FIBER OPTIC)(SEE NOTE 1)
242	0		USE OBJ LINEWEIGHT (SEE NOTE 3)
250	40	0.0276"	
251	40	0.0417"	
252	25	0.0051"	
253	30	0.0051"	

COLOR GRAY IS USE FOR:
EXIST CULTURE/HATCH/SHADING/THIN LINEWORK



NOTES:

1. LINE JOIN STYLE SETTING = MITER.
2. COLOR 50 IS A COMBINATION OF COLORS FOUND UNDER THE COLOR BOOKS TAB IN THE RAL CLASSIC PULL DOWN AS COLOR RAL 1018.
3. COLOR 242 IS A NON-PLOT SOLID HATCH USED AS WIPEOUT FOR SYMBOLS.
4. LINE TYPE IS DASHED IN CTB FILE.
5. DO NOT USE TUCSON WATER LOGO COLORS: 35, 41, 66, 138, 140, 142, 168, 249 AND 253

