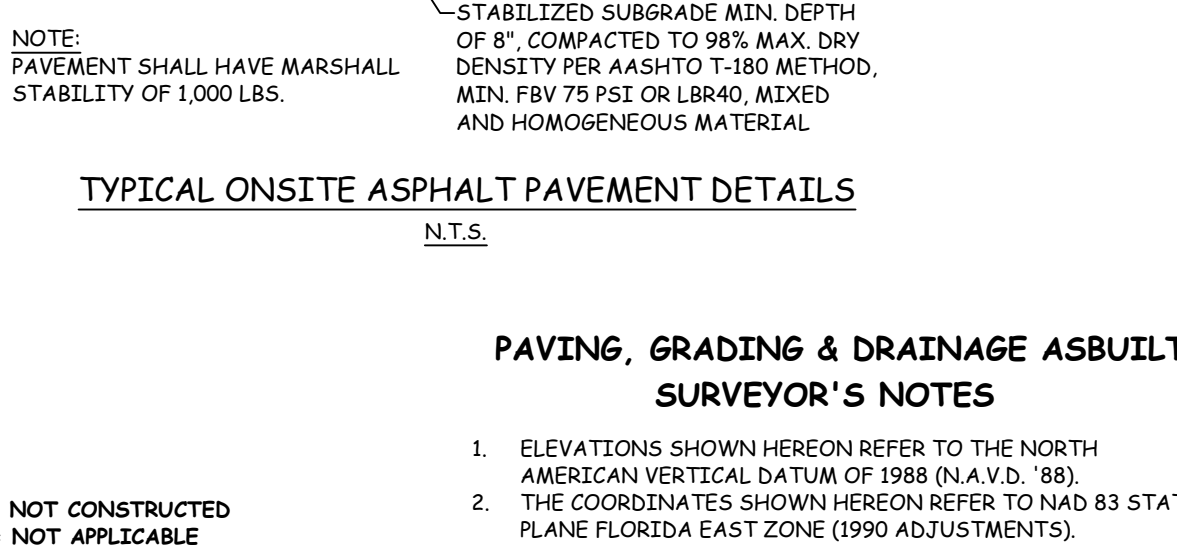
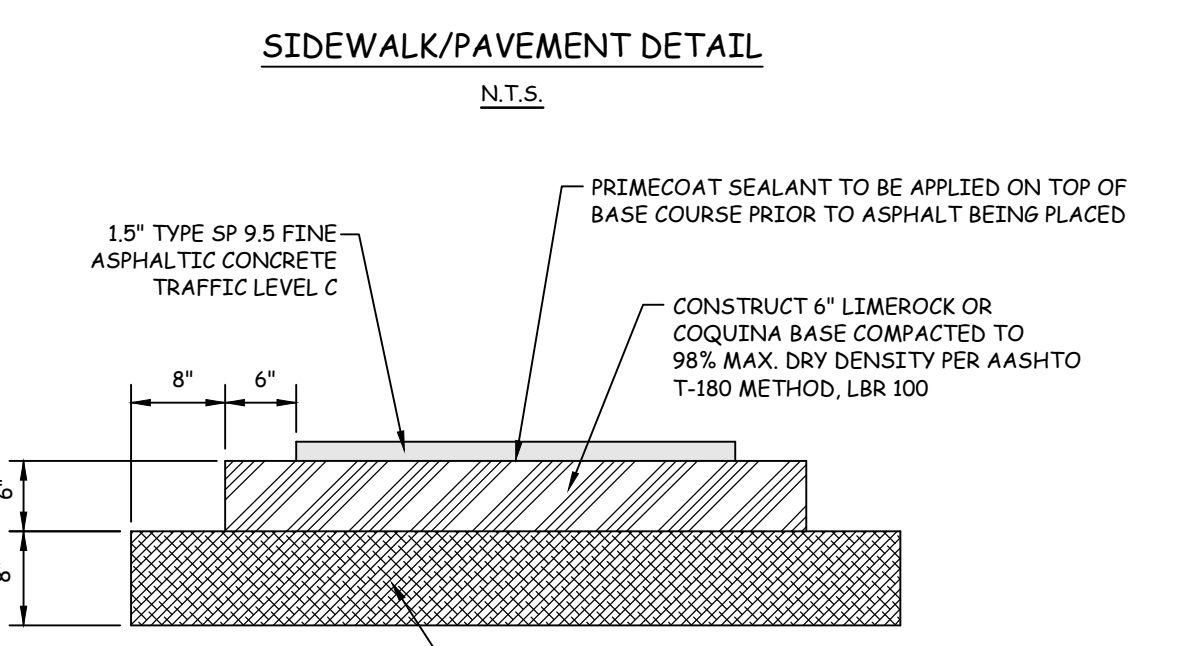
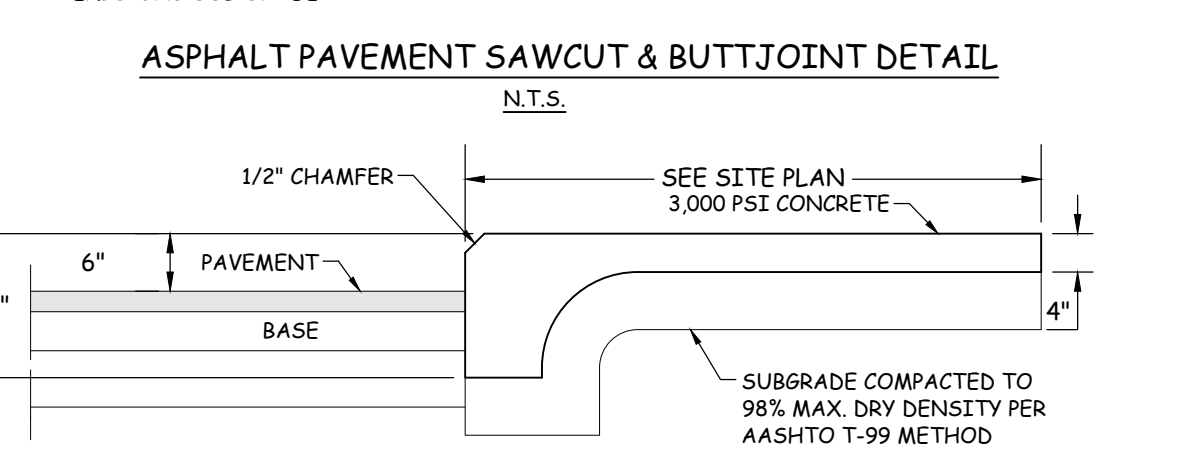
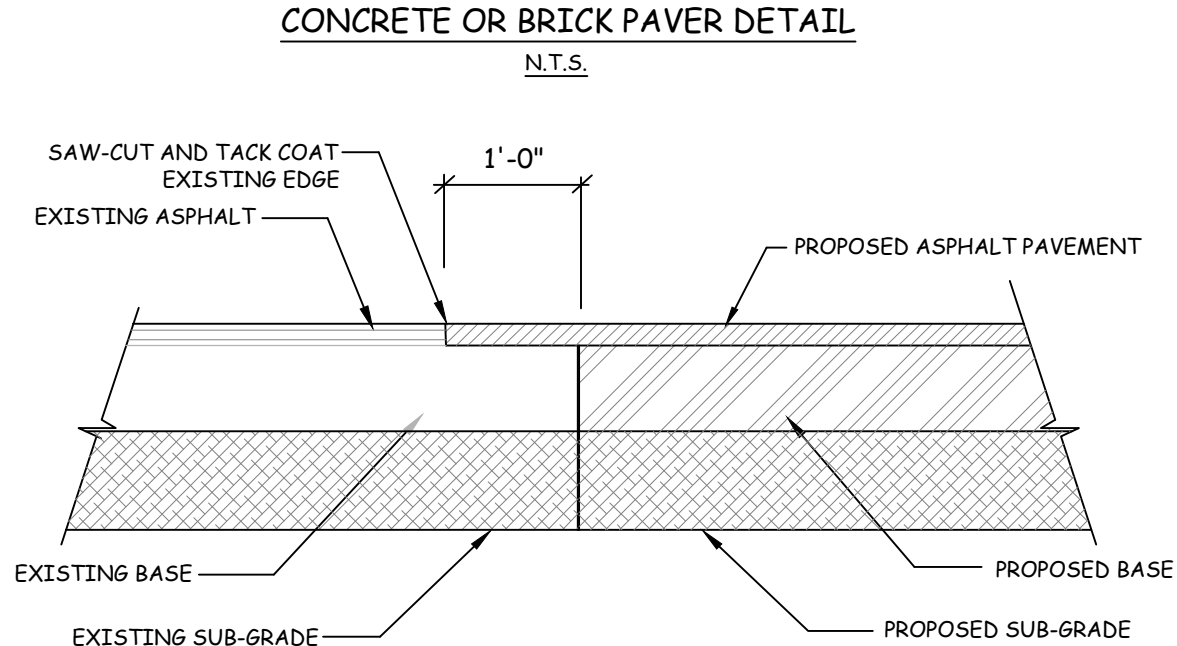


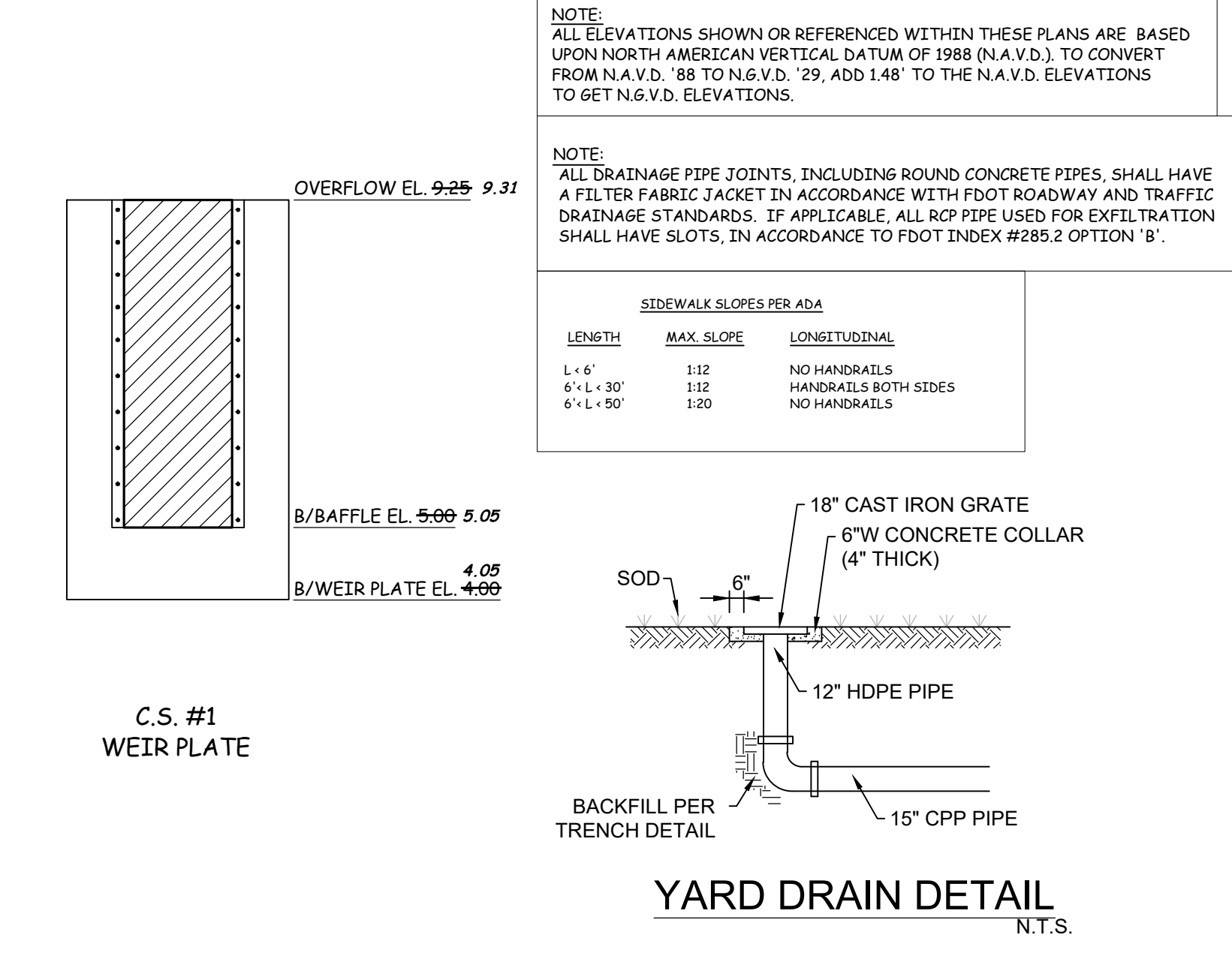
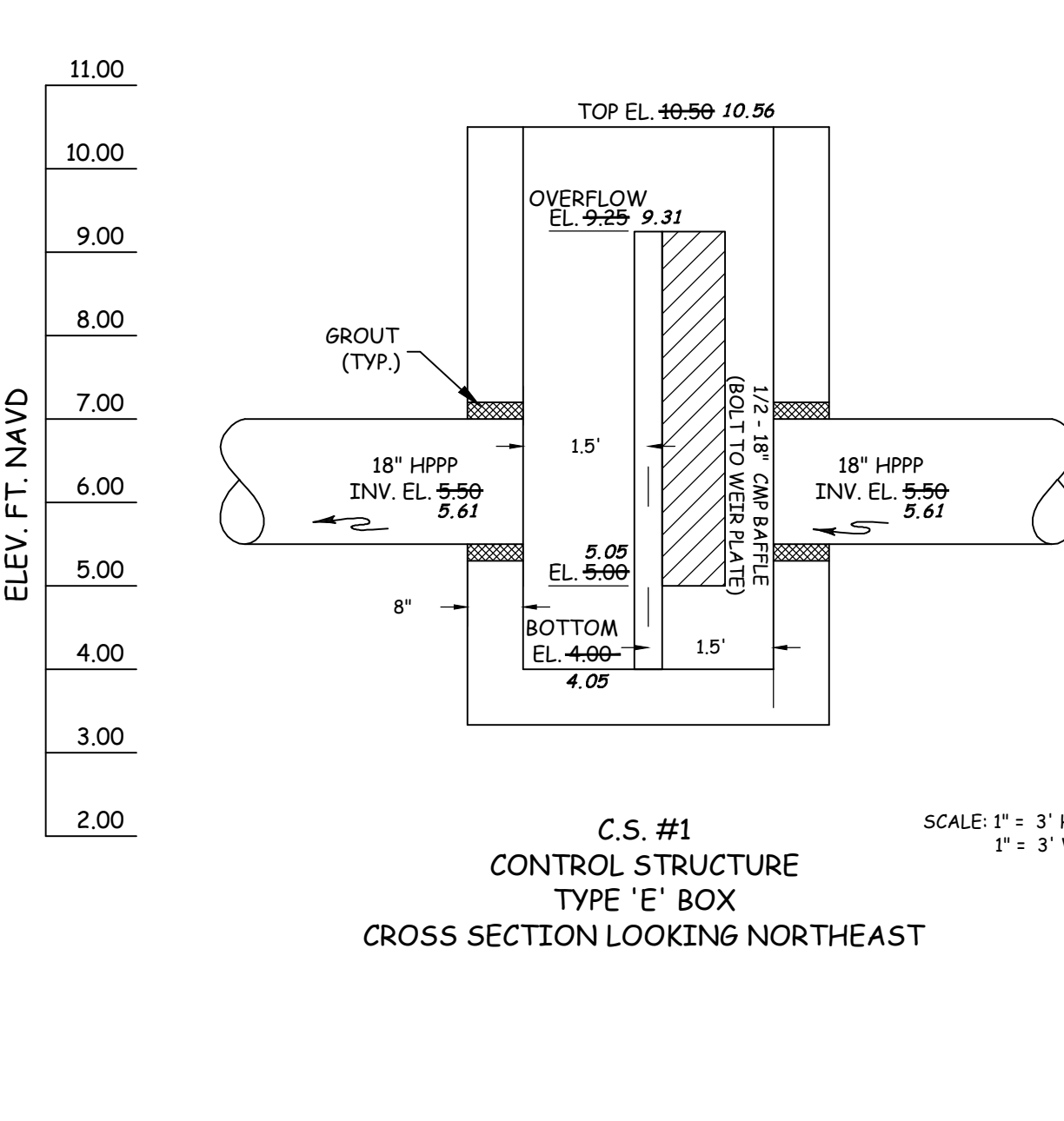
NOTES:
1. SCATTER SAND OR SCREENINGS OVER COMPLETED WORK AND SWEEP INTO CRACKS.
2. CONCRETE PAVERS SHOULD CONFORM TO THE REQUIREMENTS OF ASTM C-1319. BRICK PAVERS SHOULD CONFORM TO THE REQUIREMENTS OF ASTM C902-95.



CATCH BASIN SCHEDULE									
STRUCTURE NAME	ELEVATION - FT.						BOX TYPE PER F.O.O.T. INDEX #232	COVER	
	TOP	NORTH	EAST	SOUTH	WEST	WEIR			
C.S. #1	10.56	10.56	10.56	10.56	10.56	10.56	TYPE 'E'	USF 6300	
SD#1	10.56	10.56	10.56	10.56	10.56	10.56	TYPE 'C'	USF 5113-6194	
SD#2	11.09	11.09	11.09	11.09	11.09	11.09	TYPE 'C'	USF 5113-6194	
SD#3	11.57	11.57	11.57	11.57	11.57	11.57	TYPE 'C'	USF 5113-6194	
SD#4	11.50	11.50	11.50	11.50	11.50	11.50	TYPE 'C'	USF 5113-6194	
SD#5	11.50	11.50	11.50	11.50	11.50	11.50	TYPE 'C'	USF 5113-6194	
SD#6	11.50	11.50	11.50	11.50	11.50	11.50	TYPE 'C'	USF 5113-6194	
SD#7	11.50	11.50	11.50	11.50	11.50	11.50	TYPE 'C'	USF 5113-6194	
YD#1	11.45	11.45	11.45	11.45	11.45	11.45	YARD DRAIN	CAST IRON	

SPACING OR REQUIRED ROADWAY / PARKING AREA TESTS									
ITEMS TO BE TESTED	F.B.V.		DENSITY		L.B.R.				
	MAX. SPACING	MIN. ROAD CROWN	MAX. SPACING	MIN. ROAD CROWN	MAX. SPACING	MIN. ROAD CROWN			
COMPACTED OR STABILIZED SUBGRADE	300	10,000	300	10,000	300	10,000			
LIMEROCK BASE	300	10,000	300	10,000	300	10,000			
SHELLROCK BASE	300	10,000	300	10,000	300	10,000			
ASPHALT									PER INSP.

NOTE: ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 12" INSIDE THE LEFT EDGE OF THE ITEM TESTED, TO THE CENTER, TO A POINT 12" INSIDE OF THE RIGHT EDGE.



NOTE: ALL ELEVATIONS SHOWN OR REFERENCED WITHIN THESE PLANS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.). TO CONVERT FROM N.A.V.D. '88 TO N.G.V.D. '29, ADD 1.48' TO THE N.A.V.D. ELEVATIONS TO GET N.G.V.D. ELEVATIONS.

NOTE: ALL DRAINAGE PIPE JOINTS, INCLUDING ROUND CONCRETE PIPES, SHALL HAVE A FILTER FABRIC JACKET IN ACCORDANCE WITH FOOT ROADWAY AND TRAFFIC DRAINAGE STANDARDS. IF APPLICABLE, ALL RCP PIPE USED FOR EXFILTRATION SHALL HAVE SLOTS, IN ACCORDANCE TO FOOT INDEX #285.2 OPTION 'B'.

ABBREVIATIONS

N/C = NOT CONSTRUCTED
N/A = NOT APPLICABLE
N.A.V.D. = NORTH AMERICAN VERTICAL DATUM
P.G. = PAGE
P.I.V. = POST INDICATOR VALVE
POLY. = POLYETHYLENE
PROP. = PROPERTY
P.V.C. = POLYVINYL CHLORIDE
R.P.Z. = REDUCE PRESSURE ZONE
SAN. = SANITARY
S.P. = SAMPLE POINT
S.S. = SANITARY SERVICE
T.J. = TEMPORARY JUMPER
T/N = TOP OF NUT ELEVATION
T/P = TOP OF PIPE ELEVATION
T/W = TOP OF WALL
W.M. = WATER MAIN
W.S. = WATER SERVICE
W.V. = WATER VALVE
YRD = YARD DRAIN

CONCRETE OR BRICK PAVER 2-3/8" MIN. THICKNESS
1" TO 1 1/2" COMPACTED BEDDING SAND
COMPACTED AGGREGATE BASE 8" MIN. THICKNESS IN VEHICULAR AREAS W/ LBR 100
SUBGRADE COMPACTED TO 98% MAX. DRY DENSITY PER AASHTO T-99 METHOD, LBR 40

SAW-CUT AND TACK COAT EXISTING ASPHALT
EXISTING BASE
EXISTING SUB-GRADE
PROPOSED ASPHALT PAVEMENT
PROPOSED BASE
PROPOSED SUB-GRADE

1/2" CHAMFER
SEE SITE PLAN 3,000 PSI CONCRETE
PAVEMENT
BASE
SUBGRADE COMPACTED TO 98% MAX. DRY DENSITY PER AASHTO T-99 METHOD

1.5" TYPE SP 9.5 FINE ASPHALTIC CONCRETE TRAFFIC LEVEL C
PRIMECOAT SEALANT TO BE APPLIED ON TOP OF BASE COURSE PRIOR TO ASPHALT BEING PLACED
CONSTRUCT 6" LIMEROCK OR COQUINA BASE COMPACTED TO 98% MAX. DRY DENSITY PER AASHTO T-180 METHOD, LBR 100
STABILIZED SUBGRADE MIN. DEPTH OF 8" COMPACTED TO 98% MAX. DRY DENSITY PER AASHTO T-180 METHOD, MIN. FBV 75 PSI OR LBR40, MIXED AND HOMOGENEOUS MATERIAL

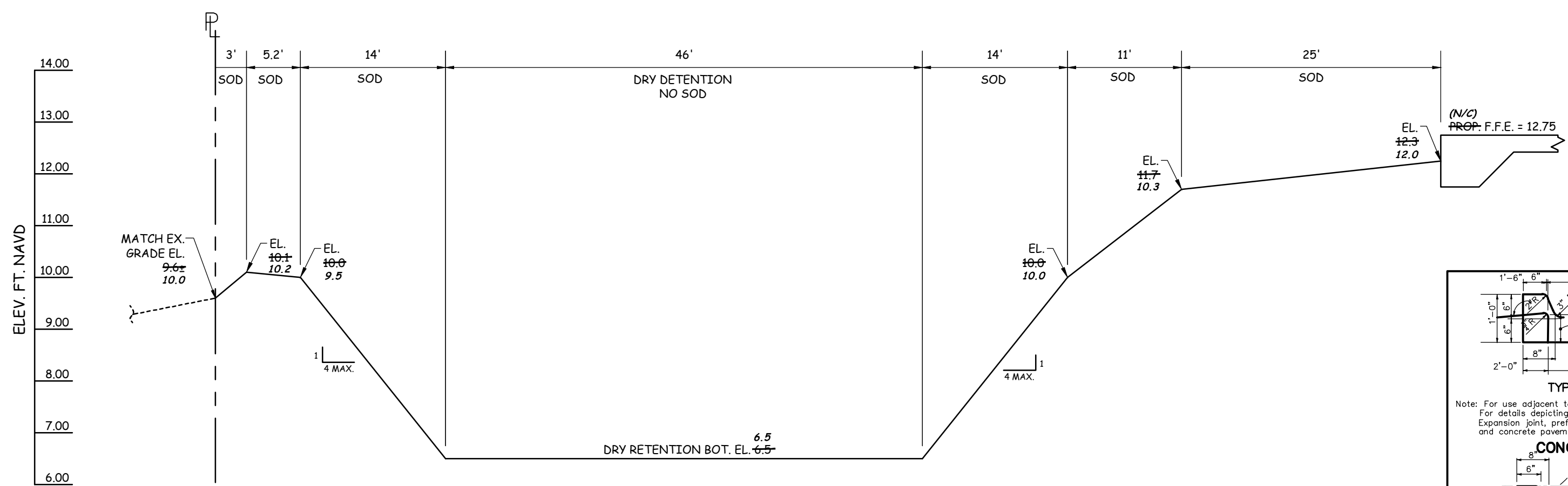
PAVING, GRADING & DRAINAGE ASBUILTS
SURVEYOR'S NOTES

1. ELEVATIONS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. '88).
2. THE COORDINATES SHOWN HEREON REFER TO NAD 83 STATE PLANE FLORIDA EAST ZONE (1990 ADJUSTMENTS).

VELCON ENGINEERING & SURVEYING, LLC
CERTIFICATE OF AUTHORIZATION NO. LB 8206
590 NW PEACOCK BLVD., SUITE 8
PORT ST. LUCIE, FLORIDA 34986
PHONE (772) 879-0477
WEB SITE: www.velconllc.com

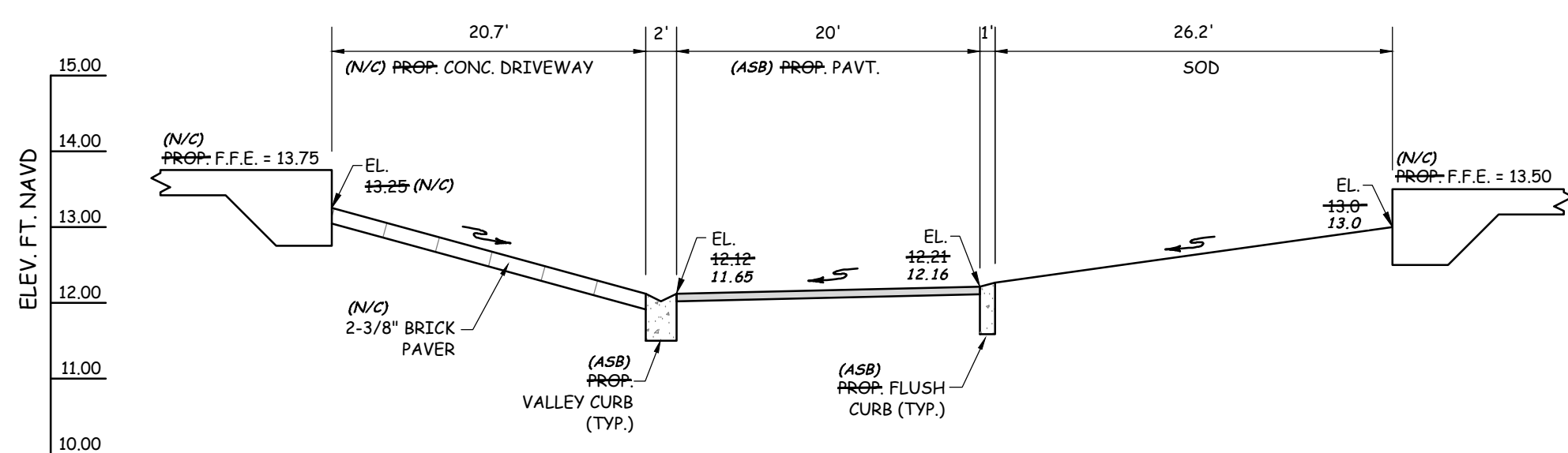
ROBERT F. KEMERSON
PROFESSIONAL SURVEYOR AND MAPPER
STATE OF FLORIDA (PSM)#6285

RECORD ASBUILT



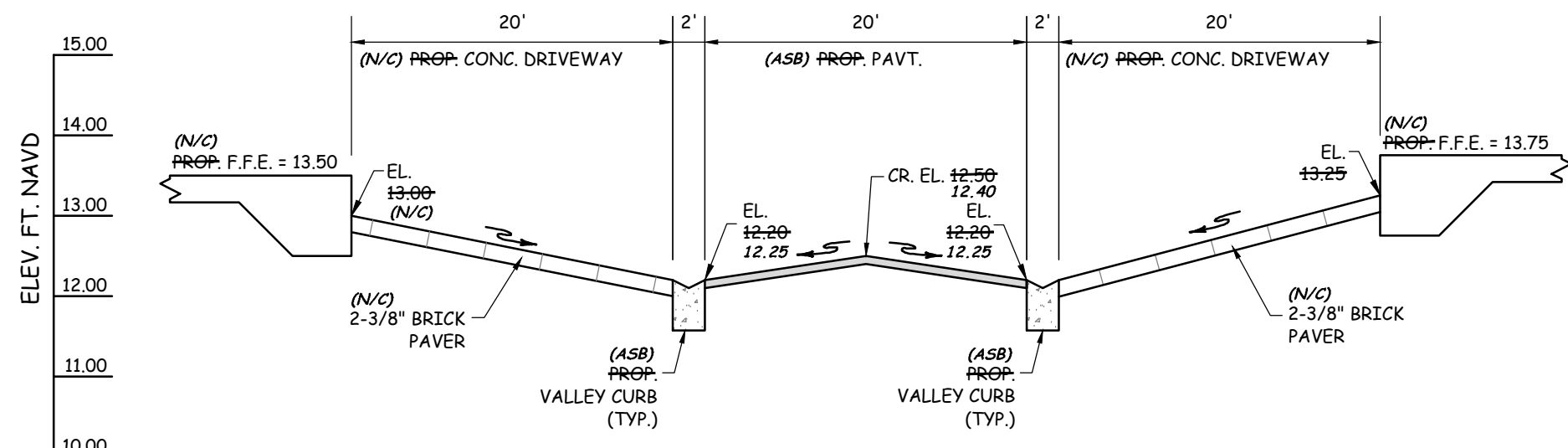
 CROSS SECTION

SCALE: 1" = 10' H
1" = 2' V



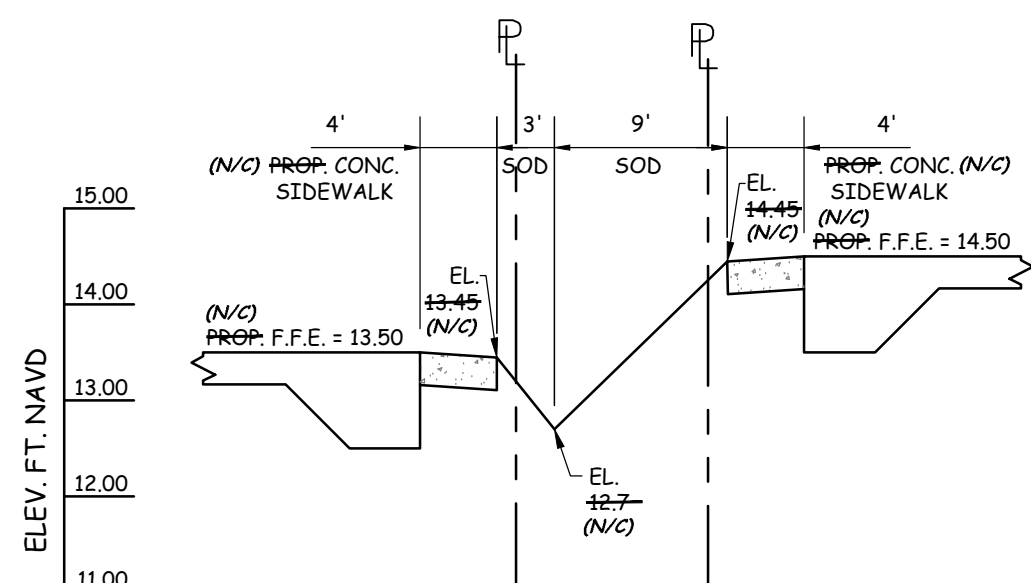
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SCALE: 1" = 10' H
1" = 2' V



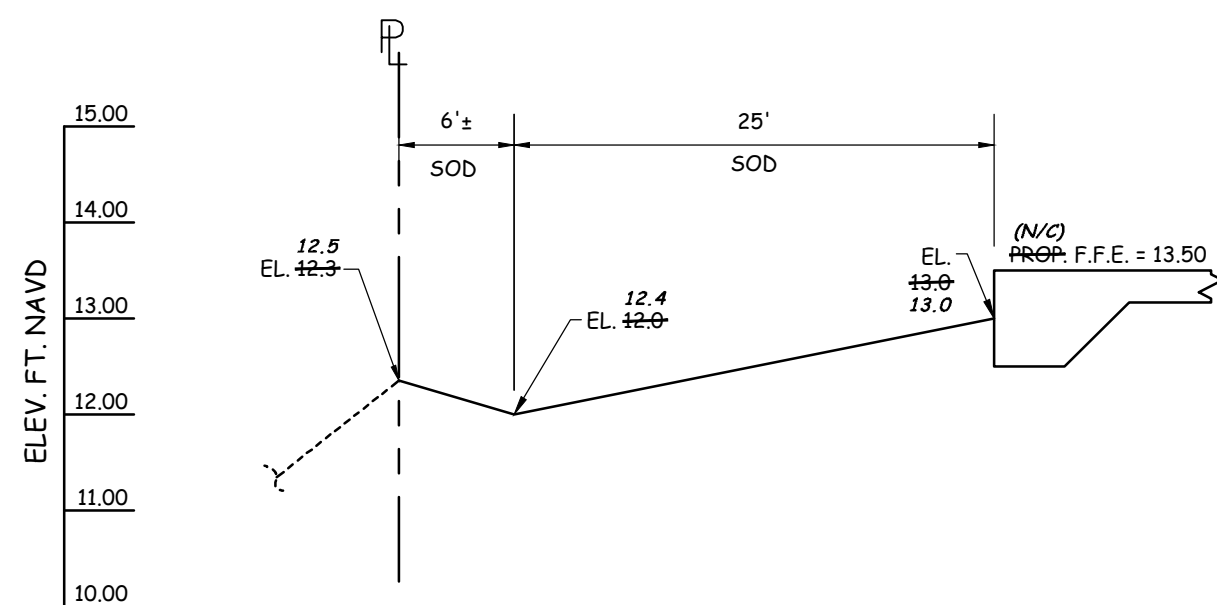
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1" = 2' V



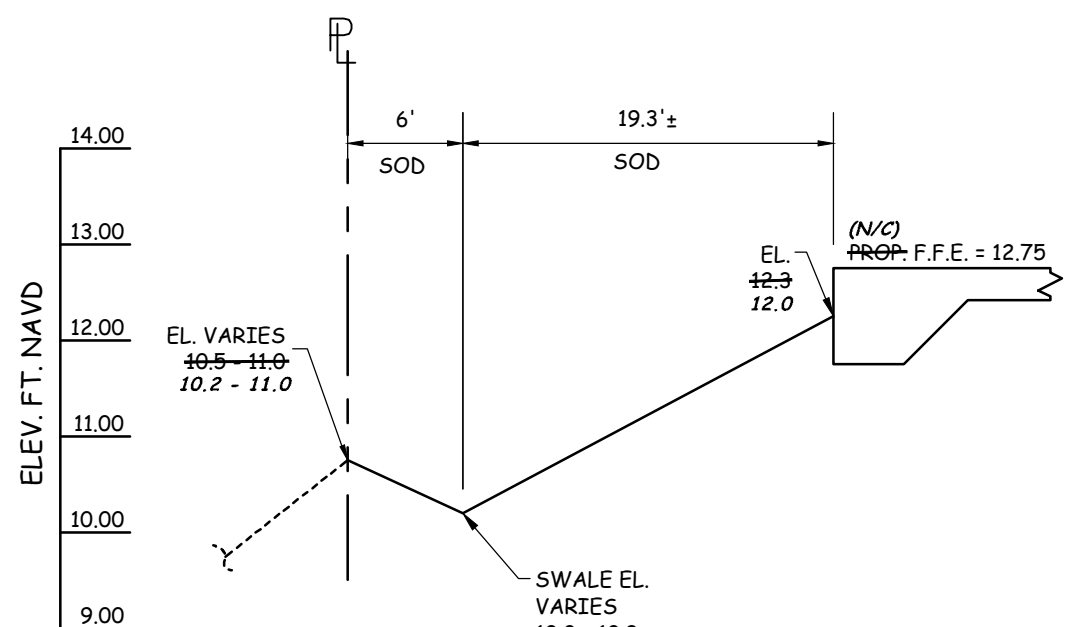
 CROSS SECTION

SCALE: 1" = 10' H
1" = 2' V



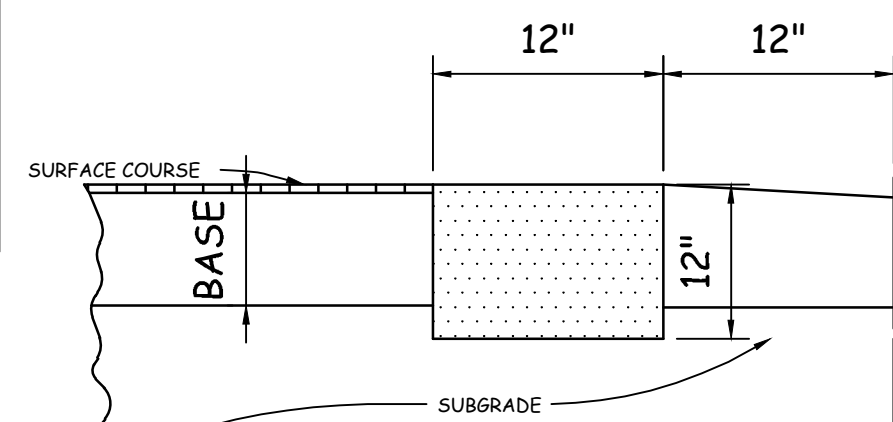
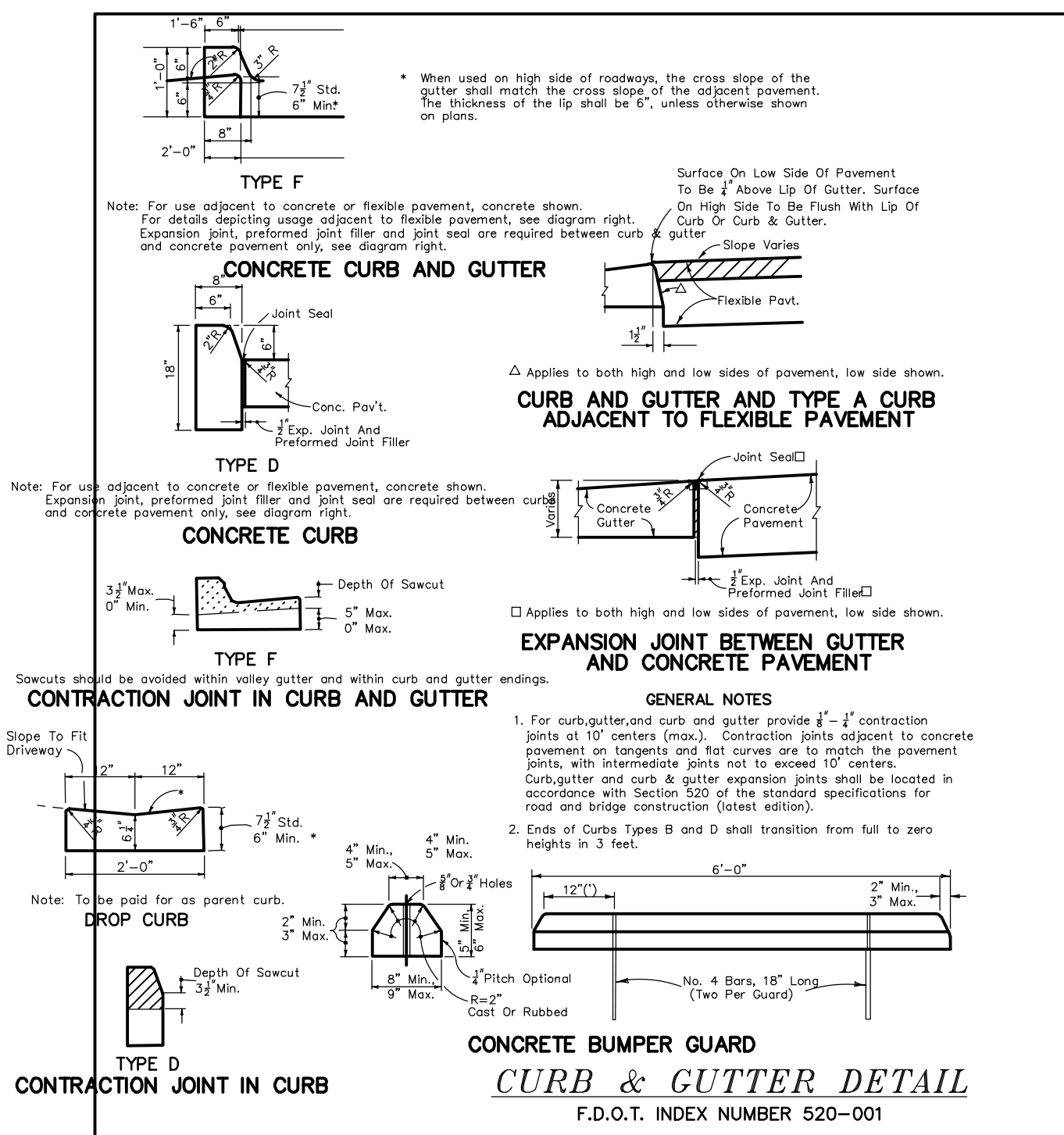


SCALE: 1" = 10' H
1" = 2' V



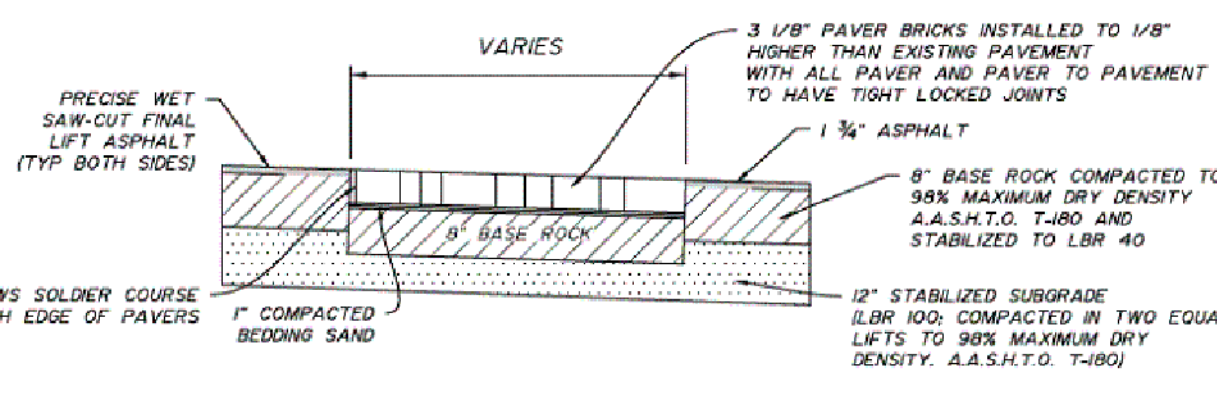
G CROSS SECTION

LE: $1'' = 10' H$
 $1'' = 2' V$



NOTE: 3,000 P.S.I. CONCRETE AT 28 DAYS

FLUSH CURB DETAIL



NOTE: 3M STA-MARK TAPE (OR EQUAL) IS TO BE INSTALLED ON THE BRICK PAVERS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, IN LIEU OF THERMOPLASTIC. THE TAPE IS TO BE CUT AT EACH BRICK JOINT FOLLOWING ITS APPLICATION.

PAVER BRICK DETAIL W/OUT CONC. BAND
(OPTIONAL NO BAND)

PAVING, GRADING & DRAINAGE ASBUILTS

SURVEYOR'S NOTES

1. ELEVATIONS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. '88).
2. THE COORDINATES SHOWN HEREON REFER TO NAD 83 PLANE FLORIDA EAST ZONE (1990 ADJUSTMENTS).



ROBERT F. KEMERSON
PROFESSIONAL SURVEYOR AND MAPPER
STATE OF FLORIDA (PSM)#6285

ABBREVIATIONS

(ASB) = ASBUILT	N/C = NOT CONSTRUCTED
B/P = BOTTOM PIPE	N/A = NOT APPLICABLE
CB = CATCH BASIN	N.A.N.D. = NORTH AMERICAN
C/O = CLEAN-OUT	O.R.B. = VERTICAL DATUM
CS = CONTROL STRUCTURE	P.G. = PAGE
CR = CORNER	P.I.V. = POST INDICATOR VALVE
D.C.V.C. = DOUBLE DETECTOR CHECK VALVE	POLY. = POLYETHYLENE
D.I.P. = DUCTILE IRON PIPE	PROP. = PROPERTY
D.R. BORE = DIRECTIONAL BORING (BY OTHERS)	P.V.C. = POLYVINYL CHLORIDE
E = ELEVATION	R.P.Z. = REDUCE PRESSURE ZONE
EX = EXISTING	SAN. = SANITARY
FD = FIRE DEPARTMENT CONNECTOR	S.S. = SAMPLE POINT
FHYD = FIRE HYDRANT	S.P. = SANITARY SERVICE
FL = FIRE LINE	T.J. = TEMPORARY JUMP
FLNG = FLANGE ELEVATION	T.N. = TOP OF M/T ELEVATION
F.M. = FORCE MAIN	T.P. = TOP OF PIPE ELEVATION
GD = GROUND ELEVATION	T/W = TOP OF WALL
GV = GATE VALVE	W.M. = WATER MAIN
H.E. = HIGH DENSITY POLYETHYLENE	WS = WATER SERVICE
INV. = INVERT	W.W. = WATER VALE
L.F. = LINEAR FEET	WY = YARD DRAIN

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO BIDDING WORK AND SHALL TAKE INTO CONSIDERATION ANY OMISSIONS, UNDERGROUND UTILITIES, OR OTHER ITEMS AFFECTING THE INSTALLATION OF PAVING, SIGNAGE, AND UTILITIES. SHOULD UNCHARTED OR INCORRECTLY CHARTED UTILITIES OR OTHER ITEMS BE ENCOUNTERED DURING CONSTRUCTION, CONSULT ENGINEER OF RECORD IMMEDIATELY FOR DIRECTIONS. REPAIR DAMAGED UTILITIES OR OTHER ITEMS TO SATISFACTION OF UTILITY OWNER AND ENGINEER OF RECORD.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS, CODES, AND ORDINANCES, INCLUDING OSHA AND FDOT SPECIFICATIONS, LATEST EDITION UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER IN WRITING.
3. LOCATION AND SIZES OF ALL EX UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR LOCATING LOCATION AND SIZES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION TO ALLOW FOR PIPE RECONFIGURATION IF NEEDED. THE CONTRACTOR SHALL CONTACT ALL AFFECTED UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
4. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING WORK.
5. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
6. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS / LICENSES PRIOR TO COMMENCING WORK.
7. THE CONTRACTOR SHALL KEEP COPIES OF ALL PERMITS, PLANS, AND SPECIFICATIONS ON SITE DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTING TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUPPLY BENEFIT TESTS TO ENGINEER OF RECORD ON ALL SUB GRADE AND BASE. TESTS SHALL BE PREPARED IN ACCORDANCE WITH AASHTO T-180 METHOD AT ALL AREAS OF DISTURBED ASPHALT & PIPE TRENCHING.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGE RESULTING FROM HIS OPERATIONS, TO EXISTING PAVEMENT, SWALES, ETC.
10. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE THAT PROJECT HAS BEEN ACCEPTED. ALL FAULTY CONSTRUCTION AND/OR MATERIALS THAT OCCUR DURING AFORESAID PERIOD SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE AND IN A TIMELY MANNER.
11. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
12. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION AND ALTERATION OF THEIR EXISTING FACILITIES.
13. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO ANY REQUIRED INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY FOR INSPECTIONS AND/OR TESTING.
14. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AS-BUILT SURVEYS CERTIFIED BY A LICENSED SURVEYOR UPON COMPLETION OF CONSTRUCTION AND SCHEDULE A FINAL INSPECTION WITH THE ENGINEER OF RECORD.
15. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE COUNTY SURVEYOR WITHOUT DELAY BY TELEPHONE.
16. IF HARDSHIP IS ENCOUNTERED WITHIN RETENTION AREA OR SWALES, IT SHALL BE REMOVED AND REPLACED WITH A GRANULAR MATERIAL.
17. IF MUCK OR ANY OTHER UNSUITABLE MATERIAL IS ENCOUNTERED, THE MATERIAL SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH A QUALITY MATERIAL AND COMPACTED TO DENSITIES SUFFICIENT TO ACCOMMODATE THE INTENDED USE.
18. LOCATION OF STRUCTURES SHALL GOVERN AND PIPE LENGTHS MAY HAVE TO BE ADJUSTED TO ACCOMPLISH CONSTRUCTION AS SHOWN ON THESE PLANS.
19. RCP INDICATES REINFORCED CONCRETE PIPE. GWP INDICATES GALVANIZED COATED METAL PIPE. BCCP INDICATES BITUMINOUS COATED CORRUGATED METAL PIPE. CAP INDICATES CORRUGATED ALUMINUM PIPE. CPP INDICATES CORRUGATED POLYETHYLENE PIPE (N12) MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC. (ADS). HPPR INDICATES HIGH-PERFORMANCE POLYPROPYLENE PIPE.
20. MITERED END SECTIONS SPECIFIED ON THE PLANS SHALL BE IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 430-021.
21. COMPACTION REQUIREMENTS FOR PIPE BEDS SHALL BE 90% OF MAXIMUM DRY DENSITY.
22. TEMPORARY DRAINAGE SHALL BE PROVIDED DURING CONSTRUCTION TO ELIMINATE ANY FLOODING OF PRIVATE PROPERTY.
23. ALL STORM SEWER LINES AND DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS DURING THE FINAL STAGES OF CONSTRUCTION.
24. ANY DRAINAGE PROBLEMS CREATED BY CONSTRUCTION, OR EXISTING BEFORE CONSTRUCTION AND NOT ALLEVIATED AS PART OF THE PROPOSED IMPROVEMENTS, SHALL BE BROUGHT TO THE ATTENTION OF THE GOVERNING AUTHORITY AND THE ENGINEER OF RECORD.
25. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT EXISTING TREES SHOWN TO REMAIN. IF ANY TREES MARKED TO BE REMOVED CAN BE SAVED, THE CONTRACTOR SHALL SAVE SAID TREES. SHOULD ADDITIONAL TREES NEED TO BE REMOVED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVING SAID TREES.
26. IF EXCAVATED FILL MATERIAL IS REUSABLE, STOCKPILE EXCESS FOR USE IN LANDSCAPED AREAS.
27. UNUSABLE CLEARED MATERIAL SHALL BE REMOVED FROM SITE AND HAULED TO AN APPROVED DISPOSAL SITE. AS AN ALTERNATIVE, BURNING ON SITE WILL BE ALLOWED WITH PROPER PERMITS. LOCATION OF BURN SITE SHALL BE APPROVED BY OWNER.
28. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER. ALL EXISTING SIGNAGE, PAVEMENT MARKINGS, ABOVE GROUND APPEARANCES, ETC. SHALL BE RESTORED IN KIND.
29. WHEN PAVEMENT IS SHOWN NEXT TO A CURB OR SIDEWALK, THE ELEVATION OF THE TOP OF CURB OR SIDEWALK IS 6" ABOVE THE PAVEMENT, UNLESS INDICATED AS FLUSH. IN SOME CASES, BOTH ELEVATIONS ARE SHOWN FOR ADDITIONAL CLARITY.
30. ALL CONCRETE SHALL DEVELOP A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE NOTED.
31. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 AND HAVE A TENSILE STRENGTH OF 60,000 PSI UNLESS OTHERWISE NOTED.
32. ALL WATER FLUSHED FROM MAINS SHALL BE DIRECTED AS APPROVED BY THE ENGINEER OF RECORD.
33. NO WATER OR SEWER SERVICE IS TO BE SUPPLIED, UNTIL A LETTER OF CLEARANCE IS RECEIVED FROM FDP, IF APPLICABLE.
34. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX #600", LATEST EDITIONS.
35. EROSION AND SEDIMENT CONTROL - CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL USING THE LATEST F.D.O.T. STANDARDS. BALED HAY STRIPS AND SILTATION BARRIERS WILL BE INSTALLED WHERE NEEDED TO PREVENT SILTATION OF ADJACENT PROPERTY. PLANT RIGHT-OF-WAY, WETLANDS AND WATERWAYS. THESE WILL REMAIN IN PLACE UNTIL GRASSING OR SODDING HAS BEEN COMPLETED OR UNTIL SILTATION AND EROSION ARE NO LONGER A THREAT TO ADJACENT PROPERTY OR WATERWAYS.
36. ALL BERMS AND GRASSED AREAS SHALL BE SEED AND MULCHED IN ACCORDANCE WITH THE APPROPRIATE SEED BARS OF THE ABOVE REFERENCED SPECIFICATIONS UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER OF RECORD.
37. BOUNDARY AND TOPOGRAPHIC INFORMATION PREPARED BY WELDON ENGINEERING & S.L.L.C. DATES 09/10/2011 AND 10/10/2012. ALL ELEVATIONS PER BENCHMARKS REFERENCED ON SURVEY.



ENGINEER'S APPROVAL	SEAL
RANDALL RODGERS, P.E. FL Lic. No. 68212	
DATE	

**VELCON ENGINEERING
& SURVEYING LLC**



REVISIONS		
NO.	DATE	DESCRIPTION
RR	07-29-20	DELETED CONCRETE DRIVEWAY DETAIL PER COS COMMENTS
RR	08-04-20	PER SFWD COMMENTS

PAVING, GRADING & DRAINAGE DETAILS

AVONLEA PUD MASTER PLAN
LOT 2

CITY OF STUART, FLORIDA

SCALE :
AS NOTED
DATE: 11/25/19
DRAWN BY: RP
CHECKED BY: RR
CADD FILE :

SHEET NO.:

3

05

100

JOB No. :
10-1018