

DEVELOPER
TOLL BROTHERS ARIZONA CONSTRUCTION COMPANY
8767 E VIA DE VENTURA, SUITE 390
SCOTTSDALE, ARIZONA 85258
(480) 951-0782

ENGINEER
ARGUS CONSULTING, P.C.
10115 E. BELL ROAD, SUITE 107 - #104
SCOTTSDALE, ARIZONA 85260
(480) 596-1131

PROJECT INFO
EXISTING ZONING: R4-R (ESL)

RELATED CASE NO.
16-PP-2017 10-GP-2011 16-ZN-2011

BENCHMARK

GDAOS POINT 43555-1 (MCDOT)
FD 1" I.P WITH GLO BRASS CAP UP 1.20' STAMPED
"1/4 CORNER S10/S11 1919"
NAVD88 ELEVATION = 2673.236

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED
ON THIS PLAN ARE BASED ON THE NORTH AMERICA
VERTICAL DATUM 1988 (NAVD 1988) BY USING THE
MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION
(MCDOT) BENCHMARK SYSTEM.

UTILITY PROVIDERS

WATER CITY OF SCOTTSDALE
SEWER CITY OF SCOTTSDALE
ELECTRICITY ARIZONA PUBLIC SERVICE
TELEPHONE CENTURY LINK
GAS SOUTHWEST GAS COMPANY
CABLE TV COX COMMUNICATIONS

SPECIFICATIONS

ALL SITE WORK SHALL CONFORM TO THE LATEST EDITION OF
MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM
STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS
FOR PUBLIC WORKS CONSTRUCTION, AS AMENDED BY PROJECT
SPECIFICATIONS, PLANS AND PROJECT GEOTECHNICAL REPORT.

NATIVE PLANT SUBMITTAL

2901-18-2

QUARTER SECTIONS

45-58

ASSESSORS PARCEL NOS.

217-01-284D

UNDERGROUND UTILITY STATEMENT

The underground utilities shown have been located from field
survey information and existing drawings. The surveyor
makes no guarantee that the underground utilities shown
comprise all such utilities in the area, either in service or
abandoned. The engineer further does not warrant that the
underground utilities shown are in the exact location
indicated although he does certify that they are located as
accurately as possible from information available.
The engineer has not physically located the
underground utilities.

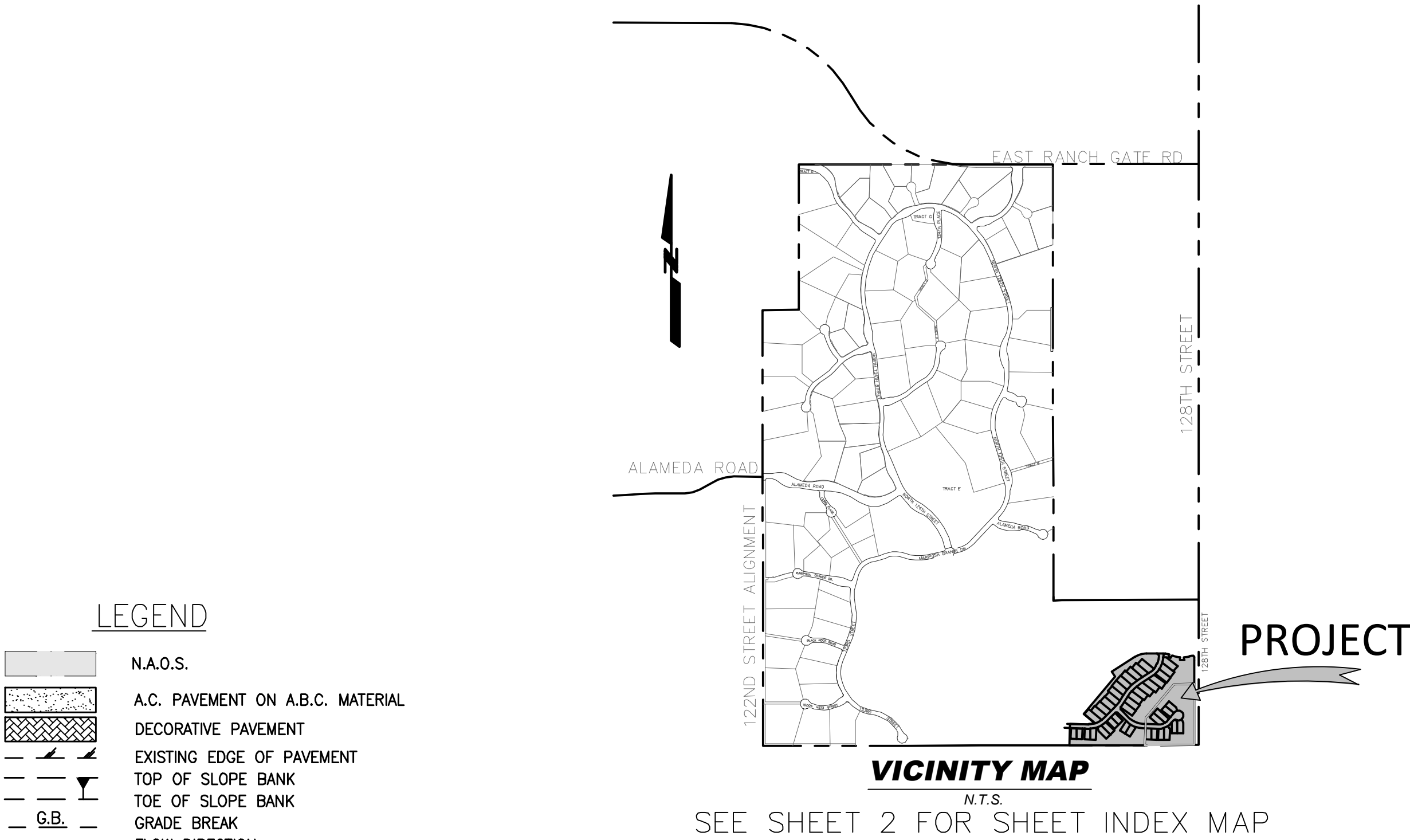
NATURAL AREA OPEN SPACE (NAOS) AND LIMITS OF CONSTRUCTION (LOC) PROTECTION PROGRAM:

- NO BUILDING, GRADING OR CONSTRUCTION ACTIVITY SHALL ENCR OACH INTO THE AREAS
DESIGNATED AS NAOS, OR OUTSIDE THE DESIGNATED LIMITS OF CONSTRUCTION ENVELOPE.
- ALL NAOS AND AREA OUTSIDE OF THE LOC SHALL BE PROTECTED FROM DAMAGE PRIOR TO
AND DURING CONSTRUCTION BY THE FOLLOWING METHOD:
 - A REGISTERED LAND SURVEYOR SHALL STAKE ALL NAOS AND LOC DISTURBANCE
BASED ON THIS EXHIBIT.
 - ±3 FOOT TALL STEEL REBAR, OR CITY OF SCOTTSDALE INSPECTION SERVICES
APPROVED SIMILAR, SHALL BE SET ALONG THE NAOS AND LOC, CONNECTED WITH
GOLD ROPING BY THE CONTRACTOR PRIOR TO ANY CLEARING OR GRADING.
 - ALL CACTUS SUBJECT TO THE CITY OF SCOTTSDALE'S NATIVE PLANT ORDINANCE
DIRECTLY ADJACENT, WITHIN 2 FEET, OF THE NAOS AND LOC LINE SHALL BE
FENCED WITH WIRE FENCING TO PREVENT DAMAGE.
 - THE STAKING, ROPING, AND FENCING SHALL BE MAINTAINED INTACTED BY THE
CONTRACTOR DURING THE DURATION OF THE CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL REMOVE STAKING, ROPING, AND FENCING AFTER RECEIPT OF THE
LETTER OF ACCEPTANCE/CERTIFICATION OF OCCUPANCY FROM THE CITY OF SCOTTSDALE
FOR ALL CONSTRUCTION WORK.

NO CONFLICT SIGNATURE BLOCK					
UTILITY	UTILITY COMPANY	COMPANY REP.	TEL.. NO.	DATE SUBMITTED	DATE RETURNED
ELECTRIC	APS	SCOTT TIMAR	602-493-4421	7-26-21	
TELEPHONE	CENTURY LINK	CHRIS (MARIA) LERIQUE	602-630-0492	7-26-21	
NATURAL GAS	S.W. GAS	GREG COOPER	602-484-5276	7-26-21	
CABLE TV	COX	TRAFFIC MGMT CENTER	623-328-2190	7-26-21	
ELECTRIC					
OTHER					
ENGINEERS CERTIFICATION					
I JORGE GARRE, BEING RESPONSIBLE FOR DESIGNING THE FACILITIES NECESSARY TO SERVE THIS DEVELOPMENT, HEREBY CERTIFY THAT ALL OF THE UTILITY COMPANIES LISTED ABOVE HAVE BEEN CONTACTED. PLANS AND 'NO CONFLICT' FORMS HAVE BEEN SUBMITTED FOR REVIEW AND COMMENT BY EACH COMPANY.					
SIGNATURE					7/23/21 DATE

IMPROVEMENT PLANS SERENO CANYON PARCEL H, PHASE 4

A PORTION OF SECTION 11, TOWNSHIP 4 NORTH, RANGE 5 EAST,
OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



GENERAL CONSTRUCTION NOTES FOR PUBLIC WORKS CONSTRUCTION

- ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENT (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS. IF THERE IS A CONFLICT, THE CITY'S SUPPLEMENTAL STANDARD DETAILS WILL GOVERN.
- THE CITY ONLY APPROVES THE SCOPE, NOT THE DETAIL, OF ENGINEERING DESIGNS: THEREFORE, IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
- THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF ASSOCIATED PERMIT HAS NOT BEEN ISSUED WITHIN THIS TIME FRAME, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR RE-APPROVAL.
- A CITY INSPECTOR WILL INSPECT ALL WORKS WITHIN THE CITY OF SCOTTSDALE. NOTIFY INSPECTION SERVICES 72 HOURS BEFORE BEGINNING WORK.
- WHENEVER EXCAVATION IS NECESSARY, CALL BLUE STAKE CENTER, 811, TWO WORKING DAYS BEFORE EXCAVATION BEGINS.
- PERMISSION TO WORK IN THE (PWR) PERMITS ARE REQUIRED FOR ALL WORKS WITHIN THE RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.

GENERAL NOTES:

- GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLANS, INCLUDING, BUT NOT LIMITED TO, RETENTION AREAS, SEDIMENTATION BASINS, AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALLS, CURBS, ASPHALT PAVEMENT, AND BUILDING PAD ELEVATIONS.
- ANY EXISTING LANDSCAPE WHICH IS DISRTUBED OR DESTROYED AS A RESULT OF CONSTRUCTION SHALL BE RELOCATED OR REPLACED ON THE SITE WITH MATERIAL OF LIKE SIZE, TYPE AND QUANTITY.
- AREA WITHIN TEH SAFETY TRIANGLE IS TO BE CLEAR OF LANDSCAPING, SIGNS, OR OTHER VISIBILITY OBSTRUCTIONS WITH A HEIGHT OF 2'-0". PLANT MATERIAL MUST HAVE A CANOPY THAT BEGINS AT 7'-0" UPON INSTALLATION. ALL HEIGHTS ARE MEASURED FROM THE NEAREST STREET LINE ELEVATION.
- HAUL ROUTE PERMIT, IF IMPORT OR EXPORT IN EXCESS OF 5,000 CUBIC YARDS IS REQUIRED DURING THE COURSE OF CONSTRUCTION A HAUL ROUTE PERMIT WILL BE OBTAINED FOR THIS WORK.
- ONSITE DRAINAGE STRUCTURES ARE PRIVATE AND MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER.
- CITY OF SCOTTSDALE WATERLINE EASEMENT IS TO BE FREE OF OBSTRUCTIONS AND ACCESSIBLE TO CITY FORCES AT ALL TIMES.
- IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE (A.A.C.) R18-4-213 ALL MATERIALS ADDED AFTER JANUARY 1, 1993, WHICH MAY COME INTO CONTACT WITH DRINKING WATER, SHALL CONFORM TO NATIONAL SANITATION FOUNDATION (NSF) STANDARDS 60 AND 61.
- ALL WASH CROSSINGS SHALL BE DESIGNED FOR A MIN. 100-YEAR STORM ACCESS AND TO A MIN. LOADING DESIGN OF 83,000 POUNDS G.V.W.
- ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH STIPULATIONS FOR ATALON APPROVED UNDER CASE 22-PP-2011.
- ALL STREETS AND PRIVATE DRIVEWAYS SHALL BE DESIGNED FOR A MIN. 100-YEAR STORM AND EMERGENCY ACCESS.
- ALL RIP-RAP SHALL BE INDIGENOUS/NATIVE STONE.
- WATER METER BOXES MAY NOT BE LOCATED WITHIN DRIVEWAYS.
- ALL DRAINAGE STRUCTURES SHALL BE INTEGRALLY COLORED.
- IN ACCORDANCE WITH NOTE 1 OF CITY OF SCOTTSDALE GENERAL CONSTRUCTION NOTES FOR PUBLIC WORKS CONSTRUCTION ABOVE. ALL WATER AND SEWER LINE, CONSTRUCTION, TESTING, AND DISINFECTION MUST CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE (COS) SUPPLEMENTAL STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS AND CITY OF SCOTTSDALE'S DESIGN STANDARDS & POLICIES MANUAL (DS&PM).
- IN ACCORDANCE WITH CHAPTER 6-1.407 OF THE CITY OF SCOTTSDALE DS&PM ALL METERED SERVICES ARE TO HAVE A PRESSURE REGULATING VALVE INSTALLED ON THE PRIVATE SERVICE LINE.
- ALL HEADWALLS AND DRAINAGE STRUCTURES SHALL BE INTEGRALLY COLORED CONCRETE TO BLEND WITH THE COLOR OF THE SURROUNDING NATURAL DESERT. SIDEWALK SHALL BE SAN DIEGO BUFF COLORED CONCRETE.

ADDITIONAL REQUIREMENTS TO M.A.G. SPECIFICATIONS

M.A.G. SECTION 301 - SUB GRADE PREPARATION

- 301.3 RELATIVE COMPACTION
SPECIFIED DENSITY SHALL BE ACHIEVED IMMEDIATELY PRIOR TO PLACEMENT OF BASE MATERIAL. MOISTURE CONTENT SHALL BE WITHIN ±2% OF OPTIMUM MOISTURE CONTENT DURING COMPACTION.

M.A.G. SECTION 321 - ASPHALT CONCRETE

321.5.5 PRESERVATIVE SEAL

- PRESERVATIVE SEAL SHALL NOT BE APPLIED.

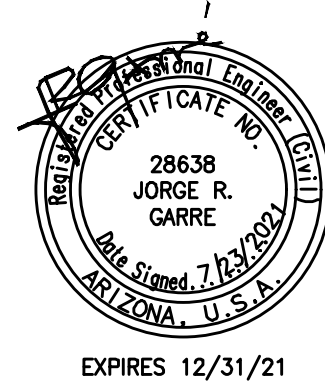
M.A.G. SECTION 710 - ASPHALT CONCRETE

- THE USE OF RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE IN ACCORDANCE WITH SECTION 409 OF THE M.A.G. SPECIFICATIONS. IN NO CASE WILL THE PERCENTAGE OF RAP BE ALLOWED TO EXCEED 15 PERCENT OF THE TOTAL WEIGHT OF THE TOTAL MIX.
- ASPHALT CEMENT SHALL BE PG70-10 ACCORDING TO THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS MP1-93, SPECIFICATION FOR PERFORMANCE GRADED ASPHALT BINDER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING THE MIX DESIGN. OWNER SHALL APPROVE TESTING LABORATORY SELECTED BY CONTRACTOR.
THE ASPHALT MIX DESIGN SHALL FOLLOW PROCEDURES FOR (LOW) TRAFFIC VOLUME.
ASPHALT CONCRETE MIX DESIGNS FOR LOW VOLUME TRAFFIC SHALL BE PERFORMED ACCORDING TO THE MARSHALL METHOD AND SHALL HAVE GRADATION ABOVE THE RESTRICTED ZONE.
ASPHALT CONCRETE MIX DESIGNS FOR MEDIUM OR HIGH VOLUME TRAFFIC SHALL BE PERFORMED ACCORDING TO THE SUPERPAVE (TM) METHOD AND SHALL HAVE GRADATION BELOW THE RESTRICTED ZONE.
- ALL ASPHALT MIXES SHALL CONTAIN A MINIMUM 0.75 PERCENT HYDRATED LIME OR 1.00 PERCENT PORTLAND CEMENT AS ANTI STRIPPING AGENT.

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

COMMUNITY NUMBER	PANEL # PANEL DATE	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION (in AO Zone, Use Depth)
045012	04013C1335 10/16/13	M	11/04/15	D	N/A

ENGINEER'S CERTIFICATION: The lowest floor elevation(s) and/or flood proofing elevation(s) on this plan are sufficiently high to provide protection from flooding caused by a one-hundred year flood, and are in accordance with City of Scottsdale Revised Code, Chapter 37- Floodways & Flood plains Ordinance.



CITY OF SCOTTSDALE REVIEW & RECOMMENDED APPROVAL BY:				ARGUS CONSULTING A CIVIL ENGINEERING COMPANY, P.C. 10115 E. Bell Road, Suite 107 - #104 Scottsdale, Arizona 85260 480-596-1131		
PAVING		TRAFFIC		COVER SHEET IMPROVEMENT PLANS SERENO CANYON PARCEL H, PHASE 4 SCOTTSDALE - ARIZONA		
G & D		PLANNING				
W & S		FIRE				
RET. WALLS						
ENGINEERNG COORDINATION MANAGER (OR DESIGNEE)				DATE	Date 7/23/2021	Job No. 385-17
						Sheet 1 of 20

SHEET INDEX

- SHEET 01 - COVER
- SHEET 02 - SHEET INDEX MAP & DETAILS
- SHEET 03-07 - PAVING SHEETS
- SHEET 08-12 - SEWER & WATER SHEETS
- SHEET 13-16 - GRADING SHEETS
- SHEET 17 - STORM DRAIN PROFILES
- SHEET 18-19 - DETAILS
- SHEET 20 - NAOS & CONSTRUCTION ENVELOPE PLAN
- SHEET SD.1-SD.5 - STRUCTURAL PLAN DETAILS

NOTES

- THE QUANTITIES LISTED ARE APPROXIMATE. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF THE QUANTITIES AND BASE HIS BID ON HIS ESTIMATES.
- TRAFFIC ACCESS TO FUTURE PHASES SHALL BE PROPERLY BARRICADED.
- DISTURBED AREAS OF FUTURE PHASES SHALL BE WATERED AS NECESSARY FOR DUST CONTROL.
- LANDSCAPING AND IRRIGATION SHALL BE COMPLETED WITH PAVING IMPROVEMENTS.
- STORM DRAIN MATERIAL MAY BE REINFORCED CONCRETE, CAST IN PLACE CONCRETE, OR HIGH DENSITY POLYETHYLENE (H.D.P.E.).

ESTIMATED PAVING QUANTITIES

PAVING, ASPHALT CONCRETE	4,997	SY
2' ROLL CURB & GUTTER	3,775	LF
CURB TRANSITIONS	6	EA
CONCRETE APRON	12	SY
CONCRETE VALLEY GUTTER	571	SF
SURVEY MARKER	13	EA
ADJUST VALVE BOX TO GRADE	8	EA
ADJUST MANHOLE FRAME TO GRADE	20	EA
PAVEMENT SAWCUT REMOVAL & REPLACEMENT	10	SY
FIRE HYDRANT MARKER	4	EA
COMPACTED NATIVE GRANITE ACCESS WAY	117	SY

ESTIMATED EARTHWORK QUANTITIES

CUT (RAW)		CY
FILL (RAW)		CY
2.7'-6.7' RETAINING WALL	5,244	LF

ESTIMATED STORM DRAIN QUANTITIES

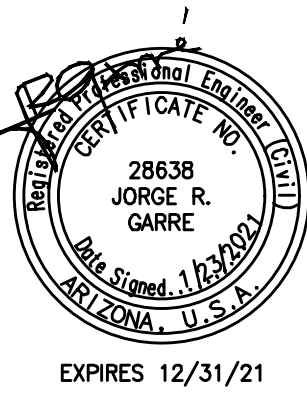
30" HDPE STORM DRAIN	15	LF
24" HDPE STORM DRAIN	456	LF
18" HDPE STORM DRAIN	15	LF
U-SHAPE HEADWALL 3-24" PIPE	2	EA
U-SHAPE HEADWALL 30" PIPE	1	EA
U-SHAPE HEADWALL 24" PIPE	2	EA
U-SHAPE HEADWALL 18" PIPE	2	EA
TYPE M-1 CATCH BASIN	1	EA
TYPE M-2 CATCH BASIN	2	EA
RIP-RAP EROSION PROTECTION	138	SY
CONNECT TO EXISTING CATCH BASIN	1	EA
CONCRETE INLET APRON	36	SF
IRRIGATION SLEEVE	90	LF
STORM DRAIN MANHOLE	1	EA

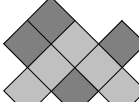
ESTIMATED WATER QUANTITIES

8" D.I.P. WATER LINE (CLASS 350)	1,836	LF
6" D.I.P. WATER LINE (CLASS 350)	45	LF
8" V.B. & C.	6	EA
6" V.B. & C.	3	EA
1" WATER SERVICE LINE	843	LF
1" WATER SERVICE CONNECTION	43	EA
6" FIRE HYDRANT	3	EA
8" VERTICAL REALIGNMENT	3	EA
2" AIR RELEASE VALVES	7	EA
CONNECT TO EXISTING WATER LINE	2	EA
CURB STOP WITH FLUSHING IPE	1	EA

ESTIMATED SEWER QUANTITIES

8" PVC SEWER LINE	1,664	LF
4" SEWER SERVICE LINE	1,225	LF
4" SEWER SERVICE CONNECTIONS	42	EA
48" MANHOLE	19	EA
60" MANHOLE	1	EA
CONNECT TO EXISTING LINE	2	EA
PAVEMENT REMOVAL & REPLACEMENT	10	SY





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SHEET INDEX AND QUANTITIES

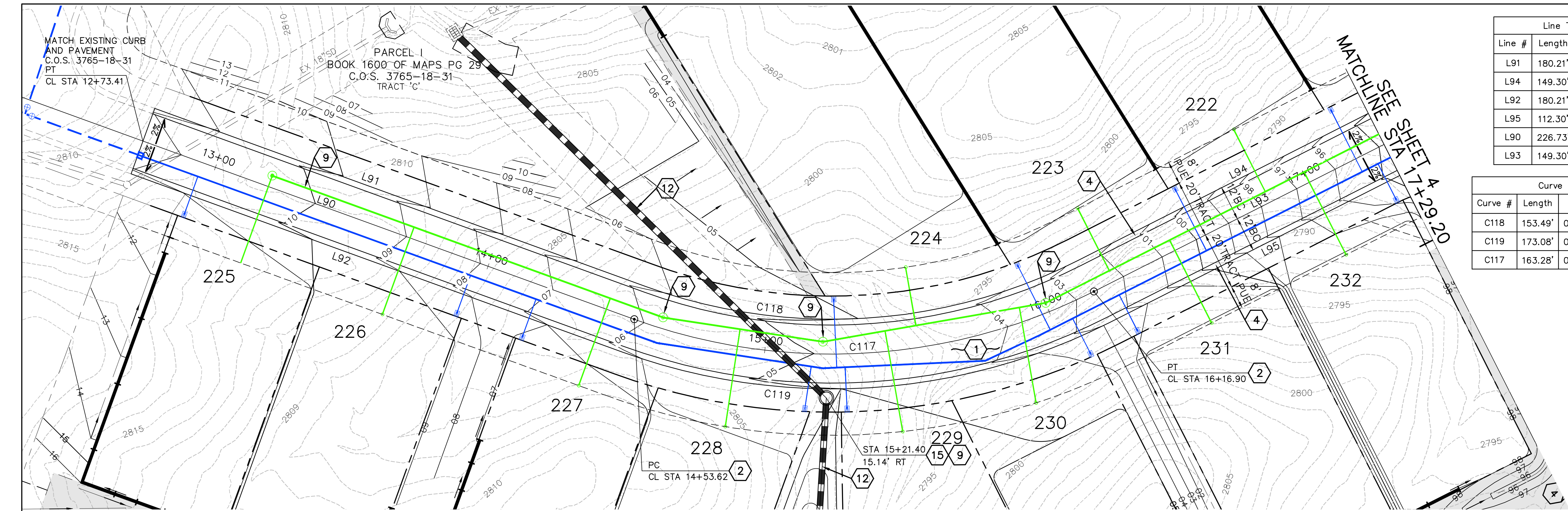
IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Call at least two full working days
before you begin excavation.



Arizona 811
Arizona Blue Stakes, Inc.

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

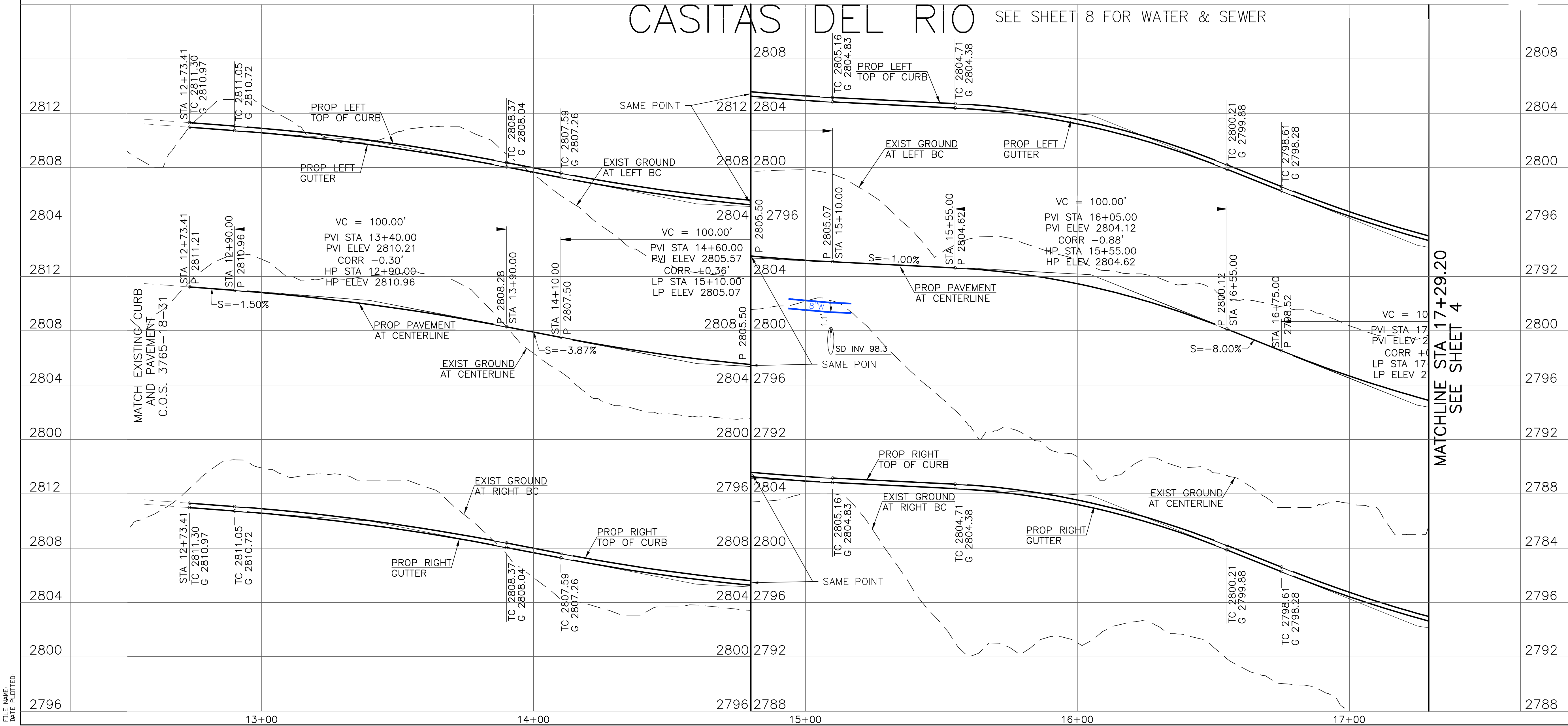


Line Table		
Line #	Length	Direction
L91	180.21'	S88°26'25"E
L94	149.30'	N44°46'58"E
L92	180.21'	S88°26'25"E
L95	112.30'	N44°46'58"E
L90	226.73'	S88°26'25"E
L93	149.30'	N44°46'58"E

Curve Table			
Curve #	Length	Delta	Radius
C118	153.49'	046°46'37"	153.49'
C119	173.08'	046°46'37"	173.08'
C117	163.28'	046°46'37"	163.28'

CONSTRUCTION NOTES:

- PAVING
- 1 CONSTRUCT 3" OF R-19 MM A.C. OVER 6" ABC ON 95% COMPACTED SUBGRADE PER M.A.G. SPEC. 301, 310, 321 PER ROADWAY SECTION ON SHT 18.
 - 2 INSTALL SURVEY MONUMENT TYPE 'B' PER M.A.G. STD. DETAIL 120.
 - 4 CONSTRUCT TYPE 'C' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
 - 9 ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 422.
 - 12 24" HDPE STORM DRAIN PIPE. SEE SHEET 15 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
 - 14 U-SHAPED HEADWALL. SEE SHEET 15 FOR CONSTRUCTION.
 - 15 STORM DRAIN MANHOLE. SEE SHEET 15 FOR CONSTRUCTION.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

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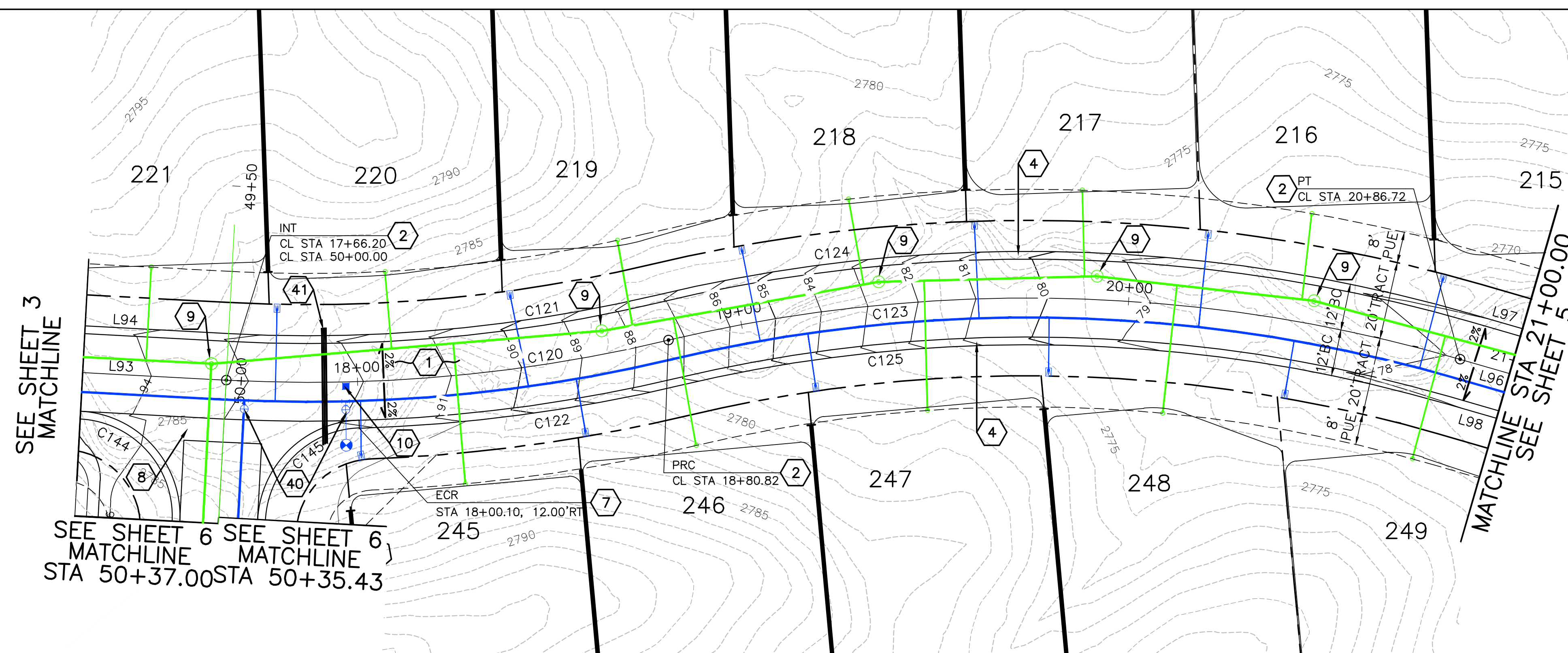
IMPROVEMENT PLANS

PAVING PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 3 of 20

FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017

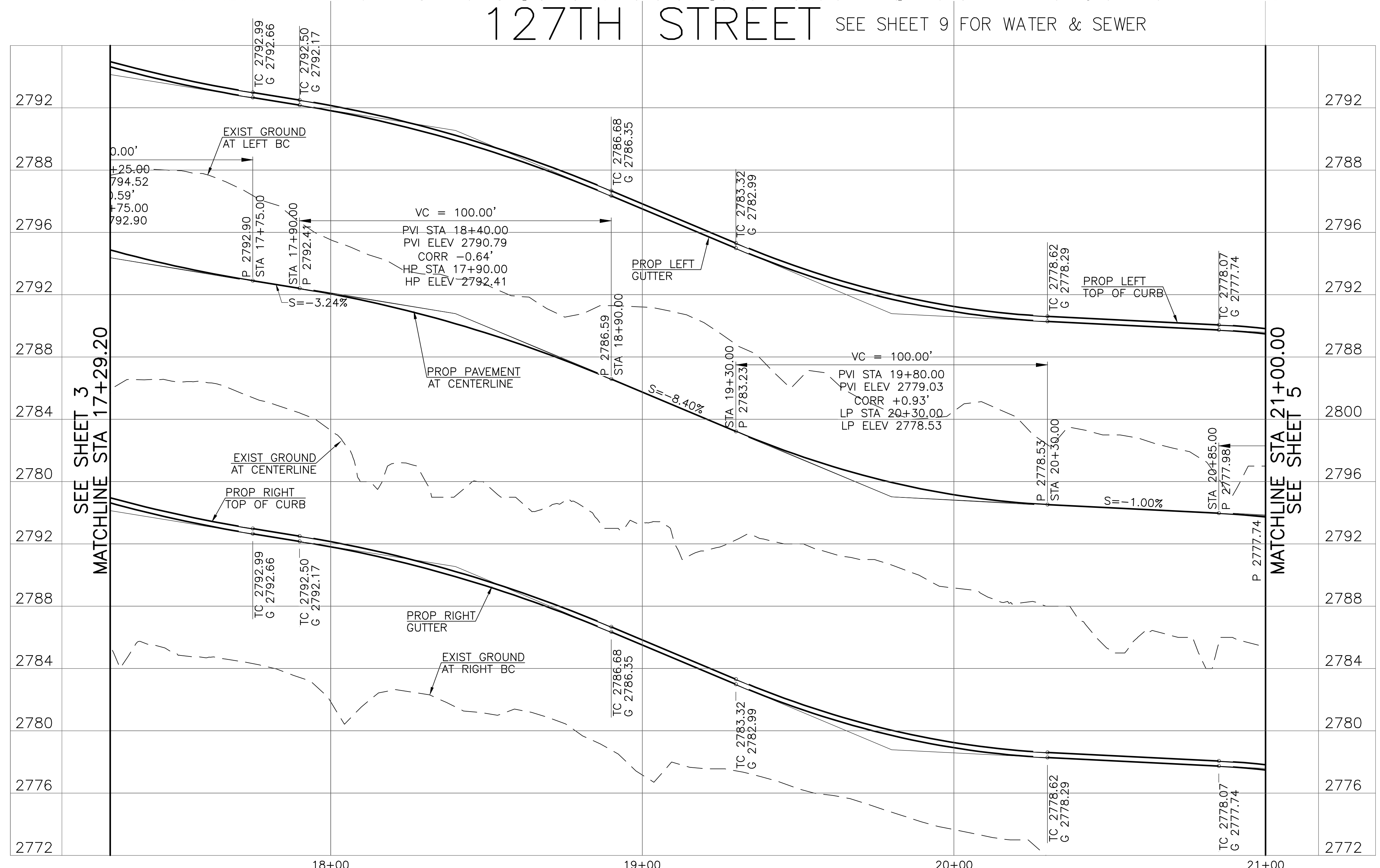


Curve Table			
Curve #	Length	Delta	Radius
C121	111.19'	016°25'07"	111.19'
C124	212.08'	029°29'35"	212.08'
C122	83.14'	011°33'42"	83.14'
C125	199.72'	029°29'35"	199.72'
C120	114.62'	016°25'07"	114.62'
C123	205.90'	029°29'35"	205.90'

Curve Table			
Curve #	Length	Delta	Radius
C145	37.15'	085°08'35"	37.15'
C144	39.27'	090°00'00"	39.27'

Line Table		
Line #	Length	Direction
L94	149.30'	N44°46'58"E
L97	119.79'	N57°51'26"E
L98	119.79'	N57°51'26"E
L93	149.30'	N44°46'58"E
L96	119.79'	N57°51'26"E

- CONSTRUCTION NOTES:
- PAVING
- 1) CONSTRUCT 3" OF R-19 MM A.C. OVER 6" ABC ON 95% COMPACTED SUBGRADE PER M.A.G. SPEC. 301, 310, 321 PER ROADWAY SECTION ON SHT 18.
 - 2) INSTALL SURVEY MONUMENT TYPE 'B' PER M.A.G. STD. DETAIL 120.
 - 4) CONSTRUCT TYPE 'C' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
 - 8) CONSTRUCT 6' VALLEY GUTTER AND APRON PER C.O.S. STD. DETAIL 2240.
 - 9) ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 422.
 - 10) INSTALL FIRE HYDRANT PAVEMENT MARKER PER C.O.S. STD. DETAIL 2363.
 - 40) ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 270.
 - 41) INSTALL LANDSCAPE IRRIGATION SLEEVES PER DETAILS ON SHEET 18.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

0' 20' 40' 60'

Call at least two full working days before you begin excavation.

ARIZONA 311

Arizona State Seal, Inc.

28638 JORGE R. GARRE

EXPIRES 12/31/21

ARGUS CONSULTING
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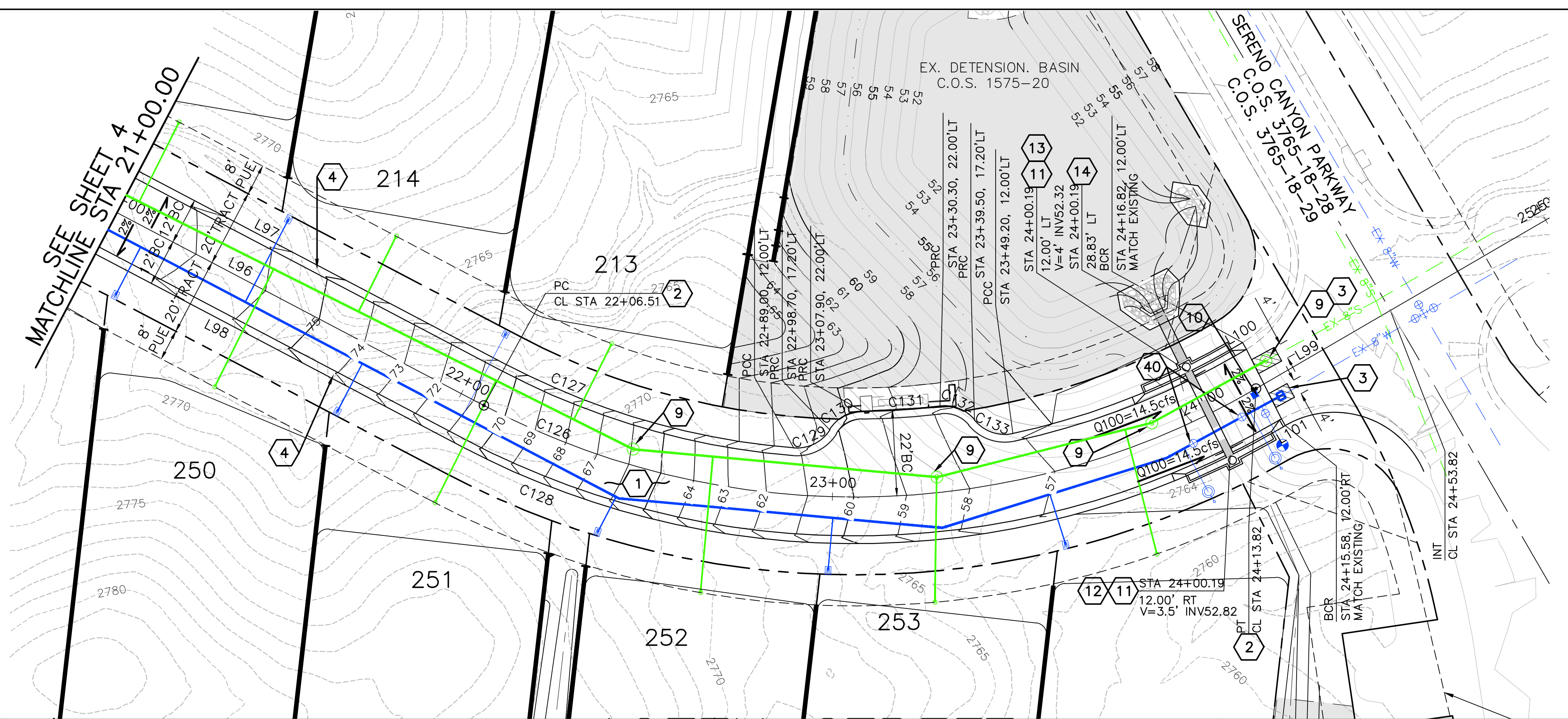
IMPROVEMENT PLANS

PAVING PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 4 of 20

FILE NAME
DATE PLOTTED

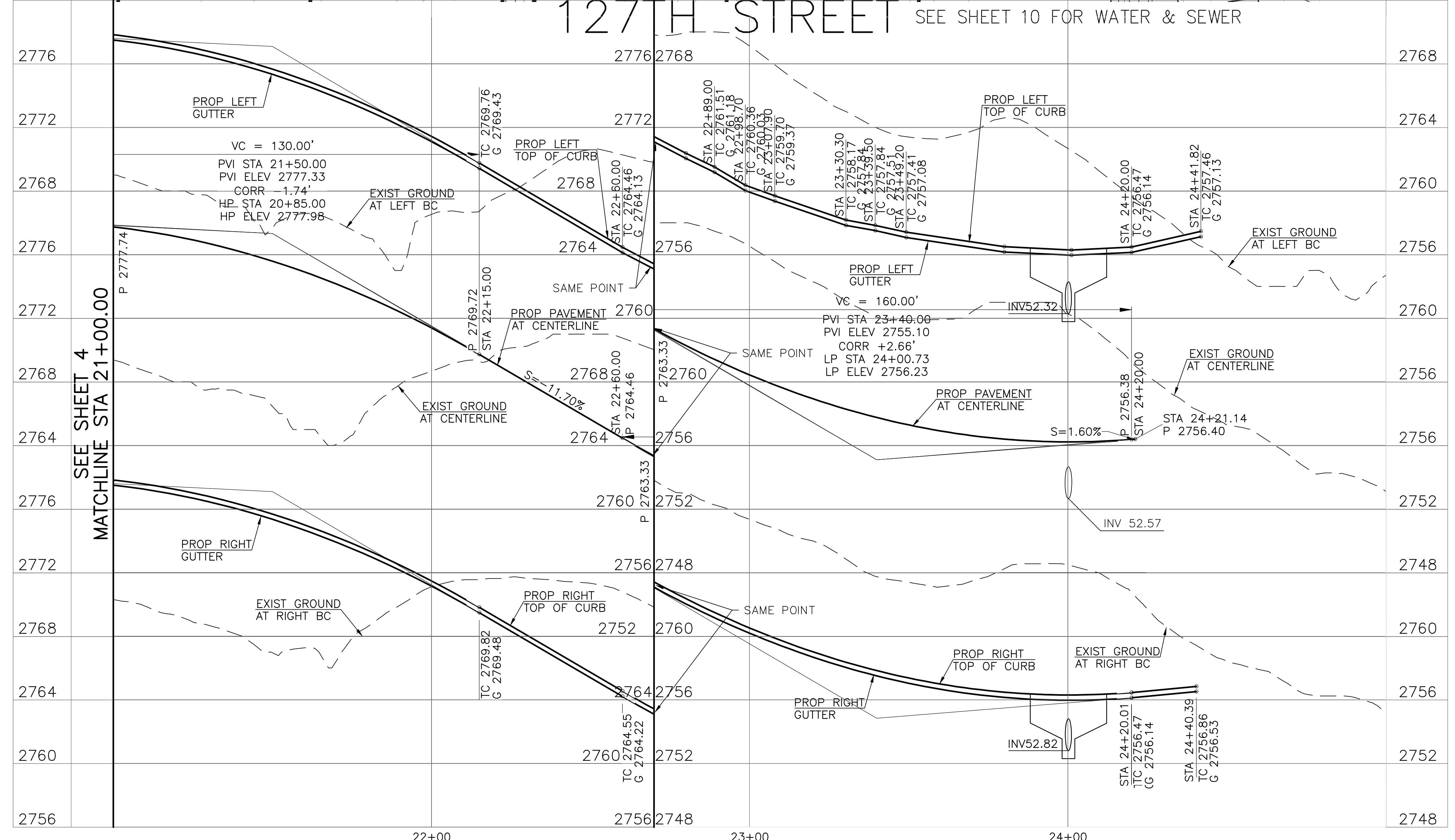
1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



Curve Table			
Curve #	Length	Delta	Radius
C127	77.66'	023°03'13"	77.66'
C129	10.94'	062°40'35"	10.94'
C130	10.02'	057°23'38"	10.02'
C131	20.00'	006°15'43"	20.00'
C132	10.02'	057°23'38"	10.02'
C133	10.94'	062°40'35"	10.94'
C128	219.44'	057°56'21"	219.44'
C126	207.30'	057°56'21"	207.30'

Line Table		
Line #	Length	Direction
L97	119.79'	N57°51'26"E
L100	3.00'	N00°04'54"W
L98	119.79'	N57°51'26"E
L101	1.76'	N00°04'54"W
L96	119.79'	N57°51'26"E
L99	90.00'	N00°04'54"W

- CONSTRUCTION NOTES:**
- PAVING
- 1 CONSTRUCT 3" OF R-19 MM A.C. OVER 6" ABC ON 95% COMPACTED SUBGRADE PER M.A.G. SPEC. 301, 310, 321 PER ROADWAY SECTION ON SHT 18.
 - 2 INSTALL SURVEY MONUMENT TYPE 'B' PER M.A.G. STD. DETAIL 120.
 - 3 SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT PER C.O.S. 2201 & 2202.
 - 4 CONSTRUCT TYPE 'C' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
 - 9 ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 422.
 - 10 INSTALL FIRE HYDRANT PAVEMENT MARKER PER C.O.S. DETAIL 2363.
 - 11 CATCH BASIN. SEE SHEET 13 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
 - 12 24" HDPE STORM DRAIN PIPE. SEE SHEET 13 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
 - 13 30" HDPE STORM DRAIN PIPE. SEE SHEET 13 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
 - 14 U-SHAPED HEADWALL. SEE SHEET 13 FOR CONSTRUCTION.
 - 40 ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 270.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

0' 20' 40' 60'

EXPIRES 12/31/21

Call at least two full working days before you begin excavation.

ARIZONA 311
Arizona Blue State, Inc.

Dial 8-1-1 or 1-800-STAKE-IT (782-5348) in Maricopa County: (602) 263-1100

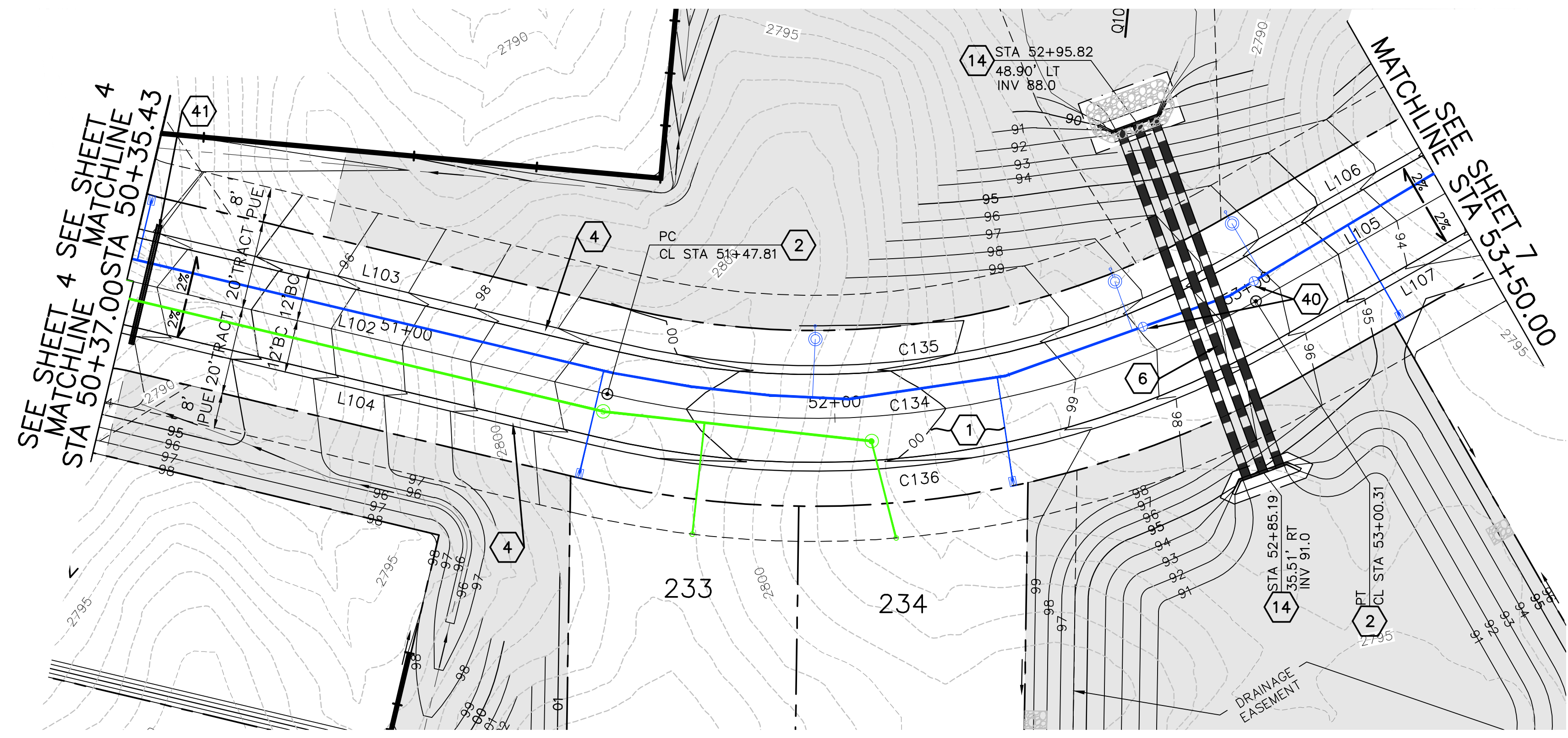
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Scottsdale, Arizona 85260 480-596-1131

IMPROVEMENT PLANS

PAVING PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 5 of 20

FILE NAME:
DATE PLOTTED:

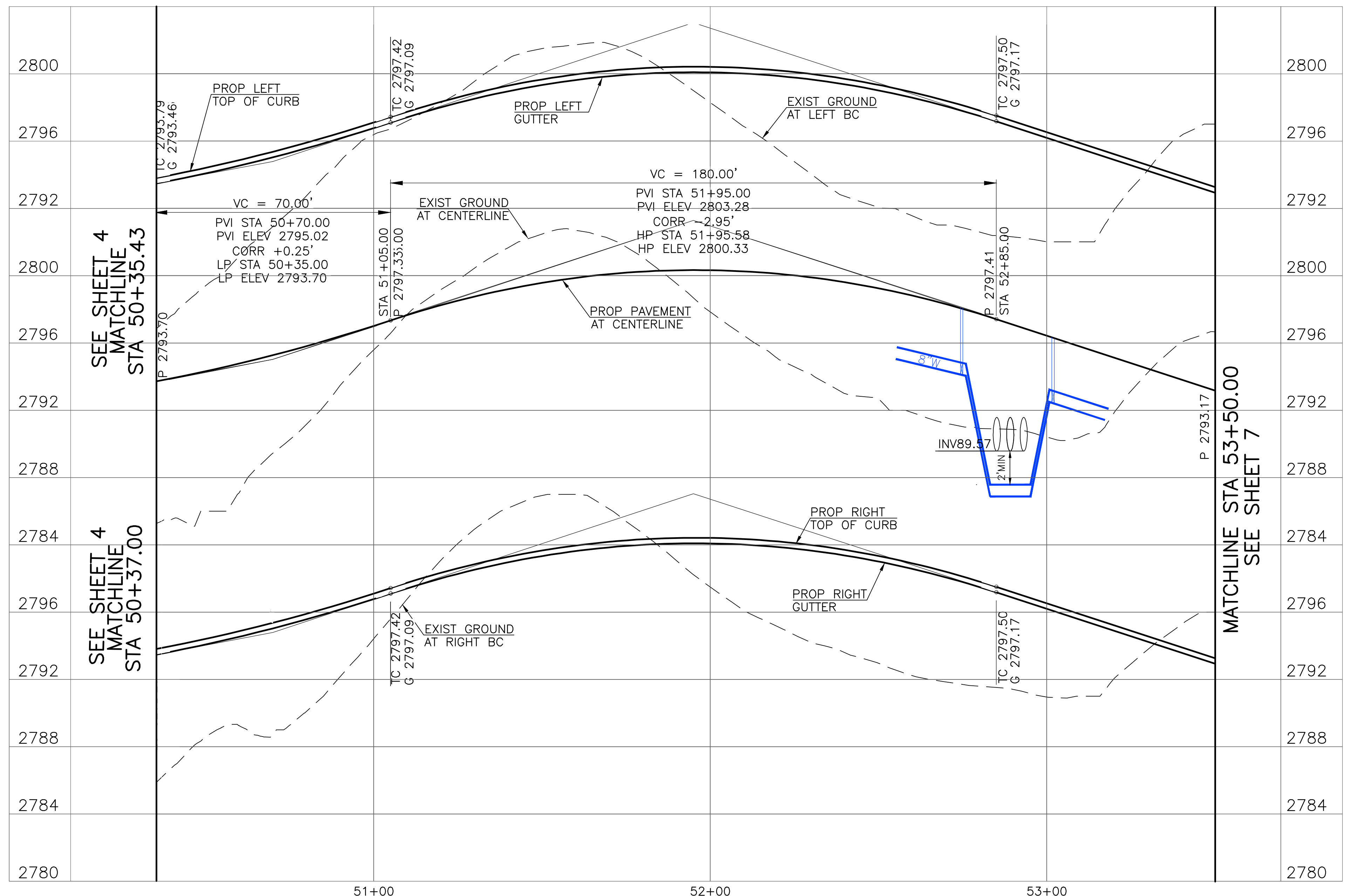


Line Table		
Line #	Length	Direction
L102	147.81'	S45°13'02"E
L105	140.85'	S88°15'35"E
L103	112.38'	S45°13'02"E
L106	140.85'	S88°15'35"E
L104	110.81'	S45°13'02"E
L107	140.85'	S88°15'35"E

Curve Table			
Curve #	Length	Delta	Radius
C134	152.50'	043°02'33"	152.50'
C135	143.49'	043°02'33"	143.49'
C136	161.52'	043°02'33"	161.52'

- CONSTRUCTION NOTES:
- PAVING
- 1 CONSTRUCT 3" OF R-19 MM A.C. OVER 6" ABC ON 95% COMPACTED SUBGRADE PER M.A.G. SPEC. 301, 310, 321 PER ROADWAY SECTION ON SHT 18.
 - 2 INSTALL SURVEY MONUMENT TYPE 'B' PER M.A.G. STD. DETAIL 120.
 - 4 CONSTRUCT TYPE 'C' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
 - 9 ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 422.
 - 14 U-SHAPED HEADWALL. SEE SHEET 16 FOR CONSTRUCTION.
 - 18 3-24" HDPE STORM DRAIN PIPES. SEE SHEET 16 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
 - 40 ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 270.
 - 41 INSTALL LANDSCAPE IRRIGATION SLEEVES PER DETAILS ON SHEET 18.

CASITAS DEL RIO DR SEE SHEET 11 FOR WATER & SEWER



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

Call at least two full working days before you begin excavation.

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IMPROVEMENT PLANS

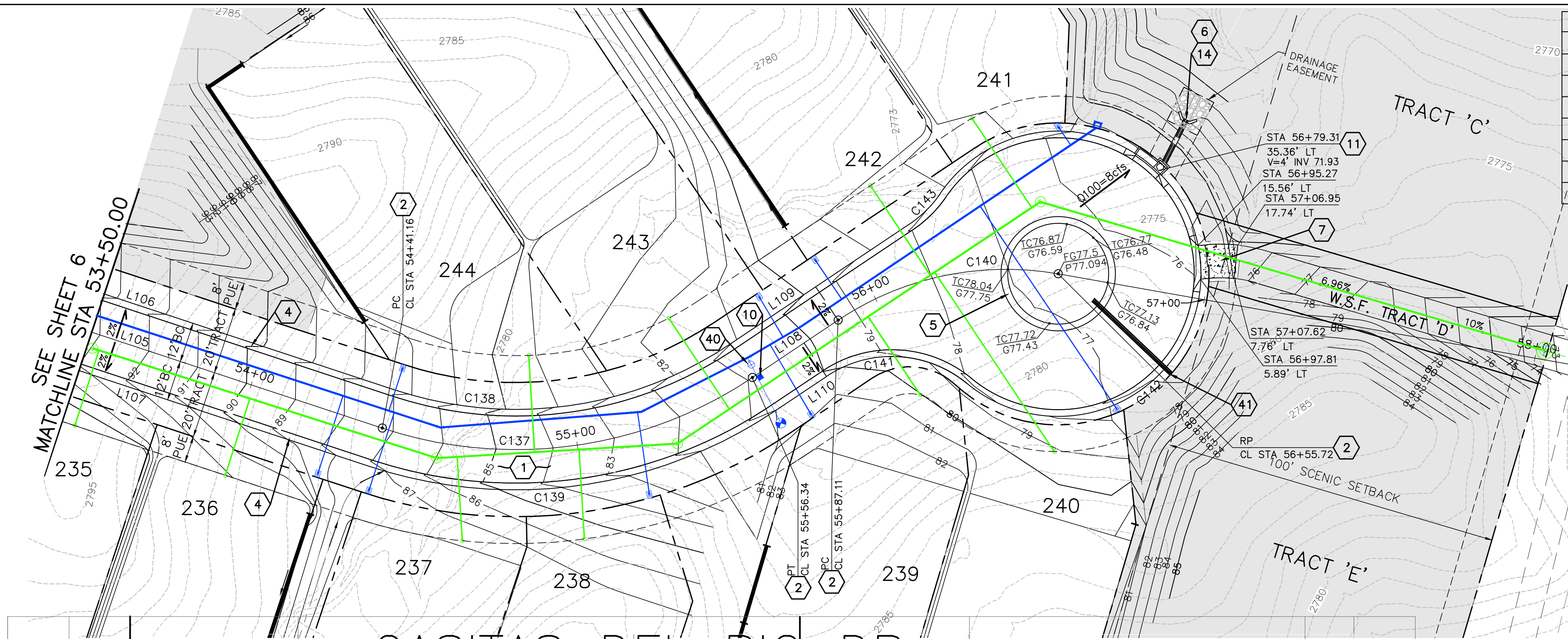
PAVING PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 6 of 20

FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017

FILE NAME:
DATE PLOTTED:



Curve Table			
Curve #	Length	Delta	Radius
C137	115.18'	052°05'50"	115.18'
C140	68.61'	043°51'10"	68.61'
C138	104.27'	052°05'50"	104.27'
C143	13.27'	021°42'56"	13.27'
C139	126.09'	052°05'50"	126.09'
C141	44.90'	073°30'31"	44.90'
C142	88.76'	119°39'21"	88.76'

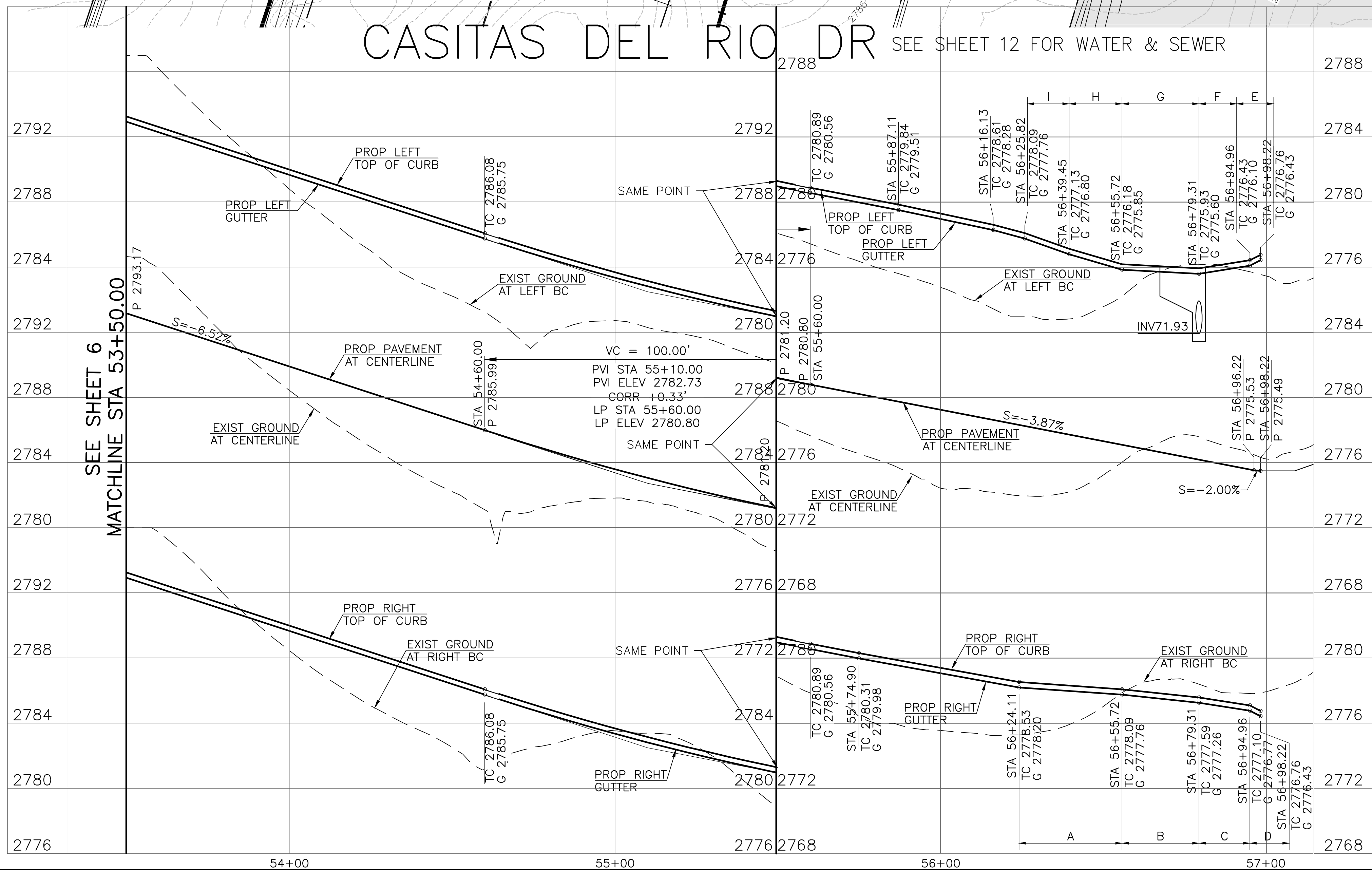
Line Table		
Line #	Length	Direction
L105	140.85'	S88°15'35"E
L108	30.77'	N39°38'35"E
L106	140.85'	S88°15'35"E
L109	64.20'	N39°38'35"E
L107	140.85'	S88°15'35"E
L110	18.56'	N39°38'35"E

CONSTRUCTION NOTES:

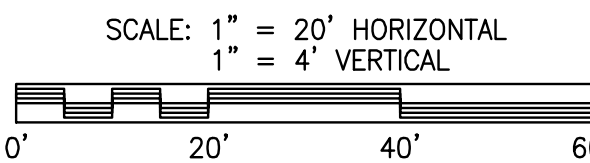
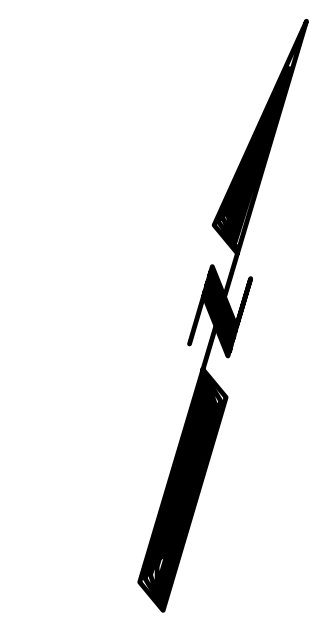
PAVING

- 1) CONSTRUCT 3" OF R-19 MM A.C. OVER 6" ABC ON 95% COMPACTED SUBGRADE PER M.A.G. SPEC. 301, 310, 321 PER ROADWAY SECTION ON SHT 18.
- 2) INSTALL SURVEY MONUMENT TYPE 'B' PER M.A.G. STD. DETAIL 120.
- 4) CONSTRUCT TYPE 'C' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
- 5) CONSTRUCT TYPE 'D' ROLL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1.
- 6) 18" HDPE STORM DRAIN PIPE. SEE SHEET 16 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
- 7) CONSTRUCT CONCRETE APRON PER DETAIL ON SHEET 18.
- 9) ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 422.
- 10) INSTALL FIRE HYDRANT PAVEMENT MARKER PER C.O.S. STD. DETAIL 2363.
- 11) CATCH BASIN. SEE SHEET 16 FOR CONSTRUCTION. SEE SHEET 17 FOR PROFILE.
- 14) U-SHAPED HEADWALL. SEE SHEET 15 FOR CONSTRUCTION.
- 40) ADJUST FRAME AND COVER TO GRADE PER M.A.G. STD. DETAIL 270.
- 41) INSTALL LANDSCAPE IRRIGATION SLEEVES PER DETAILS ON SHEET 18.

CASITAS DEL RIO DR SEE SHEET 12 FOR WATER & SEWER



CURB SLOPES		
LINE	LENGTH	SLOPE
A	22.00'	-1.99%
B	25.00'	-1.99%
C	25.00'	-1.99%
D	16.78'	-1.99%
E	16.76'	1.99%
F	25.00'	1.99%
G	25.00'	-1.00%
H	24.32'	-3.93%
I	24.32'	-3.93%



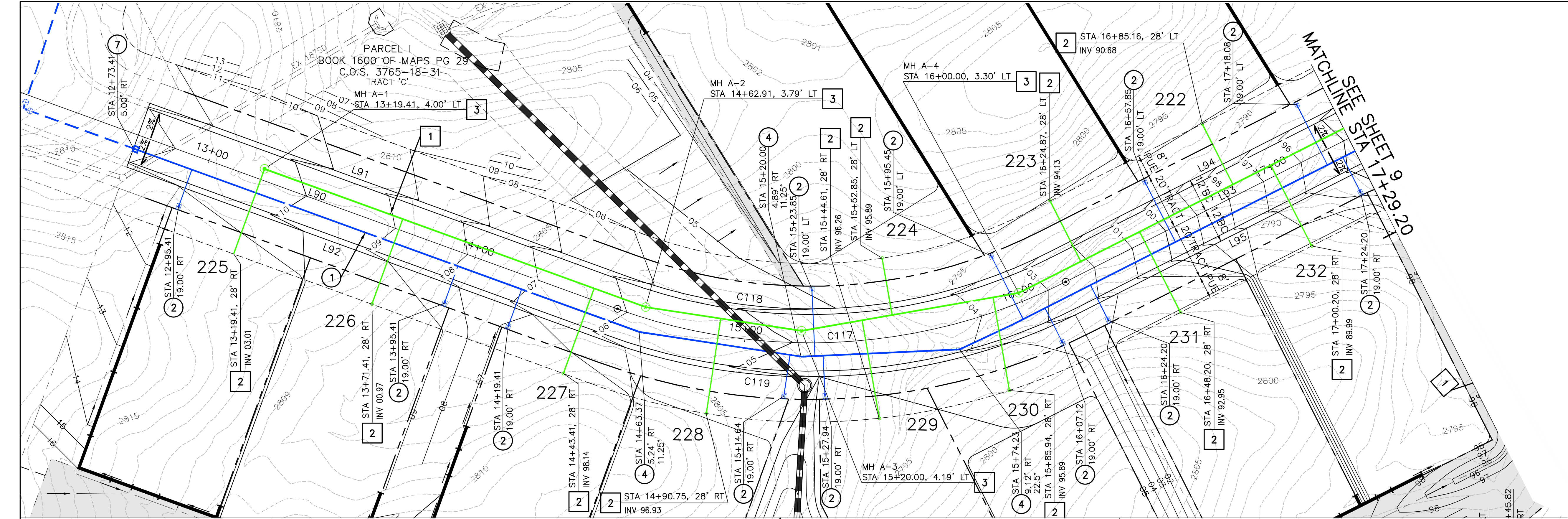
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IMPROVEMENT PLANS

PAVING PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date: 7/23/2021 Job No. 385-17 Sheet 7 of 20



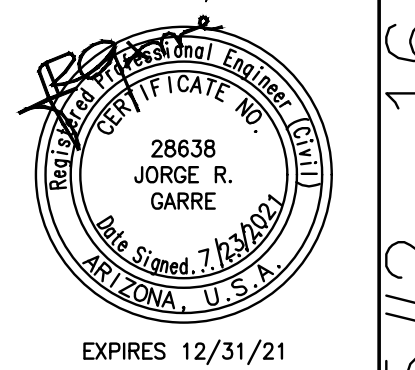
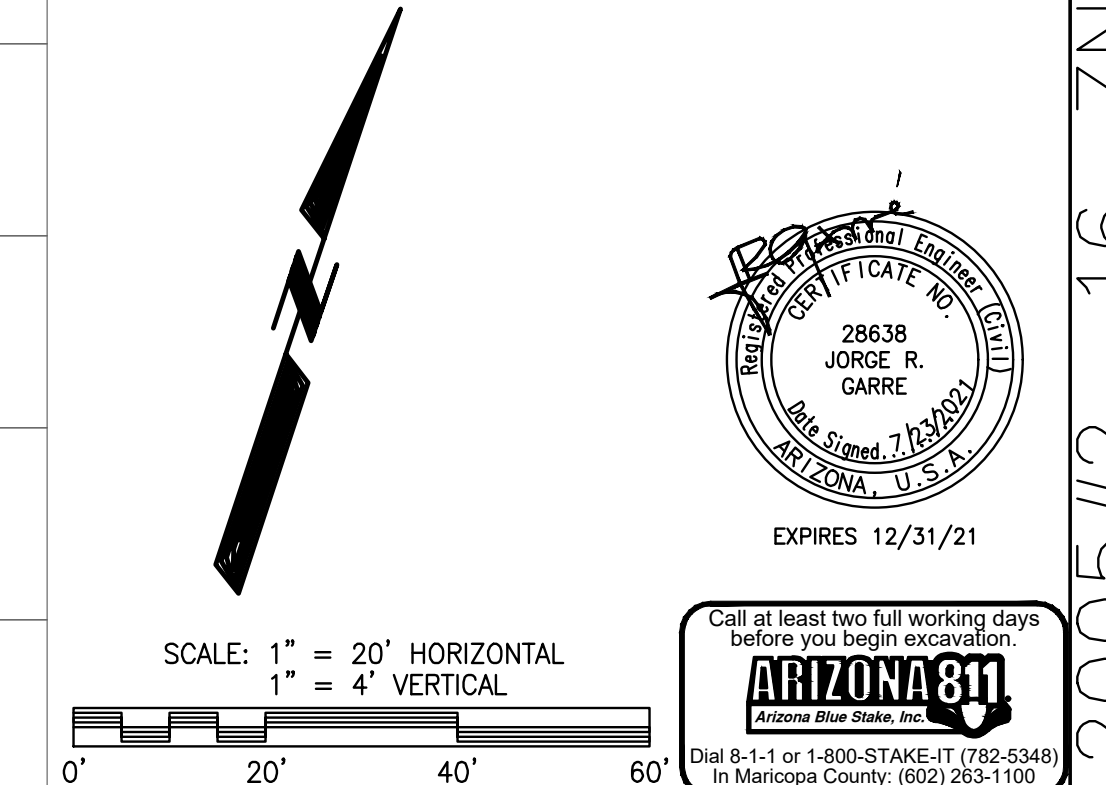
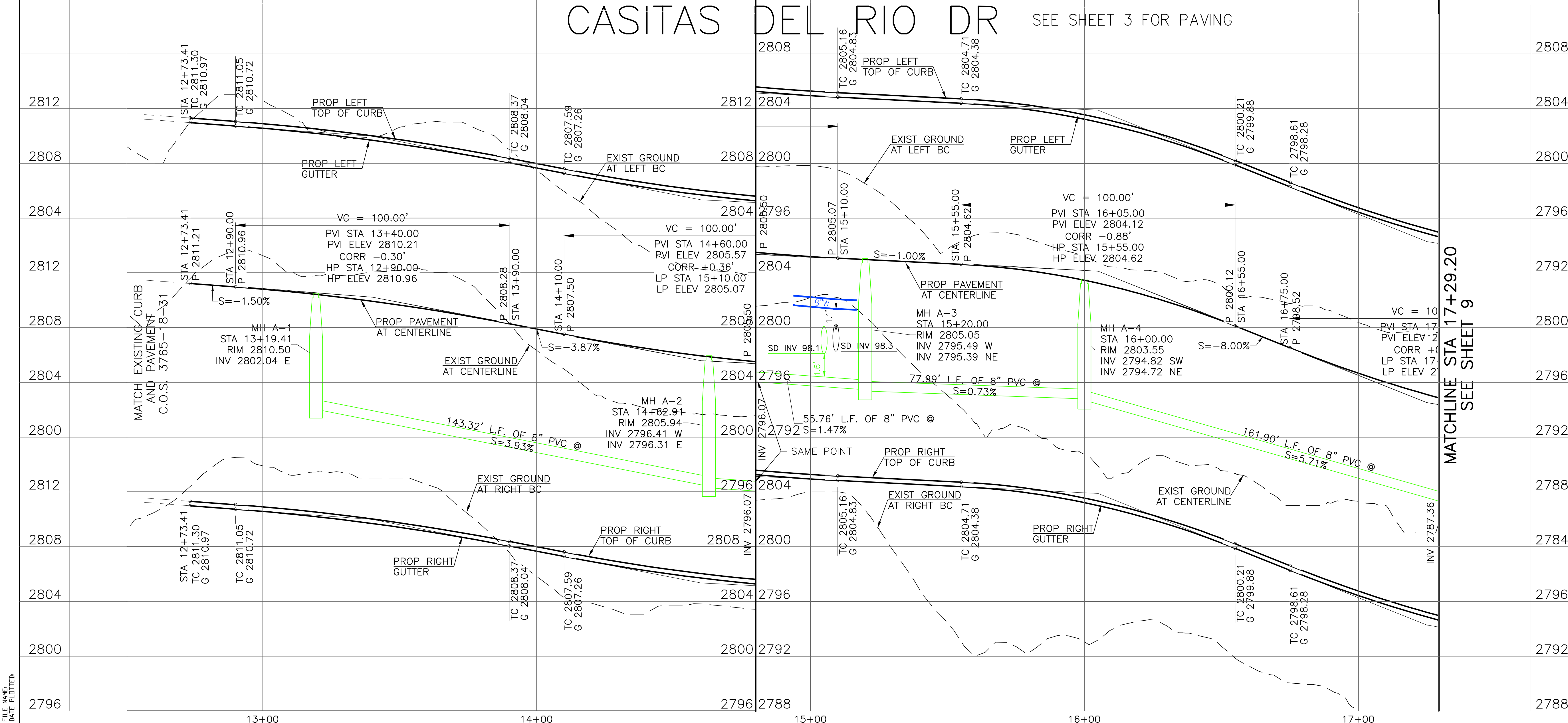
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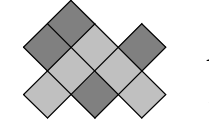
- WATER
- 1 INSTALL 8" D.I.P. CLASS 350 WATER PIPE (3' MIN. COVER BELOW PAVEMENT).
 - 2 INSTALL 1" WATER SERVICE & METER BOX PER C.O.S. STD. DETAIL 2330 & M.A.G. STD. DETAIL 320.
 - 3 INSTALL CURB STOP AND FLUSHING PIPE PER M.A.G. STD. DETAIL 390.
 - 4 INSTALL BEND, TEE, CROSS OR REDUCER WITH ELECTRONIC MARKER PER C.O.S. SUPPLEMENTAL SPEC. 610. JOINT RESTRAINTS PER & M.A.G. STD. DETAILS 303-1 & 303-2.
 - 7 REMOVE TAPPED CAP AND CONNECT TO EXISTING 8" WATERLINE. CONTRACTOR TO VERIFY LOCATION.

- SEWER
- 1 INSTALL 8" SDR 35 PVC, ASTM D 3034, SEWER PIPE PER M.A.G. SPEC. 745.
 - 2 INSTALL 4" TAP & LATERAL CONNECTION PER M.A.G. STD. DETAIL 440-3.
 - 3 CONSTRUCT 48" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 420 AND 422.

CASITAS DEL RIO DR

SEE SHEET 3 FOR PAVING



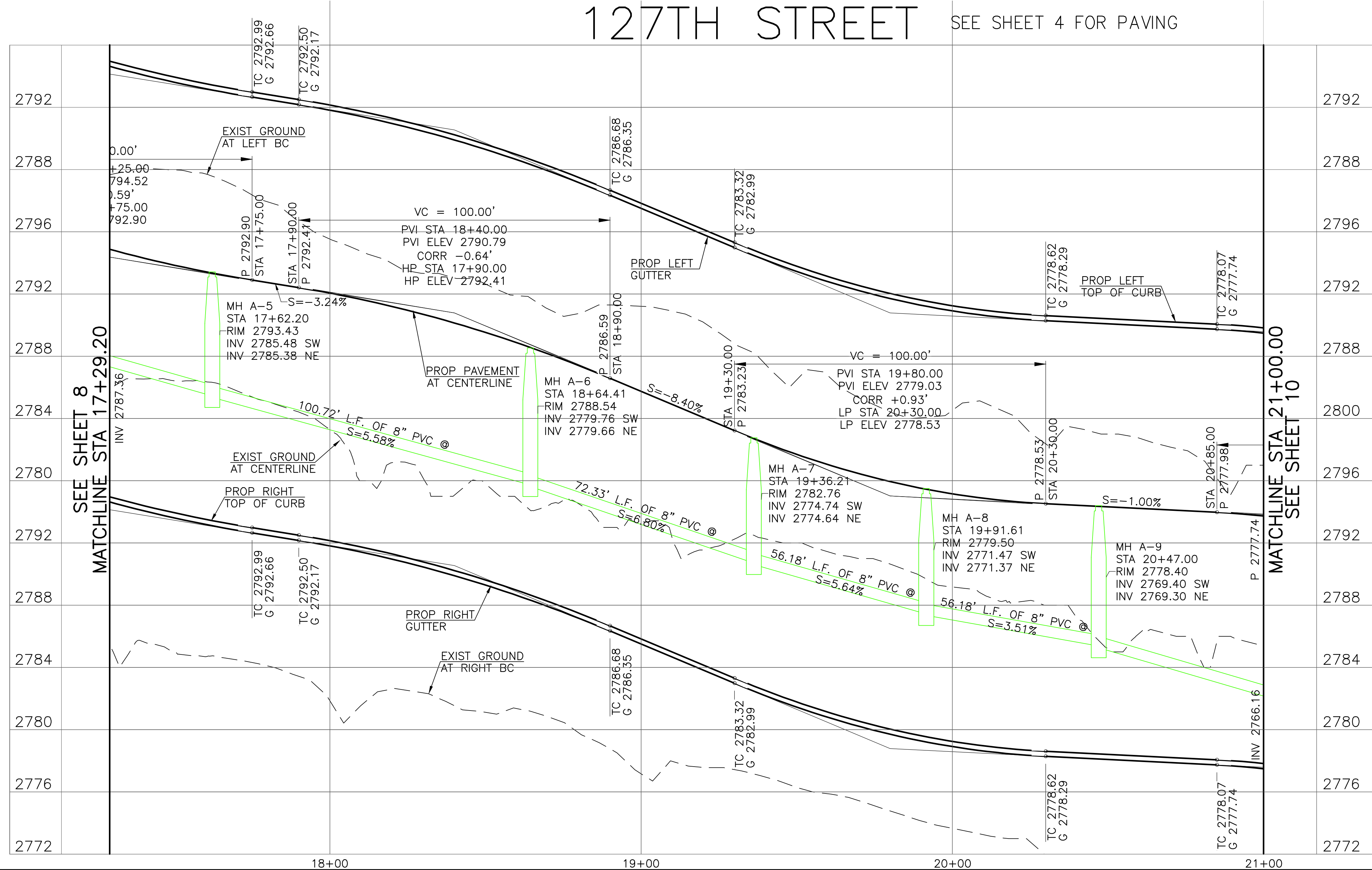
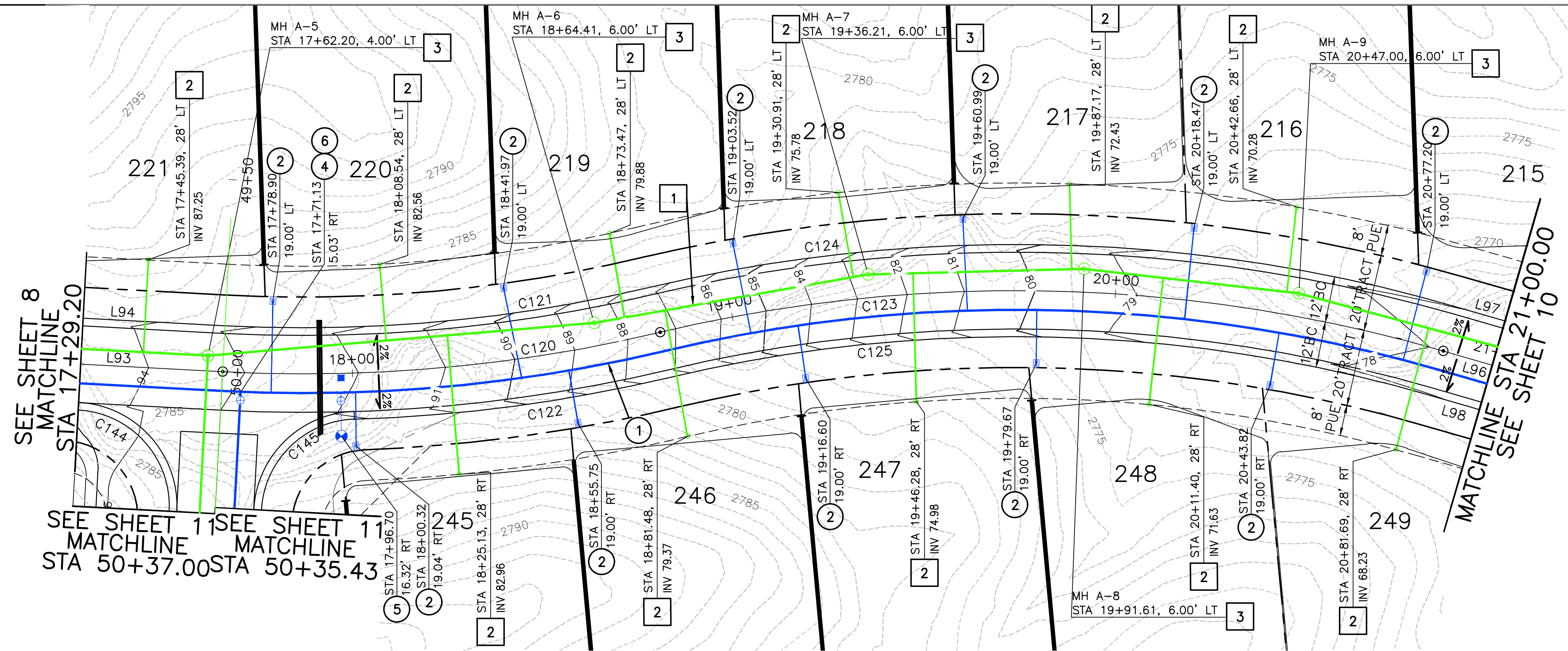
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Scottsdale, Arizona 85260 480-596-1131

IMPROVEMENT PLANS
WATER & SEWER PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/21 Job No. 385-17 Sheet 8 of 20

FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



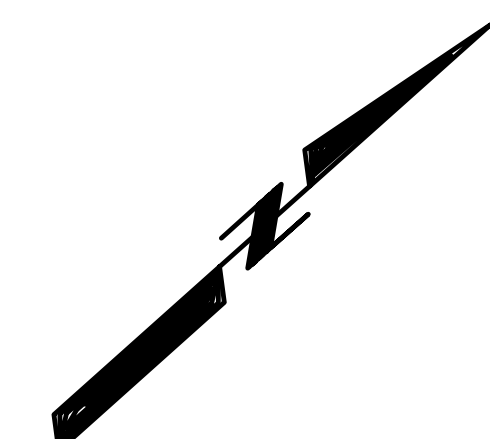
CONSTRUCTION NOTES:

WATER

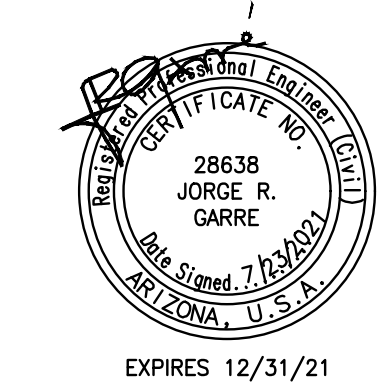
1. INSTALL 8" D.I.P. CLASS 350 WATER PIPE (3' MIN. COVER BELOW PAVEMENT).
2. INSTALL 1" WATER SERVICE & METER BOX PER C.O.S. STD. DETAIL 2330 & M.A.G. STD. DETAIL 320.
4. INSTALL BEND, TEE, CROSS OR REDUCER WITH ELECTRONIC MARKER PER C.O.S. SUPPLEMENTAL SPEC. 610. JOINT RESTRAINTS PER M.A.G. STD. DETAILS 303-1 & 303-2.
5. INSTALL 6" FIRE HYDRANT COMPLETE WITH VALVE PER M.A.G. STD. DETAIL 360.
6. INSTALL 8" GATE VALVE BOX AND COVER PER M.A.G. STD. 391-1 TYPE 'C'.

SEWER

1. INSTALL 8" SDR 35 PVC, ASTM D 3034, SEWER PIPE PER M.A.G. SPEC. 745.
2. INSTALL 4" TAP & LATERAL CONNECTION PER M.A.G. STD. DETAIL 440-3.
3. CONSTRUCT 48" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 420 AND 422.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

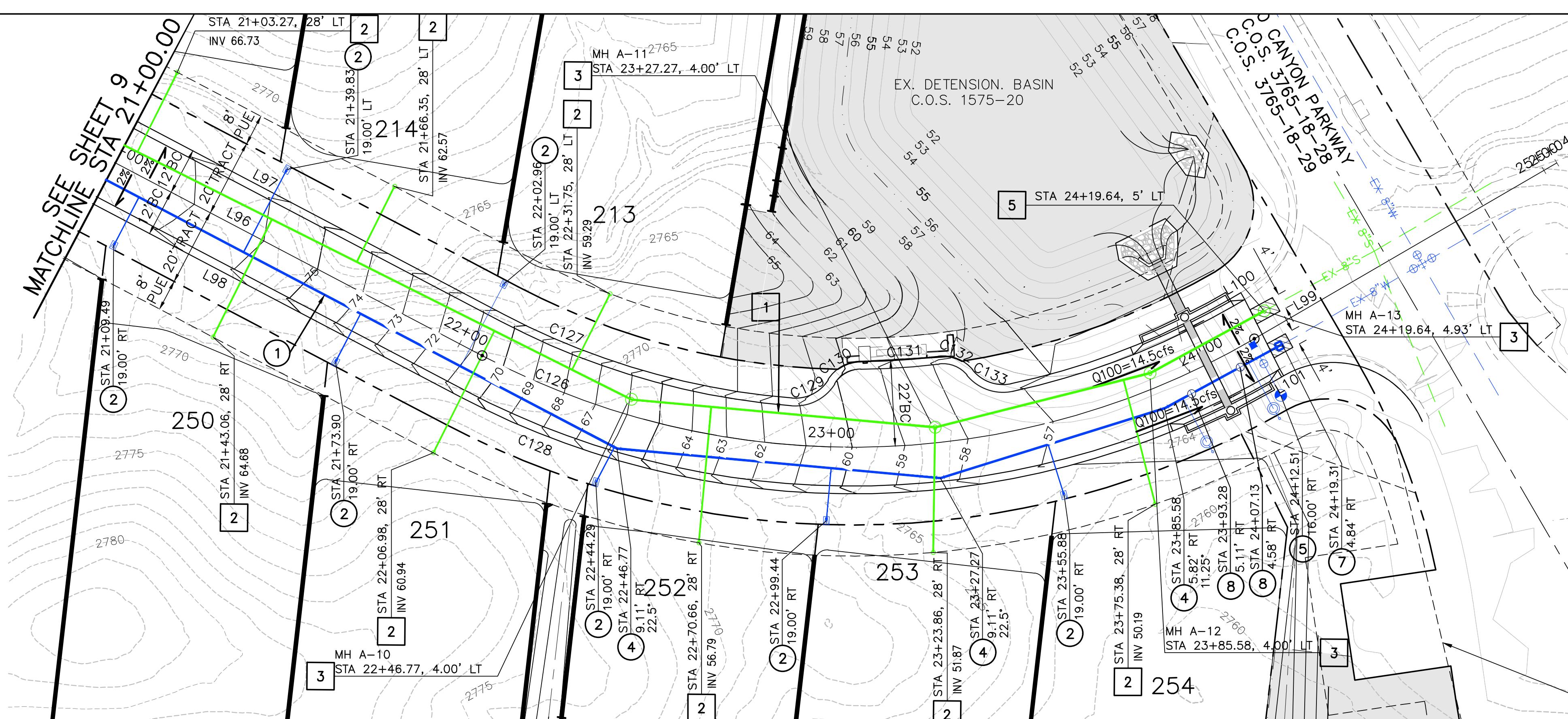


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IMPROVEMENT PLANS

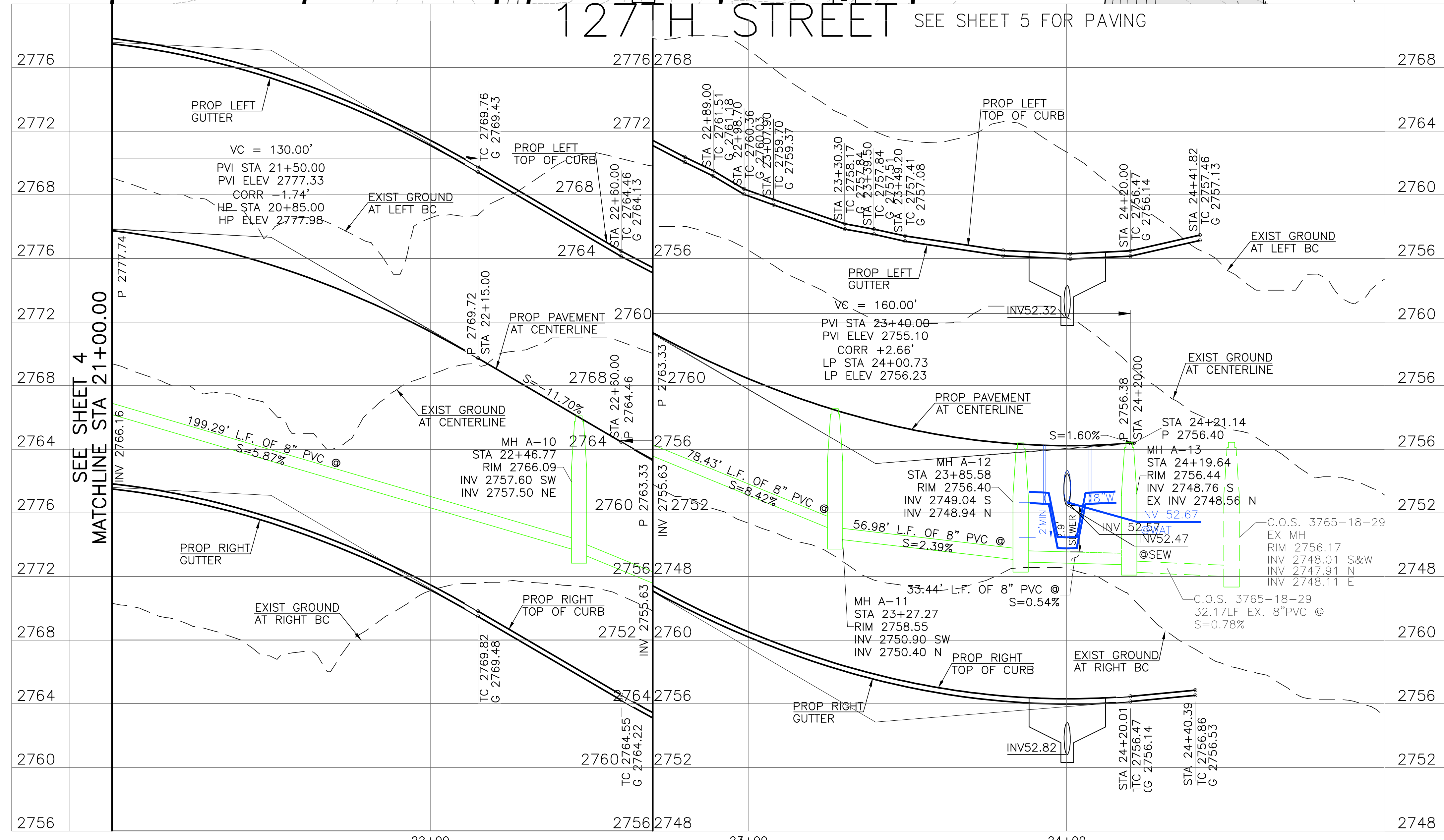
WATER & SEWER PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 9 of 20



- CONSTRUCTION NOTES:**
- WATER**
1. INSTALL 8" D.I.P. CLASS 350 WATER PIPE (3' MIN. COVER BELOW PAVEMENT).
 2. INSTALL 1" WATER SERVICE & METER BOX PER C.O.S. STD. DETAIL 2330 & M.A.G. STD. DETAIL 320.
 4. INSTALL BEND, TEE, CROSS OR REDUCER WITH ELECTRONIC MARKER PER C.O.S. SUPPLEMENTAL SPEC. 610. JOINT RESTRAINTS PER & M.A.G. STD. DETAILS 303-1 & 303-2.
 5. INSTALL 6" FIRE HYDRANT COMPLETE WITH VALVE PER M.A.G. STD. DETAIL 360.
 6. INSTALL 8" GATE VALVE BOX AND COVER PER M.A.G. STD. 391-1 TYPE 'C'.
 7. REMOVE TAPPED CAP AND CONNECT TO EXISTING 8" WATERLINE. CONTRACTOR TO VERIFY LOCATION.
 8. INSTALL VERTICAL REALIGNMENT OF 8" WATER LINE PER C.O.S. STD. DETAIL 2370, WITH 2-8" VALVES & AIR RELEASE ASSEMBLY DETAIL 2348.

- SEWER**
1. INSTALL 8" SDR 35 PVC, ASTM D 3034, SEWER PIPE PER M.A.G. SPEC. 745.
 2. INSTALL 4" TAP & LATERAL CONNECTION PER M.A.G. STD. DETAIL 440-3.
 3. CONSTRUCT 48" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 420 AND 422.
 5. CONNECT TO EXISTING SEWERLINE. CONTRACTOR TO VERIFY LOCATION.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

0' 20' 40' 60'

Call at least two full working days before you begin excavation.

ARIZONA 811
Arizona Blue State, Inc.
Dial 811 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 363-1100

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IMPROVEMENT PLANS

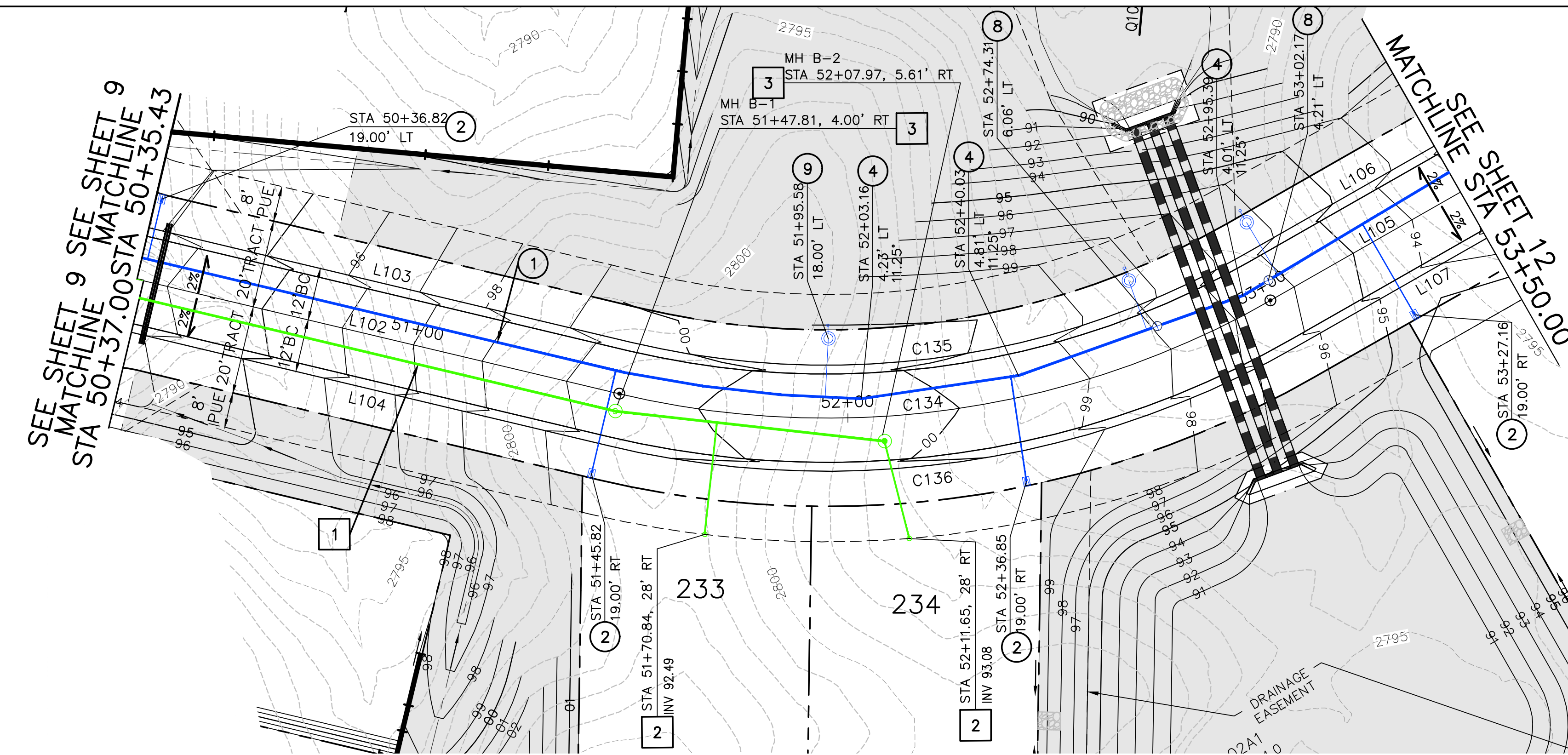
WATER & SEWER PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 10 of 20

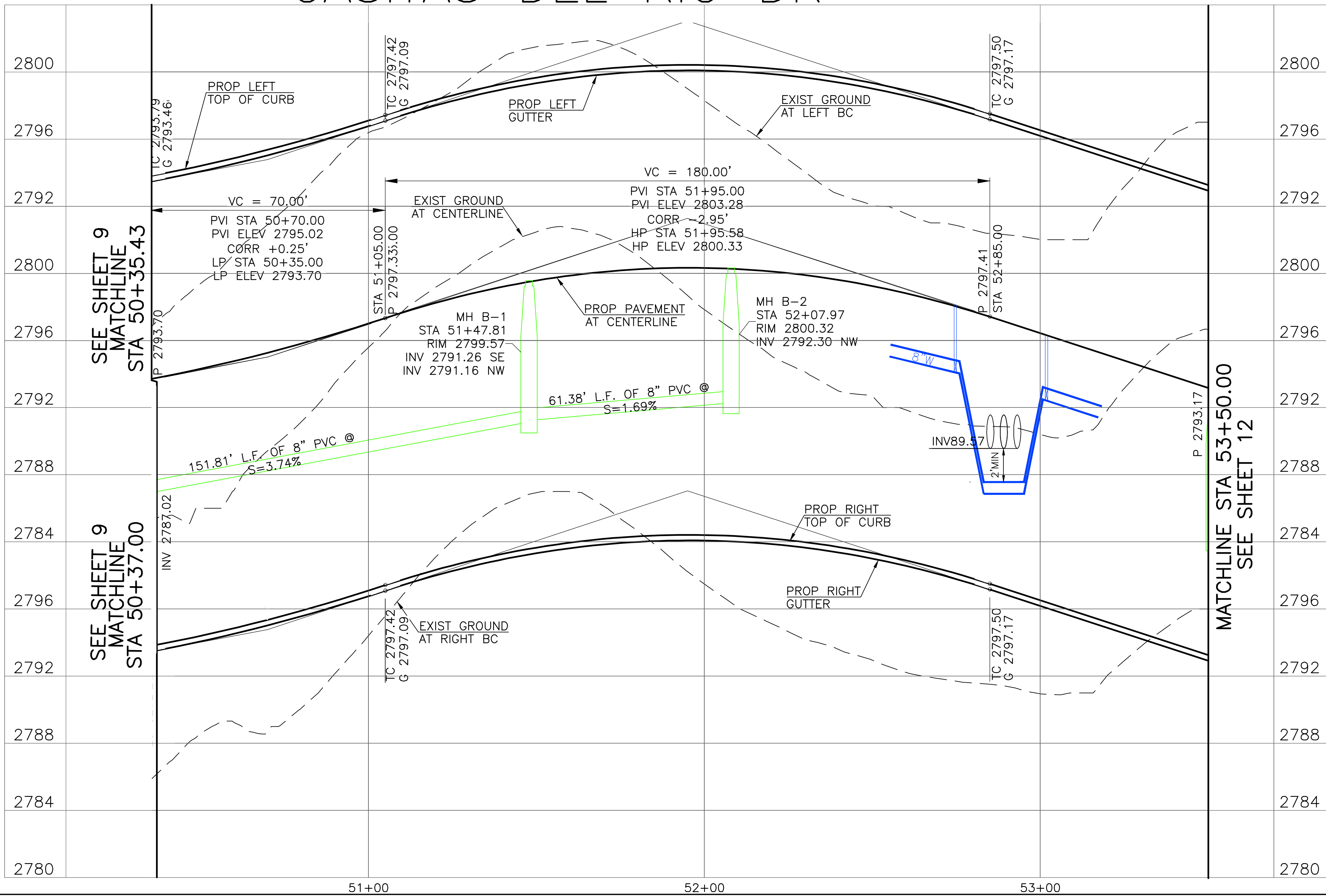
FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017

FILE NAME:
DATE PLOTTED:



CASITAS DEL RIO DR SEE SHEET 6 FOR PAVING



CONSTRUCTION NOTES:

- WATER
1. INSTALL 8" D.I.P. CLASS 350 WATER PIPE (3' MIN. COVER BELOW PAVEMENT).
 2. INSTALL 1" WATER SERVICE & METER BOX PER C.O.S. STD. DETAIL 2330 & M.A.G. STD. DETAIL 320.
 4. INSTALL BEND, TEE, CROSS OR REDUCER WITH ELECTRONIC MARKER PER C.O.S. SUPPLEMENTAL SPEC. 610. JOINT RESTRAINTS PER & M.A.G. STD. DETAILS 303-1 & 303-2.
 6. INSTALL 8" GATE VALVE BOX AND COVER PER M.A.G. STD. 391-1 TYPE 'C'.
 8. INSTALL VERTICAL REALIGNMENT OF 8" WATER LINE PER C.O.S. STD. DETAIL 2370, WITH 2-8" VALVES & AIR RELEASE ASSEMBLY DETAIL 2348.
 9. INSTALL AIR RELEASE VALVE PER C.O.S. STD. DETAIL 2348.

- SEWER
1. INSTALL 8" SDR 35 PVC, ASTM D 3034, SEWER PIPE PER M.A.G. SPEC. 745.
 2. INSTALL 4" TAP & LATERAL CONNECTION PER M.A.G. STD. DETAIL 440-3.
 3. CONSTRUCT 48" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 420 AND 422.

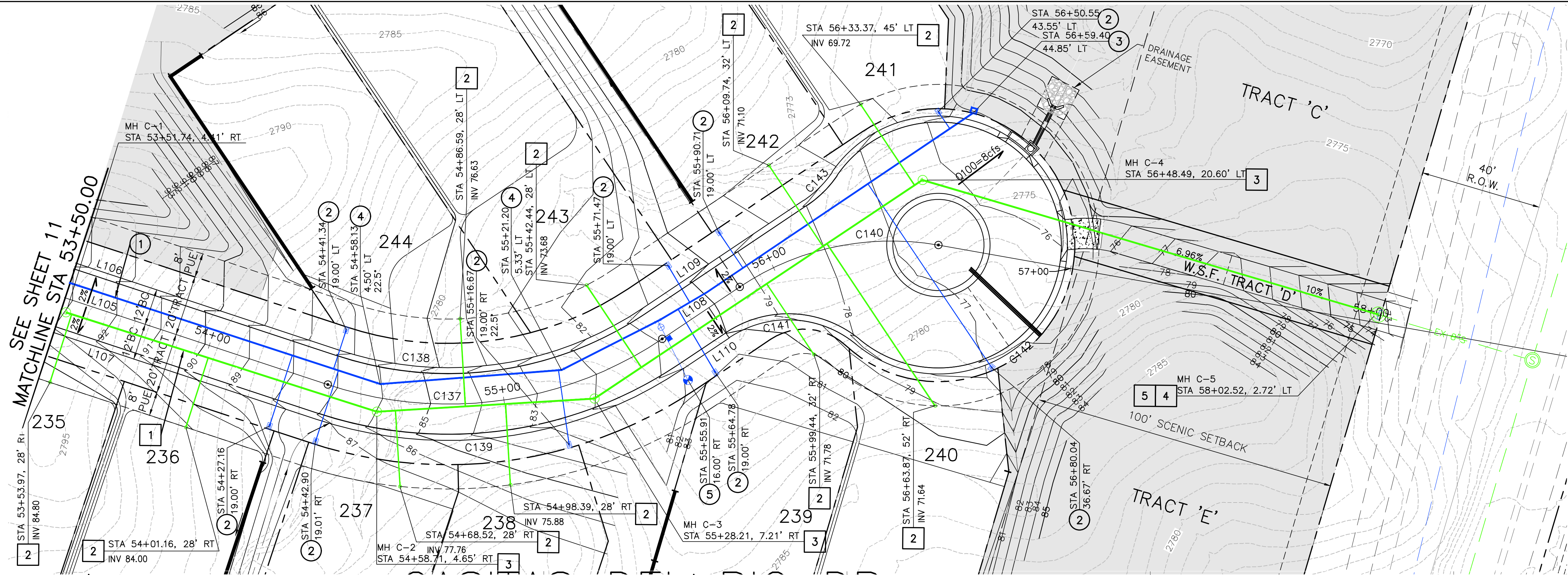
SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

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IMPROVEMENT PLANS
WATER & SEWER PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 11 of 20

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



CONSTRUCTION NOTES:

WATER

1. INSTALL 8" D.I.P. CLASS 350 WATER PIPE (3' MIN. COVER BELOW PAVEMENT).
2. INSTALL 1" WATER SERVICE & METER BOX PER C.O.S. STD. DETAIL 2330 & M.A.G. STD. DETAIL 320.
3. INSTALL CURB STOP WITH FLUSHING PIPE PER M.A.G. STD. DETAIL 390, TYPE B.
4. INSTALL BEND, TEE, CROSS OR REDUCER WITH ELECTRONIC MARKER PER C.O.S. SUPPLEMENTAL SPEC. 610. JOINT RESTRAINTS PER & M.A.G. STD. DETAILS 303-1 & 303-2.
5. INSTALL 6" FIRE HYDRANT COMPLETE WITH VALVE PER M.A.G. STD. DETAIL 360.
6. INSTALL 8" GATE VALVE BOX AND COVER PER M.A.G. STD. 391-1 TYPE 'C'.

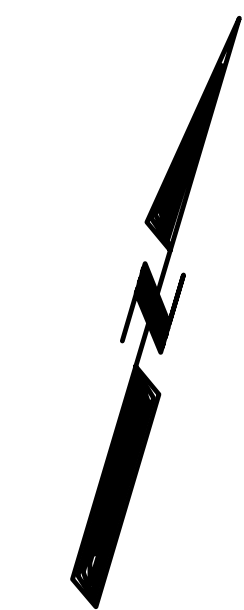
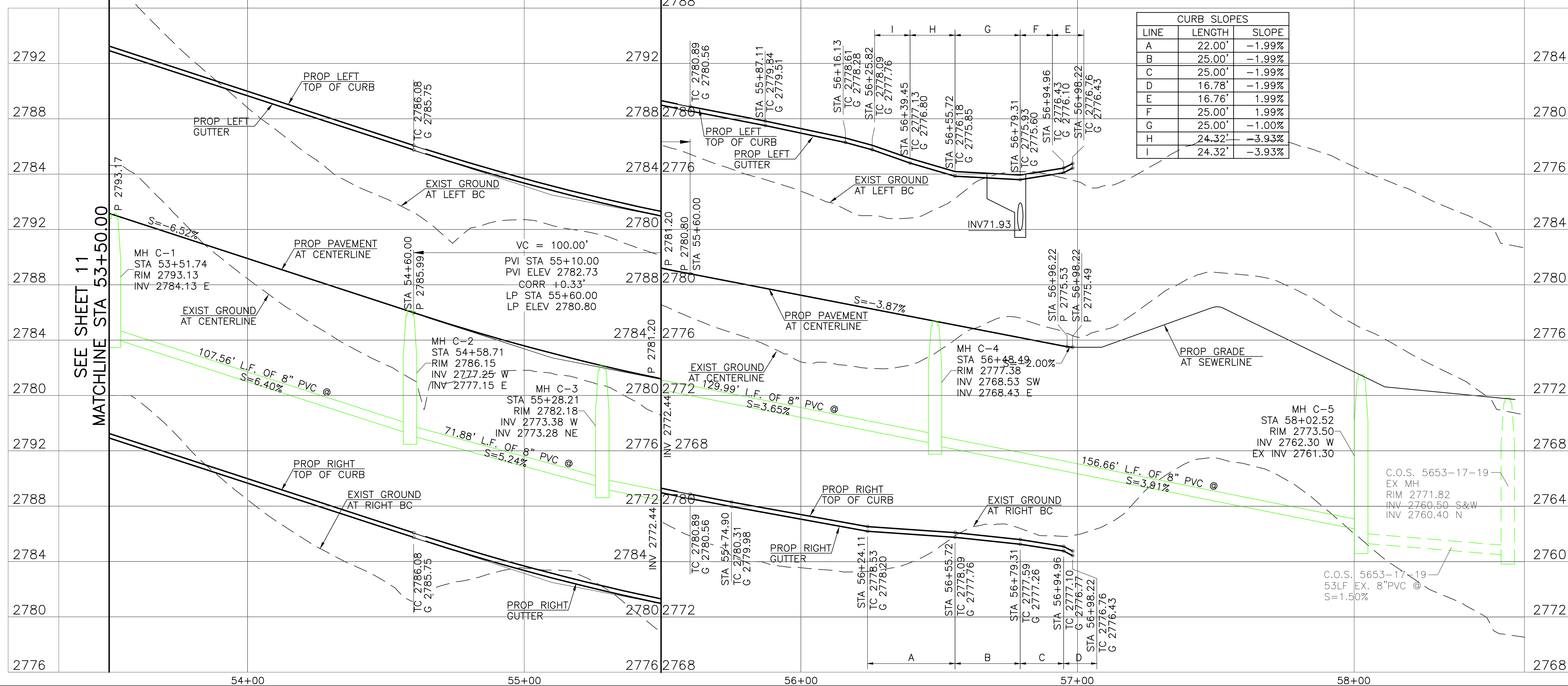
SEWER

1. INSTALL 8" SDR 35 PVC, ASTM D 3034, SEWER PIPE PER M.A.G. SPEC. 745.
2. INSTALL 4" TAP & LATERAL CONNECTION PER M.A.G. STD. DETAIL 440-3.
3. CONSTRUCT 48" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 420 AND 422.
4. CONSTRUCT 60" MANHOLE TYPE 'A' TOP WITH WATERTIGHT 24" COVER C.O.S. STD. DETAIL 2421 & PER M.A.G. STD. DETAIL 424.
5. CONNECT TO EXISTING SEWERLINE. CONTRACTOR TO VERIFY LOCATION.

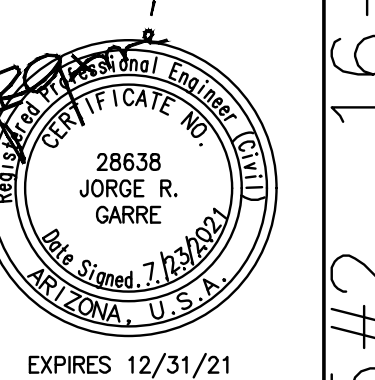
CASITAS DEL RIO DR

SEE SHEET 7 FOR PAVING

CURB SLOPES		
LINE	LENGTH	SLOPE
A	22.00'	-1.99%
B	25.00'	-1.99%
C	25.00'	-1.99%
D	16.78'	-1.99%
E	16.76'	1.99%
F	25.00'	1.99%
G	25.00'	-1.00%
H	24.32'	-3.93%
I	24.32'	-3.93%



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL



Call at least two full working days before you begin excavation.
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IMPROVEMENT PLANS

WATER & SEWER PLAN
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 12 of 20



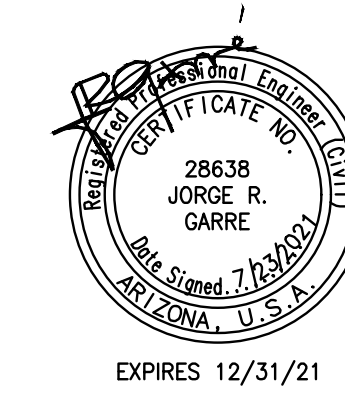
GRADING CONSTRUCTION NOTES

- 12) CONSTRUCT 24" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 13) CONSTRUCT 30" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 14) CONSTRUCT TYPE "U" HEADWALL PER M.A.G. STD. DETAIL 501-1, 501-2 AND C.O.S. DETAIL 2508, 2560-1 & 2560-2. SEE PLAN FOR PIPE SIZE.
- 17) CONSTRUCT CATCH BASIN PER C.O.P. STD. DETAIL P-1569, TYPE "M-2" ON SHEET 19, L=10'.
- 19) INSTALL LOOSE RIP RAP D50=6", 18" THICK, SY= PER PLAN.
- 20) DISTURBED AREAS TO BE HYDRO SEEDING WITH SEED MIXTURE SHOWN ON SHEET 2. ONLY TEMPORARY IRRIGATION TO BE USED IN THESE AREAS.
- 21) CONSTRUCT RETAINING WALL PER STRUCTURAL DETAIL AND SHEETS SHOWN.
- 22) INSTALL 6" INLINE DRAIN PER DETAIL ON SHEET 18.
- 24) CONSTRUCT HANDRAIL PER C.O.S. STD. DETAIL 2508 ON TOP OF RETAINING WALL.

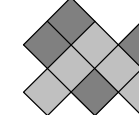
SEE SHEET 14



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL



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In Maricopa County: (602) 263-1100

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GRADING & DRAINAGE PLAN
IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date: 7/23/2021 Job No. 385-17 Sheet 13 of 20

FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017

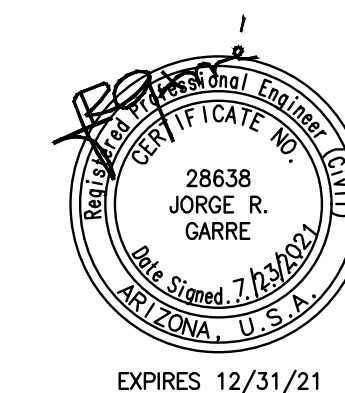


GRADING CONSTRUCTION NOTES

- 12) CONSTRUCT 24" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 13) CONSTRUCT 30" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 14) CONSTRUCT TYPE "U" HEADWALL PER M.A.G. STD. DETAIL 501-1, 501-2 AND C.O.S. DETAIL 2508, 2560-1 & 2560-2. SEE PLAN FOR PIPE SIZE.
- 17) CONSTRUCT CATCH BASIN PER C.O.P. STD. DETAIL P-1569, TYPE "M-2" ON SHEET 19, L=10'.
- 19) INSTALL LOOSE RIP RAP D50=6", 18" THICK, SY= PER PLAN.
- 20) DISTURBED AREAS TO BE HYDRO SEEDING WITH SEED MIXTURE SHOWN ON SHEET 2. ONLY TEMPORARY IRRIGATION TO BE USED IN THESE AREAS.
- 21) CONSTRUCT RETAINING WALL PER STRUCTURAL DETAIL AND SHEETS SHOWN.
- 22) INSTALL 6" INLINE DRAIN PER DETAIL ON SHEET 18.
- 24) CONSTRUCT HANDRAIL PER C.O.S. STD. DETAIL 2508 ON TOP OF RETAINING WALL.



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL



Call at least two full working days before you begin excavation.
ARIZONA 311
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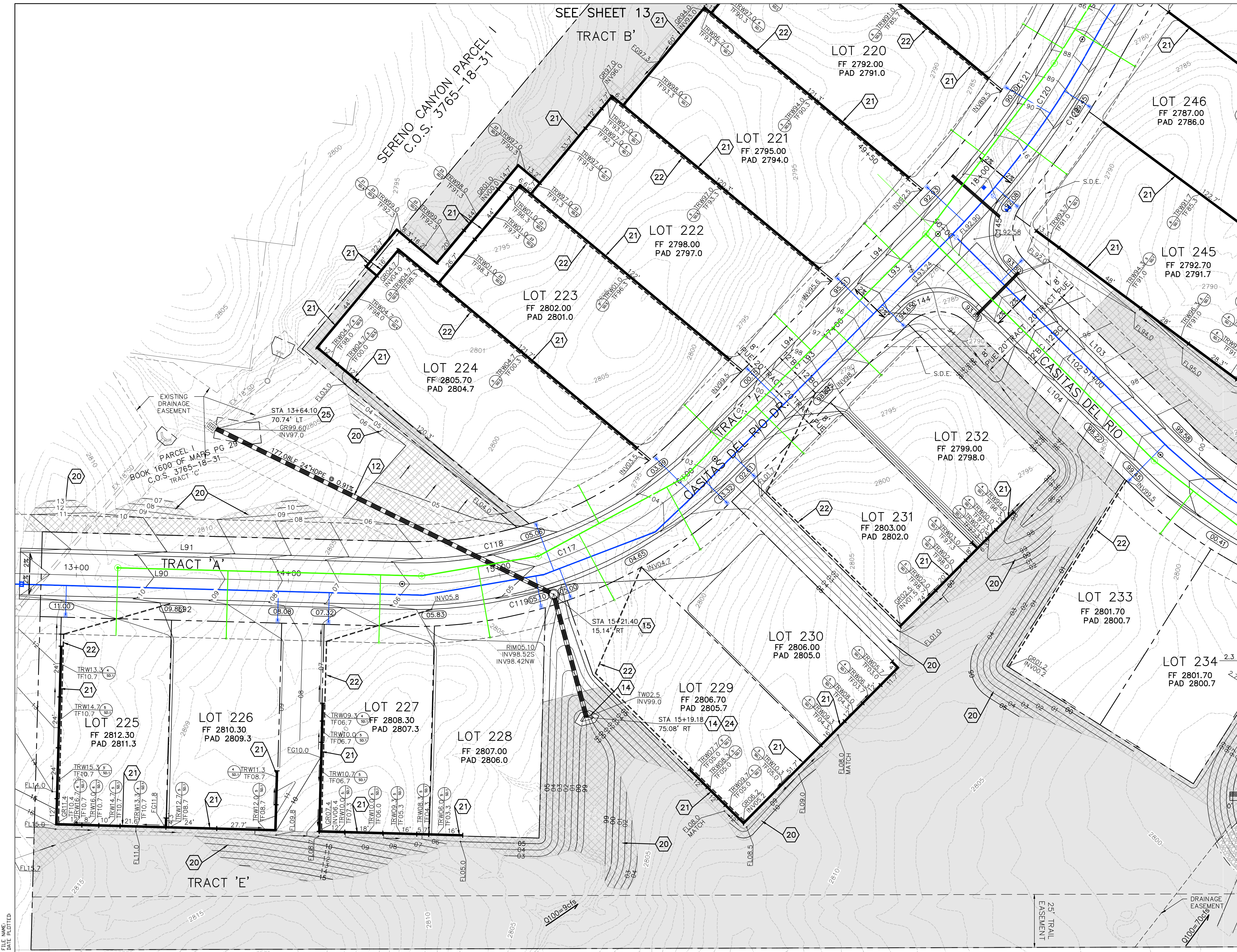
GRADING & DRAINAGE PLAN

IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 14 of 20

SEE SHEET 16

16-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



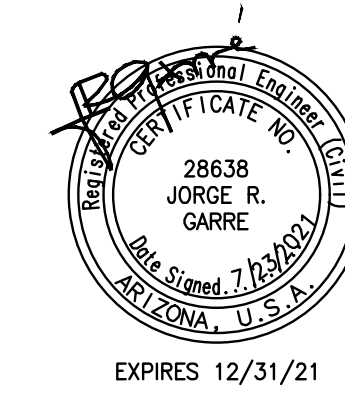
GRADING CONSTRUCTION NOTES

- 12 CONSTRUCT 24" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 14 CONSTRUCT TYPE "U" HEADWALL PER M.A.G. STD. DETAIL 501-1, 501-2 AND C.O.S. DETAIL 2508, 2560-1 & 2560-2. SEE PLAN FOR PIPE SIZE.
- 15 CONSTRUCT STORM DRAIN MANHOLE PER M.A.G. STD. DETAIL 520.
- 19 INSTALL LOOSE RIP RAP D50=6", 18" THICK, SY= PER PLAN.
- 20 DISTURBED AREAS TO BE HYDRO SEEDING WITH SEED MIXTURE SHOWN ON SHEET 2. ONLY TEMPORARY IRRIGATION TO BE USED IN THESE AREAS.
- 21 CONSTRUCT RETAINING WALL PER STRUCTURAL DETAIL AND SHEETS SHOWN.
- 22 INSTALL 6" INLINE DRAIN PER DETAIL ON SHEET 18.
- 24 CONSTRUCT HANDRAIL PER C.O.S. STD. DETAIL 2508 ON TOP OF RETAINING WALL.
- 25 CONNECT PIPE TO EXISTING CATCH BASIN. CONTRACTOR TO VERIFY LOCATION.

SEE SHEET 16



SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL



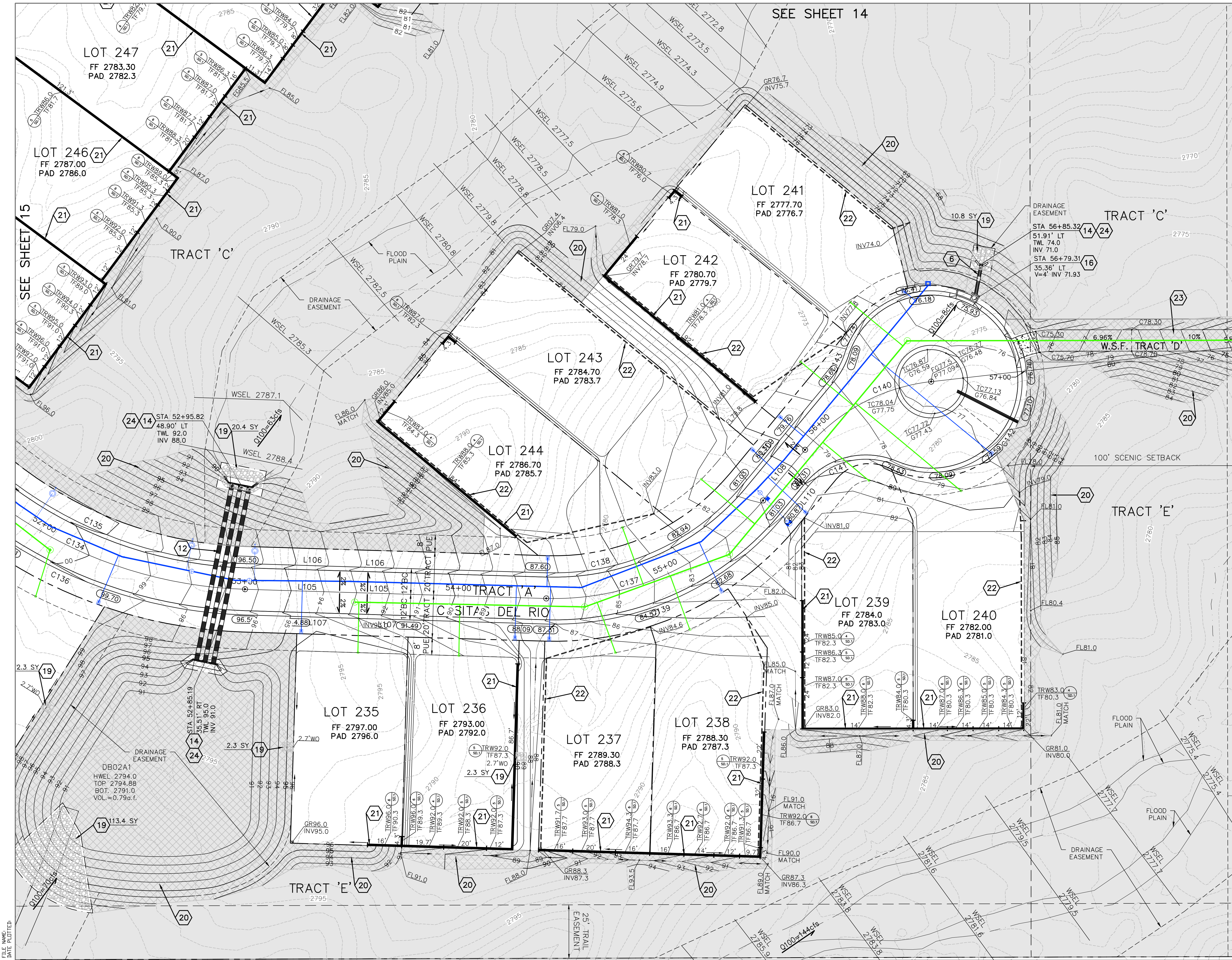
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GRADING & DRAINAGE PLANS
IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

FILE NAME
DATE PRINTED

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



GRADING CONSTRUCTION NOTES

- 6 CONSTRUCT 18" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 12 CONSTRUCT 24" HDPE STORM DRAIN PIPE. SEE SHEET 17 FOR PROFILE.
- 14 CONSTRUCT TYPE "U" HEADWALL PER M.A.G. STD. DETAIL 501-1, 501-2 AND C.O.S. DETAIL 2508, 2560-1 & 2560-2. SEE PLAN FOR PIPE SIZE.
- 16 CONSTRUCT CATCH BASIN PER C.O.P. STD. DETAIL P-1569, TYPE "M-1" ON SHEET 19, L=6'.
- 18 CONSTRUCT 3-24" HDPE STORM DRAIN PIPES. SEE SHEET 17 FOR PROFILE.
- 19 INSTALL LOOSE RIP RAP D50=6", 18" THICK, SY= PER PLAN.
- 20 DISTURBED AREAS TO BE HYDRO SEEDING WITH SEED MIXTURE SHOWN ON SHEET 2. ONLY TEMPORARY IRRIGATION TO BE USED IN THESE AREAS.
- 21 CONSTRUCT RETAINING WALL PER STRUCTURAL DETAIL AND SHEETS SHOWN.
- 22 INSTALL 6" INLINE DRAIN PER DETAIL ON SHEET 18.
- 23 CONSTRUCT 10' TRAIL AND/OR UTILITY ACCESS PER DETAIL, SHEET 18.
- 24 CONSTRUCT HANDRAIL PER C.O.S. STD. DETAIL 2508 ON TOP OF RETAINING WALL.

SCALE: 1" = 20' HORIZONTAL
1" = 4' VERTICAL

0' 20' 40' 60'

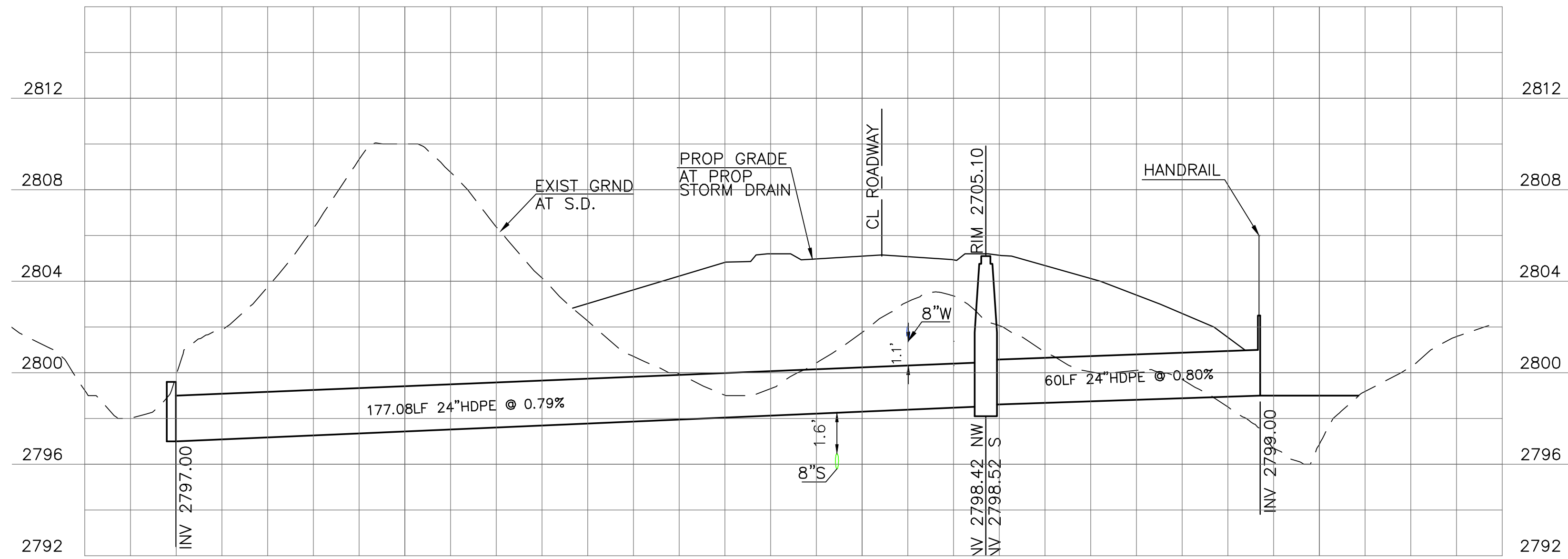
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GRADING & DRAINAGE PLAN

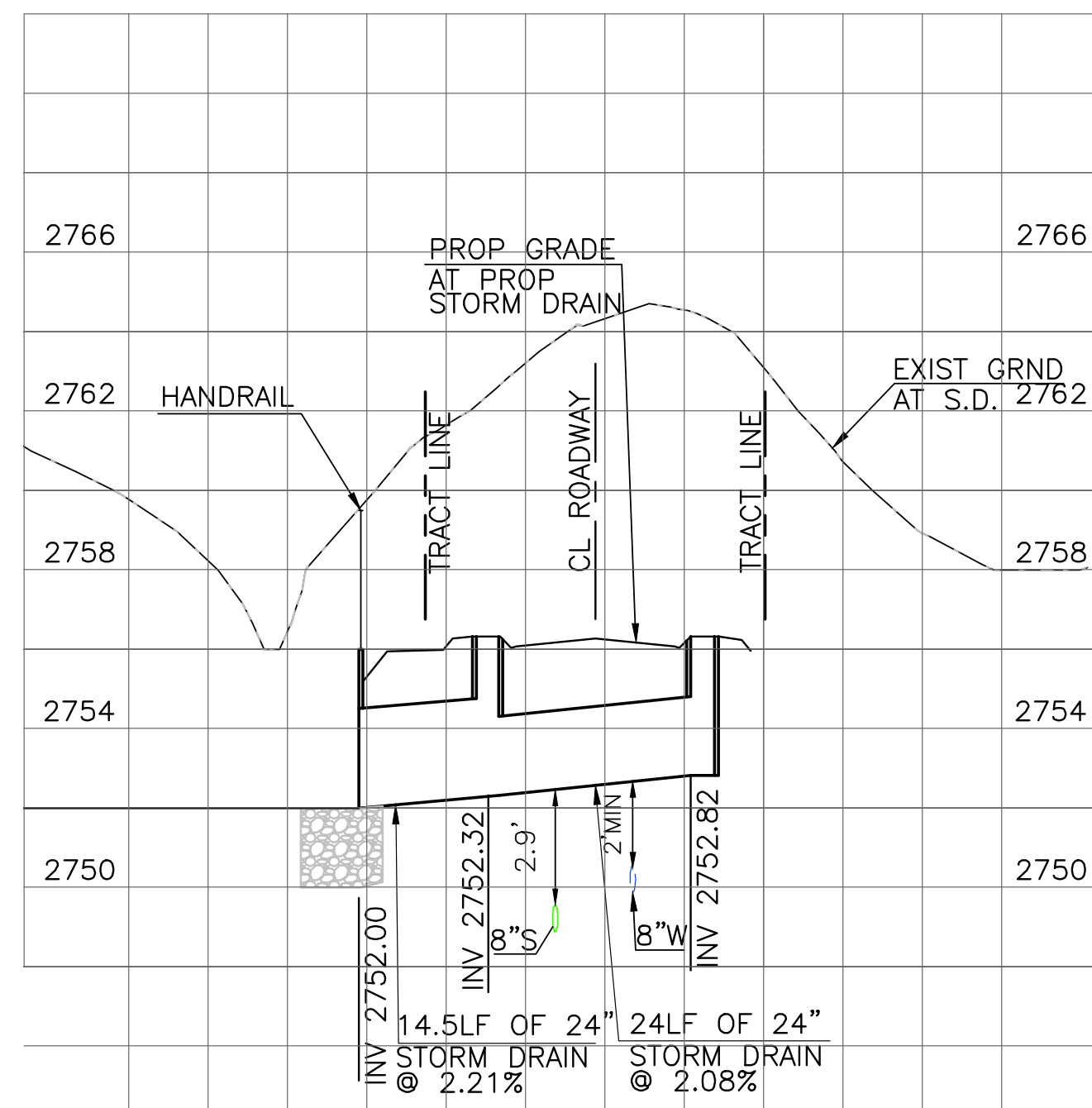
IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 13 of 20

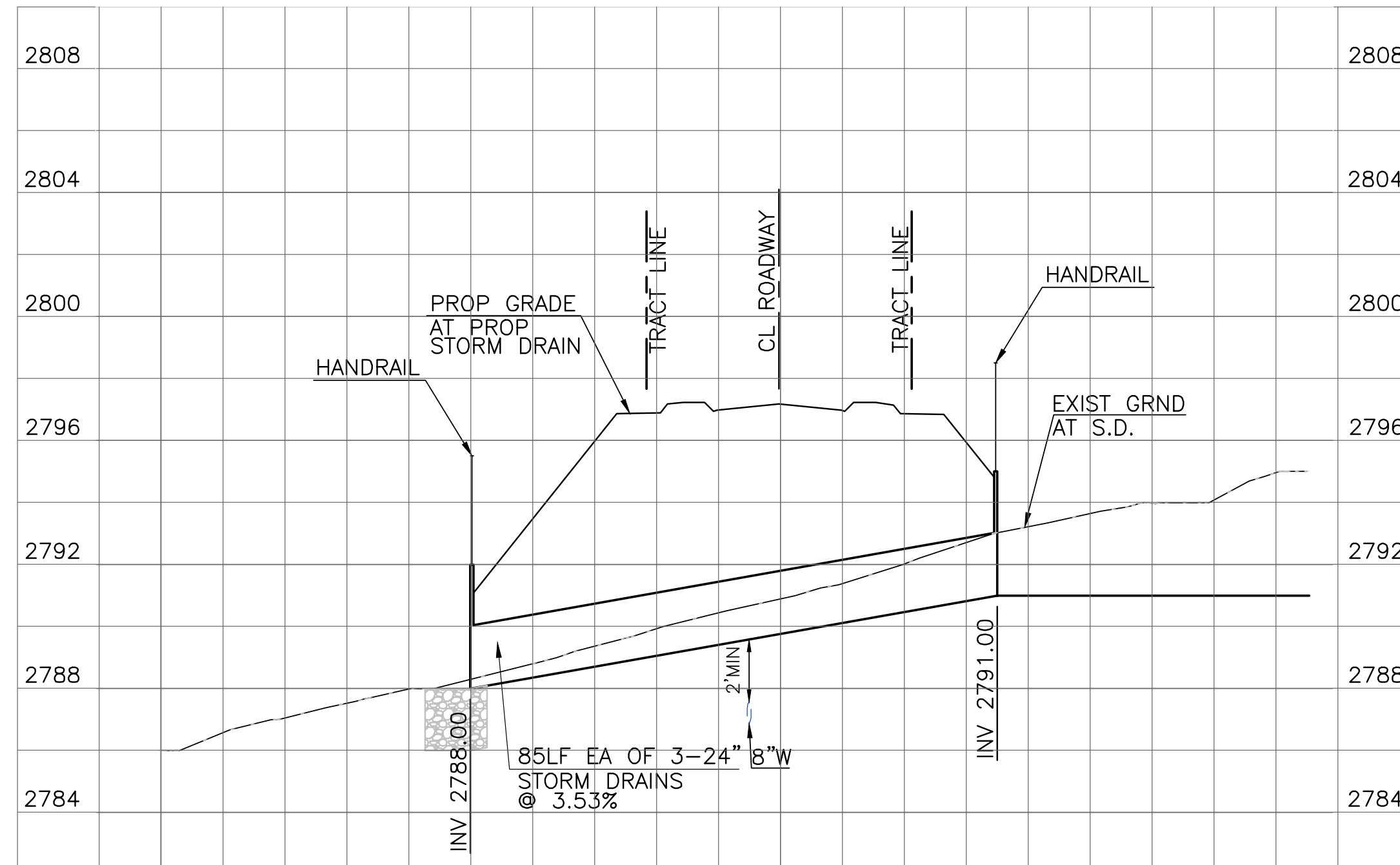
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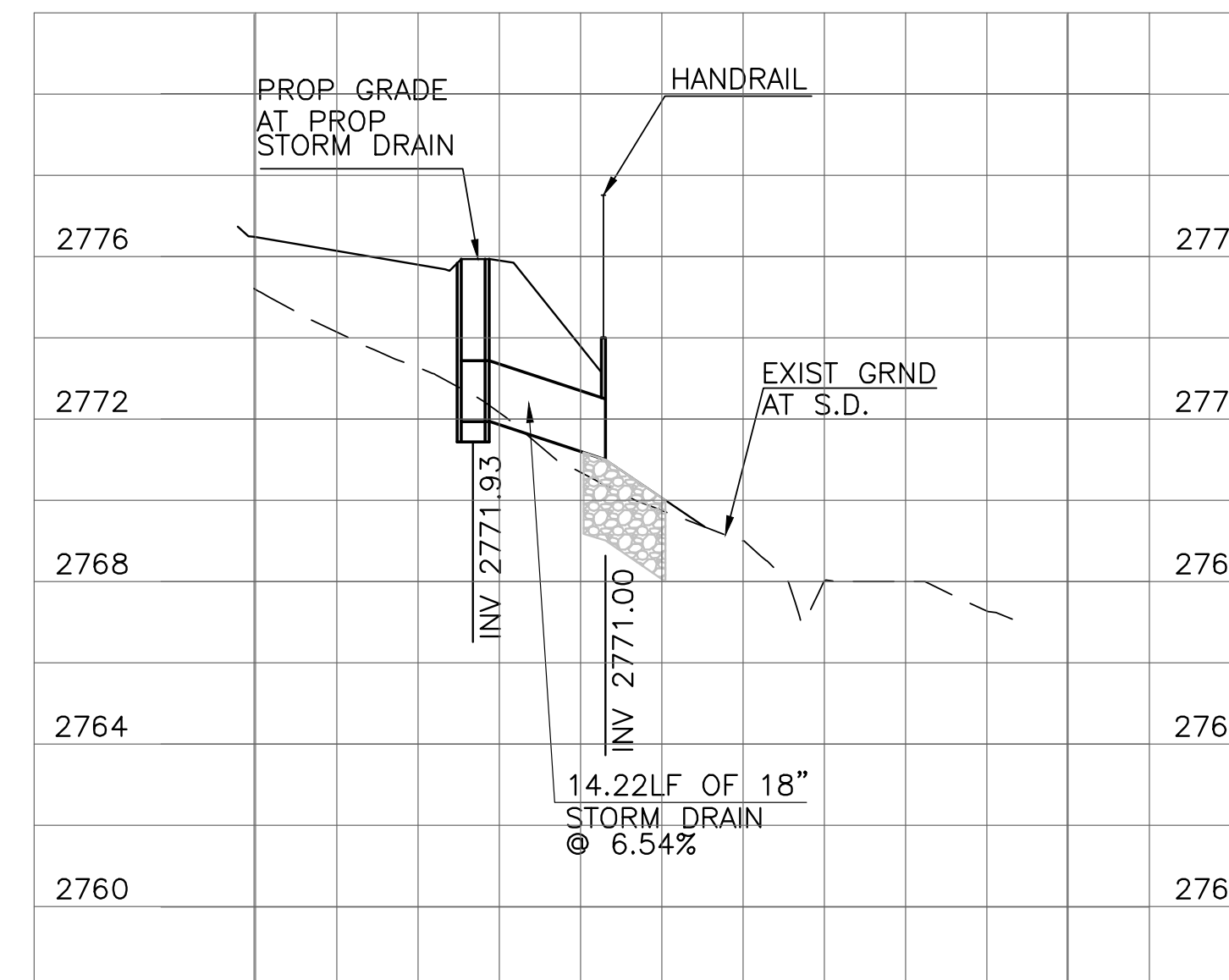
STORM DRAIN "A"
127TH STREET
SEE SHEET 15



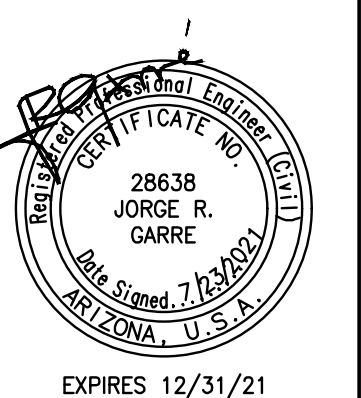
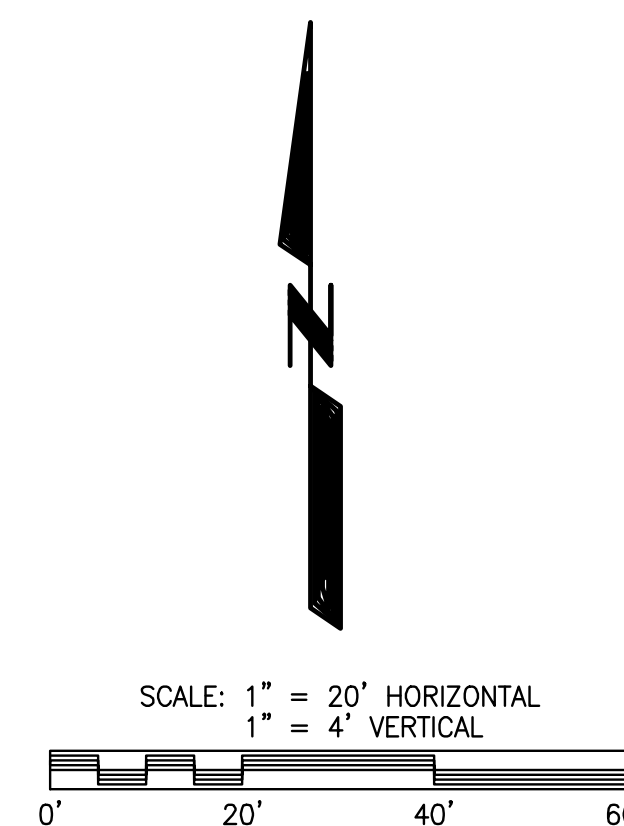
STORM DRAIN "B"
127TH STREET STA 24+00.19
SEE SHEET 13 & 14

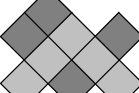


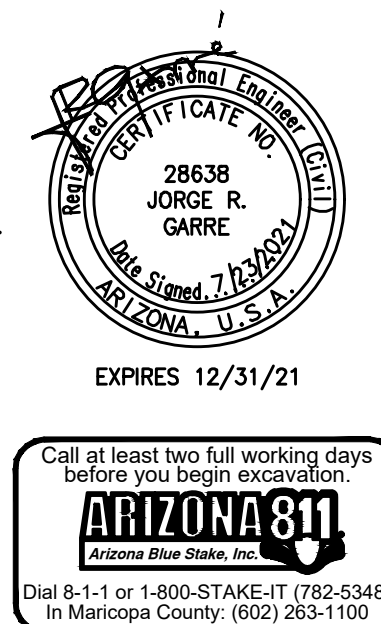
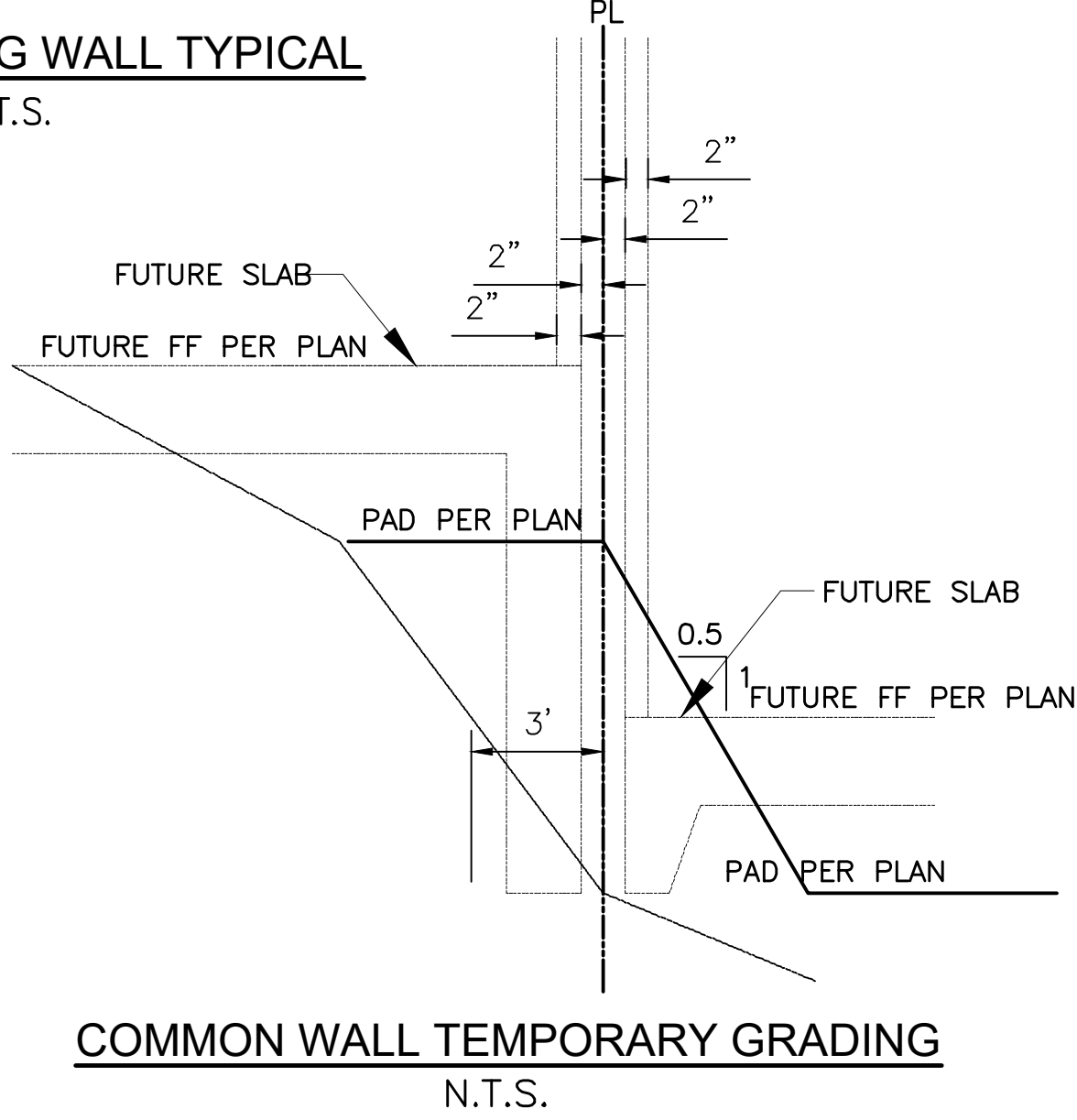
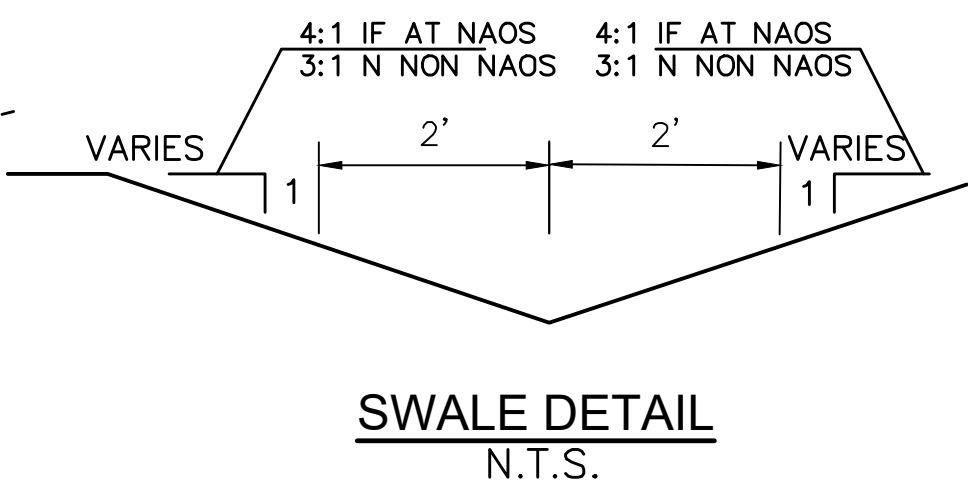
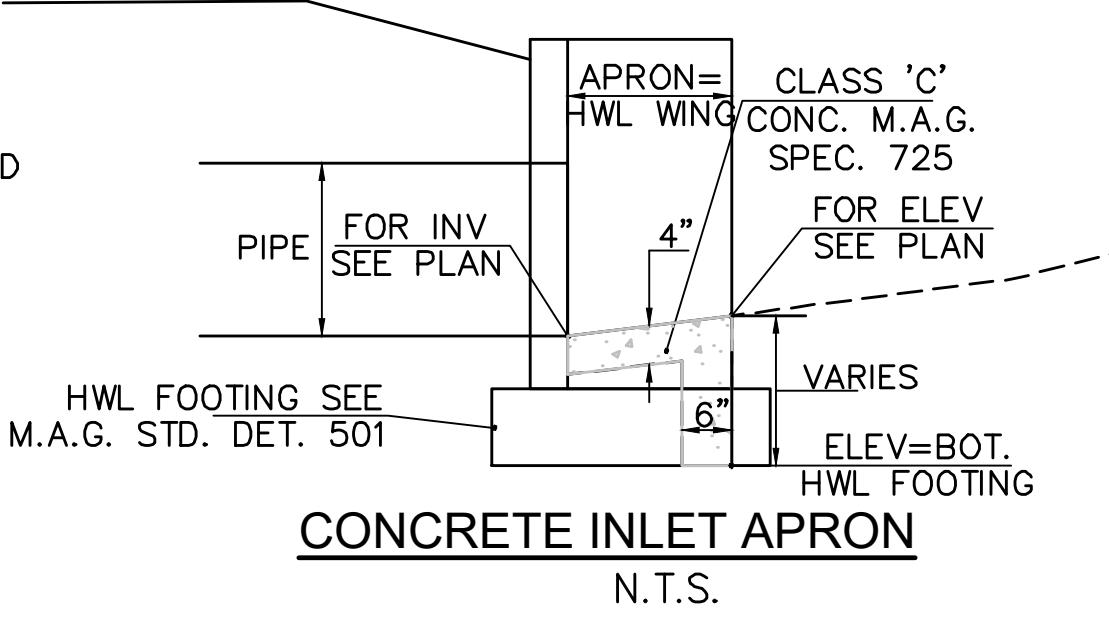
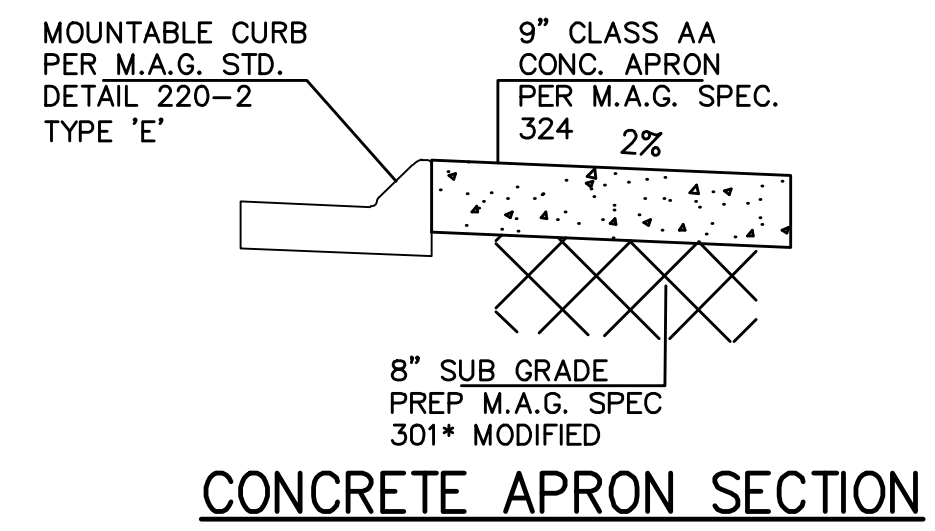
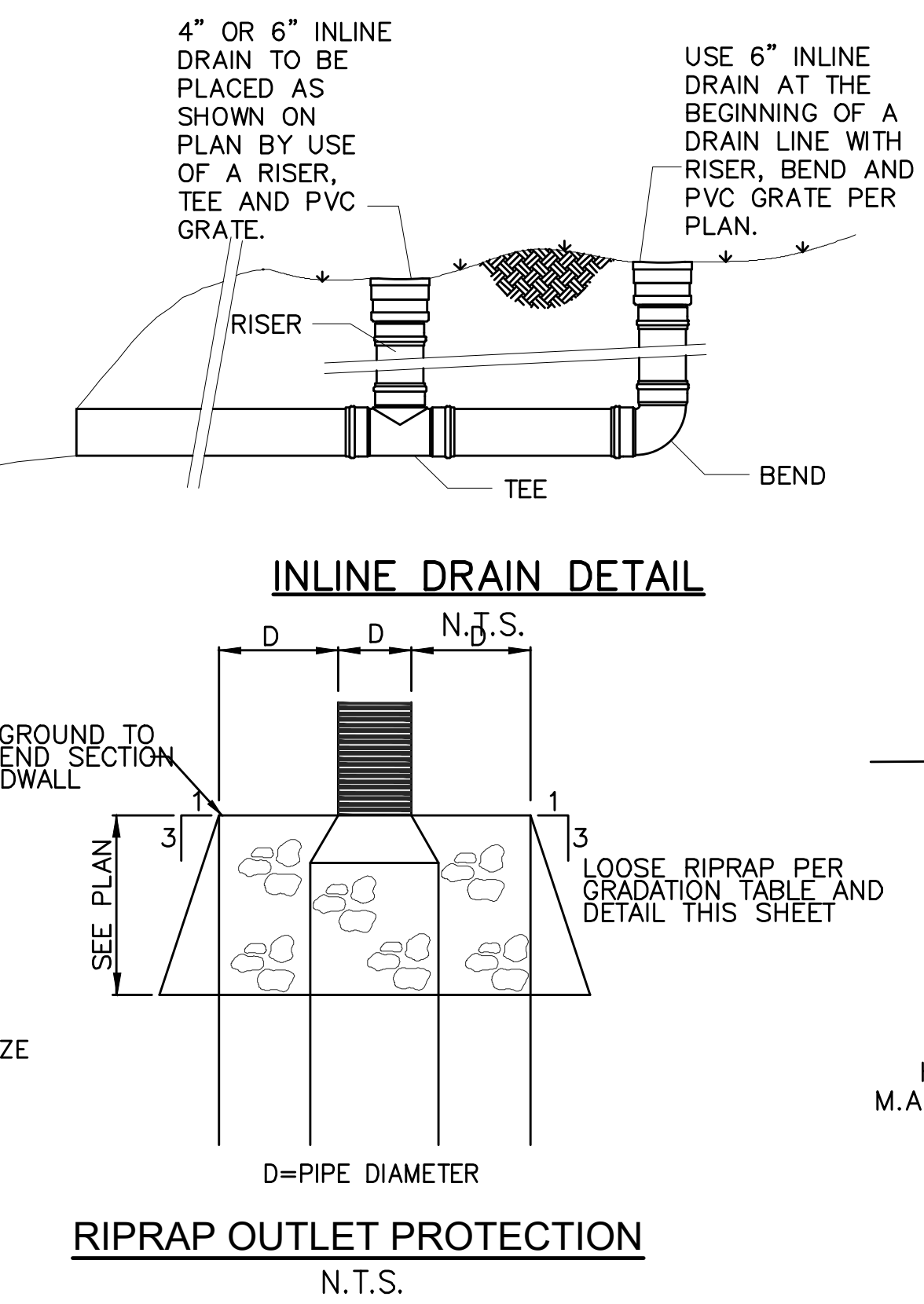
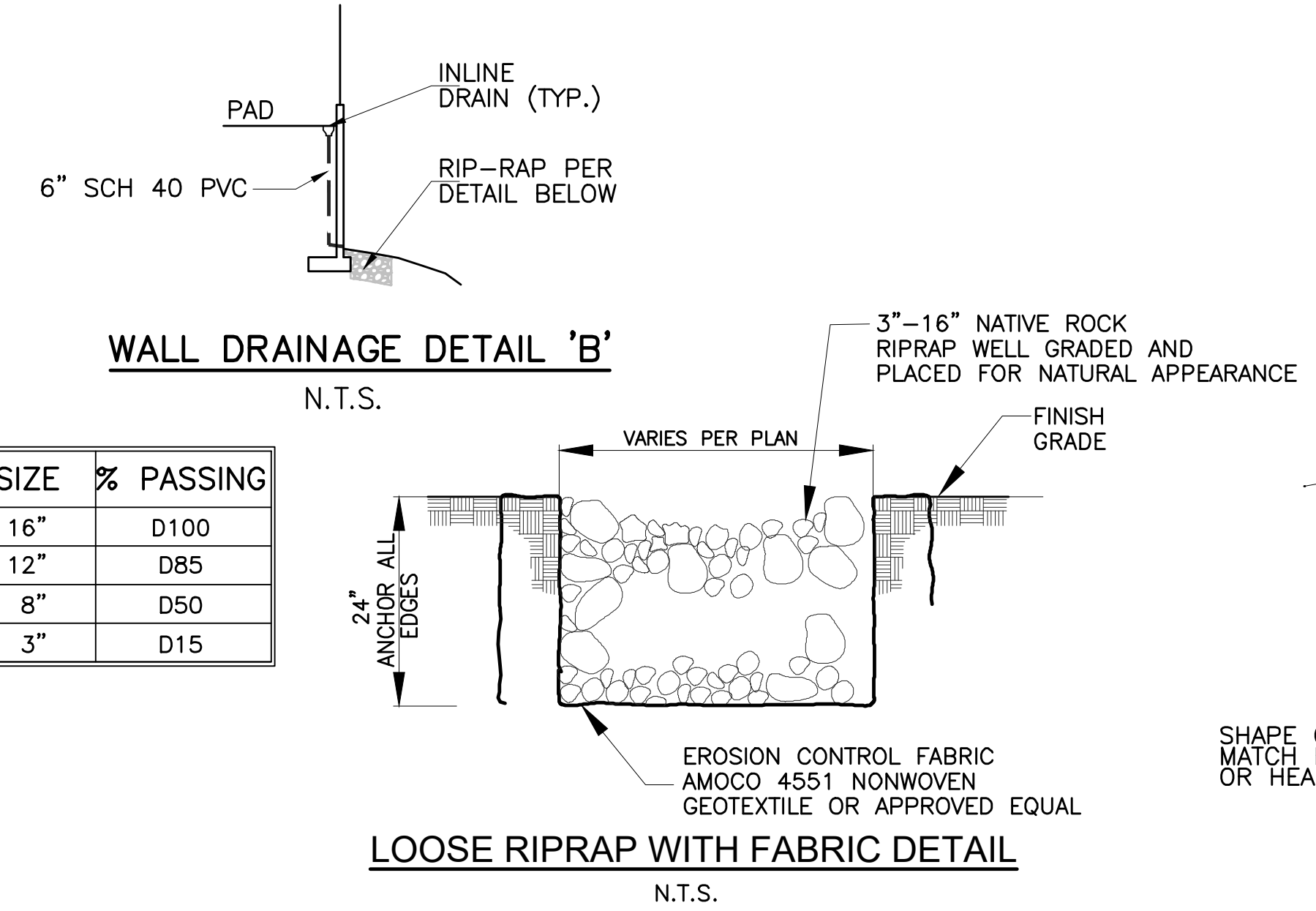
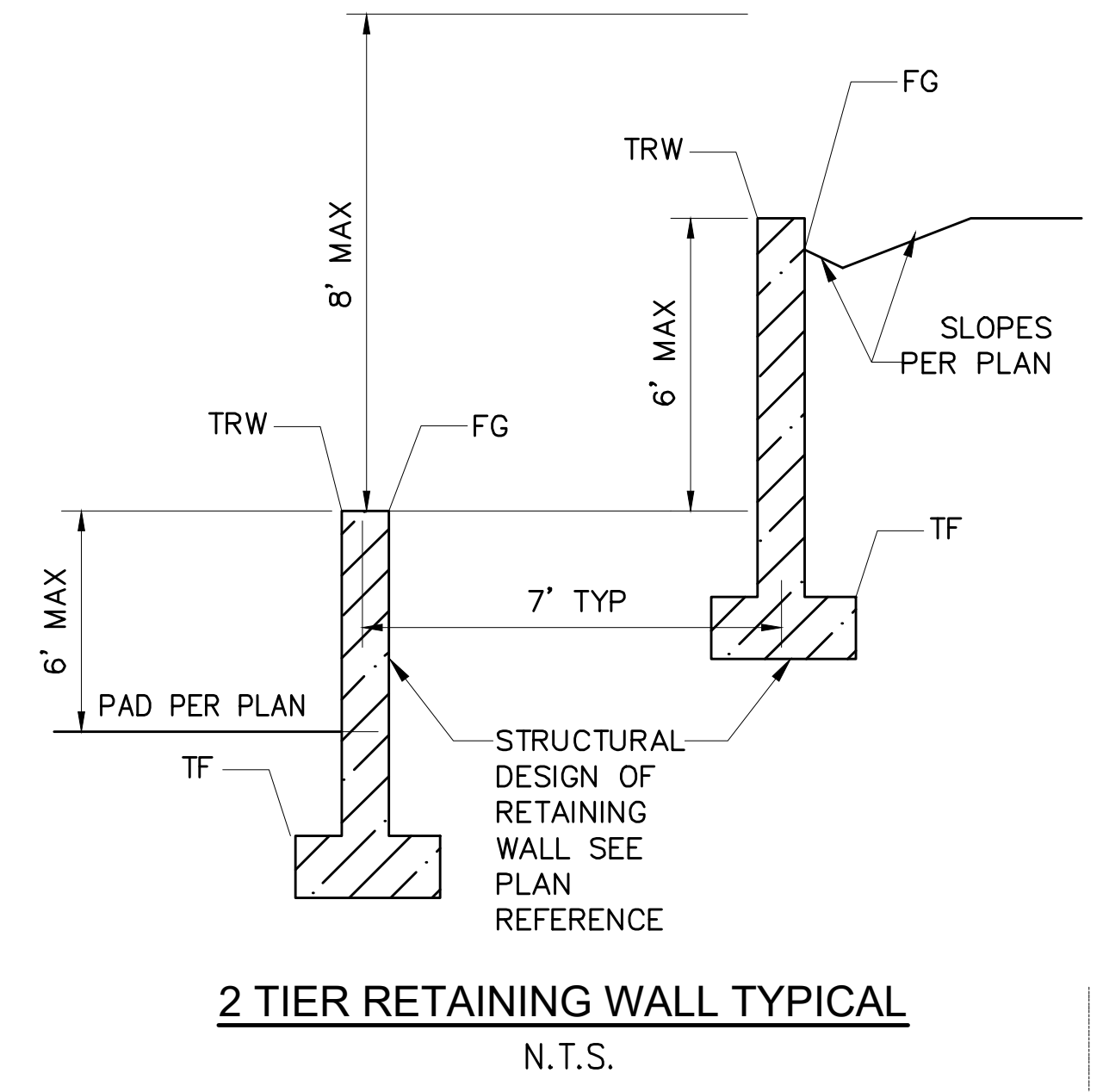
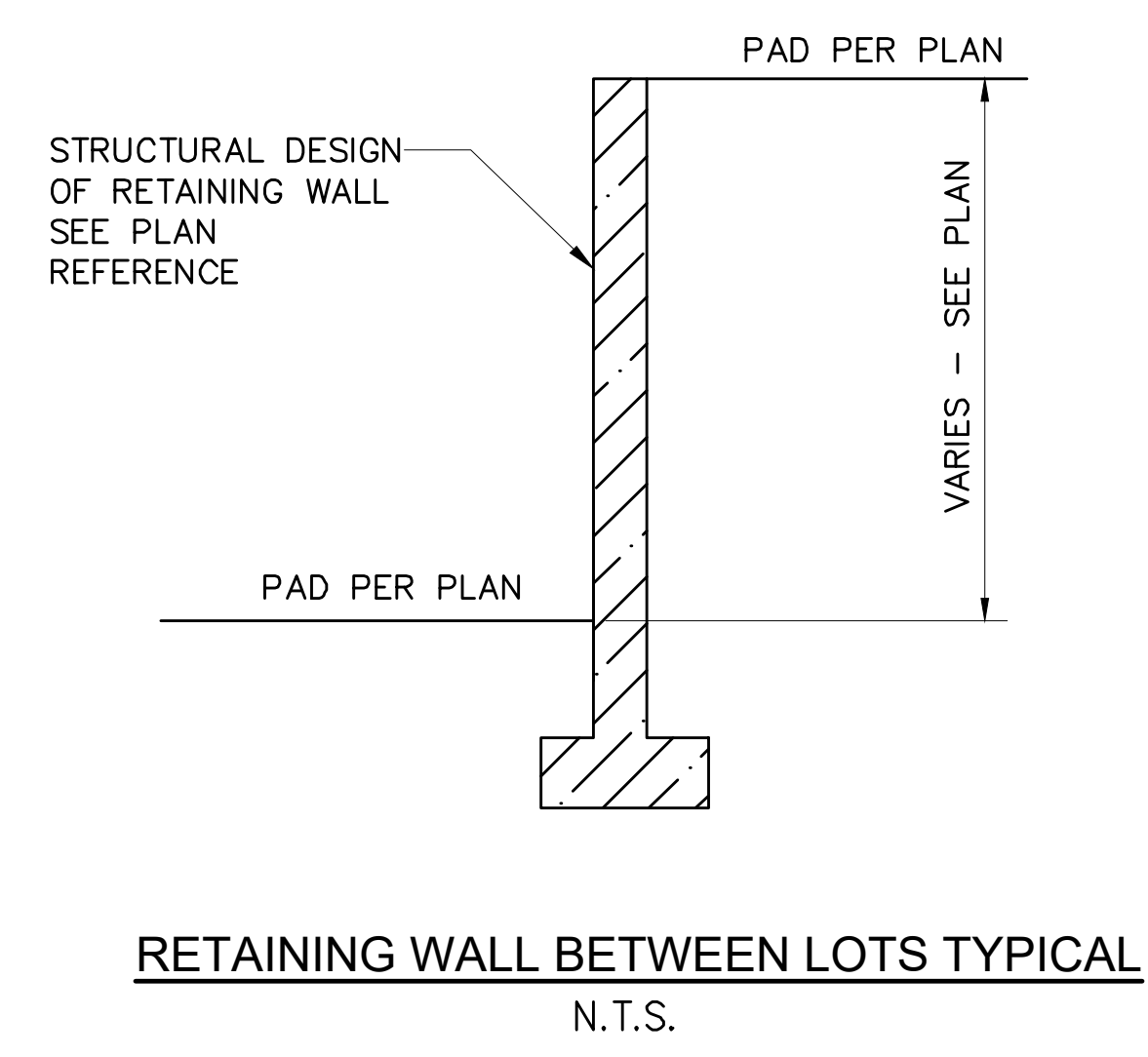
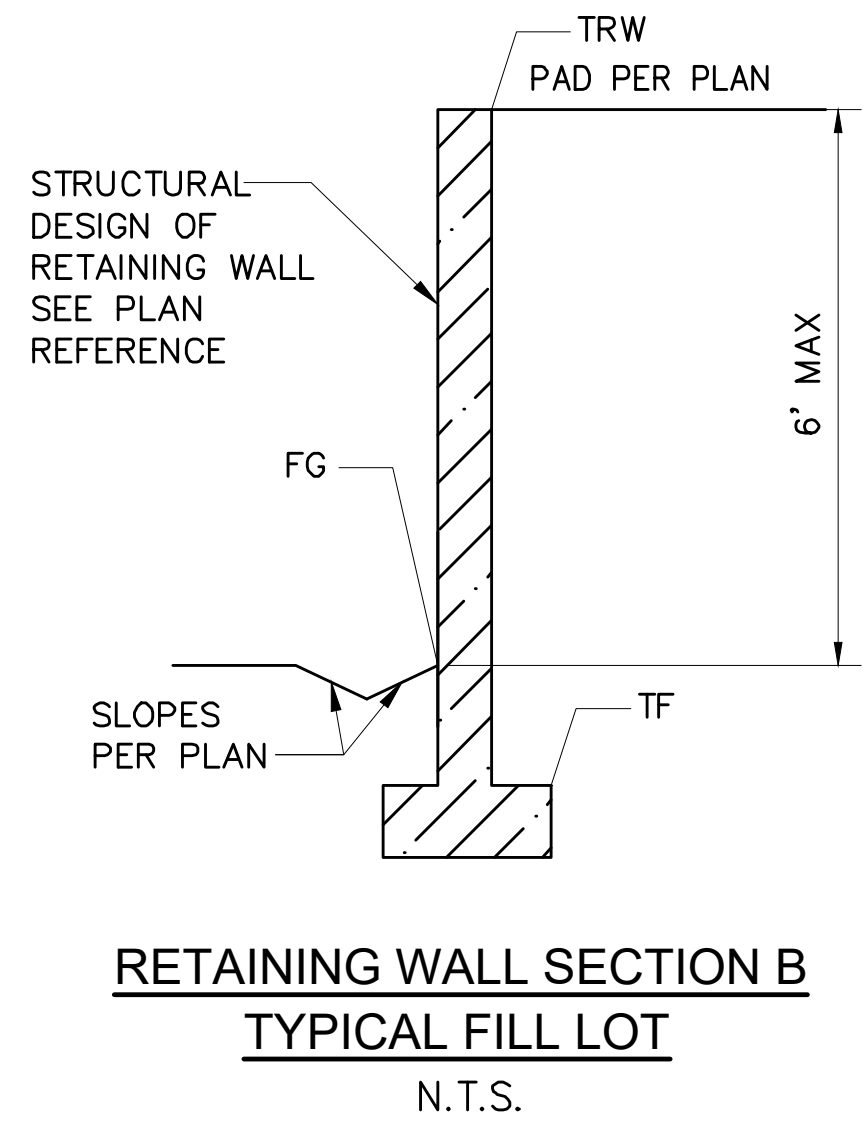
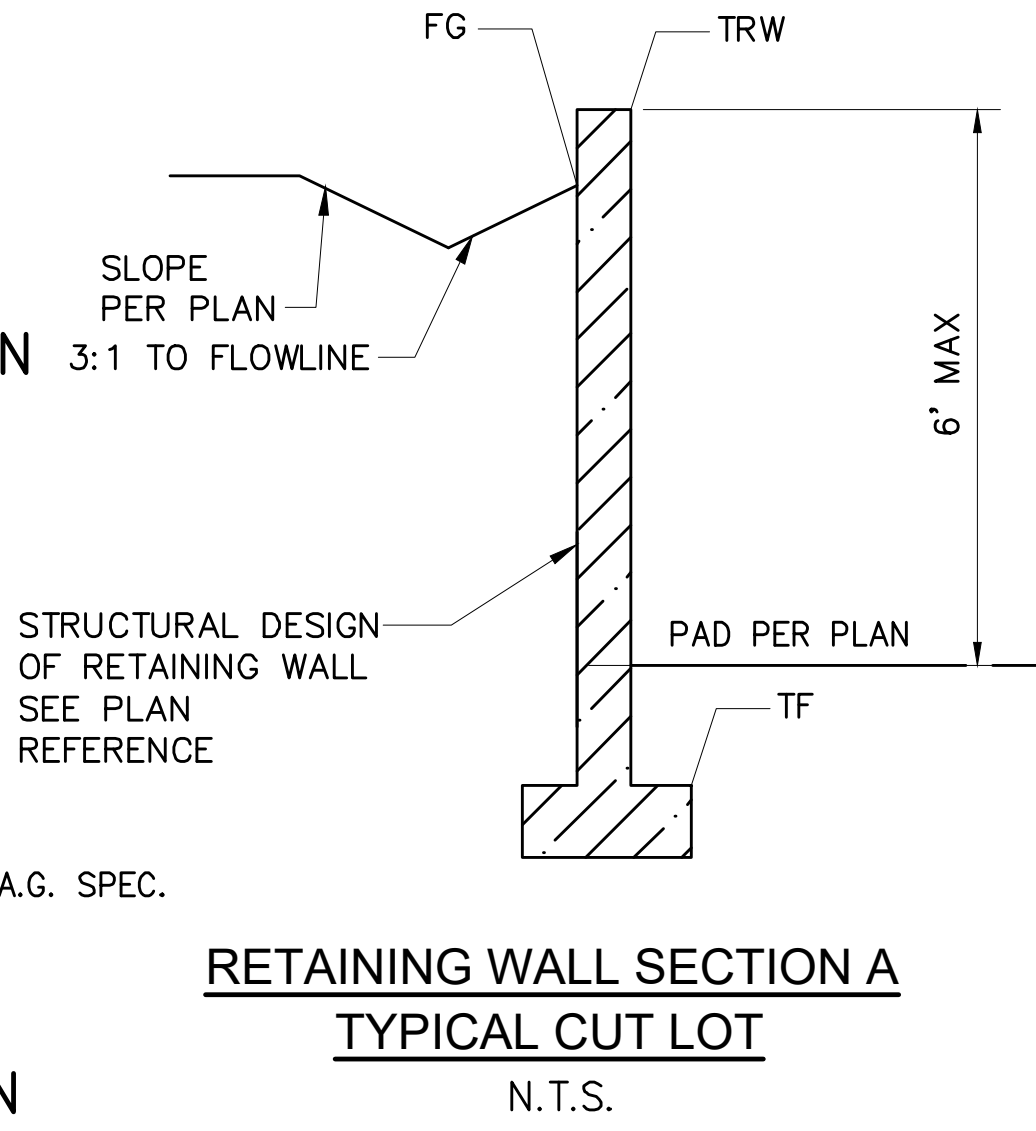
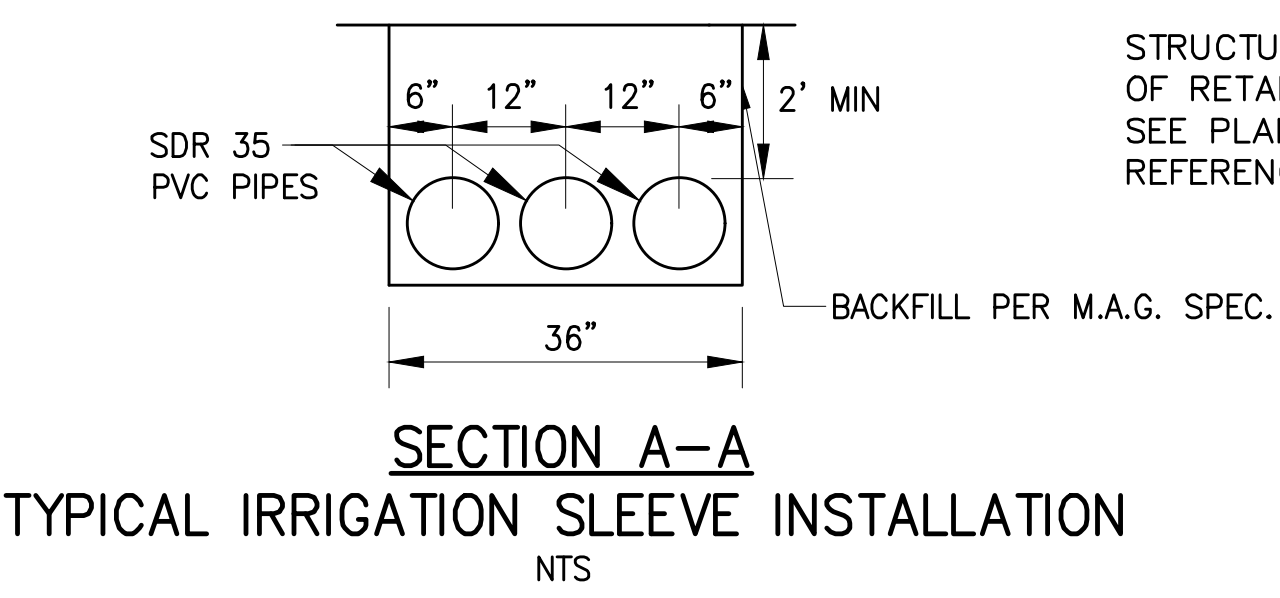
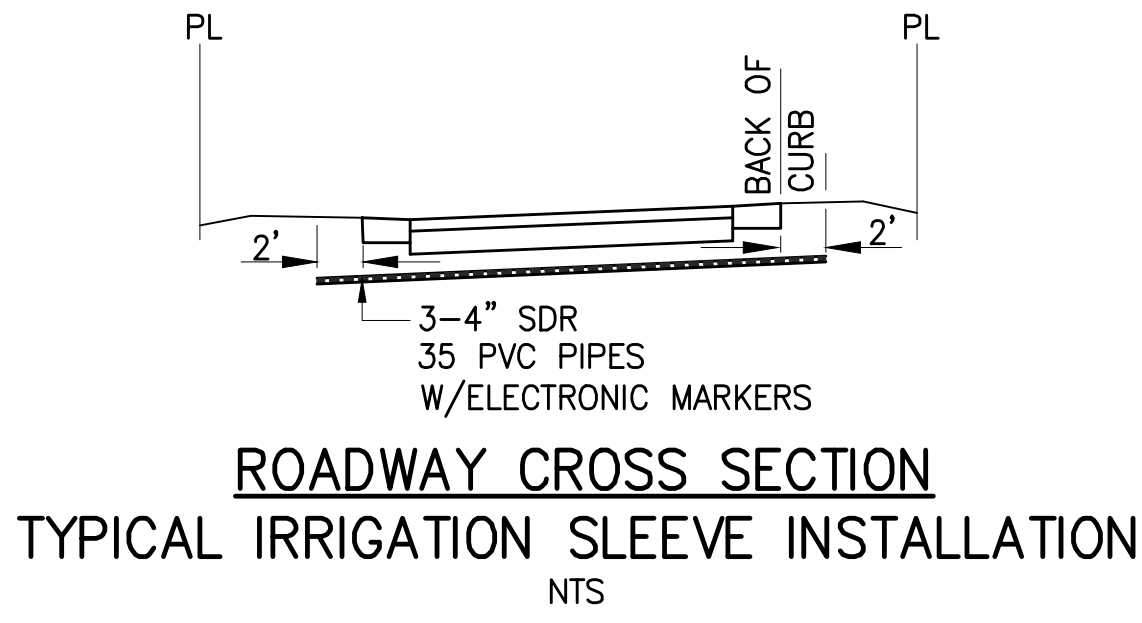
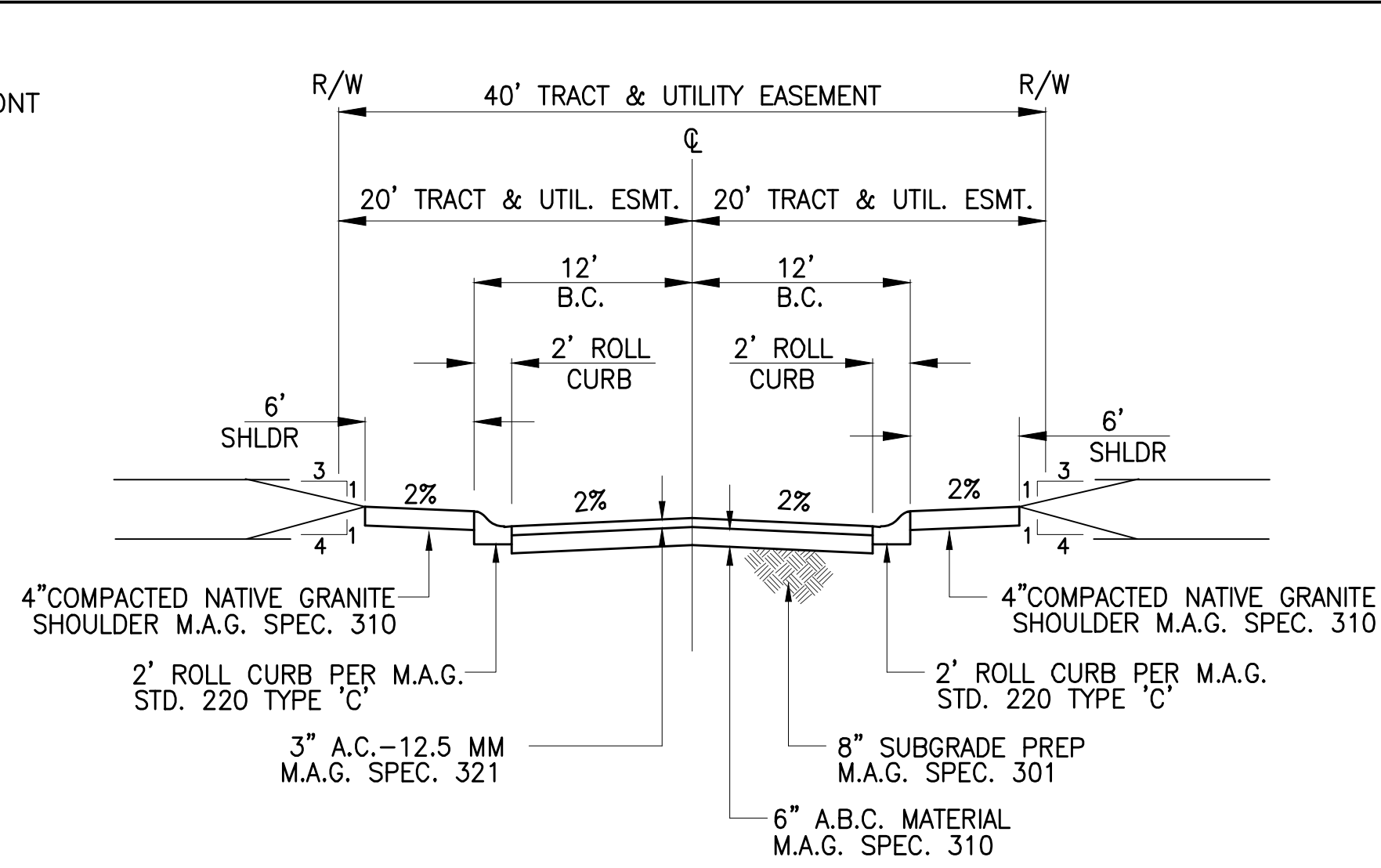
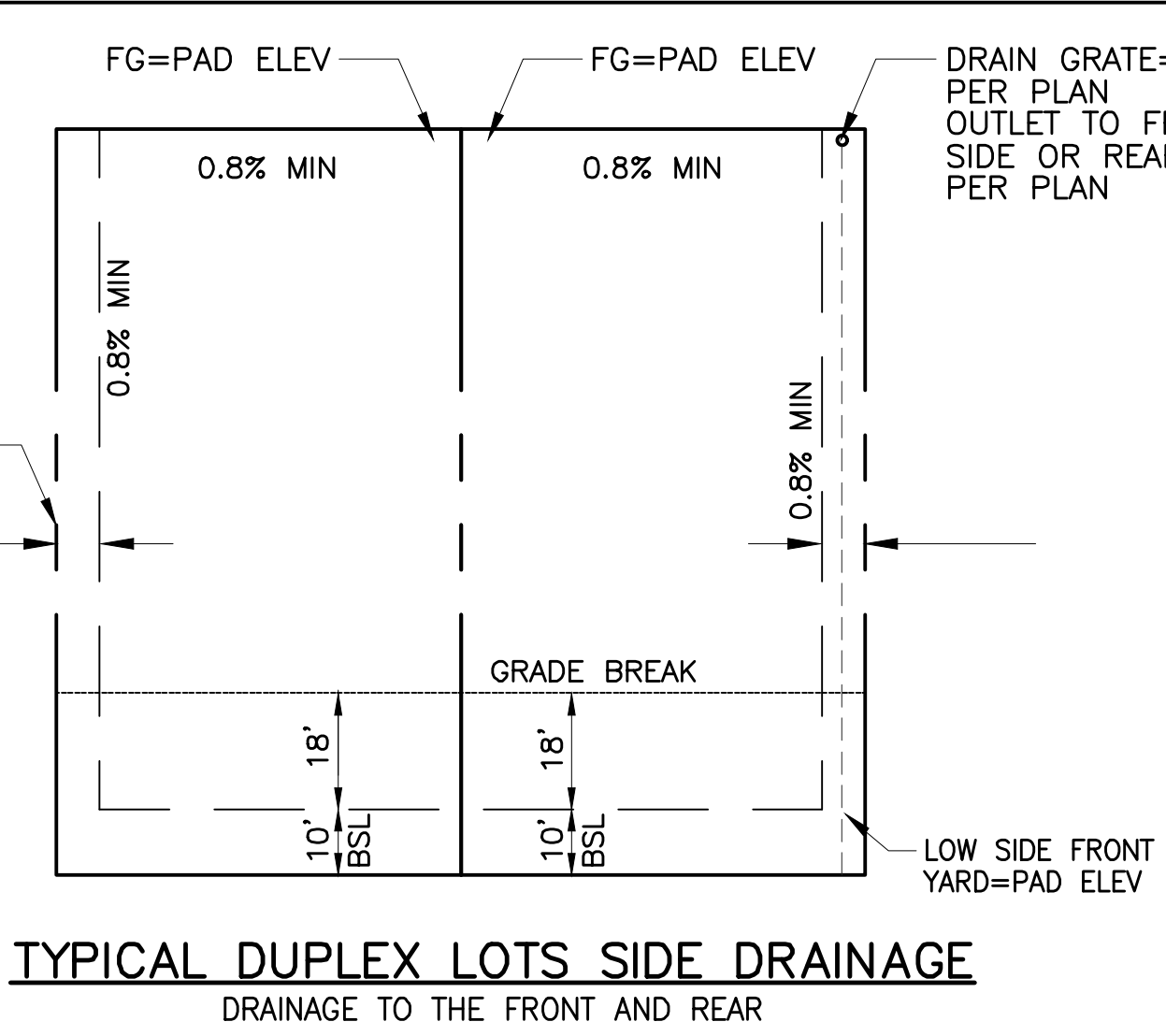
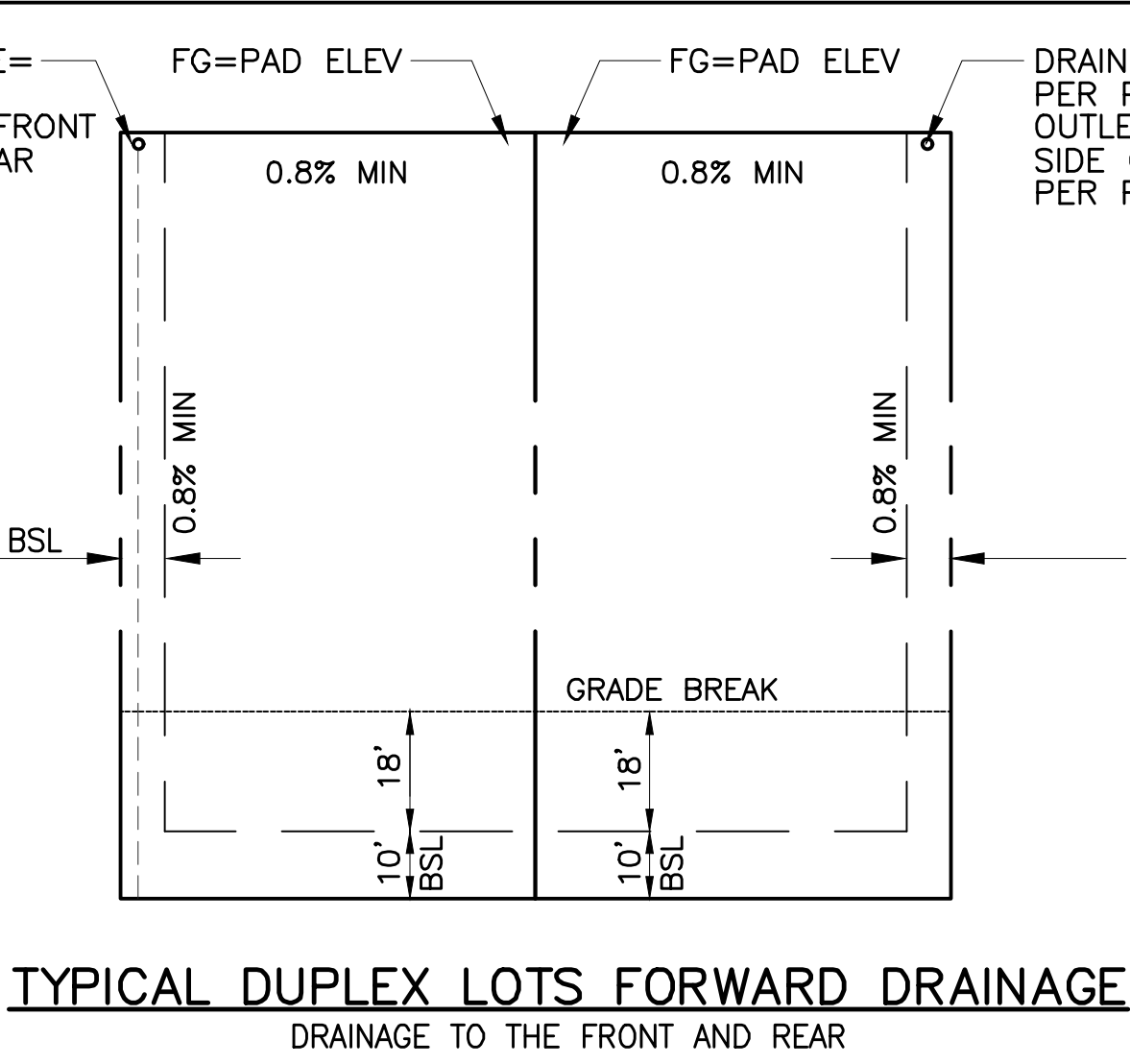
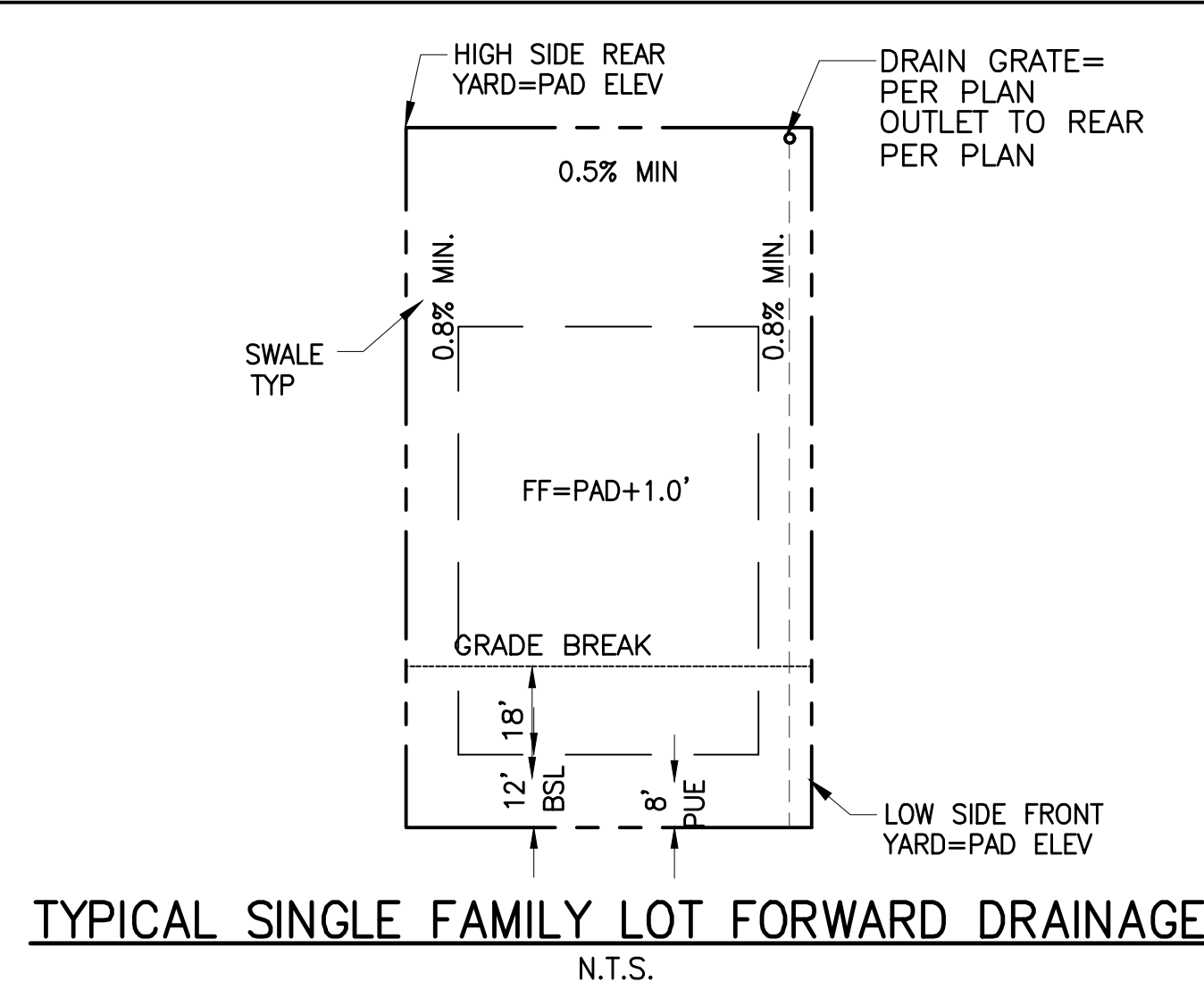
STORM DRAIN "C"
CASITAS DEL RIO
SEE SHEET 16



STORM DRAIN "D"
SEE SHEET 16



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STORM DRAIN PROFILES		
IMPROVEMENT PLANS SERENO CANYON PARCEL H, PHASE 4 SCOTTSDALE - ARIZONA		
Date 7/23/2021	Job No. 385-17	Sheet 17 of 20



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DETAILS

IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

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Arizona State Seal

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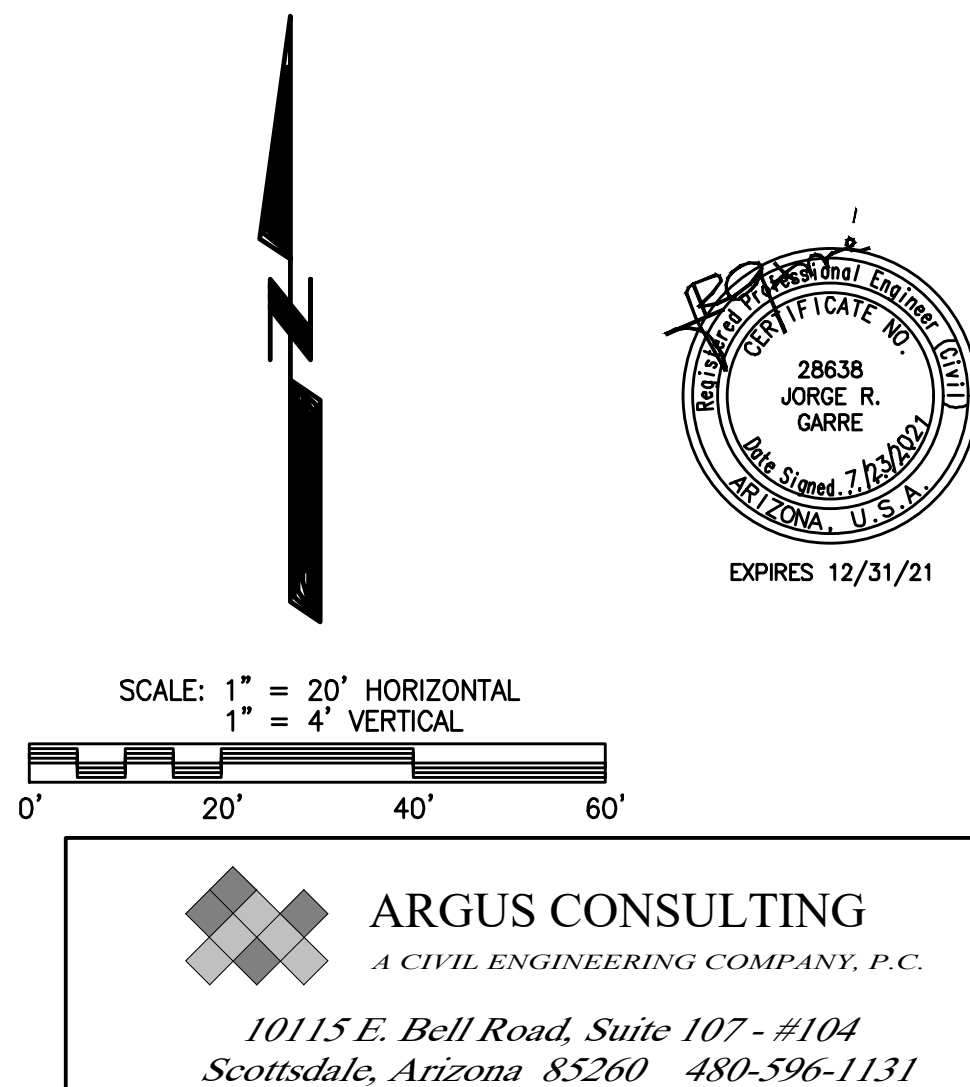
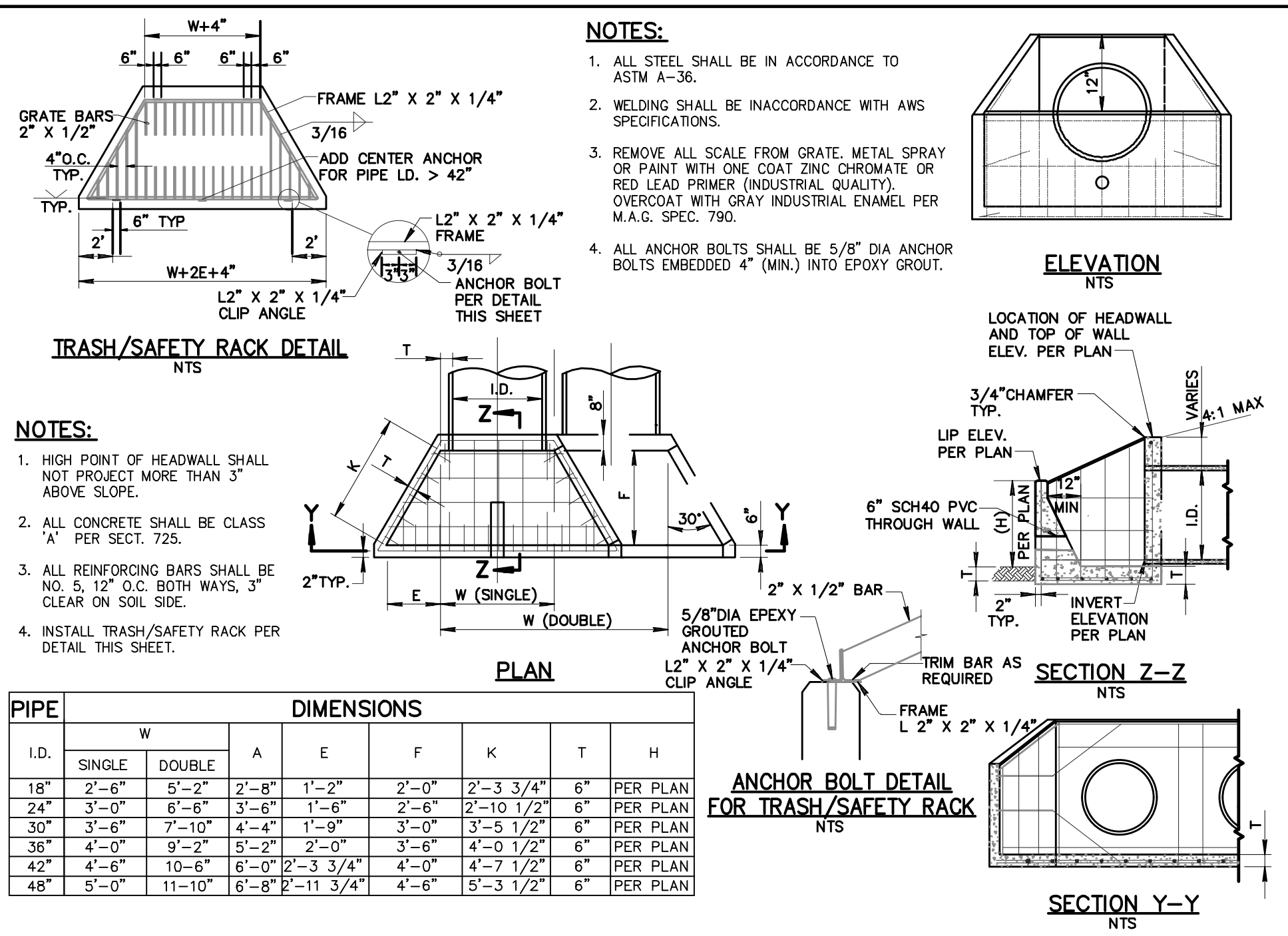
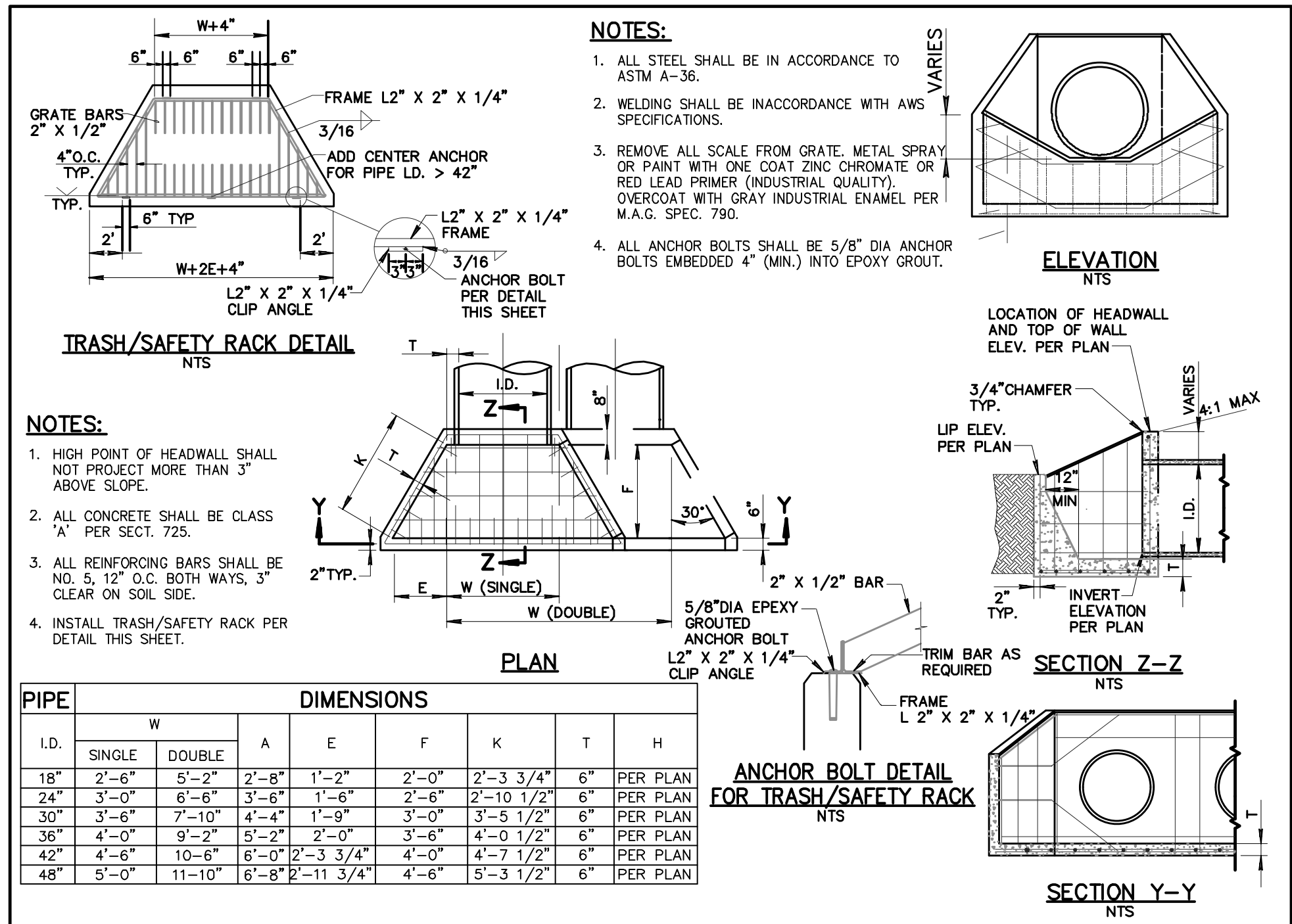
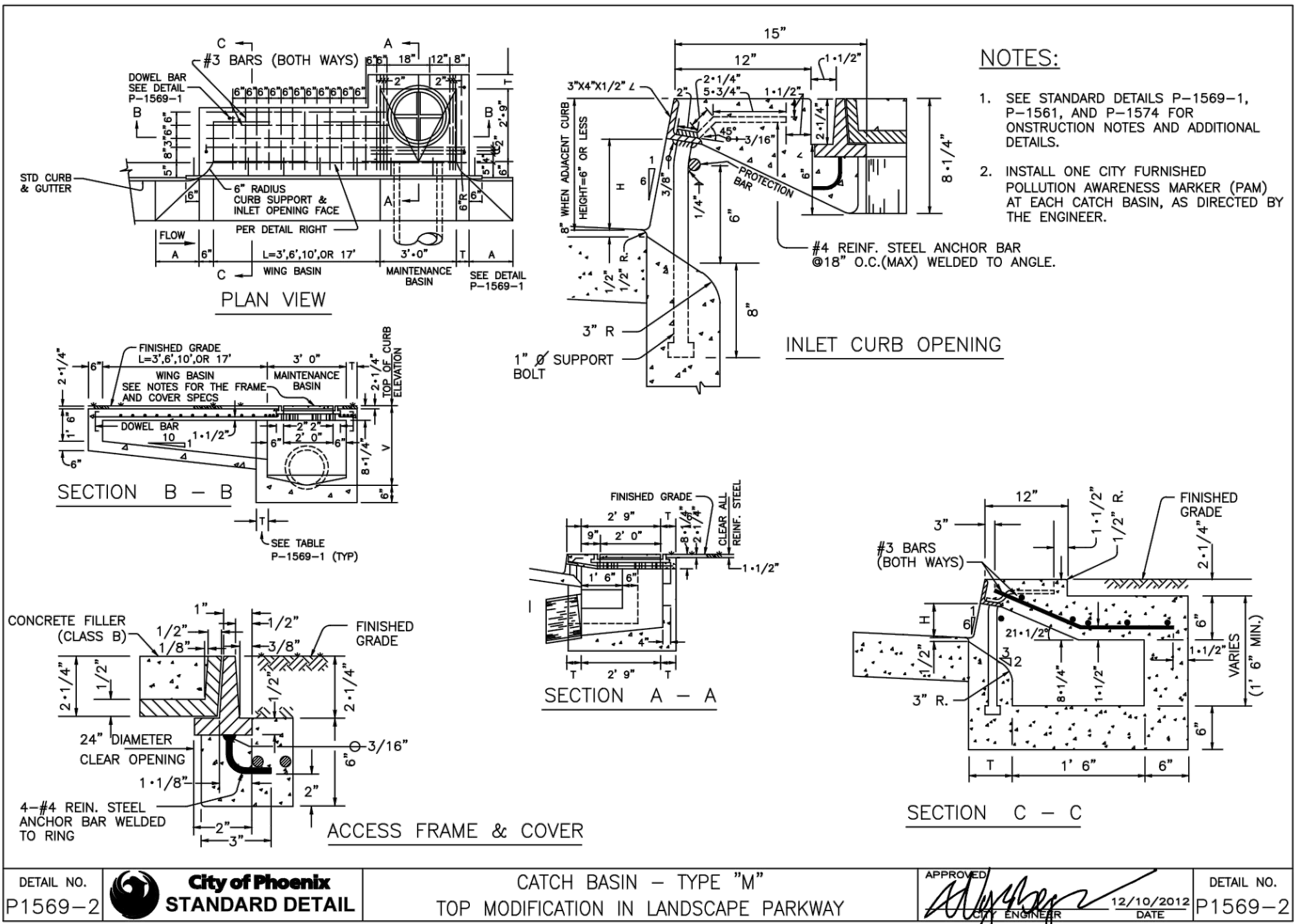
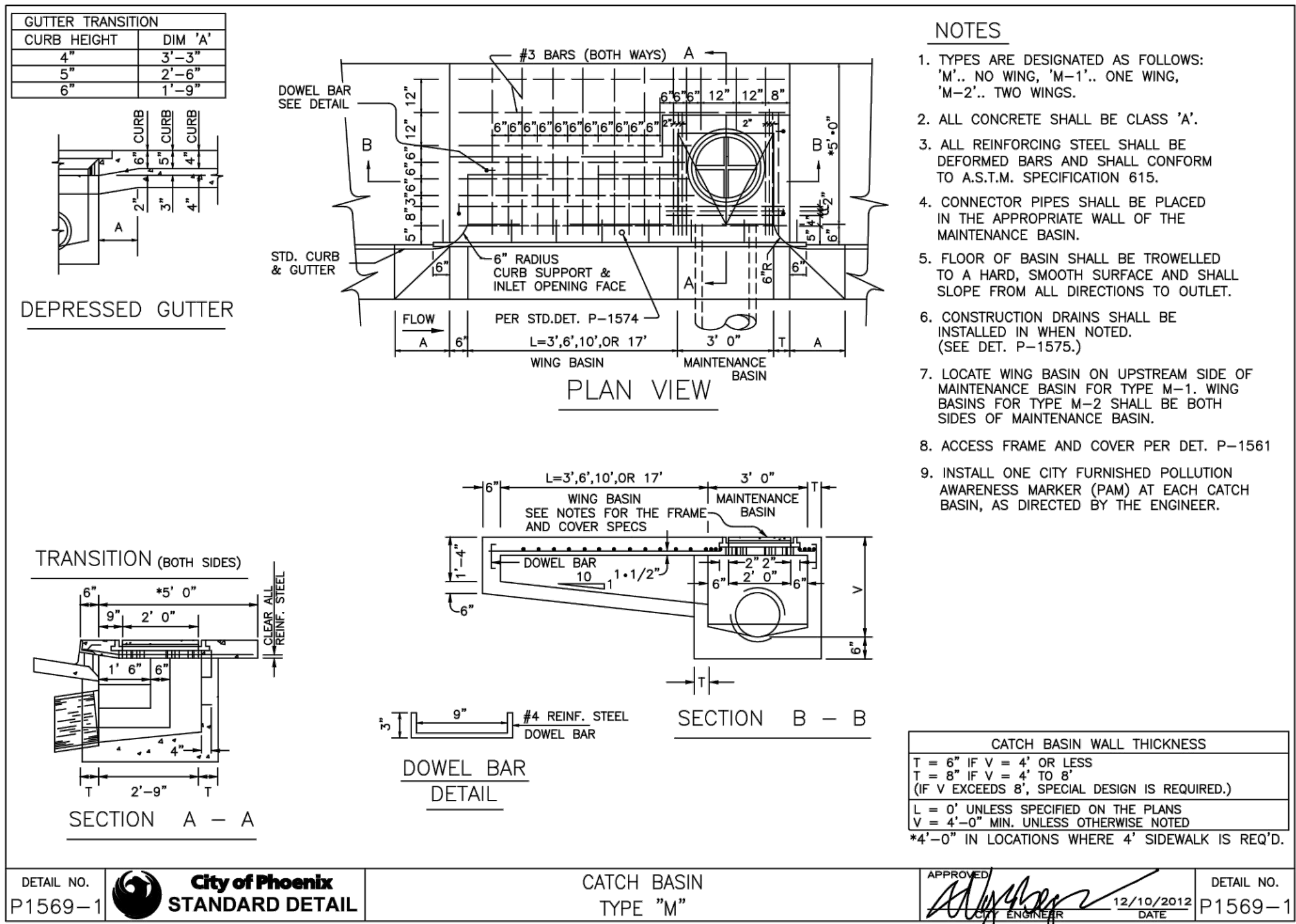
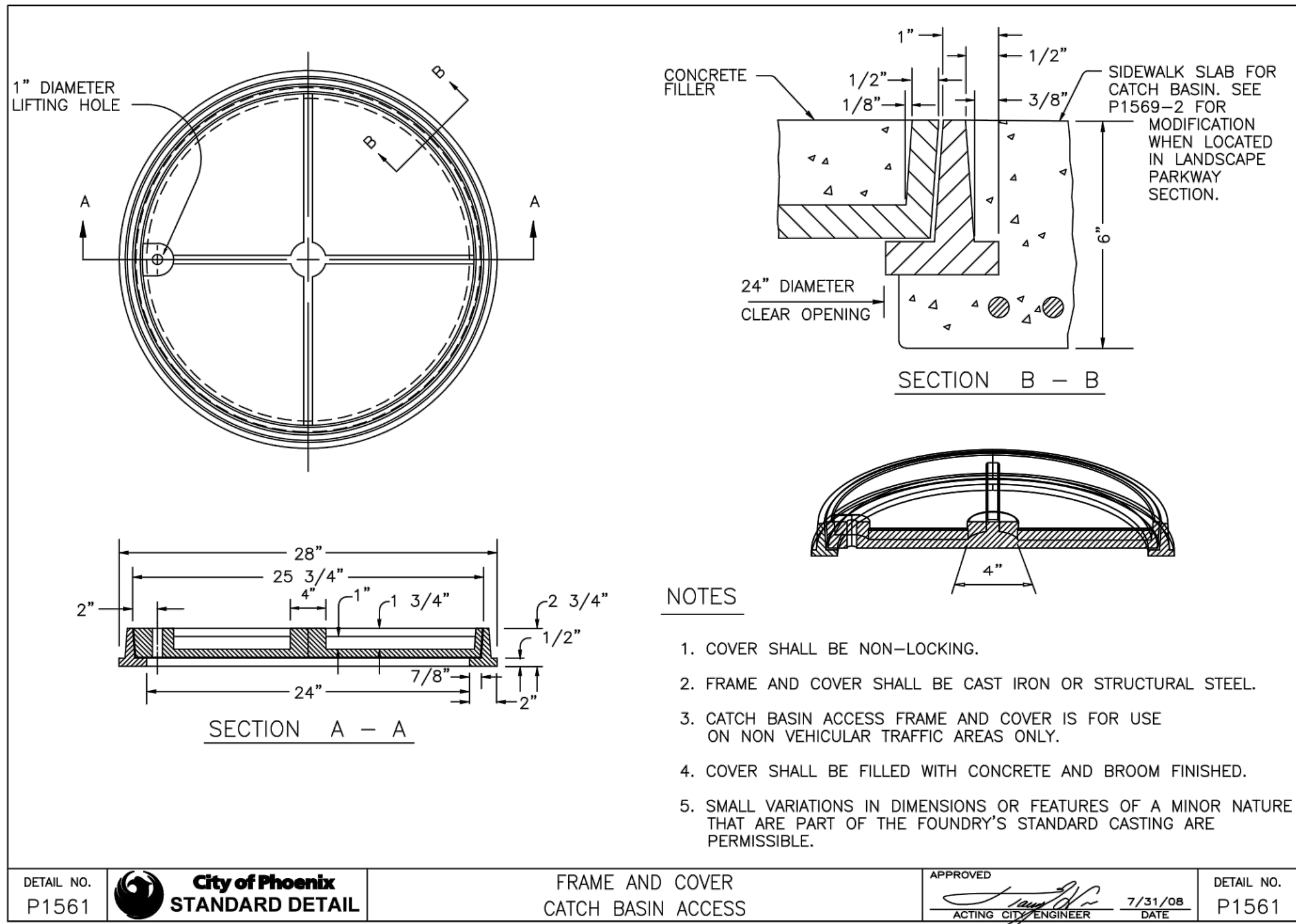
Expires 12/31/21

Date 7/23/2021 Job No. 385-17 Sheet 18 of 20

- RIPRAP NOTES**
1. THE STONE SHOULD BE REASONABLY WELL GRADED THROUGHOUT THE IN-PLACE LAYER THICKNESS.
 2. OVERSIZE STONE, EVEN IN ISOLATED SPOTS, SHOULD BE REMOVED INDIVIDUALLY AND REPLACED WITH PROPER SIZE STONES.
 3. SIDE SLOPES ON WHICH STONE IS PLACED BY MACHINE OR DUMPED SHOULD NOT BE STEEPER THAN 3:1.
 4. THE STONE SHALL BE PLACED TO FORM AN INTERLOCKED, DENSE, UNIFORM MASS OF DURABLE STONES.
 5. MINIMUM SPECIFIC WEIGHT OF STONE SHOULD BE 165 LB/C.F.
 6. ALL RIPRAP SHALL BE INDIGENOUS TO SITE.

FILE NAME:
DATE PLOTTED:

1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



DETAILS

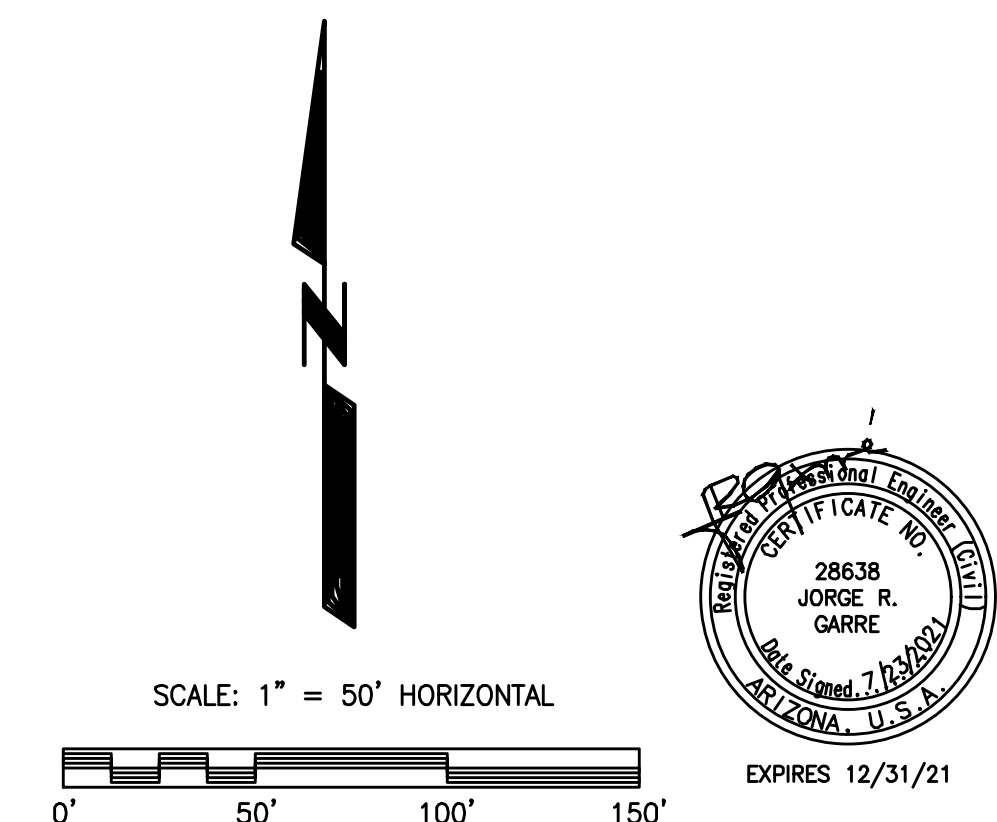
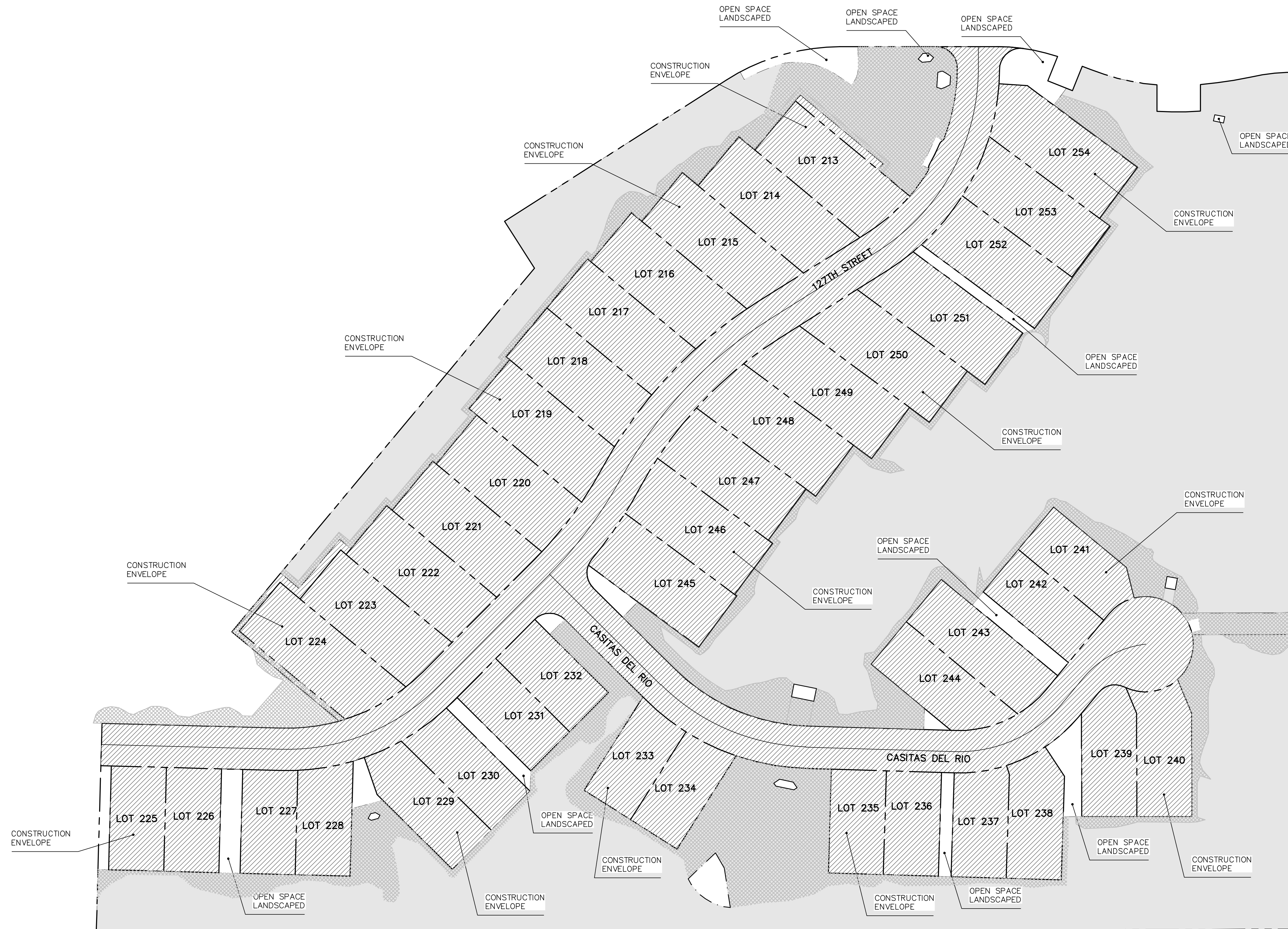
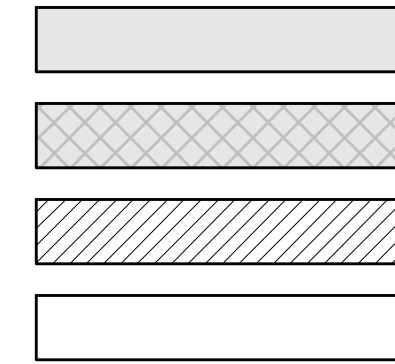
IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA

Date 7/23/2021 Job No. 385-17 Sheet 19 of 20

FILE NAME:
DATE PLOTTED:

(THIS PLAN)

TOTAL NAOS AREA:
340,037 SQ. FT.
UNDISTURBED NAOS AREA: 78.92%
268,353 SQ. FT.
REVEGETATED NAOS AREA: 21.08%
71,684 SQ. FT.
DISTURBED AREA:
369,244 SQ. FT.
OPEN SPACE LANDSCAPED:



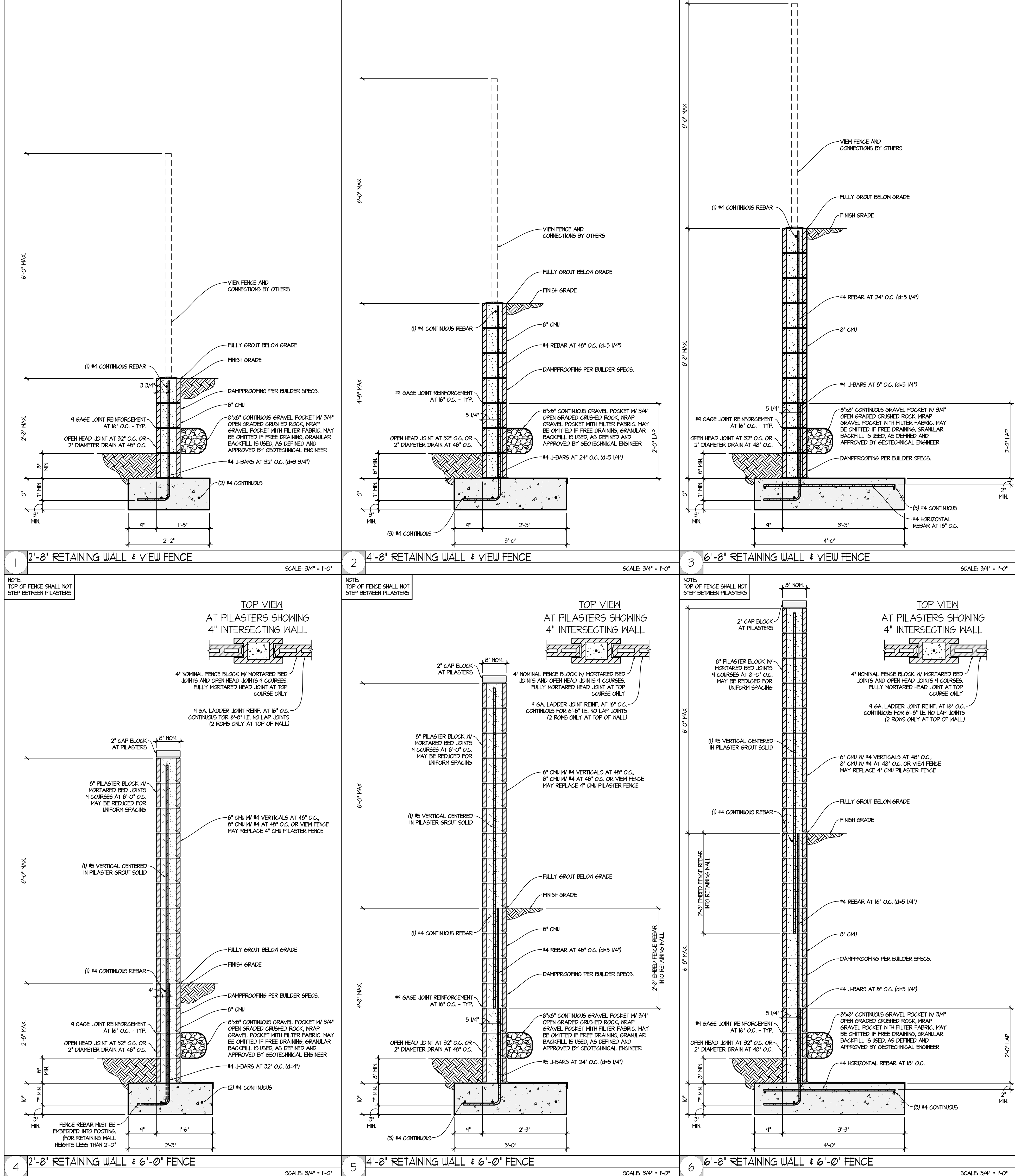
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NAOS & CONSTRUCTION ENVELOPE PLAN

IMPROVEMENT PLANS
SERENO CANYON PARCEL H, PHASE 4
SCOTTSDALE - ARIZONA



1-ZN-2005#2 16-ZN-2011 51-DR-2017 16-PP-2017



CONCRETE 1. ALL MATERIALS, PROCEDURES, PLACEMENT, FORMWORK, LAPS, ETC. TO CONFORM TO THE LATEST ACI STANDARDS. 2. SHALL MEET ALL THE REQUIREMENTS OF ACI 301, TYPE II CEMENT UNO. MINIMUM STRENGTHS AT 28 DAYS SHALL BE AS FOLLOWS, UNO: CONCRETE FOOTINGS - 2500 PSI; CONCRETE WALLS 3000 PSI 3. MAXIMUM SIZE OF AGGREGATE SHALL BE 1 INCH. AGGREGATE PER ASTM C51 OR C33. 4. MAXIMUM SLUMP TO BE 8 INCHES. 5. CALCIUM CHLORIDE OR ADVENTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED AS ADDITIVES. 6. FLYASH MAY BE USED PROVIDED IT MEETS ASTM C49 TYPE F AND DOES NOT EXCEED 20% OF THE WEIGHT OF TOTAL CEMENTITIOUS MATERIAL FOR CONCRETE STRENGTH UP TO AND INCLUDING 3000 PSI. 7. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH FROM COLD OR HOT WEATHER IN COMPLIANCE WITH ACI 305 AND ACI 306. 8. THE CONTRACTOR SHALL PROVIDE PROPER CURING TO MINIMIZE SHRINKAGE CRACKING AND ENSURE PROPER STRENGTH GAIN. 9. EVALUATION AND ACCEPTANCE OF CONCRETE SHALL BE BASED ON CYLINDER STRENGTH TESTS AS OUTLINED IN THE APPLICABLE BUILDING CODE.
MASONRY 1. ALL MATERIALS, PROCEDURES, PLACEMENT, LAPS, ETC. TO CONFORM TO THE LATEST ACI STANDARDS. 2. CONCRETE MASONRY UNITS - NET AREA COMPRESSIVE STRENGTH OF CMU = 1900 PSI, ASTM C90, GRADE N. Fm = 1500 PSI 3. GROUT - 2000 PSI CONFORMING TO ASTM C476. 4. MORTAR - TYPE S - 1800 PSI PORTLAND CEMENT / LIME OR MORTAR CEMENT CONFORMING TO ASTM C270. MORTAR MAY BE USED IN LIEU OF GROUT IN THE PLASTER CELL PROVIDED THAT THE MORTAR IS PLACED IN 8 INCH LIFTS AS THE FENCE IS BUILT. 5. JOINT REINFORCING Rf = 10000 PSI CONFORMING TO ASTM A801. 6. IN 4" FENCE BLOCKS, JOINT REINFORCING TO BE CONTINUOUS (NO SPLICES) AT THE BOTTOM OF THE FIRST AND THIRD COURSE FROM THE TOP OF THE WALL AS SHOWN IN THE DRAWINGS, AS AN ALTERNATE, JOINT REINFORCING MAY BE SPLICED WITH NO LAP PROVIDED THAT AN ADDITIONAL ROW OF JOINT REINFORCING IS PLACED AT THE BOTTOM OF THE SECOND AND FOURTH COURSE FROM THE TOP OF THE WALL AND PROVIDED THAT THE SPLICES BETWEEN ADJACENT ROWS OF JOINT REINFORCING ARE STAGGERED BY A MINIMUM OF 4 FEET. 7. ALL REINFORCED CELLS OR PLASTERS SHALL BE SOLID GROUTED. 8. MASONRY UNITS AND MORTAR THAT ARE IN DIRECT CONTACT WITH NATIVE SOILS CONTAINING WATER SOLUBLE SULFATES SHALL BE ADDRESSED BY THE CONTRACTOR. 9. CMU EXPOSURE TO WATER (BOTH ABOVE AND BELOW GRADE) IS NOT ADDRESSED IN THIS DESIGN AND SHALL BE ADDRESSED BY THE CONTRACTOR. 10. PROVIDE VERTICAL CONTROL JOINTS IN WALL AT APPROXIMATELY 24" SPACING. 11. MAXIMUM VERTICAL GROUT LIFT IS 4'-0" WITHOUT CLEAN OUTS AND 8'-0" WITH CLEANOUTS - UNO. CLEANOUTS PROVIDE CLEANOUTS IN THE BOTTOM COURSE OF MASONRY FOR EACH GROUT POUR WHEN THE GROUT POUR HEIGHT EXCEEDS 4'-0". CONSTRUCT CLEANOUTS SO THAT THE SPACE TO BE GROUTED CAN BE CLEANED AND INSPECTED IN SOLID GROUTED MASONRY. SPACE CLEANOUTS HORIZONTALLY A MAXIMUM OF 32" O.C. CONSTRUCT CLEANOUTS WITH AN OPENING OF SUFFICIENT SIZE TO PERMIT REMOVAL OF DEBRIS. THE MINIMUM OPENING DIMENSION SHALL BE 3", AFTER CLEANING, CLOSE CLEANOUTS WITH CLOSURES BRACED TO RESIST GROUT PRESSURE. 12. MASONRY VENEERS SHALL BE ANCHORED PER ONE OF THE METHODS SPECIFIED IN THE CURRENT ADOPTED CODE WITH A MINIMUM OF ONE 22 GAUGE GALVANIZED METAL ANCHOR FOR EACH TWO SQUARE FEET OF WALL AREA. 13. STEEL LINTELS OVER MASONRY OPENINGS SHALL BE MANUFACTURED BY POWERS STEEL, P50 L2, ER-4541E.
STEEL REINFORCEMENT 1. SHALL BE SUPPLIED AND INSTALLED PER THE LATEST ACI STANDARDS. 2. USE ASTM A601 GRADE 60 3. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3" EXPOSED TO EARTH OR WEATHER 1 1/2" NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND 3/4" 4. UNLESS NOTED OTHERWISE, LAP SPLICES SHALL BE 48 BAR DIAMETERS MINIMUM. STAGGER ALTERNATE SPLICES A MINIMUM OF 1 LAP LENGTH. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. 5. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. 6. IN ADDITION TO TYPICAL REINFORCEMENT USE (1) #4 VERTICAL REBAR AT ALL WALL INTERSECTIONS, CORNERS, EACH SIDE OF OPENINGS, ENDS OF WALLS AND CONTROL JOINTS, AND AT ALL LOCATIONS INDICATED ON PLANS.
GRADING AND DRAINAGE 1. PROPER GRADING SHALL BE PROVIDED DURING CONSTRUCTION AS WELL AS THROUGHOUT THE LIFE OF THE STRUCTURE. 2. LANDSCAPE WATERING SHOULD NOT LEAD TO MOISTURE INFILTRATION OR MOISTURE CONTENT FLUCTUATION IN THE SOILS UNDER THE FOUNDATION. IT IS RECOMMENDED THAT VEGETATION BE KEPT A MINIMUM OF 3 FEET FROM THE STRUCTURE AND THAT THE VEGETATION BE DESERT TYPE (SHALLOW WATERING, MOISTURE NOT TO PENETRATE INTO THE SOIL MORE THAN 8 INCHES). 3. IT IS RECOMMENDED THAT TREES BE KEPT AWAY FROM THE STRUCTURE SUCH THAT THE DRIP LINE OF THE MATURE TREE DOES NOT OVERLAP THE FOUNDATION.
SULFATES SULFATE EXPOSURE = NOT REPORTED CONCRETE THAT IS IN DIRECT CONTACT WITH NATIVE SOILS CONTAINING WATER-SOLUBLE SULFATES SHALL CONFORM TO THE FOLLOWING: NEGLECTIBLE, SO < 0.02% NO SPECIAL REQUIREMENTS. MODERATE, 0.02% < SO < 0.20% CONCRETE SHALL BE MADE WITH ASTM C 150 TYPE I CEMENT, OR AN ASTM C 595 OR C 151 HYDRAULIC CEMENT MEETING MODERATE SULFATE-RESISTANT HYDRAULIC CEMENT (M5) DESIGNATION. SEVERE, 0.20% < SO < 2.00% CONCRETE SHALL BE MADE WITH ASTM C 150 TYPE V CEMENT, OR AN ASTM C 595 OR C 151 HYDRAULIC CEMENT MEETING HIGH SULFATE-RESISTANT HYDRAULIC CEMENT (H5) DESIGNATION. VERY SEVERE, SO > 2.00% CONCRETE SHALL BE MADE WITH ASTM C 150 TYPE V CEMENT, OR AN ASTM C 595 OR C 151 HYDRAULIC CEMENT MEETING HIGH SULFATE-RESISTANT HYDRAULIC CEMENT (H5) DESIGNATION AND POZZOLAN OR SLAS DETERMINED BY SERVICE RECORD.
WIND 1. 13.5 PSF LATERAL WIND PRESSURE, 2015 IBC, 105 MPH, EXP. C ASCE 7-10 + A NET FORCE COEFFICIENT OF 1.3 MAY BE USED
DISCREPANCIES 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND CONDITIONS WITH THE DRAWINGS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS. ANY SUCH DISCREPANCIES, OMISSIONS, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 2. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.
DAMPPOOFING 1. DAMPPOOFING OF THOSE PORTIONS OF FENCES BELOW GRADE IS NOT REQUIRED PER CODE, BUT MAY BE USED BY CONTRACTOR AT THEIR DISCRETION. 2. AS AN ALTERNATE TO DAMPPOOFING, INTEGRAL WATER REPELLANT UNITS AND WATER REPELLANT MORTAR MAY BE USED.
METHOD OF CONSTRUCTION 1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURE. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE ADEQUATE SHORING AND BRACING DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. 3. THE CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT OR ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK AFFECTED.
GENERAL 1. ALL WORK SHALL COMPLY WITH THE GENERAL NOTES, DRAWINGS, APPLICABLE BUILDING CODES AND ALL LOCAL ORDINANCES, LAWS, REGULATIONS, AND PROTECTIVE COVENANTS GOVERNING THE SITE OF WORK. 2. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. 3. TYPICAL DETAILS SHALL APPLY UNLESS SHOWN OTHERWISE IN THE DRAWINGS. 4. NO STRUCTURAL MEMBERS SHALL BE CUT, NOTCHED OR OTHERWISE PENETRATED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER IN ADVANCE OR AS SHOWN ON THESE DRAWINGS. 5. THE STANDARD OF CARE FOR ALL PROFESSIONAL ENGINEERING, AND RELATED SERVICES PERFORMED OR FURNISHED BY FELTEN GROUP, WILL BE THE CARE AND SKILL, ORDINARILY USED BY MEMBERS OF THE SUBJECT PROFESSION PRACTICING UNDER SIMILAR CIRCUMSTANCES AT THE SAME TIME AND IN THE SAME LOCALITY. FELTEN GROUP MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OR OTHERWISE IN CONNECTION WITH FELTEN GROUP'S SERVICES. FELTEN GROUP AND ITS CONSULTANTS MAY USE OR RELY UPON THE DESIGN SERVICES OF OTHERS, INCLUDING, BUT NOT LIMITED TO, ENGINEERS, ARCHITECTS, DESIGNERS, CONTRACTORS, MANUFACTURERS, AND SUPPLIERS. 6. ALL DESIGN DOCUMENTS PREPARED OR FURNISHED BY FELTEN GROUP ARE INSTRUMENTS OF SERVICE, AND FELTEN GROUP RETAINS OWNERSHIP AND PROPERTY INTEREST (INCLUDING THE COPYRIGHT) IN SUCH DOCUMENTS, WHETHER OR NOT THE PROJECT IS COMPLETED. CLIENT SHALL NOT REUSE THE DOCUMENTS WITHOUT WRITTEN PERMISSION FROM FELTEN GROUP. 7. THE CONTRACTOR, NOT FELTEN GROUP, IS RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT, AND FELTEN GROUP IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF ANY CONTRACTOR, SUBCONTRACTOR OR MATERIAL SUPPLIER. FOR SAFETY PRECAUTIONS, PROGRAMS OR ENFORCEMENT, OR FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES EMPLOYED BY THE CONTRACTOR. FELTEN GROUP SHALL NOT AT ANY TIME SUPERVISE, DIRECT, OR HAVE CONTROL OVER ANY CONTRACTORS WORK. 8. FELTEN GROUP NEITHER GUARANTEES THE PERFORMANCE OF ANY CONTRACTOR NOR ASSUMES RESPONSIBILITY FOR ANY CONTRACTOR'S FAILURE TO FURNISH AND PERFORM ITS WORK IN ACCORDANCE WITH THE CONTRACT BETWEEN CLIENT AND SUCH CONTRACTOR. 9. FELTEN GROUP WILL NOT HAVE CONTROL, OVER NOR BE NEITHER RESPONSIBLE NOR LIABLE IN ANY WAY FOR SAFETY PROCEDURES, SAFETY TRAINING AND PROGRAMS OR OTHER SAFETY RELATED ASPECTS OF THE WORK OF THE PROJECT SINCE THESE ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. 10. WALL HEIGHT SHOWN BASED ON ACTUAL 8'-TALL BLOCK HEIGHT 11. TOP OF FENCE SHALL NOT STEP BETWEEN PILASTERS 12. IBC SECTION 1015 WHERE REQUIRED, GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES THAT ARE LOCATED MORE THAN 30 INCHES (762 MM) MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES (914 MM) HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT IN ACCORDANCE WITH IBC 1607.8. REQUIRED GUARDS SHALL NOT BE LESS THAN 42 INCHES (1067 MM) HIGH, MEASURED VERTICALLY. REQUIRED GUARDS SHALL NOT HAVE OPENINGS WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES (102 MM) IN DIAMETER FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT.
SUBSTITUTIONS 1. ALL PRODUCT SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR TO SUBMIT DOCUMENTATION TO DEMONSTRATE THAT THE PROPOSED SUBSTITUTION IS EQUAL TO THE SPECIFIED PRODUCT. PRODUCT SUBSTITUTIONS MAY BE USED PROVIDED THEY ARE APPROVED BY THE ENGINEER OF RECORD IN WRITING.
SPECIAL INSPECTION 1. SPECIAL INSPECTION SHALL BE PROVIDED AS REQUIRED BY THE LOCAL BUILDING OFFICIAL.
SOILS INFORMATION GEOTECHNICAL REPORT BY: PROTEX GEOTECHNICAL REPORT # 8286 GEOTECHNICAL REPORT DATE: 10/02/2018 ALL EXCAVATION, FILL, COMPACTION AND SOIL RELATED OPERATIONS SHALL BE PERFORMED ACCORDING TO GEOTECHNICAL REPORT RECOMMENDATIONS.

TOLL BROTHERS

GENERAL STRUCTURAL NOTES

RETAINING WALL DETAILS

ARCHITECTURE | ENGINEERING | FORENSICS

PHONE: 802.887.2500

WWW.FELTENGROUP.COM

REGISTERED PROFESSIONAL ENGINEER

27867

GREG N. FELTEN

State of Arizona

Arizona U.S.A.

PROJECT MANAGER

J. FREYE

JOB NUMBER

AZ-FE18-008320

DATE

08/22/2018

MUNICIPAL COMMENTS

01/12/17-20210

BUILDER REVISION

01/26/2021

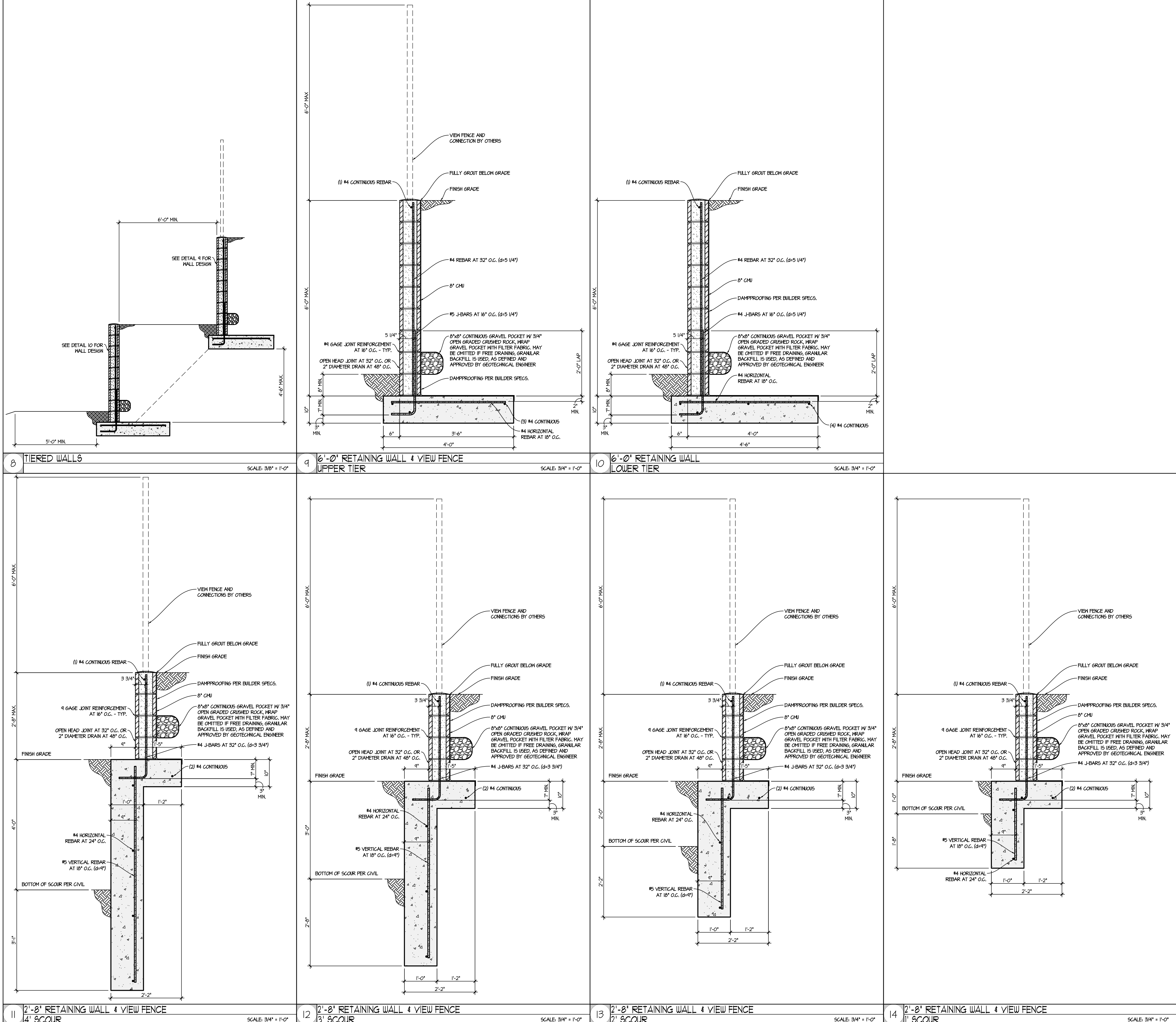
SUBVISION

SERENO

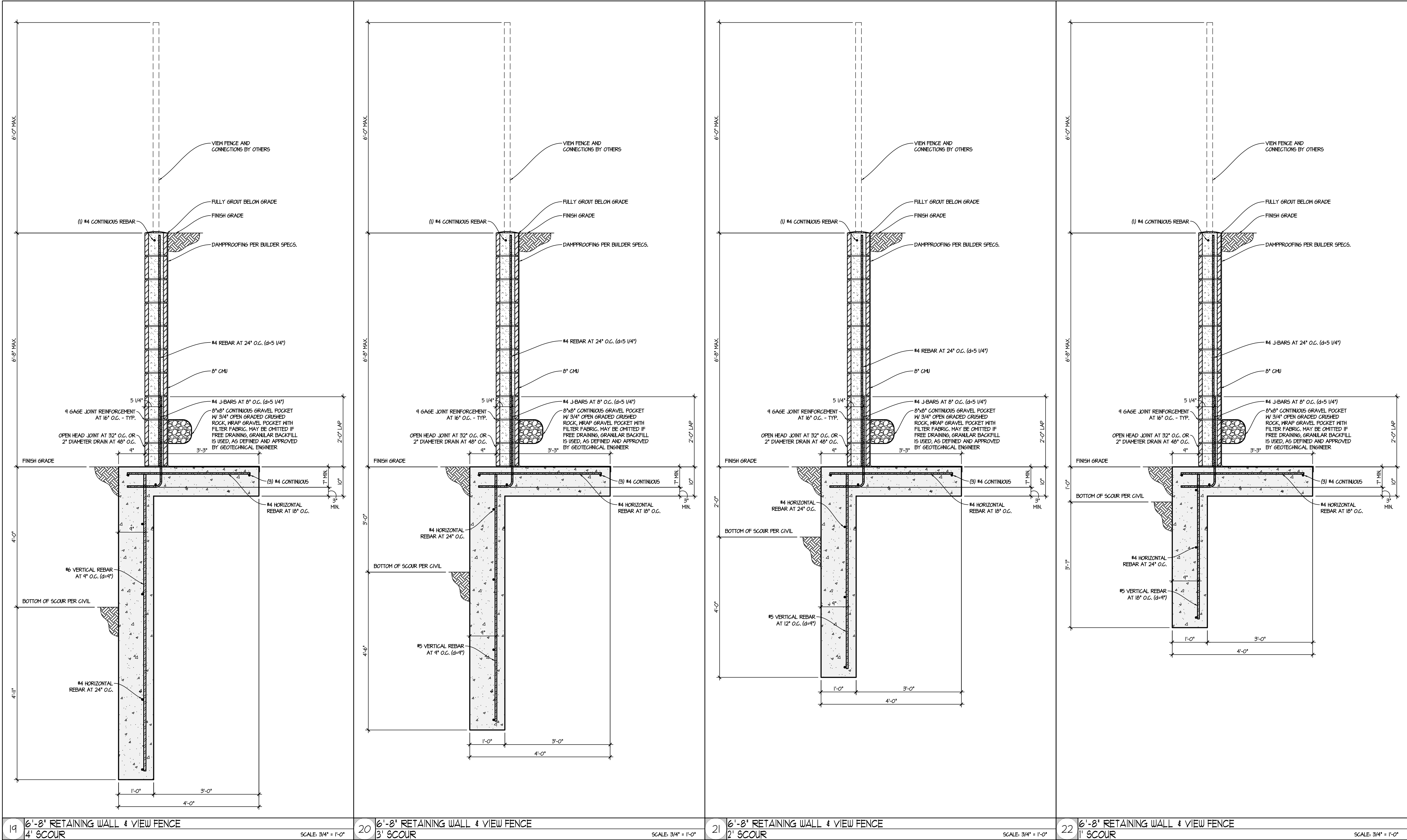
STRUCTURAL WALLS

SHEET NUMBER

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REGISTERED PROFESSIONAL ENGINEER
27867
GREG N. FELTEN
Date: 08/22/2018
AZ-18-008320
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MUNICIPAL COMMENTS
01/22/2020
BUILDER REVISION
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SERENO
STRUCTURAL WALLS
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SD.4

TITLE
SCOUR WALL DETAILS

TOLL BROTHERS
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

FELTEN GROUP
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

PROJECT MANAGER
J. FREYE
JOB NUMBER
AZ-18-008320
DATE
08/22/2018
MUNICIPAL COMMENTS
01/22/2020
BUILDER REVISION
01/26/2021
SUBDIVISION
SERENO
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SD.4

TITLE
SCOUR WALL DETAILS

TOLL BROTHERS
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

FELTEN GROUP
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

REGISTERED PROFESSIONAL ENGINEER
27867
GREG N. FELTEN
Date: 08/22/2018
AZ-18-008320
AZ-18-008320
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MUNICIPAL COMMENTS
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TOLL BROTHERS
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

FELTEN GROUP
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

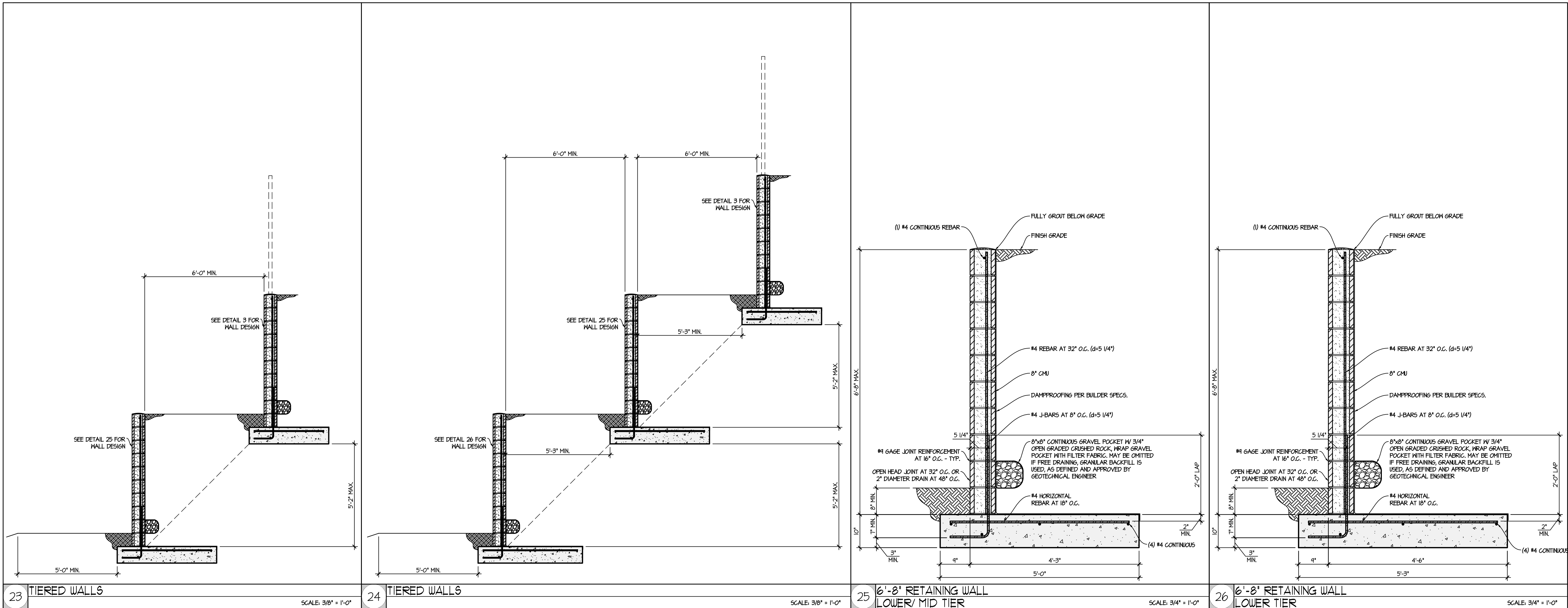
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27867
GREG N. FELTEN
Date: 08/22/2018
AZ-18-008320
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SCOUR WALL DETAILS

TOLL BROTHERS
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

FELTEN GROUP
ARCHITECTURE | ENGINEERING | FORENSICS
PHONE: 802.887.2500 WWW.FELTENGROUP.COM

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27867

GREG N. FELTEN

Professional Engineer

Arizona

2020

01/26/2021

PROJECT MANAGER

J. FREYE

JOB NUMBER

AZ-FE18-008320

DATE

08/22/2018

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SUBDIVISION

SERENO

STRUCTURAL WALLS

SHEET NUMBER

SD.5

RETAINING WALL DETAILS

TITLE

TOLL BROTHERS

ARCHITECTURE | ENGINEERING | FORENSICS

PHONE: 802.887.2500 WWW.FELTENGROUP.COM

FELTENGROUP

ARCHITECTURE | ENGINEERING | FORENSICS

PHONE: 802.887.2500 WWW.FELTENGROUP.COM