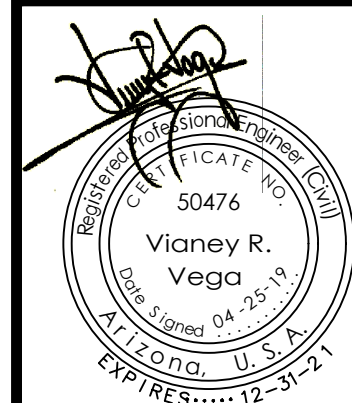


1846 S. 8th AVENUE 928-329-0000 TEL
YUMA, AZ. 85364 928-247-6232 FAX
VnV@veganvega.com



Cover Sheet



Notes

Scale: N.T.S.	Date: APR. 2019
Drawn: Staff	Job #: VnV18-950
Checked: Vna	

Sheet

1

[illegible]

4. THE LOCATION OF UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES SHOWN HERE ARE FOR THE PURPOSE OF ASSISTING THE CONTRACTOR IN LOCATING SAID UTILITIES. THE CONTRACTOR IN ACCORDANCE WITH ARIZONA STATUTES SHALL CONTACT THE ARIZONA BLUE STAKE SYSTEM AT 1-800-451-7346 FOR 48 HOURS MAX. PRIOR TO THE BEGINNING OF CONSTRUCTION AND OBTAIN ON-SITE UTILITIES LOCATIONS. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DAMAGED TO A UTILITY SHALL BE REPAIRED AT THE CONTRACTOR EXPENSE.
5. ALL CITY REQUIRED COMPACTION AND LABORATORY TESTS SHALL BE FURNISHED BY THE CONTRACTOR TO THE CITY PRIOR TO ACCEPTANCE OF THE PROJECT.
6. THE CONTRACTOR SHALL GUARANTEED ALL MATERIALS AND WORKSMANSHIP FOR TWO YEARS AFTER THE FINAL ACCEPTANCE. ANY DEFECTIVE MATERIAL OR WORKSMANSHIP SHALL BE REPLACED AND/OR REPAIRED PRIOR TO FINAL ACCEPTANCE.
7. ALL ROAD SURFACES, EASEMENTS OR RIGHT OF WAY'S DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENTS ARE TO BE RESTORED COMPLETELY BY THE CONTRACTOR TO THE BEFORE CONSTRUCTION CONDITION OR BETTER.
8. DURING CONSTRUCTION, THE DEVELOPER/OWNER IS SOLELY RESPONSIBLE FOR INSURING THE PROPER FUNCTIONING OF THE EROSION AND SEDIMENT CONTROL MEASURES. THE DEVELOPER/OWNER SHALL TAKE WHATEVER MEASURES ARE REQUIRED TO INSURE THAT NO SEDIMENT LEAVES THE SITE.
9. REFER TO SHEETS 1 OF 1 OF FINAL PLAN FOR ALL CORRECT DIMENSIONS.
10. SEE SUBDIVISION PLAN FOR ALL BOUNDARY INFORMATION AND DIMENSIONS; DO NOT SCALE.
11. ALL MATERIALS AND CONSTRUCTION HEREON SHALL CONFORM TO CURRENT CITY OF SAN LUIS SPECIFICATIONS AND CONSTRUCTION STANDARDS UNLESS OTHERWISE SHOWN ON THESE PLANS.
12. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO VARIOUS FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
13. NO STREET, WATER, SEWER AND IMPROVEMENTS TO BE ACCEPTED BY THE CITY OF SAN LUIS, FOR MAINTENANCE UNTIL "AS-BUILT", CERTIFIED. REPRODUCIBLE PLANS ARE FILED WITH AND ACCEPTED BY THE CITY OF SAN LUIS PUBLIC WORKS DIRECTOR.
14. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL, LOCAL, STATE, AND FEDERAL SWPPP REQUIREMENTS AND BMPs.

SAM GROUP INVESTMENTS CO. LIMITED PARTNERSHIP
10602 S. CAMINO DEL SOL
YUMA, AZ. 85367

THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 15,
T11S, R24W, G.&S.R. B.&M., YUMA COUNTY, ARIZONA (BEING
THIS LINE THE CENTERLINE OF AVENUE E), AS SHOWN ON YUMA
AREA SERVICE HIGHWAY RESULTS OF SURVEY, AS RECORDED
IN BOOK 3 OF SURVEYS, PAGE 44, YUMA COUNTY RECORDERS
OFFICE.

BEARING N 00°27'40" E

TOP OF BRASSCAP LOCATED AT THE INTERSECTION OF AVENUE 'E' AND Co. 24th 1/2 STREET. THIS POINT ALSO BEING THE E 1/4 CORNER OF SECTION 15, T11S, R24W, G.&S.R. B.&M.

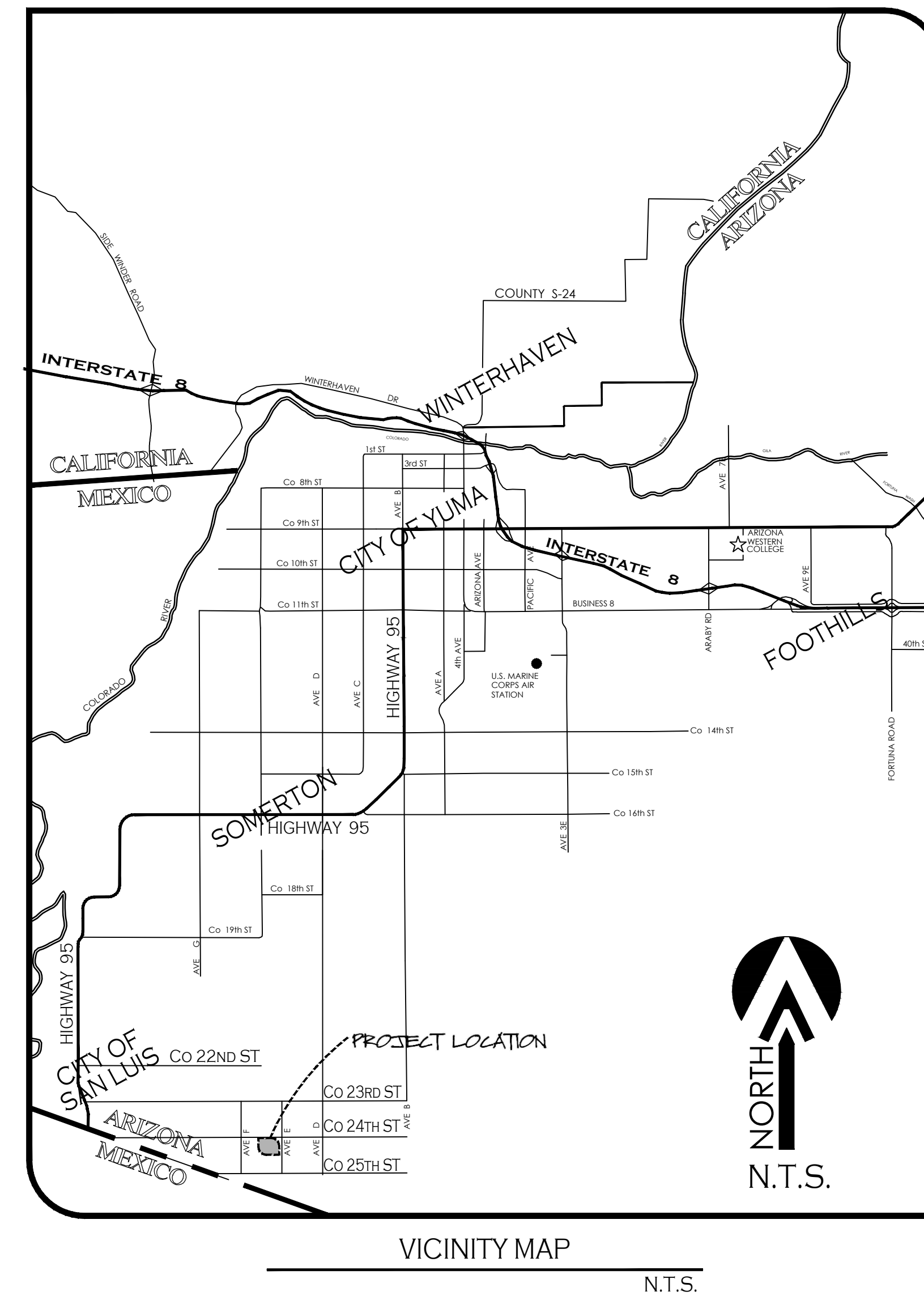
ELEVATION: 159.50 FEET

VnV18-95

 VEGA & VEGA
ENGINEERING, P.L.L.C.

1846 S. 8th Avenue 928-329-0000 Tel
Yuma, Az. 85364 928-247-6232 Fax
www.vegaNvega.com

	INDICATES EX. ASPHALT PAVEMENT
	INDICATES EX. CONCRETE
	INDICATES BOUNDARY LINE
	INDICATES CENTERLINE
	INDICATES RIGHT-OF-WAY LINE
	INDICATES EX. CMU WALL
	INDICATES EX. WATER LINE



N.T.S.



N.T.S.



FINAL PLAT

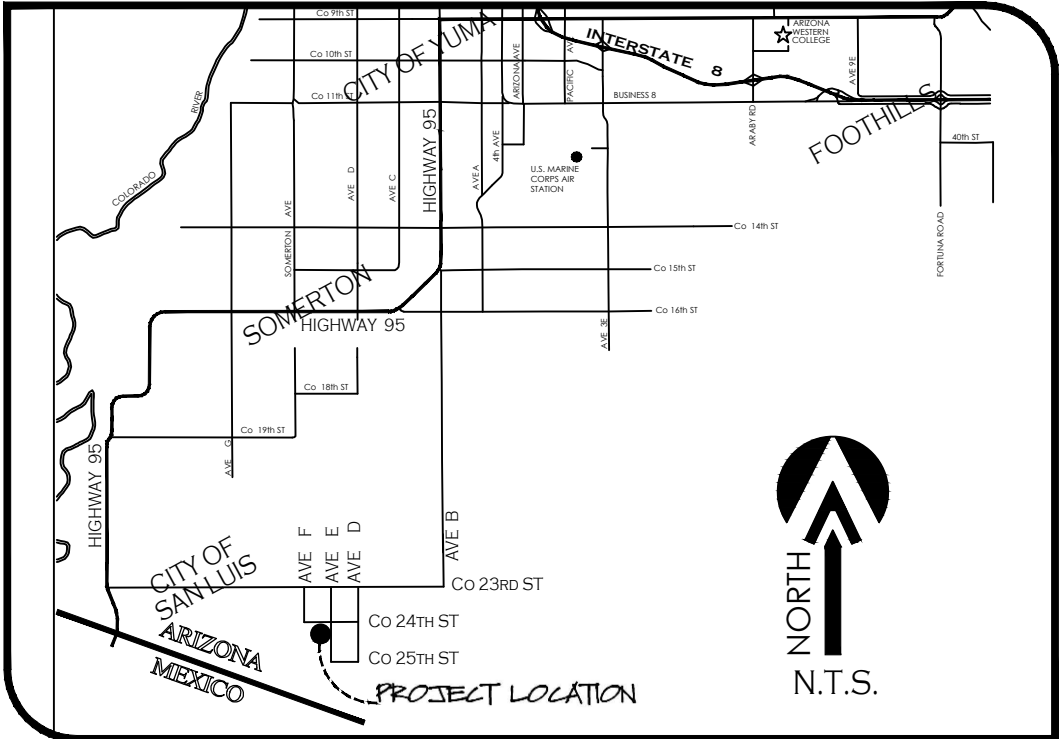


BELLEZA DEL DESIERTO PHASE 1 SUBDIVISION

A SUBDIVISION OF A PORTION OF LOT 14 OF SOUTHWEST ARIZONA INDUSTRIAL SUBDIVISION (PHASE 1),
AS RECORDED IN BOOK 28 OF PLATS, PAGES 49, YUMA COUNTY RECORDERS OFFICE, YUMA COUNTY, AZ

APRIL OF 2019 ACREAGE: 18.69 AC

FINAL PLAT



VICINITY MAP

OWNER OF RECORD:
SAM GROUP INVESTMENTS CO. LIMITED PARTNERSHIP
10602 S. CAMINO DEL SOL
YUMA, AZ 85367

BASIS OF BEARING
THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 15,
T11S, R24W, G.S.R. 8&M, YUMA COUNTY, ARIZONA (BEING
THIS LINE THE CENTERLINE OF AVENUE E), AS SHOWN ON YUMA
AREA SERVICE HIGHWAY RESULTS OF SURVEY, AS RECORDED
IN BOOK 3 OF SURVEYS, PAGE 44, YUMA COUNTY RECORDERS
OFFICE.

BEARING N 00°27'40" E

KEYNOTES
① NEW 8" UTILITY EASEMENT
② NEW 1" NON-ACCESS EASEMENT

NOTE
♦ PROPERTY CORNERS TO BE MARKED BY 1/2" DIAMETER REBAR
TAGGED WITH CAP L.S. 16528
♦ PROJECT ZONING: R-1-6

ELABORATED BY:
VNV18-350

VEGA & VEGA
ENGINEERING & PLLC
1846 S. 8th Avenue 928-329-0000 Tel
Yuma, Az. 85364 928-247-6232 Fax
www.vegaengineers.com

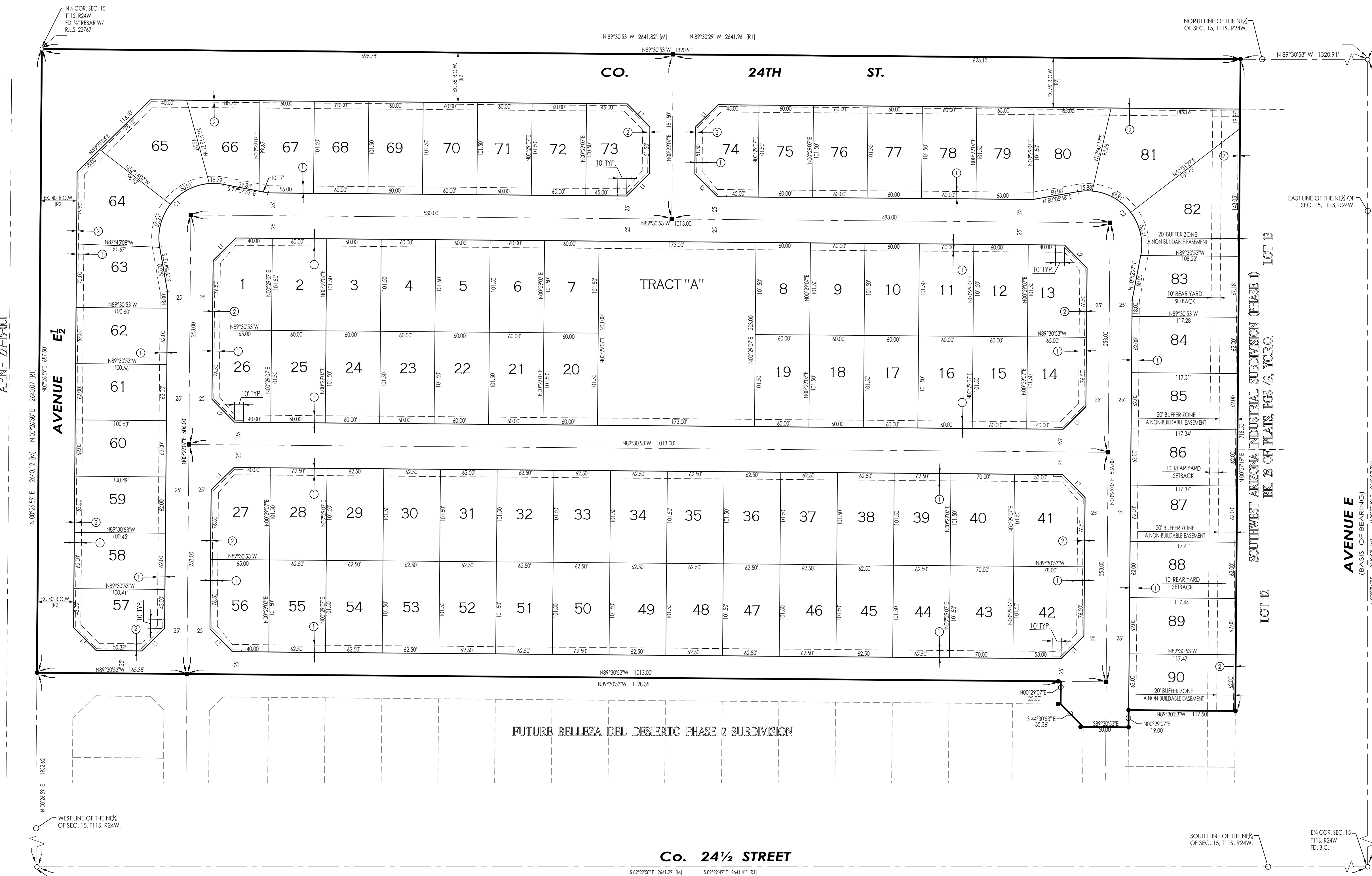
LEGEND

—	INDICATES BOUNDARY LINE
- - -	INDICATES CENTERLINE
- - -	INDICATES EASEMENT LINE
11	NEW LOT NUMBER
•	SET PROPERTY CORNERS TO BE MARKED BY 1/2" DIA. REBAR TAGGED WITH CAP L.S. 16528 (UNLESS NOTED OTHERWISE)
■	NEW YUMA COUNTY STD. DETAIL NO. 4-080 STREET MONUMENT
○	EXISTING MONUMENT (TYPE AS SHOWN)
B.C.	INDICATES BRASS CAP
Y.C.R.	INDICATES YUMA COUNTY RECORDERS
G.L.O.	INDICATES GENERAL LAND OFFICE
N.A.E.	INDICATES NON ACCESS EASEMENT
[M]	INDICATES MEASURED DATA
[R1]	DATA REFERS YUMA AREA SERVICE HIGHWAY RESULTS OF SURVEY, AS RECORDED IN BOOK 3 OF SURVEYS, PAGE 44, YUMA COUNTY RECORDERS OFFICE.
[R2]	DATA REFERS TO SOUTHWEST ARIZONA INDUSTRIAL SUBDIVISION (PHASE 1), AS RECORDED IN BOOK 28 OF PLATS, PAGES 49, YUMA COUNTY RECORDERS OFFICE, YUMA COUNTY, AZ

LAND SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT I AM A LAND SURVEYOR LISTED ON THE ROSTER OF ACTIVE REGISTRANTS BY THE STATE BOARD OF TECHNICAL REGISTRATION OF ARIZONA AND THAT THIS MAP CONSISTING OF TWO SHEETS (2) SHEET CORRECTLY REPRESENTS A SURVEY MADE UNDER MY SUPERVISION DURING THE YEAR OF 2018 THAT ALL MONUMENTS SHOWN HEREON ACTUALLY EXIST AND THEIR POSITIONS ARE CORRECTLY SHOWN, OR WILL BE IN PLACE WITHIN ONE YEAR FROM RECORDATION OF THIS MAP. THE MONUMENTS WILL BE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THE SURVEY IS TRUE AND COMPLETE AS SHOWN. ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS PARTS.

BY: *John C. English II*
JOHN C. ENGLISH II
04/25/19
R.L.S. No. 16528



LINE DATA

NUMBER	LENGTH	BEARING
L1	35.36	N 45°29'07" E
L2	35.36	S 44°30'53" E
L3	35.37	N 44°31'57" W

CURVE DATA

NUMBER	DELTA ANGLE	CHORD DIRECTION	CHORD LENGTH	TANGENT	RADIUS	ARC LENGTH
C1	110°46'40"	S 45°29'07" W	98.76	86.94	60.00'	116.01'
C2	110°46'40"	S 44°30'53" E	98.76	86.94	60.00'	116.01'

LOT AREAS TABLE:

LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)	LOT #	AREA (SF)
1	6,285.00 SF	11	6,090.00 SF	21	6,090.00 SF	31	6,343.75 SF	41	7,604.50 SF	51	6,343.75 SF	61	6,233.78 SF	71	6,090.00 SF
2	6,090.00 SF	12	6,090.00 SF	22	6,090.00 SF	32	6,343.75 SF	42	7,604.50 SF	52	6,343.75 SF	62	6,236.18 SF	72	6,090.00 SF
3	6,090.00 SF	13	6,285.00 SF	23	6,090.00 SF	33	6,343.75 SF	43	7,105.00 SF	53	6,343.75 SF	63	6,667.39 SF	73	6,480.00 SF
4	6,090.00 SF	14	6,285.00 SF	24	6,090.00 SF	34	6,343.75 SF	44	6,343.75 SF	54	6,343.75 SF	64	7,825.12 SF	74	6,480.00 SF
5	6,090.00 SF	15	6,090.00 SF	25	6,090.00 SF	35	6,343.75 SF	45	6,343.75 SF	55	6,343.75 SF	65	8,199.62 SF	75	6,090.00 SF
6	6,090.00 SF	16	6,090.00 SF	26	6,285.00 SF	36	6,343.75 SF	46	6,343.75 SF	56	6,343.75 SF	66	8,391.62 SF	76	6,090.00 SF
7	6,090.00 SF	17	6,090.00 SF	27	6,285.00 SF	37	6,343.75 SF	47	6,343.75 SF	57	6,201.41 SF	67	6,080.83 SF	77	6,090.00 SF
8	6,090.00 SF	18	6,090.00 SF	28	6,343.75 SF	38	6,343.75 SF	48	6,343.75 SF	58	6,226.59 SF	68	6,090.00 SF	78	6,090.00 SF
9	6,090.00 SF	19	6,090.00 SF	29	6,343.75 SF	39	6,343.75 SF	49	6,343.75 SF	59	6,228.99 SF	69	6,090.00 SF	79	6,394.50 SF
10	6,090.00 SF	20	6,090.00 SF	30	6,343.75 SF	40	7,105.00 SF	50	6,343.75 SF	60	6,231.39 SF	70	6,090.00 SF	80	7,138.54 SF
TRACT 11															35,119.00 SF



SCALE: 1"=60'

LEGEND

- INDICATES EX. ASPHALT PAVEMENT
- INDICATES EX. CONCRETE
- INDICATES BOUNDARY LINE
- INDICATES CENTERLINE
- INDICATES RIGHT-OF-WAY LINE
- INDICATES EX. FENCE
- INDICATES EX. CMU WALL
- INDICATES EX. ELECTRICAL OVERHEAD LINE
- INDICATES EX. WATER LINE
- INDICATES EX. SEWER LINE
- INDICATES EX. UNDERGROUND GAS LINE
- INDICATES NEW ASPHALT PAVEMENT
- INDICATES NEW CONCRETE
- INDICATES NEW CMU WALL
- INDICATES EXISTING CMU WALL
- NEW YUMA COUNTY STD. DETAIL No. 4-030 SUB'D BOUNDARY MONUMENT
- NEW YUMA COUNTY STD. DETAIL No. 4-080 STREET MONUMENT
- EXISTING MONUMENT (TYPE AS SHOWN)
- INDICATES BRASS CAP
- Y.C.R. INDICATES YUMA COUNTY RECORDERS
- PP INDICATES EXISTING POWER POLE
- [C] INDICATES CALCULATED DATA
- [M] INDICATES MEASURED DATA
- [E] INDICATES EXISTING ELECTRICAL BOX
- [J] INDICATES EXISTING JUNCTION BOX
- [T] INDICATES EXISTING TRANSFORMER
- POLE INDICATES EXISTING POLE
- GM INDICATES EXISTING GAS METER
- PP INDICATES EXISTING POWER POLE
- GW INDICATES EXISTING GUY WIRE
- INDICATES EXISTING STREET SIGN
- MH INDICATES EXISTING MANHOLE
- FH INDICATES EXISTING FIRE HYDRANT
- WM INDICATES EXISTING WATER METER
- WV INDICATES EXISTING WATER VALVE
- INDICATES EX. CURB ELEVATION
- INDICATES EX. SIDEWALK ELEVATION
- INDICATES EX. ASPHALT ELEVATION
- INDICATES EX. NATURAL SOIL ELEVATION
- INDICATES NEW ASPHALT ELEVATION
- INDICATES NEW 22' WIDE DRIVEWAY

BENCHMARK

TOP OF BRASSCAP LOCATED AT THE INTERSECTION OF AVENUE 'E' AND CO. 24TH 1/4 STREET. THIS POINT ALSO BEING THE E 1/4 CORNER OF SECTION 15, T11S, R24W, G. & S.R. 8 & M.

ELEVATION: 159.50 FEET

KEYNOTES:

- NEW VERTICAL CURB & GUTTER - SEE DETAIL (D) 2
- NEW 22' WIDE DRIVEWAY - SEE DETAIL (E) 7
- NEW 5' CONCRETE SIDEWALK - SEE DETAIL (H) 6
- NEW 4' CONCRETE SIDEWALK - SEE DETAIL (H) 2
- NEW CONCRETE SIDEWALK RAMP (25' RADIUS MEASURED TO FACE OF CURB) - SEE DETAIL (F) 2
- NEW STREET MONUMENT - SEE DETAIL (F) 2
- NEW SUB'D BOUNDARY MONUMENT - SEE DETAIL (G) 2
- NEW 8' CROSS VALLEY GUTTER W/ NEW 50' CROWN TRANSITION - SEE DETAIL (S) 3
- NEW 10' CONCRETE SPILLWAY W/ DEPRESSED SIDEWALK - SEE DETAILS (S) 3
- NEW 6' CONCRETE SPILLWAY W/ DEPRESSED SIDEWALK - SEE DETAILS (S) 3
- EXISTING COMMUNICATION BOX TO BE RELOCATED BY OTHERS
- EXISTING ELECTRICAL OVERHEAD AND POWER POLES TO BE RELOCATED
- NEW STREET LIGHT - SEE DETAIL (M) 3
- SAWCUT 1' OF EXISTING PAVEMENT, REMOVE AND REPLACE WITH NEW PAVEMENT - SEE DETAIL (L) 2
- NEW TYPE III BARRICADE - SEE DETAIL (N) 3
- NEW DOUBLE FACED STREET SIGN - SEE DETAIL (T) 3
- NEW DOUBLE FACED STREET SIGN-STOP SIGN - SEE DETAIL (T) 3
- NEW 6' HIGH CMU WALL - SEE DETAIL (J) 2
- SAWCUT AND REMOVE EXISTING PAVEMENT AS NEEDED FOR CONNECTION OF NEW WATER MAIN. REFER TO WATER & SEWER PLANS FOR MORE INFORMATION
- CONTRACTOR TO PROTECT EXISTING UNDERGROUND GAS LINE AND EXISTING GAS VALVES DURING CONSTRUCTION. IF DAMAGE OCCURS, CONTRACTOR MUST REPAIR AT HIS OWN EXPENSE.
- NEW 4' WIDE - 4" ABC SHOULDER COMPACTED TO 98% AS PER ASTM D-698 - SEE DETAIL (L) 3
- EXISTING CMU WALL

DRAINAGE REPORT

1.- DRAINAGE REPORT
DRAINAGE AREA 1

USING THE RATIONAL METHOD
Q= CIA = PEAK RUNOFF (VOL.)
(C) PEAK RATE RUNOFF = 0.43
(I) INTENSITY OF RAINFALL = 1.22 IN / HR
(A) DRAINAGE AREA = 20.26 AC
Q= (0.43)(1.22)(20.26) = 10.45 CF
TOTAL RUNOFF = 7200 (10.45) = 75,240 CF

STORAGE VOLUME PROVIDED

RETENTION BASIN #1
TOP AREA = 34,583 SF
BOTTOM AREA = 24,078 SF
DEPTH = 4 FT
VOL. PROVIDED = $\frac{34,583 + 24,078}{2} (4.0) = 117,322 \text{ CF}$
TOTAL VOL. PROVIDED = 117,322 CF
FACTOR OF SAFETY = $\frac{117,322 \text{ CF}}{75,240 \text{ CF}} = 1.56$

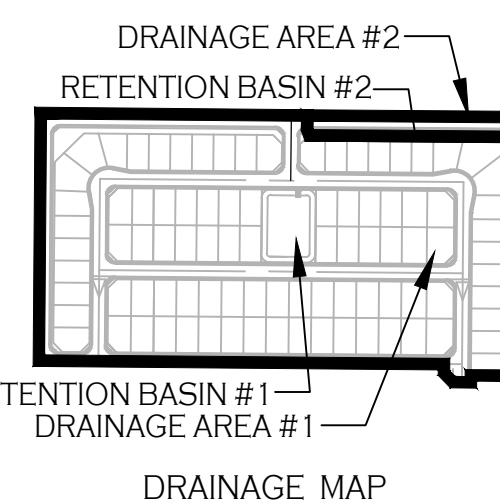
DRAINAGE AREA 2

USING THE RATIONAL METHOD
Q= CIA = PEAK RUNOFF (VOL.)
(C) PEAK RATE RUNOFF = 0.43
(I) INTENSITY OF RAINFALL = 1.22 IN / HR
(A) DRAINAGE AREA = 0.75 AC
Q= (0.43)(1.22)(0.75) = 0.39 CF
TOTAL RUNOFF = 7200 (0.39) = 2,808 CF

STORAGE VOLUME PROVIDED

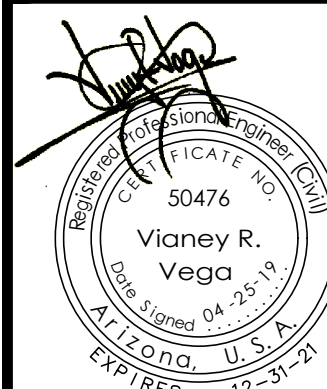
RETENTION BASIN #1
TOP AREA = 9,206 SF
BOTTOM AREA = 4,539 SF
DEPTH = 1 FT
VOL. PROVIDED = $\frac{9,206 + 4,539}{2} (1.0) = 6,873 \text{ CF}$
TOTAL VOL. PROVIDED = 6,873 CF
FACTOR OF SAFETY = $\frac{6,873 \text{ CF}}{2,808 \text{ CF}} = 2.45$

- 2.- NO OFFSITE STORMWATER WILL ENTER THE PROJECT SITE STORMWATER WILL BE RETAINED ON SITE.
- 3.- THIS PROJECT SITE IS LOCATED IN FLOOD ZONE "X" AS SHOWN ON FEMA FLOOD MAPS



Paving & Grading Plan

BELLEZA DEL DESIERTO SUBDIVISION



Notes:

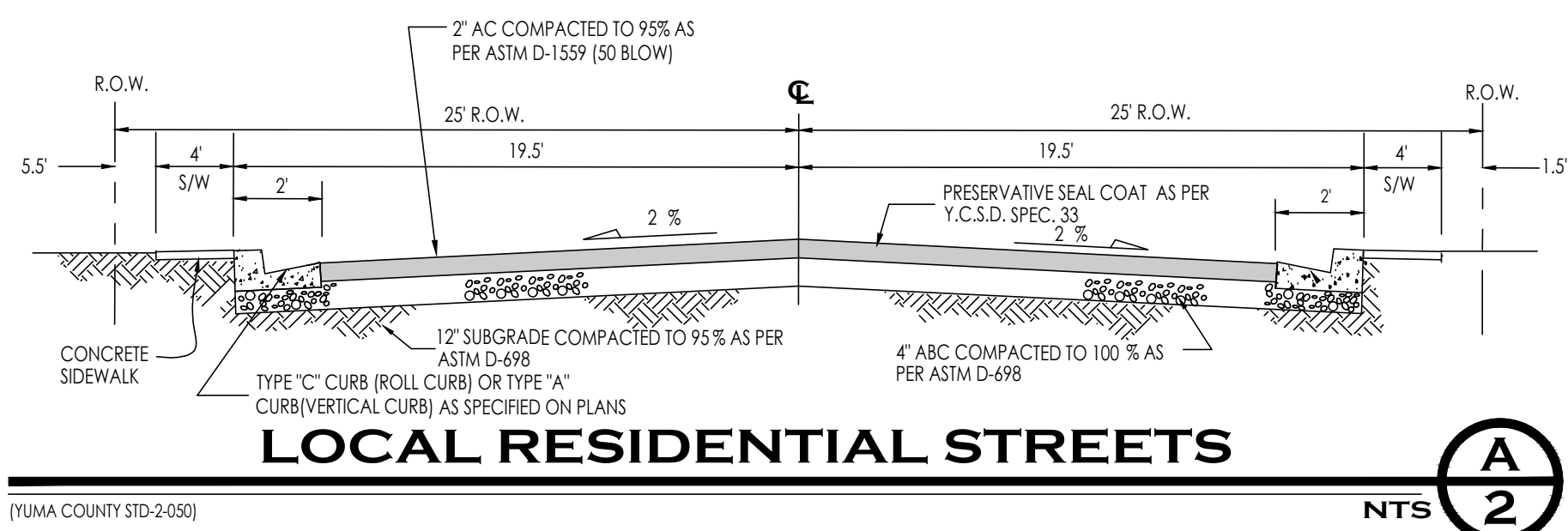
Scale: N.T.S. [Date: APR. 2019]
Drawn: Staff [Job #: VnV18-950]
Checked: vna

Sheet 1
of 9

CALL TWO WORKING DAYS
BEFORE YOU DIG
1-800-STAKE-IT

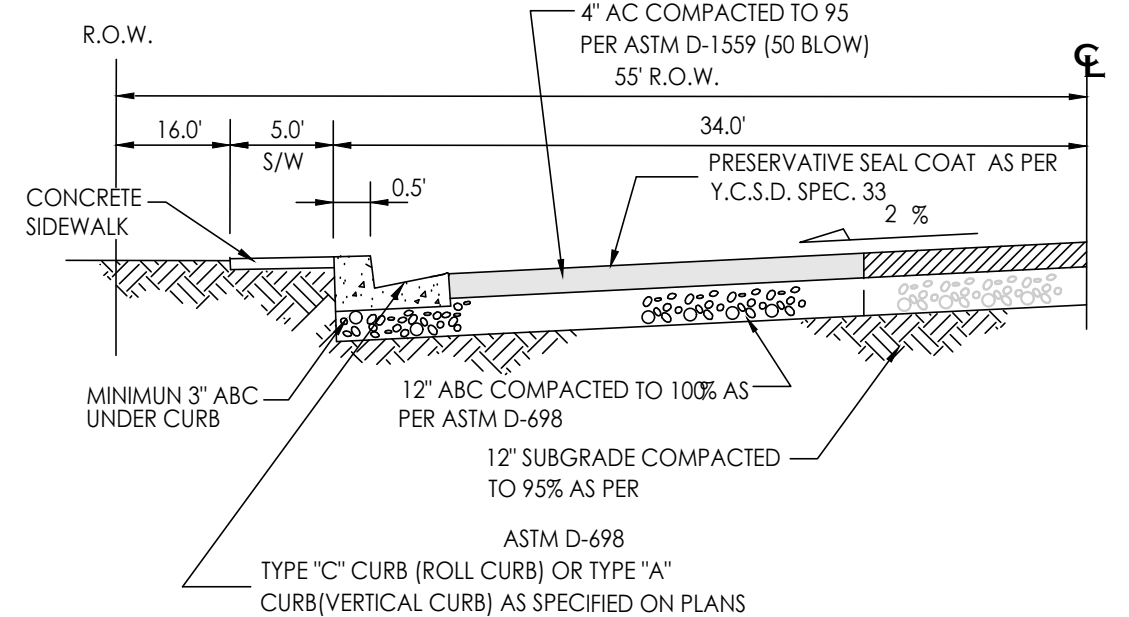


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VnV@vegaengineer.com



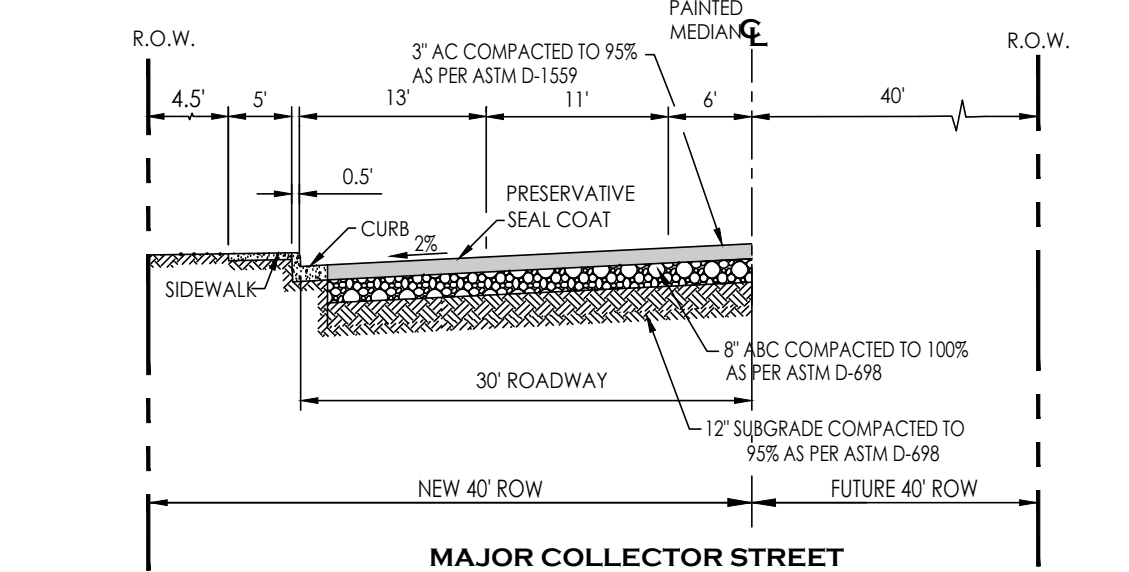
LOCAL RESIDENTIAL STREETS

[YUMA COUNTY STD-2-050]



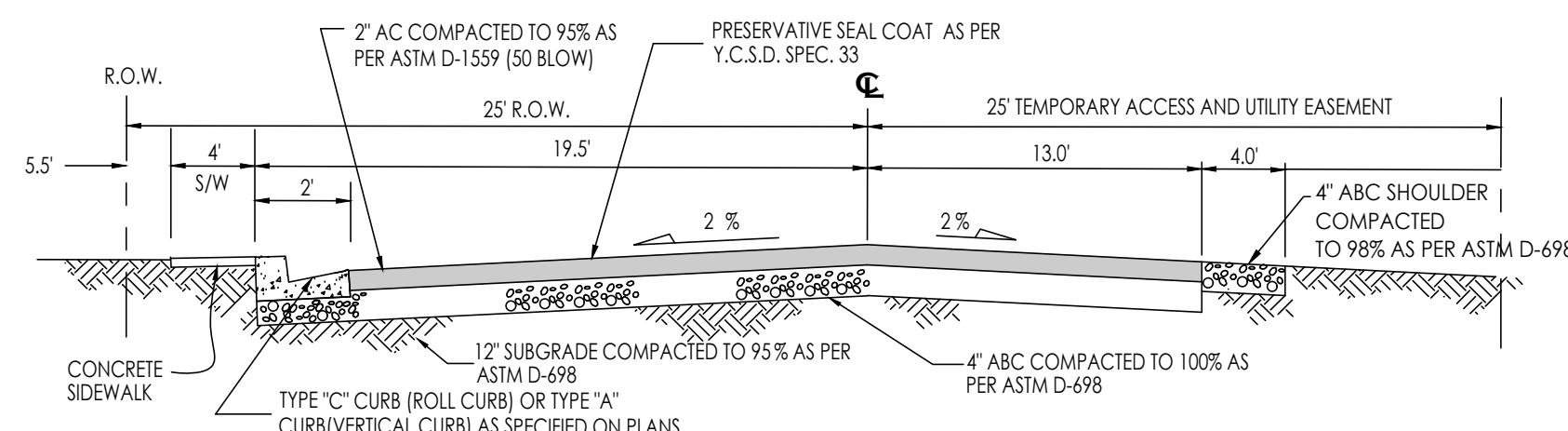
Co. 24th STREET

[YUMA COUNTY STD-2-050]



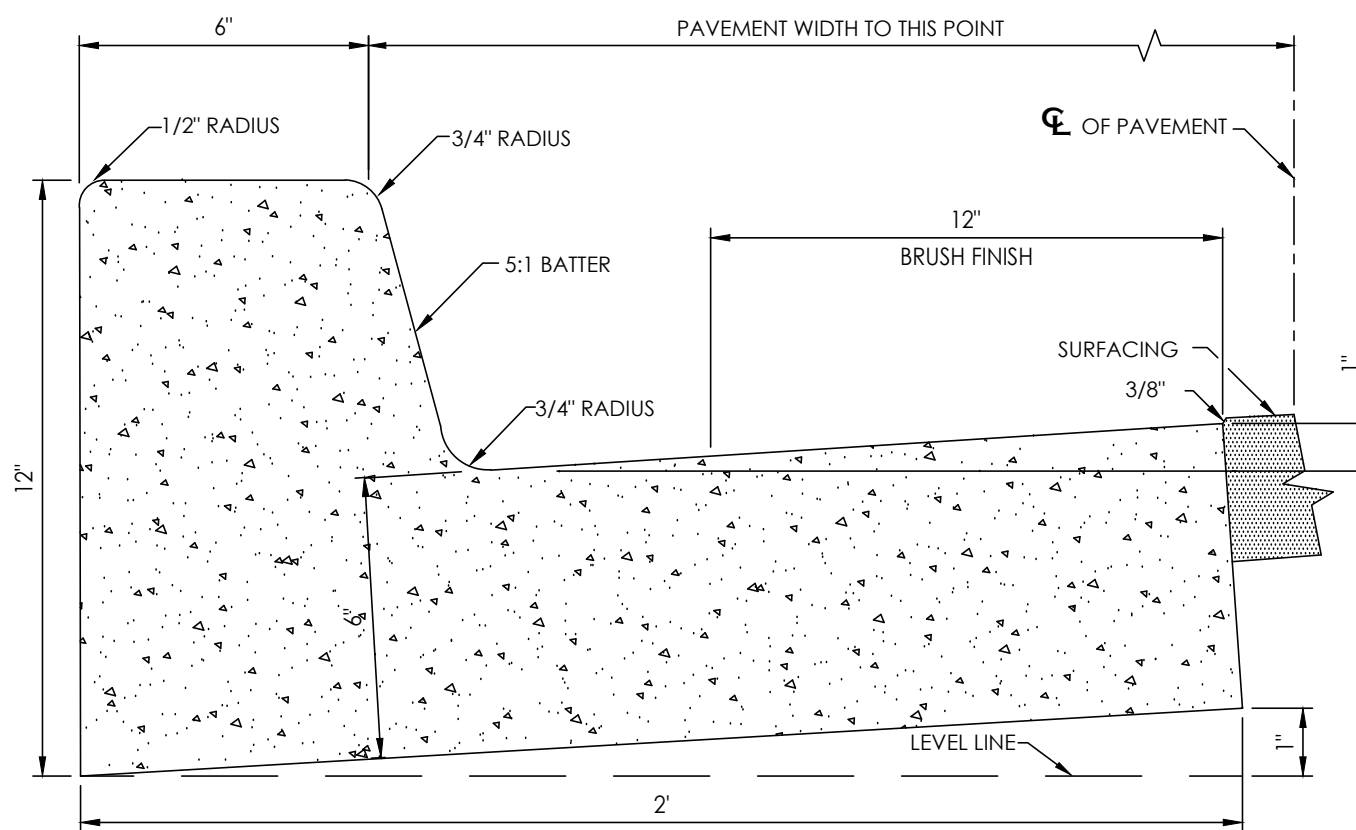
MAJOR COLLECTOR STREET

[YUMA COUNTY STD-2-030]



LOCAL RESIDENTIAL STREETS

[YUMA COUNTY STD-2-050]

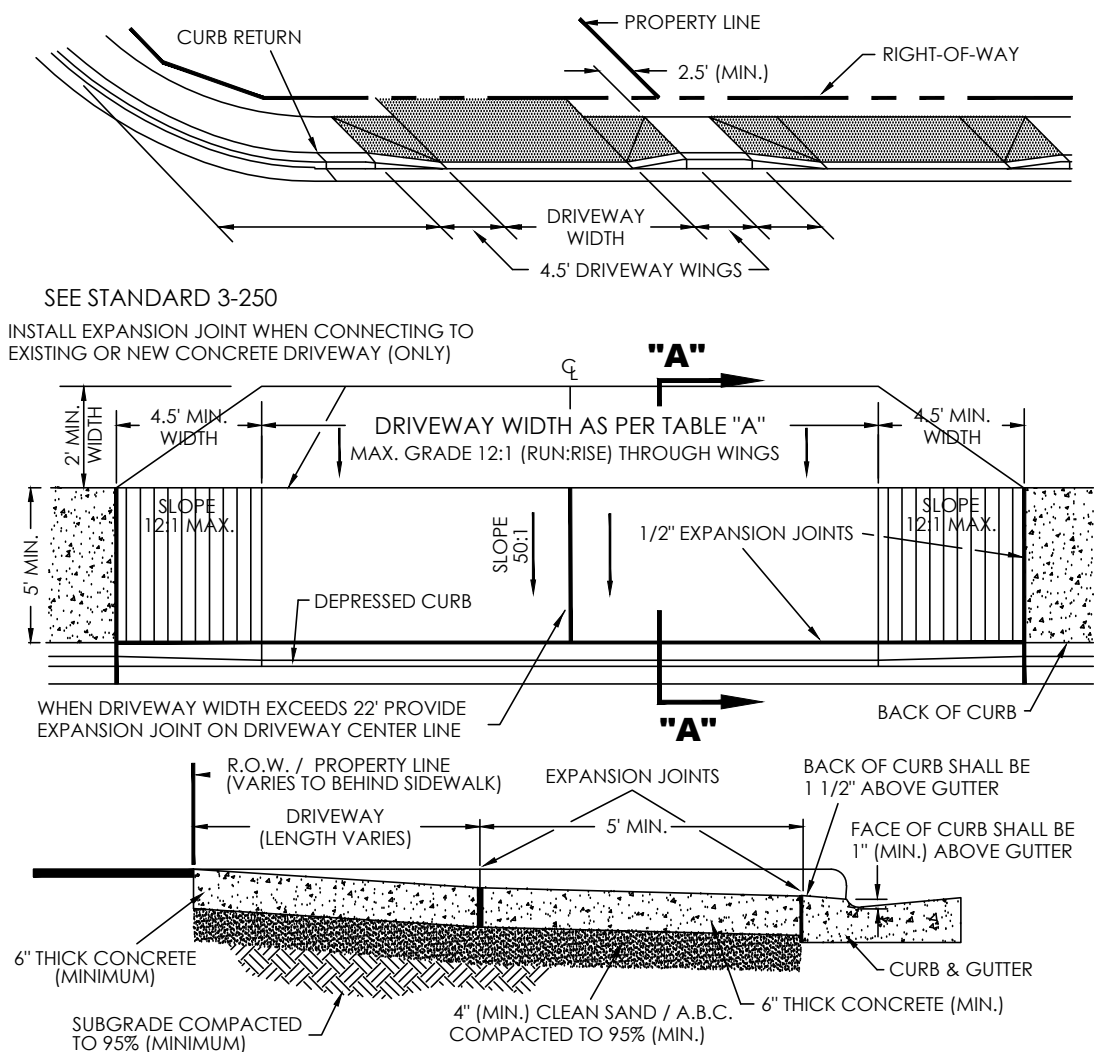


NOTES

1. ALL EXPOSED SURFACES SHALL BE TROWEL FINISHED EXCEPT AS SHOWN.
2. CONTRACTION JOINT SPACING AS PER SECTION 3.3.8. OF PUBLIC WORKS STANDARDS.
3. EXPANSION JOINT SPACING 50' MAX. AS PER SECTION 3.3.8. OF PUBLIC WORKS STANDARDS.

TYPE "A" CURB

CITY OF YUMA STD-3-120



SECTION "A - A"

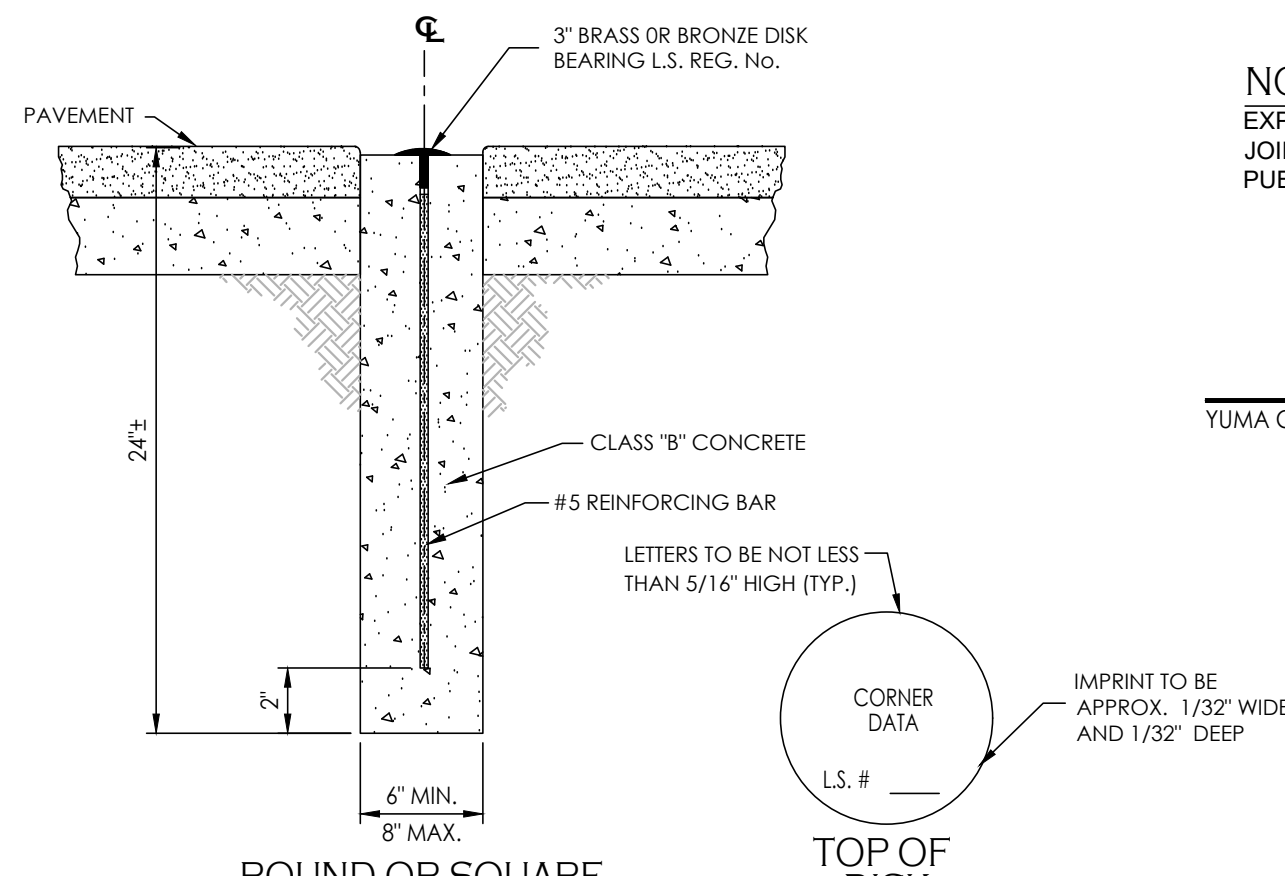
CLASS "B" CONCRETE CONSTRUCTION

DRIVEWAY WIDTHS	MIN.	MAX.
COMMERCIAL	16'	40'
INDUSTRIAL	16'	40'
RESIDENTIAL	16'	30'

1. Expansion joints shall be located at tangent points in curb returns, at structures and placed at 20' intervals (maximum). The one-half inch (1/2") joint filler shall be the bituminous type meeting A.A.S.H.T.O. M-33 or ASTM D-1751 specifications and shall extend the full depth of the concrete.
2. Approved driveway locations can be found in Standard Detail 3-250.

DRIVEWAY ENTRANCE WITH SIDEWALK ADJACENT TO CURB

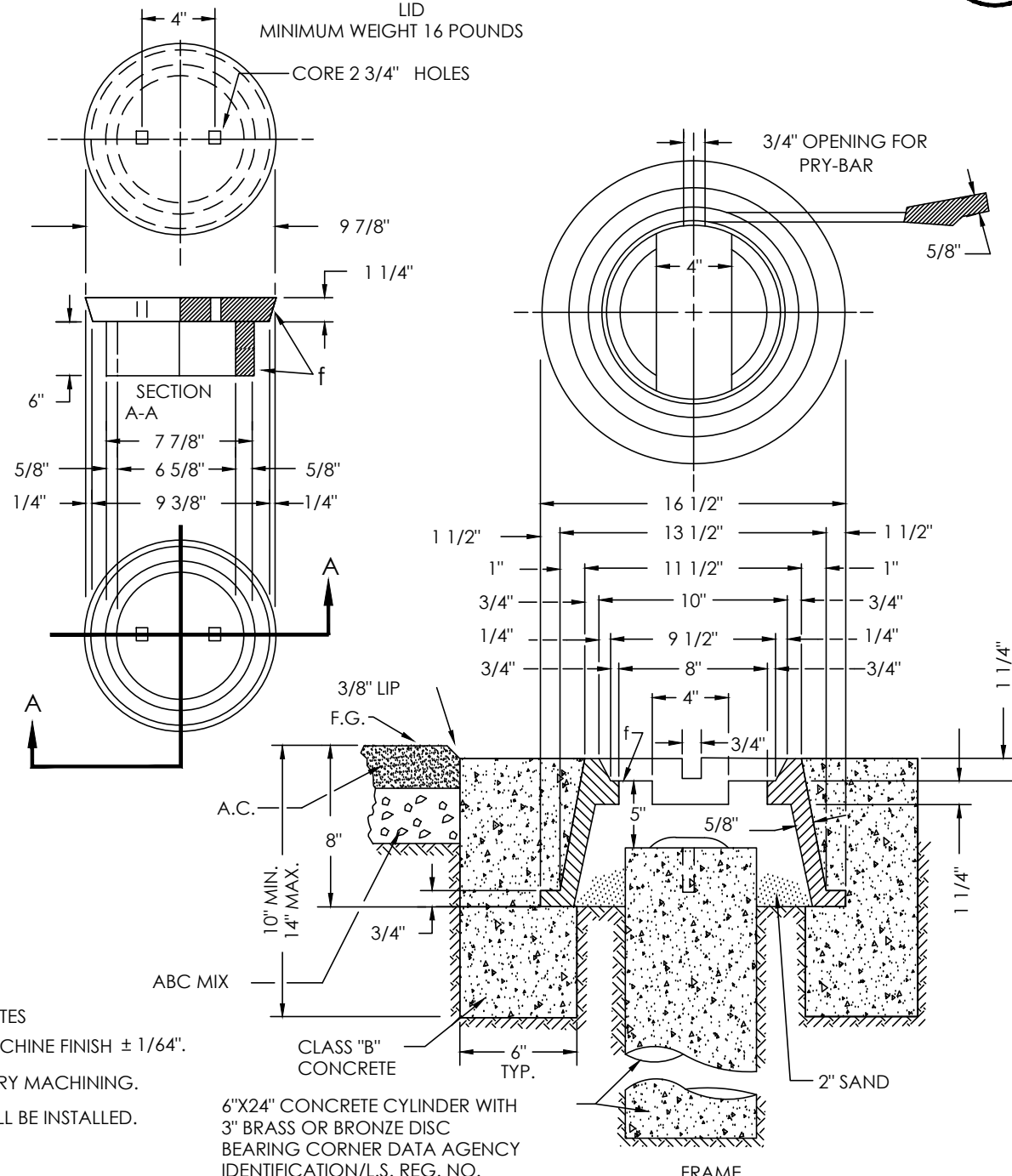
CITY OF YUMA STD. 3-210



ROUND OR SQUARE

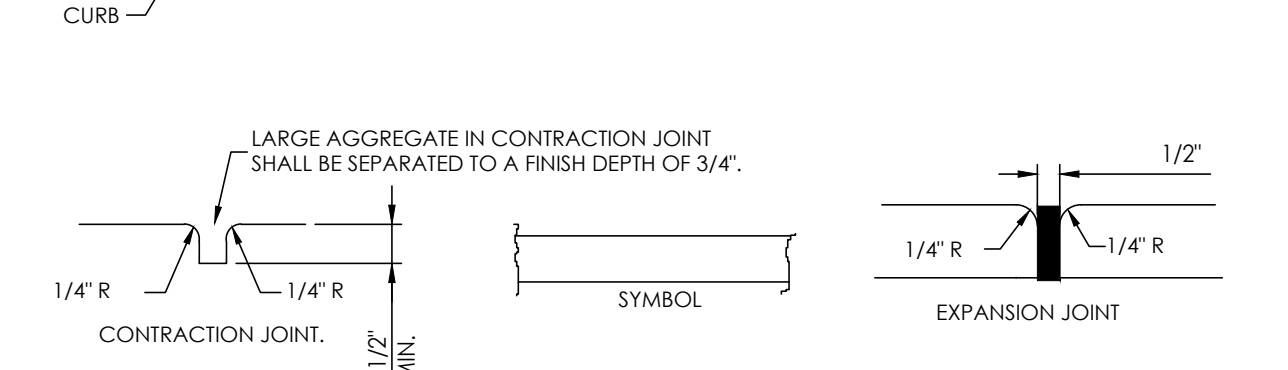
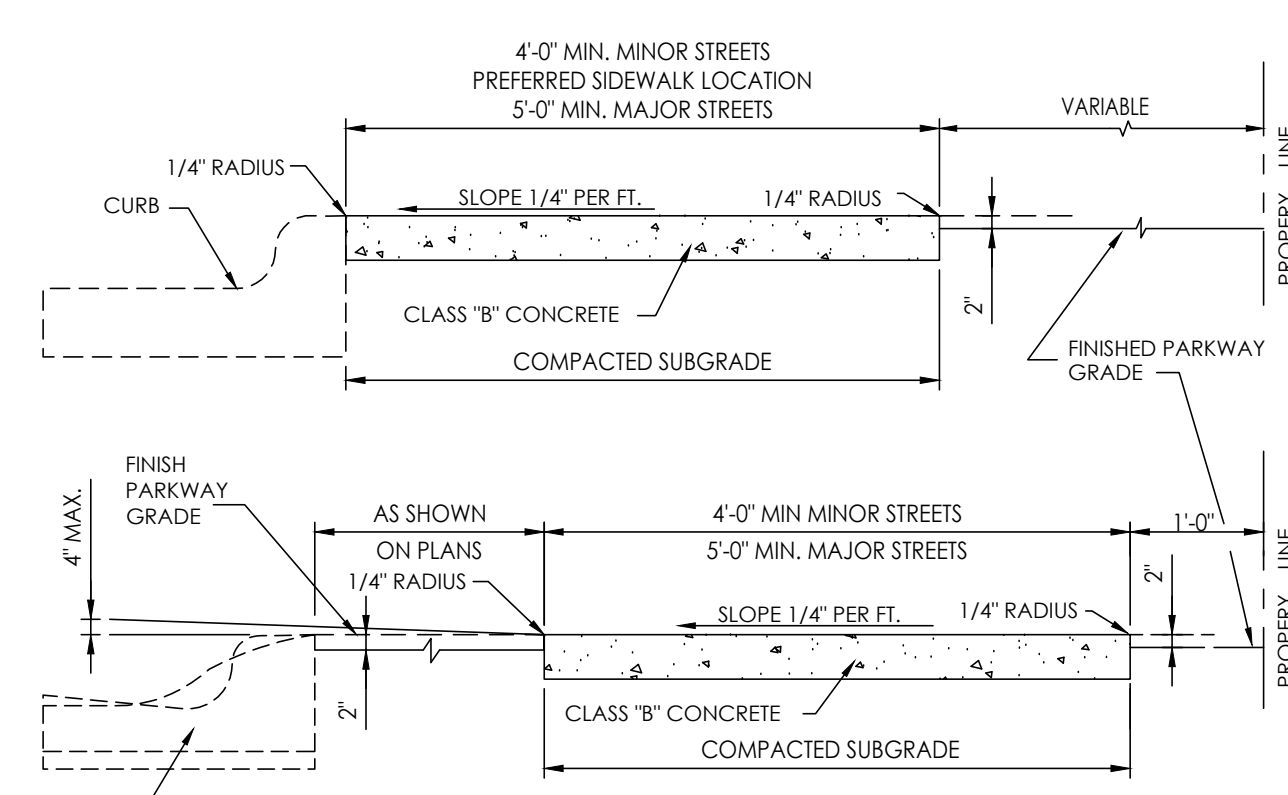
STREET MONUMENT

YUMA COUNTY STD-4-080

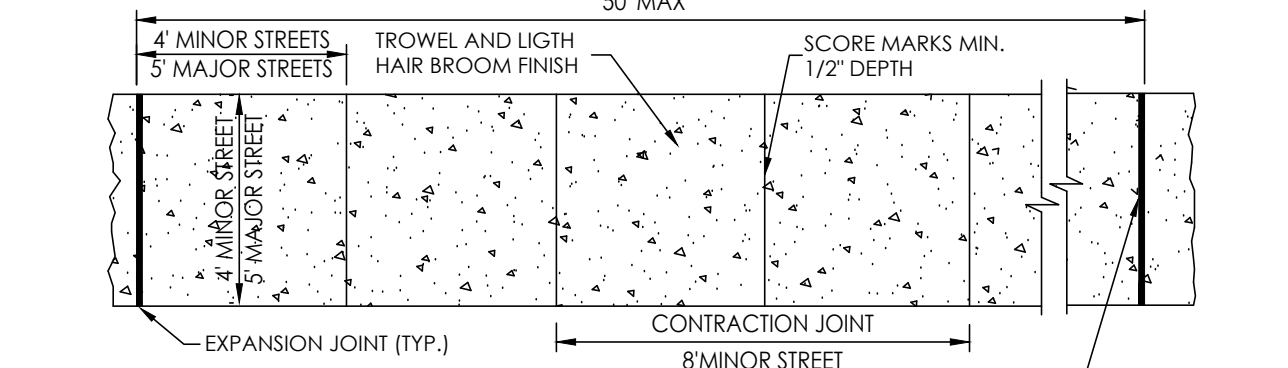


BOUNDARY MONUMENT

YUMA COUNTY STD-4-040



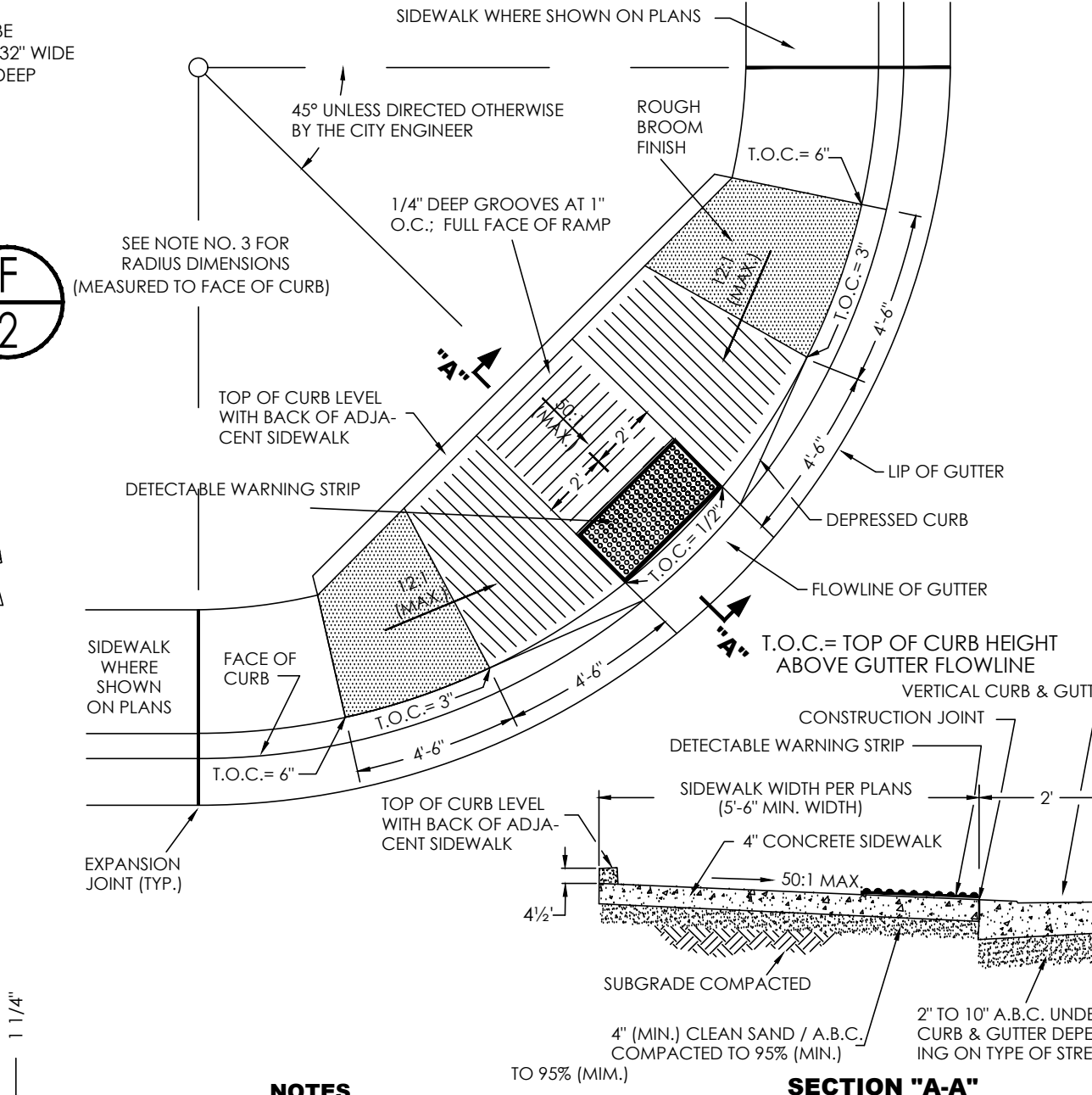
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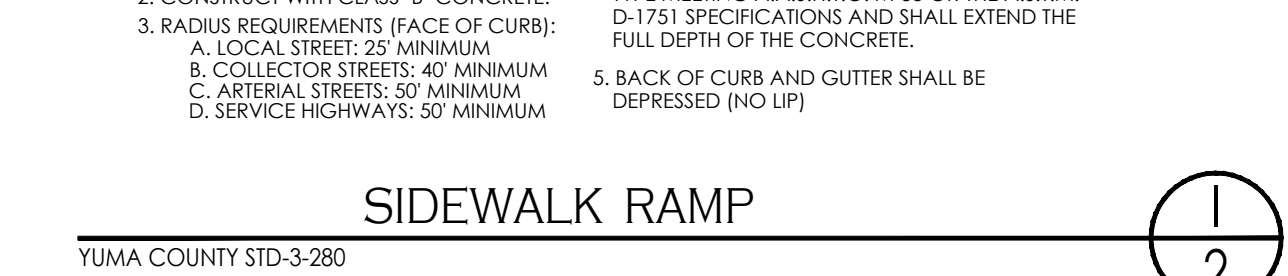
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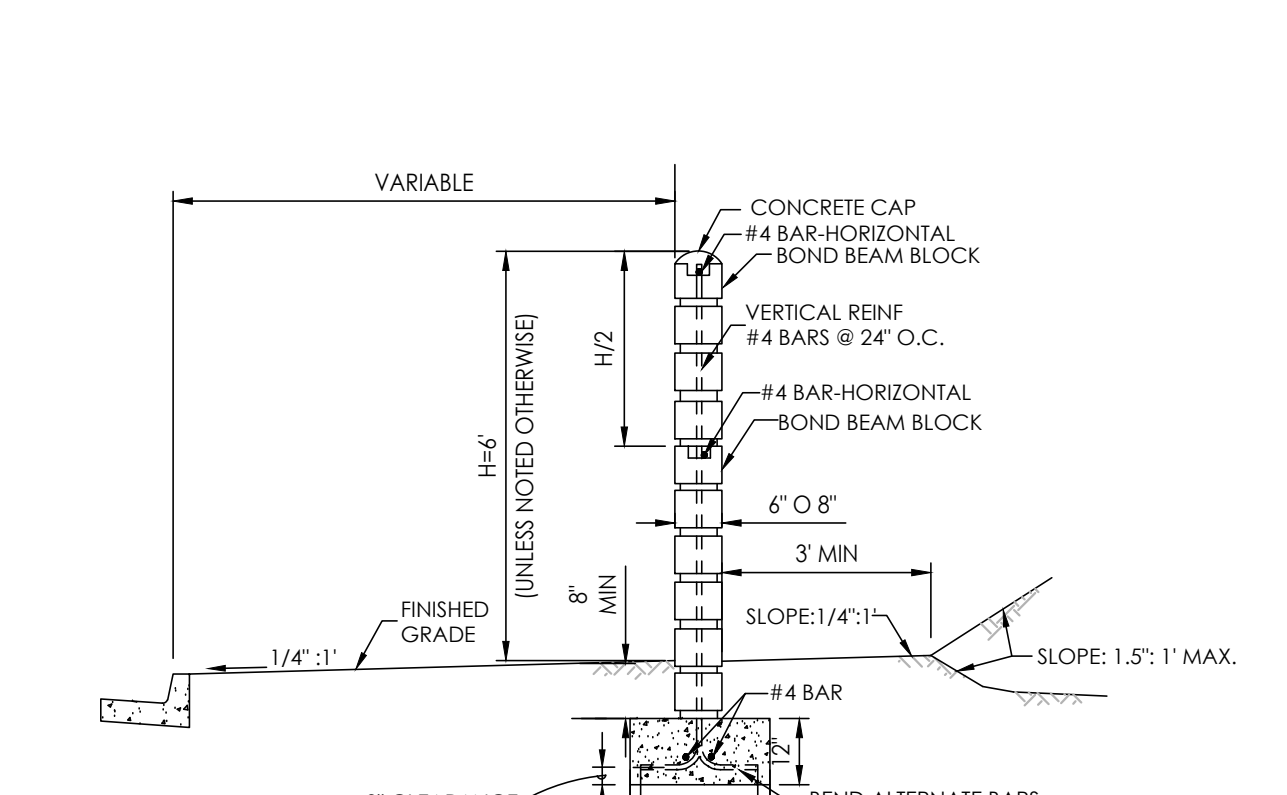
YUMA COUNTY STD-3-190 & 3-200



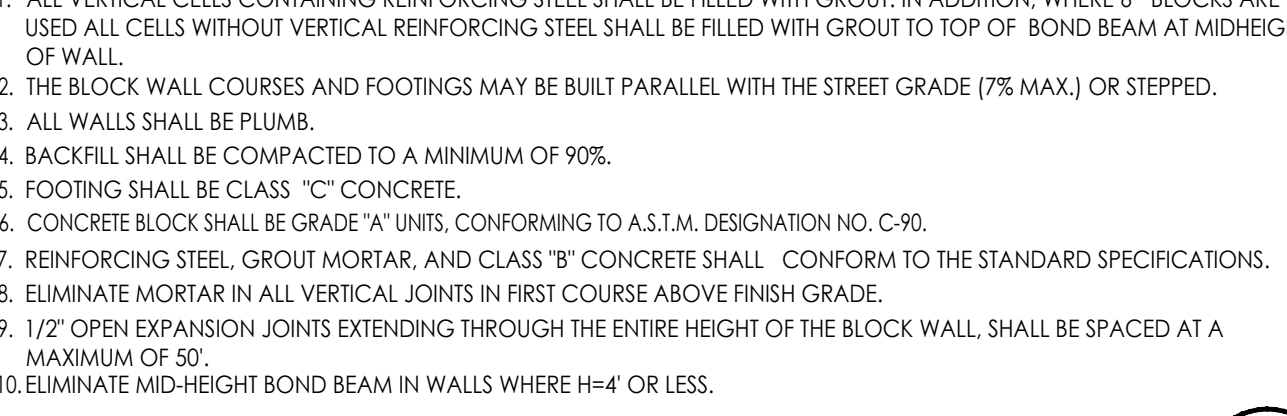
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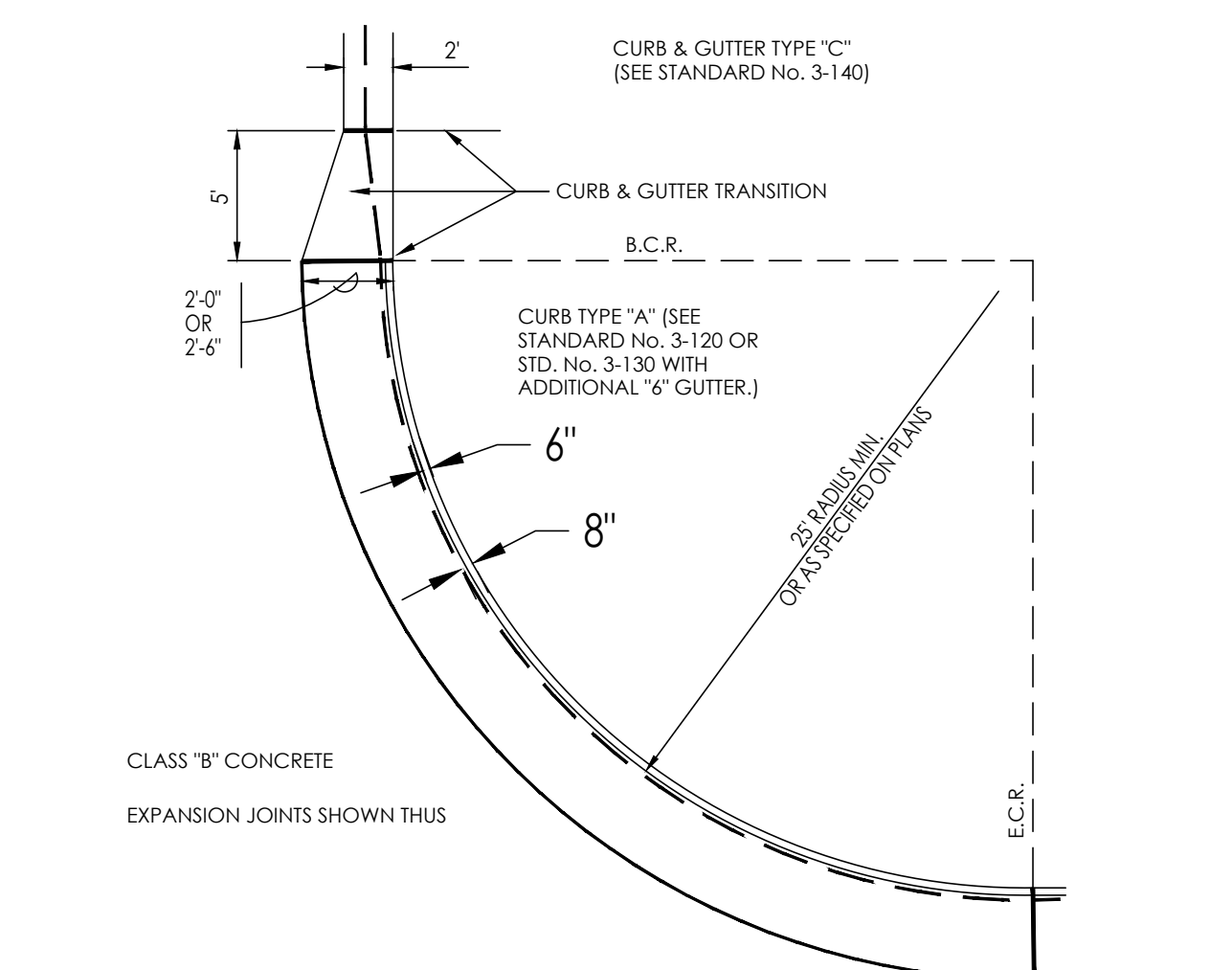
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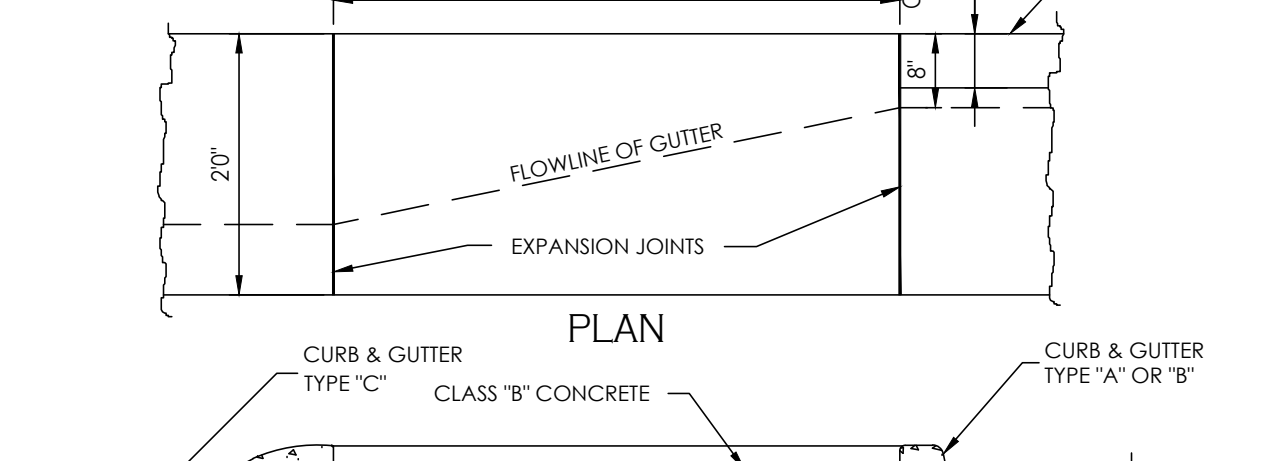
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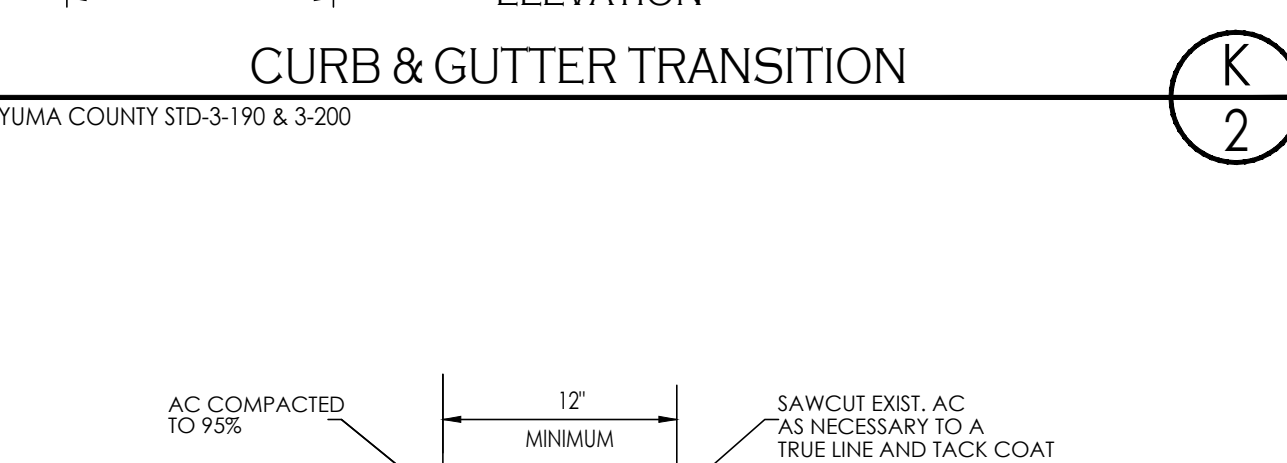
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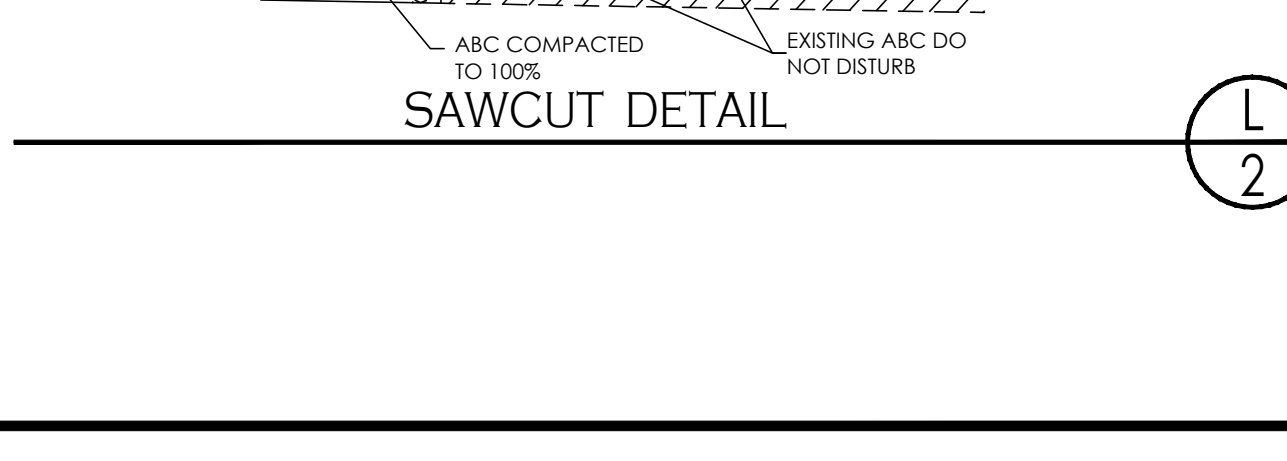
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YUMA COUNTY STD-3-310

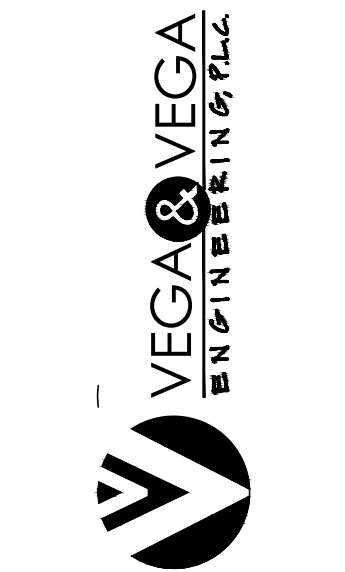


YUMA COUNTY STD-3-310

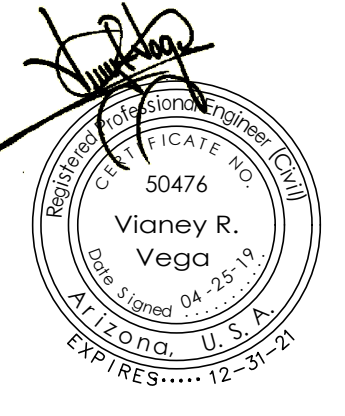


YUMA COUNTY STD-3-310

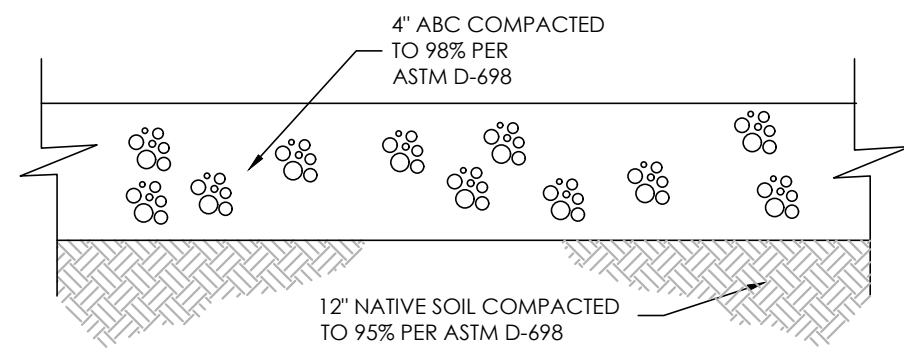
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V@vegaengineers.com



Paving & Grading Details
BELLEZA DEL DESIERTO SUBDIVISION

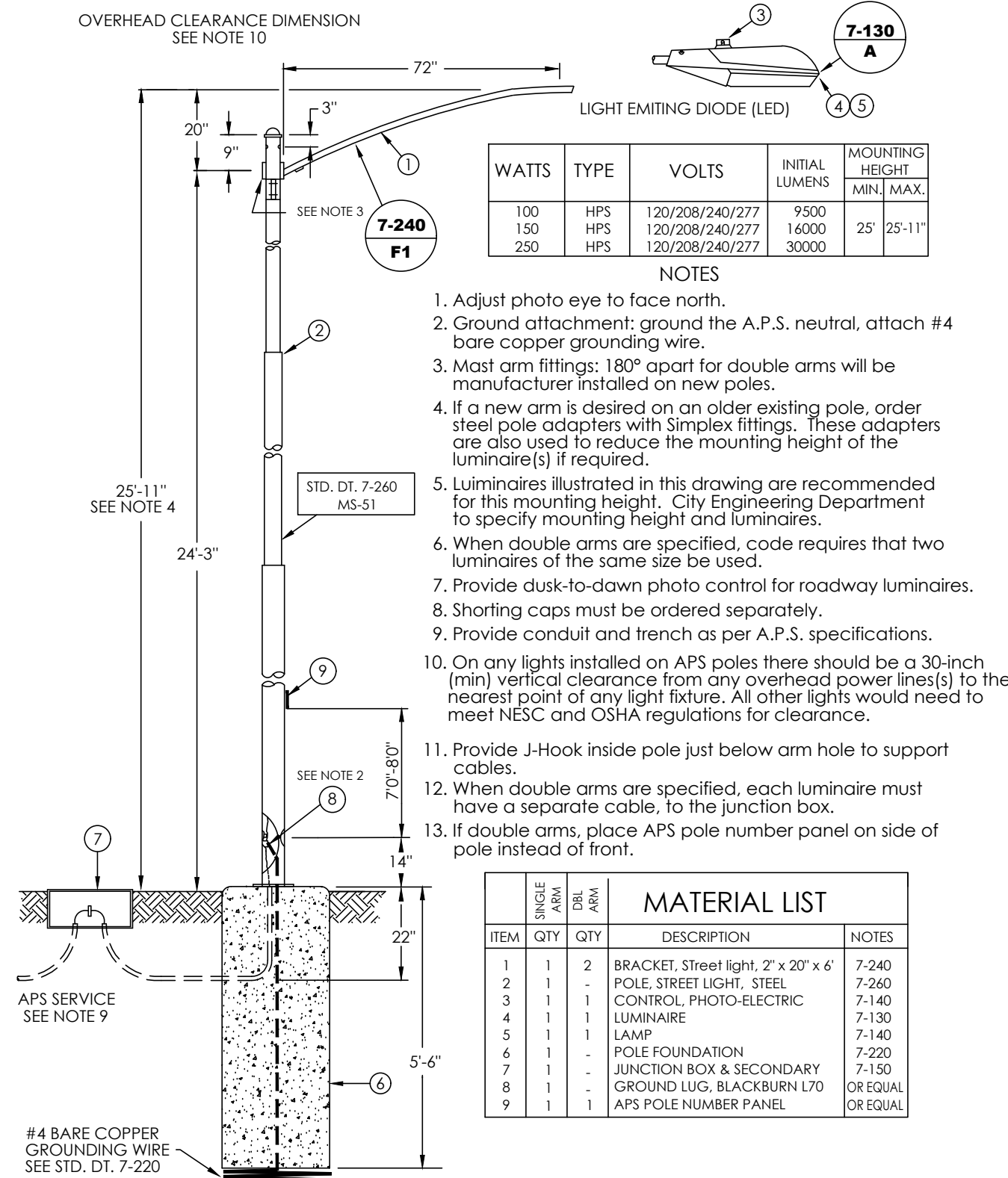


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Scale: N.T.S. [Date: APR. 2019]
Drawn: staff Job #: Vm18-950
Checked: vna
Sheet 2 of 9



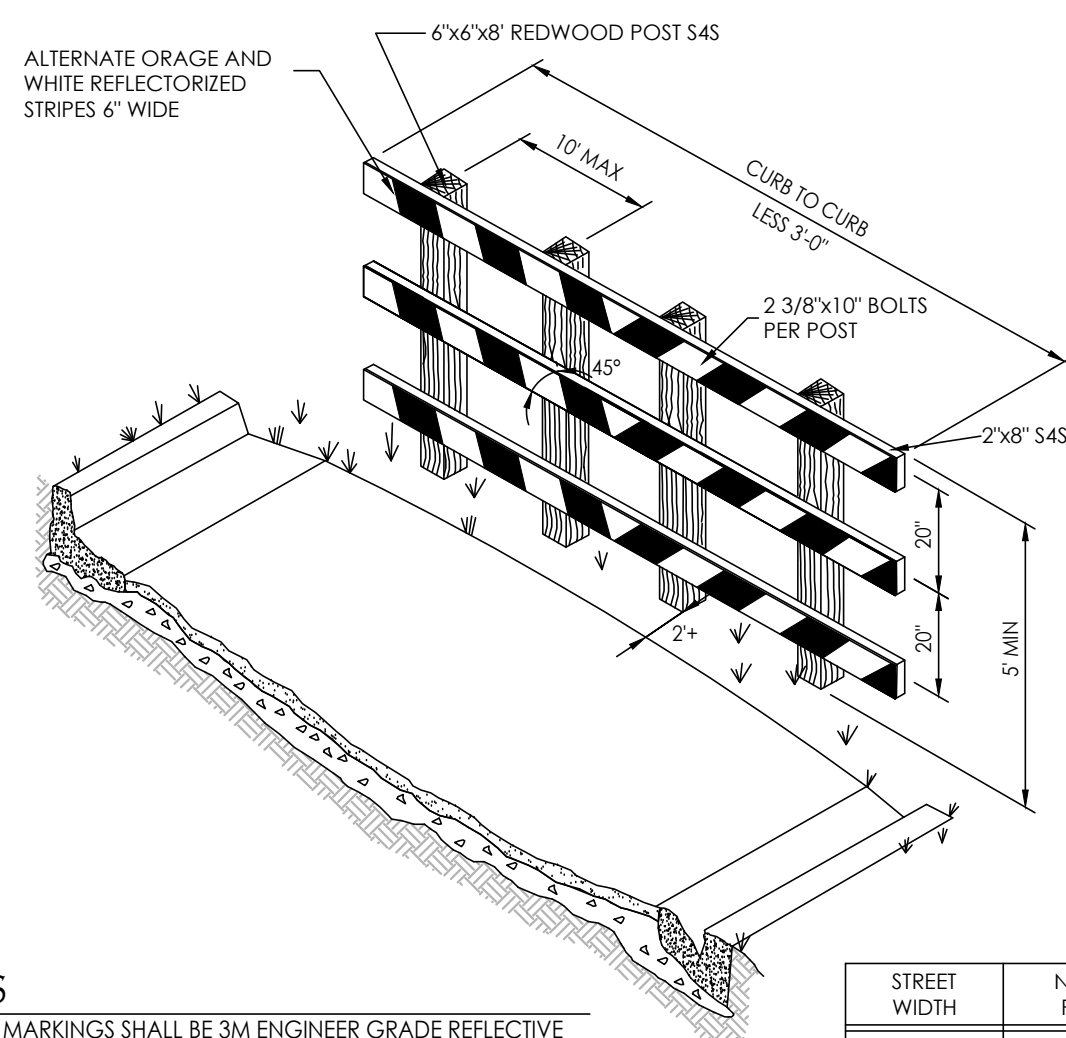
ABC SECTION

L
3



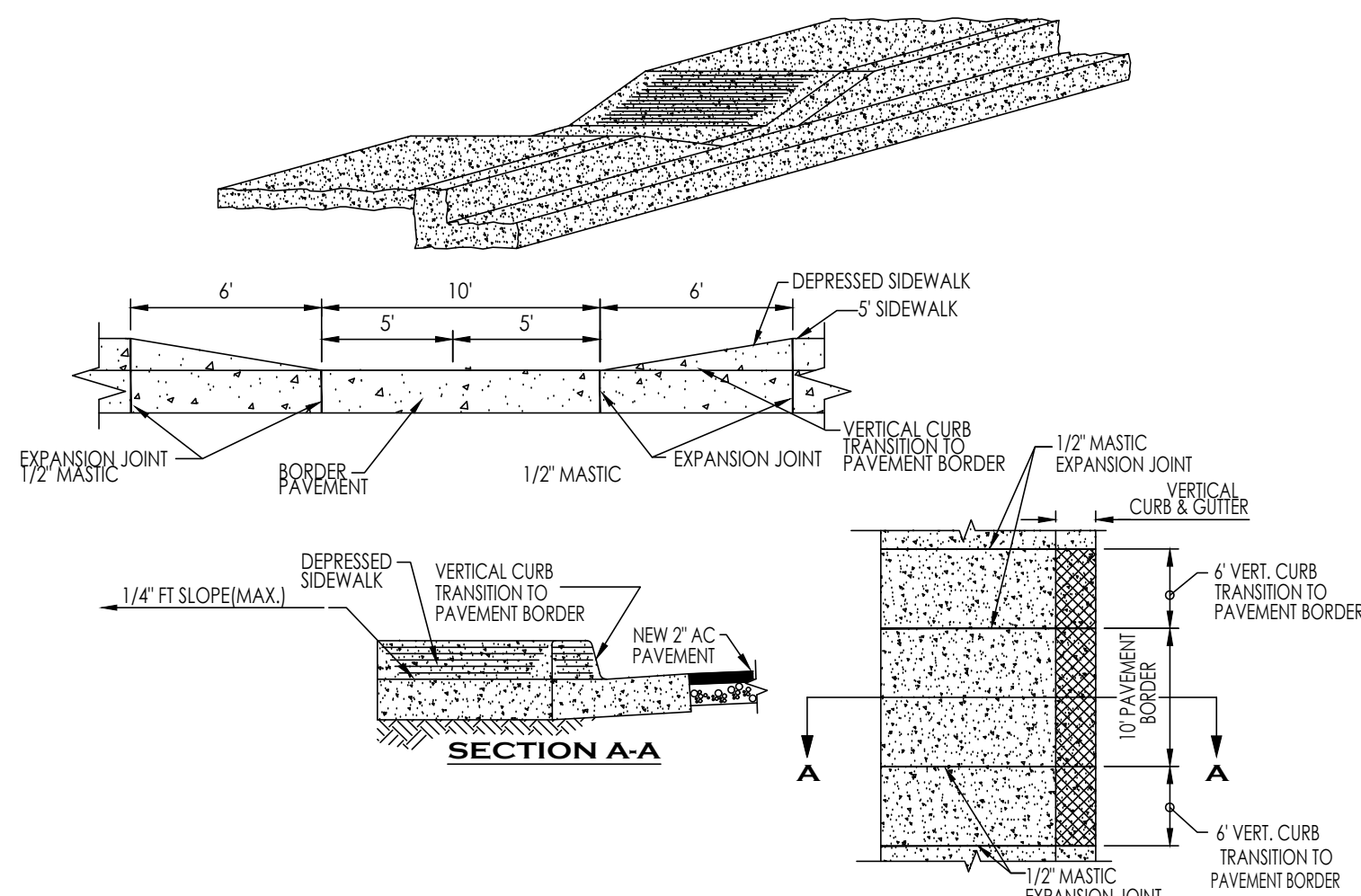
STREET LIGHT DETAIL

M
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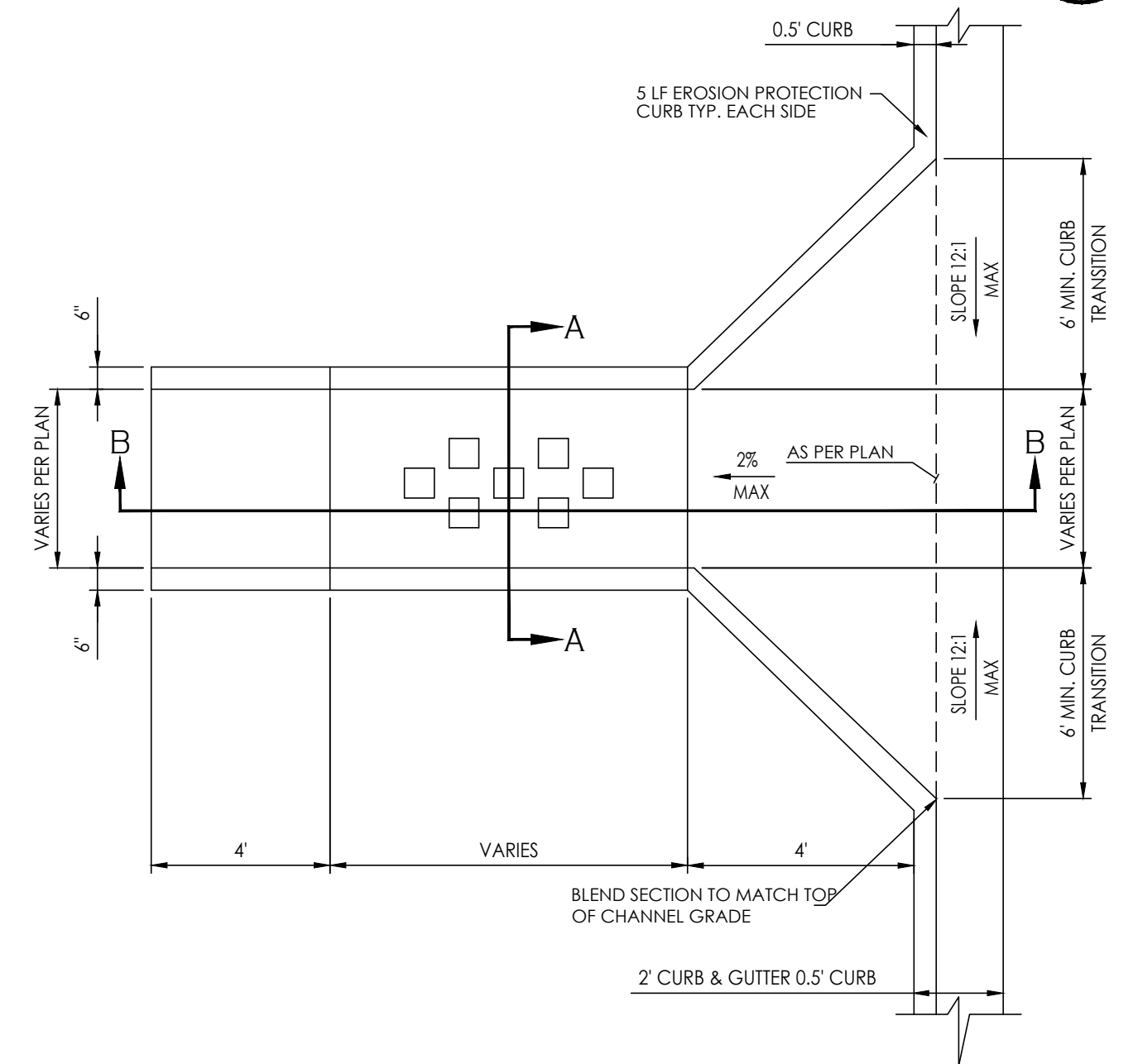
TYPE III BARRICADE

N
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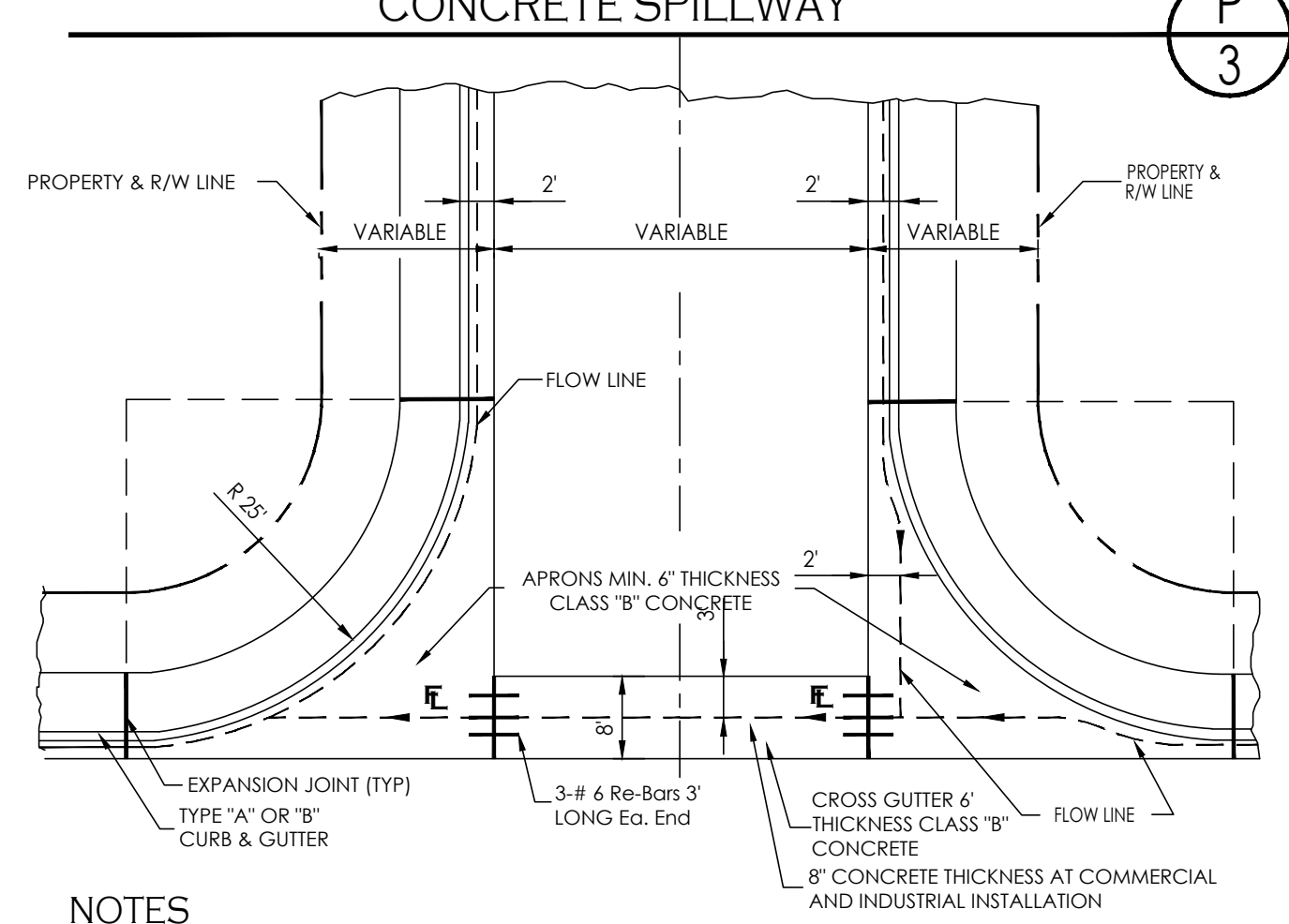
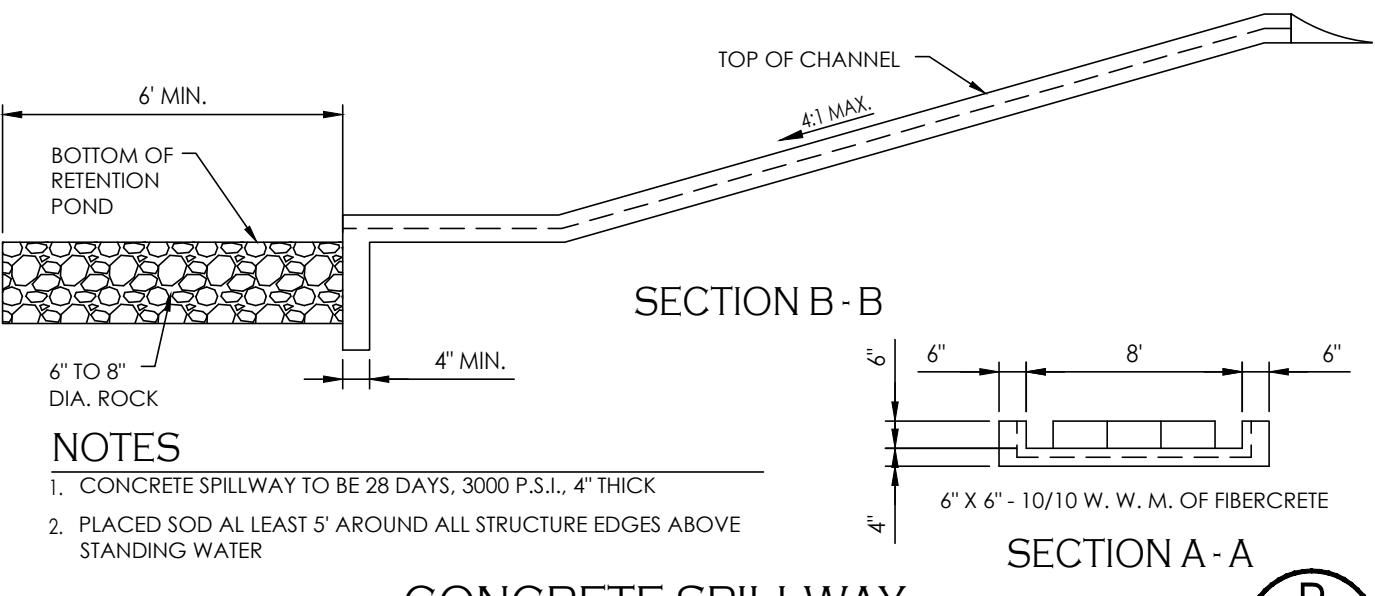
DEPRESSED SIDEWALK

O
3



CROSS GUTTER LAYOUT

P
3

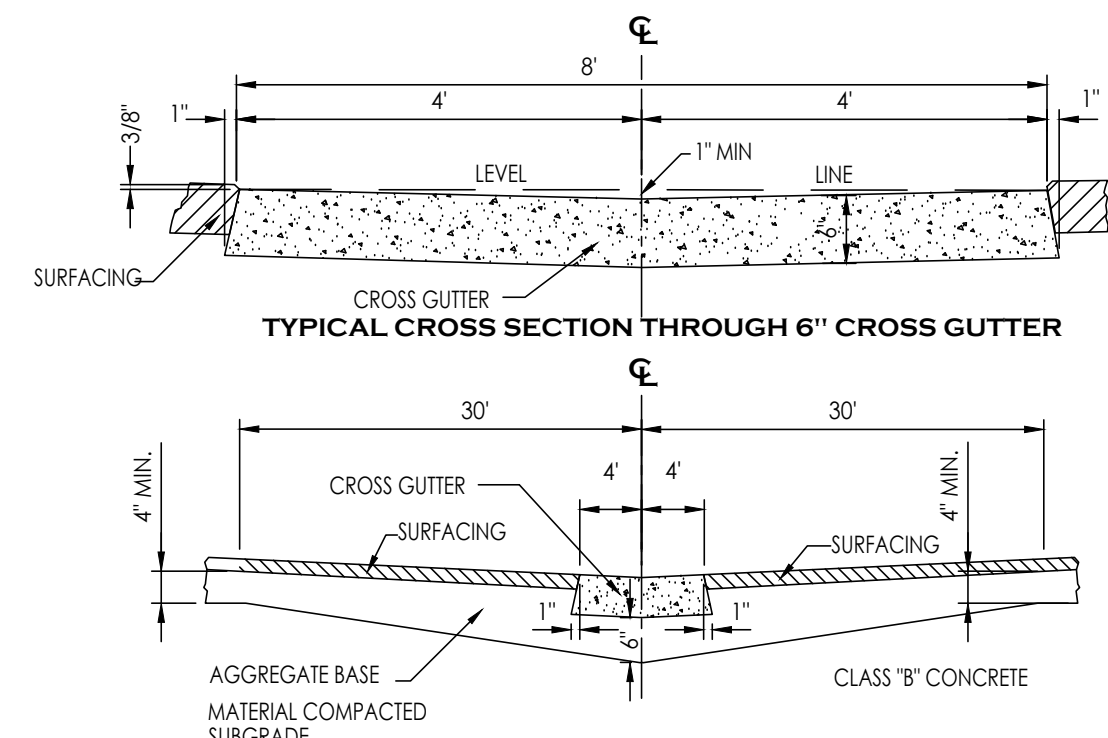


NOTES
1. BROOM FINISH EXPOSED SURFACE.
2. CONTRACTION JOINT SPACING 10' MAX. AS PER SECTION 3.3.8. OF PUBLIC WORKS STANDARDS.
3. EXPANSION JOINT SPACING 50' MAX. AS PER SECTION 3.3.8. OF PUBLIC WORKS STANDARDS.

CROSS GUTTER LAYOUT

COUNTY OF YUMA STD-3-170

Q
3

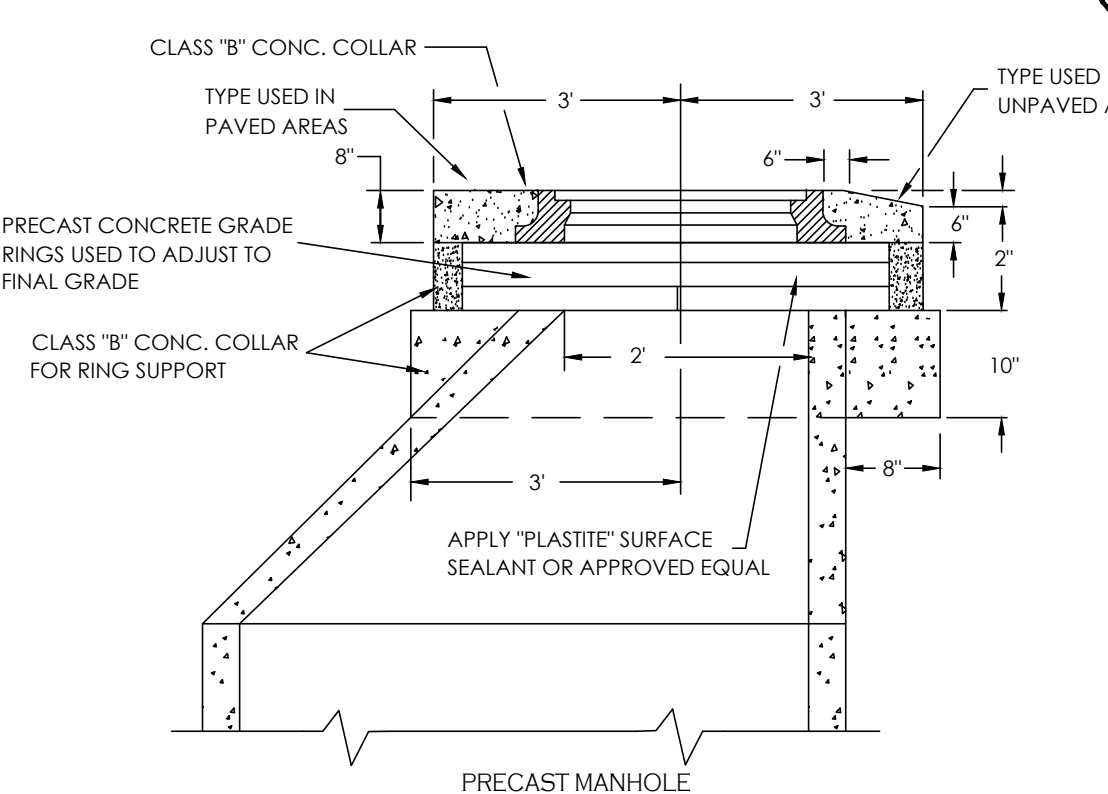


8' CROSS GUTTER DETAIL

NOTES
1. BROOM FINISH EXPOSED SURFACES.
2. CONTRACTION JOINT SPACING 10' MAX. AS PER SECTION 3.3.8. OF PUBLIC WORKS STANDARDS.
3. EXPANSION JOINT SPACING 50' MAX. AS PER MAG STD 340.

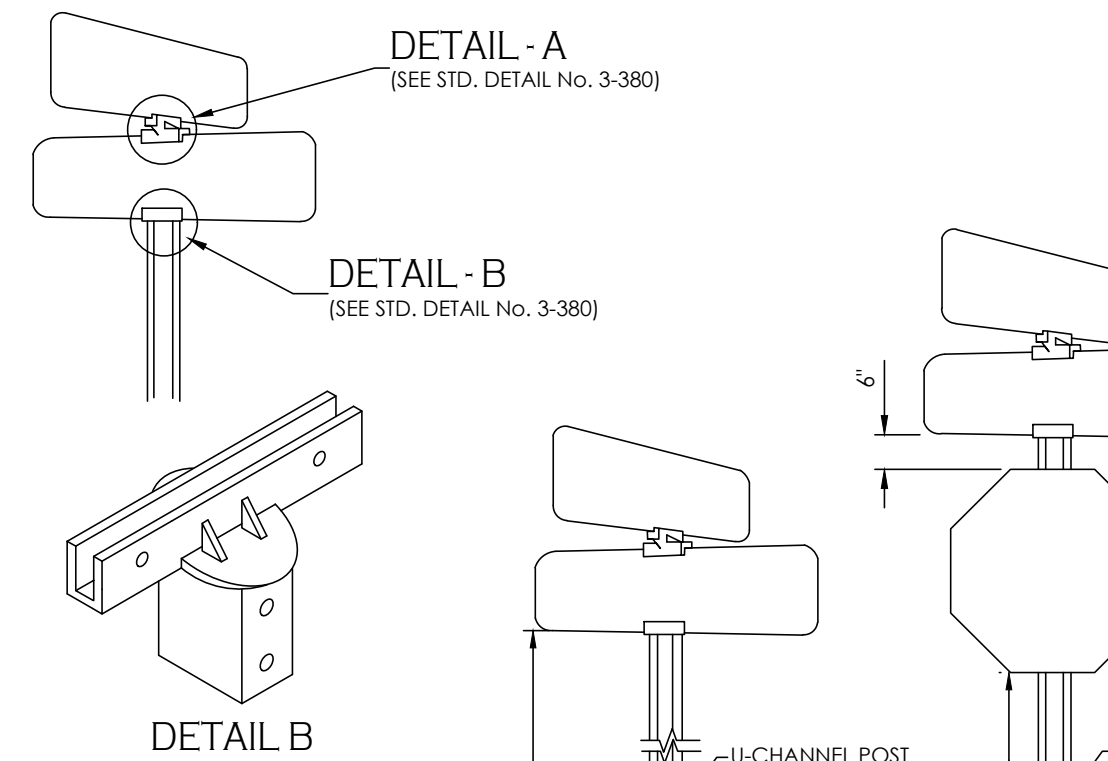
CROSS GUTTER LAYOUT

COUNTY OF YUMA STD-3-170



ADJUST MANHOLE TO FINAL GRADE

S
3



NOTES
U-CHANNEL POST SHALL BE FLANGED GALVANIZED AND A MINIMUM OF 2 LB. PER FOOT IN WEIGHT.

WHEN STREET NAME SIGNS ARE MOUNTED WITH A REGULATORY SIGN, THE LOCATION WILL BE AS PER THE M.U.T.C.D.

SEE GENERAL NOTES ON STD. DETAIL No. 3-380

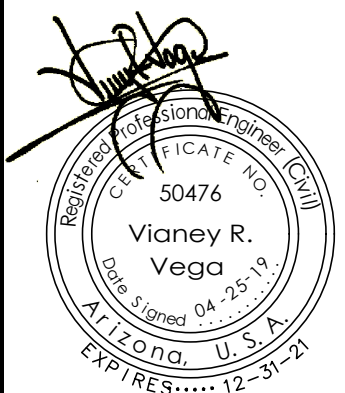
DOUBLE FACED STREET SIGN-STOP SIGN

YUMA COUNTY STD-3-390

T
3

Paving & Grading Details

BELLEZA DEL DESIERTO SUBDIVISION



Scale: N.T.S. [Date: APR. 2019]
Drawn: staff Job #: VnV18-950
Checked: vna

Sheet 3
of 9

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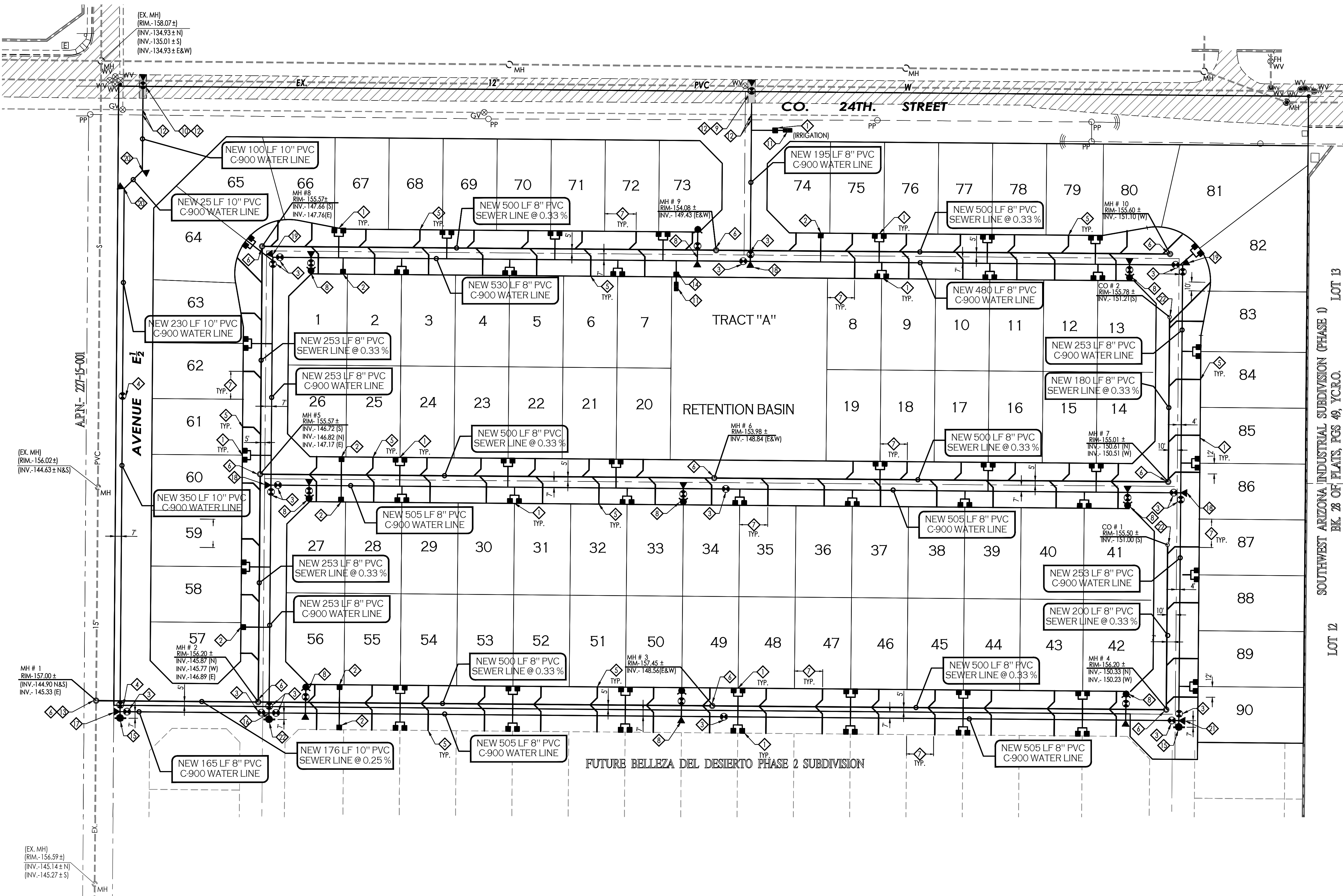


KEYNOTES:

- INSTALL 1" DUAL WATER SERVICE (TYP.) - SEE DETAILS
- INSTALL 1" SINGLE WATER SERVICE (TYP.) - SEE DETAILS
- NEW 8" WATER VALVE - SEE DETAILS
- NEW 10" WATER VALVE - SEE DETAILS
- NEW 4" PVC SEWER SERVICE - SEE DETAIL
- NEW SANITARY SEWER MANHOLE - SEE DETAILS
- CONSTRUCT ALL SEWER SERVICES TO CENTER OF THE LOT, UNLESS NOTED OTHERWISE.
- NEW COMPLETE FIRE HYDRANT - SEE DETAIL
- NEW 8" TAPPING SLEEVE. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING 12" WATER MAIN. IF CONDITIONS ARE DIFFERENT THAN WHAT IS SHOWN ON PLANS CONTRACTOR TO NOTIFY ENGINEER BEFORE MAKING ANY DETERMINATION.
- NEW 10" TAPPING SLEEVE. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING 12" WATER MAIN. IF CONDITIONS ARE DIFFERENT THAN WHAT IS SHOWN ON PLANS CONTRACTOR TO NOTIFY ENGINEER BEFORE MAKING ANY DETERMINATION.
- INSTALL NEW BACKFLOW PREVENTOR W/ CAGE - SEE DETAILS
- CONTRACTOR TO PROTECT EX. UTILITIES DURING CONSTRUCTION. IF DAMAGE OCCURS, CONTRACTOR MUST REPAIR AT HIS OWN EXPENSE.
- CONNECT NEW SANITARY SEWER MANHOLE TO EXISTING 15" SANITARY SEWER LINE. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING SEWER LINE. IF CONDITIONS ARE DIFFERENT THAN WHAT IS SHOWN ON PLANS CONTRACTOR TO NOTIFY ENGINEER BEFORE MAKING ANY DETERMINATION.
- INSTALL 2" WATER SERVICE (TYP.) - SEE DETAILS
- NEW TEMPORARY BLOWOFF VALVE - SEE DETAIL
- NEW 8" PVC CROSS W/THRUST BLOCK - SEE DETAILS
- NEW 10"x8" PVC TEE W/THRUST BLOCK - SEE DETAILS
- NEW 8" PVC TEE W/THRUST BLOCK - SEE DETAILS
- NEW 8" PVC ELL W/THRUST BLOCK - SEE DETAILS
- NEW 10" PVC 45° ELL W/THRUST BLOCK - SEE DETAILS
- NEW 8" PVC TEE W/THRUST BLOCK - SEE DETAILS
- NEW SANITARY SEWER CLEANOUT - SEE DETAIL

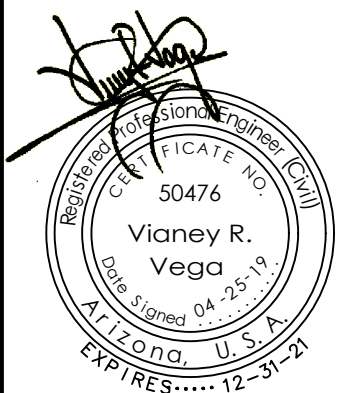
LEGEND

- EX, 6" PVC, W INDICATES EX. WATER LINE
- EX, 8" PVC, S INDICATES EX. SEWER LINE
- UG INDICATES EX. UNDERGROUND GAS LINE
- E INDICATES EXISTING ELECTRICAL BOX
- GP INDICATES EXISTING GAS PADDLE
- MH INDICATES EXISTING MANHOLE
- FH INDICATES EXISTING FIRE HYDRANT
- WM INDICATES EXISTING WATER MEIER
- WV INDICATES EXISTING WATER VALVE
- NEW PVC S INDICATES NEW SANITARY SEWER LINE
- NEW SEWER STUB
- NEW SEWER MANHOLE
- NEW 4" PVC SEWER SERVICE
- NEW PVC W INDICATES NEW WATER LINE
- NEW SINGLE WATER SERVICE
- FIRE LINE W/ END PLUG AND THRUST BLOCK
- NEW WATER VALVE
- NEW FIRE HYDRANT
- NEW TEMPORARY BLOWOFF VALVE
- INDICATES LOT NUMBERS



Water & Sewer Plan

BELLEZA DEL DESIERTO SUBDIVISION



Notes:

Scale: N.T.S. Date: APR. 2019

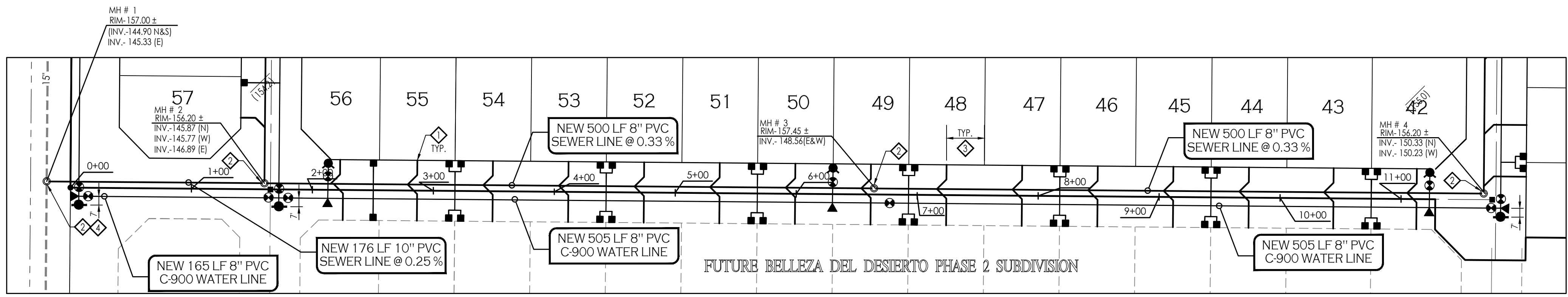
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Checked: vna

Sheet 4 of 9

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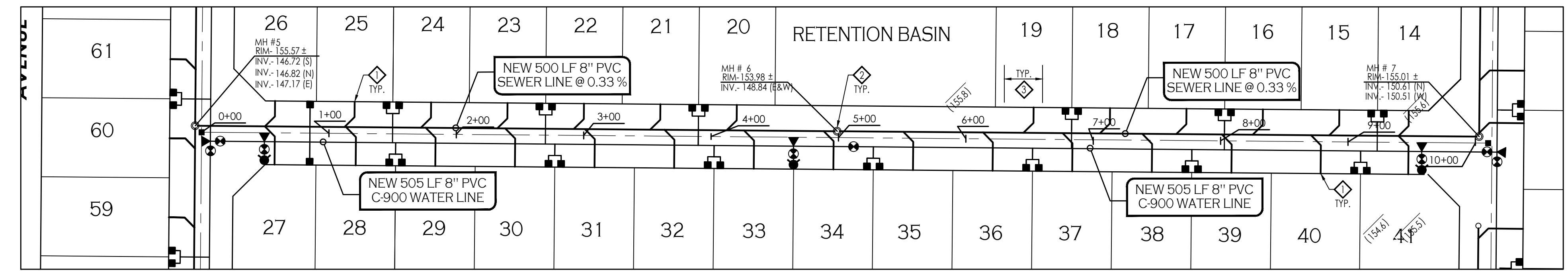
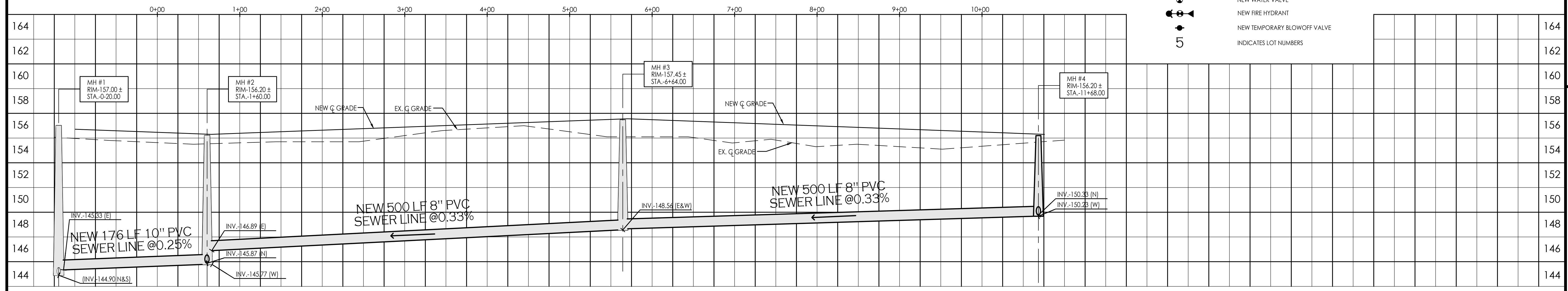


- LEGEND
- 163
- INDICATES EX. CONTOURS ELEVATION
 - INDICATES EX. WATER LINE
 - INDICATES EX. SEWER LINE
 - INDICATES EX. GAS LINE
 - INDICATES EXISTING ELECTRICAL BOX
 - INDICATES EXISTING GAS PADDLE
 - INDICATES EXISTING MANHOLE
 - INDICATES EXISTING FIRE HYDRANT
 - INDICATES EXISTING WATER METER
 - INDICATES EXISTING WATER VALVE
 - INDICATES NEW SANITARY SEWER LINE
 - NEW SEWER STUB
 - NEW SEWER MANHOLE
 - NEW 4" PVC SEWER SERVICE
 - INDICATES NEW WATER LINE
 - NEW SINGLE WATER SERVICE
 - FIRE LINE W/ END PLUG AND THRUST BLOCK
 - NEW WATER VALVE
 - NEW FIRE HYDRANT
 - NEW TEMPORARY BLOWOFF VALVE
 - INDICATES LOT NUMBERS

NORTH

SCALE: 1"=60'
HORIZONTAL

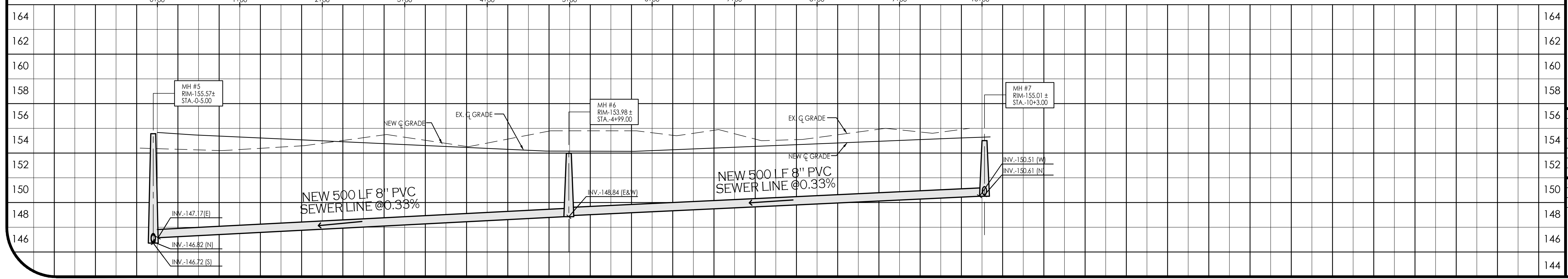
SCALE: 1"=4'
VERTICAL



- KEYNOTES:
- NEW 4" PVC SEWER SERVICE - SEE DETAIL
 - NEW SANITARY SEWER MANHOLE - SEE DETAILS
 - CONSTRUCT ALL SEWER SERVICES TO CENTER OF THE LOT, UNLESS NOTED OTHERWISE.
 - CONNECT NEW SANITARY SEWER MANHOLE TO EXISTING 15" SANITARY SEWER LINE, CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING SEWER LINE. IF CONDITIONS ARE DIFFERENT THAN WHAT IS SHOWN ON PLANS CONTRACTOR TO NOTIFY ENGINEER BEFORE MAKING ANY DETERMINATION

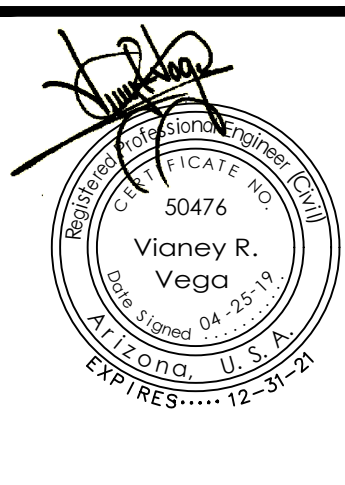
CALL TWO WORKING DAYS BEFORE YOU DIG

1-800-STAKE-IT



Water & Sewer Plan and Profile

BELLEZA DEL DESIERTO SUBDIVISION



Notes:

Scale: N.T.S. [Date: APR. 2019]

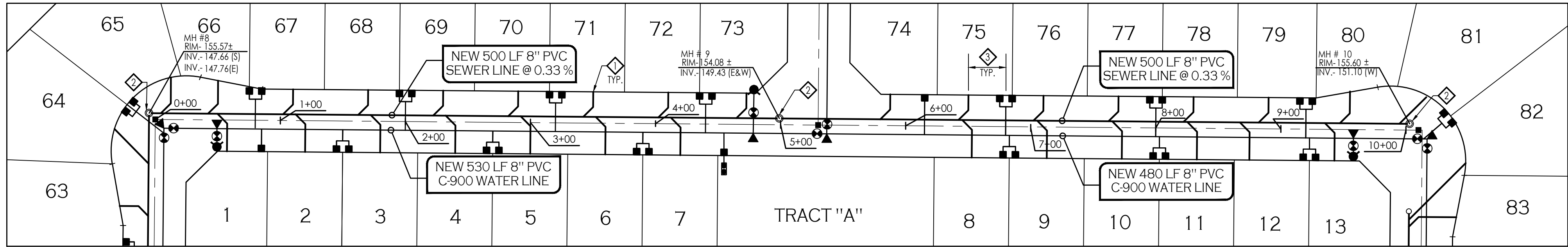
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Checked: Vna

Sheet 5 of 9

VEGA & VEGA
ENGINEERING PLLC

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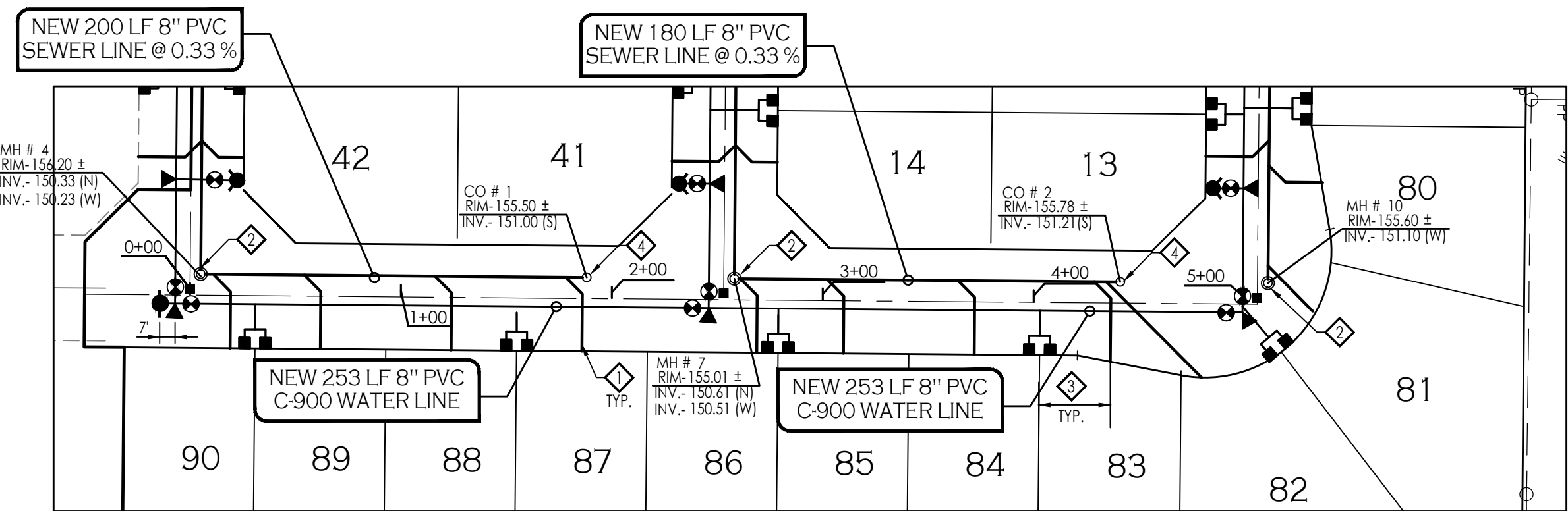
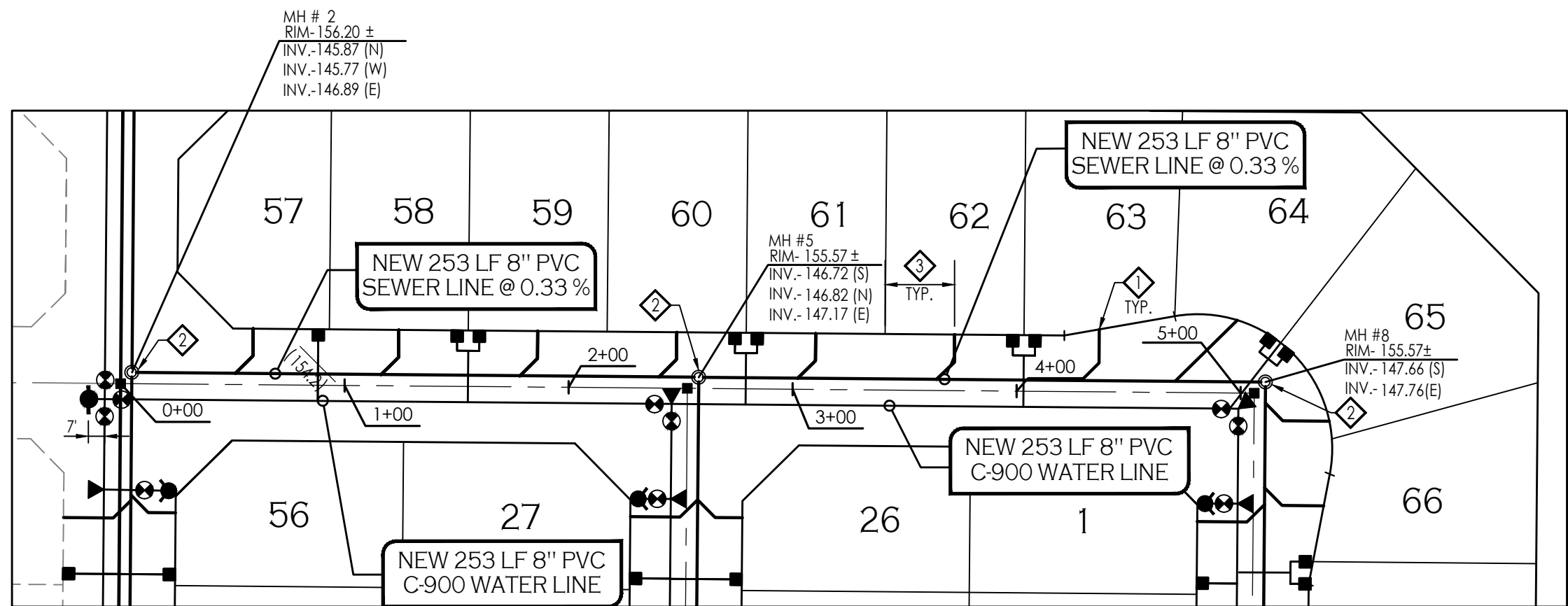
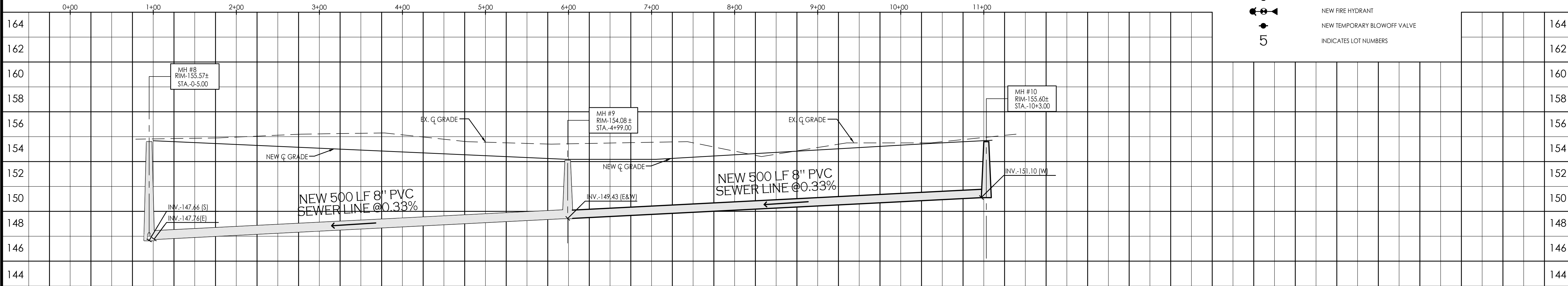


LEGEND

- 163**
- ==EX.==6"=PVC==W== INDICATES EX. WATER LINE
 - ==EX.==8"=PVC==S== INDICATES EX. SEWER LINE
 - GAS--- INDICATES EX. GAS LINE
 - ⓔ INDICATES EXISTING ELECTRICAL BOX
 - ⓖP INDICATES EXISTING GAS PADDLE
 - ⓂH INDICATES EXISTING MANHOLE
 - ⓕH INDICATES EXISTING FIRE HYDRANT
 - Ⓜ INDICATES EXISTING WATER METER
 - ⓂV INDICATES EXISTING WATER VALVE
 - NEW---PVC---S--- INDICATES NEW SANITARY SEWER LINE
 - NEW SEWER STUB
 - NEW SEWER MANHOLE
 - NEW 4" PVC SEWER SERVICE
 - NEW---PVC---W--- INDICATES NEW WATER LINE
 - NEW SINGLE WATER SERVICE
 - FIRE LINE W/ END PLUG AND THRUST BLOCK
 - NEW WATER VALVE
 - NEW FIRE HYDRANT
 - NEW TEMPORARY BLOWOFF VALVE
 - INDICATES LOT NUMBERS



SCALE: 1"=60'
HORIZONTAL
SCALE: 1"=4'
VERTICAL

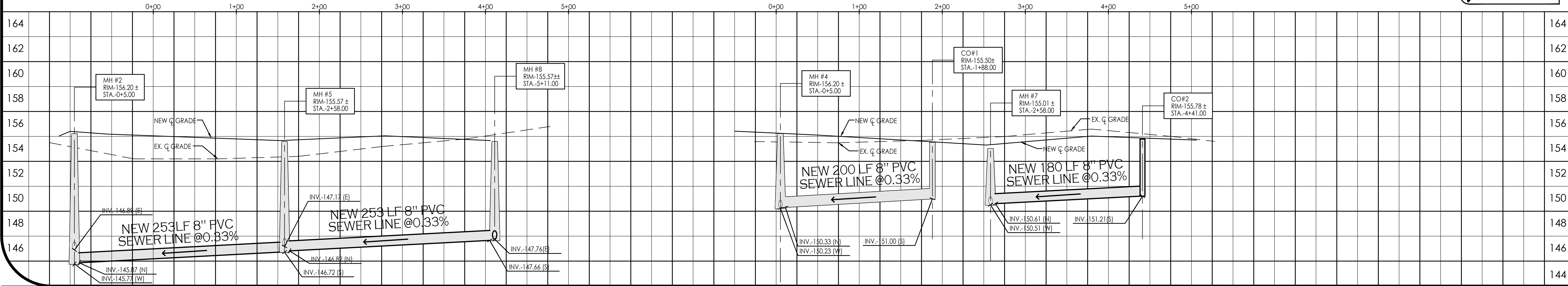


SCALE: 1"=60'
HORIZONTAL
SCALE: 1"=4'
VERTICAL

KEYNOTES:

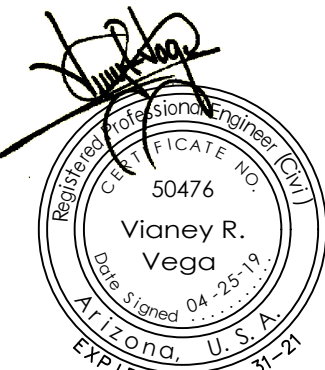
- ◇ NEW 4" PVC SEWER SERVICE - SEE DETAIL (M 8)
- ◇ NEW SANITARY SEWER MANHOLE - SEE DETAILS (N 8) (Q 8)
- ◇ CONSTRUCT ALL SEWER SERVICES TO CENTER OF THE LOT, UNLESS NOTED OTHERWISE.
- ◇ NEW SANITARY SEWER CLEANOUT - SEE DETAIL (L 7)

CALL TWO WORKING DAYS
BEFORE YOU DIG
1-800-STAKE-IT



Water & Sewer Plan and Profile

BELLEZA DEL DESIERTO SUBDIVISION



Notes:

Scale: N.T.S. [Date: APR. 2019]
Drawn: Staff Job #: VnV18-950
Checked: Vna

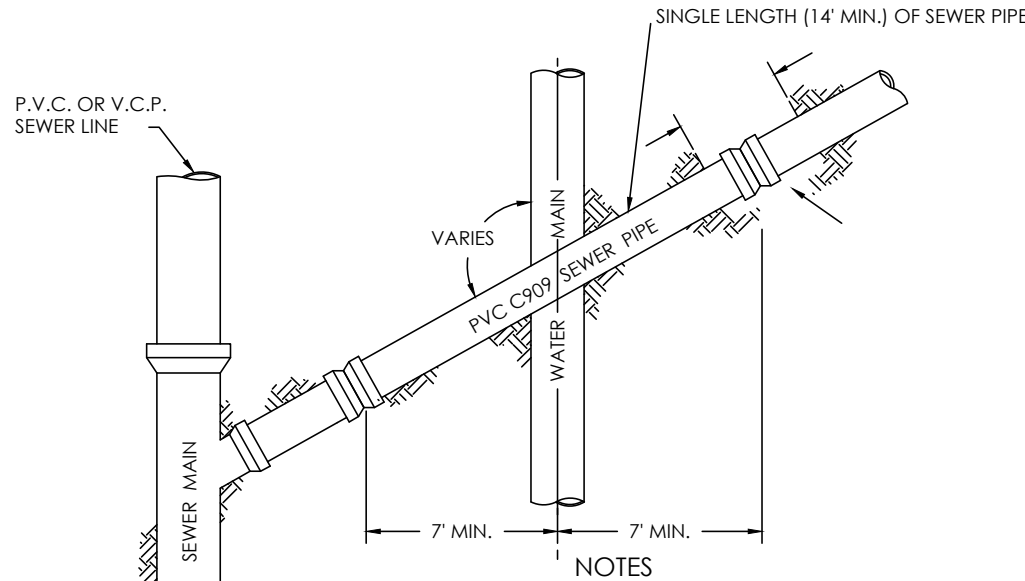
Sheet 6
of 9

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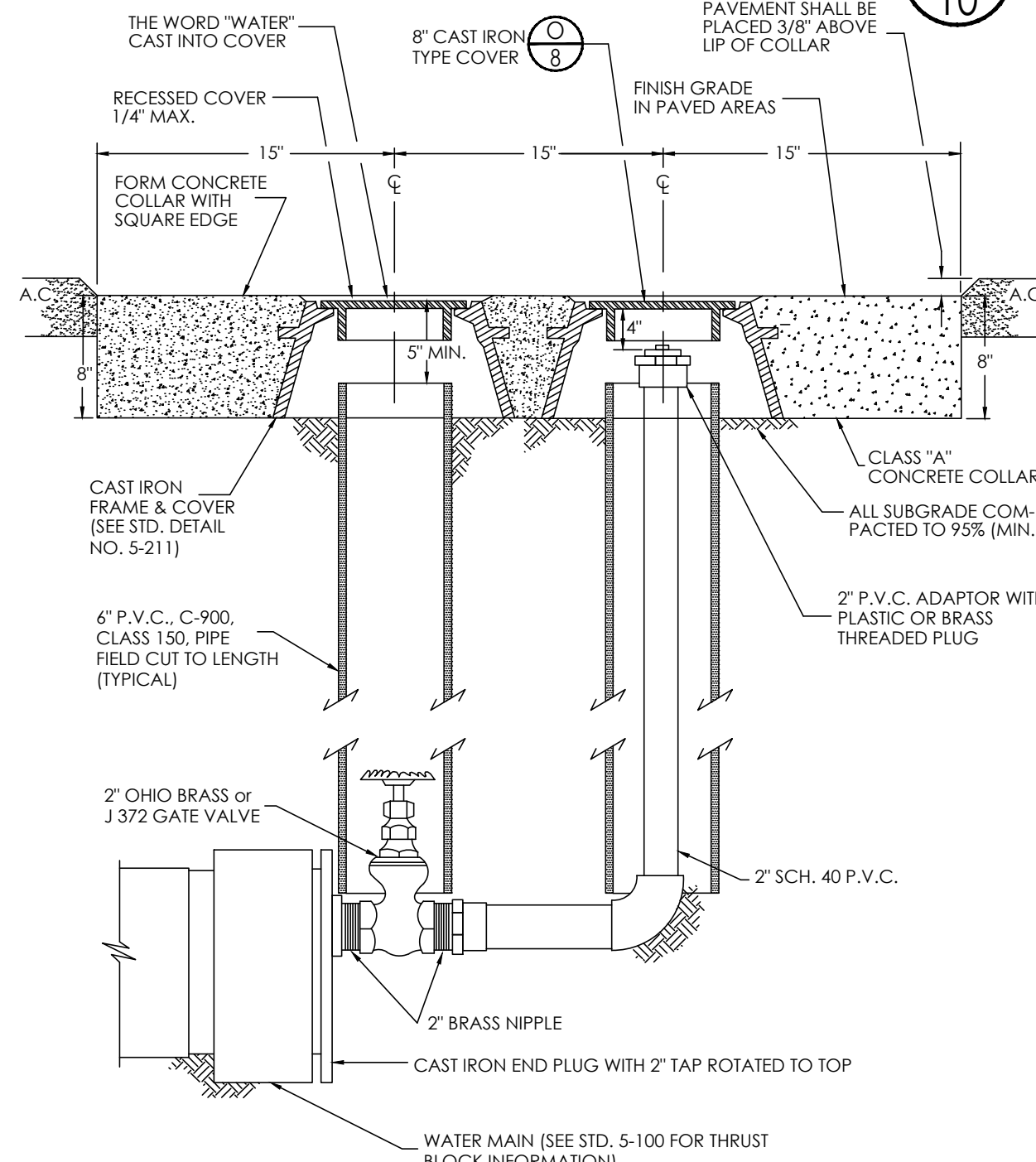
APPROVED WATER SERVICE COMPONENTS	
CORPORATION STOPS	PVC / plastic services: AYM 3404 AYM 4704-33
ANGLE STOPS	AYM 4202 22 1/2" ONLY
CURB STOP	AYM 182 3/4" and 1"
SERVICE SADDLES	AYM 979 (replacement only- A.C. or cast iron pipe) AYM 989 (for AWWA C-900 PVC pipe only) W/S 1/4" MAIN VALVES AS REQUIRED BY NIFA. AYM 3825 AND 3826
FIRE HYDRANTS	AMERICAN AVK, CLOW MEDALLION WATEROUS PACER WB-67 EAST JORDAN IRONWORKS- WATER MASTER
METER	BADGER METER, Inc brand. Must be outfitted with automatic meter reading (AMR) capability; an integral data profile transmitter, and register that records in cubic feet. Dual register compound meters must include a separate transmitter for each register. Meters 3" to 8" must also include test port on body, and strainer or integral strainer.
METER COUPLINGS	AYM 3/4" / 1": 4622 1 1/2" / 2": 610F
METER BUSHINGS	AYM 1" x 1 1/4" 10534
REPAIR CLAMPS	SMITH-BLAIR (minimum length: 15") with stainless steel bolts 304
TAPPING SLEEVES	SMITH-BLAIR MODEL 662-663 stainless steel (6" and smaller: 15" long min.; larger or equal to 8": 20" long min.) CASCADE CST-SL
VALVES (2")	Mueller
VALVES (4" through 30")	AMERICAN DARLING, AMERICAN FLOW CONTROL, CLOW WATEROUS, AMERICAN AVK EAST JORDAN IRONWORKS FLOW MASTER VALVES (only resilient wedge gate valves shall be used)
TRANSITION COUPLINGS	SMITH-BLAIR (20" long for water mains 12" and larger / 15" long for water mains 10" and smaller). Any device used to connect A.C. pipe to ductile iron or P.V.C. pipe shall require prior approval by the City Engineer. Hymat longbody couplings.
AIR RELEASE VALVES	A.R.I. MODEL D-020 (for use in waste water applications where air release and vacuum breaks need to occur in sanitary force mains). A.R.I. MODEL D-040 and D-060-C HRNS for potable water.

- NOTES
- The approved equipment shown is not necessarily exclusive. If approval of a similar device believed to be comparable and equal is desired, a request supported by appropriate information on data may be submitted to the City Engineer for review.
 - All buried components will require Type 304 stainless steel (min.) components (nuts, bolts, washers, etc.) unless otherwise noted.
 - All new water service requests 2" and smaller off of an existing water main will be installed by City of San Luis utilities personnel.



TYPICAL WATER & SEWER MAIN CROSSING

CITY OF YUMA STANDARD # 5-060

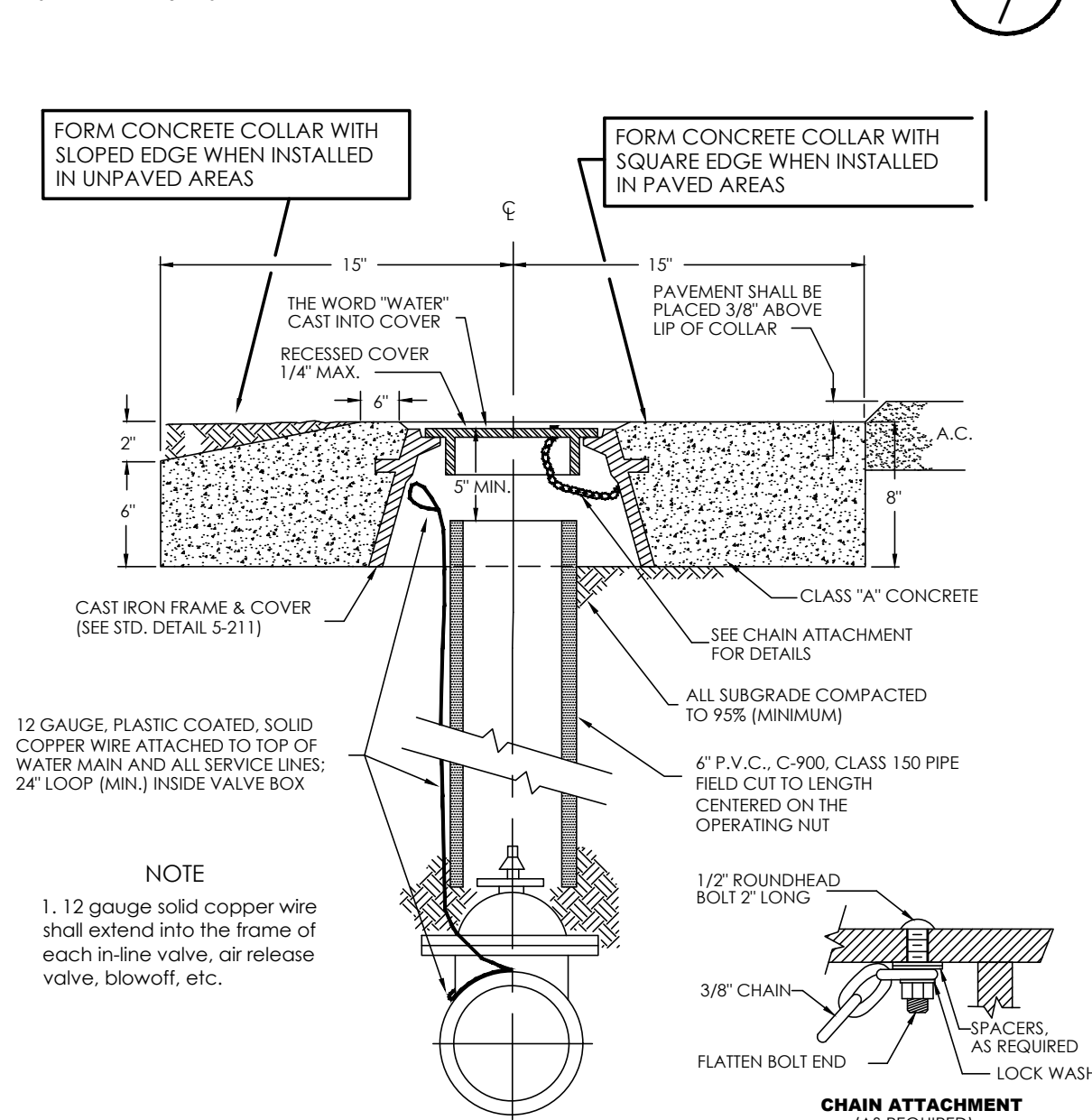


NOTES

- BLOWOFF SHALL BE LOCATED WITHIN 20' (MAX.) FROM LAST IN-LINE VALVE.
- TRACER WIRE SHALL BE INSTALLED ON ALL WATER MAINS AND EXTENSIONS. TRACER WIRE SHALL EXTEND INTO THE VALVE FRAME.

WATERMAIN BLOWOFF

CITY OF YUMA STANDARD # 5-140

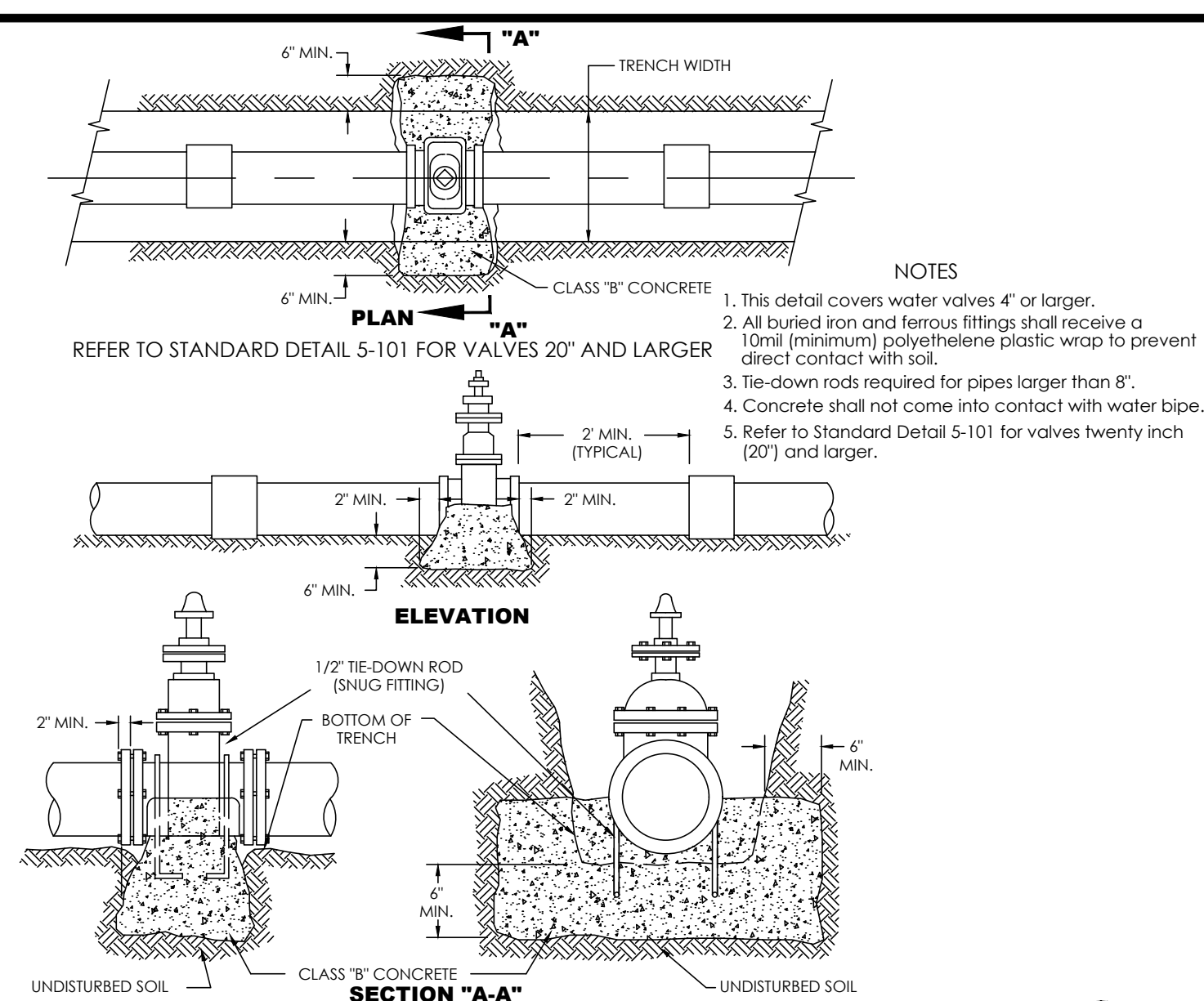


NOTE

- 12 gauge solid copper wire shall extend into the frame of each in-line valve, air release valve, blowoff, etc.

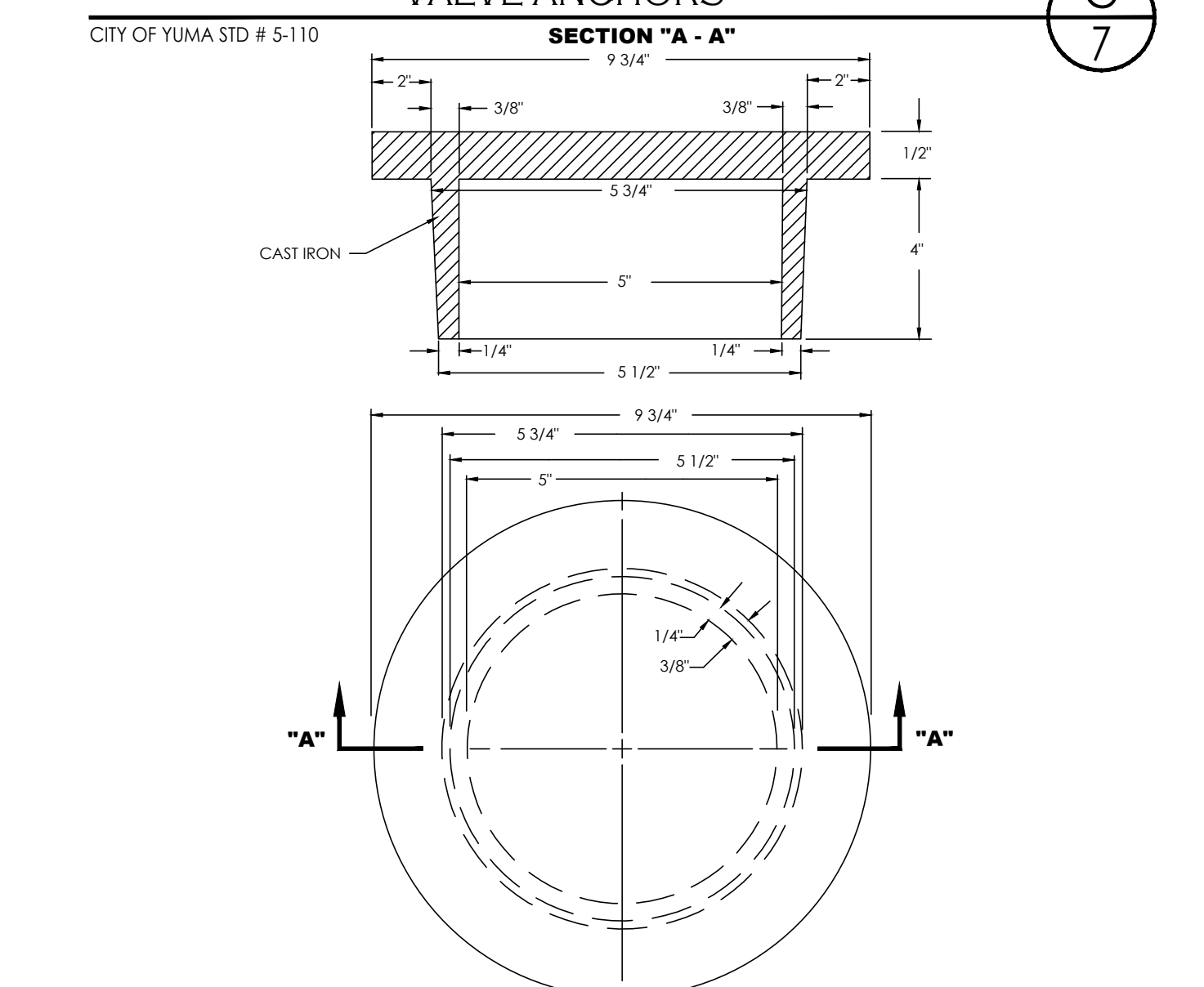
VALVE BOX INSTALLATION

CITY OF YUMA STANDARD # 5-210



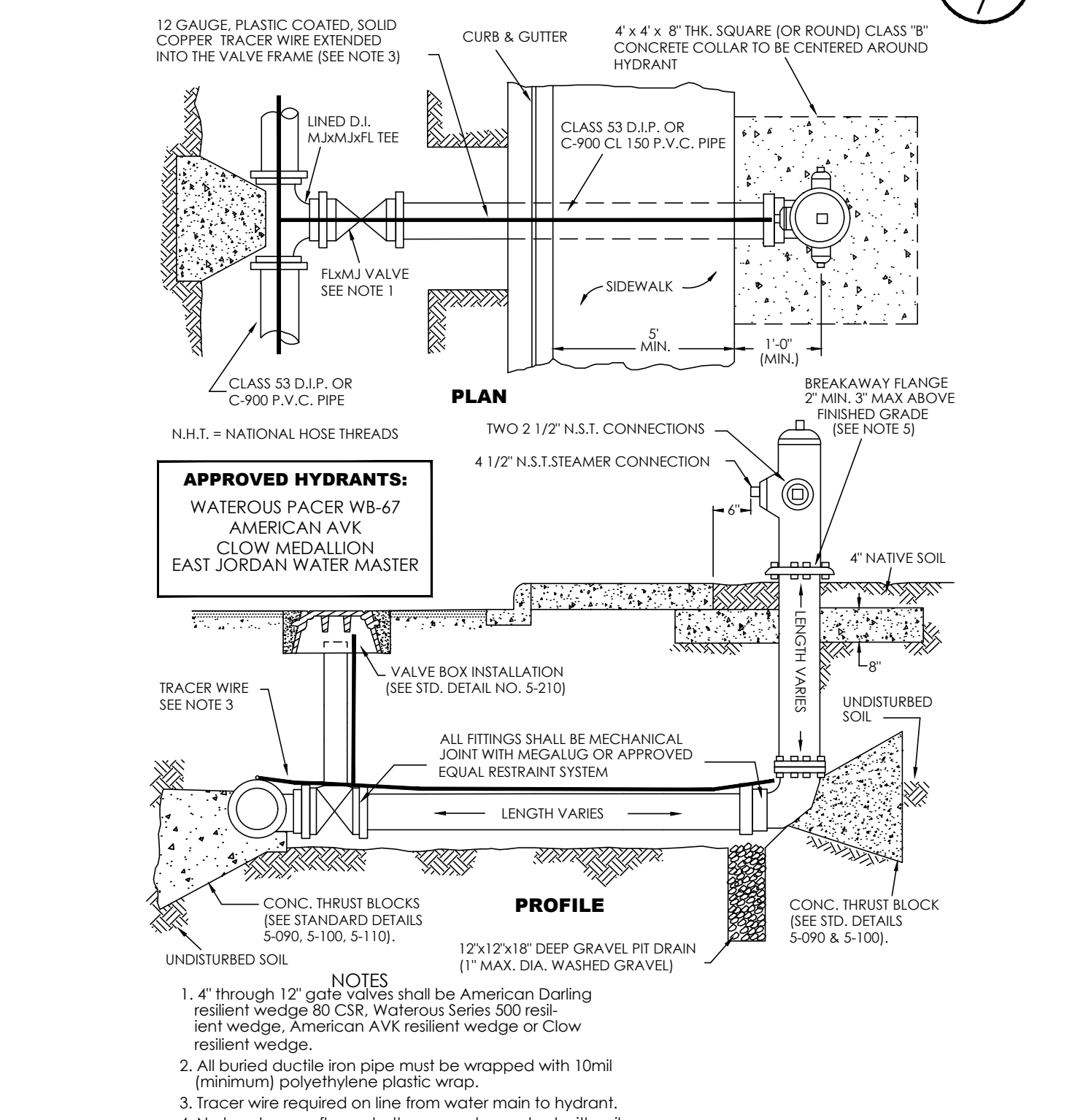
SECTION "A-A"

CITY OF YUMA STD # 5-110



VALVE BOX COVER, DROP IN

CITY OF YUMA STD # 5-200



APPROVED HYDRANTS:

- WATEROUS PACER WB-67
- AMERICAN AVK
- CLOW MEDALLION
- EAST JORDAN WATER MASTER

FIRE HYDRANT ON WATER MAINS

CITY OF YUMA STANDARD # 5-120

THRUST AT FITTINGS IN POUNDS AT 150 POUNDS PER SQUARE INCH OF WATER PRESSURE					
ALL PIPE & FITTINGS SHALL BE CLASS 150 (MINIMUM)					
Size	Dead Ends	90° Bend	45° Bend	22 1/2° Bend	Per Degrees of Deflection
2"	1,740	2,460	1,335	675	30.3
4"	2,715	3,840	2,085	1,065	47.3
6"	5,625	7,950	4,320	2,190	98.3
8"	9,780	13,800	7,500	3,795	171.0
10"	16,050	22,650	12,300	6,225	280.5
12"	22,800	32,250	17,550	8,850	399.0
14"	31,050	42,300	23,850	12,075	543.0
16"	40,200	57,000	30,750	15,600	705.0

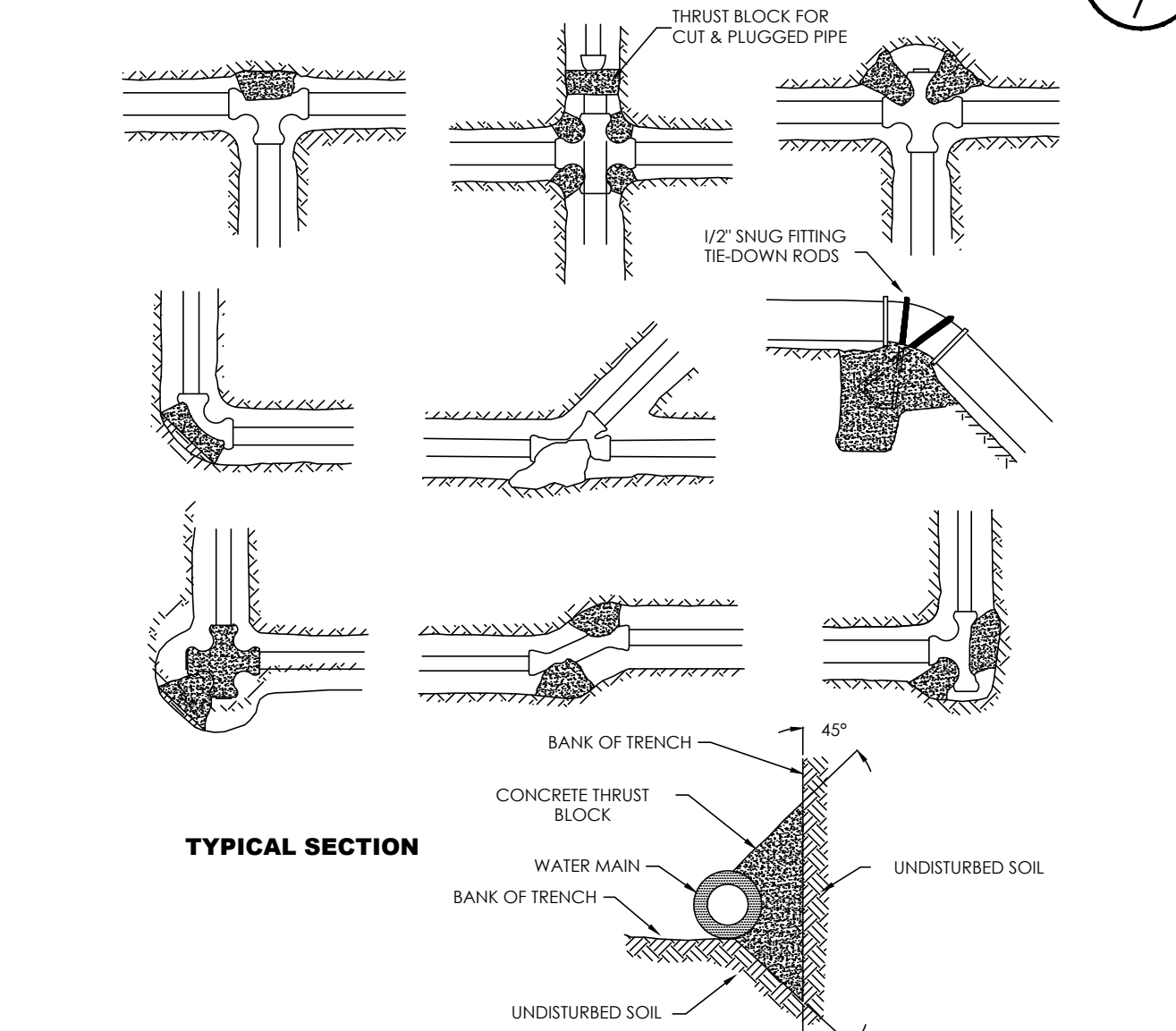
Soil	Safe Bearing Load Pounds Per Square Inch
MUCK, PEAT, ETC.	0
SOFT CLAY	1000
SAND	2000
SAND & GRAVEL	3000
SAND & GRAVEL CEMENTED WITH CLAY	4000

TO CALCULATE THE NEEDED AREA OF A THRUST BLOCK
Divide thrust by safe bearing load. Note: Thrust block area for 6" and larger pipe shall not be less than three (3) square feet in size.

- All domestic pipe and fittings shall be Class 150 (minimum) unless otherwise noted.
- All private fire suppression pipe shall have a minimum class of 150 (P.S.I.).
- Thrust block area will be determined by soil tests for pipe greater in size than 16".
- Concrete shall not come in direct contact with pipe.

THRUST BLOCK DATA

CITY OF YUMA STD # 5-100

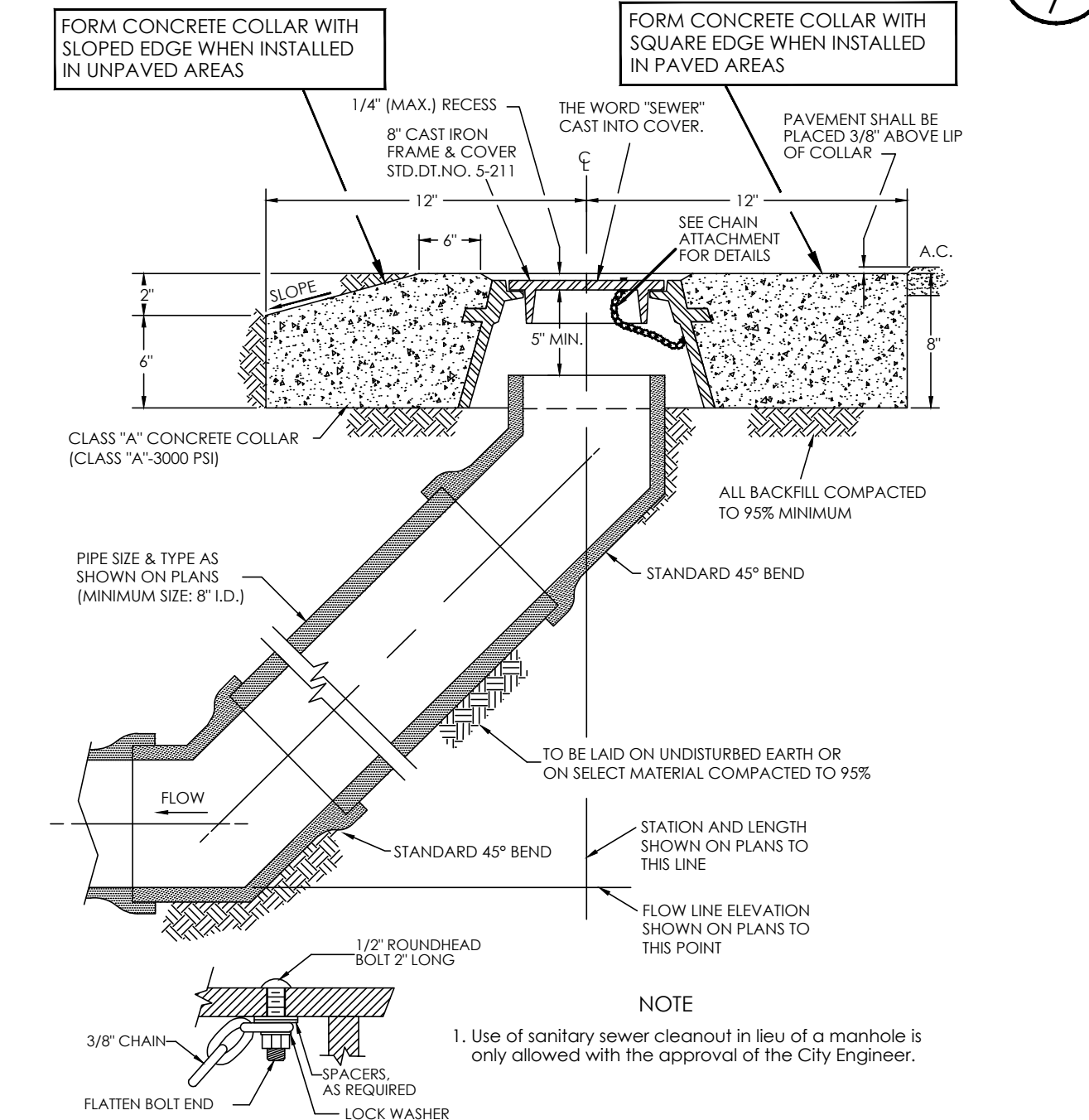


NOTES

- See Standard Detail 5-100 for calculating safe bearing areas.
- All ferrous fittings, pipe, connectors and appurtenances shall receive a 10mil (minimum) polyethylene wrap to prevent direct contact with the soil.
- Thrust blocks shall consist of Class "B" concrete.
- Concrete shall not come in direct contact with pipe.
- 316 stainless steel tie-down rods required for pipe larger than 8".
- Place a minimum of 8" concrete under all fittings.

TYPICAL THRUST BLOCK INSTALLATION

CITY OF YUMA STD # 5-090



NOTE

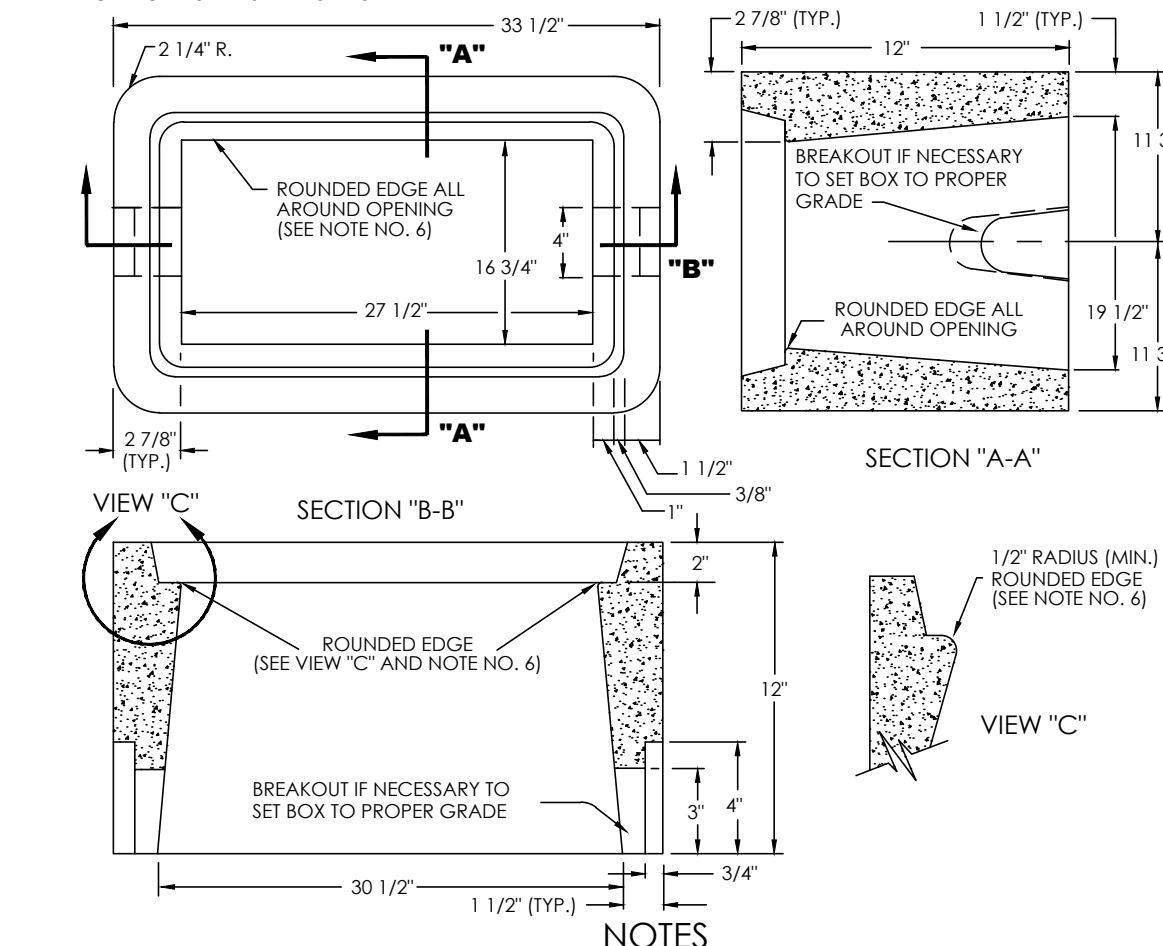
- Use of sanitary sewer cleanout in lieu of a manhole is only allowed with the approval of the City Engineer.

SANITARY SEWER CLEANOUT

CITY OF YUMA STD # 5-010

APPROVED WATER SERVICE COMPONENTS

CITY OF YUMA STD # 5-148

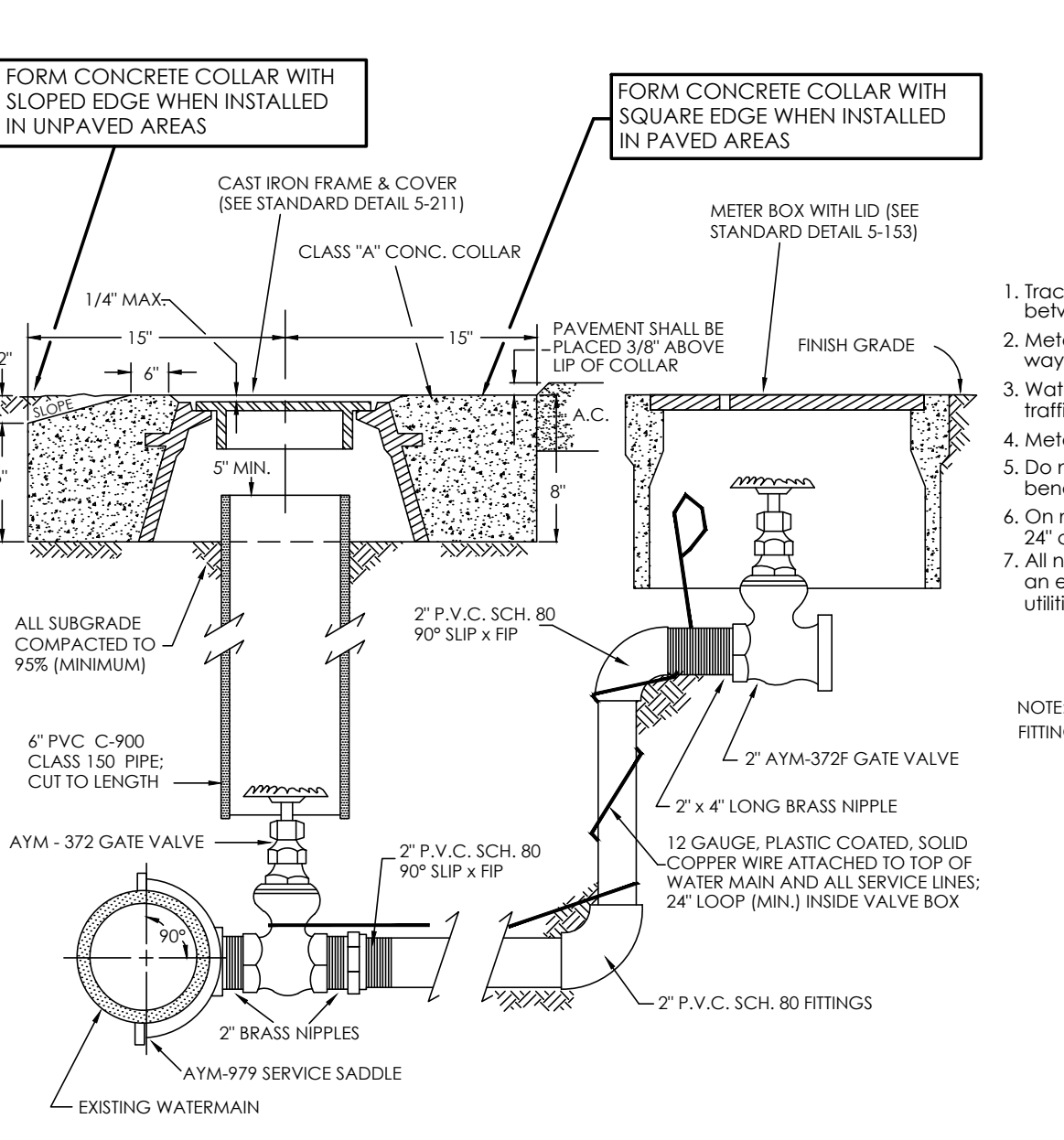


NOTES

- The meter boxes shall conform to the dimensions of the above drawing and shall be made of Portland Cement concrete poured and tamped (or vibrated) in true form.
- The Portland cement concrete shall be batched in the proper proportions by weight, water, cement, fine aggregate (A.S.T.M. C-33), and coarse aggregate (3/8" rock). This mix shall be designed to obtain a minimum of 4,000psi at 28 days when tested in accordance with A.S.T.M. C-39. This mix shall be poured at a slump not in excess of six inches (6").
- Upon the removal of the forms, the meter boxes shall be water cured for seven (7) days or sprayed with a membrane curing compound such as "Hunts Process" or approved equal.
- The method of sampling and testing of these boxes shall conform to A.S.T.M. C-129 and C-140, except that the minimum required strength shall be 4,000psi at 28 days.
- Meter box lids shall be cast iron and fit flush with top of box and have adequate bearing on seat. When water meter boxes are used in paved areas, subject to vehicular traffic, a traffic rated lid will be used.
- The San Diego Precast Concrete, Inc. model P 4 1/2 water meter box with cast iron lid or equal is an approved model.
- Apply 1/2" radius (minimum) to edges of box opening in order to prevent worker injury when handling and installing boxes.
- Use composite meter boxes in residential subdivisions/ mobile home parks. The lids are to be pre-cut with a 1.75" to 2.0" diameter hole to install automatic meter reading device.

CONCRETE WATER METER BOX FOR 1 1/2" AND 2" METERS

CITY OF YUMA STANDARD # 5-153



NOTE

- Tracer wire shall be required on all service lines between watermain and meter.
- Meter box to be set adjacent to the public right-of-way line.
- Water meter boxes that are subject to vehicular traffic must include a traffic rated cast iron lid.
- Meter boxes are not to be located inside sidewalks.
- Do not bend or crimp water service line. Use 45° bends and/or appropriate fittings.
- On multiple 2" services, saddles shall be at least 24" clear (minimum).
- All new water service requests 2" and smaller off of an existing water main will be done by City of Yuma utilities personnel.

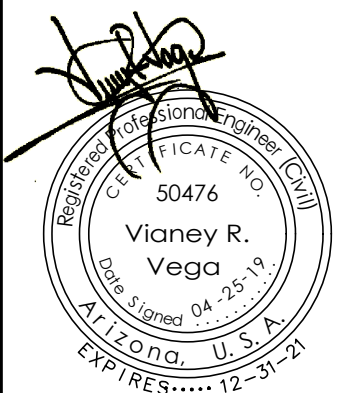
NOTE: PIPE SHALL BE SCH. 40 MINIMUM. FITTINGS SHALL BE SCH. 80 MINIMUM.

2" WATER SERVICE

CITY OF YUMA STANDARD # 5-150

Water & Sewer Details

BELLEZA DEL DESIERTO SUBDIVISION



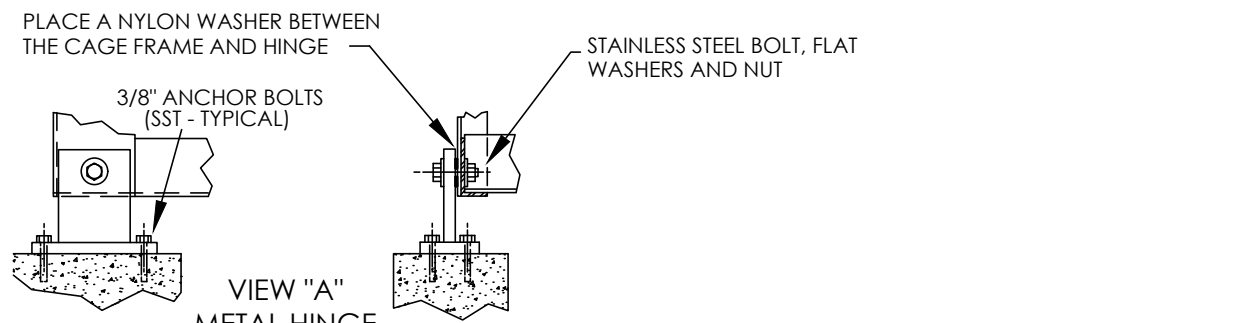
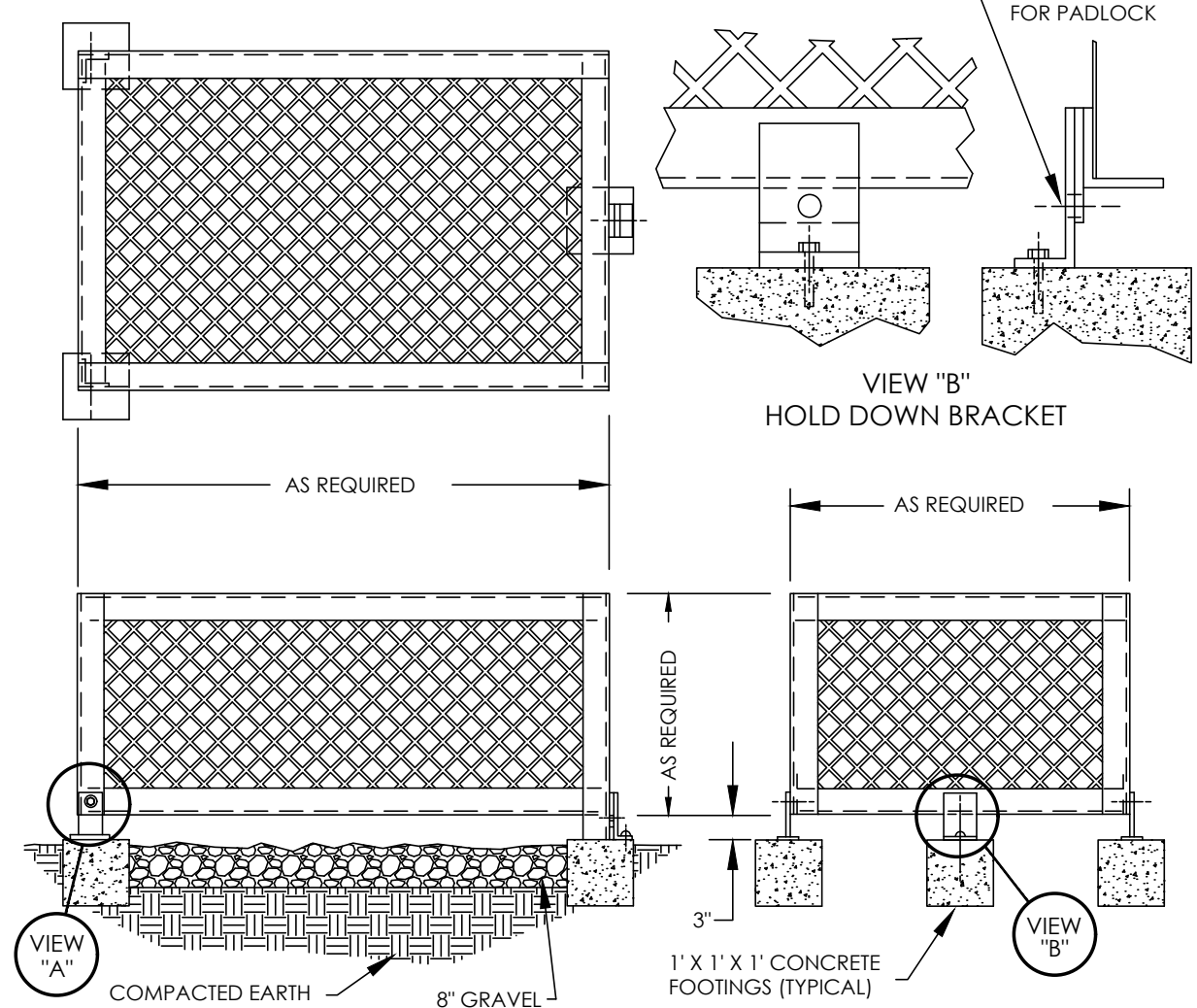
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Scale: N.T.S. [Date: APR. 2019]
 Drawn: staff [Job #: VNV18-950]
 Checked: vno

Sheet 7 of 9

NOTES

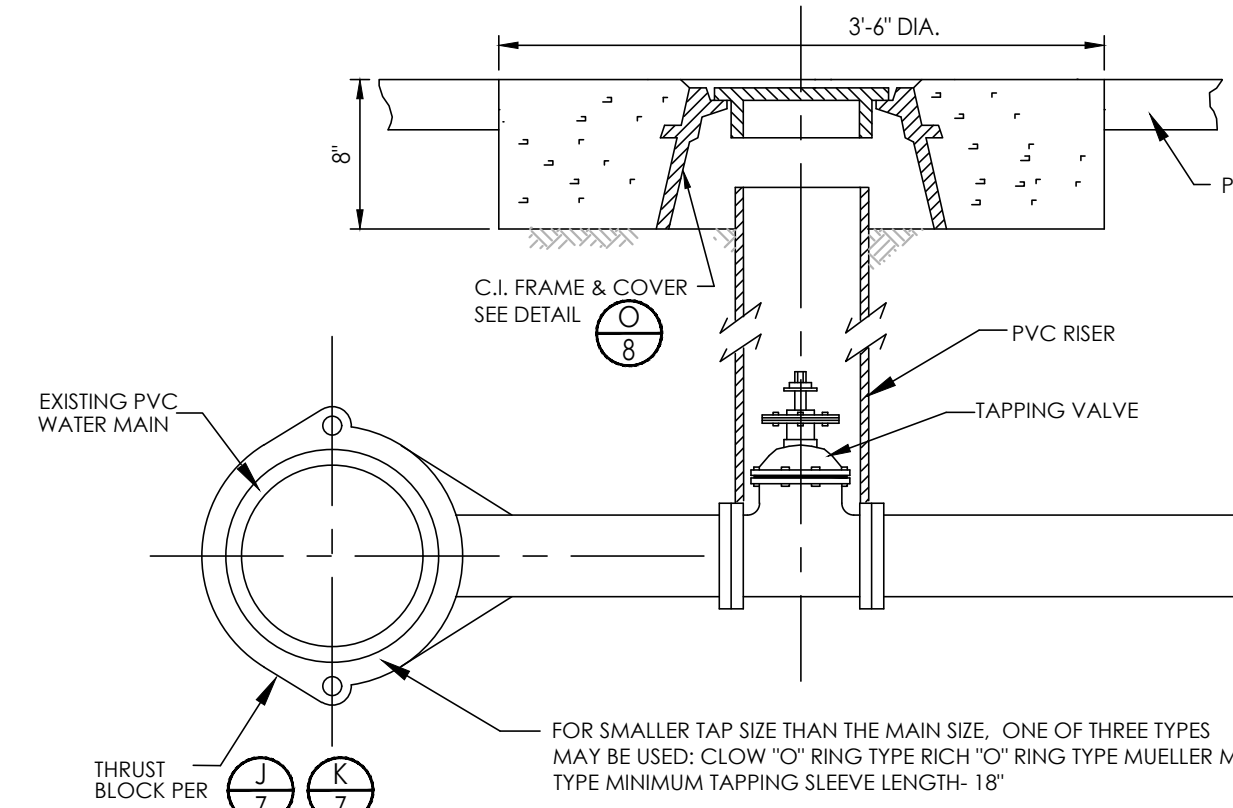
1. CONSTRUCT FRAME FROM 1 1/2" X 1 1/2" X 1/4" ANGLE IRON (WELDED ASSEMBLY)
2. CONSTRUCT HINGES / HOLD DOWN BRACKET FROM 1/4" STEEL.
3. 1/4" X 1/4" STEEL MESH TACK WELDED TO ANGLE IRON FRAME.
4. DE-BURR AND ROUND ALL WELDS AND SHARP EDGES.
5. OVERALL DIMENSIONS (HEIGHT/LENGTH & WIDTH) TO BE DETERMINED BY APPLICATION.
6. ASSEMBLY SHALL RECEIVE ONE COAT OF METAL PRIMER AND TWO FINISH COATS OF INDUSTRIAL "SAHARA SAND" RUST RESISTANT PAINT (OR APPROVED EQUAL).
7. CONCRETE FOOTINGS SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.



CAGE FOR BACKFLOW PREVENTER DETAIL

CITY OF YUMA STANDARD # 5-114

Y
9



TAPPING SLEEVE DETAIL

Z
9

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF SITE AND SOIL CONDITION AND SHALL NOTIFY ALL UTILITY AGENCIES PRIOR TO EXCAVATION.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONDITIONS REQUIRING CHANGE TO THE PLANS.
3. CONTRACTOR SHALL NOTIFY THE CITY OF SAN LUIS PRIOR TO START OF CONSTRUCTION.
4. STANDARD SPECIFICATIONS AND ARIZONA STATE HEALTH DEPARTMENT BUL. NO. 11 SHALL APPLY TO THIS PROJECT.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR TWO YEARS AFTER THE FINAL ACCEPTANCE.
6. UNLESS HEREON REVISED, ALL CONSTRUCTION MATERIALS AND WORK MANSHIP WILL BE IN ACCORDANCE WITH YUMA COUNTY SPECIFICATIONS AND RECOMMENDED DETAILS AND SHALL, WHERE APPLICABLE, BE IN ACCORDANCE WITH ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REGULATIONS.
7. NO STREET, WATER, SEWER AND IMPROVEMENTS TO BE ACCEPTED BY THE CITY OF SAN LUIS, FOR MAINTENANCE UNTIL "AS-BUILT", CERTIFIED, REPRODUCIBLE PLANS ARE FILED WITH AND ACCEPTED BY THE CITY OF SAN LUIS PUBLIC WORKS DIRECTION.
8. CONTRACTOR WILL PROVIDE THE ENGINEER WITH ALL COUNTY REQUIRED COMPACTION AND CONCRETE TESTS.
9. FLANGE BOLTS SHALL BE PROTECTED BY 10 MIL POLYETHYLENE WRAP.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND FURNISHING TO THE ENGINEER OF "AS-BUILT" RECORD DRAWINGS, TO INCLUDE COST BREAKDOWN FOR WATER. THE CONTRACTOR SHALL OBTAIN ONE SET OF PLANS FROM THE ENGINEER AND SHALL RECORD IN RED COLORED PENCIL ALL CASES WHERE ACTUAL FIELD CONSTRUCTION DIFFERS FROM WORK SHOWN ON THE PLANS, TO INCLUDE SERVICE LOCATIONS.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE BLUE STAKE CENTER TO LOCATE ALL UNDERGROUND EQUIPMENT WITHIN THE CONSTRUCTION AREA TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES, OMISSION FROM, OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF, OR A DEFINITE LOCATION OF, EXISTING UNDERGROUND UTILITIES.
13. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO HIS OPERATIONS. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

WATER AND SEWER NOTES

1. WATER MAINS AND VALVES SHALL BE FLUSHED AND DISINFECTED BY THE "GENERAL METHOD" DESCRIBED IN THE 1978 ARIZONA DEPARTMENT OF HEALTH SERVICES ENGINEERING BULLETIN NO. 8.
2. ENGINEERING PERSONNEL SHALL BE PRESENT WHEN WATER MAINS ARE BOTH FLUSHED AND PRESSURE TESTED.
3. ALL TEES, 90 DEGREE ELLS, BENDS, HYDRANTS AND DEAD END PLUGS SHALL BE THRUST BLOCKED WITH CAST-IN-PLACE CONCRETE.
4. WATER LINES 4" OR LARGER SHALL BE PVC C900 DR 18 CLASS 235.
5. ALL WATER LINE INSTALLATION MUST MEET OR EXCEED STANDARDS ESTABLISHED IN ADHS BULLETIN NO. 10.
6. ALL PVC WATER DISTRIBUTION PIPES MUST BE APPROVED BY AND SHALL BEAR THE NSF SEAL FOR POTABLE WATER USE.
7. TYPES OF TAPPING SLEEVE REQUIRED:
 - A. FOR SIZE ON SIZE TAP MUELLER TYPE M.J. ENDS REQUIRED.
 - B. FOR SMALLER TAP SIZE THAN THE MAIN SIZE, ONE OF THREE TYPES MAY BE USED:
 - A. CLOW "O" RING TYPE.
 - B. RICH "O" RING TYPE.
 - C. MUELLER M.J. TYPE.
 - C. MINIMUM TAPPING SLEEVE LENGTH - 18".
8. ACCEPTABLE VALVE LIST:

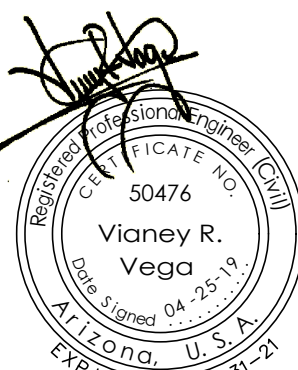
ALL VALVES 12" AND UNDER ARE TO BE RESILIENT WEDGE GATE VALVES. THE FOLLOWING VALVES WILL BE ACCEPTED:

WATEROUS SERIES 500 RESILIENT CLOW RESILIENT WEDGE AMERICAN DARLING 80 CSR RESILIENT WEDGE.
9. ALL PIPES, FITTINGS, VALVES, COATINGS, ETC. SHALL CONFORM TO NSF STANDARD 61. 17. IF DEAD ENDS ON
10. IF DEAD ENDS ON WATER MAINS CANNOT BE AVOIDED, THEY MUST HAVE BLOW-OFF VALVES (MIN. DIA. 2")
11. DESINFECTION OF WATER LINES IN ACCORDANCE WITH A.D.E.Q. BULLETIN No. 8 OR AWWA C-651-92 OR LATEST VERSION.
12. WATER CONSTRUCTION STAKING SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED ENGINEER OR SURVEYOR.
13. ALL MATERIALS AND PRODUCTS USED IN THE DRINKING WATER SYSTEM SHALL CONFORM TO NSF STANDARD 61.
14. CONSTRUCTION MATERIALS USED IN THE WATER SYSTEM SHALL BE LEAD FREE AS DEFINED IN A.A.C. R18-4-504 AND R18-1-101.
15. WATER LINES SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE W/ AWWA C605-94 FOR PVC PIPE.
16. PRIOR TO PLACING THE INSTALLED WATER LINE IN SERVICE, THE NEW PIPE AND EXPOSED SECTIONS AND APPURTENANCES OF EXISTING PIPELINES SHALL BE CLEANED AND DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C651, UNLESS OTHERWISE SPECIFIED. PIPELINES SHALL BE FLUSHED FOLLOWING COMPLETION OF DISINFECTION PROCEDURES, DISPOSAL OR NEUTRALIZATION OF DISINFECTION WATER SHALL COMPLY WITH APPLICABLE REGULATIONS. (REFER TO APPENDIX B OF ANSI/AWWA C651.)
17. WATER AND SEWER LINES AND WATER AND SEWER SERVICE LINES, SEPARATION IN ACCORDANCE WITH A.A.C. R18-4-502.C
18. VERTICALLY AND 4 FEET HORIZONTALLY UNDER ALL CONDITIONS, WHERE A SEWER FORCE MAIN CROSSES ABOVE OR LESS THAN 6 FEET BELOW A WATER LINE, THE SEWER MAIN SHALL BE ENCASED IN AT LEAST 6 INCHES OF CONCRETE OR CONSTRUCTED USING MECHANICAL JOINT DUCTILE IRON PIPE FOR 10 FEET ON EITHER SIDE OF THE WATER MAIN. AS PER A.A.C. R18-5-502.C.3
19. WATER CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF THE BACTERIOLOGICAL TEST RESULTS TAKEN ON THE SYSTEM.
20. ALL WATER LINES (MAINS AND SERVICES) SHALL INCLUDE THE INSTALLATION OF TRACER WIRE IN ACCORDANCE WITH STANDARD DETAIL No. 101.
21. TYPES OF TAPPING SLEEVE REQUIRED: SMITH-BLAIR MODEL 662-663 STAINLESS STEEL (6" AND SMALLER: 15" LONG MIN.; LARGER THAN 8" 20" LONG MIN.)
22. THE OWNER SHALL CONTACT A PROFESSIONAL ENGINEER TO PROVIDE DETAILED CONSTRUCTION INSPECTION SERVICES FOR THE PROPOSED PROJECT. UPON COMPLETION OF THE PROJECT, THE OWNER'S ENGINEER SHALL COMPLETE THE ADEQ "ENGINEER'S CERTIFICATE OF COMPLETION" DOCUMENTATION AND FORWARD SAME TO THE APPROPRIATE OWMOM REGIONAL OFFICE.
23. A MINIMUM OF 7' SHALL BE MAINTAINED BETWEEN PARALLEL WATER AND SEWER LINES AND WATER AND SEWER MAINS.
24. FLANGE BOLTS SHALL BE PROTECTED BY 10 MIL POLYETHYLENE WRAP.
25. SEWER MAINS AND SERVICES SHALL BE CLASS 50 CEMENT OR EPOXY LINED DUCTILE IRON PIPE FOR A DISTANCE OF 7' IN BOTH DIRECTIONS FROM A WATER MAIN OR SERVICE WHEN:
 - A. SEWER MAIN OR SERVICE CROSSES LESS THAN 2' BELOW A WATERMAIN OR SERVICE;
 - B. WATER MAIN OR SERVICE CROSSES BELOW A SEWER MAIN OR SERVICE. (A MINIMUM OF 24" SEPARATION SHALL BE MAINTAINED VERTICALLY BETWEEN WATER AND SEWER MAINS AND SERVICES).
26. SEWER CONSTRUCTION STAKING SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED ENGINEER OR SURVEYOR.
27. SEWER PIPE SHALL BE PVC SDR 35 HAVE N.S.F. SEAL OF APPROVAL, AND MEET ASTM D-3034.
28. SEWER MAINS SHALL BE PRESSURE AND LEAKAGE TESTED WITH 4 FEET OF HEAD UPSTREAM. ALLOWABLE LEAKAGE NOT TO EXCEED 180 GAL./IN. DIA./MILE OF PIPE/DAY.
29. EXFILTRATION FROM MANHOLES SHALL BE LIMITED TO 0.1 GALS./HR./VERTICAL FOOT.
30. DEFLECTION TEST OF AT LEAST 100% OF PLASTIC SEWER PIPE SHALL BE PERFORMED. SHORT TERM DEFLECTION IN EXCESS OF 5% SHALL BE CONSIDERED UNSERVICEABLE AND SHALL BE REPAIRED AND RETESTED.
31. IN AREAS WHERE THE GROUNDWATER IS AT PIPE SPRING LINE OR ABOVE INFILTRATION TESTS SHALL BE PERFORMED. ALLOWABLE INFILTRATION FOR SEWER MAINS NOT TO EXCEED 180 GAL./IN DIA/MILE OF PIPE/DAY. ALLOWABLE INFILTRATION FOR MANHOLES SHALL BE LIMITED TO 0.1 GALS/HR/VERTICAL FOOT.
32. GRAVITY SEWER LINES MUST BE TESTED FOR LEAKAGE AS PER A. A. C. TIRE 8, CH 9, D.2.j.
33. MANHOLES TESTING IS REQUIRED FOR 100% OF MANHOLES ACCORDING TO R18-9-E301.D.3.f. & R18-9-E301.D.3.g.
34. FOR CONSTRUCTION AND TESTING OF SEWER LINES REFER TO A.A.C.R18-9-E301-(D)2j.
35. FOR CONSTRUCTION AND TESTING OF SEWER FORCE MAIN REFER TO A.A.C.R18-9-E301-4.
36. MANHOLE TESTING & CONSTRUCTION IS REQUIRED ACCORDING TO A.A.C.R18-9-E301-3.
37. THE PRESSURE TESTING OF WATERLINES SHALL BE UNDERTAKEN AS FOLLOWS AND IN DESCENDING ORDER OF PRECEDENCE:
 - a) ALL VISIBLE LEAKS SHALL BE REPAIRED, REGARDLESS OF THE AMOUNT OF LEAKAGE AND REGARDLESS OF WHETHER THE LEAK DEVELOPS UNDER TEST PRESSURE OR LINE PRESSURE.
 - b) INITIAL PRESSURE FOR THE PRESSURE TEST SHALL BE A MINIMUM OF 150 PSI. PRESSURE LOSS DURING TESTING SHALL NOT EXCEED 5 PSI.
 - c) A PRESSURE TEST WILL BE DEEMED AS SUCCESSFUL IF IT PASSES THE CRITERIA SET FORTH BY AWWA C-600, SECTION 4 (CURRENT EDITION) AND THAT CRITERIA NOTED ABOVE, EXCEPT NO LEAKAGE TEST WILL BE ALLOWED.

ALL EQUIPMENT AND PRODUCTS THAT COME INTO CONTACT WITH THE PUBLIC WATER SUPPLY SHALL BE CERTIFIED TO MEET THE NATIONAL SANITATION FOUNDATION STANDARD 61 PER A.A.C. SEC. R18-4-213(B)

Water & Sewer Details

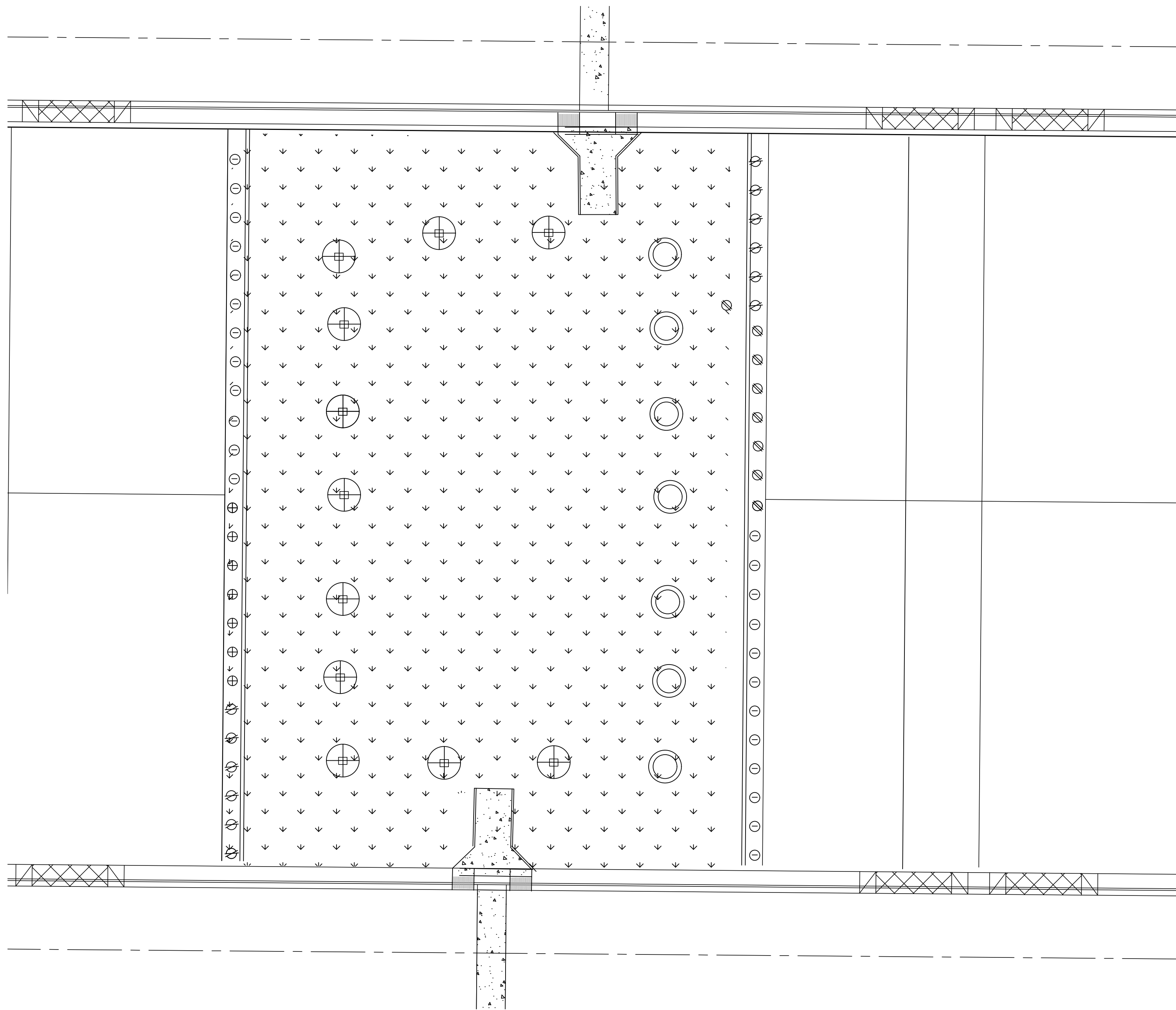
BELLEZA DEL DESIERTO SUBMISION



Notes:

Scale: N.T.S. Date: APR. 2019
Drawn: staff Job #: VnV18-950
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Sheet 9
of 9

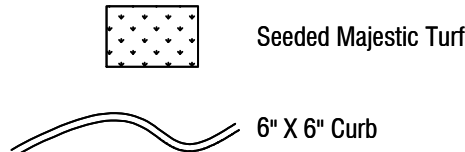


PLANT LEGEND

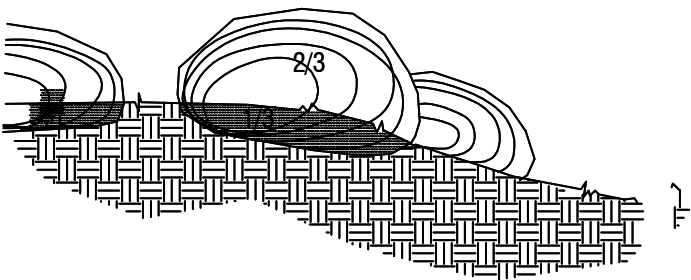
TREES	COMMON NAME	BOTANICAL NAME	SIZE
	Willow Acacia	Acacia Salicina	24" Box
	Sissoo	Dalbergii Sissoo	15 Gal.
	Coolabah	Eucalyptus Microtheca	24" Box

SHRUBS	COMMON NAME	BOTANICAL NAME	SIZE
	Arizona Yellow Bells	Techoma Stans	5 Gal.
	Bird of paradise	Caesalpinia Gilliesii	5 Gal.
	Texas Sage	Leucophyllum Frutescens	5 Gal.
	Petite pink Oleander	Nerium oleander	5 Gal.

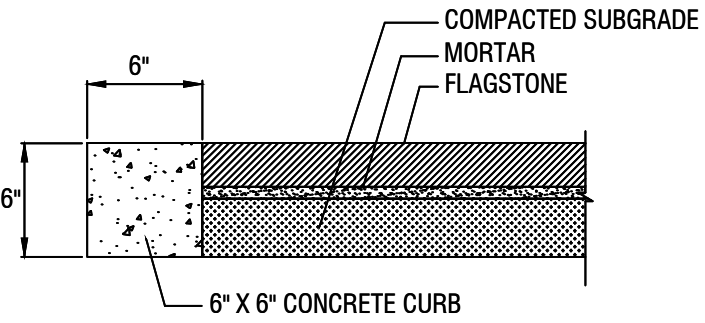
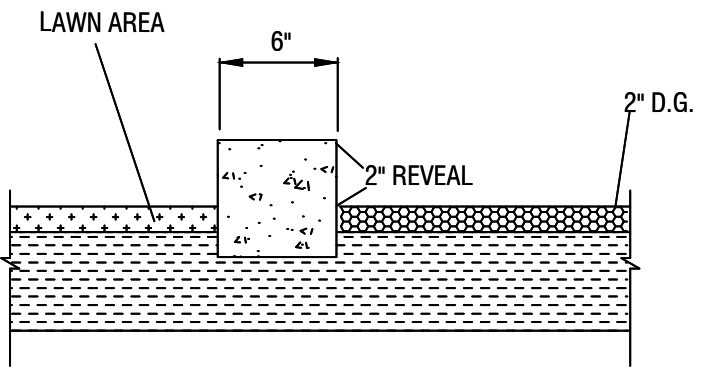
GROUND COVER/HARDSCAPES



TYPICAL OUT CROPPING

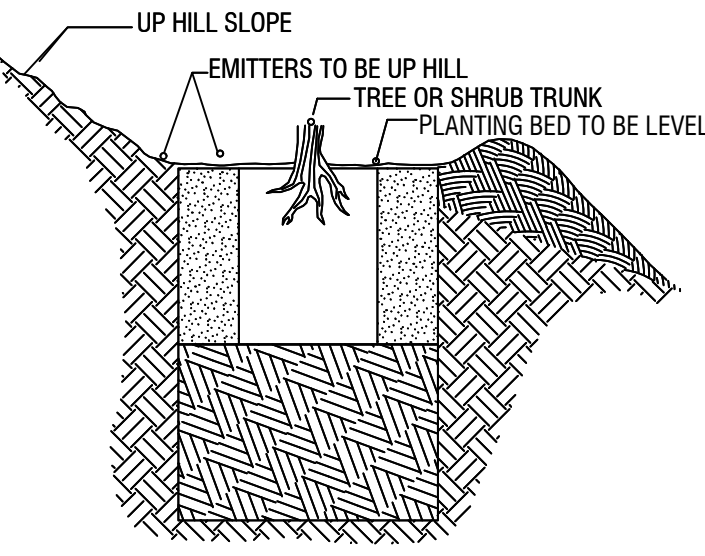


D7b BOULDER INSTALLATION

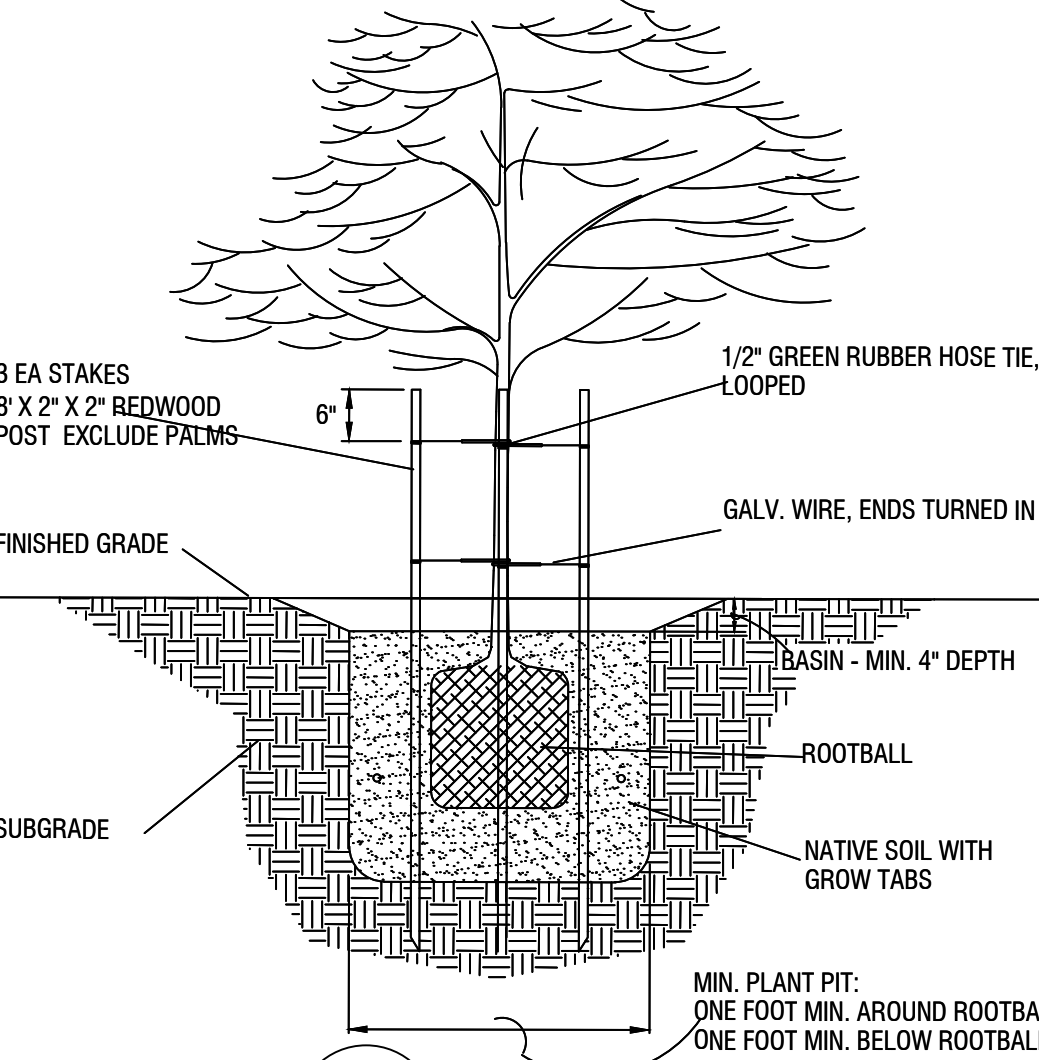


Note
THICKNESS OF FLAGSTONE MAY VARY
ADJUST ACCORDINGLY. NO JOINTS LARGER
THAN 1".

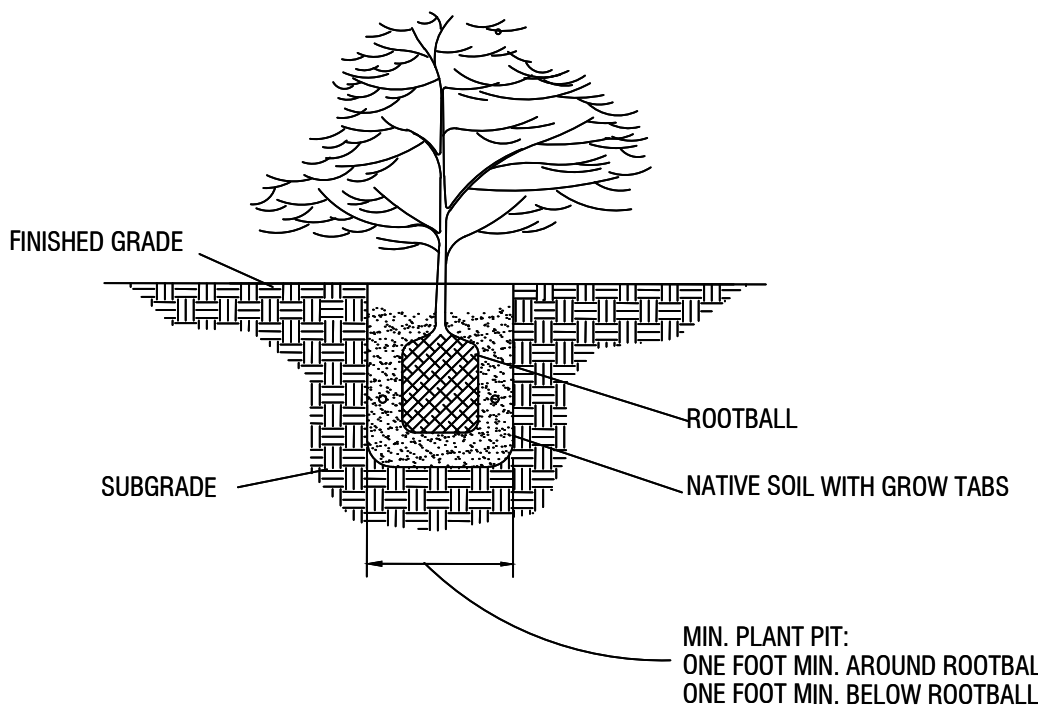
D7 LANDSCAPE CURB



0-5 GPM=1/2"
5-10 GPM=3/4"
11-15 GPM=1"
16-22 GPM=1 1/4"
23-35 GPM=1 1/2"
36-50 GPM=2"

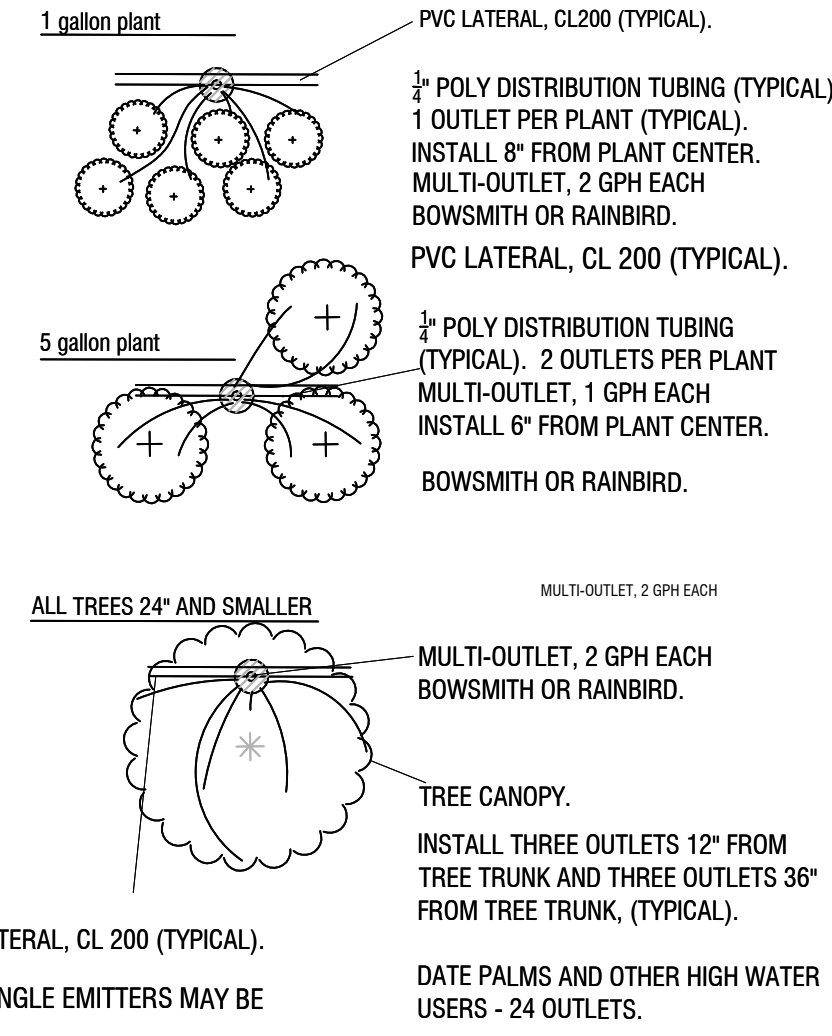


D6 TREE PLANTING

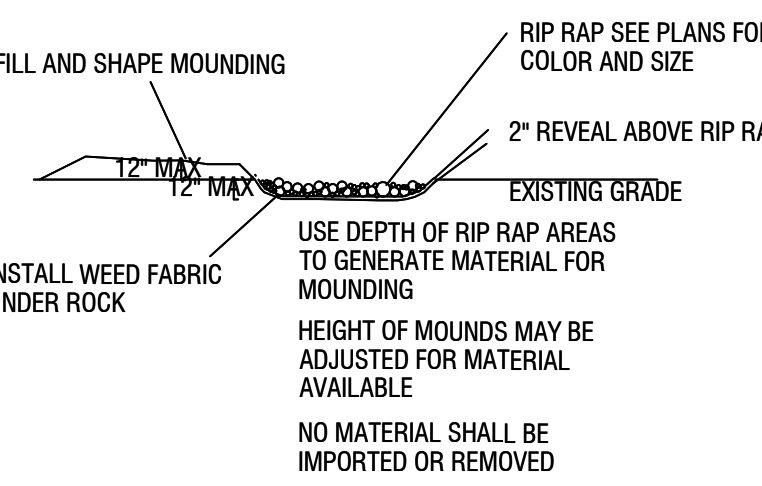


D4 SHRUB PLANTING

D5 PLANTED ON SLOPE



EMITTER TUBES SHALL BE MOVED OUT
TO DRIP LINE OF TREES NEEDED



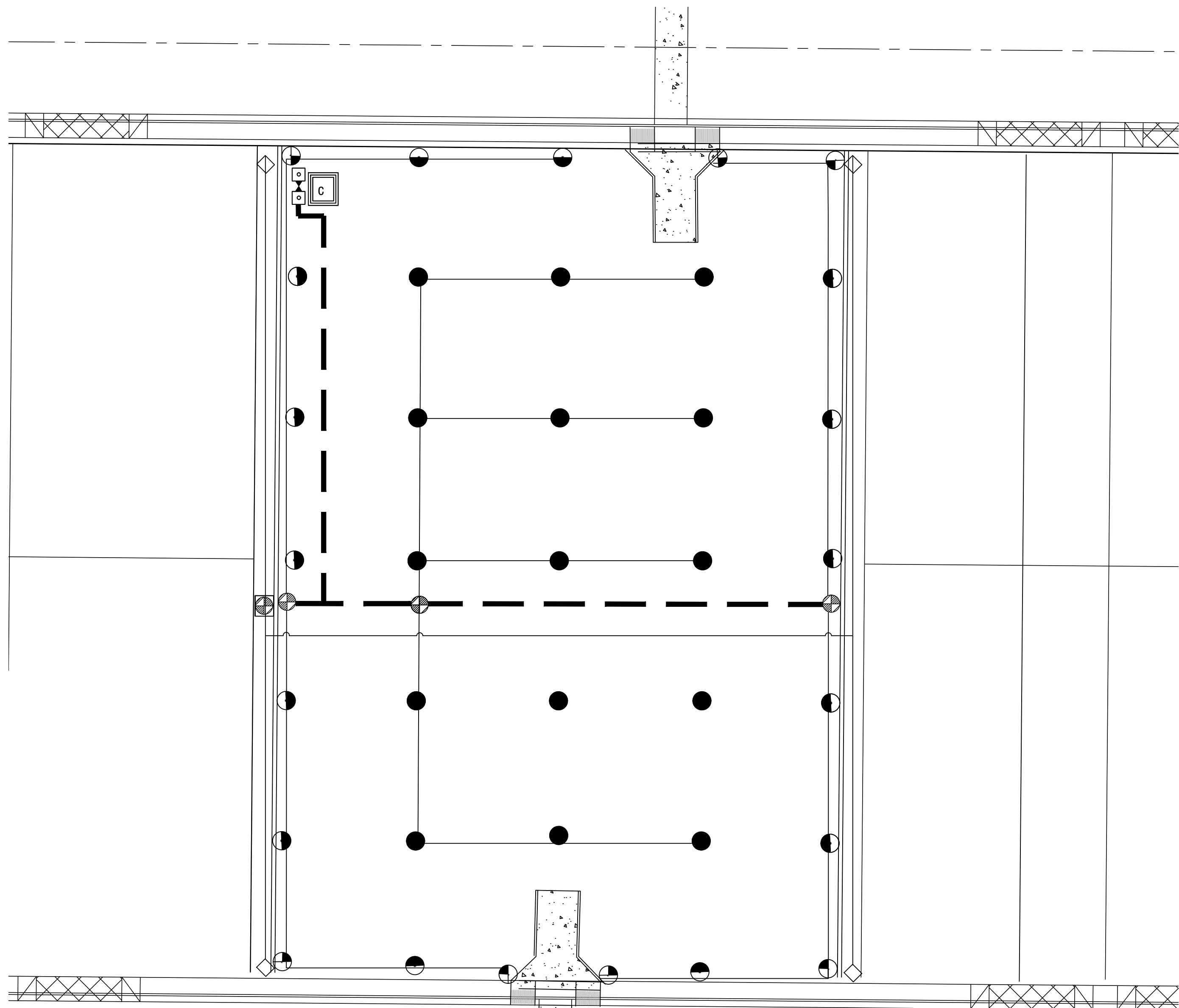
D2 BOULDER INSTALLATION

size (pipe)	class	gpm	sleeve size
1/2"	315	0-5	2"
3/4"	200	6-10	2"
1"	200	11-15	3"
1-1/4"	200	16-25	3"
1-1/2"	200	26-35	3"
2"	200	36-50	4"
2-1/2"	200	51-75	6"
3"	200	76-100	6"
4"	200	101-190	10"
WIRING	200	1-26 WIRES	2" MIN.

- ALL MAINLINE FITTINGS 3" AND LARGER SHALL BE DUCTILE IRON, ALL OTHER MAINLINE FITTINGS SHALL BE SCH. 40.
- ALL MAINLINE INTERSECTIONS (45, 90, ECT.) SHALL HAVE THRUST BLOCKS PER MANUFACTURER'S RECOMMENDATIONS. USE MECHANICAL FITTINGS ON TEES, FOR 3" AND LARGER MAINLINE.
- SLEEVE SIZE IS FOR SINGLE PIPE RUNS.
- SLEEVE ALL WIRE SEPERATE FROM WATER LINES, UNDER PAVING.
- ALL SOLVENT WELD MAINLINE FITTINGS SHALL BE SCHEDULE 40.

D3 PIPE AND SLEEVE SIZING

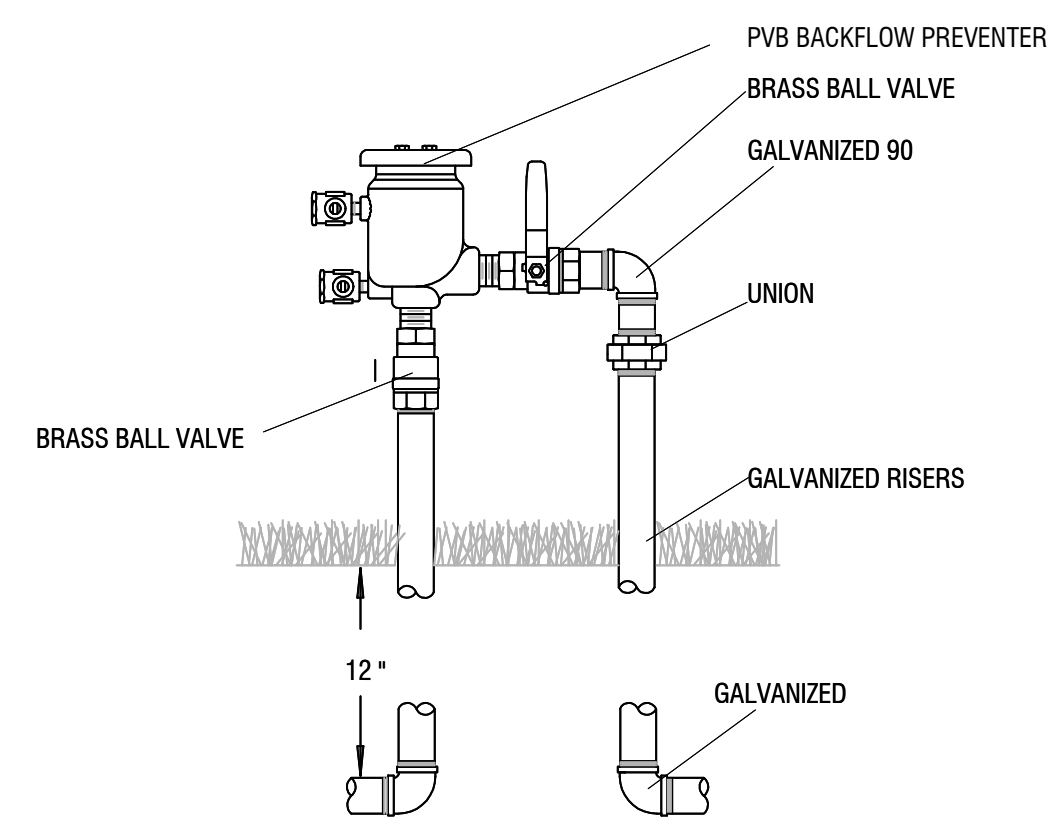
D1 EMITTER PLACEMENT



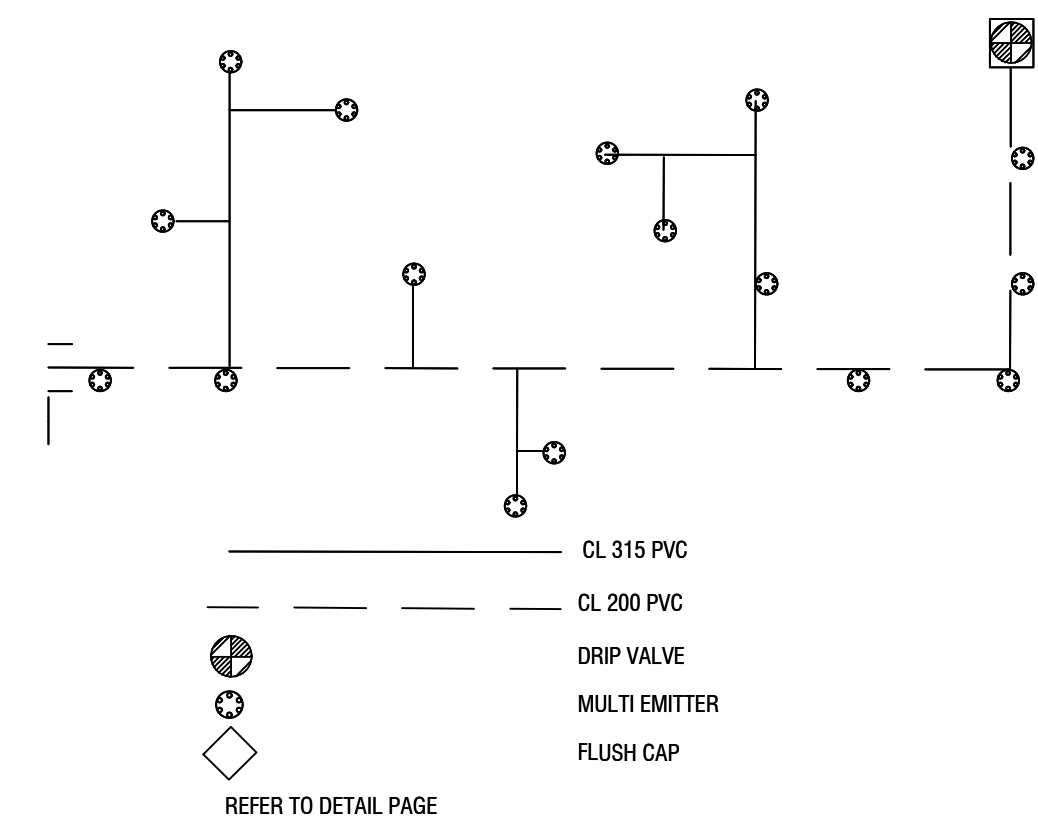
NORTH
SCALE: 1"=20'

IRRIGATION LEGEND

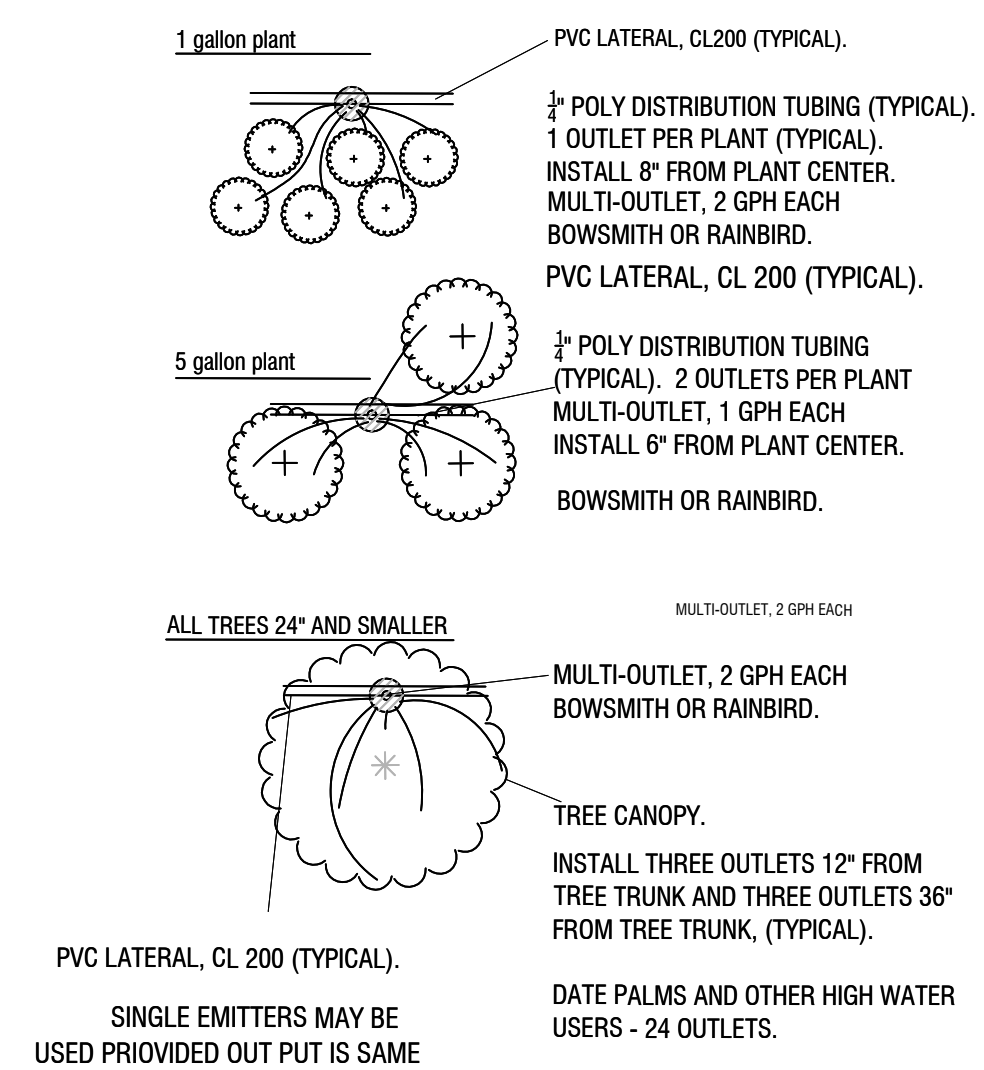
- [M]** METER 11/2" BY OTHERS(FIELD VERIFY LOCATION)
- [PVB]** 2" PVB FEBCO BACKFLOW PREVENTOR WITH SLAB AND CAGE
- [C]** HUNTER IC22 ON STEEL PEDISTAL 12 STA
- [1"ICV-101G]** 1" ICV-101G CONTROL VALVE HUNTER(DRIP)
- [2"ICV-151G]** 2" ICV-151G CONTROL VALVE HUNTER(TURF)
- SCH 40 MAIN LINE 2"**
- CL 200 TURF LATERAL PVC**
SEE MDETAILS FOR PIPE SIZING
- 3/4" DRIP LINE CL 2001 GPH SHRUBS**
- FLUSH OUT ALL 3/4" LINE DETAIL TYPICAL D5**
- SCH 40 PVC**
- SLEEVES 2 X PIPE SIZE**
ALL WIRE SEPERATE 2" SLEEVE
- HUNTER PGP FULL SPRINKLER HEAD # 3 NOZ**
38" @ 3 GPM WITH .4 PRECIP
- HUNTER PGP ADJ(180-HALF) SPRINKLER HEAD # 3 NOZ**
38" @ 3 GPM WITH .4 PRECIP
- HUNTER PGP ADJ (90-QUARTER) SPRINKLER HEAD # 1.5 NOZ**
38" @ 1.5 GPM WITH .25 PRECIP
- IRRIGATION NOTES**
1. CONTRACTOR RESPONSIBLE FOR FULL AND EFFICIENT COVERAGE
 2. VERIFY PRESSURE BEFORE LAY OUT
 3. MINIMUM PRESSURE 60 PSI AT MAIN LINE
 4. VALVE LOCATIONS ARE ONLY APPROXIMATE
 5. DRIP VALVES NOT TO EXCEED 5 GPM LAWN VALVES NOT TO EXCEED 60 GPM
 6. DRAWN FOR CLARITY ALL IRRIGATION TO BE INSTALLED IN LANDSCAPE AREA
 7. ALL SLEEVES ARE SCH 40
 8. ALL SLEEVES TO HAVE 18" COVER MINIMUM
 9. IF BACKFILL MATERIAL HAS DEBRIS LARGER THAN 1" SHADE WITH MORTAR SAND 4" ABOVE 4" BELOW PIPE
 10. IF PROPER PRESSURE IS NOT AVAILABLE NOTIFY OWNERS REPRESENTATIVE BEFORE ANY WORK IS STARTED
 11. HEAD AND VALVE PLACEMENT ARE ONLY DIAGMATIC FIELD VERIFY ALL LOCATIONS ON PLANS



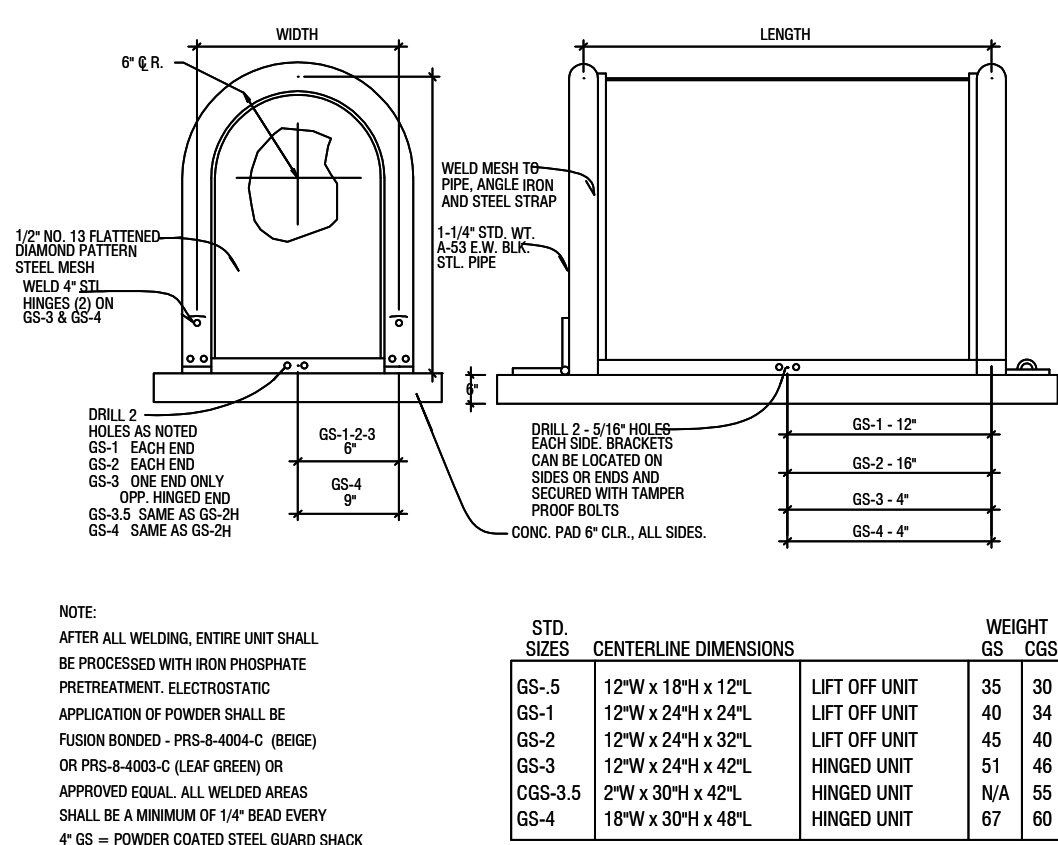
D15 PRESSURE VACUME BREAKER



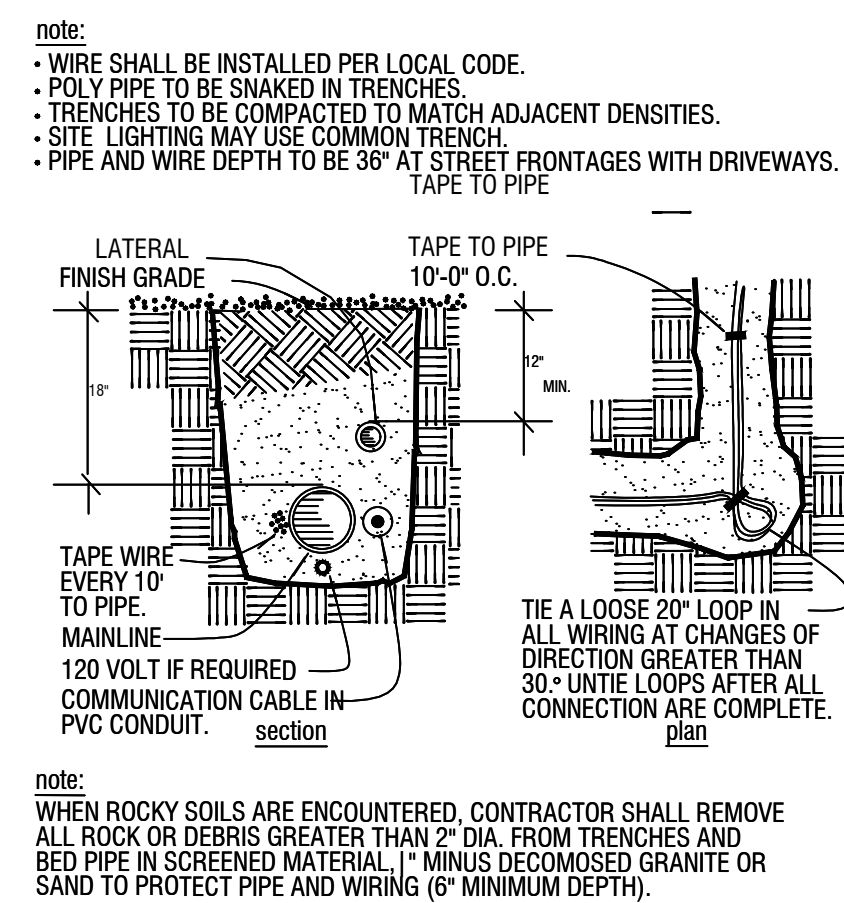
D16 DRIP PIPE LAY OUT



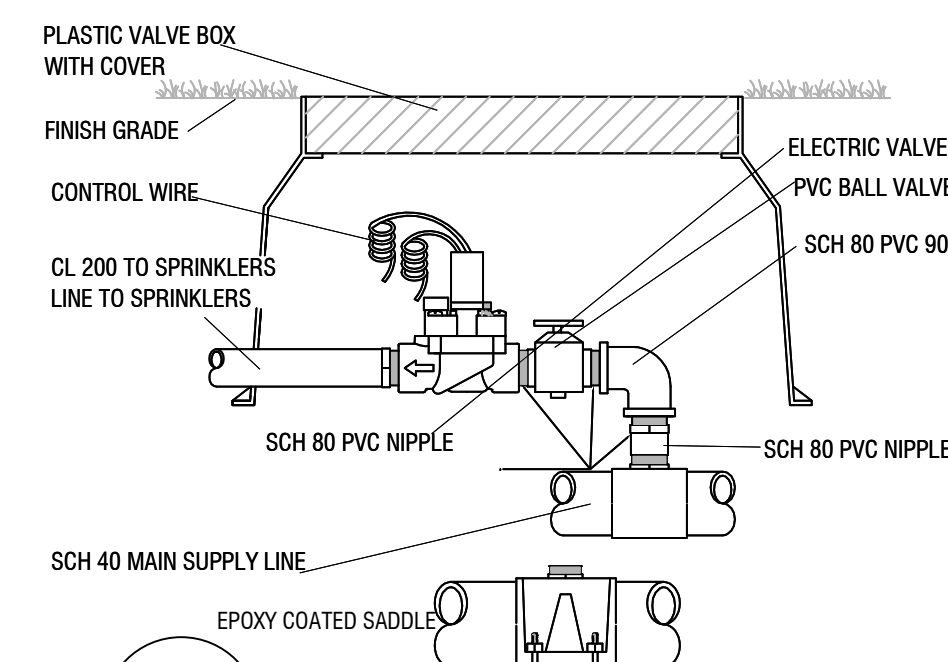
D8 EMITTER PLACEMENT



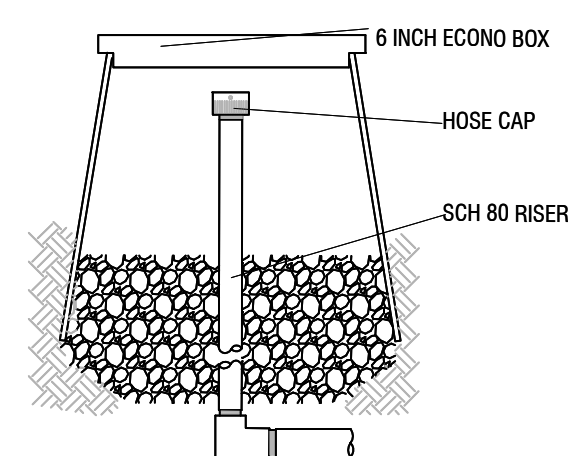
D9 GARDSHACK ENCLOSURE



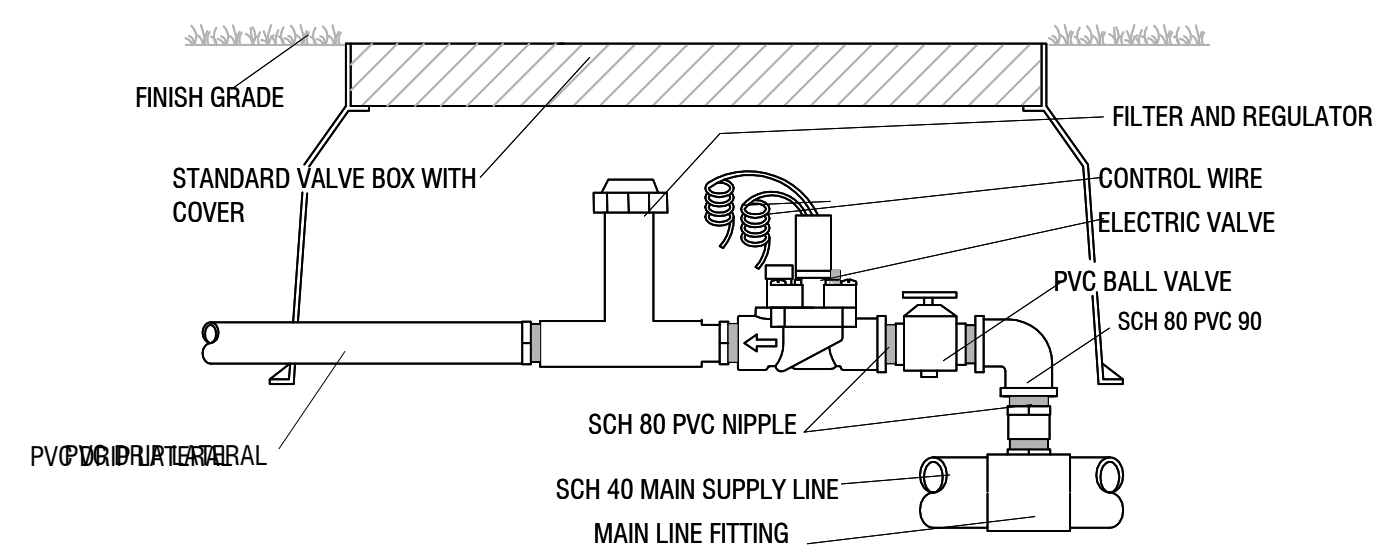
D10 PIPE AND WIRE TRENCHING



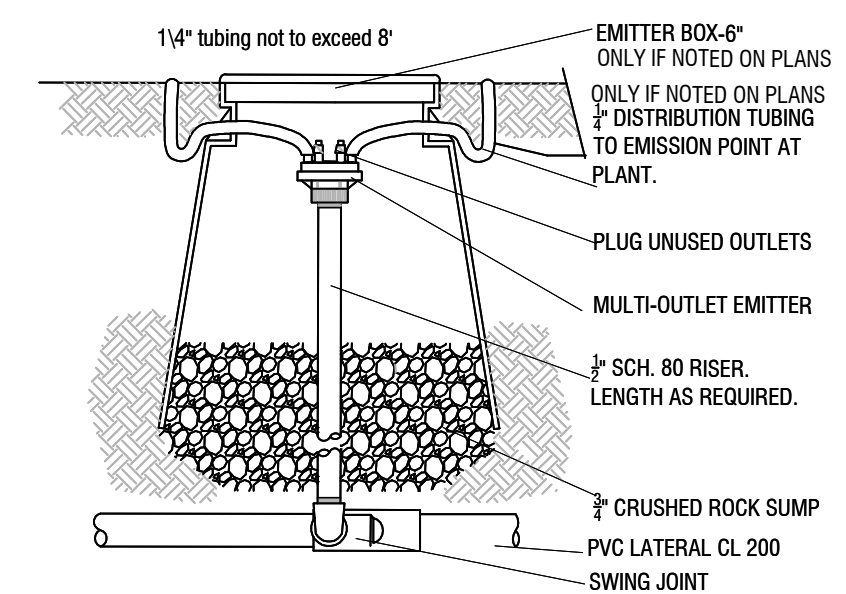
D13 TYPICAL CONTROL VALVE



D11 FLUSH OUT



D14 DRIP VALVE



D12 MULTI EMITTER

GENERAL CONSTRUCTION NOTES

- NOTES ARE TO BE USED FOR GENERAL REFERENCE IN CONJUNCTION WITH ALL WORK ELEMENTS SHOWN ON THE ENCLOSED PLANS.
- VERIFY CRITICAL DIMENSIONS, REFERENCE POINT LOCATIONS, CONSTRUCTION CONDITIONS OR SCALE ON PLANS PRIOR TO INITIATING WORK. NOTIFY OWNER'S SHOULD CONFLICTS ARISE.
- ANY SIDEWALKS OR HARDSCAPE LAYOUT SHOWN ON THESE PLANS IS FOR REFERENCE ONLY. REFER TO CIVIL ENGINEERING FOR HORIZONTAL AND VERTICAL CONTROL, DETAILS AND METHODS OF CONSTRUCTION. SOUTHWEST DREAMWORKS ASSUMES NO RESPONSIBILITY FOR UNFORESEEN CONFLICTS, ENGINEERING, OR INSTALLATION THAT IS BEYOND OUR CONTROL.
- WALLS AND SITE FEATURES SHOWN ON THESE PLANS ARE SCHEMATIC. FIELD VERIFY TO ACTUAL PROPERTY LINES, GRADING, UNDERGROUND CONFLICTS OR EXISTING CONDITIONS THAT MAY REQUIRE ADJUSTMENT OR INTERPRETATION TO PLAN AND DETAILS PROVIDED. SOUTHWEST DREAMWORKS ASSUMES NO RESPONSIBILITY. FOR CONFLICTS THAT ARE NOT ADDRESSED IN ADVANCE OR BEYOND OUR CONTRACTUAL AGREEMENT FOR FIELD INSPECTION.
- REFER TO ENGINEERING PLANS FOR CONSTRUCTION AND GRADING CONSIDERATIONS OF THE SITE. CROSS REFERENCE WORK THAT MAY IMPACT IMPROVEMENTS SHOWN ON THESE DOCUMENTS.
- ALL CONSTRUCTION MUST CONFORM TO 2007 UNIFORM BUILDING CODE (UBC), FOR CITY OF YUMA STANDARDS
- PROVIDE SOIL TEST OF JOB SITE PRIOR TO BEGINNING WORK TO ANALYZE COMPACTION POSSIBLE CONTAMINANTS, STABILITY OF SOILS AND COMPOSITION.
- LANDSCAPE CONTRACTOR TO ACCEPT THE SITE AND ALL GRADING AT +/- 0.10'.
- CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS BEFORE CONSTRUCTION.
- CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, AND/OR FEDERAL LAWS PERTAINING TO THE PROJECT'S WORK.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL CONSTRUCTION ELEMENTS WITH OTHER TRADES PRIOR TO INSTALLATION AND BECOME FAMILIAR WITH THE LOCATIONS OF UNDERGROUND SERVICES AND IMPROVEMENTS.
- THE CONTRACTOR SHALL EXAMINE THE SITE AND FULLY DETERMINE THE CONDITIONS UNDER THIS CONTRACT. NO ALLOWANCE WILL BE MADE FOR FAILURE OF BIDDERS TO ASCERTAIN ALL ASPECTS OF THE PROJECT.
- PRIOR TO DIGGING, EXCAVATION, OR UNDERGROUND WORK, CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES AND SUBSURFACE SYSTEMS. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIR AND EXPENSES INCURRED TO UTILITIES THAT BECOME DAMAGED AS A RESULT OF HIS WORK.
- CONTRACTOR SHALL INSPECT WITH OWNER'S REPRESENTATIVE ALL PAVEMENT, SIDEWALK AND CURB DEFECTS PRIOR TO BEGINNING WORK. ALL HARDSCAPE TO BE RE-INSPECTED DURING FINAL WALK THRU. ANY DAMAGED AREAS TO BE REPAIRED AT CONTRACTOR'S EXPENSE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE QUANTITIES AND MATERIALS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH SYMBOLS SHOWN ON PLANS. QUANTITIES INDICATED ARE FOR REFERENCE ONLY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GRADES AS ESTABLISHED BY THE PROJECT ENGINEER. RUNOFF AND DRAINAGE FLOWS SHALL NOT BE ALTERED OR IMPEDED.
- THE CONTRACTOR WILL FURNISH ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, EMPLOYEE, AND SUBCONTRACTOR SUPERVISION FOR IT'S PORTION OF THE PROJECT TO IMPLEMENT PLANS AND SPECIFICATIONS.
- THE CONTRACTOR ASSUMES ALL RISKS IN THE PERFORMANCE OF THE WORK AND RE-RESPONSIBILITY FOR LOSS AND EXPENSE RESULTING FROM ON-SITE INJURY.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPERVISION, SAFETY, ADMINISTRATION SCHEDULING, COORDINATION AND MANAGEMENT OF SUBCONTRACTORS.
- THE CONTRACTOR SHALL PROTECT ALL PERSONS NEAR OR ON THE PREMISES FROM UNREASONABLE RISK OF INJURY. PROVIDE WARNING SIGNS, LIGHTS, BARRICADES, RAILINGS, FLAG MEN OR OTHER NECESSARY SAFEGUARD.
- SOUTHWEST DREAMWORKS INSPECTIONS SHALL NOT BE DEEMED SUPERVISION OR CONTROL OF CONSTRUCTION BY CONTRACTOR OR SUBCONTRACTORS.
- ALL CONTRACTS SHALL BE WRITTEN DIRECTLY BETWEEN CONTRACTOR AND OWNER'S REPRESENTATIVE. SPECIFIC TERMS OF WORK SHALL BE NEGOTIATED DIRECTLY BETWEEN PARTIES. SOUTHWEST DREAMWORKS SHALL NOT BE RESPONSIBLE FOR DISCREPANCIES
- ALL SUBMITTALS MUST BE APPROVED BE FOR CONSTRUCTION BEGINS

IRRIGATION NOTES

- CONTRACTOR TO FIELD VERIFY DRAWINGS PRIOR TO ANY INSTALLATION OR ORDERING OF MATERIALS AND NOTIFY SOUTHWEST DREAMWORKS OF ANY DISCREPANCIES BETWEEN DRAWINGS AND SITE. IF CONTRACTOR FAILS TO NOTIFY SOUTHWEST DREAMWORKS, HE ASSUMES FULL RESPONSIBILITY FOR ANY NECESSARY ALTERATIONS TO THE SYSTEM.
- ALL MATERIALS USED SHALL BE INSTALLED AS PER PLAN AND AS PER MANUFACTURE'S SPECIFICATIONS. ALL DEVIATIONS FROM DRAWINGS OR MATERIALS USED SHALL BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE DESIGNER.
- IRRIGATION SYSTEM HAS BEEN DESIGNED FOR A STATIC WATER PRESSURE OF 70 PSI.
- CONTRACTOR TO FIELD VERIFY PRESSURE PRIOR TO ORDERING MATERIALS OR STARTING ANY IRRIGATION INSTALLATION AND NOTIFY CONSULT SOUTHWEST DREAMWORKS OF ANY DIFFERENCE FROM STATED PRESSURE. IF CONTRACTOR FAILS TO NOTIFY CONSULTANT HE ASSUMES FULL RESPONSIBILITY FOR ANY SYSTEM ALTERATIONS. CONTRACTOM WILL NOTIFY SOUTHWEST DREAMWORKS IF BOOSTER PUMP IS NEEDED
- 120 VOLT SERVICE BY ELECTRICAL CONTRACTOR. IRRIGATION CONTRACTOR RESPONSIBLE FOR POWER CONNECTION TO CONTROLLER.
- ALL CONTROL WIRES TO BE RED, ALL COMMON WIRES TO BE WHITE UNLESS NOTED ON PLANS. ONE SET OF CONTROLLER KEYS TO BE GIVEN TO OWNER.
- ALL 24 VOLT WIRE SHALL BE #14 UFL, DIRECT BURIAL, SOLID COPPER.
- IRRIGATION CONTRACTOR RESPONSIBLE FOR ALL LANDSCAPE SLEEVEING. CONTRACTOR TO COORDINATE SLEEVEING INSTALLATION OF CONCRETE FLATWORK AND PAVING. ALL SLEEVES TO BE EXTENDED AT LEAST 1' BEYOND CONCRETE STRUCTURES.
- ALL HARDSCAPE 5'-0" OR WIDER TO BE SLEEVED.
- CONTRACTOR SHALL INSTALL ALL PIPING AND WIRING UNDER PAVED AREAS IN SLEEVES AS SHOWN ON PLANS. ALL WIRE SHALL BE SLEEVED SEPARATELY FROM PIPING.
- IRRIGATION CONTRACTOR TO VERIFY EXISTING SLEEVES (SHOWN ON IRRIGATION PLAN) INSTALLED BY OTHER CONTRACTORS. COORDINATE INSTALLATION OF ADDITIONAL SLEEVES WITH GENERAL CONTRACTOR.
- ALL IRRIGATION EQUIPMENT TO BE LOCATED IN LANDSCAPED AREAS (SOME LINES AND EQUIPMENT ARE SCHEMATIC ONLY).
- LOCATE VALVE BOXES IN DECOMPOSED GRANITE NOT IN TURF, ADJACENT TO WALKWAYS AND CURBS WHENEVER POSSIBLE.
- ALL PLANTS REQUIRING MORE THAN ONE DRIP EMITTER SHALL HAVE EMITTERS DISTRIBUTED EVENLY AROUND EDGE OF ROOTBALL, WITHIN PLANT BASIN. UNLESS NOTED ON PLANS
- EMITTERS TO BE PLACED ON UP HILL SIDE OF PLANTS ON SLOPED PLANTING AREAS.
- PRIOR TO OWNER APPROVAL, CONTRACTOR SHALL COMPLETE THE FOLLOWING: ALL IRRIGATION HEADS TO BE ADJUSTED TO THE PROPER HEIGHT. ALL SPRAY HEADS TO BE FLUSHED OF DEBRIS AND FLOW CONTROLS ADJUSTED TO ACHIEVE PROPER COVERAGE. AVOID SPRAY ON ALL HARDSCAPE AND STRUCTURES.
- IRRIGATION CONTRACTOR SHALL PROVIDE 100% HEAD TO HEAD COVERAGE IN ALL TURF AREAS AT NO ADDITIONAL COST TO THE OWNER. FIELD ADJUST HEAD LOCATIONS AS REQUIRED. ACTUAL SITE CONDITIONS MAY VARY FROM DRAWINGS AND NECESSITATE ADJUSTMENT OF HEAD LAYOUT, AREA, NOZZLE OR QUANTITIES OF HEADS.
- CONTRACTOR SHALL ADJUST THE PERFORMANCE OF THE IRRIGATION SYSTEM FOR OPTIMUM PLANT GROWTH BASED ON ACTUAL SITE CONDITIONS, INCLUDING SOIL TYPES, SLOPE OR OTHER VARIABLES THAT MAY DEViate FROM PROJECT PLANS. CONTACT SOUTHWEST DREAMWORKS OF ANY DISCREPANCIES BETWEEN PROJECT PLANS AND ACTUAL SITE CONDITION PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE INSTALLATION OF THE FULLY AUTOMATED IRRIGATION SYSTEM PRIOR TO STARTING PLANTING. IF THE IRRIGATION SYSTEM IS INTERRUPTED FOR ANY REASON THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTINUE MANUAL WATERING OF ALL PLANT MATERIAL UNTIL THE IRRIGATION SYSTEM IS FULLY OPERATIVE.
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND HAVE TESTED ALL CONNECTIONS 20. DOWN STREAM OF THE WATER METER AND BACKFLOW PREVENTER.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL PIPING NECESSARY TO PROVIDE A COMPLETE AND FULLY OPERATIONAL IRRIGATION SYSTEM INCLUDING ALL SUB-LATERAL PIPING TO EACH PLANT EMITTER AS SPECIFIED AND DETAILED WHETHER OR NOT PIPING IS SHOWN ON PLANS.
- REFER TO GENERAL CONSTRUCTION NOTES ON COVER SHEET FOR ADDITIONAL CONSIDERATIONS THAT RELATE TO SCOPE OF WORK WITHIN THIS SECTION. POSSIBLE ALL ELECTRIC CONTROL VALVES TO BE LOCATED IN SERIES ALONG THE MAIN WATERLINE. ALL VALVES WILL BE IN HEAVY DUTY PLASTIC VALVE BOXES W/LIDS RAISED TO FINISH GRADE. ALL ELECTRIC VALVES SHALL BE BELOW THE SURFACE MIN. 6".
- ALL SUBMITTALS MUST BE APPROVED BE FOR CONSTRUCTION BEGINS

LANDSCAPE NOTES

- LANDSCAPE AREAS ARE DEFINED AS ALL NON-PAVED AREAS DISTURBED BY THIS PHASE OF CONSTRUCTION. SLIGHT VARIATIONS MAY EXIST BETWEEN ON-SITE CONDITIONS AND DRAWINGS. CONTRACTOR SHALL ADJUST PLANTING LAYOUT ONLY AS REQUIRED TO MAINTAIN PLANT QUANTITIES AND DESIGN INTENT.
- THE OWNER'S REPRESENTATIVE IS TO APPROVE ANY AND ALL SUBSTITUTIONS.
- LOCATE PLANTS AWAY FROM OBSTACLES SUCH AS FIRE HYDRANTS, TRANSFORMERS, AND LIGHT FIXTURES.
- ALL PLANT MATERIAL SHALL MEET A.N.A. SPECIFICATIONS. THE LANDSCAPE DESIGNER OR HIS REPRESENTATIVE RESERVES THE RIGHT TO REFUSE ANY PLANT MATERIALS DEEMED UNACCEPTABLE.
- DOUBLE STAKE ALL SUPPLEMENTAL BOX TREES OUTSIDE ROOTBALL, SEE TREE STAKING DETAIL.
- TREES SHALL BE A MINIMUM OF 4' FROM CURB , SHRUBS SHALL BE 3' OR MORE AWAY FROM CURBS OR WALKS. REFER TO PLANS AND MAINTAIN SHRUB MASSINGS AS SHOWN AWAY FROM HARDSCAPE.
- PLANT LOCATIONS SHALL BE FLAGGED OR STAKED FOR REVIEW PRIOR TO STARTING IRRIGATION OR PLANTING EXCAVATION. MINOR RELOCATION'S SHALL BE MADE AT THIS TIME TO AVOID UNSUITABLE CONDITIONS.
- NATIVE GRANULAR SOILS SHALL BE FINE GRADED AS TOPDRESSING AND RAKED UNIFORMLY ALONG CURBS, WALKS AND WALLS.
- CONTRACTOR SHALL APPLY PRE-EMERGENT HERBICIDE (TREFLANS OR APPROVED EQUAL) IN ALL AREAS NOT CONTAINING BERMUDA GRASS, PER MANUFACTURERS RECOMMENDATION. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO APPLICATION OF HERBICIDE.
- ALL PLANTING SHALL CONFORM TO THE HEIGHT REQUIREMENTS SPECIFIED FOR SIGHT VISIBILITY TRIANGLES. REFER TO C.O./ STANDARDS FOR SPECIFIED REQUIREMENTS. WHERE MULTIPLE JURISDICTION EXIST, THE MOST RESTRICTIVE SHALL APPLY.
- GRADE NOTED ON LANDSCAPE PLAN TO BE FIELD VERIFIED/APPROVED BY OWNER'S REPRESENTATIVE BEFORE LANDSCAPE BEGINS CONSTRUCTION.
- FEATHER AND BLEND GRADE BETWEEN CONSTRUCTION AND NATIVE AREAS FOR SMOOTH TRANSITION.
- REVIEW SALVAGE NATIVE PLANT MATERIAL INVENTORY PRIOR TO BEGINNING WORK TO VERIFY RESPONSIBILITY OF RELOCATION AND WARRANTY.
- SAGUARO SHALL BE PLANTED TO THEIR ORIGINAL SOLAR ORIENTATION WITH (2) DRIP EMITTERS (SEE DETAIL). SAGUARO SHALL BE PLANTED STRAIGHT AND DEEP ENOUGH TO REQUIRE NO BRACING. RETURN TAGS TO OWNER.
- NATIVE SALVAGED SAGUAROS SHALL BE PROTECTED FROM INJURY DURING TRANSPLANT AND SHALL BE WARRANTED FOR 6 MONTHS FROM FINAL ACCEPTANCE.
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS
- REFER TO GENERAL CONSTRUCTION NOTES BELOW FOR ADDITIONAL CONSIDERATIONS THAT RELATE TO SCOPE OF WORK WITHIN THIS SECTION.
- HYDROSEED GRASS FOR NORMAL APPLICATION WITH TACKIFIER AND PAPER MULCH. A BRYLION TYPE SEEDER MAY BE USED. SEED 3LBS/ 1,000 SQ. FT. OF HYBRID BERMUDA. IF PLANTING OCCURS BETWEEN OCTOBER 1, AND MAY 1, USE 15 POUNDS OF WINTER RYE SEED/ 1,000 SQ. FT. FOR FOR SMALLER AREAS HAND RAKE AND COVER WITH 1/2" MULCH USE A GOOD PRE PLANT FERTILIZER, (16-20-20)
- LANDSCAPE CONTRACTOR SHALL SUBMIT PHOTOS OF ALL TREES FOR APPROVAL BY LANDSCAPE DESIGNER PRIOR TO DELIVERY.

MAINTENANCE AND GUARANTEE

- LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE DESIGNER OR OWNER'S REPRESENTATIVE FOUR (4) DAYS PRIOR TO COMPLETING IMPROVEMENTS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS TO REQUEST AN INSPECTION FOR SUBSTANTIAL COMPLETION. LANDSCAPE DESIGNER OR OWNER'S REP. SHALL PREPARE PUNCHLIST OF ALL WORK REQUIRING CORRECTION. MAINTENANCE PERIOD TO BEGIN WHEN ALL PUNCHLIST ITEMS ARE CORRECTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING LANDSCAPE AREA FOR 60 CALENDAR DAYS OR AS SPECIFIED BY CONTRACT. MAINTENANCE INCLUDES ADJUSTING WATER SCHEDULES, WEEDING, REMOVING DEBRIS FROM LANDSCAPE, RAKING, SPRAYING, FERTILIZING, TRIMMING, OR OTHER OPERATIONS ESSENTIAL FOR CARE, UPKEEP AND PROJECT APPEARANCE.
- CONTRACTOR SHALL NOTIFY OWNER A MINIMUM OF ONE (1) WEEK PRIOR TO MAINTENANCE PERIOD END TO RESOLVE ANY OUTSTANDING ISSUES. A FINAL INSPECTION SHALL OCCUR TO REVIEW THE PROJECT AND ISSUE A FINAL ACCEPTANCE. (PROVIDE 7 DAYS NOTICE).
- PLANTS NOT IN HEALTHY CONDITION THROUGHOUT THE WARRANTY PERIOD SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER.
- PROVIDE ONE YEAR(FROM ACCEPTANCE DATE) WARRANTY FOR THE IRRIGATION SYSTEM.

Landscaping & Irrigation Specifications

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